Table 2.1.1-1
Phase I and Phase II Sample Information For OU1
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Matrix	Investigation Area	Sample Name	Location ID	Sample Date	Phase	Depth	Total or Dissolved	Analytical Group								
								TAL Metals [1]	SVOCs	VOCs	PCBs	Pesticides	SPLP [2]	TCLP [2]	SEP [2]	XRD [2]
Surface Water	LVR	OU1-SW-LV201-071029	LVR-201	10/29/2007	Phase I	0'	T	X	X	X	X	X				
Surface Water	LVR	OU1-SW-LV406-071029	LVR-201	10/29/2007	Phase I	0'	T	X	X	X	X	X				
Surface Water	LVR	OU1-SW-LVR203-071030	LVR-203	10/30/2007	Phase I	0'	T	X								
Surface Water	LVR	OU1-SW-LVR205-071030	LVR-205	10/30/2007	Phase I	0'	T	X	X	X	X	X				
Surface Water	LVR	OU1-SW-LVR207-071030	LVR-207	10/30/2007	Phase I	0'	T	X				X				
Surface Water	LVR	OU1-SW-LVR209-071031	LVR-209	10/31/2007	Phase I	0'	T	X	X	X	X	X				
Surface Water	LVR	OU1-SW-LVR211-071031	LVR-211	10/31/2007	Phase I	0'	T	X								
Surface Water	LVR	OU1-SW-CS0410-090810	CSO-410	8/10/2009	Phase II	0'	D	X								
Surface Water	LVR	OU1-SW-CS0410-090810	CSO-410	8/10/2009	Phase II	0'	T	X								
Surface Water	LVR	OU1-GW-MW404-0908	LVR-401	8/11/2009	Phase II	0'	D	X [3]								
Surface Water	LVR	OU1-GW-MW404-0908	LVR-401	8/11/2009	Phase II	0'	T	X								
Surface Water	LVR	OU1-SW-ASO411-0908	ASO-411	8/11/2009	Phase II	0'	D	X								
Surface Water	LVR	OU1-SW-ASO411-0908	ASO-411	8/11/2009	Phase II	0'	T	X								
Surface Water	LVR	OU1-SW-CS0410-0908	CSO-410	8/11/2009	Phase II	0'	D	X								
Surface Water	LVR	OU1-SW-CS0410-0908	CSO-410	8/11/2009	Phase II	0'	T	X								
Surface Water	LVR	OU1-SW-LVR401C-0908	LVR-401	8/11/2009	Phase II	0'	D	X								
Surface Water	LVR	OU1-SW-LVR401C-0908	LVR-401	8/11/2009	Phase II	0'	T	X								
Surface Water	LVR	OU1-SW-LVR401E-0908	LVR-401	8/11/2009	Phase II	0'	D	X								
Surface Water	LVR	OU1-SW-LVR401E-0908	LVR-401	8/11/2009	Phase II	0'	T	X								
Surface Water	LVR	OU1-SW-LVR401W-0908	LVR-401	8/11/2009	Phase II	0'	D	X								
Surface Water	LVR	OU1-SW-LVR401W-0908	LVR-401	8/11/2009	Phase II	0'	T	X								
Surface Water	LVR	OU1-SW-ASO411-090812	ASO-411	8/12/2009	Phase II	0'	D	X								
Surface Water	LVR	OU1-SW-ASO411-090812	ASO-411	8/12/2009	Phase II	0'	T	X								
Surface Water	LVR	OU1-SW-LVR402C-0908	LVR-402	8/12/2009	Phase II	0'	D	X								
Surface Water	LVR	OU1-SW-LVR402C-0908	LVR-402	8/12/2009	Phase II	0'	T	X								
Surface Water	LVR	OU1-SW-LVR402E-0908	LVR-402	8/12/2009	Phase II	0'	D	X								
Surface Water	LVR	OU1-SW-LVR402E-0908	LVR-402	8/12/2009	Phase II	0'	T	X								
Surface Water	LVR	OU1-SW-LVR402W-0908	LVR-402	8/12/2009	Phase II	0'	D	X								
Surface Water	LVR	OU1-SW-LVR402W-0908	LVR-402	8/12/2009	Phase II	0'	T	X								
Surface Water	LVR	OU1-SW-LVR403C-0908	LVR-403	8/12/2009	Phase II	0'	D	X								
Surface Water	LVR	OU1-SW-LVR403C-0908	LVR-403	8/12/2009	Phase II	0'	T	X								
Surface Water	LVR	OU1-SW-LVR403E-0908	LVR-403	8/12/2009	Phase II	0'	D	X								
Surface Water	LVR	OU1-SW-LVR403E-0908	LVR-403	8/12/2009	Phase II	0'	T	X								
Surface Water	LVR	OU1-SW-LVR403W-0908	LVR-403	8/12/2009	Phase II	0'	D	X								
Surface Water	LVR	OU1-SW-LVR403W-0908	LVR-403	8/12/2009	Phase II	0'	T	X								
Surface Water	LVR	OU1-SW-LVR404C-0908	LVR-404	8/12/2009	Phase II	0'	D	X								
Surface Water	LVR	OU1-SW-LVR404C-0908	LVR-404	8/12/2009	Phase II	0'	T	X								
Surface Water	LVR	OU1-SW-LVR404E-0908	LVR-404	8/12/2009	Phase II	0'	D	X								
Surface Water	LVR	OU1-SW-LVR404E-0908	LVR-404	8/12/2009	Phase II	0'	T	X								
Surface Water	LVR	OU1-SW-LVR404W-0908	LVR-404	8/12/2009	Phase II	0'	D	X								
Surface Water	LVR	OU1-SW-LVR404W-0908	LVR-404	8/12/2009	Phase II	0'	T	X								

Table 2.1.1-1
Phase I and Phase II Sample Information For OU1
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Matrix	Investigation Area	Sample Name	Location ID	Sample Date	Phase	Depth	Total or Dissolved	Analytical Group								
								TAL Metals (1)	SVOCs	VOCs	PCBs	Pesticides	SPLP (2)	TCLP (2)	SEP (2)	XRD (2)
Surface Water	LVR	OU1-SW-ASO411-090813	ASO-411	8/13/2009	Phase II	0'	D	X								
Surface Water	LVR	OU1-SW-ASO411-090813	ASO-411	8/13/2009	Phase II	0'	T	X								
Surface Water	LVR	OU1-SW-LVR405C-0908	LVR-405	8/13/2009	Phase II	0'	D	X								
Surface Water	LVR	OU1-SW-LVR405C-0908	LVR-405	8/13/2009	Phase II	0'	T	X								
Surface Water	LVR	OU1-SW-LVR405E-0908	LVR-405	8/13/2009	Phase II	0'	D	X								
Surface Water	LVR	OU1-SW-LVR405E-0908	LVR-405	8/13/2009	Phase II	0'	T	X								
Surface Water	LVR	OU1-SW-LVR405W-0908	LVR-405	8/13/2009	Phase II	0'	D	X								
Surface Water	LVR	OU1-SW-LVR405W-0908	LVR-405	8/13/2009	Phase II	0'	T	X								
Surface Water	LVR	OU1-GW-MW404-090814	ASO-411	8/14/2009	Phase II	0'	D	X								
Surface Water	LVR	OU1-GW-MW404-090814	ASO-411	8/14/2009	Phase II	0'	T	X								
Surface Water	LVR	OU1-SW-ASO411-090814	ASO-411	8/14/2009	Phase II	0'	D	X								
Surface Water	LVR	OU1-SW-ASO411-090814	ASO-411	8/14/2009	Phase II	0'	T	X								
Surface Water	LVR	OU1-SW-LVR408-0908	LVR-408	8/14/2009	Phase II	0'	D	X								
Surface Water	LVR	OU1-SW-LVR408-0908	LVR-408	8/14/2009	Phase II	0'	T	X								
Surface Water	LVR	OU1-SW-AS0411-090817	ASO-411	8/17/2009	Phase II	0'	D	X								
Surface Water	LVR	OU1-SW-AS0411-090817	ASO-411	8/17/2009	Phase II	0'	T	X								
Surface Water	LVR	OU1-SW-CS0410-090817	CSO-410	8/17/2009	Phase II	0'	D	X								
Surface Water	LVR	OU1-SW-CS0410-090817	CSO-410	8/17/2009	Phase II	0'	T	X								
Surface Water	LVR	OU1-SW-AS0411-090818	ASO-411	8/18/2009	Phase II	0'	D	X								
Surface Water	LVR	OU1-SW-AS0411-090818	ASO-411	8/18/2009	Phase II	0'	T	X								
Surface Water	LVR	OU1-SW-AS0411-090820	ASO-411	8/20/2009	Phase II	0'	T	X								
Surface Water	LVR	OU1-SW-ASO411-090820 DISSOLVED	ASO-411	8/20/2009	Phase II	0'	D	X								
Surface Water	LVR - Upstream	Quarry Bridge	QuarryBridge	11/8/1994	Historical	0'	T	X								
Surface Water	LVR - Upstream	OU1-SW-LVR213-071031	LVR-213	10/31/2007	Phase I	0'	T	X	X	X	X	X				
Surface Water	LVR - Upstream	OU1-SW-LVR214-071031	LVR-214	10/31/2007	Phase I	0'	T	X	X	X	X	X				
Surface Water	LVR - Upstream	OU1-SW-LVR409-0908	LVR-409	8/14/2009	Phase II	0'	D	X								
Surface Water	LVR - Upstream	OU1-SW-LVR409-0908	LVR-409	8/14/2009	Phase II	0'	T	X								
Surface Water	Slag Pile Area	Seep	Seep	6/19/2009	Phase II	0'	T	X								
Surface Water	Slag Pile Area	Seep	Seep	6/19/2009	Phase II	0'	D	X								
Ground Water	Plant Area	OU1-GW-G-103-0712	G-103	12/3/2007	Phase I	NA	T	X	X	X						
Ground Water	Plant Area	OU1-GW-G-106-0712	G-106	12/4/2007	Phase I	NA	D	X								
Ground Water	Plant Area	OU1-GW-G-106-0712	G-106	12/4/2007	Phase I	NA	T	X	X	X						
Ground Water	Plant Area	OU1-GW-G-02-0712	G-02	12/5/2007	Phase I	NA	T	X								
Ground Water	Plant Area	OU1-GW-G-101-0712	G-101	12/5/2007	Phase I	NA	T	X	X							
Ground Water	Plant Area	OU1-GW-MW404-0712	MW-A	12/5/2007	Phase I	NA	T	X	X	X						
Ground Water	Plant Area	OU1-GW-MW-A-0712	MW-A	12/5/2007	Phase I	NA	D	X								
Ground Water	Plant Area	OU1-GW-MW-A-0712	MW-A	12/5/2007	Phase I	NA	T	X	X	X						
Ground Water	Plant Area	OU1-GW-G-101-0712	G-101	12/6/2007	Phase I	NA	D	X								
Ground Water	Slag Pile Area	OU1-GW-MW-303H-0712	MW-303H	12/4/2007	Phase I	NA	D	X								
Ground Water	Slag Pile Area	OU1-GW-MW-303H-0712	MW-303H	12/4/2007	Phase I	NA	T	X								
Ground Water	Slag Pile Area	OU1-GW-MW-305H-0712	MW-305H	12/4/2007	Phase I	NA	D	X								

Table 2.1.1-1
Phase I and Phase II Sample Information For OU1
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Matrix	Investigation Area	Sample Name	Location ID	Sample Date	Phase	Depth	Total or Dissolved	Analytical Group								
								TAL Metals (1)	SVOCs	VOCs	PCBs	Pesticides	SPLP (2)	TCLP (2)	SEP (2)	XRD (2)
Ground Water	Slag Pile Area	OU1-GW-MW-305H-0712	MW-305H	12/4/2007	Phase I	NA	T	X								
Ground Water	Slag Pile Area	OU1-GW-MW2-0801	MW-2	1/14/2008	Phase I	NA	D	X								
Ground Water	Slag Pile Area	OU1-GW-MW2-0801	MW-2	1/14/2008	Phase I	NA	T	X	X	X						
Ground Water	Slag Pile Area	OU1-GW-P-18	P-18	1/14/2008	Phase I	NA	T	X								
Ground Water	Slag Pile Area	OU1-GW-MW-321-H	MW-321H	1/15/2008	Phase I	NA	T	X								
Ground Water	Slag Pile Area	OU1-GW-MW-322-H	MW-322H	1/15/2008	Phase I	NA	T	X	X	X						
Ground Water	Slag Pile Area	OU1-GW-P-7-0712	P-7	12/6/2007	Phase I	NA	T	X								
Ground Water	Slag Pile Area	OU1-GW-P-9-0712	P-9	12/6/2007	Phase I	NA	T	X								
Ground Water	Slag Pile Area	OU1-GW-P-17	P-17	1/15/2008	Phase I	NA	T	X								
Ground Water	Slag Pile Area	OU1-GW-ISW001-0906	ISW-001	6/19/2009	Phase II	NA	D	X								
Ground Water	Slag Pile Area	OU1-GW-ISW001-0906	ISW-001	6/19/2009	Phase II	NA	T	X								
Ground Water	Slag Pile Area	OU1-GW-ISW002-0906	ISW-002	6/19/2009	Phase II	NA	D	X								
Ground Water	Slag Pile Area	OU1-GW-ISW002-0906	ISW-002	6/19/2009	Phase II	NA	T	X								
Ground Water	Slag Pile Area	OU1-GW-ISW001-0908	ISW-001	8/19/2009	Phase II	NA	D	X								
Ground Water	Slag Pile Area	OU1-GW-ISW001-0908	ISW-001	8/19/2009	Phase II	NA	T	X								
Ground Water	Slag Pile Area	OU1-GW-ISW002-0908	ISW-002	8/20/2009	Phase II	NA	D	X								
Ground Water	Slag Pile Area	OU1-GW-ISW002-0908	ISW-002	8/20/2009	Phase II	NA	T	X								
Sediment	LVR	OU1-SS-LVR201-071029	LVR-201	10/29/2007	Phase I	0'	T	X	X	X	X	X				X
Sediment	LVR	OU1-SS-LVR406-071029	LVR-201	10/29/2007	Phase I	0'	T	X	X	X	X	X				X
Sediment	LVR	LVR205-071030	LVR-205	10/30/2007	Phase I	0'	T	X	X	X	X	X				X
Sediment	LVR	OU1-SS-LVR202-071030	LVR-202	10/30/2007	Phase I	0'	T	X								
Sediment	LVR	OU1-SS-LVR203-071030	LVR-203	10/30/2007	Phase I	0'	T	X								X
Sediment	LVR	OU1-SS-LVR204-071030	LVR-204	10/30/2007	Phase I	0'	T	X								
Sediment	LVR	OU1-SS-LVR206-071030	LVR-206	10/30/2007	Phase I	0'	T	X				X				
Sediment	LVR	OU1-SS-LVR207-071030	LVR-207	10/30/2007	Phase I	0'	T	X				X				X
Sediment	LVR	OU1-SS-LVR208-071030	LVR-208	10/30/2007	Phase I	0'	T	X				X				
Sediment	LVR	OU1-SS-LVR209-071031	LVR-209	10/31/2007	Phase I	0'	T	X	X	X	X	X				
Sediment	LVR	OU1-SS-LVR210-071031	LVR-210	10/31/2007	Phase I	0'	T	X								
Sediment	LVR	OU1-SS-LVR211-071031	LVR-211	10/31/2007	Phase I	0'	T	X								
Sediment	LVR	OU1-SS-LVR212-071031	LVR-212	10/31/2007	Phase I	0'	T	X								
Sediment	LVR	OU1-SE-LVR401C-0908	LVR-401	8/11/2009	Phase II	0'	T	X								
Sediment	LVR	OU1-SE-LVR401E-0908	LVR-401	8/11/2009	Phase II	0'	T	X								
Sediment	LVR	OU1-SE-LVR401W-0908	LVR-401	8/11/2009	Phase II	0'	T	X								
Sediment	LVR	OU1-SS-LRS412S-0908	LRS-412	8/11/2009	Phase II	0'	T	X					X		X	
Sediment	LVR	OU1-SS-LRS412T-0908	LRS-412	8/11/2009	Phase II	0'	T	X					X			
Sediment	LVR	OU1-SS-SB406-0908	LRS-412	8/11/2009	Phase II	0'	T	X					X		X	
Sediment	LVR	OU1-SE-LVR402C-0908	LVR-402	8/12/2009	Phase II	0'	T	X								
Sediment	LVR	OU1-SE-LVR402E-0908	LVR-402	8/12/2009	Phase II	0'	T	X								
Sediment	LVR	OU1-SE-LVR402W-0908	LVR-402	8/12/2009	Phase II	0'	T	X								
Sediment	LVR	OU1-SE-LVR403C-0908	LVR-403	8/12/2009	Phase II	0'	T	X								
Sediment	LVR	OU1-SE-LVR403E-0908	LVR-403	8/12/2009	Phase II	0'	T	X								

Table 2.1.1-1
Phase I and Phase II Sample Information For OU1
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Matrix	Investigation Area	Sample Name	Location ID	Sample Date	Phase	Depth	Total or Dissolved	Analytical Group								
								TAL Metals [1]	SVOCs	VOCs	PCBs	Pesticides	SPLP [2]	TCLP [2]	SEP [2]	XRD [2]
Sediment	LVR	OU1-SE-LVR403W-0908	LVR-403	8/12/2009	Phase II	0'	T	X								
Sediment	LVR	OU1-SE-LVR404C-0908	LVR-404	8/12/2009	Phase II	0'	T	X								
Sediment	LVR	OU1-SE-LVR404E-0908	LVR-404	8/12/2009	Phase II	0'	T	X								
Sediment	LVR	OU1-SE-LVR404W-0908	LVR-404	8/12/2009	Phase II	0'	T	X								
Sediment	LVR	OU1-SS-LRS413S-0908	LRS-413	8/12/2009	Phase II	0'	T	X					X		X	
Sediment	LVR	OU1-SS-LRS413T-0908	LRS-413	8/12/2009	Phase II	0'	T	X					X			
Sediment	LVR	OU1-SE-LVR405C-0908	LVR-405	8/13/2009	Phase II	0'	T	X								
Sediment	LVR	OU1-SE-LVR405E-0908	LVR-405	8/13/2009	Phase II	0'	T	X								
Sediment	LVR	OU1-SE-LVR405W-0908	LVR-405	8/13/2009	Phase II	0'	T	X								
Sediment	LVR	OU1-SE-LVR406-0908	LVR-406	8/14/2009	Phase II	0'	T	X								
Sediment	LVR	OU1-SE-LVR407-0908	LVR-407	8/14/2009	Phase II	0'	T	X								
Sediment	LVR	OU1-SE-LVR408-0908	LVR-408	8/14/2009	Phase II	0'	T	X								
Sediment	LVR-Upstream	ISA-X201	ISA-X201	12/14/1993	Historical	0 - 0.25'	T	X	X	X	X	X				
Sediment	LVR-Upstream	OU1-SE-LVR409-0908	LVR-409	8/14/2009	Phase II	0'	T	X								
Sediment	LVR-Upstream	OU1-SS-LVR213-071031	LVR-213	10/31/2007	Phase I	0'	T	X	X	X	X	X				
Sediment	LVR-Upstream	OU1-SS-LVR214-071031	LVR-214	10/31/2007	Phase I	0'	T	X	X	X	X	X				
Sediment	LVR-Upstream	QB-07B-94312-07	QuarryBridge-07B	11/8/1994	Historical	0'	T	X						X		
Sediment	Slag Pile Area	OU1-SE-UL215-071101	UL-215	11/1/2007	Phase I	0'	T	X	X	X	X	X				
Surface Soil	Plant Area	OU1-SS-SB311-0-1	SB-311	10/3/2007	Phase I	0 - 1'	NA	X	X	X	X	X			X	
Surface Soil	Plant Area	OU1-SS-SB312-0-1	SB-312	10/3/2007	Phase I	0 - 1'	NA	X								
Surface Soil	Plant Area	OU1-SS-SB313-0-1	SB-313	10/3/2007	Phase I	0 - 1'	NA	X								
Surface Soil	Plant Area	OU1-SS-SB314-0-1	SB-314	10/3/2007	Phase I	0 - 1'	NA	X								
Surface Soil	Plant Area	OU1-SS-SB315-0-1	SB-315	10/3/2007	Phase I	0 - 1'	NA	X	X	X	X	X				
Surface Soil	Plant Area	OU1-SS-SB317-0-1	SB-317	10/3/2007	Phase I	0 - 1'	NA	X								
Surface Soil	Plant Area	OU1-SS-SB318-0-1	SB-318	10/3/2007	Phase I	0 - 1'	NA	X								
Surface Soil	Plant Area	OU1-SS-SB319-0-1	SB-319	10/3/2007	Phase I	0 - 1'	NA	X	X	X		X				
Surface Soil	Slag Pile Area	OU1-SS-SB316-0-1	SB-316	10/3/2007	Phase I	0 - 1'	NA	X							X	
Surface Soil	Slag Pile Area	OU1-SS-SB301-0-1	MW-301H	10/9/2007	Phase I	0 - 1'	NA	X	X	X	X	X	X		X	X
Surface Soil	Slag Pile Area	OU1-SS-SB302-0-1	SB-302	10/9/2007	Phase I	0 - 1'	NA	X								
Surface Soil	Slag Pile Area	OU1-SS-SB304-0-1	MW-304S	10/10/2007	Phase I	0 - 1'	NA	X					X			
Surface Soil	Slag Pile Area	OU1-SS-SB303-0-1	MW-303H	10/11/2007	Phase I	0 - 1'	NA	X			X	X				
Surface Soil	Slag Pile Area	OU1-SS-SB306-0-1	MW-306S	10/16/2007	Phase I	0 - 1'	NA	X	X	X						
Surface Soil	Slag Pile Area	OU1-SS-SB308-0-1	SB-308	10/17/2007	Phase I	0 - 1'	NA	X								
Surface Soil	Slag Pile Area	OU1-SS-SB309-0-1	SB-309	10/17/2007	Phase I	0 - 1'	NA	X			X	X				
Surface Soil	Slag Pile Area	OU1-SS-SB305-0-1	MW-305H	10/18/2007	Phase I	0 - 1'	NA	X			X	X				
Surface Soil	Slag Pile Area	OU1-SS-SB307-0-1	SB-307	10/24/2007	Phase I	0 - 1'	NA	X			X	X	X			
Surface Soil	Slag Pile Area	SS-SB307-0-1-SPLP	SB-307	10/24/2007	Phase I	0 - 1'	NA						X			

Table 2.1.1-1
Phase I and Phase II Sample Information For OU1
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Matrix	Investigation Area	Sample Name	Location ID	Sample Date	Phase	Depth	Total or Dissolved	Analytical Group								
								TAL Metals (1)	SVOCs	VOCs	PCBs	Pesticides	SPLP (2)	TCLP (2)	SEP (2)	XRD (2)
Surface Soil	Slag Pile Area	OU1-SS-SLP415S-0908	SLP-415	8/13/2009	Phase II	0'	NA							X		
Deep Soil	Plant Area	OU1-SS-SB311-2-4	SB-311	10/3/2007	Phase I	2 - 4'	NA	X								X
Deep Soil	Plant Area	OU1-SS-SB312-2-4	SB-312	10/3/2007	Phase I	2 - 4'	NA	X	X	X	X	X				
Deep Soil	Plant Area	OU1-SS-SB313-2-4	SB-313	10/3/2007	Phase I	2 - 4'	NA	X							X	X
Deep Soil	Plant Area	OU1-SS-SB314-2-4	SB-314	10/3/2007	Phase I	2 - 4'	NA	X								
Deep Soil	Plant Area	OU1-SS-SB315-2-4	SB-315	10/3/2007	Phase I	2 - 4'	NA	X								
Deep Soil	Plant Area	OU1-SS-SB317-2-4	SB-317	10/3/2007	Phase I	2 - 4'	NA	X							X	
Deep Soil	Plant Area	OU1-SS-SB318-2-4	SB-318	10/3/2007	Phase I	2 - 4'	NA	X								X
Deep Soil	Plant Area	OU1-SS-SB319-2-4	SB-319	10/3/2007	Phase I	2 - 4'	NA	X								
Deep Soil	Slag Pile Area	OU1-SS-SB316-2-4	SB-316	10/3/2007	Phase I	2 - 4'	NA	X	X	X	X	X				
Deep Soil	Slag Pile Area	OU1-SS-SB301-40-41	MW-301H	10/9/2007	Phase I	40 - 41'	NA	X								
Deep Soil	Slag Pile Area	OU1-SS-SB301-44-50	MW-301H	10/9/2007	Phase I	44 - 50'	NA	X								
Deep Soil	Slag Pile Area	OU1-SS-SB302-10.5-11	SB-302	10/9/2007	Phase I	10.5 - 11.5'	NA	X	X	X			X			
Deep Soil	Slag Pile Area	OU1-SS-SB302-10.5-11.5	SB-302	10/9/2007	Phase I	10.5 - 11.5'	NA								X	X
Deep Soil	Slag Pile Area	OU1-SS-SB302-12-13	SB-302	10/9/2007	Phase I	12 - 13'	NA	X								
Deep Soil	Slag Pile Area	OU1-SS-SB304-58-59	MW-304S	10/10/2007	Phase I	58 - 59'	NA	X							X	
Deep Soil	Slag Pile Area	OU1-SS-SB304-59-60	MW-304S	10/10/2007	Phase I	59 - 60'	NA	X	X	X						
Deep Soil	Slag Pile Area	OU1-SS-SB303-108-109	MW-303H	10/11/2007	Phase I	108 - 109'	NA	X					X		X	
Deep Soil	Slag Pile Area	OU1-SS-SB303-85-86	MW-303H	10/11/2007	Phase I	85 - 86'	NA	X								
Deep Soil	Slag Pile Area	OU1-SS-SB303-89-90	MW-303H	10/11/2007	Phase I	89 - 90'	NA	X	X	X					X	X
Deep Soil	Slag Pile Area	OU1-SS-SB303-89-90-S	MW-303H	10/11/2007	Phase I	89 - 90'	NA						X			
Deep Soil	Slag Pile Area	OU1-SS-SB306-66-67	MW-306S	10/16/2007	Phase I	66 - 67'	NA	X								
Deep Soil	Slag Pile Area	OU1-SS-SB306-67-68	MW-306S	10/16/2007	Phase I	67 - 68'	NA	X								
Deep Soil	Slag Pile Area	SS-SB306-67-68-SPLP	MW-306S	10/16/2007	Phase I	67 - 68'	NA						X			
Deep Soil	Slag Pile Area	OU1-SS-SB308-26.5-27.5	SB-308	10/17/2007	Phase I	26.5 - 27'	NA	X					X			
Deep Soil	Slag Pile Area	OU1-SS-SB308-36.5-37.5	SB-308	10/17/2007	Phase I	36.5 - 37'	NA	X	X	X						
Deep Soil	Slag Pile Area	OU1-SS-SB309-18.25-19.25	SB-309	10/17/2007	Phase I	18.25 - 19.25'	NA	X								
Deep Soil	Slag Pile Area	OU1-SS-SB309-28.25-29.25	SB-309	10/17/2007	Phase I	28.25 - 29'	NA	X								
Deep Soil	Slag Pile Area	OU1-SS-SB309-28.5-29.5	SB-309	10/17/2007	Phase I	28.5 - 29'	NA						X			
Deep Soil	Slag Pile Area	OU1-SS-SB309-48-49	SB-309	10/17/2007	Phase I	48 - 49'	NA	X	X	X						
Deep Soil	Slag Pile Area	OU1-SS-SB305-89-90	MW-305H	10/18/2007	Phase I	89 - 90'	NA	X								
Deep Soil	Slag Pile Area	OU1-SS-SB305-90-91	MW-305H	10/18/2007	Phase I	90 - 91'	NA	X								
Deep Soil	Slag Pile Area	OU1-SS-SB305-90-91-S	MW-305H	10/18/2007	Phase I	90 - 91'	NA						X			
Deep Soil	Slag Pile Area	OU1-SS-SB307-7-8	SB-307	10/24/2007	Phase I	7 - 8'	NA	X	X	X						
Deep Soil	Slag Pile Area	OU1-SS-SB307-8-9	SB-307	10/24/2007	Phase I	8 - 9'	NA	X								

Notes:
(1) TAL = Target Analyte List includes filtered and unfiltered metals (including mercury and cyanide) as per the US EPA Contract Laboratory Program Scope of Work.
(2) Results presented and discussed in Section 5.0.
(3) X signifies that the parameter shown was analyzed at the location shown.
(4) NA = Not Applicable

Table 2.1.2-1
Monitoring Well Construction Details
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Location	Top of Casing Elevation (ft MSL)	Depth to Top of Screen (ft BGS)	Depth to Bottom of Screen (ft BGS)	Construction Date	Contractors	Geology	Water Bearing Zone (WBZ)
G-02	568.39	12	22	--	--	Bedrock	2
G-04	575.3	9	19	--	--	Coarse Till	1
G-05	577.47	12	24	--	--	Soil Fill	1
G-101	575.95	13	23	--	--	Bedrock	2
G-103	574.57	12.03	22.03	--	--	Fine Till	1
G-106	573.23	15.33	30.33	--	--	Slag	1
G-112	0	0	0	--	IEPA	Unknown	Off-Site - Background
ISW-001	473.15	2	4.5	--	--	Slag and Alluvium	1
ISW-002	470.91	7.5	10	--	--	Slag and Alluvium	1
MW-1	572.27	14.69	24.69	--	--	Slag	1
MW-2	489.08	0	58.25	--	--	Alluvium	1
MW-301H	542.17	74.5	84.5	10/10/2007	Stearns	Alluvium	1
MW-301S	542.59	34	44	10/10/2007	Stearns	Slag	1
MW-303H	553.93	108	118	10/15/2007	Stearns	Alluvium	1
MW-303S	555.49	79	89	10/15/2007	Stearns	Slag	1
MW-304S	557.95	50	60	10/11/2007	Stearns	Slag	1
MW-305H	554.27	99	109	10/23/2007	Stearns	Alluvium	1
MW-305R	554.37	142	152	10/23/2007	Stearns	Bedrock	2
MW-305S	554.206	81	91	10/24/2007	Stearns	Slag	1
MW-306S	543.528	57	67	10/16/2007	Stearns	Slag	1
MW-311R	584	20	30	10/26/2007	Stearns	Bedrock	2
MW-317R	578.03	20	30	10/25/2007	Stearns	Bedrock	2
MW-320H	562.16	89	99	12/18/2007	Stearns	Alluvium	1
MW-321H	547.08	84	94	12/19/2007	Stearns	Alluvium	1
MW-322H	552.98	95	105	12/19/2007	Stearns	Alluvium	1
MW-A	572.32	0	0	--	--	Unknown	1
P-1	548.81	78	88	10/3/1994	Layne Northwest	Red & Gray Slag	1
P-15	491.78	35	40	9/28/1994	Layne Northwest	Bedrock	2
P-15A	492.02	20	25	9/29/1994	Layne Northwest	Red & Gray Slag	1
P-17	490.4	38	48	9/30/1994	Layne Northwest	Alluvium Below Slag	1
P-18	508.49	50	60	9/28/1994	Layne Northwest	Alluvium Below Slag	1
P-19	514.54	43	53	9/29/1994	Layne Northwest	Black Slag	1
P-20	545.97	11	21	9/29/1994	Layne Northwest	Black Granular Fill	1
P-6	573.95	9	24	10/11/1994	Layne Northwest	Silty Clay/Fine Till	1
P-7	545.21	10	20	9/28/1994	Layne Northwest	Bedrock	2
P-9	534.53	5	10	9/27/1994	Layne Northwest	Bedrock	2

Notes:
-- Data not available

Table 2.1.3-1
Phase I Analytical Program at OU1
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Sample ID	Matrix	Location	Depth or Stratum	TAL Metals	VOCs	SVOCs	Pesticides	PCBs	Cyanide	Asbestos	TAL Metals SPLP	Soil pH	SEP	XRD	AVS/SEM	TOC	Orthophosphate	Sulfate	Field Parameters		
																			Ferrous Iron	Sulfide	Alkalinity
OU1-SS-SB301-0-1	Slag/Soil	SB-301	0-1 ft BLS	x	x	x	x	x	x		x	x	x	x							
OU1-AA-SB301	Ambient Air		0-1 ft BLS							x											
OU1-SS-SB301-D1-D2	Slag		5 ft Above Water Table	x																	
OU1-SS-SB301-D1-D2	Slag		5 ft Below Water Table	x																	
OU1-SS-SB302-0-1	Slag/Soil	SB-302	0-1 ft BLS	x																	
OU1-AA-SB302	Ambient Air		0-1 ft BLS							x											
OU1-SS-SB302-D1-D2	Slag		5 ft Above Water Table	x	x	x			x		x	x	x	x							
OU1-SS-SB302-D1-D2	Slag		5 ft Below Water Table	x																	
OU1-SS-SB303-0-1	Slag/Soil	SB-303	0-1 ft BLS	x			x	x													
OU1-SS-SB303-D1-D2	Slag		5 ft Above Water Table	x																	
OU1-SS-SB303-D1-D2	Slag		5 ft Below Water Table	x	x	x			x		x	x	x	x							
OU1-SS-SB303-D1-D2	Soil		Alluvium	x							x	x	x								
OU1-SS-SB304-0-1	Slag/Soil	SB-304	0-1 ft BLS	x							x	x									
OU1-AA-SB304	Ambient Air		0-1 ft BLS							x											
OU1-SS-SB304-D1-D2	Slag		5 ft Above Water Table	x									x								
OU1-SS-SB304-D1-D2	Slag		5 ft Below Water Table	x	x	x			x												
OU1-SS-SB305-0-1	Slag/Soil	SB-305	0-1 ft BLS	x			x	x													
OU1-SS-SB305-D1-D2	Slag		5 ft Above Water Table	x							x	x									
OU1-SS-SB305-D1-D2	Slag		5 ft Below Water Table	x																	
OU1-SS-SB306-0-1	Slag/Soil	SB-306	0-1 ft BLS	x	x	x			x												
OU1-SS-SB306-D1-D2	Slag		5 ft Above Water Table	x																	
OU1-SS-SB306-D1-D2	Slag		5 ft Below Water Table	x							x	x									
OU1-SS-SB307-0-1	Slag/Soil	SB-307	0-1 ft BLS	x			x	x			x	x									
OU1-SS-SB307-D1-D2	Slag		5 ft Above Water Table	x	x	x			x												
OU1-SS-SB307-D1-D2	Slag		5 ft Below Water Table	x																	
OU1-SS-SB308-0-1	Slag/Soil	SB-308	0-1 ft BLS	x																	
OU1-SS-SB308-D1-D2	Slag		5 ft Above Water Table	x							x	x									
OU1-SS-SB308-D1-D2	Slag		5 ft Below Water Table	x	x	x			x												
OU1-SS-SB309-0-1	Slag/Soil	SB-309	0-1 ft BLS	x			x	x													
OU1-SS-SB309-D1-D2	Slag		5 ft Above Water Table	x																	
OU1-SS-SB309-D1-D2	Slag		5 ft Below Water Table	x							x	x									
OU1-SS-SB309-D1-D2	Soil		Alluvium	x	x	x			x		x	x									
OU1-SS-SB310-0-1	Slag/Soil	SB-310	0-1 ft BLS	x							x	x									
OU1-SS-SB310-D1-D2	Slag		5 ft Above Water Table	x																	
OU1-SS-SB310-D1-D2	Slag		5 ft Below Water Table	x	x	x			x												
OU1-SS-SB311-0-1	Soil	SB-311	0-1 ft BLS	x	x	x	x	x	x				x	x							
OU1-SS-SB311-2-4	Soil		2-4 ft BLS	x																	
OU1-SS-SB312-0-1	Soil	SB-312	0-1 ft BLS	x																	
OU1-SS-SB312-2-4	Soil		2-4 ft BLS	x	x	x			x												
OU1-SS-SB313-0-1	Soil	SB-313	0-1 ft BLS	x			x	x													
OU1-SS-SB313-2-4	Soil		2-4 ft BLS	x									x	x							
OU1-SS-SB314-0-1	Soil	SB-314	0-1 ft BLS	x																	
OU1-SS-SB314-2-4	Soil		2-4 ft BLS	x																	
OU1-SS-SB315-0-1	Soil	SB-315	0-1 ft BLS	x	x	x	x	x	x												
OU1-SS-SB315-2-4	Soil		2-4 ft BLS	x																	
OU1-SS-SB316-0-1	Soil	SB-316	0-1 ft BLS	x									x								
OU1-SS-SB316-2-4	Soil		2-4 ft BLS	x	x	x			x												
OU1-SS-SB317-0-1	Soil	SB-317	0-1 ft BLS	x			x	x													
OU1-SS-SB317-2-4	Soil		2-4 ft BLS	x																	
OU1-SS-SB318-0-1	Soil	SB-318	0-1 ft BLS	x																	
OU1-SS-SB318-2-4	Soil		2-4 ft BLS	x									x	x							
OU1-SS-SB319-0-1	Soil	SB-319	0-1 ft BLS	x	x	x	x	x	x												
OU1-SS-SB319-2-4	Soil		2-4 ft BLS	x																	
ISA-X201	Sediment	ISA-X201	0-6" Into Sediment	x	x	x	x	x	x												
OU1-SE-LVR201-yymmdd	Sediment	LVR-201	0-6" Into Sediment	x	x	x	x	x	x						x						
OU1-SW-LVR201-yymmdd	Surface Water		Middle of Column	x	x	x	x	x	x												
OU1-SE-LVR202-yymmdd	Sediment	LVR-202	0-6" Into Sediment	x																	
OU1-SE-LVR203-yymmdd	Sediment	LVR-203	0-6" Into Sediment	x											x						
OU1-SW-LVR203-yymmdd	Surface Water		Middle of Column	x																	
OU1-SE-LVR204-yymmdd	Sediment	LVR-204	0-6" Into Sediment	x																	
OU1-SE-LVR205-yymmdd	Sediment	LVR-205	0-6" Into Sediment	x	x	x	x	x	x						x						
OU1-SW-LVR205-yymmdd	Surface Water		Middle of Column	x	x	x	x	x	x												
OU1-SE-LVR206-yymmdd	Sediment	LVR-206	0-6" Into Sediment	x			x														

Table 2.1.3-1
Phase I Analytical Program at OU1
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Sample ID	Matrix	Location	Depth or Stratum	TAL Metals	VOCs	SVOCs	Pesticides	PCBs	Cyanide	Asbestos	TAL Metals SPLP	Soil pH	SEP	XRD	AVS/SEM	TOC	Orthophosphate	Sulfate	Field Parameters		
																			Ferrous Iron	Sulfide	Alkalinity
OU1-SE-LVR207-yymmdd	Sediment	LVR-207	0-6" Into Sediment	x			x								x						
OU1-SW-LVR207-yymmdd	Surface Water		Middle of Column	x			x														
OU1-SE-LVR208-yymmdd	Sediment	LVR-208	0-6" Into Sediment	x			x														
OU1-SE-LVR209-yymmdd	Sediment	LVR-209	0-6" Into Sediment	x	x	x	x	x	x												
OU1-SW-LVR209-yymmdd	Surface Water		Middle of Column	x	x	x	x	x	x												
OU1-SE-LVR210-yymmdd	Sediment	LVR-210	0-6" Into Sediment	x																	
OU1-SE-LVR211-yymmdd	Sediment	LVR-211	0-6" Into Sediment	x																	
OU1-SW-LVR211-yymmdd	Surface Water		Middle of Column	x																	
OU1-SE-LVR212-yymmdd	Sediment	LVR-212	0-6" Into Sediment	x																	
OU1-SE-LVR213-yymmdd	Sediment	LVR-213	0-6" Into Sediment	x	x	x	x	x	x												
OU1-SW-LVR213-yymmdd	Surface Water		Middle of Column	x	x	x	x	x	x												
OU1-SE-LVR214-yymmdd	Sediment	LVR-214	0-6" Into Sediment	x	x	x	x	x	x												
OU1-SW-LVR214-yymmdd	Surface Water		Middle of Column	x	x	x	x	x	x												
OU1-SE-UL215-yymmdd	Sediment	UL-215	0-6" Into Sediment	x	x	x	x	x	x												
OU1-SW-UL215-yymmdd	Surface Water		Middle of Column	x	x	x	x	x	x												
OU1-SE-LVR409-yymmdd	Sediment	LVR-409	0-6" Into Sediment	x																	
OU1-SE-LVR409-yymmdd	Surface Water	LVR-409	Middle of Column	x																	
QB-07B	Sediment	QuarryBridge-07	0-6" Into Sediment	x																	
QB-07B	Surface Water	QuarryBridge-07	Middle of Column	x																	
OU1-GW-MW-2-yymm	Groundwater	MW-2	Alluvium	x	x	x			x							x	x	x	x	x	x
OU1-GW-MW-301H-yymm	Groundwater	MW-301H	Alluvium	x															x	x	x
OU1-GW-MW-303H-yymm	Groundwater	MW-303H	Alluvium	x															x	x	x
OU1-GW-MW-305H-yymm	Groundwater	MW-305H	Alluvium	x															x	x	x
OU1-GW-MW-310H-yymm	Groundwater	MW-310H	Alluvium	x	x	x			x							x	x	x	x	x	x
OU1-GW-P-17-yymm	Groundwater	P-17	Alluvium	x															x	x	x
OU1-GW-P-18-yymm	Groundwater	P-18	Alluvium	x															x	x	x
OU1-GW-G-02-yymm	Groundwater	G-02	Bedrock	x												x	x	x	x	x	x
OU1-GW-G-101-yymm	Groundwater	G-101	Bedrock	x	x	x			x										x	x	x
OU1-GW-MW-305R-yymm	Groundwater	MW-305R	Bedrock	x															x	x	x
OU1-GW-MW-311R-yymm	Groundwater	MW-311R	Bedrock	x												x	x	x	x	x	x
OU1-GW-MW-317R-yymm	Groundwater	MW-317R	Bedrock	x												x	x	x	x	x	x
OU1-GW-P-15-yymm	Groundwater	P-15	Bedrock	x	x	x			x										x	x	x
OU1-GW-P-7-yymm	Groundwater	P-7	Bedrock	x															x	x	x
OU1-GW-P-9-yymm	Groundwater	P-9	Bedrock	x												x	x	x	x	x	x
OU1-GW-G-05-yymm	Groundwater	G-05	Fill	x												x	x	x	x	x	x
OU1-GW-P-20-yymm	Groundwater	P-20	Fill	x	x	x			x							x	x	x	x	x	x
OU1-GW-G-106-yymm	Groundwater	G-106	Slag	x												x	x	x	x	x	x
OU1-GW-MW-1-yymm	Groundwater	MW-1	Slag	x															x	x	x
OU1-GW-MW-301S-yymm	Groundwater	MW-301S	Slag	x															x	x	x
OU1-GW-MW-303S-yymm	Groundwater	MW-303S	Slag	x	x	x			x										x	x	x
OU1-GW-MW-304S-yymm	Groundwater	MW-304S	Slag	x															x	x	x
OU1-GW-MW-305S-yymm	Groundwater	MW-305S	Slag	x												x	x	x	x	x	x
OU1-GW-MW-306S-yymm	Groundwater	MW-306S	Slag	x															x	x	x
OU1-GW-P-1-yymm	Groundwater	P-1	Slag	x	x	x			x										x	x	x
OU1-GW-P-15A-yymm	Groundwater	P-15A	Slag	x															x	x	x
OU1-GW-P-19-yymm	Groundwater	P-19	Slag	x															x	x	x
OU1-GW-G-04-yymm	Groundwater	G-04	Till	x												x	x	x	x	x	x
OU1-GW-G-103-yymm	Groundwater	G-103	Till	x	x	x			x										x	x	x
OU1-GW-P-6-yymm	Groundwater	P-6	Till	x												x	x	x	x	x	x

Notes:
1. ID: Identification
2. TAL: Target Analyte List
3. VOC: Volatile Organic Compound
4. SVOC: Semi-Volatile Organic Compound
5. PCB: Polychlorinated Biphenyl
6. SPLP: Synthetic Precipitation Leaching Procedure
7. SEP: Sequential Extraction Procedure
8. XRD: X-Ray Diffraction
9. AVS/SEM: Acid Volatile Sulfide/Simultaneously Extracted Metals
10. TOC: Total Organic Carbon
11. TBD: To Be Determined
12. ft BLS: feet below land surface
13. OU1: Operable Unit 1
14. SW: Surface Water
15. SE: Sediment
16. SS: Solid Matrix
17. SB: Soil Boring
18. LVR: Little Vermilion River
19. UL: Upland
20. Where "Slag/Soil" is indicated in matrix column, the actual matrix encountered will be noted during sampling.

Table 2.1.3-2
Interstitial Water Level Data from OU1
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Date	Location	Depth to Water (ft)	Top of Well Casing (TOC) Elevation (ft)	Water Level Elevation (ft)	River Level Elevation (ft)
6/19/2009	ISW-001	4.41	470.91	466.50	466.57
6/19/2009	ISW-002	8.35	473.15	464.80	464.45
8/17/2009	ISW-001	4.23	470.91	466.68	466.88
8/17/2009	ISW-002	8.36	473.15	464.79	464.93
8/19/2009	ISW-001	4.49	470.90	466.41	466.39
8/20/2009	ISW-002	7.76	473.14	465.38	464.21*
10/5/2009	ISW-001	4.76	470.91	466.15	466.25
10/5/2009	ISW-002	9.05	473.15	464.10	463.80

Note:
*River measured on 8/19/09. Rain overnight raised river level 1-2 feet.

Table 2.2.1-1
Phase I and II Sample Information For All Matrices
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Sample ID	Matrix	Sample Type	Station	Location	Depth (ft bgs)[a]	VOA	SVOA	Pest	PCB	Metals (Hg, CN)	Filtered Metals (Hg)	TCLP Metals	SPLP Metals	Asbestos	Total Hardness	PCB Field Kit	Bioassess-ibility	Bioavail-ability	XRF Screening
Phase I Sampling																			
SB001A	Soil boring	Field	SB001	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB001B	Soil boring	Field	SB001	See Figure 2.2.1-1	8-10	x	x	x	x	x				x					
SB002A	Soil boring	Field	SB002	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB002B	Soil boring	Field	SB002	See Figure 2.2.1-1	8-10	x	x	x	x	x				x					
SB003A	Soil boring	Field	SB003	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB003B	Soil boring	Field	SB003	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB004A	Soil boring	Field	SB004	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB004B	Soil boring	Field	SB004	See Figure 2.2.1-1	8-10	x	x	x	x	x				x					
SB005A	Soil boring	Field	SB005	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB005B	Soil boring	Field	SB005	See Figure 2.2.1-1	6-8	x	x	x	x	x				x					
SB006A	Soil boring	Field	SB006	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB006B	Soil boring	Field	SB006	See Figure 2.2.1-1	4-6	x	x	x	x	x				x					
SB007A	Soil boring	Field	SB007	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB007B	Soil boring	Field	SB007	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB008A	Soil boring	Field	SB008	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB008B	Soil boring	Field	SB008	See Figure 2.2.1-1	4-6	x	x	x	x	x				x					
SB009A	Soil boring	Field	SB009	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB009B	Soil boring	Field	SB009	See Figure 2.2.1-1	2-4	x	x	x	x	x				x					
SB010A	Soil boring	Field	SB010	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB010B	Soil boring	Field	SB010	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB011A	Soil boring	Field	SB011	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB011B	Soil boring	Field	SB011	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB012A	Soil boring	Field	SB012	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB012B	Soil boring	Field	SB012	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB013A	Soil boring	Field	SB013	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB013B	Soil boring	Field	SB013	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB014A	Soil boring	Field	SB014	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB014B	Soil boring	Field	SB014	See Figure 2.2.1-1	8-10	x	x	x	x	x				x					
SB015A	Soil boring	Field	SB015	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB015B	Soil boring	Field	SB015	See Figure 2.2.1-1	8-10	x	x	x	x	x				x					
SB016A	Soil boring	Field	SB016	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB016B	Soil boring	Field	SB016	See Figure 2.2.1-1	4-6	x	x	x	x	x				x					
SB017A	Soil boring	Field	SB017	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB017B	Soil boring	Field	SB017	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB018A	Soil boring	Field	SB018	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB018B	Soil boring	Field	SB018	See Figure 2.2.1-1	8-10	x	x	x	x	x				x					
SB019A	Soil boring	Field	SB019	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB019B	Soil boring	Field	SB019	See Figure 2.2.1-1	5-7	x	x	x	x	x				x					
SB020A	Soil boring	Field	SB020	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB020B	Soil boring	Field	SB020	See Figure 2.2.1-1	5-7	x	x	x	x	x									
SB021A	Soil boring	Field	SB021	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB021B	Soil boring	Field	SB021	See Figure 2.2.1-1	4-6	x	x	x	x	x									
SB022A	Soil boring	Field	SB022	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB022B	Soil boring	Field	SB022	See Figure 2.2.1-1	4-6	x	x	x	x	x									
SB023A	Soil boring	Field	SB023	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB023B	Soil boring	Field	SB023	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB024A	Soil boring	Field	SB024	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB024B	Soil boring	Field	SB024	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB025A	Soil boring	Field	SB025	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB025B	Soil boring	Field	SB025	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB026A	Soil boring	Field	SB026	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB026B	Soil boring	Field	SB026	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB027A	Soil boring	Field	SB027	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB027B	Soil boring	Field	SB027	See Figure 2.2.1-1	6-8	x	x	x	x	x				x					

Table 2.2.1-1
Phase I and II Sample Information For All Matrices
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Sample ID	Matrix	Sample Type	Station	Location	Depth (ft bgs)[a]	VOA	SVOA	Pest	PCB	Metals (Hg, CN)	Filtered Metals (Hg)	TCLP Metals	SPLP Metals	Asbestos	Total Hardness	PCB Field Kit	Bioassess-ibility	Bioavail-ability	XRF Screening
SB028A	Soil boring	Field	SB028	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB028B	Soil boring	Field	SB028	See Figure 2.2.1-1	6-8	x	x	x	x	x				x					
SB029A	Soil boring	Field	SB029	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB029B	Soil boring	Field	SB029	See Figure 2.2.1-1	6-8	x	x	x	x	x									
SB030A	Soil boring	Field	SB030	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB030B	Soil boring	Field	SB030	See Figure 2.2.1-1	5-7	x	x	x	x	x									
SB031A	Soil boring	Field	SB031	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB032A	Soil boring	Field	SB032	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB033A	Soil boring	Field	SB033	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB034A	Soil boring	Field	SB034	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB034B	Soil boring	Field	SB034	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB035A	Soil boring	Field	SB035	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB035B	Soil boring	Field	SB035	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB036A	Soil boring	Field	SB036	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB036B	Soil boring	Field	SB036	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB037A	Soil boring	Field	SB037	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB037B	Soil boring	Field	SB037	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB038A	Soil boring	Field	SB038	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB038B	Soil boring	Field	SB038	See Figure 2.2.1-1	2-4	x	x	x	x	x				x					
SB039A	Soil boring	Field	SB039	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB039B	Soil boring	Field	SB039	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB040A	Soil boring	Field	SB040	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB040B	Soil boring	Field	SB040	See Figure 2.2.1-1	6-8	x	x	x	x	x									
SB041A	Soil boring	Field	SB041	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB041B	Soil boring	Field	SB041	See Figure 2.2.1-1	9-11	x	x	x	x	x									
SB042A	Soil boring	Field	SB042	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB042B	Soil boring	Field	SB042	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB043A	Soil boring	Field	SB043	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB043B	Soil boring	Field	SB043	See Figure 2.2.1-1	4-5	x	x	x	x	x				x					
SB044A	Soil boring	Field	SB044	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB044B	Soil boring	Field	SB044	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB045A	Soil boring	Field	SB045	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB045B	Soil boring	Field	SB045	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB046A	Soil boring	Field	SB046	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB046B	Soil boring	Field	SB046	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB047A	Soil boring	Field	SB047	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB047B	Soil boring	Field	SB047	See Figure 2.2.1-1	9-11	x	x	x	x	x									
SB048A	Soil boring	Field	SB048	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB048B	Soil boring	Field	SB048	See Figure 2.2.1-1	9-11	x	x	x	x	x									
SB049A	Soil boring	Field	SB049	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB049B	Soil boring	Field	SB049	See Figure 2.2.1-1	5-7	x	x	x	x	x									
SB050A	Soil boring	Field	SB050	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB050B	Soil boring	Field	SB050	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB051A	Soil boring	Field	SB051	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB051B	Soil boring	Field	SB051	See Figure 2.2.1-1	4-6	x	x	x	x	x									
SB052A	Soil boring	Field	SB052	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB052B	Soil boring	Field	SB052	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB053A	Soil boring	Field	SB053	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB053B	Soil boring	Field	SB053	See Figure 2.2.1-1	6-8	x	x	x	x	x									
SB054A	Soil boring	Field	SB054	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB054B	Soil boring	Field	SB054	See Figure 2.2.1-1	4-6	x	x	x	x	x				x					
SB055A	Soil boring	Field	SB055	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB055B	Soil boring	Field	SB055	See Figure 2.2.1-1	4-6	x	x	x	x	x				x					
SB056A	Soil boring	Field	SB056	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB056B	Soil boring	Field	SB056	See Figure 2.2.1-1	8-10	x	x	x	x	x									

Table 2.2.1-1
Phase I and II Sample Information For All Matrices
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Sample ID	Matrix	Sample Type	Station	Location	Depth (ft bgs)[a]	VOA	SVOA	Pest	PCB	Metals (Hg, CN)	Filtered Metals (Hg)	TCLP Metals	SPLP Metals	Asbestos	Total Hardness	PCB Field Kit	Bioassess-ibility	Bioavail-ability	XRF Screening
SB057A	Soil boring	Field	SB057	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB057B	Soil boring	Field	SB057	See Figure 2.2.1-1	4-6	x	x	x	x	x									
SB058A	Soil boring	Field	SB058	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB058B	Soil boring	Field	SB058	See Figure 2.2.1-1	4-6	x	x	x	x	x									
SB059A	Soil boring	Field	SB059	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB059B	Soil boring	Field	SB059	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB060A	Soil boring	Field	SB060	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB060B	Soil boring	Field	SB060	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB061A	Soil boring	Field	SB061	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB061B	Soil boring	Field	SB061	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB062A	Soil boring	Field	SB062	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB063A	Soil boring	Field	SB063	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB063B	Soil boring	Field	SB063	See Figure 2.2.1-1	4-6	x	x	x	x	x									
SB064A	Soil boring	Field	SB064	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB064B	Soil boring	Field	SB064	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB065A	Soil boring	Field	SB065	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB065B	Soil boring	Field	SB065	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB066A	Soil boring	Field	SB066	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB066B	Soil boring	Field	SB066	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB067A	Soil boring	Field	SB067	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB067B	Soil boring	Field	SB067	See Figure 2.2.1-1	4-6	x	x	x	x	x									
SB068A	Soil boring	Field	SB068	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB068B	Soil boring	Field	SB068	See Figure 2.2.1-1	10-12	x	x	x	x	x									
SB069A	Soil boring	Field	SB069	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB069B	Soil boring	Field	SB069	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB070A	Soil boring	Field	SB070	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB071A	Soil boring	Field	SB071	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB071B	Soil boring	Field	SB071	See Figure 2.2.1-1	6-8	x	x	x	x	x									
SB072A	Soil boring	Field	SB072	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB072B	Soil boring	Field	SB072	See Figure 2.2.1-1	6-8	x	x	x	x	x									
SB073A	Soil boring	Field	SB073	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB074A	Soil boring	Field	SB074	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB074B	Soil boring	Field	SB074	See Figure 2.2.1-1	4-6	x	x	x	x	x									
SB075A	Soil boring	Field	SB075	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB075B	Soil boring	Field	SB075	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB076A	Soil boring	Field	SB076	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB076B	Soil boring	Field	SB076	See Figure 2.2.1-1	4-6	x	x	x	x	x				x					
SB077A	Soil boring	Field	SB077	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB077B	Soil boring	Field	SB077	See Figure 2.2.1-1	4-6	x	x	x	x	x									
SB078A	Soil boring	Field	SB078	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB078B	Soil boring	Field	SB078	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB079A	Soil boring	Field	SB079	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB079B	Soil boring	Field	SB079	See Figure 2.2.1-1	6-8	x	x	x	x	x				x					
SB080A	Soil boring	Field	SB080	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB080B	Soil boring	Field	SB080	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB081A	Soil boring	Field	SB081	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB081B	Soil boring	Field	SB081	See Figure 2.2.1-1	4-5	x	x	x	x	x									
SB082A	Soil boring	Field	SB082	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB082B	Soil boring	Field	SB082	See Figure 2.2.1-1	10-12	x	x	x	x	x									
SB083A	Soil boring	Field	SB083	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB083B	Soil boring	Field	SB083	See Figure 2.2.1-1	8-10	x	x	x	x	x				x					
SB084A	Soil boring	Field	SB084	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB084B	Soil boring	Field	SB084	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB085A	Soil boring	Field	SB085	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB085B	Soil boring	Field	SB085	See Figure 2.2.1-1	8-10	x	x	x	x	x									

Table 2.2.1-1
Phase I and II Sample Information For All Matrices
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Sample ID	Matrix	Sample Type	Station	Location	Depth (ft bgs)[a]	VOA	SVOA	Pest	PCB	Metals (Hg, CN)	Filtered Metals (Hg)	TCLP Metals	SPLP Metals	Asbestos	Total Hardness	PCB Field Kit	Bioassess-ibility	Bioavail-ability	XRF Screening
SB086A	Soil boring	Field	SB086	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB086B	Soil boring	Field	SB086	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB087A	Soil boring	Field	SB087	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB087B	Soil boring	Field	SB087	See Figure 2.2.1-1	4-6	x	x	x	x	x									
SB088A	Soil boring	Field	SB088	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB089A	Soil boring	Field	SB089	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB090A	Soil boring	Field	SB090	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB091A	Soil boring	Field	SB091	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB092A	Soil boring	Field	SB092	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB092B	Soil boring	Field	SB092	See Figure 2.2.1-1	4-6	x	x	x	x	x				x					
SB093A	Soil boring	Field	SB093	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB094A	Soil boring	Field	SB094	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB094B	Soil boring	Field	SB094	See Figure 2.2.1-1	6-8	x	x	x	x	x									
SB095A	Soil boring	Field	SB095	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB095B	Soil boring	Field	SB095	See Figure 2.2.1-1	8-10	x	x	x	x	x				x					
SB096A	Soil boring	Field	SB096	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB096B	Soil boring	Field	SB096	See Figure 2.2.1-1	8-10	x	x	x	x	x				x					
SB097A	Soil boring	Field	SB097	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB097B	Soil boring	Field	SB097	See Figure 2.2.1-1	8-10	x	x	x	x	x				x					
SB098A	Soil boring	Field	SB098	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB099A	Soil boring	Field	SB099	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB099B	Soil boring	Field	SB099	See Figure 2.2.1-1	4-6	x	x	x	x	x									
SB100A	Soil boring	Field	SB100	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB100B	Soil boring	Field	SB100	See Figure 2.2.1-1	6-8	x	x	x	x	x									
SB101A	Soil boring	Field	SB101	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB101B	Soil boring	Field	SB101	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB102A	Soil boring	Field	SB102	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB102B	Soil boring	Field	SB102	See Figure 2.2.1-1	4-6	x	x	x	x	x									
SB103A	Soil boring	Field	SB103	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB103B	Soil boring	Field	SB103	See Figure 2.2.1-1	6-8	x	x	x	x	x									
SB104A	Soil boring	Field	SB104	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB104B	Soil boring	Field	SB104	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB105A	Soil boring	Field	SB105	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB105B	Soil boring	Field	SB105	See Figure 2.2.1-1	4-6	x	x	x	x	x				x					
SB106A	Soil boring	Field	SB106	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB106B	Soil boring	Field	SB106	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB107A	Soil boring	Field	SB107	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB107B	Soil boring	Field	SB107	See Figure 2.2.1-1	8-10	x	x	x	x	x				x					
SB108A	Soil boring	Field	SB108	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB108B	Soil boring	Field	SB108	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB109A	Soil boring	Field	SB109	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB109B	Soil boring	Field	SB109	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB110A	Soil boring	Field	SB110	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB110B	Soil boring	Field	SB110	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB111A	Soil boring	Field	SB111	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB111B	Soil boring	Field	SB111	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB112A	Soil boring	Field	SB112	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB112B	Soil boring	Field	SB112	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB113A	Soil boring	Field	SB113	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB114A	Soil boring	Field	SB114	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB114B	Soil boring	Field	SB114	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB115A	Soil boring	Field	SB115	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB115B	Soil boring	Field	SB115	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB116A	Soil boring	Field	SB116	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB116B	Soil boring	Field	SB116	See Figure 2.2.1-1	8-10	x	x	x	x	x				x					

Table 2.2.1-1
Phase I and II Sample Information For All Matrices
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Sample ID	Matrix	Sample Type	Station	Location	Depth (ft bgs)[a]	VOA	SVOA	Pest	PCB	Metals (Hg, CN)	Filtered Metals (Hg)	TCLP Metals	SPLP Metals	Asbestos	Total Hardness	PCB Field Kit	Bioassess-ibility	Bioavail-ability	XRF Screening
SB117A	Soil boring	Field	SB117	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB118A	Soil boring	Field	SB118	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB119A	Soil boring	Field	SB119	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB120A	Soil boring	Field	SB120	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB121A	Soil boring	Field	SB121	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB122A	Soil boring	Field	SB122	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB123A	Soil boring	Field	SB123	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB123B	Soil boring	Field	SB123	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB124A	Soil boring	Field	SB124	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB124B	Soil boring	Field	SB124	See Figure 2.2.1-1	4-6	x	x	x	x	x									
SB125A	Soil boring	Field	SB125	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB125B	Soil boring	Field	SB125	See Figure 2.2.1-1	6-8	x	x	x	x	x									
SB126A	Soil boring	Field	SB126	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB126B	Soil boring	Field	SB126	See Figure 2.2.1-1	4-6	x	x	x	x	x									
SB127A	Soil boring	Field	SB127	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB127B	Soil boring	Field	SB127	See Figure 2.2.1-1	8-10	x	x	x	x	x				x					
SB128A	Soil boring	Field	SB128	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB128B	Soil boring	Field	SB128	See Figure 2.2.1-1	8-10	x	x	x	x	x				x					
SB129A	Soil boring	Field	SB129	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB129B	Soil boring	Field	SB129	See Figure 2.2.1-1	4-6	x	x	x	x	x									
SB130A	Soil boring	Field	SB130	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB130B	Soil boring	Field	SB130	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB131A	Soil boring	Field	SB131	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB131B	Soil boring	Field	SB131	See Figure 2.2.1-1	4-6	x	x	x	x	x				x					
SB132A	Soil boring	Field	SB132	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB132B	Soil boring	Field	SB132	See Figure 2.2.1-1	8-10	x	x	x	x	x				x					
SB133A	Soil boring	Field	SB133	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB133B	Soil boring	Field	SB133	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB134A	Soil boring	Field	SB134	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB134B	Soil boring	Field	SB134	See Figure 2.2.1-1	4-6	x	x	x	x	x				x					
SB135A	Soil boring	Field	SB135	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB135B	Soil boring	Field	SB135	See Figure 2.2.1-1	8-10	x	x	x	x	x				x					
SB136A	Soil boring	Field	SB136	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB136B	Soil boring	Field	SB136	See Figure 2.2.1-1	4-6	x	x	x	x	x									
SB137A	Soil boring	Field	SB137	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB137B	Soil boring	Field	SB137	See Figure 2.2.1-1	4-6	x	x	x	x	x									
SB138A	Soil boring	Field	SB138	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB138B	Soil boring	Field	SB138	See Figure 2.2.1-1	8-10	x	x	x	x	x				x					
SB139A	Soil boring	Field	SB139	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB139B	Soil boring	Field	SB139	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB140A	Soil boring	Field	SB140	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB140B	Soil boring	Field	SB140	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB141A	Soil boring	Field	SB141	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB141B	Soil boring	Field	SB141	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB142A	Soil boring	Field	SB142	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB142B	Soil boring	Field	SB142	See Figure 2.2.1-1	6-8	x	x	x	x	x									
SB143A	Soil boring	Field	SB143	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB143B	Soil boring	Field	SB143	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB144A	Soil boring	Field	SB144	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB144B	Soil boring	Field	SB144	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB145A	Soil boring	Field	SB145	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB145B	Soil boring	Field	SB145	See Figure 2.2.1-1	6-8	x	x	x	x	x									
SB153A	Soil boring	Field	SB153	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB154A	Soil boring	Field	SB154	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB154B	Soil boring	Field	SB154	See Figure 2.2.1-1	6-8	x	x	x	x	x									

Table 2.2.1-1
Phase I and II Sample Information For All Matrices
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Sample ID	Matrix	Sample Type	Station	Location	Depth (ft bgs)[a]	VOA	SVOA	Pest	PCB	Metals (Hg, CN)	Filtered Metals (Hg)	TCLP Metals	SPLP Metals	Asbestos	Total Hardness	PCB Field Kit	Bioassess-ibility	Bioavail-ability	XRF Screening
SB155A	Soil boring	Field	SB155	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB155B	Soil boring	Field	SB155	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB156A	Soil boring	Field	SB156	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB156B	Soil boring	Field	SB156	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB157A	Soil boring	Field	SB157	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB157B	Soil boring	Field	SB157	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB158A	Soil boring	Field	SB158	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB158B	Soil boring	Field	SB158	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB160A	Soil boring	Field	SB160	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB160B	Soil boring	Field	SB160	See Figure 2.2.1-1	8-10	x	x	x	x	x				x					
SB161A	Soil boring	Field	SB161	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB161B	Soil boring	Field	SB161	See Figure 2.2.1-1	4-6	x	x	x	x	x				x					
SB162A	Soil boring	Field	SB162	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB162B	Soil boring	Field	SB162	See Figure 2.2.1-1	4-6	x	x	x	x	x				x					
SB163A	Soil boring	Field	SB163	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB163B	Soil boring	Field	SB163	See Figure 2.2.1-1	4-6	x	x	x	x	x				x					
SB164A	Soil boring	Field	SB164	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB164B	Soil boring	Field	SB164	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB165A	Soil boring	Field	SB165	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB165B	Soil boring	Field	SB165	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB166A	Soil boring	Field	SB166	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB166B	Soil boring	Field	SB166	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB167A	Soil boring	Field	SB167	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB167B	Soil boring	Field	SB167	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB168A	Soil boring	Field	SB168	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB168B	Soil boring	Field	SB168	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB169A	Soil boring	Field	SB169	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB169B	Soil boring	Field	SB169	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB170A	Soil boring	Field	SB170	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB170B	Soil boring	Field	SB170	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB171A	Soil boring	Field	SB171	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB171B	Soil boring	Field	SB171	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB172A	Soil boring	Field	SB172	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB172B	Soil boring	Field	SB172	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB173A	Soil boring	Field	SB173	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB173B	Soil boring	Field	SB173	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB174A	Soil boring	Field	SB174	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB174B	Soil boring	Field	SB174	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB175A	Soil boring	Field	SB175	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB175B	Soil boring	Field	SB175	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB176A	Soil boring	Field	SB176	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB176B	Soil boring	Field	SB176	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB177A	Soil boring	Field	SB177	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB177B	Soil boring	Field	SB177	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB178A	Soil boring	Field	SB178	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB178B	Soil boring	Field	SB178	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB179A	Soil boring	Field	SB179	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB179B	Soil boring	Field	SB179	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB180A	Soil boring	Field	SB180	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB180B	Soil boring	Field	SB180	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB181A	Soil boring	Field	SB181	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB181B	Soil boring	Field	SB181	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB182A	Soil boring	Field	SB182	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB182B	Soil boring	Field	SB182	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB183A	Soil boring	Field	SB183	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					

Table 2.2.1-1
Phase I and II Sample Information For All Matrices
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Sample ID	Matrix	Sample Type	Station	Location	Depth (ft bgs)[a]	VOA	SVOA	Pest	PCB	Metals (Hg, CN)	Filtered Metals (Hg)	TCLP Metals	SPLP Metals	Asbestos	Total Hardness	PCB Field Kit	Bioassess-ibility	Bioavail-ability	XRF Screening
SB183B	Soil boring	Field	SB183	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB184A	Soil boring	Field	SB184	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB184B	Soil boring	Field	SB184	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB185A	Soil boring	Field	SB185	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB185B	Soil boring	Field	SB185	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB186A	Soil boring	Field	SB186	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB186B	Soil boring	Field	SB186	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB187A	Soil boring	Field	SB187	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB187B	Soil boring	Field	SB187	See Figure 2.2.1-1	6-8	x	x	x	x	x									
SB188A	Soil boring	Field	SB188	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB188B	Soil boring	Field	SB188	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB189A	Soil boring	Field	SB189	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB189B	Soil boring	Field	SB189	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB190A	Soil boring	Field	SB190	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB190B	Soil boring	Field	SB190	See Figure 2.2.1-1	8-10	x	x	x	x	x				x					
SB191A	Soil boring	Field	SB191	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB191B	Soil boring	Field	SB191	See Figure 2.2.1-1	6-8	x	x	x	x	x									
SB192A	Soil boring	Field	SB192	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB192B	Soil boring	Field	SB192	See Figure 2.2.1-1	4-6	x	x	x	x	x									
SB193A	Soil boring	Field	SB193	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB194A	Soil boring	Field	SB194	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB194B	Soil boring	Field	SB194	See Figure 2.2.1-1	4-5.5	x	x	x	x	x				x					
SB195A	Soil boring	Field	SB195	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB195B	Soil boring	Field	SB195	See Figure 2.2.1-1	6-8	x	x	x	x	x									
SB196A	Soil boring	Field	SB196	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB196B	Soil boring	Field	SB196	See Figure 2.2.1-1	6-8	x	x	x	x	x									
SB197A	Soil boring	Field	SB197	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB197B	Soil boring	Field	SB197	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB198A	Soil boring	Field	SB198	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB198B	Soil boring	Field	SB198	See Figure 2.2.1-1	4-6	x	x	x	x	x									
SB199A	Soil boring	Field	SB199	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB199B	Soil boring	Field	SB199	See Figure 2.2.1-1	6-8	x	x	x	x	x									
SB200A	Soil boring	Field	SB200	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB200B	Soil boring	Field	SB200	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB201A	Soil boring	Field	SB201	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB201B	Soil boring	Field	SB201	See Figure 2.2.1-1	6-8	x	x	x	x	x									
SB211A	Soil boring	Field	SB211	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB211B	Soil boring	Field	SB211	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB212A	Soil boring	Field	SB212	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB212B	Soil boring	Field	SB212	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB213A	Soil boring	Field	SB213	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB213B	Soil boring	Field	SB213	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB214A	Soil boring	Field	SB214	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB214B	Soil boring	Field	SB214	See Figure 2.2.1-1	6-8	x	x	x	x	x									
SB215A	Soil boring	Field	SB215	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB215B	Soil boring	Field	SB215	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB250A	Soil boring	Duplicate	SB003A	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB252A	Soil boring	Duplicate	SB008A	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB255B	Soil boring	Duplicate	SB024B	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB256A	Soil boring	Duplicate	SB011A	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB258A	Soil boring	Duplicate	SB047A	See Figure 2.2.1-1	0-2	x	x	x	x	x									
SB261B	Soil boring	Duplicate	SB044B	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB262	Soil boring	Duplicate	SB100A	See Figure 2.2.1-1	0-2	x	x	x	x	x									
SB264B	Soil boring	Duplicate	SB077B	See Figure 2.2.1-1	4-6	x	x	x	x	x									
SB265B	Soil boring	Duplicate	SB080B	See Figure 2.2.1-1	8-10	x	x	x	x	x									

Table 2.2.1-1
Phase I and II Sample Information For All Matrices
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Sample ID	Matrix	Sample Type	Station	Location	Depth (ft bgs)[a]	VOA	SVOA	Pest	PCB	Metals (Hg, CN)	Filtered Metals (Hg)	TCLP Metals	SPLP Metals	Asbestos	Total Hardness	PCB Field Kit	Bioassess-ibility	Bioavail-ability	XRF Screening
SB266A	Soil boring	Duplicate	SB091A	See Figure 2.2.1-1	0-2	x	x	x	x	x									
SB269B	Soil boring	Duplicate	SB134A	See Figure 2.2.1-1	0-2	x	x	x	x	x									
SB270B	Soil boring	Duplicate	SB192B	See Figure 2.2.1-1	4-6	x	x	x	x	x									
SB272	Soil boring	Duplicate	SB143B	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB281A	Soil boring	Duplicate	SB128A	See Figure 2.2.1-1	0-2	x	x	x	x	x									
SB282B	Soil boring	Duplicate	SB130B	See Figure 2.2.1-1	8-10	x	x	x	x	x				x					
SB283B	Soil boring	Duplicate	SB068B	See Figure 2.2.1-1	10-12	x	x	x	x	x									
SB290B	Soil boring	Duplicate	SB056B	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB291B	Soil boring	Duplicate	SB007B	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB293B	Soil boring	Duplicate	SB058B	See Figure 2.2.1-1	4-6	x	x	x	x	x									
SB295A	Soil boring	Duplicate	SB076A	See Figure 2.2.1-1	0-2	x	x	x	x	x									
SB297A	Soil boring	Duplicate	SB028A	See Figure 2.2.1-1	0-2	x	x	x	x	x									
SB299A	Soil boring	Duplicate	SB066A	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB300B	Soil boring	Duplicate	SB173B	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB302A	Soil boring	Duplicate	SB108A	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB303B	Soil boring	Duplicate	SB166B	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB306A	Soil boring	Duplicate	SB176A	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB308A	Soil boring	Duplicate	SB122A	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB312B	Soil boring	Duplicate	SB157B	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB313B	Soil boring	Duplicate	SB185B	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB316B	Soil boring	Duplicate	SB201B	See Figure 2.2.1-1	6-8	x	x	x	x	x									
SB317B	Soil boring	Duplicate	SB188B	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB318A	Soil boring	Duplicate	SB142A	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB319B	Soil boring	Duplicate	SB165B	See Figure 2.2.1-1	8-10	x	x	x	x	x									
SB322A	Soil boring	Duplicate	SB117A	See Figure 2.2.1-1	0-2	x	x	x	x	x				x					
SB323B	Soil boring	Duplicate	SB215B	See Figure 2.2.1-1	8-10	x	x	x	x	x									
P001S	Pile/Surface Soil	Field	P001S	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P002S	Pile/Surface Soil	Field	P002S	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P003S	Pile/Surface Soil	Field	P003S	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P004S	Pile/Surface Soil	Field	P004S	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P005S	Pile/Surface Soil	Field	P005S	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P006S	Pile/Surface Soil	Field	P006S	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P007S	Pile/Surface Soil	Field	P007S	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P008S	Pile/Surface Soil	Field	P008S	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P009S	Pile/Surface Soil	Field	P009S	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P010S	Pile/Surface Soil	Field	P010S	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P011S	Pile/Surface Soil	Field	P011S	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P012S	Pile/Surface Soil	Field	P012S	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P013S	Pile/Surface Soil	Field	P013S	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P014S	Pile/Surface Soil	Field	P014S	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P015S	Pile/Surface Soil	Field	P015S	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P016	Pile/Surface Soil	Field	P016	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P017	Pile/Surface Soil	Field	P017	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P018	Pile/Surface Soil	Field	P018	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P019	Pile/Surface Soil	Field	P019	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P020	Pile/Surface Soil	Field	P020	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P021	Pile/Surface Soil	Field	P021	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P022	Pile/Surface Soil	Field	P022	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P023	Pile/Surface Soil	Field	P023	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P024	Pile/Surface Soil	Field	P024	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P025	Pile/Surface Soil	Field	P025	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P026	Pile/Surface Soil	Field	P026	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P027	Pile/Surface Soil	Field	P027	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P028	Pile/Surface Soil	Field	P028	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P029	Pile/Surface Soil	Field	P029	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					

Table 2.2.1-1
Phase I and II Sample Information For All Matrices
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Sample ID	Matrix	Sample Type	Station	Location	Depth (ft bgs)[a]	VOA	SVOA	Pest	PCB	Metals (Hg, CN)	Filtered Metals (Hg)	TCLP Metals	SPLP Metals	Asbestos	Total Hardness	PCB Field Kit	Bioassess-ibility	Bioavail-ability	XRF Screening
P030	Pile/Surface Soil	Field	P030	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P031	Pile/Surface Soil	Field	P031	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P032	Pile/Surface Soil	Field	P032	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P033	Pile/Surface Soil	Field	P033	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P034	Pile/Surface Soil	Field	P034	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P035	Pile/Surface Soil	Field	P035	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P036	Pile/Surface Soil	Field	P036	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P037	Pile/Surface Soil	Field	P037	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P038	Pile/Surface Soil	Field	P038	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P039	Pile/Surface Soil	Field	P039	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P040	Pile/Surface Soil	Field	P040	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P041	Pile/Surface Soil	Field	P041	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P042	Pile/Surface Soil	Field	P042	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P043	Pile/Surface Soil	Field	P043	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P044	Pile/Surface Soil	Field	P044	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P045	Pile/Surface Soil	Field	P045	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P046	Pile/Surface Soil	Field	P046	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P047	Pile/Surface Soil	Field	P047	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P048	Pile/Surface Soil	Field	P048	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P049	Pile/Surface Soil	Field	P049	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P050	Pile/Surface Soil	Field	P050	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P051	Pile/Surface Soil	Field	P051	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P052	Pile/Surface Soil	Field	P052	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P053	Pile/Surface Soil	Field	P053	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P054	Pile/Surface Soil	Field	P054	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P055	Pile/Surface Soil	Field	P055	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P100S	Pile/Surface Soil	Duplicate	P008S	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P021B	Pile/Surface Soil	Duplicate	P021	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P034B	Pile/Surface Soil	Duplicate	P034	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
P042B	Pile/Surface Soil	Duplicate	P043	See Figure 2.2.1-1	0-1	x	x	x	x	x				x					
BM001	Building Materials	Field	BM001	See Figure 2.2.1-1	NA	x	x	x	x	x				x					
BM002	Building Materials	Field	BM002	See Figure 2.2.1-1	NA	x	x	x	x	x				x					
BM003	Building Materials	Field	BM003	See Figure 2.2.1-1	NA	x	x	x	x	x				x					
BM004	Building Materials	Field	BM004	See Figure 2.2.1-1	NA	x	x	x	x	x				x					
BM005	Building Materials	Field	BM005	See Figure 2.2.1-1	NA	x	x	x	x	x				x					
BM006	Building Materials	Field	BM006	See Figure 2.2.1-1	NA	x	x	x	x	x				x					
BM007	Building Materials	Field	BM007	See Figure 2.2.1-1	NA	x	x	x	x	x				x					
BM008	Building Materials	Field	BM008	See Figure 2.2.1-1	NA	x	x	x	x	x				x					
BM009	Building Materials	Field	BM009	See Figure 2.2.1-1	NA	x	x	x	x	x				x					
BM010	Building Materials	Field	BM010	See Figure 2.2.1-1	NA	x	x	x	x	x				x					
MW01	Groundwater[2]	Field	MW-01	Western Border	NA	x	x	x	x	x									
MW02S	Groundwater[2]	Field	MW-02S	Western Border	NA	x	x	x	x	x									
MW02D	Groundwater[2]	Field	MW-02D	Western Border	NA	x	x	x	x	x									
MW03	Groundwater[2]	Field	MW-03	Western Border	NA	x	x	x	x	x									
MW04	Groundwater[2]	Field	MW-04	Northeast of Rolling Mill	NA	x	x	x	x	x									
MW05	Groundwater[2]	Field	MW-05	West of Furnaces	NA	x	x	x	x	x									
MW06	Groundwater[2]	Field	MW-06	Main Industrial Area	NA	x	x	x	x	x									
MW07	Groundwater[2]	Field	MW-07	North of Furnaces	NA	x	x	x	x	x									
MW08	Groundwater[2]	Field	MW-08	South of Furnaces	NA	x	x	x	x	x									
MW09	Groundwater[2]	Field	MW-09	Main Industrial Area	NA	x	x	x	x	x									
MW10	Groundwater[2]	Field	MW-10	North of Building 100	NA	x	x	x	x	x									
MW11	Groundwater[2]	Field	MW-11	Main Industrial Area	NA	x	x	x	x	x									
MW12	Groundwater[2]	Field	MW-12	South of Acid Reservoirs	NA	x	x	x	x	x									
MW13	Groundwater[2]	Field	MW-13	North of Pottery Building	NA	x	x	x	x	x									
MW14	Groundwater[2]	Field	MW-14	North of Acid Reservoirs	NA	x	x	x	x	x									

Table 2.2.1-1
Phase I and II Sample Information For All Matrices
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Sample ID	Matrix	Sample Type	Station	Location	Depth (ft bgs)[a]	VOA	SVOA	Pest	PCB	Metals (Hg, CN)	Filtered Metals (Hg)	TCLP Metals	SPLP Metals	Asbestos	Total Hardness	PCB Field Kit	Bioassess-ibility	Bioavail-ability	XRF Screening
MW15	Groundwater[2]	Field	MW-15	North Area	NA	x	x	x	x	x									
MW16	Groundwater[2]	Field	MW-16	North Area	NA	x	x	x	x	x									
MW17	Groundwater[2]	Field	MW-17	Main Industrial Area	NA	x	x	x	x	x									
MW18	Groundwater[2]	Field	MW-18	Next to Little Vermillion River	NA	x	x	x	x	x									
SW001	Surface Water	Field	SW001	Ephemeral or Intermittent Stream	NA	x	x	x	x	x									
SW002	Surface Water	Field	SW002	Near Aboveground Storage Tank	NA	x	x	x	x	x									
SW003	Surface Water	Field	SW003	Ephemeral or Intermittent Stream	NA	x	x	x	x	x									
SW004	Surface Water	Field	SW004	Ephemeral or Intermittent Stream	NA	x	x	x	x	x									
SW005	Surface Water	Field	SW005	Mouth - Abandoned Sewer Creek	NA	x	x	x	x	x									
SW006	Surface Water	Field	SW006	Middle - Abandoned Sewer Creek	NA	x	x	x	x	x									
SW007	Surface Water	Field	SW007	Terminus - Abandoned Sewer Creek	NA	x	x	x	x	x									
SW002W	Surface Water	Field	SW002	Near Aboveground Storage Tank	NA	x	x	x	x	x									
SW003W	Surface Water	Field	SW003	Ephemeral or Intermittent Stream	NA	x	x	x	x	x									
SW004W	Surface Water	Field	SW004	Ephemeral or Intermittent Stream	NA	x	x	x	x	x									
SW005W	Surface Water	Field	SW005	Mouth - Abandoned Sewer Creek	NA	x	x	x	x	x									
SW006W	Surface Water	Field	SW006	Middle - Abandoned Sewer Creek	NA	x	x	x	x	x									
SW007W	Surface Water	Field	SW007	Terminus - Abandoned Sewer Creek	NA	x	x	x	x	x									
SB268	Surface Water	Duplicate	SW006	Middle - Abandoned Sewer Creek	NA	x	x	x	x	x									
SW305W	Surface Water	Duplicate	SW003	Ephemeral or Intermittent Stream	NA	x	x	x	x	x									
Phase II Sampling																			
SB401A-08	Soil boring	Field	SB401	Near Building 100	0-2				x	x									
SB401B-08	Soil boring	Field	SB401	Near Building 100	14-16				x	x						x			
SB402A-08	Soil boring	Field	SB402	Near Building 100	0-2				x	x									
SB402B-08	Soil boring	Field	SB402	Near Building 100	10-12				x	x						x			
SB403A-08	Soil boring	Field	SB403	Near Building 100	0-2				x	x									
SB403B-08	Soil boring	Field	SB403	Near Building 100	13-15				x	x						x			
SB404A-08	Soil boring	Field	SB404	Near Building 100	0-2				x	x									
SB404B-08	Soil boring	Field	SB404	Near Building 100	16-18				x	x						x			
SB405A-08	Soil boring	Field	SB405	Near Building 100	0-2				x	x									
SB405B-08	Soil boring	Field	SB405	Near Building 100	22-24				x	x						x			
SB406A-08	Soil boring	Field	SB406	Near Building 100	2-4				x	x									
SB406B-08	Soil boring	Field	SB406	Near Building 100	26-28				x	x						x			
SB407A-08	Soil boring	Field	SB407	Near Building 100	0-2				x	x									
SB407B-08	Soil boring	Field	SB407	Near Building 100	14-16				x	x						x			
SB408A-08	Soil boring	Field	SB408	Near Building 100	0-2				x	x									
SB408B-08	Soil boring	Field	SB408	Near Building 100	34-36				x	x						x			
SB409A-08	Soil boring	Field	SB409	Near Building 100	0-2				x	x									
SB409B-08	Soil boring	Field	SB409	Near Building 100	20-21				x	x						x			
SB410A-08	Soil boring	Field	SB410	Near Building 100	0-2				x	x									
SB410B-08	Soil boring	Field	SB410	Near Building 100	18-20				x	x						x			
SB411A-08	Soil boring	Field	SB411	Northwest of Rolling Mill	0-2	x				x									
SB411B-08	Soil boring	Field	SB411	Northwest of Rolling Mill	10-12	x				x									
SB412A-08	Soil boring	Field	SB412	Northwest of Rolling Mill	0-2	x				x									
SB412B-08	Soil boring	Field	SB412	Northwest of Rolling Mill	8-10	x				x									
SB413A-08	Soil boring	Field	SB413	Northwest of Rolling Mill	0-2	x				x									
SB413B-08	Soil boring	Field	SB413	Northwest of Rolling Mill	8-10	x				x									
SB414A-08	Soil boring	Field	SB414	Northwest of Rolling Mill	0-2	x				x									
SB414B-08	Soil boring	Field	SB414	Northwest of Rolling Mill	6-8	x				x									
SB415A-08	Soil boring	Field	SB415	Northwest of Rolling Mill	0-2	x				x									
SB415B-08	Soil boring	Field	SB415	Northwest of Rolling Mill	4-6	x				x									
SB416A-08	Soil boring	Field	SB416	Northwest of Rolling Mill	0-2	x				x									
SB416B-08	Soil boring	Field	SB416	Northwest of Rolling Mill	8-10	x				x									
SB417A-08	Soil boring	Field	SB417	Northwest of Rolling Mill	0-2	x				x									
SB417B-08	Soil boring	Field	SB417	Northwest of Rolling Mill	6-8	x				x									
SB418A-08	Soil boring	Field	SB418	Northwest of Rolling Mill	0-2	x				x									

Table 2.2.1-1
Phase I and II Sample Information For All Matrices
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Sample ID	Matrix	Sample Type	Station	Location	Depth (ft bgs)[a]	VOA	SVOA	Pest	PCB	Metals (Hg, CN)	Filtered Metals (Hg)	TCLP Metals	SPLP Metals	Asbestos	Total Hardness	PCB Field Kit	Bioassess-ibility	Bioavail-ability	XRF Screening
SB418B-08	Soil boring	Field	SB418	Northwest of Rolling Mill	8-10	x				x									
SB419A-08	Soil boring	Field	SB419	Northwest of Rolling Mill	0-2	x				x									
SB419B-08	Soil boring	Field	SB419	Northwest of Rolling Mill	6-8	x				x									
SB420A-08	Soil boring	Field	SB420	Northwest of Rolling Mill	0-2	x				x									
SB420B-08	Soil boring	Field	SB420	Northwest of Rolling Mill	10-12	x				x									
SB421A-08	Soil boring	Field	SB421	North Area	0-2	x	x	x	x	x				x					
SB421B-08	Soil boring	Field	SB421	North Area	6-8	x	x	x	x	x									
SB422A-08	Soil boring	Field	SB422	North Area	0-2	x	x	x	x	x				x					
SB422B-08	Soil boring	Field	SB422	North Area	8-10	x	x	x	x	x									
SB423A-08	Soil boring	Field	SB423	North Area	0-2	x	x	x	x	x				x					
SB423B-08	Soil boring	Field	SB423	North Area	8-10	x	x	x	x	x									
SB424A-08	Soil boring	Field	SB424	North Area	0-2	x	x	x	x	x				x					
SB424B-08	Soil boring	Field	SB424	North Area	8-10	x	x	x	x	x									
SB425A-08	Soil boring	Field	SB425	North Area	0-2	x	x	x	x	x				x					
SB425B-08	Soil boring	Field	SB425	North Area	8-10	x	x	x	x	x									
SB426A-08	Soil boring	Field	SB426	North Area	0-2	x	x	x	x	x				x					
SB426B-08	Soil boring	Field	SB426	North Area	8-10	x	x	x	x	x									
SB427A-08	Soil boring	Field	SB427	North Area	0-2	x	x	x	x	x				x					
SB427B-08	Soil boring	Field	SB427	North Area	8-10	x	x	x	x	x									
SB428A-08	Soil boring	Field	SB428	North Area	0-2	x	x	x	x	x				x					
SB428B-08	Soil boring	Field	SB428	North Area	8-10	x	x	x	x	x									
SB429A-08	Soil boring	Field	SB429	North Area	0-2	x	x	x	x	x				x					
SB429B-08	Soil boring	Field	SB429	North Area	4-6	x	x	x	x	x									
SB430A-08	Soil boring	Field	SB430	North Area	0-2	x	x	x	x	x				x					
SB430B-08	Soil boring	Field	SB430	North Area	6-8	x	x	x	x	x									
SB431A-08	Soil boring	Field	SB431	Inside Rolling Mill	0-4	x	x	x	x	x				x					
SB431B-08	Soil boring	Field	SB421	Inside Rolling Mill	8-10	x	x	x	x	x									
SB432A-08	Soil boring	Field	SB432	Inside Rolling Mill	0-2	x	x	x	x	x				x					
SB432B-08	Soil boring	Field	SB432	Inside Rolling Mill	12-14	x	x	x	x	x									
SB433A-08	Soil boring	Field	SB433	Inside Rolling Mill	0-2	x	x	x	x	x				x					
SB433B-08	Soil boring	Field	SB433	Inside Rolling Mill	10-12	x	x	x	x	x									
SB434A-08	Soil boring	Field	SB434	Inside Rolling Mill	0-2	x	x	x	x	x				x					
SB434B-08	Soil boring	Field	SB434	Inside Rolling Mill	8-10	x	x	x	x	x									
SB435A-08	Soil boring	Field	SB435	Inside Rolling Mill	2-4	x	x	x	x	x				x					
SB435B-08	Soil boring	Field	SB435	Inside Rolling Mill	8-10	x	x	x	x	x									
SB436A-08	Soil boring	Field	SB436	Inside Rolling Mill	0-2	x	x	x	x	x				x					
SB436B-08	Soil boring	Field	SB436	Inside Rolling Mill	8-10	x	x	x	x	x									
SB437A-08	Soil boring	Field	SB437	Inside Rolling Mill	0-2	x	x	x	x	x				x					
SB437B1-08	Soil boring	Field	SB437	Inside Rolling Mill	2-4	x	x	x	x	x									
SB437B2-08	Soil boring	Field	SB437	Inside Rolling Mill	6-8	x	x	x	x	x									
SB438A-08	Soil boring	Field	SB438	Inside Rolling Mill	0-2	x	x	x	x	x				x					
SB438B-08	Soil boring	Field	SB438	Inside Rolling Mill	6-8	x	x	x	x	x									
SB439A-08	Soil boring	Field	SB439	Inside Rolling Mill	0-4	x	x	x	x	x				x					
SB439B-08	Soil boring	Field	SB439	Inside Rolling Mill	10-12	x	x	x	x	x									
SB440A-08	Soil boring	Field	SB440	Inside Rolling Mill	0-2	x	x	x	x	x				x					
SB440B-08	Soil boring	Field	SB440	Inside Rolling Mill	8-10	x	x	x	x	x									
SB441A-08	Soil boring	Field	SB441	Northeast Periphery Area	0-2	x	x	x	x	x				x					
SB441B-08	Soil boring	Field	SB441	Northeast Periphery Area	6-8	x	x	x	x	x									
SB442A-08	Soil boring	Field	SB442	Northeast Periphery Area	0-2	x	x	x	x	x				x					
SB442B-08	Soil boring	Field	SB442	Northeast Periphery Area	8-10	x	x	x	x	x									
SB443A-08	Soil boring	Field	SB443	Northeast Periphery Area	0-2	x	x	x	x	x				x					
SB443B-08	Soil boring	Field	SB443	Northeast Periphery Area	4-6	x	x	x	x	x									
SB444A-08	Soil boring	Field	SB444	Northeast Periphery Area	0-2	x	x	x	x	x				x					
SB444B-08	Soil boring	Field	SB444	Northeast Periphery Area	8-10	x	x	x	x	x									
SB445A-08	Soil boring	Field	SB445	Northeast Periphery Area	0-2	x	x	x	x	x				x					

Table 2.2.1-1
Phase I and II Sample Information For All Matrices
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Sample ID	Matrix	Sample Type	Station	Location	Depth (ft bgs)[a]	VOA	SVOA	Pest	PCB	Metals (Hg, CN)	Filtered Metals (Hg)	TCLP Metals	SPLP Metals	Asbestos	Total Hardness	PCB Field Kit	Bioassess-ibility	Bioavail-ability	XRF Screening
SB445B-08	Soil boring	Field	SB445	Northeast Periphery Area	6-8	x	x	x	x	x									
SB446A-08	Soil boring	Field	SB446	Northeast Periphery Area	0-2	x	x	x	x	x				x					
SB446B-08	Soil boring	Field	SB446	Northeast Periphery Area	8-10	x	x	x	x	x									
SB447A-08	Soil boring	Field	SB447	Northeast Periphery Area	0-2	x	x	x	x	x				x					
SB447B-08	Soil boring	Field	SB447	Northeast Periphery Area	6-8	x	x	x	x	x									
SB448A-08	Soil boring	Field	SB448	Northeast Periphery Area	0-2	x	x	x	x	x				x					
SB448B-08	Soil boring	Field	SB448	Northeast Periphery Area	8-10	x	x	x	x	x									
SB449A-08	Soil boring	Field	SB449	Northeast Periphery Area	0-2	x	x	x	x	x				x					
SB449B-08	Soil boring	Field	SB449	Northeast Periphery Area	8-10	x	x	x	x	x									
SB450A-08	Soil boring	Field	SB450	Northeast Periphery Area	0-2	x	x	x	x	x				x					
SB450B-08	Soil boring	Field	SB450	Northeast Periphery Area	8-10	x	x	x	x	x									
SB451A-08	Soil boring	Field	SB451	Main Industrial Area	0-2					x		x	x						
SB451B-08	Soil boring	Field	SB451	Main Industrial Area	10-12					x		x	x						
SB452A-08	Soil boring	Field	SB452	Main Industrial Area	0-2					x		x	x						
SB452B-08	Soil boring	Field	SB452	Main Industrial Area	6-8					x		x	x						
SB453A-08	Soil boring	Field	SB453	Main Industrial Area	0-2					x		x	x						
SB453B-08	Soil boring	Field	SB453	Main Industrial Area	10-12					x		x	x						
SB454A-08	Soil boring	Field	SB454	Main Industrial Area	0-2					x		x	x						
SB454B-08	Soil boring	Field	SB454	Main Industrial Area	6-8					x		x	x						
SB455A-08	Soil boring	Field	SB455	Main Industrial Area	0-2					x			x						
SB455B-08	Soil boring	Field	SB455	Main Industrial Area	10-12					x			x						
SB456A-08	Soil boring	Field	SB456	Main Industrial Area	0-2					x			x						
SB456B-08	Soil boring	Field	SB456	Main Industrial Area	6-8					x			x						
SB457A-08	Soil boring	Field	SB457	Main Industrial Area	0-2					x			x						
SB457B-08	Soil boring	Field	SB457	Main Industrial Area	10-12					x			x						
SB458A-08	Soil boring	Field	SB458	Main Industrial Area	0-2					x		x	x						
SB458B-08	Soil boring	Field	SB458	Main Industrial Area	10-12					x		x	x						
SB459A-08	Soil boring	Field	SB459	Main Industrial Area	0-2					x			x						
SB459B-08	Soil boring	Field	SB459	Main Industrial Area	4-6					x			x						
SB460A-08	Soil boring	Field	SB460	Main Industrial Area	0-2					x			x						
SB460B-08	Soil boring	Field	SB460	Main Industrial Area	6-8					x			x						
SB500A-08	Soil boring	Duplicate	SB406A	Near Building 100	0-2				x	x									
SB500B-08	Soil boring	Duplicate	SB406B	Near Building 100	26-28				x	x									
SB501A-08	Soil boring	Duplicate	SB412A	Northwest of Rolling Mill	0-2	x				x									
SB501B-08	Soil boring	Duplicate	SB412B	Northwest of Rolling Mill	8-10	x				x									
SB502A-08	Soil boring	Duplicate	SB423A	North Area	0-2	x	x	x	x	x				x					
SB502B-08	Soil boring	Duplicate	SB423B	North Area	8-10	x	x	x	x	x									
SB503A-08	Soil boring	Duplicate	SB434A	Inside Rolling Mill	0-2	x	x	x	x	x				x					
SB503B-08	Soil boring	Duplicate	SB434B	Inside Rolling Mill	8-10	x	x	x	x	x									
SB504A-08	Soil boring	Duplicate	SB444A	Northeast Periphery Area	0-2	x	x	x	x	x				x					
SB504B-08	Soil boring	Duplicate	SB444B	Northeast Periphery Area	8-10	x	x	x	x	x									
SB505A-08	Soil boring	Duplicate	SB452A	Main Industrial Area	0-2					x		x	x						
SB505B-08	Soil boring	Duplicate	SB452B	Main Industrial Area	0-2					x		x	x						
poly_1_001	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_002	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_003	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_004	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_005	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_006	Surface Soil	Field	poly_1[b]	North Area	0-1					x									x
poly_1_007	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_008	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_009	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_010	Surface Soil	Field	poly_1[b]	North Area	0-1					x									x
poly_1_011	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_012	Surface Soil	Field	poly_1[b]	North Area	0-1					x									x

Table 2.2.1-1
Phase I and II Sample Information For All Matrices
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Sample ID	Matrix	Sample Type	Station	Location	Depth (ft bgs)[a]	VOA	SVOA	Pest	PCB	Metals (Hg, CN)	Filtered Metals (Hg)	TCLP Metals	SPLP Metals	Asbestos	Total Hardness	PCB Field Kit	Bioassess-ibility	Bioavail-ability	XRF Screening
poly_1_013	Surface Soil	Field	poly_1[b]	North Area	0-1					x									x
poly_1_014	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_015	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_016	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_017	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_018	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_019	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_020	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_021	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_022	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_023	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_024	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_025	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_026	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_027	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_028	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_029	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_030	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_031	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_032	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_033	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_034	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_035	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_036	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_035	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_036	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_037	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_038	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_039	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_040	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_041	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_042	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_043	Surface Soil	Field	poly_1[b]	North Area	0-1					x									x
poly_1_044	Surface Soil	Field	poly_1[b]	North Area	0-1					x									x
poly_1_045	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_046	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_047	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_048	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_049	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_050	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_051	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_052	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_053	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_054	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_055	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_056	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_057	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_058	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_059	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_060	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_061	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_062	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_063	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_064	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_065	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_066	Surface Soil	Field	poly_1[b]	North Area	0-1														ns

Table 2.2.1-1
Phase I and II Sample Information For All Matrices
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Sample ID	Matrix	Sample Type	Station	Location	Depth (ft bgs)[a]	VOA	SVOA	Pest	PCB	Metals (Hg, CN)	Filtered Metals (Hg)	TCLP Metals	SPLP Metals	Asbestos	Total Hardness	PCB Field Kit	Bioassess-ibility	Bioavail-ability	XRF Screening
poly_1_067	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_068	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_069	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_070	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_071	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_072	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_073	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_074	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_075	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_076	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_077	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_078	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_079	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_080	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_081	Surface Soil	Field	poly_1[b]	North Area	0-1														ns
poly_1_082	Surface Soil	Field	poly_1[b]	North Area	0-1					x									x
poly_1_083	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_084	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_085	Surface Soil	Field	poly_1[b]	North Area	0-1					x									x
poly_1_086	Surface Soil	Field	poly_1[b]	North Area	0-1					x									x
poly_1_087	Surface Soil	Field	poly_1[b]	North Area	0-1					x									x
poly_1_088	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_089	Surface Soil	Field	poly_1[b]	North Area	0-1														x
poly_1_090	Surface Soil	Field	poly_1[b]	North Area	0-1					x									x
poly_1_091	Surface Soil	Field	poly_1[b]	North Area	0-1					x									x
poly_2_001	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														x
poly_2_002	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														x
poly_2_003	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_004	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_005	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_006	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														x
poly_2_007	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1					x									x
poly_2_008	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														x
poly_2_009	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1					x									x
poly_2_010	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_011	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_012	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_013	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_014	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1					x									x
poly_2_015	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1					x									x
poly_2_016	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1					x									x
poly_2_017	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1					x									x
poly_2_018	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_019	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_020	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_021	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_022	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_023	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														x
poly_2_024	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														x
poly_2_025	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1					x									x
poly_2_026	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														x
poly_2_027	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														x
poly_2_028	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_029	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns

Table 2.2.1-1
Phase I and II Sample Information For All Matrices
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Sample ID	Matrix	Sample Type	Station	Location	Depth (ft bgs)[a]	VOA	SVOA	Pest	PCB	Metals (Hg, CN)	Filtered Metals (Hg)	TCLP Metals	SPLP Metals	Asbestos	Total Hardness	PCB Field Kit	Bioassess-ibility	Bioavail-ability	XRF Screening
poly_2_030	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_031	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_032	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_033	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_034	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_035	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														x
poly_2_036	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														x
poly_2_037	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1					x									x
poly_2_038	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1					x									x
poly_2_039	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1					x									x
poly_2_040	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1					x									x
poly_2_041	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1					x									x
poly_2_042	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_043	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_044	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_045	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_046	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_047	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_048	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_049	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1					x									x
poly_2_050	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1					x									x
poly_2_051	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1					x									x
poly_2_052	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														x
poly_2_053	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														x
poly_2_052	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														x
poly_2_053	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														x
poly_2_054	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														x
poly_2_055	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1					x									x
poly_2_056	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														x
poly_2_057	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_058	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_059	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_060	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_061	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_062	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_063	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_064	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_065	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_066	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1					x									x
poly_2_067	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1					x									x
poly_2_068	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_069	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														x
poly_2_070	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														x
poly_2_071	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														x
poly_2_072	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														x
poly_2_073	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_074	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														x
poly_2_075	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_076	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_077	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1					x									x
poly_2_078	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_079	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														x
poly_2_080	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1					x									x
poly_2_081	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														x
poly_2_082	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_083	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns

Table 2.2.1-1
Phase I and II Sample Information For All Matrices
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Sample ID	Matrix	Sample Type	Station	Location	Depth (ft bgs)[a]	VOA	SVOA	Pest	PCB	Metals (Hg, CN)	Filtered Metals (Hg)	TCLP Metals	SPLP Metals	Asbestos	Total Hardness	PCB Field Kit	Bioassess-ibility	Bioavail-ability	XRF Screening
poly_2_084	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														x
poly_2_085	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1					x									x
poly_2_086	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														x
poly_2_087	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														x
poly_2_088	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														x
poly_2_089	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_090	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														ns
poly_2_091	Surface Soil	Field	poly_2[b]	Northeast Periphery Area	0-1														x
poly_3_001	Surface Soil	Field	poly_3[b]	Main Industrial Area - Central Eastern Area	0-1														x
poly_3_002	Surface Soil	Field	poly_3[b]	Main Industrial Area - Central Eastern Area	0-1														ns
poly_3_003	Surface Soil	Field	poly_3[b]	Main Industrial Area - Central Eastern Area	0-1														x
poly_3_004	Surface Soil	Field	poly_3[b]	Main Industrial Area - Central Eastern Area	0-1														x
poly_3_005	Surface Soil	Field	poly_3[b]	Main Industrial Area - Central Eastern Area	0-1														x
poly_3_006	Surface Soil	Field	poly_3[b]	Main Industrial Area - Central Eastern Area	0-1					x									x
poly_3_007	Surface Soil	Field	poly_3[b]	Main Industrial Area - Central Eastern Area	0-1														x
poly_3_008	Surface Soil	Field	poly_3[b]	Main Industrial Area - Central Eastern Area	0-1														x
poly_3_009	Surface Soil	Field	poly_3[b]	Main Industrial Area - Central Eastern Area	0-1					x									x
poly_3_010	Surface Soil	Field	poly_3[b]	Main Industrial Area - Central Eastern Area	0-1					x									x
poly_3_011	Surface Soil	Field	poly_3[b]	Main Industrial Area - Central Eastern Area	0-1					x									x
poly_3_012	Surface Soil	Field	poly_3[b]	Main Industrial Area - Central Eastern Area	0-1					x									x
poly_3_013	Surface Soil	Field	poly_3[b]	Main Industrial Area - Central Eastern Area	0-1					x									x
poly_3_014	Surface Soil	Field	poly_3[b]	Main Industrial Area - Central Eastern Area	0-1														x
poly_3_015	Surface Soil	Field	poly_3[b]	Main Industrial Area - Central Eastern Area	0-1					x									x
poly_4_001	Surface Soil	Field	poly_4[b]	Main Industrial Area - Southeastern Area	0-1					x									x
poly_4_002	Surface Soil	Field	poly_4[b]	Main Industrial Area - Southeastern Area	0-1					x									x
poly_4_003	Surface Soil	Field	poly_4[b]	Main Industrial Area - Southeastern Area	0-1					x									x
poly_4_004	Surface Soil	Field	poly_4[b]	Main Industrial Area - Southeastern Area	0-1					x									x
poly_4_005	Surface Soil	Field	poly_4[b]	Main Industrial Area - Southeastern Area	0-1					x									x
poly_4_006	Surface Soil	Field	poly_4[b]	Main Industrial Area - Southeastern Area	0-1														x
poly_4_007	Surface Soil	Field	poly_4[b]	Main Industrial Area - Southeastern Area	0-1														x
poly_4_008	Surface Soil	Field	poly_4[b]	Main Industrial Area - Southeastern Area	0-1					x									x
poly_4_009	Surface Soil	Field	poly_4[b]	Main Industrial Area - Southeastern Area	0-1														x
poly_4_010	Surface Soil	Field	poly_4[b]	Main Industrial Area - Southeastern Area	0-1					x									x
poly_4_011	Surface Soil	Field	poly_4[b]	Main Industrial Area - Southeastern Area	0-1					x									x
poly_4_012	Surface Soil	Field	poly_4[b]	Main Industrial Area - Southeastern Area	0-1														x
poly_4_013	Surface Soil	Field	poly_4[b]	Main Industrial Area - Southeastern Area	0-1														x
poly_5_001	Surface Soil	Field	poly_5[b]	Main Industrial Area - Western Area	0-1					x									x
poly_5_002	Surface Soil	Field	poly_5[b]	Main Industrial Area - Western Area	0-1														x
poly_5_003	Surface Soil	Field	poly_5[b]	Main Industrial Area - Western Area	0-1														x
poly_5_004	Surface Soil	Field	poly_5[b]	Main Industrial Area - Western Area	0-1														x
poly_5_005	Surface Soil	Field	poly_5[b]	Main Industrial Area - Western Area	0-1														x
poly_5_006	Surface Soil	Field	poly_5[b]	Main Industrial Area - Western Area	0-1														x
poly_5_007	Surface Soil	Field	poly_5[b]	Main Industrial Area - Western Area	0-1														x
poly_5_008	Surface Soil	Field	poly_5[b]	Main Industrial Area - Western Area	0-1					x									x
poly_5_009	Surface Soil	Field	poly_5[b]	Main Industrial Area - Western Area	0-1														x
poly_5_010	Surface Soil	Field	poly_5[b]	Main Industrial Area - Western Area	0-1														x
poly_5_011	Surface Soil	Field	poly_5[b]	Main Industrial Area - Western Area	0-1														x
poly_5_012	Surface Soil	Field	poly_5[b]	Main Industrial Area - Western Area	0-1														x
poly_5_013	Surface Soil	Field	poly_5[b]	Main Industrial Area - Western Area	0-1														x
poly_5_014	Surface Soil	Field	poly_5[b]	Main Industrial Area - Western Area	0-1														x
poly_5_015	Surface Soil	Field	poly_5[b]	Main Industrial Area - Western Area	0-1														x
poly_5_016	Surface Soil	Field	poly_5[b]	Main Industrial Area - Western Area	0-1														x
poly_5_017	Surface Soil	Field	poly_5[b]	Main Industrial Area - Western Area	0-1														x
poly_5_018	Surface Soil	Field	poly_5[b]	Main Industrial Area - Western Area	0-1														x

Table 2.2.1-1
Phase I and II Sample Information For All Matrices
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Sample ID	Matrix	Sample Type	Station	Location	Depth (ft bgs)[a]	VOA	SVOA	Pest	PCB	Metals (Hg, CN)	Filtered Metals (Hg)	TCLP Metals	SPLP Metals	Asbestos	Total Hardness	PCB Field Kit	Bioassess-ibility	Bioavail-ability	XRF Screening
poly_5_019	Surface Soil	Field	poly_5[b]	Main Industrial Area - Western Area	0-1					x									x
poly_5_020	Surface Soil	Field	poly_5[b]	Main Industrial Area - Western Area	0-1														x
poly_5_021	Surface Soil	Field	poly_5[b]	Main Industrial Area - Western Area	0-1														x
poly_5_022	Surface Soil	Field	poly_5[b]	Main Industrial Area - Western Area	0-1														x
poly_5_023	Surface Soil	Field	poly_5[b]	Main Industrial Area - Western Area	0-1														x
poly_5_024	Surface Soil	Field	poly_5[b]	Main Industrial Area - Western Area	0-1														ns
poly_6_001	Surface Soil	Field	poly_6[b]	Main Industrial Area - Southwestern Area	0-1														ns
poly_6_002	Surface Soil	Field	poly_6[b]	Main Industrial Area - Southwestern Area	0-1														x
poly_6_003	Surface Soil	Field	poly_6[b]	Main Industrial Area - Southwestern Area	0-1														x
poly_6_004	Surface Soil	Field	poly_6[b]	Main Industrial Area - Southwestern Area	0-1														x
poly_6_005	Surface Soil	Field	poly_6[b]	Main Industrial Area - Southwestern Area	0-1														x
poly_6_006	Surface Soil	Field	poly_6[b]	Main Industrial Area - Southwestern Area	0-1														x
poly_6_007	Surface Soil	Field	poly_6[b]	Main Industrial Area - Southwestern Area	0-1														x
poly_6_008	Surface Soil	Field	poly_6[b]	Main Industrial Area - Southwestern Area	0-1														x
poly_6_009	Surface Soil	Field	poly_6[b]	Main Industrial Area - Southwestern Area	0-1														x
poly_1_200	Surface Soil	Duplicate	poly_1[b]	Duplicate of poly_1_090	0-1					x									x
poly_2_200	Surface Soil	Duplicate	poly_2[3]	Duplicate of poly_2_037	0-1					x									x
poly_2_201	Surface Soil	Duplicate	poly_2[b]	Duplicate of poly_2_055	0-1					x									x
poly_3_200	Surface Soil	Duplicate	poly_3[b]	Duplicate of poly_3_009	0-1					x									x
poly_4_200	Surface Soil	Duplicate	poly_4[b]	Duplicate of poly_4_008	0-1					x									x
0408001	Surface Soil	Field	0408001	East of LVR	0-1					x									x
0408002	Surface Soil	Field	0408002	East of LVR	0-1					x									x
0408003	Surface Soil	Field	0408003	East of LVR	0-1					x									x
0408004	Surface Soil	Field	0408004	East of LVR	0-1					x									x
0408005	Surface Soil	Field	0408005	East of LVR	0-1					x									x
0408006	Surface Soil	Field	0408006	East of LVR	0-1					x									x
0408007	Surface Soil	Field	0408007	East of LVR	0-1					x									x
0408008	Surface Soil	Field	0408008	East of LVR	0-1					x									x
0408009	Surface Soil	Field	0408009	East of LVR	0-1					x									x
0408010	Surface Soil	Field	0408010	East of LVR	0-1					x									x
0408011	Surface Soil	Field	0408011	East of LVR	0-1					x									x
0408012	Surface Soil	Field	0408012	East of LVR	0-1					x									x
0408013	Surface Soil	Field	0408013	East of LVR	0-1					x									x
0408014	Surface Soil	Field	0408014	East of LVR	0-1					x									x
0408015	Surface Soil	Field	0408015	East of LVR	0-1					x									x
0408016	Surface Soil	Field	0408016	East of LVR	0-1					x									x
0408017	Surface Soil	Field	0408017	East of LVR	0-1					x									x
0408018	Surface Soil	Field	0408018	East of LVR	0-1					x									x
0408019	Surface Soil	Field	0408019	East of LVR	0-1					x									x
0408020	Surface Soil	Field	0408020	East of LVR	0-1					x									x
0408021	Surface Soil	Duplicate	0408001	Duplicate of 0408001	0-1					x									
0408022	Surface Soil	Duplicate	0408010	Duplicate of 0408010	0-1					x									
OCON_609	Surface Soil	Field	111001	609 O'Conor Avenue	0-0.5					x*									
STVI_2200	Surface Soil	Field	111003	2200 Saint Vincents Avenue	0-0.5					x*									
OCON_129	Surface Soil	Field	111004	129 O'Conor Avenue	0-0.5					x*									
GARF_431	Surface Soil	Field	111005	431 Garfield Avenue	0-0.5					x*									
JOLI_1522	Surface Soil	Field	111006	1522 North Joliet Street	0-0.5					x*									
NINT_505	Surface Soil	Field	111007	505 9th Street	0-0.5					x*									
LAFA_1233	Surface Soil	Field	111008	1233 Lafayette Street	0-0.5					x*									
FIFT_227	Surface Soil	Field	111010	227 Fifth Street	0-0.5					x*									
BUCK_36	Surface Soil	Field	111011	36 Buck Street	0-0.5					x*									
MARQ_1126	Surface Soil	Field	111012	1126 North Marquette Street	0-0.5					x*									
GOOD_650	Surface Soil	Field	111013	650 Gooding Street	0-0.5					x*									
PARK_1510	Surface Soil	Field	111014	1510 Park Avenue	0-0.5					x*									

Table 2.2.1-1
Phase I and II Sample Information For All Matrices
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Sample ID	Matrix	Sample Type	Station	Location	Depth (ft bgs)[a]	VOA	SVOA	Pest	PCB	Metals (Hg, CN)	Filtered Metals (Hg)	TCLP Metals	SPLP Metals	Asbestos	Total Hardness	PCB Field Kit	Bioassess-ibility	Bioavail-ability	XRF Screening
EIGH_955	Surface Soil	Field	111015	955 8th Street	0-0.5					x*									
LAUR_18	Surface Soil	Field	111016	18 Lauren Place	0-0.5					x*									
LAHA_226	Surface Soil	Field	111018	226 LaHarpe Street	0-0.5					x*									
CREV_1022	Surface Soil	Field	111021	1022 Creve Coeur	0-0.5					x*									
THIR_709	Surface Soil	Field	111022	709 3rd Street	0-0.5					x*									
GARF_653	Surface Soil	Field	111025	653 Garfield Avenue	0-0.5					x*									
BUCK_137	Surface Soil	Field	111026	137 Bucklin Avenue	0-0.5					x*									
LIND_1405	Surface Soil	Field	111028	1405 Linden Avenue	0-0.5					x*									
MARQ_902	Surface Soil	Field	111031	902 North Marquette Street	0-0.5					x*									
MALC_1728	Surface Soil	Field	111033	1728 Malcolm Avenue	0-0.5					x*									
BART_2222	Surface Soil	Field	111034	2222 Bartley Street	0-0.5					x*									
BUCK_1118	Surface Soil	Field	111035	1118 Bucklin Avenue	0-0.5					x*									
MALCD_1728	Surface Soil	Duplicate	111033	1728 Malcolm Avenue	0-0.5					x*									
GOODD_650	Surface Soil	Duplicate	111013	650 Gooding Street	0-0.5					x*									
LAFAD_1233	Surface Soil	Duplicate	111008	1233 Lafayette Street	0-0.5					x*									
SS001-08	Surface Soil	Field	SS001	Near Building 100 (Area D)	0-2												x		
SS002-08	Surface Soil	Field	SS002	Northwest of Rolling Mill (Area E)	0-2												x		
SS003-08	Surface Soil	Field	SS003	Main Industrial Area (Area A)	0-2												x		
SS004-08	Surface Soil	Field	SS004	Main Industrial Area (Area A)	0-2												x		
SS005-08	Surface Soil	Field	SS005	Main Industrial Area (Area A)	0-2												x		
SS006-08	Surface Soil	Field	SS006	North Area (Area B)	0-2												x		
SS007-08	Surface Soil	Field	SS007	North Area (Area B)	0-2												x		
SS008-08	Surface Soil	Field	SS008	Northeast Periphery Area (Area C)	0-2												x		
SS009-08	Surface Soil	Field	SS009	Northeast Periphery Area (Area C)	0-2												x		
SS010-08	Surface Soil	Field	SS010	Residential Area (Area F)	0-2												x		
SS011-08	Surface Soil	Field	SS011	Area East of River (Area G)	0-2												x		
SS012-08	Surface Soil	Field	SS012	Savannah	0-2					x*								x	
SS013-08	Surface Soil	Field	SS013	Savannah	0-2					x*								x	
SS014-08	Surface Soil	Field	SS014	Disturbed Woodland-Grassland	0-2					x*								x	
SS015-08	Surface Soil	Field	SS015	Disturbed Woodland-Grassland	0-2					x*								x	
SS016-08	Surface Soil	Field	SS016	Oak-Hickory Woodland	0-2					x*								x	
SS017-08	Surface Soil	Field	SS017	Savannah	0-2					x*								x	
SS018-08	Surface Soil	Field	SS018	Oak-Hickory Woodland	0-2					x*								x	
SS019-08	Surface Soil	Field	SS019	Disturbed Woodland-Grassland	0-2					x*								x	
SS020-08	Surface Soil	Field	SS020	Oak-Hickory Woodland	0-2					x*								x	
SS012-08	Worm	BA	SS012	Soil from Savannah	NA					x*								x	
SS013-08	Worm	BA	SS013	Soil from Savannah	NA					NS								x	
SS014-08	Worm	BA	SS014	Soil from Disturbed Woodland-Grassland	NA					x*								x	
SS015-08	Worm	BA	SS015	Soil from Disturbed Woodland-Grassland	NA					NS								x	
SS016-08	Worm	BA	SS016	Soil from Oak-Hickory Woodland	NA					x*								x	
SS017-08	Worm	BA	SS017	Soil from Savannah	NA					x*								x	
SS018-08	Worm	BA	SS018	Soil from Oak-Hickory Woodland	NA					x*								x	
SS019-08	Worm	BA	SS019	Soil from Disturbed Woodland-Grassland	NA					x*								x	
SS020-08	Worm	BA	SS020	Soil from Oak-Hickory Woodland	NA					x*								x	
VU001-0808	Vegetation	Field	V001	Savannah	0-2					x*								x	
VA001-0808	Vegetation	Field	V001	Savannah	0-2					x*								x	
VU002-0808	Vegetation	Field	V002	Savannah	0-2					x*								x	
VA002-0808	Vegetation	Field	V002	Savannah	0-2					x*								x	
VU003-0808	Vegetation	Field	V003	Oak-Hickory Woodland	0-2					x*								x	
VA003-0808	Vegetation	Field	V003	Oak-Hickory Woodland	0-2					x*								x	
VU004-0808	Vegetation	Field	V004	Disturbed Woodland-Grassland	0-2					x*								x	
VA004-0808	Vegetation	Field	V004	Disturbed Woodland-Grassland	0-2					x*								x	
VU005-0808	Vegetation	Field	V005	Disturbed Woodland-Grassland	0-2					x*								x	
VA005-0808	Vegetation	Field	V005	Disturbed Woodland-Grassland	0-2					x*								x	

Table 2.2.1-1
Phase I and II Sample Information For All Matrices
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Sample ID	Matrix	Sample Type	Station	Location	Depth (ft bgs)[a]	VOA	SVOA	Pest	PCB	Metals (Hg, CN)	Filtered Metals (Hg)	TCLP Metals	SPLP Metals	Asbestos	Total Hardness	PCB Field Kit	Bioassess-ibility	Bioavail-ability	XRF Screening
VU006-0808	Vegetation	Field	V006	Savannah	0-2					x*								x	
VA006-0808	Vegetation	Field	V006	Savannah	0-2					x*								x	
VU007-0808	Vegetation	Field	V007	Oak-Hickory Woodland	0-2					x*								x	
VA007-0808	Vegetation	Field	V007	Oak-Hickory Woodland	0-2					x*								x	
VU008-0808	Vegetation	Field	V008	Disturbed Woodland-Grassland	0-2					x*								x	
VA008-0808	Vegetation	Field	V008	Disturbed Woodland-Grassland	0-2					x*								x	
VU009-0808	Vegetation	Field	V009	Oak-Hickory Woodland	0-2					x*								x	
VA009-0808	Vegetation	Field	V009	Oak-Hickory Woodland	0-2					x*								x	
SS004-08DUP	Surface Soil	Duplicate	SS004	Main Industrial Area (Area A)	0-2												x		
SS016-08R1	Surface Soil	Duplicate	SS016	Oak-Hickory Woodland	0-2					x*								x	
SS016-08R1	Worm	Duplicate	SS016	Oak-Hickory Woodland	0-2					x*								x	
BM011K-08	Building Material[c]	Field	BM011	Ore Storage Building	NA		x	x	x	x				x					
BM012T-08	Building Material[c]	Field	BM012	Pottery Building	NA		x	x	x	x				x					
BM013Z-08	Building Material[c]	Field	BM013	Acid Reservoir 3	NA		x	x	x	x		x		x					
BM014T-08	Building Material[c]	Field	BM014	Acid Reservoir 4	NA		x	x	x	x				x					
BM015Z-08	Building Material[c]	Field	BM015	Systems 1 and 2	NA		x	x	x	x				x					
BM016C-08	Building Material[c]	Field	BM016	Systems 1 and 2	NA		x	x	x	x				x					
BM017C-08	Building Material[c]	Field	BM017	System 4	NA		x	x	x	x				x					
BM018K-08	Building Material[c]	Field	BM018	Refining Plant	NA		x	x	x	x				x					
BM019C-08	Building Material[c]	Field	BM019	Refining Plant	NA		x	x	x	x				x					
BM020K-08	Building Material[c]	Field	BM020	Building 100	NA		x	x	x	x				x					
BM021C-08	Building Material[c]	Field	BM021	Building 100	NA		x	x	x	x				x					
BM022K-08	Building Material[c]	Field	BM022	Locomotive Building (PCB Area)	NA		x	x	x	x				x					
BM023K-08	Building Material[c]	Field	BM023	System 5	NA		x	x	x	x				x					
BM024C-08	Building Material[c]	Field	BM024	System 5	NA		x	x	x	x				x					
BM025W-08	Building Material[c]	Field	BM025	Ore Storage	NA	x	x	x	x	x				x					
BM026K-08	Building Material[c]	Field	BM026	Ore Storage	NA		x	x	x	x				x					
BM027Z-08	Building Material[c]	Field	BM027	System 4	NA		x	x	x	x				x					
BM028C-08	Building Material[c]	Field	BM028	System 4/Kiln	NA		x	x	x	x		x		x					
BM029W-08	Building Material[c]	Field	BM029	System 3	NA	x	x	x	x	x				x					
BM030C-08	Building Material[c]	Field	BM030	Coke Crushing	NA		x	x	x	x				x					
BM031K-08	Building Material[c]	Field	BM031	Oxide Plant	NA		x	x	x	x				x					
BM032K-08	Building Material[c]	Field	BM032	Oxide Plant	NA		x	x	x	x				x					
BM033Z-08	Building Material[c]	Field	BM033	Tile Pile West of Acid Tanks	NA		x	x	x	x				x					
BM034T-08	Building Material[c]	Field	BM034	Top of Furnaces	NA		x	x	x	x				x					
BM035C-08	Building Material[c]	Field	BM035	Concentration Plant	NA		x	x	x	x				x					
BM036Z-08	Building Material[c]	Field	BM036	Building 101	NA		x	x	x	x				x					
BM037K-08	Building Material[c]	Field	BM037	Building 101	NA		x	x	x	x				x					
BM038C-08	Building Material[c]	Field	BM038	Top of Furnaces	NA		x	x	x	x				x					
BM039K-08	Building Material[c]	Field	BM039	Furnaces	NA		x	x	x	x				x					
BM040K-08	Building Material[c]	Field	BM040	South of System 4/Kilns/Outfall	NA		x	x	x	x				x					
BM041C-08	Building Material[c]	Field	BM041	Sintering Plant	NA		x	x	x	x				x					
BM042W-08	Building Material[c]	Field	BM042	Hoisting Engineer	NA	x	x	x	x	x		x		x					
BM043K-08	Building Material[c]	Field	BM043	Building 1943	NA		x	x	x	x				x					
BM044C-08	Building Material[c]	Field	BM044	Building 1943	NA		x	x	x	x				x					
BM045K-08	Building Material[c]	Field	BM045	Rolling Mill	NA		x	x	x	x				x					
BM046W-08	Building Material[c]	Field	BM046	Boiler House	NA	x	x	x	x	x				x					
BM047Z-08	Building Material[c]	Field	BM047	Rolling Mill	NA		x	x	x	x				x					
BM048C-08	Building Material[c]	Field	BM048	Rolling Mill	NA		x	x	x	x				x					
BM049K-08	Building Material[c]	Field	BM049	Office Building	NA		x	x	x	x		x		x					
BM050K-08	Building Material[c]	Field	BM050	Brick Pile East of Acid Reservoir 8	NA		x	x	x	x				x					
BM051C-08	Building Material[c]	Field	BM051	Acid Tank	NA		x	x	x	x				x					
BM052C-08	Building Material[c]	Field	BM052	Acid Tank	NA		x	x	x	x				x					
BM053K-08	Building Material[c]	Field	BM053	Top of Furnaces	NA		x	x	x	x				x					

Table 2.2.1-1
Phase I and II Sample Information For All Matrices
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Sample ID	Matrix	Sample Type	Station	Location	Depth (ft bgs)[a]	VOA	SVOA	Pest	PCB	Metals (Hg, CN)	Filtered Metals (Hg)	TCLP Metals	SPLP Metals	Asbestos	Total Hardness	PCB Field Kit	Bioassess-ibility	Bioavail-ability	XRF Screening
BM054C-08	Building Material[c]	Field	BM054	Acid Tank	NA		x	x	x	x				x					
BM055C-08	Building Material[c]	Field	BM055	Acid Reservoir 9	NA		x	x	x	x				x					
BM056Z-08	Building Material[c]	Field	BM056	Acid Reservoir 7	NA		x	x	x	x				x					
BM057K-08	Building Material[c]	Field	BM057	Acid Reservoir 6	NA		x	x	x	x				x					
BM058W-08	Building Material[c]	Field	BM058	Wood Pile North of Acid Tanks	NA	x	x	x	x	x				x					
BM059K-08	Building Material[c]	Field	BM059	Brick Pile East of Acid Reservoir 8	NA		x	x	x	x		x		x					
BM060Z-08	Building Material[c]	Field	BM060	Pump House	NA		x	x	x	x				x					
BM200T-08	Building Material[c]	Duplicate	BM012	Pottery Building	NA		x	x	x	x				x					
BM201Z-08	Building Material[c]	Duplicate	BM015	Systems 1 and 2	NA		x	x	x	x				x					
BM202C-08	Building Material[c]	Duplicate	BM030	System 3 - Coke Crushing	NA		x	x	x	x				x					
BM203K-08	Building Material[c]	Duplicate	BM039	Furnaces	NA		x	x	x	x				x					
BM204C-08	Building Material[c]	Duplicate	BM052	Acid Tank	NA		x	x	x	x				x					
MW19-mm08	Groundwater[d]	Field	MW-19	East of Main Industrial Area	NA	x	x	x	x	x									
MW20-mm08	Groundwater[d]	Field	MW-20	East of Main Industrial Area	NA	x	x	x	x	x									
MW21-mm08	Groundwater[d]	Field	MW-21	Next to Pump House	NA	x	x	x	x	x									
MW22-mm08	Groundwater[d]	Field	MW-22	North Area	NA	x	x	x	x	x									
MW23-mm08	Groundwater[d]	Field	MW-23	Main Industrial Area	NA	x	x	x	x	x									
MW24-mm08	Groundwater[d]	Field	MW-24	Main Industrial Area	NA	x	x	x	x	x									
MW25-mm08	Groundwater[d]	Field	MW-25	Main Industrial Area	NA	x	x	x	x	x									
MW26-mm08	Groundwater[d]	Field	MW-26	Western Border	NA	x	x	x	x	x									
MW27-mm08	Groundwater[d]	Field	MW-27	Building 100	NA	x	x	x	x	x									
MW28-mm08	Groundwater[d]	Field	MW-28	East of Building 100	NA	x	x	x	x	x									
MW29-mm08	Groundwater[d]	Field	MW-29	Western Border near Rolling Mill	NA	x	x	x	x	x									
MW30-mm08	Groundwater[d]	Field	MW-30	North of Rolling Mill	NA	x	x	x	x	x									
MW31-mm08	Groundwater[d]	Field	MW-31	North of Rolling Mill	NA	x	x	x	x	x									
MW32-mm08	Groundwater[d]	Field	MW-32	East of Rolling Mill	NA	x	x	x	x	x									
MW33-mm08	Groundwater[d]	Field	MW-33	East of Rolling Mill	NA	x	x	x	x	x									
MW34-mm08	Groundwater[d]	Field	MW-34	South of Rolling Mill	NA	x	x	x	x	x									
MW35-mm08	Groundwater[d]	Field	MW-35	North Area	NA	x	x	x	x	x									
SW010-0708	Surface Water	Field	SW010	Ponded Water South of Building 100	NA	x	x	x	x	x									
SW011-0708	Surface Water	Field	SW011	Outflow from Main Industrial Area	NA	x	x	x	x	x									
SW012-0708	Surface Water	Field	SW012	Mouth - Abandoned Sewer Creek	NA	x	x	x	x	x									
SW013-0708	Surface Water	Field	SW013	Teminus - Abandoned Sewer Creek	NA	x	x	x	x	x									
SW014-0708	Surface Water	Field	SW014	North Area Standing Water	NA	x	x	x	x	x									
SW011-1008	Surface Water	Field	SW011	Outflow from Main Industrial Area	NA	x	x	x	x	x	x				x				
SW012-1008	Surface Water	Field	SW012	Mouth - Abandoned Sewer Creek	NA	x	x	x	x	x	x				x				
SW013-1008	Surface Water	Field	SW013	Teminus - Abandoned Sewer Creek	NA	x	x	x	x	x	x				x				
SW014-1008	Surface Water	Field	SW014	North Area Standing Water	NA	x	x	x	x	x	x				x				
SW018-1008	Surface Water	Field	SW018	Acid Reservoir	NA	x	x	x	x	x	x				x				
SW050-0708	Surface Water	Duplicate	SW014	North Area Standing Water	NA	x	x	x	x	x									
SW050-1008	Surface Water	Duplicate	SW011	North Area Standing Water	NA	x	x	x	x	x	x				x				
AsbAir1	Passive Air Sample	Field	AbsAir1	Main Industrial Area	NA									x					
AsbAir2	Passive Air Sample	Field	AbsAir2	Main Industrial Area	NA									x					
AsbAir3	Passive Air Sample	Field	AbsAir3	Inside Rolling Mill	NA									x					
AsbAir4	Passive Air Sample	Field	AbsAir4	Inside Rolling Mill	NA									x					
AbsAir6-Low	ABS Air-low flow	Field	AbsAir6-Low	West of Building 100	NA									x					
AbsAir6-High	ABS Air-high flow	Field	AbsAir6-High	West of Building 100	NA									x					
AbsAir8-Low	ABS Air-low flow	Field	AbsAir8-Low	West of Deep Pump House	NA									x					
AbsAir8-High	ABS Air-high flow	Field	AbsAir8-High	West of Deep Pump House	NA									x					
PS1	ABS Perimeter Air	Field	PS1	Southwestern side of OU2 (perimeter)	NA									x					
PS2	ABS Perimeter Air	Field	PS2	Western side of OU2 (perimeter)	NA									x					
PS3	ABS Perimeter Air	Field	PS3	Northeastern portion of OU2	NA									x					
PS4	ABS Perimeter Air	Field	PS4	Southern side of OU2 (perimeter)	NA									x					
B1	ABS Background	Field	B1	LaSalle Fire Department	NA									x					
BG1-1A	Soil Boring	Field	BG1-1	Matthiessen Park	0-2		x			x									

Table 2.2.1-1
Phase I and II Sample Information For All Matrices
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Sample ID	Matrix	Sample Type	Station	Location	Depth (ft bgs)[a]	VOA	SVOA	Pest	PCB	Metals (Hg, CN)	Filtered Metals (Hg)	TCLP Metals	SPLP Metals	Asbestos	Total Hardness	PCB Field Kit	Bioassess-ibility	Bioavail-ability	XRF Screening
BG1-1B	Soil Boring	Field	BG1-1	Matthiessen Park	8-10		x			x									
BG1-2A	Soil Boring	Field	BG1-2	Matthiessen Park	0-2		x			x									
BG1-2B	Soil Boring	Field	BG1-2	Matthiessen Park	8-10		x			x									
MPBG-1A	Soil Boring	Field	MPBG-1	Matthiessen Park	0-2		x			x									
MPBG-1B	Soil Boring	Field	MPBG-1	Matthiessen Park	2-4		x			x									
MPBG-2A	Soil Boring	Field	MPBG-2	Matthiessen Park	0-2		x			x									
MPBG-2B	Soil Boring	Field	MPBG-2	Matthiessen Park	8-10		x			x									
BG2-1A	Soil Boring	Field	BG2-1	Hegeler Park	0-2		x			x									
BG2-1B	Soil Boring	Field	BG2-1	Hegeler Park	2-4		x			x									
BG2-2A	Soil Boring	Field	BG2-2	Hegeler Park	0-2		x			x									
BG2-2B	Soil Boring	Field	BG2-2	Hegeler Park	2-4		x			x									
HPBG-1A	Soil Boring	Field	HPBG-1	Hegeler Park	0-2		x			x									
HPBG-1B	Soil Boring	Field	HPBG-1	Hegeler Park	4-5.5		x			x									
HPBG-2A	Soil Boring	Field	HPBG-2	Hegeler Park	0-2		x			x									
HPBG-2B	Soil Boring	Field	HPBG-2	Hegeler Park	8-10		x			x									
BG3-1A	Soil Boring	Field	BG3-1	Pulaski Park	0-2		x			x									
BG3-1B	Soil Boring	Field	BG3-1	Pulaski Park	8-10		x			x									
BG3-2A	Soil Boring	Field	BG3-2	Pulaski Park	0-2		x			x									
BG3-2B	Soil Boring	Field	BG3-2	Pulaski Park	8-10		x			x									
PPBG-1A	Soil Boring	Field	PPBG-1	Pulaski Park	0-2		x			x									
PPBG-1B	Soil Boring	Field	PPBG-1	Pulaski Park	8-10		x			x									
BG4-1A	Soil Boring	Field	BG4-1	4th Street Park	0-2		x			x									
BG4-1B	Soil Boring	Field	BG4-1	4th Street Park	8-10		x			x									
BG4-2A	Soil Boring	Field	BG4-2	4th Street Park	0-2		x			x									
BG4-2B	Soil Boring	Field	BG4-2	4th Street Park	8-10		x			x									
BG5-1A	Soil Boring	Field	BG5-1	Washington Park	0-2		x			x									
BG5-1B	Soil Boring	Field	BG5-1	Washington Park	8-10		x			x									
BG5-2A	Soil Boring	Field	BG5-2	Washington Park	0-2		x			x									
BG5-2B	Soil Boring	Field	BG5-2	Washington Park	8-10		x			x									
WPBG-1A	Soil Boring	Field	WPBG-1	Washington Park	0-2		x			x									
WPBG-1B	Soil Boring	Field	WPBG-1	Washington Park	8-10		x			x									
FDBG-1A	Soil Boring	Field	FDBG-1	Peru Fire Department	0-2		x			x									
FDBG-1B	Soil Boring	Field	FDBG-1	Peru Fire Department	6-8		x			x									
FDBG-2A	Soil Boring	Field	FDBG-2	Peru Fire Department	0-2		x			x									
FDBG-2B	Soil Boring	Field	FDBG-2	Peru Fire Department	6-8		x			x									
BG6-1A	Soil Boring	Duplicate	BG5-2	Washington Park	0-2		x			x									
BG6-2B	Soil Boring	Duplicate	BG5-2	Washington Park	8-10		x			x									
FDBG-3A	Soil Boring	Duplicate	FDBG-1	Peru Fire Department	0-2		x			x									
FDBG-3B	Soil Boring	Duplicate	FDBG-1	Peru Fire Department	6-8														

Section 2.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 2.2.1-1

Notes:

A	Surface sample 0 to 2 ft bgs
ABS	Activity Based Sampling
B	Subsurface sampling depth greater than 2 ft bgs; a specific 2-ft interval was determined in the field as described in the RI report, Section 2.2.1
BA	28-Day Bioaccumulation sample at laboratory
bgs	Below ground surface
BM	Building material
CN	Cyanide
ft	Feet
Hg	Mercury
ID	Identification
mm	Two-digit month number
MW	Monitoring well
NA	Not applicable
NS	No survival of worms from the bioaccumulation study
ns	Not screened; sample originally part of sample grid, but in-the-field decisions were made from July 28 to 30, 2008, to not screen this location
P	Pile\surface soil
PCB	Polychlorinated biphenyl
Pest	Pesticides
SB	Soil boring
SPLP	Synthetic precipitation leaching procedure
SS	Soil sample
SVOA	Semivolatile organic analysis
SW	Surface water
TBD	To be determined
TCLP	Toxicity characteristic leaching procedure
VOA	Volatile organic analysis
x*	Sample not analyzed for cyanide
XRF	X-ray fluorescence
a	Groundwater samples were collected on a quarterly basis from November 2007 through September 2008 for the analytes indicated. Starting in December 2008, the analytes were changed to conform with the groundwater technical memorandum.
b	poly_1, poly_2, etc., refer to polygon 1, polygon 2, etc., in gridded sampling areas throughout OU2 for the XRF screening and surface soil sampling effort.
c	Sample IDs for building materials include substrate/material composition: K=Brick, C=Concrete, W=Wood, T=Stone, Z = Other
d	Samples were collected for analysis for VOCs, SVOCs, pesticides, PCBs, total metals, and CN during the initial quarterly event in September 2008. After the initial quarterly sampling event, samples analyzed for metals were filtered in the field and analyzed for dissolved metals.

Table 2.2.1-2a
Phase I Soil Boring Depths, Sampled Intervals, and Lithologies
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Sampling Date	Soil Boring	A or B	Total Depth (ft bgs)	Sampled Interval (ft bgs)	Lithology
7/16/2007	SB001	A	12	0-2	Native
7/16/2007	**SB001**	**B**		**8-10**	Sinter
7/16/2007	SB002	A	12	0-2	Sinter and Fill
7/16/2007	**SB002**	**B**		**8-10**	Sinter and Fill
7/16/2007	SB003	A	12	0-2	Sinter and Slag and Fill
7/16/2007	**SB003**	**B**		**8-10**	Native
7/17/2007	SB004	A	12	0-2	Sinter and Slag and Native
7/17/2007	**SB004**	**B**		**8-10**	Sinter and Slag
7/24/2007	SB005	A	12	0-2	Native
7/24/2007	**SB005**	**B**		**6-8**	Slag
7/17/2007	SB006	A	12	0-2	Sinter
7/17/2007	**SB006**	**B**		**4-6**	Fill
8/1/2007	SB007	A	12	0-2	Slag and Native
8/1/2007	**SB007**	**B**		**8-10**	Native
7/17/2007	SB008	A	12	0-2	Sinter and Slag
7/17/2007	**SB008**	**B**		**4-6**	Native
7/17/2007	SB009	A	12	0-2	Sinter and Native
7/17/2007	**SB009**	**B**		**2-4**	Native
7/20/2007	SB010	A	12	0-2	Native
7/20/2007	**SB010**	**B**		**8-10**	Native
7/20/2007	SB011	A	12	0-2	Native
7/20/2007	**SB011**	**B**		**8-10**	Native
7/20/2007	SB012	A	12	0-2	Native
7/20/2007	**SB012**	**B**		**8-10**	Native
7/16/2007	SB013	A	12	0-2	Native
7/16/2007	**SB013**	**B**		**8-10**	Native
7/17/2007	SB014	A	12	0-2	Sinter and Slag
7/17/2007	**SB014**	**B**		**8-10**	Sinter and Slag and Fill
7/17/2007	SB015	A	12	0-2	Sinter and Slag
7/17/2007	**SB015**	**B**		**8-10**	Sinter
7/31/2007	SB016	A	12	0-2	Slag and Fill
7/31/2007	**SB016**	**B**		**4-6**	Sinter and Slag and Fill
8/1/2007	SB017	A	12	0-2	Sinter and Slag
8/1/2007	**SB017**	**B**		**8-10**	Native
7/17/2007	SB018	A	12	0-2	Sinter and Slag
7/17/2007	**SB018**	**B**		**8-10**	Sinter and Slag and Native
7/16/2007	SB019	A	7	0-2	Sinter and Slag
7/16/2007	**SB019**	**B**		**5-7**	Sinter and Slag
7/31/2007	SB020	A	12	0-2	Native
7/31/2007	**SB020**	**B**		**5-7**	Native
7/31/2007	SB021	A	12	0-2	Native
7/31/2007	**SB021**	**B**		**4-6**	Native
7/31/2007	SB022	A	7	0-2	Sinter
7/31/2007	**SB022**	**B**		**4-6**	Native
7/19/2007	SB023	A	12	0-2	Fill
7/19/2007	**SB023**	**B**		**8-10**	Fill
7/19/2007	SB024	A	12	0-2	Native and Fill
7/19/2007	**SB024**	**B**		**8-10**	Native and Fill
8/10/2007	SB025	A	12	0-2	Native
8/10/2007	**SB025**	**B**		**8-10**	Native
7/19/2007	SB026	A	12	0-2	Fill
7/19/2007	**SB026**	**B**		**8-10**	Native
8/3/2007	SB027	A	12	0-2	Native
8/3/2007	**SB027**	**B**		**6-8**	Native
8/3/2007	SB028	A	12	0-2	Sinter and Slag and Native
8/3/2007	**SB028**	**B**		**6-8**	Native
8/3/2007	SB029	A	12	0-2	Native
8/3/2007	**SB029**	**B**		**6-8**	Native
8/3/2007	SB030	A	12	0-2	Slag and Native
8/3/2007	**SB030**	**B**		**5-7**	Native
7/31/2007	SB031	A	7	0-2	Fill
8/3/2007	SB032	A	12	0-2	Sinter and Slag and Fill
8/3/2007	SB033	A	2	0-2	Native and Fill
7/31/2007	SB034	A	12	0-2	Sinter and Slag
7/31/2007	**SB034**	**B**		**8-10**	Sinter and Slag and Fill
8/9/2007	SB035	A	12	0-2	Fill
8/9/2007	**SB035**	**B**		**8-10**	Native
7/23/2007	SB036	A	12	0-2	Fill
7/23/2007	**SB036**	**B**		**8-10**	Native
7/20/2007	SB037	A	12	0-2	Native
7/20/2007	**SB037**	**B**		**8-10**	Native
7/20/2007	SB038	A	12	0-2	Native
7/20/2007	**SB038**	**B**		**2-4**	Sinter and Slag
7/20/2007	SB039	A	12	0-2	Sinter and Slag
7/20/2007	**SB039**	**B**		**8-10**	Native
8/1/2007	SB040	A	12	0-2	Sinter and Fill
8/1/2007	**SB040**	**B**		**6-8**	Native
7/20/2007	SB041	A	12	0-2	Native
7/20/2007	**SB041**	**B**		**9-11**	Native
7/20/2007	SB042	A	12	0-2	Fill
7/20/2007	**SB042**	**B**		**8-10**	Native
7/23/2007	SB043	A	10.5	0-2	Fill
7/23/2007	**SB043**	**B**		**4-5**	Sinter and Slag
7/23/2007	SB044	A	12	0-2	Fill
7/23/2007	**SB044**	**B**		**8-10**	Sinter and Slag and Native
7/23/2007	SB045	A	12	0-2	Fill
7/23/2007	**SB045**	**B**		**8-10**	Native

Table 2.2.1-2a
Phase I Soil Boring Depths, Sampled Intervals, and Lithologies
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Sampling Date	Soil Boring	A or B	Total Depth (ft bgs)	Sampled Interval (ft bgs)	Lithology
7/23/2007	SB046	A	12	0-2	Sinter and Native
7/23/2007	**SB046**	**B**		**8-10**	Native
7/20/2007	SB047	A	12	0-2	Sinter and Slag
7/20/2007	**SB047**	**B**		**9-11**	Native
7/20/2007	SB048	A	12	0-2	Sinter and Slag and Native
7/20/2007	**SB048**	**B**		**9-11**	Native
8/1/2007	SB049	A	12	0-2	Sinter and Native
8/1/2007	**SB049**	**B**		**5-7**	Native
8/1/2007	SB050	A	12	0-2	Slag and Native
8/1/2007	**SB050**	**B**		**8-10**	Native
8/1/2007	SB051	A	12	0-2	Native
8/1/2007	**SB051**	**B**		**4-6**	Native
8/2/2007	SB052	A	12	0-2	Native
8/2/2007	**SB052**	**B**		**8-10**	Native
8/1/2007	SB053	A	8	0-2	Fill
8/1/2007	**SB053**	**B**		**6-8**	Native
8/1/2007	SB054	A	7	0-2	Fill
8/1/2007	**SB054**	**B**		**4-6**	Native
8/1/2007	SB055	A	7	0-2	Fill
8/1/2007	**SB055**	**B**		**4-6**	Slag and Native and Fill
8/1/2007	SB056	A	12	0-2	Sinter and Slag
8/1/2007	**SB056**	**B**		**8-10**	Sinter and Slag and Native
8/2/2007	SB057	A	7	0-2	Fill
8/2/2007	**SB057**	**B**		**4-6**	Fill
8/2/2007	SB058	A	7	0-2	Native
8/2/2007	**SB058**	**B**		**4-6**	Native
8/1/2007	SB059	A	12	0-2	Native and Fill
8/1/2007	**SB059**	**B**		**8-10**	Native
8/1/2007	SB060	A	12	0-2	Native
8/1/2007	**SB060**	**B**		**8-10**	Native
8/7/2007	SB061	A	12	0-2	Slag and Native
8/7/2007	**SB061**	**B**		**8-10**	Native
8/7/2007	SB062	A	2	0-2	Fill
8/7/2007	SB063	A	12	0-2	Native
8/7/2007	**SB063**	**B**		**4-6**	Native
8/7/2007	SB064	A	12	0-2	Native and Fill
8/7/2007	**SB064**	**B**		**8-10**	Native
8/7/2007	SB065	A	12	0-2	Native and Fill
8/7/2007	**SB065**	**B**		**8-10**	Native and Fill
8/7/2007	SB066	A	12	0-2	Native
8/7/2007	**SB066**	**B**		**8-10**	Native
7/31/2007	SB067	A	12	0-2	Native and Fill
7/31/2007	**SB067**	**B**		**4-6**	Native
7/31/2007	SB068	A	12	0-2	Native
7/31/2007	**SB068**	**B**		**10-12**	Native
7/31/2007	SB069	A	12	0-2	Native
7/31/2007	**SB069**	**B**		**8-10**	Native
7/31/2007	SB070	A	12	0-2	Native and Fill
8/2/2007	SB071	A		0-2	Sinter and Slag
8/2/2007	**SB071**	**B**	12	**6-8**	Native
8/2/2007	SB072	A		0-2	Fill
8/2/2007	**SB072**	**B**	12	**6-8**	Native
8/2/2007	SB073	A		0-2	Slag
8/2/2007	SB074	A	12	0-2	Sinter and Slag
8/2/2007	**SB074**	**B**		**4-6**	Sinter and Slag and Native
8/2/2007	SB075	A	12	0-2	Slag
8/2/2007	**SB075**	**B**		**8-10**	Native
8/2/2007	SB076	A	12	0-2	Sinter and Slag
8/2/2007	**SB076**	**B**		**4-6**	Sinter and Slag
7/24/2007	SB077	A	12	0-2	
7/24/2007	**SB077**	**B**		**4-6**	Native
7/24/2007	SB078	A	12	0-2	Sinter and Slag
7/24/2007	**SB078**	**B**		**8-10**	Native
7/24/2007	SB079	A	12	0-2	Sinter
7/24/2007	**SB079**	**B**		**6-8**	Slag
7/24/2007	SB080	A	12	0-2	Native
7/24/2007	**SB080**	**B**		**8-10**	Native
7/24/2007	SB081	A	12	0-2	Sinter and Slag
7/24/2007	**SB081**	**B**		**4-5**	Fill
7/24/2007	SB082	A	16	0-2	Slag and Native
7/24/2007	**SB082**	**B**		**10-12**	Fill
7/24/2007	SB083	A	12	0-2	Sinter and Slag
7/24/2007	**SB083**	**B**		**8-10**	Fill
7/24/2007	SB084	A		0-2	Native
7/24/2007	**SB084**	**B**		**8-10**	Native
7/25/2007	SB085	A	12	0-2	Fill
7/25/2007	**SB085**	**B**		**8-10**	Native
7/25/2007	SB086	A	12	0-2	Fill
7/25/2007	**SB086**	**B**		**8-10**	Native
7/25/2007	SB087	A	12	0-2	Slag and Native
7/25/2007	**SB087**	**B**		**4-6**	Native
7/25/2007	SB088	A	12	0-2	Native
7/25/2007	SB089	A	20	0-2	Slag and Native
7/25/2007	SB090	A	12	0-2	Fill
7/25/2007	SB091	A	12	0-2	Fill and Native
7/25/2007	SB092	A	12	0-2	Sinter and Slag
7/25/2007	**SB092**	**B**		**4-6**	Native

Table 2.2.1-2a
Phase I Soil Boring Depths, Sampled Intervals, and Lithologies
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Sampling Date	Soil Boring	A or B	Total Depth (ft bgs)	Sampled Interval (ft bgs)	Lithology
7/25/2007	SB093	A	2	0-2	Fill
7/25/2007	SB094	A	8.5	0-2	Fill
7/25/2007	**SB094**	**B**		**6-8**	Native
7/26/2007	SB095	A	12	0-2	Fill and Slag
7/26/2007	**SB095**	**B**		**8-10**	Fill
7/26/2007	SB096	A	12	0-2	Fill
7/26/2007	**SB096**	**B**		**8-10**	Fill
7/26/2007	SB097	A	12	0-2	Fill and Native
7/26/2007	**SB097**	**B**		**8-10**	Fill and Native
7/26/2007	SB098	A	6	0-2	Fill
7/26/2007	SB099	A	7	0-2	Fill
7/26/2007	**SB099**	**B**		**4-6**	Native
7/23/2007	SB100	A	9	0-2	Sinter and Slag
7/23/2007	**SB100**	**B**		**6-8**	Native
7/25/2007	SB101	A	12	0-2	Fill
7/25/2007	**SB101**	**B**		**8-10**	Native
7/23/2007	SB102	A	12	0-2	Native
7/23/2007	**SB102**	**B**		**4-6**	Native
7/23/2007	SB103	A	12	0-2	Fill
7/23/2007	**SB103**	**B**		**6-8**	Native
7/24/2007	SB104	A	12	0-2	Native
7/24/2007	**SB104**	**B**		**8-10**	Native
7/24/2007	SB105	A	12	0-2	Native and Slag
7/24/2007	**SB105**	**B**		**4-6**	Fill
7/24/2007	SB106	A	12	0-2	Sinter and Slag
7/24/2007	**SB106**	**B**		**8-10**	Native
8/8/2007	SB107	A	12	0-2	Fill
8/8/2007	**SB107**	**B**		**8-10**	Sinter
8/8/2007	SB108	A	12	0-2	Fill
8/8/2007	**SB108**	**B**		**8-10**	Native
8/8/2007	SB109	A	12	0-2	Native
8/8/2007	**SB109**	**B**		**8-10**	Native
8/8/2007	SB110	A	12	0-2	Native
8/8/2007	**SB110**	**B**		**8-10**	Native
8/8/2007	SB111	A	12	0-2	Fill
8/8/2007	**SB111**	**B**		**8-10**	Native
7/31/2007	SB112	A	12	0-2	Native
7/31/2007	**SB112**	**B**		**8-10**	Native
7/31/2007	SB113	A	4	0-2	Native
8/8/2007	SB114	A	12	0-2	Native
8/8/2007	**SB114**	**B**		**8-10**	Native and Fill
8/8/2007	SB115	A	12	0-2	Native
8/8/2007	**SB115**	**B**		**8-10**	Native
7/25/2007	SB116	A	12	0-2	Native and Fill
7/25/2007	**SB116**	**B**		**8-10**	Slag
8/15/2007	SB117	A	2	0-2	Slag and Native
8/15/2007	SB118	A	3	0-2	Slag
8/15/2007	SB119	A	4	0-2	Sinter and Slag
8/9/2007	SB120	A	4	0-2	Fill
8/9/2007	SB121	A	5	0-2	Native
8/9/2007	SB122	A	4	0-2	Native and Fill
8/9/2007	SB123	A	8	0-2	Native and Fill
8/9/2007	**SB123**	**B**		**8-10**	Native
8/9/2007	SB124	A	12	0-2	Fill and Native
8/9/2007	**SB124**	**B**		**4-6**	Native
8/10/2007	SB125	A	12	0-2	Fill
8/10/2007	**SB125**	**B**		**6-8**	Native
8/10/2007	SB126	A	12	0-2	Fill
8/10/2007	**SB126**	**B**		**4-6**	Fill
7/30/2007	SB127	A	12	0-2	Fill
7/30/2007	**SB127**	**B**		**8-10**	Fill and Native
7/30/2007	SB128	A	12	0-2	Fill
7/30/2007	**SB128**	**B**		**8-10**	Fill
7/30/2007	SB129	A	12	0-2	Fill
7/30/2007	**SB129**	**B**		**4-6**	Native
7/30/2007	SB130	A	12	0-2	Native
7/30/2007	**SB130**	**B**		**8-10**	Fill
7/30/2007	SB131	A	16	0-2	Fill
7/30/2007	**SB131**	**B**		**4-6**	Fill
7/30/2007	SB132	A	12	0-2	Fill
7/30/2007	**SB132**	**B**		**8-10**	Fill
7/27/2007	SB133	A	12	0-2	Fill and Native
7/27/2007	**SB133**	**B**		**8-10**	Native
7/26/2007	SB134	A	12	0-2	Native
7/26/2007	**SB134**	**B**		**4-6**	Sinter and Slag
7/30/2007	SB135	A	12	0-2	Fill
7/30/2007	**SB135**	**B**		**8-10**	Fill
7/30/2007	SB136	A	7	0-2	Fill
7/30/2007	**SB136**	**B**		**4-6**	Fill
7/30/2007	SB137	A	6	0-2	Fill
7/30/2007	**SB137**	**B**		**4-6**	Fill
7/30/2007	SB138	A	12	0-2	Fill
7/30/2007	**SB138**	**B**		**8-10**	Fill
8/14/2007	SB139	A	12	0-2	Slag
8/14/2007	**SB139**	**B**		**8-10**	Slag
7/26/2007	SB140	A	12	0-2	Sinter and Slag and Native
7/26/2007	**SB140**	**B**		**8-10**	Native

Table 2.2.1-2a
Phase I Soil Boring Depths, Sampled Intervals, and Lithologies
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Sampling Date	Soil Boring	A or B	Total Depth (ft bgs)	Sampled Interval (ft bgs)	Lithology
8/14/2007	SB141	A	12	0-2	Native
8/14/2007	**SB141**	**B**		**8-10**	Native
8/14/2007	SB142	A	12	0-2	Native
8/14/2007	**SB142**	**B**		**6-8**	Native
7/27/2007	SB143	A	12	0-2	Native
7/27/2007	**SB143**	**B**		**8-10**	Native
7/27/2007	SB144	A	12	0-2	Native and Fill
7/27/2007	**SB144**	**B**		**8-10**	Native
8/14/2007	SB145	A	12	0-2	Native
8/14/2007	**SB145**	**B**		**6-8**	Native
8/3/2007	SB153	A	2	0-2	Native
8/8/2007	SB154	A	8	0-2	Native
8/8/2007	**SB154**	**B**		**6-8**	Native
8/14/2007	SB155	A	12	0-2	Native and Fill
8/14/2007	**SB155**	**B**		**8-10**	Fill
8/10/2007	SB156	A	12	0-2	Native and Fill
8/10/2007	**SB156**	**B**		**8-10**	Native
8/10/2007	SB157	A	12	0-2	Native
8/10/2007	**SB157**	**B**		**8-10**	Native
8/16/2007	SB158	A	12	0-2	Slag and Native
8/16/2007	**SB158**	**B**		**8-10**	Slag
7/26/2007	SB160	A	12	0-2	Fill
7/26/2007	**SB160**	**B**		**8-10**	Native and Fill
7/26/2007	SB161	A	12	0-2	Sinter and Slag
7/26/2007	**SB161**	**B**		**4-6**	Sinter and Slag and Fill
7/25/2007	SB162	A	12	0-2	Sinter and Slag
7/25/2007	**SB162**	**B**		**4-6**	Sinter and Slag
7/26/2007	SB163	A	12	0-2	Sinter and Slag
7/26/2007	**SB163**	**B**		**4-6**	Sinter and Slag
7/30/2007	SB164	A	12	0-2	Fill
7/30/2007	**SB164**	**B**		**8-10**	Fill
8/14/2007	SB165	A	12	0-2	Native
8/14/2007	**SB165**	**B**		**8-10**	Native
8/8/2007	SB166	A	12	0-2	Native
8/8/2007	**SB166**	**B**		**8-10**	Native
8/7/2007	SB167	A	12	0-2	Native
8/7/2007	**SB167**	**B**		**8-10**	Native
7/19/2007	SB168	A	12	0-2	Sinter
7/19/2007	**SB168**	**B**		**8-10**	Native
7/19/2007	SB169	A	12	0-2	Fill
7/19/2007	**SB169**	**B**		**8-10**	Native
8/7/2007	SB170	A	12	0-2	Native
8/7/2007	**SB170**	**B**		**8-10**	Native
8/7/2007	SB171	A	12	0-2	Native
8/7/2007	**SB171**	**B**		**8-10**	Native
8/7/2007	SB172	A	12	0-2	Native
8/7/2007	**SB172**	**B**		**8-10**	Native
8/7/2007	SB173	A	12	0-2	Native and Fill
8/7/2007	**SB173**	**B**		**8-10**	Native
8/7/2007	SB174	A	12	0-2	Native
8/7/2007	**SB174**	**B**		**8-10**	Native
8/9/2007	SB175	A	12	0-2	Native
8/9/2007	**SB175**	**B**		**8-10**	Native
8/9/2007	SB176	A	12	0-2	Native and Fill
8/9/2007	**SB176**	**B**		**8-10**	Native and Fill
7/27/2007	SB177	A	12	0-2	Native
7/27/2007	**SB177**	**B**		**8-10**	Native
7/27/2007	SB178	A	12	0-2	Native and Fill
7/27/2007	**SB178**	**B**		**8-10**	Fill
7/30/2007	SB179	A	12	0-2	Fill
7/30/2007	**SB179**	**B**		**8-10**	Fill
7/27/2007	SB180	A	12	0-2	Fill
7/27/2007	**SB180**	**B**		**8-10**	Fill
8/13/2007	SB181	A	12	0-2	Fill
8/13/2007	**SB181**	**B**		**8-10**	Native
8/13/2007	SB182	A	12	0-2	Sinter and Slag
8/13/2007	**SB182**	**B**		**8-10**	Native
8/10/2007	SB183	A	12	0-2	Fill
8/10/2007	**SB183**	**B**		**8-10**	Native
8/13/2007	SB184	A	12	0-2	Slag and Native
8/13/2007	**SB184**	**B**		**8-10**	Slag and Native
8/10/2007	SB185	A	12	0-2	Fill
8/10/2007	**SB185**	**B**		**8-10**	Fill and Slag
8/13/2007	SB186	A	12	0-2	Fill
8/13/2007	**SB186**	**B**		**8-10**	Slag and Native
8/13/2007	SB187	A	8	0-2	Native
8/13/2007	**SB187**	**B**		**6-8**	Native
8/13/2007	SB188	A	12	0-2	Native
8/13/2007	**SB188**	**B**		**8-10**	Native
8/14/2007	SB189	A	12	0-2	Native and Fill
8/14/2007	**SB189**	**B**		**8-10**	Native and Fill
7/25/2007	SB190	A	12	0-2	Fill
7/25/2007	**SB190**	**B**		**8-10**	Native
7/26/2007	SB191	A	8	0-2	Native and Fill
7/26/2007	**SB191**	**B**		**6-8**	Native
7/26/2007	SB192	A	7	0-2	Native
7/26/2007	**SB192**	**B**		**4-6**	Native

Table 2.2.1-2a
Phase I Soil Boring Depths, Sampled Intervals, and Lithologies
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Sampling Date	Soil Boring	A or B	Total Depth (ft bgs)	Sampled Interval (ft bgs)	Lithology
7/25/2007	SB193	A	12	0-2	Fill
7/24/2007	SB194	A	12	0-2	Slag
7/24/2007	**SB194**	**B**		**4-5.5**	Native
8/15/2007	SB195	A	8	0-2	Native
8/15/2007	**SB195**	**B**		**6-8**	Native
8/15/2007	SB196	A	8	0-2	Slag and Native
8/15/2007	**SB196**	**B**		**6-8**	Native
7/19/2007	SB197	A	12	0-2	Sinter and Slag and Native
7/19/2007	**SB197**	**B**		**8-10**	Native
7/19/2007	SB198	A	8	0-2	Sinter and Native
7/19/2007	**SB198**	**B**		**4-6**	Native
8/1/2007	SB199	A	16	0-2	Native
8/1/2007	**SB199**	**B**		**6-8**	Native
8/2/2007	SB200	A	12	0-2	Fill
8/2/2007	**SB200**	**B**		**8-10**	Native
8/13/2007	SB201	A	12	0-2	Native
8/13/2007	**SB201**	**B**		**6-8**	Native
8/14/2007	SB211	A	12	0-2	Native
8/14/2007	**SB211**	**B**		**8-10**	Native
8/14/2007	SB212	A	12	0-2	Sinter and Slag
8/14/2007	**SB212**	**B**		**8-10**	Slag and Native
8/14/2007	SB213	A	12	0-2	Sinter and Slag
8/14/2007	**SB213**	**B**		**8-10**	Slag
8/16/2007	SB214	A	12	0-2	Native
8/16/2007	**SB214**	**B**		**6-8**	Slag and Fill
8/16/2007	SB215	A	12	0-2	Slag and Native
8/16/2007	**SB215**	**B**		**8-10**	Native and Fill

Section 2.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 2.2.1-2a

Notes:

A	Surface soil sample
B	Subsurface soil sample
bgs	Below ground surface
ft	Feet
SB	Soil boring

Table 2.2.1-2b
Phase II Soil Boring Depths, Sampled Intervals, and Lithologies
Matthiessen and Hegeler Zinc Company - Operable Unit 2

Sampling Date	Soil Boring	A or B	Total Depth (ft bgs)	Sampled Interval (ft bgs)	Lithology
10/9/2008	SB401	A	16	0-2	Native
10/9/2008	**SB401**	**B**		**14-16**	Native
10/9/2008	SB402	A	12	0-2	Slag and Native
10/9/2008	**SB402**	**B**		**10-12**	Native
10/9/2008	SB403	A	15	0-2	Slag and Fill
10/9/2008	**SB403**	**B**		**13-15**	Native
10/9/2008	SB404	A	18	0-2	Slag and Sinter and Fill
10/9/2008	**SB404**	**B**		**16-18**	Native
10/9/2008	SB405	A	24	0-2	Slag and Sinter and Fill
10/9/2008	**SB405**	**B**		**22-24**	Native
10/15/2008	SB406	A	28	2-4	Native
10/15/2008	**SB406**	**B**		**26-28**	Native
10/9/2008	SB407	A	17	0-2	Slag and Sinter
10/9/2008	**SB407**	**B**		**14-16**	Slag and Sinter and Fill
10/14/2008	SB408	A	36	0-2	Slag and Fill
10/14/2008	**SB408**	**B**		**34-36**	Slag and Fill
10/7/2008	SB409	A	21	0-2	Slag and Sinter and Fill
10/7/2008	**SB409**	**B**		**20-21**	Native
10/9/2008	SB410	A	22	0-2	Slag and Sinter and Fill
10/9/2008	**SB410**	**B**		**18-20**	Slag and Fill
10/6/2008	SB411	A	12	0-2	Slag and Sinter and Fill
10/6/2008	**SB411**	**B**		**10-12**	Slag and Fill
10/14/2008	SB412	A	12	0-2	Native
10/14/2008	**SB412**	**B**		**8-10**	Native
10/6/2008	SB413	A	12	0-2	Sinter and Fill
10/6/2008	**SB413**	**B**		**8-10**	Sinter and Fill
10/6/2008	SB414	A	12	0-2	Slag and Fill
10/6/2008	**SB414**	**B**		**6-8**	Slag and Fill
10/6/2008	SB415	A	12	0-2	Slag and Fill
10/6/2008	**SB415**	**B**		**4-6**	Native
10/6/2008	SB416	A	12	0-2	Slag and Sinter and Fill
10/6/2008	**SB416**	**B**		**8-10**	Native
10/6/2008	SB417	A	12	0-2	Slag and Sinter and Fill
10/6/2008	**SB417**	**B**		**6-8**	Native
10/6/2008	SB418	A	12	0-2	Slag and Sinter and Fill
10/6/2008	**SB418**	**B**		**8-10**	Native
10/14/2008	SB419	A	12	0-2	Slag and Sinter and Fill
10/14/2008	**SB419**	**B**		**6-8**	Slag and Fill
10/6/2008	SB420	A	12	0-2	Slag and Sinter and Fill
10/6/2008	**SB420**	**B**		**10-12**	Slag and Sinter and Fill
10/8/2008	SB421	A	12	0-2	Slag and Fill
10/8/2008	**SB421**	**B**		**6-8**	Native
10/16/2008	SB422	A	12	0-2	Slag and Native
10/16/2008	**SB422**	**B**		**8-10**	Native
10/16/2008	SB423	A	12	0-2	Slag and Sinter and Fill
10/16/2008	**SB423**	**B**		**8-10**	Native
10/16/2008	SB424	A	12	0-2	Slag and Native
10/16/2008	**SB424**	**B**		**8-10**	Native
10/8/2008	SB425	A	12	0-2	Native
10/8/2008	**SB425**	**B**		**8-10**	Native
10/16/2008	SB426	A	12	0-2	Slag and Native
10/16/2008	**SB426**	**B**		**8-10**	Native
10/16/2008	SB427	A	12	0-2	Native
10/16/2008	**SB427**	**B**		**8-10**	Native
10/16/2008	SB428	A	12	0-2	Slag and Native
10/16/2008	**SB428**	**B**		**8-10**	Native
10/16/2008	SB429	A	7	0-2	Native
10/16/2008	**SB429**	**B**		**4-6**	Native
10/8/2008	SB430	A	8	0-2	Slag and Sinter and Fill and Native
10/8/2008	**SB430**	**B**		**6-8**	Native
10/15/2008	SB431	A	12	0-4	Slag and Sinter and Fill
10/15/2008	**SB431**	**B**		**8-10**	Native
10/15/2008	SB432	A	16	0-2	Slag and Sinter and Fill
10/15/2008	**SB432**	**B**		**12-14**	Native
10/15/2008	SB433	A	12	0-2	Slag and Sinter and Fill
10/15/2008	**SB433**	**B**		**10-12**	Native
10/15/2008	SB434	A	12	0-2	Slag and Fill and Native
10/15/2008	**SB434**	**B**		**8-10**	Native
10/15/2008	SB435	A	12	2-4	Fill
10/15/2008	**SB435**	**B**		**8-10**	Native
10/17/2008	SB436	A	12	0-2	Fill and Native
10/17/2008	**SB436**	**B**		**8-10**	Native
10/9/2008	SB437	A	9	0-2	Fill and Native
10/9/2008	**SB437**	**B1**		**2-4**	Native
10/9/2008	**SB437**	**B2**		**6-8**	Native
10/17/2008	SB438	A	12	0-2	Fill and Native
10/17/2008	**SB438**	**B**		**6-8**	Native
10/17/2008	SB439	A	12	0-4	Slag and Sinter and Fill
10/17/2008	**SB439**	**B**		**10-12**	Native
10/15/2008	SB440	A	12	0-2	Slag and Sinter and Fill
10/15/2008	**SB440**	**B**		**8-10**	Slag and Fill
10/17/2008	SB441	A	8	0-2	Native
10/17/2008	**SB441**	**B**		**6-8**	Native
10/16/2008	SB442	A	12	0-2	Sinter and Native
10/16/2008	**SB442**	**B**		**8-10**	Native
10/16/2008	SB443	A	6	0-2	Native

Table 2.2.1-2b
Phase II Soil Boring Depths, Sampled Intervals, and Lithologies
Matthiessen and Hegeler Zinc Company - Operable Unit 2

Sampling Date	Soil Boring	A or B	Total Depth (ft bgs)	Sampled Interval (ft bgs)	Lithology
10/16/2008	**SB443**	**B**	6	**4-6**	Native
10/16/2008	SB444	A	12	0-2	Slag and Fill
10/16/2008	**SB444**	**B**		**8-10**	Slag and Fill
10/16/2008	SB445	A	8	0-2	Native
10/16/2008	**SB445**	**B**		**6-8**	Native
10/14/2008	SB446	A	10	0-2	Native
10/14/2008	**SB446**	**B**		**8-10**	Native
10/14/2008	SB447	A	11.5	0-2	Native
10/14/2008	**SB447**	**B**		**6-8**	Native
10/14/2008	SB448	A	12	0-2	Native
10/14/2008	**SB448**	**B**		**8-10**	Native
10/14/2008	SB449	A	12	0-2	Native
10/14/2008	**SB449**	**B**		**8-10**	Native
10/14/2008	SB450	A	12	0-2	Sinter and Fill
10/14/2008	**SB450**	**B**		**8-10**	Native
10/7/2008	SB451	A	12	0-2	Sinter and Fill and Native
10/7/2008	**SB451**	**B**		**10-12**	Native
10/7/2008	SB452	A	10	0-2	Sinter and Fill and Native
10/7/2008	**SB452**	**B**		**6-8**	Native
10/7/2008	SB453	A	12	0-2	Slag and Sinter and Fill and Native
10/7/2008	**SB453**	**B**		**10-12**	Native
10/7/2008	SB454	A	12	0-2	Slag and Sinter and Fill
10/7/2008	**SB454**	**B**		**6-8**	Slag and Sinter
10/7/2008	SB455	A	16	0-2	Fill and Native
10/7/2008	**SB455**	**B**		**10-12**	Slag and Sinter and Fill
10/6/2008	SB456	A	12	0-2	Slag and Sinter and Fill
10/6/2008	**SB456**	**B**		**6-8**	Slag and Sinter and Fill
10/6/2008	SB457	A	12	0-2	Slag and Fill
10/6/2008	**SB457**	**B**		**10-12**	Slag and Sinter and Fill
10/7/2008	SB458	A	12	0-2	Slag and Sinter and Fill
10/7/2008	**SB458**	**B**		**10-12**	Native
10/14/2008	SB459	A	12	0-2	Slag and Fill
10/14/2008	**SB459**	**B**		**4-6**	Fill
10/7/2008	SB460	A	8	0-2	Slag and Sinter and Fill
10/7/2008	**SB460**	**B**		**6-8**	Native

Section 2.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 2.2.1-2b

Notes:

A	Surface soil sample
B	Subsurface soil sample
bgs	Below ground surface
ft	Feet
SB	Soil boring

Table 2.2.1-3
Analytical Method Summary
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Parameter	Analytical Method
Soil, Building Material[a], XRF Metals, and Pile Samples	
VOCs	CLP SOW SOM01.1 (Phase I) and SOM01.2 (Phase II)
SVOCs	CLP SOW SOM01.1 (Phase I) and SOM01.2 (Phase II)
PCBs	CLP SOW SOM01.1 (Phase I) and SOM01.2 (Phase II)
Pesticides	CLP SOW SOM01.1 (Phase I) and SOM01.2 (Phase II)
Total metals (mercury and cyanide)	CLP SOW ILM05.3 (Phase I) and ILM05.4 (Phase II)
TCLP metals	EPA SW-846 Method 1311 and CLP SOW ILM05.4
SPLP metals	EPA SW-846 Method 1312 and CLP SOW ILM05.4
Asbestos	EPA 600/R-93-116
Air Samples	
Asbestos	NIOSH 7402 (Passive Sampling) ISO 10312 (Active Sampling)
Surface Water and Groundwater Samples	
VOCs	CLP SOW SOM01.1 (Phase I) and SOM01.2 (Phase II)
SVOCs	CLP SOW SOM01.1 (Phase I) and SOM01.2 (Phase II)
PCBs	CLP SOW SOM01.1 (Phase I) and SOM01.2 (Phase II)
Pesticides	CLP SOW SOM01.1 (Phase I) and SOM01.2 (Phase II)
Filtered and unfiltered total metals	CLP SOW ILM05.3 (Phase I) and ILM05.4 (Phase II)
Cyanide	CLP SOW ILM05.4
Total hardness	EPA Method 130.1

Section 2.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 2.2.1-3

Notes:

CLP	Contract Laboratory Program
EPA	U.S. Environmental Protection Agency
ISO	International Organization for Standardization
NIOSH	National Institute for Occupational Safety and Health
PCB	Polychlorinated biphenyl
SOW	Statement of work
SPLP	Synthetic precipitation leaching procedure
SVOC	Semivolatile organic compound
TCLP	Toxicity characteristic leaching procedure
VOC	Volatile organic compound
XRF	X-ray fluorescence

a Analysis of the building material samples was a “modified” analysis because the CLP laboratory had to grind and homogenize over-sized materials.

Table 2.2.2-1
Monitoring Well Installation and Development Summary
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

MW ID	MW Elevation (ft above msl)	Development Dates	Depth to Bottom (ft) from TOC	Depth To Water (ft) from TOC	Height of Water Column (ft)	Well Volume (gal.)	Dry After (gal.)	Min Purge (gal.)	Actual Purged (gal.)	Screened Interval (ft) from ground surface	Screen Formation	Depth (from ground surface) and Formation of Water-Bearing Unit	Notes	Developed	Clarity	Well Volumes Purged
Phase I Monitoring Wells																
MW01	600.77	11/6/07 - 11/8/07	17.25	13.82	3.43	0.56	2.5	2.8	3.6	14-4	Unconsolidated Materials	~ 5 ft bgs Silty Sand	11/8 - Accumulated 0.25 gal. overnight	Yes	Mostly clear	6
MW02S	584.85	11/7/07 and 11/8/07	20.17	17.87	2.30	0.37	0.5	1.8	0.75	18-8	Unconsolidated Materials and Shale Bedrock	~ 14 ft bgs Till (clay matrix)	11/8 - No accumulation overnight	No	Mostly clear	2
		3/11/08	20.68	13.67	7.01	1.14	3	5.7	3				3/11 - Redeveloped well	Yes	Clear	3
MW02D	584.89	11/7/07 and 11/8/07	29.38	15.57	10.84	1.76	3.0	8.65	5	26-21	Shale and Limestone Bedrock	~22 ft bgs Fill and Till material (clay matrix)	11/8 - Accumulated 1 gal. overnight	No	Turbid	3
		3/11/08	29.6	15.36	14.24	2.31	2.25	11.61	2.25				3/11 - Redeveloped well	Yes	Slightly cloudy	1
		8/27/08	29.6	16.2	13.4	2.17	0.75	10.85	33.95				8/27 - Used fresh water to flush well; slow recharge; added 31 gal. of water; purged 33.95 gal.	Yes	Clear	16
MW03	584.86	11/6/07 and 11/8/07	22.55	18.48	4.07	0.66	3.0	3.32	7.75	18-8	Unconsolidated Materials	~10 ft bgs Till (gravelly silt matrix)	11/8 - Accumulated 1.25 gal. in 1 day	Yes	Mostly clear	12
MW04	577.58	11/6/07 - 11/8/07	31.65	27.75	3.9	0.63	~2	3.19	4	28-18	Unconsolidated Materials	~20 ft bgs Sand	11/8 - Accumulated 2 gal. in 1 day	Yes	Mostly clear	6
MW05	569.31	11/6/07 and 11/8/07	45.85	25.02	20.83	3.37	3.4	17	12.5	44-34	Shale Bedrock	~35 ft bgs Shale Bedrock	11/8 - Accumulated 2 gal. over 2 days	Yes	Mostly clear	4
		8/26/08	46	20.8	25.2	4.08	4.1	20.4	45				8/26 - Purged dry (4.1 gal.) added and purged a total of 45 gal.	Yes	Mostly clear	11
MW06	564.5	11/6/07	17.45	10.70	6.75	1.09	--	5.5	10	14-4	Unconsolidated Materials	~4-6 ft bgs Silt	Good recharge	Yes	Clear	9
MW07	547.23	11/5/07	16.20	5.98	10.22	1.66	--	8.35	~27	15-5	Unconsolidated Materials	~6 & 8 ft bgs Silty Sand	Good recharge	Yes	Clear	16
MW08	534.12	11/5/07	17.70	Dry	<0.5	Dry	Dry	Dry	Dry	15.5-5.5	Unconsolidated Materials and Shale and Limestone Bedrock	~11.5 ft bgs Sand	Dry	Dry	Dry	Dry
		3/13/08	18.15	14.16	4	0.65	2.15	3.25	2.15				Enough recharge to develop	Yes	Clear	3
MW09	589.04	11/7/07	18.41	6.20	12.21	1.98	--	9.75	~20	15.5-5.5	Unconsolidated Materials	~6 ft bgs Sand	Good recharge	Yes	Clear	10
MW10	587.93	11/6/07 and 11/8/07	21.15	10.59	10.56	1.71	6	8.6	11	18.5-8.5	Unconsolidated Materials and Shale Bedrock	~10 ft bgs Gravelly Sand	11/8 - Accumulated 5 gal. over 2 days	Yes	Mostly clear	6
MW11	580.06	11/7/07 and 11/8/07	16.48	14.51	1.97	0.32	1.25	1.55	1.75	13.5-3.5	Unconsolidated Materials	~4.25 ft bgs Sand	11/8 - Accumulated 0.25 gal.overnight	Yes		5
MW12	542.04	11/7/07	21.81	13.23	8.85	1.43	--	6.85	55	19.5-9.5	Unconsolidated Materials and Shale Bedrock	~9 & 16 ft bgs Sand	Good recharge	Yes	Clear	38
MW13	585.28	11/8/07	24.00	13.48	10.54	1.71	6	8.4	8	22-12	Shale and Limestone Bedrock	Assumed between Shale and Limestone Bedrock	11/8 - Accumulated 0.5 gal. throughout day	Yes	Mostly clear	5
MW14	589.44	11/7/07 and 11/8/07	34.70	10.23	24.47	3.96	7	19.55	15	34-24	Shale and Limestone Bedrock	Assumed between Shale and Limestone Bedrock	11/8 - Accumulated 5 gal. overnight	Yes	Mostly clear	4
MW15	607.98	11/7/07 and 11/8/07	26.34	14.07	9.10	1.47	--	7.25	76	25-15	Unconsolidated Materials	~20 ft bgs Sand	11/8 - Good recharge	Yes	Clear	52
		8/27/08	26.63	9.61	17.02	2.76	--	13.8	88				8/27 - Great recharge; redeveloped due to turbidity during last sampling event	Yes	Clear	32
MW16	597.59	11/7/07 and 11/8/07	16.26	11.03	5.23	0.85	3.75	4.15	6.25	13-3	Unconsolidated Materials	~4 ft bgs Silty Clay	11/8 - Accumulated 1 gal. overnight	Yes	Mostly clear	7
MW17	587.52	11/6/07	16.50	7.29	9.21	1.49	7.5	7.5	10.5	13-3	Unconsolidated Materials	~3.2 ft bgs Sand	Enough recharge to develop	Yes	Clear	7
MW18	479.24	11/5/07	30.00	10.34	19.66	3.18	--	16	~53	30-20	Shale and Limestone Bedrock	~26.5 ft bgs Shale Bedrock	Good recharge	Yes	Mostly clear	17
Phase II Monitoring Wells																
MW19	541.43	8/11/08-8/14/08	25.08	10.53	14.55	2.36	~7.25	11.86	~12.25	22-12	Shale and Limestone Bedrock	Assumed between Shale and Limestone Bedrock	Used fresh water to flush well; slow recharge.	Yes	Mostly clear	5
MW20	545.79	8/11/08-8/12/08	29.12	5.40	23.72	3.84	12	19.33	~19.6	25-15	Shale Bedrock	Assumed in Shale Bedrock	Full recharge overnight	Yes	Mostly clear	5
MW21	550.8	8/11/08-8/12/08	25.66	14.59	11.07	1.79	~7.25	9	~13	24-14	Unconsolidated Materials	~19-23 ft bgs moist to saturated Till (Gravel to Silty Clay)	Good recharge	Yes	Clear	7
MW22	552.45	8/11/08-8/14/08	30.24	14.61	15.63	2.53	1	12.55	~12.5	28-18	Shale and Limestone Bedrock	Assumed between Shale and Limestone Bedrock	Used fresh water to flush well; slow recharge.	Yes	Clear	5
		8/12/08	19.98	9.16	10.82	1.75	--	8.8	8.8				4-5 Minutes to recharge 2-3 gal.	Yes	Clear	5

Table 2.2.2-1
Monitoring Well Installation and Development Summary
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

MW ID	MW Elevation (ft above msl)	Development Dates	Depth to Bottom (ft) from TOC	Depth To Water (ft) from TOC	Height of Water Column (ft)	Well Volume (gal.)	Dry After (gal.)	Min Purge (gal.)	Actual Purged (gal.)	Screened Interval (ft) from ground surface	Screen Formation	Depth (from ground surface) and Formation of Water-Bearing Unit	Notes	Developed	Clarity	Well Volumes Purged
MW23	592.39	12/11/08-12/12/08	21.70	9.58	12.12	1.98	7	10	50.3	20.5-10.5	Shale Bedrock	~9 ft bgs Sand and Gravel	12/2008 - Purged well 8 times on 12/11 and 12/08	Yes	Still a little turbid	25
MW24	592.97	8/12/08	14.88	4.91	9.97	1.62	--	8.15	~12	14-4	Unconsolidated Materials	~10 ft bgs Sand	Very good recharge	Yes	Clear	7
MW25	586.39	8/12/08	12.97	2.63	10.34	1.68	--	8.45	8.5	15-5	Unconsolidated Materials	~5-6 ft, 7-8 ft, and 10.5-11 ft bgs Sandy Silt Fill	20 Minutes to recharge 1.5 gal.	Yes	Mostly clear	5
MW26	582.37	8/11/08-8/14/08	14.45	12.47	1.98	0.32	0.5	1.62	~2.5	12-2	Unconsolidated Materials and Shale Bedrock	~5 & 9-10 ft bgs Sand	Used fresh water to flush well; slow recharge.	Yes	Clear	8
MW27	583.04	8/12/08	29.87	Dry	Dry	Dry	Dry	Dry	Dry	33-23	Unconsolidated Materials	~28 ft bgs Sinter/Slag Fill	8/12/08 - Dry	Dry	Dry	Dry
		8/27/08	29.87	Dry	Dry	Dry	Dry	Dry	Dry				8/27/08-Still dry; well was filled with fresh water	Dry	Dry	Dry
		9/22/08	28.70	27.74	0.83	0.14	--	0.7	31.5				9/22/08 - Although very little water, recharge so great that large amount of water could be purged	Yes	Clear	45
MW28	584.96	8/12/08-8/14/08	30.26	28.74	1.52	0.25	0.25	1.25	~1.5	30-20	Shale Bedrock	Assumed in Shale Bedrock	Used fresh water to flush well; slow recharge.	Yes	Clear	6
MW29	584.19	8/13/08-8/14/08	20.42	13.49	6.93	1.12	1.25	5.65	~11.25	20-10	Unconsolidated Materials and Shale Bedrock	~14 ft bgs Fill (Sand, Gravel, Sinter, Brick, and Slag)	Used fresh water to flush well; slow recharge.	Yes	Clear	10
MW30	580.56	8/13/08	24.38	21.06	3.32	0.54	--	2.7	2.75	22-12	Unconsolidated Materials	~14 ft bgs Silty Clay (trace sand and gravel)		Yes	Mostly clear	5
MW31	578.12	8/11/08	32.31	28.41	3.9	0.63	--	3.18	5.5	32-22	Unconsolidated Materials	~28 ft bgs Fill (Sinter, Brick, Slag, and Sand)	Good recharge	Yes	Clear	9
MW32	572.44	8/13/08	18.38	Dry	Dry	Dry	Dry	Dry	Dry	16-6	Shale and Limestone Bedrock	Assumed between Overburden and Bedrock	Dry	Dry	Dry	Dry
		9/19/08	17.98	10.55	2.66	0.43	0.4	2.15	0.4				9/19/08 - Well extremely silty	No	Turbid	1
		9/22/08	18.40	16.25	2.15	0.35	1.5	1.75	2				9/22/08 - Initially pumped 1.5 gal. in the morning, then an additional 0.5 gal. in the evening; took 7.75 hours to recharge 0.31 ft; very slow recharge	No	Turbid	5
		9/23/08	18.41	16.81	1.6	0.26	0.25	1.25	37.75				9/23/08 -Clean tap water added to well in 11 increments for a total of 67.5 gal.; total of 37.75 gal. purged	No?	Still turbid	47
MW33	579.41	8/13/08	20.19	8.68	11.51	1.86	~4	9.4	~8.5	28-18	Shale and Limestone Bedrock	Assumed between Shale and Limestone Bedrock	Used fresh water to flush well; slow recharge	Yes	Mostly clear	5
		9/15/08	20.32	11.1	8.61	1.40	2	7	2					No	Very turbid	1
		9/22/08	20.32	11.34	8.98	1.46	2	7.3	4				9/22/08 - Purged 2 gal. in the morning, then an additional 2 gal. in the evening; almost full recharge in 8 hours	No	Turbid	3
		9/23/08	20.35	11.6	8.75	1.43	2	7	5.5				9/23/08 - Clean tap water added to well after well initially went dry (5 gal. added); then an additional 3.5 gal. purged	Yes	Clear	4
MW34	579.41	8/13/08-8/14/08	19.26	4.36	14.9	2.41	3.5	12.15	14.5	23-13	Shale Bedrock	Assumed in Shale Bedrock	Used fresh water to flush well; slow recharge.	Yes	Clear	6
MW35	599.67	8/12/08-8/13/08	20.16	10.21	9.95	1.61	5	8.49	8.5	18-8	Unconsolidated Materials	Assumed between Overburden and Bedrock	Almost full recharge overnight	Yes	Mostly clear	5
		12/11/08-12/12/08	20.38	11.1	9.23	1.50	4	7.5	7				12/2008 - Purged well 3 times on 12/11 and 12/08; total of 7 gal. purged	Yes	Still turbid	5

Section 2.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 2.2.2-1

Notes:

--	Not applicable
bgs	Below ground surface
ft	Foot
gal.	Gallon
ID	Identification
msl	Mean sea level
MW	Monitoring well
TOC	Top of casing

Figure 2.2.2-2
Summary of Monitoring Well Groundwater Sample Analyte Groups
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Quarterly Groundwater Analyses															
	Total Metals								Dissolved Metals							
	11/07	03/08	06/08	09/08	12/08	03/09	06/09	10/09	11/07	03/08	06/08	09/08	12/08	03/09	06/09	10/09
MW01	X	X	X	X	--	--	--	--	--	--	--	--	X	X	X	X
MW02S	X	X	X	X	--	--	--	--	--	--	--	--	X	X	X	X
MW02D	X	--	X	X	--	--	--	--	--	--	--	--	X	X	X	X
MW03	X	X	X	X	--	--	--	--	--	--	--	--	X	X	X	X
MW04	X	X	X	X	--	--	--	--	--	--	--	--	X	X	X	X
MW05	X	X	X	X	--	--	--	--	--	--	--	--	X	X	X	X
MW06	X	X	X	X	--	--	--	--	--	--	--	--	X	X	X	X
MW07	X	X	X	X	--	--	--	X	--	--	--	--	X	X	X	X
MW08	Dry	X	X	X	--	--	--	Dry	Dry	--	--	--	X	X	X	Dry
MW09	X	X	X	X	--	--	--	--	--	--	--	--	X	X	X	X
MW10	X	X	X	X	--	--	--	--	--	--	--	--	X	X	X	X
MW11	X	X	X	X	--	--	--	--	--	--	--	--	X	X	X	X
MW12	X	X	X	X	--	--	--	--	--	--	--	--	X	X	X	X
MW13	X	X	X	X	--	--	--	--	--	--	--	--	X	X	X	X
MW14	X	X	X	X	--	X	X	X	--	--	--	--	X	X	X	X
MW15	X	X	X	X	--	--	--	--	--	--	--	--	X	X	X	X
MW16	X	X	X	X	--	--	X	X	--	--	--	--	X	X	X	X
MW17	X	X	X	X	--	X	X	X	--	--	--	--	X	X	X	X
MW18	X	X	X	X	--	--	--	--	--	--	--	--	X	X	X	X
MW19	NW	NW	NW	X	--	--	--	--	NW	NW	NW	--	X	X	X	X
MW20	NW	NW	NW	X	--	--	--	--	NW	NW	NW	--	X	X	X	X
MW21	NW	NW	NW	X	--	--	--	--	NW	NW	NW	--	X	X	X	X
MW22	NW	NW	NW	X	--	--	--	--	NW	NW	NW	--	X	X	X	X
MW23	NW	NW	NW	X	--	--	--	--	NW	NW	NW	--	X	X	X	X
MW24	NW	NW	NW	X	--	--	--	--	NW	NW	NW	--	X	X	X	X
MW25	NW	NW	NW	X	--	--	--	--	NW	NW	NW	--	X	X	X	X
MW26	NW	NW	NW	X	Dry	--	Dry	Dry	NW	NW	NW	--	Dry	X	Dry	Dry
MW27	NW	NW	NW	X	Dry	--	Dry	Dry	NW	NW	NW	--	Dry	X	Dry	Dry
MW28	NW	NW	NW	X	--	--	--	--	NW	NW	NW	--	X	X	X	X
MW29	NW	NW	NW	X	--	--	--	--	NW	NW	NW	--	X	X	X	X
MW30	NW	NW	NW	X	--	--	--	--	NW	NW	NW	--	X	X	X	X
MW31	NW	NW	NW	X	--	--	--	--	NW	NW	NW	--	X	X	X	X
MW32	NW	NW	NW	X	--	--	--	Dry	NW	NW	NW	--	X	X	X	Dry
MW33	NW	NW	NW	X	--	--	--	--	NW	NW	NW	--	X	X	X	X
MW34	NW	NW	NW	X	--	--	--	--	NW	NW	NW	--	X	X	X	X
MW35	NW	NW	NW	X	--	--	--	--	NW	NW	NW	--	X	X	X	X

Figure 2.2.2-2
Summary of Monitoring Well Groundwater Sample Analyte Groups
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Quarterly Groundwater Analyses															
	VOCs								SVOCs							
	11/07	03/08	06/08	09/08	12/08	03/09	06/09	10/09	11/07	03/08	06/08	09/08	12/08	03/09	06/09	10/09
MW01	--	X	X	X	--	--	--	X	--	X	X	X	--	--	--	X
MW02S	--	X	X	X	--	--	--	X	--	X	X	X	X	X	X	X
MW02D	--	--	--	X	X	X	X	X	--	--	--	--	X	X	X	X
MW03	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW04	X	X	X	X	X	X	X	X	X	X	X	X	--	--	--	X
MW05	--	X	X	X	--	--	--	X	--	X	X	X	--	--	--	X
MW06	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW07	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW08	Dry	X	X	X	--	--	--	Dry	Dry	X	X	X	--	--	--	Dry
MW09	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW11	--	X	X	X	--	--	--	X	--	X	X	X	--	--	--	X
MW12	X	X	X	X	--	--	--	X	X	X	X	X	X	X	X	X
MW13	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW14	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW15	X	X	X	X	X	X	X	X	X	X	X	X	--	--	--	X
MW16	X	X	X	X	--	--	--	X	--	X	X	X	--	--	--	X
MW17	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW18	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW19	NW	NW	NW	X	X	X	X	X	NW	NW	NW	X	X	X	X	X
MW20	NW	NW	NW	X	X	X	X	X	NW	NW	NW	X	X	X	X	X
MW21	NW	NW	NW	X	X	X	X	X	NW	NW	NW	X	X	X	X	X
MW22	NW	NW	NW	X	X	X	X	X	NW	NW	NW	--	X	X	X	X
MW23	NW	NW	NW	X	X	X	X	X	NW	NW	NW	X	X	X	X	X
MW24	NW	NW	NW	X	X	X	X	X	NW	NW	NW	X	X	X	X	X
MW25	NW	NW	NW	X	X	X	X	X	NW	NW	NW	X	X	X	X	X
MW26	NW	NW	NW	X	Dry	X	Dry	Dry	NW	NW	NW	X	Dry	X	Dry	Dry
MW27	NW	NW	NW	X	Dry	X	Dry	Dry	NW	NW	NW	X	Dry	X	Dry	Dry
MW28	NW	NW	NW	X	X	X	X	X	NW	NW	NW	X	X	X	X	X
MW29	NW	NW	NW	X	X	X	X	X	NW	NW	NW	X	X	X	X	X
MW30	NW	NW	NW	X	X	X	X	X	NW	NW	NW	X	X	X	X	X
MW31	NW	NW	NW	X	X	X	X	X	NW	NW	NW	X	X	X	X	X
MW32	NW	NW	NW	X	X	X	X	Dry	NW	NW	NW	X	X	X	X	Dry
MW33	NW	NW	NW	X	X	X	X	X	NW	NW	NW	X	X	X	X	--
MW34	NW	NW	NW	X	X	X	X	X	NW	NW	NW	X	X	X	X	X
MW35	NW	NW	NW	X	X	X	X	X	NW	NW	NW	X	X	X	X	X

Figure 2.2.2-2
Summary of Monitoring Well Groundwater Sample Analyte Groups
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Quarterly Groundwater Analyses															
	PCBs								Pesticides							
	11/07	03/08	06/08	09/08	12/08	03/09	06/09	10/09	11/07	03/08	06/08	09/08	12/08	03/09	06/09	10/09
MW01	--	X	X	X	--	--	--	X	--	X	X	X	--	--	--	X
MW02S	--	X	X	X	--	--	--	X	--	X	X	X	--	--	--	X
MW02D	--	--	--	--	X	X	X	X	--	--	--	--	X	X	X	X
MW03	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW04	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW05	--	X	X	X	--	--	--	X	--	X	X	X	--	--	--	X
MW06	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW07	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW08	Dry	X	--	X	--	--	--	Dry	Dry	X	--	X	--	--	--	Dry
MW09	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW10	X	X	X	X	--	--	--	--	X	X	--	X	X	X	X	X
MW11	--	X	X	X	--	--	--	X	--	X	X	X	--	--	--	X
MW12	X	X	X	X	--	--	--	X	X	X	X	X	X	X	X	X
MW13	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW14	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW15	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW16	X	X	X	X	--	--	--	X	--	X	X	X	--	--	--	X
MW17	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW18	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW19	NW	NW	NW	X	X	X	X	X	NW	NW	NW	X	X	X	X	X
MW20	NW	NW	NW	X	X	X	X	X	NW	NW	NW	X	X	X	X	X
MW21	NW	NW	NW	X	X	X	X	X	NW	NW	NW	X	X	X	X	X
MW22	NW	NW	NW	--	X	X	X	X	NW	NW	NW	--	X	X	X	X
MW23	NW	NW	NW	X	X	X	X	X	NW	NW	NW	X	X	X	X	X
MW24	NW	NW	NW	X	X	X	X	X	NW	NW	NW	X	X	X	X	X
MW25	NW	NW	NW	X	X	X	X	X	NW	NW	NW	X	X	X	X	X
MW26	NW	NW	NW	X	Dry	X	Dry	Dry	NW	NW	NW	X	Dry	X	Dry	Dry
MW27	NW	NW	NW	X	Dry	X	Dry	Dry	NW	NW	NW	X	Dry	X	Dry	Dry
MW28	NW	NW	NW	X	X	X	X	X	NW	NW	NW	X	X	X	X	X
MW29	NW	NW	NW	X	X	X	X	X	NW	NW	NW	X	X	X	X	X
MW30	NW	NW	NW	X	X	X	X	X	NW	NW	NW	X	X	X	X	X
MW31	NW	NW	NW	X	X	X	X	X	NW	NW	NW	X	X	X	X	X
MW32	NW	NW	NW	X	X	X	X	Dry	NW	NW	NW	X	X	X	X	Dry
MW33	NW	NW	NW	X	X	X	X	--	NW	NW	NW	X	X	X	X	--
MW34	NW	NW	NW	X	X	X	X	X	NW	NW	NW	X	X	X	X	X
MW35	NW	NW	NW	X	X	X	X	X	NW	NW	NW	X	X	X	X	X

Figure 2.2.2-2
Summary of Monitoring Well Groundwater Sample Analyte Groups
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Quarterly Groundwater Analyses							
	Cyanide							
	11/07	03/08	06/08	09/08	12/08	03/09	06/09	10/09
MW01	--	X	X	X	--	--	--	X
MW02S	--	X	X	X	--	--	--	X
MW02D	--	--	X	X	X	X	X	X
MW03	X	X	X	X	--	--	--	X
MW04	X	X	X	X	X	X	X	X
MW05	--	X	X	X	X	X	X	X
MW06	X	X	X	X	X	X	X	X
MW07	X	X	X	X	--	--	--	X
MW08	Dry	X	X	X	--	--	--	Dry
MW09	X	X	X	X	--	--	--	X
MW10	X	X	X	X	--	--	--	X
MW11	--	X	X	X	--	--	--	X
MW12	X	X	X	X	--	--	--	X
MW13	X	X	X	X	--	--	--	X
MW14	X	X	X	X	--	--	--	X
MW15	X	X	X	X	--	--	--	X
MW16	X	X	X	X	--	--	--	X
MW17	X	X	X	X	X	X	X	X
MW18	X	X	X	X	--	--	--	X
MW19	NW	NW	NW	X	X	X	--	X
MW20	NW	NW	NW	X	X	X	X	X
MW21	NW	NW	NW	X	X	X	X	X
MW22	NW	NW	NW	X	X	X	X	X
MW23	NW	NW	NW	X	X	X	X	X
MW24	NW	NW	NW	X	X	X	X	X
MW25	NW	NW	NW	X	X	X	X	X
MW26	NW	NW	NW	X	Dry	X	Dry	Dry
MW27	NW	NW	NW	X	Dry	X	Dry	Dry
MW28	NW	NW	NW	--	X	X	X	X
MW29	NW	NW	NW	X	X	X	X	X
MW30	NW	NW	NW	X	X	X	X	X
MW31	NW	NW	NW	X	X	X	X	X
MW32	NW	NW	NW	X	X	X	X	Dry
MW33	NW	NW	NW	X	X	X	X	X
MW34	NW	NW	NW	X	X	X	X	X
MW35	NW	NW	NW	X	X	X	X	X

Section 2.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 2.2.2-2

Notes:

--	Monitoring well not sampled for this specific analyte, therefore no analytical data
ID	Identification
MW	Monitoring well
NW	No monitoring well constructed at the time of the specified sampling event
X	Monitoring well sampled for the specified analyte at that sampling event

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
MW01	600.77	3.22	17.45	16.69	11/13/2007	NW	NW	NW	NW	NW	NW	NW	NW	Not Stabilized
		3.18	17.66	13.25	3/17/2008	911	0.00	184.3	7.61	1.417	7.8	47.3	2.86	Stabilized
						916	0.10	181.6	7.42	1.438	7.49	40.7	2.85	
						926	0.40	174	7.31	1.477	7.08	14.8	2.85	
						936	0.60	172.1	7.25	1.495	7.53	12.2	2.83	
						946	0.80	164.1	7.24	1.501	8.09	11.5	2.77	
						949	0.85	162.8	7.25	1.500	8.09	12.1	2.79	
						952	0.90	162	7.25	1.503	8.15	12.2	2.8	
		3.22	17.25	10.38	6/17/2008	1515	0.20	129	7.4	0.15	15.6	260	15.79	Stabilized
						1520	0.35	134	7.1	0.14	16.8	270	14.79	
						1525	0.55	129	7.1	0.14	17	160	14.28	
						1530	0.70	129	7.2	0.14	15.8	75	16.75	
						1535	0.85	126	7.3	0.14	15.5	67	14.68	
						1540	1.05	120	7.3	0.15	14.5	55	15.55	
						1545	1.30	120	7.2	0.15	14.7	53	15.36	
						1550	1.50	118	7.2	0.16	14.7	51	15.41	
		2.99	17.44	10.86	9/22/2008	1214	0.50	164	6.43	0.16	16.8	43	1.66	Not Stabilized
						1217	0.75	162	6.47	0.15	16.8	43	3.26	
						1220	1.25	160	6.54	0.15	17.0	42	4.46	
						1223	1.50	160	6.56	0.14	17.0	38	5.11	
						1226	2.00	160	6.59	0.15	17.0	35	4.7	
						1229	2.25	159	6.61	0.15	17.0	31	3.65	
						1232	2.75	158	6.63	0.16	16.7	30	2.51	
						1235	3.00	157	6.64	0.17	16.7	31	2.16	
		2.94	17.42	11.76	12/9/2008	838	0.25	116	7.36	1.57	10.8	117.5	7.46	Stabilized
						859	0.75	116	7.37	1.58	10.2	248	6.62	
						904	1.00	115	7.34	1.57	11.2	198	5.19	
						909	1.15	115	7.36	1.60	10.5	189	5.14	
						914	1.25	115	7.37	1.54	11.1	191	4.96	
						919	1.35	113	7.42	1.55	12.4	139	5.16	
						924	1.50	112	7.46	1.55	12.5	121	5.25	
						929	1.75	112	7.50	1.58	12.5	101	5.26	
						934	2.00	111	7.53	1.58	12.6	74.5	5.24	
						939	2.25	110	7.58	1.59	12.5	85.2	4.99	
						942	2.35	110	7.59	1.58	12.6	85	4.97	
						945	2.50	110	7.60	1.59	12.5	83.6	4.89	
		2.95	17.45	9.73	3/24/2009	820	0.20	293	7.13	1.16	11.37	73.9	6.85	Stabilized
						830	0.50	290	7.03	1.18	10.94	54.4	4.54	
						835	0.65	289	7.02	1.18	10.79	45.6	4.35	
						840	0.75	288	7.02	1.19	10.68	42.9	4.19	
						843	0.80	287	7.02	1.19	10.69	34.4	4.16	
						846	0.85	286	7.02	1.19	10.7	31.3	4.1	
						849	0.90	286	7.01	1.18	10.7	29.2	4.28	
						852	0.95	284	7.01	1.17	10.63	25.8	4.58	
						855	1.00	284	7.02	1.16	10.65	25.1	4.71	
						858	1.05	284	7.02	1.14	10.62	24.1	4.95	
		3.22	17.64	8.80	6/11/2009	800	0.50	177	7.29	1.36	13.92	20.4	1.61	Stablilized
						805	0.70	169	7.31	1.16	13.66	19.1	1.51	
						808	0.75	166	7.32	1.04	13.61	17.5	2.00	
						811	0.90	165	7.34	0.956	13.52	15.4	2.65	
						814	1.00	164	7.34	0.914	13.42	21.9	2.99	
						817	1.20	163	7.36	0.871	13.36	14.3	2.87	
						820	1.30	162	7.37	0.862	13.4	7	2.88	
						823	1.40	162	7.38	0.864	13.38	5.2	2.94	
						826	1.50	161	7.38	0.879	13.32	4.7	3.07	
						829	1.65	160	7.37	0.893	13.31	4.7	3.10	

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
		2.95	12.45	12.02	10/6/2009	1316	0.50	-3	7.20	1.42	15.14	4.7	138.00	Stabilized
						1321	0.65	6	7.23	1.42	15.14	17.5	0.00	
						1326	0.80	12	7.24	1.42	15.09	16.8	0.00	
						1331	0.95	14	7.26	1.43	15.04	10.2	0.00	
						1336	1.05	14	7.28	1.43	15.01	10.7	0.00	
						1339	1.10	15	7.28	1.43	15	9.9	0.00	
						1342	1.20	16	7.28	1.43	14.99	8.4	0.00	
						1345	1.25	18	7.28	1.43	14.89	6.4	0.00	
						1348	1.30	16	7.28	1.43	14.98	5.8	0.00	
MW02S	584.85	1.44	20.36	19.70	11/13/2007	NW	NW	NW	NW	NW	NW	NW	NW	Not Stabilized
		1.43	20.68	13.65	3/18/2008	1558	0.00	170.8	6.80	1.584	7.81	14.3	9.61	Stabilized
						1603	0.05	168.5	6.88	1.608	8.48	9.1	8.29	
						1613	0.25	164.6	6.90	1.634	9.28	8.2	7.88	
						1622	0.40	161.2	6.90	1.630	9.69	4.9	7.41	
						1625	0.50	160	6.90	1.600	10.08	5.1	7.24	
						1628	0.55	159.9	6.90	1.602	9.88	4.7	7.26	
		1.43	20.11	13.37	6/17/2008	1534	0.15	126	6.60	0.13	21.6	-5	9.36	Stabilized
						1537	0.30	128	6.50	1	17.9	910	11.44	Negative 5 turbidity indicates that the water is so turbid, it is not registering on the meter
						1540	0.40	130	6.5	1	16.8	730	12.61	
						1545	0.55	131	6.6	1.5	14.3	480	14.43	
						1550	0.70	144	6.4	1.2	14.2	410	13.81	
						1555	0.85	139	6.3	1	15.3	300	13.15	
						1600	1.00	145	6.4	3.1	14.6	280	11.88	
						1605	1.10	146	6.4	1	15.3	160	12.63	
						1610	1.20	144	6.4	1	14.5	150	13.11	
						1615	1.35	144	6.7	1	14.2	140	13.38	
						1620	1.45	140	6.5	1	13.3	100	14.04	
						1625	1.60	134	6.5	1	13.9	84	13.49	
						1630	1.75	150	6.6	1	15.8	68	13.02	
						1635	1.90	155	6.4	1	15.3	71	13.88	
						1640	2.05	154	6.2	1	15.3	81	13.81	
		1.42	20.51	12.59	9/22/2008	955	0.75	169	6.24	0.14	15.4	24	2.37	Not Stabilized
						958	1.00	169	6.26	0.11	15.8	30	4.17	
						1001	1.25	170	6.26	0.10	15.8	28	4.64	
						1004	1.58	170	6.26	0.10	15.8	30	4.43	
						1007	2.00	169	6.27	0.11	15.7	46	3.76	
						1010	2.50	167	6.28	0.12	15.7	73	2.65	
						1013	2.75	165	6.29	0.12	15.6	100	1.40	
						1016	3.00	164	6.29	0.13	15.5	110	0.64	
						1019	3.25	159	6.30	0.13	15.3	110	0.47	
		1.21	20.41	14.16	12/8 and 9/2008	1610	0.25	79	6.63	1.5	11.1	62.4	2.10	Not Stabilized or Sampled - Because the parameters would not stabilize and it was getting too late to sample, it was decided that purging would continue the next day.
						1615	0.50	75	6.79	1.46	11.90	46.5	2.39	
						1620	1.25	73	6.88	1.43	12.1	25.5	2.31	
						1625	1.50	71	6.93	1.42	12.1	18.0	2.03	
						1627	1.60	69	6.95	1.43	12.1	19.0	1.89	
						1630	1.70	67	6.96	1.49	12	20.0	1.72	
						1633	1.80	66	6.98	1.48	11.9	16.1	1.28	
						1636	2.00	68	6.99	1.52	10.9	22.0	0.82	
						1645	2.10	67	6.99	1.56	11.3	110	0.85	
						1650	2.25	65	7.01	1.61	11.5	130	1.33	
						1655	2.30	65	7.04	1.64	11.4	112	2.05	
						1658	2.35	66	7.06	1.65	11.2	109	2.39	
						1701	2.40	68	7.08	1.68	9.9	92.4	2.43	
						814	0.20	113	7.02	2.24	12.4	130	10.38	Stabilized except Turbidity and Conductivity - Even though all parameters did not stabilize, the well was sampled after three well volumes purged over 2 days (see above - 12/8/2008)
						819	0.40	107	7.11	2.21	12.45	92	9.53	
						824	0.50	103	7.18	2.23	12.42	59	9.39	
						829	0.60	103	7.2	2.24	11.79	45	11	
						843	0.70	104	7.12	2.39	9.64	84	11.09	
						848	0.75	102	7.13	2.30	9.71	200	11.01	
						853	0.75	101	7.17	2.30	9.65	190	10.4	
						858	0.80	98	7.26	2.21	11.59	120	10.27	

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
						903	1.00	96	7.25	2.16	12.49	66	10.33	
						908	1.13	93	7.2	2.25	11.72	63	10.86	
						911	1.20	94	7.19	2.26	11.28	77	10.79	
						916	1.25	95	7.18	2.28	10.58	73	10.85	
						921	1.30	96	7.2	2.22	11.98	110	10.23	
						926	1.40	97	7.18	2.22	11.61	89	10.48	
						936	1.50	97	7.18	2.15	12.43	95	10.23	
		1.17	20.47	12.84	3/23/2009	910	<0.1	257	6.96	0.921	9.47	40.4	13.02	Stabilized
						920	0.20	254	6.94	0.922	9.43	40.1	8.96	
						925	0.30	251	6.95	0.914	9.43	33.3	8.1	
						930	0.40	250	6.93	0.909	9.36	21.9	7.44	
						935	0.50	248	6.93	0.904	9.37	16.3	7.14	
						940	0.60	246	6.93	0.898	9.49	12.9	6.89	
						945	0.70	244	6.92	0.895	9.58	10.4	6.91	
						950	0.80	242	6.93	0.894	9.62	8.61	7.66	
						953	0.85	241	6.93	0.893	9.65	8.11	7.77	
						956	0.90	240	6.92	0.893	9.69	6.66	7.36	
						959	1.00	239	6.93	0.891	9.73	6.69	8.35	
						1002	1.00	238	6.93	0.892	9.8	14.3	8.93	
						1005	1.10	237	6.93	0.891	9.85	13.5	8.47	
						1008	1.10	237	6.94	0.889	9.87	13.1	9.12	
		1.45	20.67	13.75	6/10/2009	1228	0.25	173	7.19	1.14	14.08	19.2	3.41	Stabilized
						1233	0.50	171	7.18	1.14	13.79	15.0	3.38	
						1236	0.55	171	7.18	1.14	13.78	14.5	3.52	
						1239	0.70	171	7.17	1.13	13.75	14.0	3.76	
		1.18	20.47	14.24	10/6/2009	1105	0.40	193	6.78	1.42	14.00	0.0	1.51	Stabilized
						1110	0.60	181	6.87	1.33	13.90	39.5	2.77	
						1115	0.80	180	6.88	1.32	13.89	41.8	2.41	
						1120	1.00	176	6.92	1.33	13.85	32.1	1.63	
						1125	1.20	172	6.95	1.37	13.78	30.1	1.85	
						1130	1.40	169	6.99	1.4	13.71	27.2	1.19	
						1135	1.60	166	7.02	1.41	13.85	25.7	1.26	
						1140	1.80	165	7.03	1.41	13.93	25.3	1.24	
MW02D	584.89	2.84	29.38	24.53	11/17/2007	919	1.00	123.4	7.67	0.856	11.86	511.7	2.48	Not Stabilized
						922	1.50	135.3	7.44	0.862	11.86	657.3	2.97	
						925	1.75	141.5	7.8	0.869	11.9	835.7	2.56	
		2.78	29.60	15.37	3/19/2008	752	0.00	139.7	7.18	1.364	7.35	51	8.87	Not Stabilized
						757	0.05	137.3	7.42	1.385	7.12	49.8	7.49	
						807	0.10	138.5	7.52	1.402	6.4	54.5	7.42	
						827	0.40	136	7.53	1.411	7.25	315.2	6.52	
						847	0.75	131.8	7.53	1.485	6.42	810.1	6.84	
						907	1.50	132.1	7.52	1.378	9.45	1127.2	7.28	
						937	1.75	125.1	7.52	1.415	10.53	1016.2	6.68	
		2.78	29.13	15.37	6/17/2008	1810	0.15	138	6.6	1	19	-5	9.55	Not Stabilized; -5 turbidity indicates that the water is too turbid to register on the meter
						1815	0.25	148	6.7	0.13	14.3	-5	12.09	
						1820	0.35	157	6.6	1	13.5	-5	12.29	
		2.81	29.42	14.96	9/22/2008	959	1.00	132	8.27	1.2	13.6	150	9.35	Stabilized
						1002	1.25	138	8.32	1.2	13.6	160	9.2	
						1005	1.50	139	8.42	1.2	13.5	170	9.09	
						1008	1.75	141	8.49	1.2	13.5	180	8.94	
		2.49	29.32	15.40	12/8/2008	1630	0.25	64	7.36	1.96	11.11	160	7.8	Stabilized
						1635	0.50	66	7.64	1.94	11.67	110	9.7	
						1640	0.75	71	7.73	1.92	11.75	89	10.38	
						1645	1.00	70	7.79	1.93	11.71	74	10.58	
						1648	1.15	70	7.81	1.92	11.69	71	10.53	
						1651	1.25	69	7.84	1.91	11.68	69	10.53	
		2.54	29.91	14.76	3/23/2009	1140	0.25	192	7.68	1.06	10.95	23.7	5.95	Stabilized
						1150	0.50	189	7.67	1.06	11.15	8.46	5.08	
						1155	0.60	189	7.67	1.07	11.21	8.9	5.28	
						1158	0.65	189-	7.67	1.07	11.26	8.05	5.21	
						1201	0.70	189	7.67	1.07	11.29	8.39	5.09	
						1204	0.75	188	7.67	1.07	11.34	8.17	5.02	

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
		2.80	29.60	15.52	6/10/2009	808	0.50	154	7.74	1.27	16.07	12.4	1.6	Stabilized
						811	0.60	151	7.77	1.26	16.17	10.4	1.48	
						817	0.75	147	7.78	1.26	16.28	8.6	1.48	
						820	0.78	145	7.79	1.27	16.17	7.7	1.42	
						823	0.80	145	7.80	1.27	16.11	8.1	1.44	
						826	0.90	143	7.80	1.28	16.07	9.5	1.43	
						829	1.00	143	7.80	1.28	16.01	8.9	1.41	
						832	1.05	142	7.81	1.28	15.95	8.6	1.33	
		2.57	29.39	15.61	10/12/2009	1445	0.20	163	7.49	1.33	12.99	13	1.76	Stabilized
						1450	0.35	156	7.52	1.33	12.81	10.6	1.57	
						1455	0.40	150	7.54	1.33	12.67	9.45	1.45	
						1500	0.45	144	7.58	1.32	1272	7.94	1.35	
						1505	0.50	141	7.57	1.32	12.38	6.87	1.4	
						1510	0.55	137	7.58	1.33	12.3	8.6	1.47	
						1515	0.60	133	7.58	1.33	12.22	8.14	1.43	
						1520	0.65	129	7.59	1.32	12.16	7.91	1.39	
MW03	584.86	3.53	22.85	21.02	11/13/2007	1140	0.50	196.8	7.33	0.006	14.98	1136.1	9.61	Not Stabilized
						1143	0.75	273.8	6.97	0.994	15.96	916.9	9.71	
						1146	1.00	272.4	6.97	0.996	15.98	891.1	9.75	
						1149	1.25	272.4	6.97	0.998	15.99	788	9.77	
		3.50	22.96	20.76	3/19/2008	1053	0.00	151.4	6.59	1.501	9.04	499.2	7.3	Stabilized
						1058	0.10	149.7	6.61	1.533	8.95	468.1	6.17	
						1108	0.30	149.1	6.59	1.529	9.41	179.1	5.85	
						1118	0.50	147.5	6.58	1.53	10.36	51.3	4.92	
						1128	0.70	146.6	6.58	1.533	10.73	10.9	4.19	
						1137	0.85	145.7	6.58	1.541	10.54	4.9	3.94	
						1140	0.90	145.5	6.58	1.543	10.38	4.5	3.9	
						1143	0.95	145.2	6.58	1.538	10.44	4.3	3.66	
		3.50	20.53	20.44	6/20/2008	1447	0.25	167	7	0.17	17.2	-5	8.12	Stabilized
						1452	0.38	175	6.8	0.16	15.2	-5	8.17	Negative 5 turbidity indicates that the water is so turbid, it is not registering on the meter
						1457	0.50	174	6.9	0.16	15.9	-5	8.22	
						1502	0.63	178	7	0.16	16.3	330	8.34	
						1507	0.75	175	7	0.16	16.4	190	8.42	
						1512	0.83	174	6.9	0.16	16.5	130	8.41	
						1517	1.00	171	7	0.16	16.7	146	8.32	
						1522	1.10	167	6.9	0.16	16.5	120	8.37	
						1527	1.25	165	7	0.16	16.7	140	8.29	
						1532	1.38	162	7	0.16	17	110	8.47	
						1538	1.40	160	7	0.16	17	100	8.34	
		3.31	22.74	18.14	9/16/2008	818	0.25	120	6.34	0.18	16.2	340	0.36	Stabilized
						821	0.50	120	6.37	0.18	16.2	290	1.62	
						823	0.75	125	6.39	0.18	16.2	220	2.06	
						825	1.00	120	6.41	0.17	16.2	120	2.94	
						828	1.50	129	6.43	0.17	16.3	82	2.74	
						832	2.00	130	6.44	0.17	16.3	47	0.75	
						835	2.50	131	6.46	0.17	16.2	36	0.68	
						839	3.00	131	6.46	0.17	16.2	34	0.42	
						842	3.50	131	6.48	0.17	16.3	31	0.37	
						845	4.00	131	6.48	0.17	16.3	28	0.38	
		3.24	22.67	20.71	12/9/2008	1440	0.25	64	6.75	1.25	11.5	818	2.82	Stabilized
						1445	0.50	66	6.8	1.25	12	462	3.52	
						1450	0.75	70	6.84	1.24	12.7	531	4.09	
						1455	1.00	71	6.87	1.24	12.8	619	4.51	
						1500	1.15	75	6.89	1.25	11.8	565	4.47	
						1520	1.50	79	7.32	1.24	11	159	8.02	
						1530	2.00	84	7.21	1.23	12.6	144	7.44	
						1535	2.25	86	7.16	1.25	12.4	154	7.26	
						1540	2.50	88	7.19	1.24	12.4	111	7.5	
						1543	2.50	89	7.2	1.24	12.5	89	7.64	
						1546	2.50	90	7.2	1.24	12.4	90	7.64	

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
		3.26	22.72	19.55	3/16/2009	1513	0.20	130	6.91	1.76	14.34	86.5	3.02	Stabilized
						1518	0.30	128	6.81	1.76	13.8	85.9	2.77	
						1523	0.40	125	6.77	1.76	13.72	87.7	2.65	
						1526	0.50	124	6.77	1.76	13.73	81.5	2.65	
						1529	0.60	122	6.76	1.76	13.61	74.2	2.53	
						1532	0.70	122	6.75	1.76	13.58	68.6	2.47	
						1235	0.80	122	6.75	1.76	13.24	74.2	2.43	
		3.55	23.00	20.72	6/9/2009	900	0.10	135	6.99	1.14	15.53	283	0.67	All Stabilized except Turbidity - Three well volumes purged and then well sampled
						905	0.25	139	6.9	1.14	14.63	96.6	0.09	
						910	0.40	140	6.89	1.14	14.44	51.1	0	
						916	0.50	140	6.86	1.14	14.06	30.8	0	
						921	0.60	141	6.83	1.14	14.01	24.5	0	
						926	0.70	141	6.84	1.14	13.88	20.1	0	
						931	0.80	140	6.86	1.15	13.8	15.2	0	
						936	0.90	138	6.89	1.15	13.7	11.5	0	
						941	1.00	142	6.84	1.16	13.17	14.1	0	
						946	1.10	142	6.84	1.17	13.09	11.1	0	
						951	1.25	142	6.84	1.17	13.1	9.7	0	
						956	1.30	142	6.86	1.17	13.15	10.8	0	
						1001	1.40	141	6.86	1.17	13.13	13.1	0	
						1006	1.50	141	6.88	1.17	13.26	10.9	0	
		3.35	22.72	20.93	10/6/2009	1722	0.40	116	6.81	0.972	17.45	481	0	Stabilized
						1725	0.50	116	6.83	0.974	17.37	448	0	
						1728	0.55	117	6.82	0.976	17.32	290	0	
						1731	0.60	121	6.82	0.978	17.22	249	0	
						1734	0.65	121	6.82	0.979	17.18	230	0	
						1737	0.70	122	6.81	0.98	17.15	226	0	
MW04	577.58	3.35	31.90	27.97	11/15/2007	1309	1.00	160.9	7.43	2.147	11.8	162.7	3.88	Not Stabilized
						1312	1.25	168.2	7.23	2.126	11.75	148.3	4.7	
						1315	1.35	175.6	7.12	2.11	11.78	136.2	4.4	
						1318	1.50	185.1	7.08	2.107	11.88	121.7	4.37	
		3.29	32.22	27.99	3/16/2008	1330	0.00	244.7	7.01	5.309	13.12	26.3	2.45	Stabilized
						1335	0.15	248.6	6.6	5.157	13.9	172.1	1.9	
						1345	0.50	268.5	6.45	4.939	13.55	806.2	1.79	
						1355	0.75	263.4	6.42	4.875	13.96	263.1	1.42	
						1405	1.00	251.6	6.4	4.663	14.09	10.1	1.24	
						1415	1.25	255.7	6.4	4.601	13.5	12.7	1.19	
						1418	1.30	249.3	6.39	4.571	13.88	10.5	1.06	
						1421	1.40	247.3	6.39	4.566	13.77	9.2	1.05	
						1424	1.50	248.3	6.39	4.57	13.44	8.9	1.05	
						1427	1.55	240.1	6.39	4.54	13.69	8.4	1.03	
		3.30	31.71	27.44	6/19/2008	1821	0.13	162	6.9	0.61	19.1	160	8.69	Stabilized
						1826	0.25	178	6.8	0.54	17.5	190	8.55	
						1831	0.38	187	6.8	0.46	17.6	160	9.08	
						1836	0.50	194	6.7	0.44	17.4	160	8.77	
						1841	0.63	204	6.6	0.43	17	120	8.34	
						1846	0.75	229	6.7	0.4	17.5	89	8.41	
						1851	0.88	239	6.7	0.39	18	71	8.45	
						1856	1.00	238	6.8	0.39	17.5	60	8.41	
						1901	1.25	229	6.8	0.38	17.3	48	8.47	
						1906	1.38	228	6.8	0.34	17.4	50	8.43	
						1911	1.50	230	6.8	0.34	17	45	8.41	
		3.09	31.95	25.56	9/17/2008	1101	0.50	214	6.64	0.32	17.2	830	2.3	Stabilized
						1111	1.50	223	6.73	0.25	17.4	90	3.11	
						1116	2.00	229	6.74	0.25	17.5	59	2.81	
						1121	2.50	236	6.75	0.24	17.5	53	0.98	
						1126	3.00	240	6.75	0.24	17.5	49	0.9	
						1129	3.25	246	6.76	0.24	17.5	46	0.86	
						1132	3.50	249	6.76	0.24	17.6	44	0.8	

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
		3.00	31.91	27.99	12/12/2008	821	0.50	114	6.87	7.15	11.62	65	9.13	Stabilized
						831	0.75	92	7.05	7.55	8.93	46	8.19	
						834	0.80	85	7.11	7.54	8.75	42	9.3	
						837	0.85	80	7.16	7.4	8.9	33	9.23	
						840	0.90	78	7.2	7.15	9.2	26	9.42	
						843	1.00	76	7.24	7.33	10.15	20	9.12	
						846	1.10	73	7.3	7.18	10.58	19	9.16	
						849	1.20	73	7.36	7.48	11	18	9.29	
						852	1.25	73	7.39	7.59	11.09	12	9.53	
						855	1.30	73	7.4	7.65	11.19	11	9.31	
						858	1.40	74	7.41	7.47	10.95	12	9.47	
		3.03	31.98	25.67	3/19/2009	1557	0.40	98	6.65	5.21	14.19	139	2.69	Stabilized
						1602	0.75	98	6.77	3.56	14.07	101	4.21	
						1607	1.00	96	6.79	3.11	14	52.1	4.24	
						1610	1.25	95	6.78	3.02	13.92	35	3.94	
						1613	1.50	96	6.77	2.95	13.91	18.4	3.68	
						1616	1.70	96	6.76	2.91	13.88	9.8	3.5	
						1619	1.90	99	6.75	2.89	13.88	5.6	3.36	
						1622	2.00	102	6.75	2.86	13.83	1.5	3.29	
						1625	2.25	107	6.74	2.84	13.83	0	3.11	
						1628	2.50	111	6.74	2.82	13.84	0	3.02	
						1631	2.60	117	6.74	2.81	13.83	0	2.91	
		3.30	32.16	27.90	6/10/2009	805	0.50	193	6.75	5.02	12.68	79.1	0.69	Not Stabilized - Three well volumes purged and then well sampled
						810	0.75	189	6.77	5.13	12.42	34	0	
						815	1.10	141	6.76	5.75	12.55	16.3	0	
						820	1.50	117	6.79	6.07	12.89	14.4	0	
						825	1.60	105	6.81	6	13.44	15.3	0.49	
						830	1.70	99	6.83	5.48	13.55	10.9	1.1	
						835	1.75	98	6.84	5.15	13.62	9.7	1.42	
						840	1.80	98	6.86	4.8	13.68	7	1.51	
						845	1.75	99	6.87	4.41	13.62	4.5	2.25	
						850	1.90	100	6.87	4.21	13.75	3.4	2.44	
						855	2.00	101	6.87	4.06	13.84	2.5	3.61	
						900	2.00	102	6.88	3.89	13.94	2.2	2.99	
						905	2.10	104	6.89	3.74	14.02	1.2	4.26	
						910	2.10	105	6.89	3.67	14.27	1.4	4.64	
						915	2.20	106	6.91	3.55	14.5	1.1	4.64	
						920	2.20	107	6.92	3.46	14.74	0.6	4.66	
		3.00	32.04	27.85	10/8/2009	1355	0.30	126	6.55	5.91	13.87	554	2.24	Stabilized
						1400	0.40	164	6.61	5.09	13.86	205	2.53	
						1420	0.90	187	6.64	3.85	13.82	39.5	2.84	
						1425	1.00	188	6.64	3.69	13.83	24.2	2.84	
						1430	1.10	189	6.65	3.57	13.84	16.6	2.79	
						1435	1.20	190	6.65	3.49	13.83	10.1	2.73	
						1438	1.30	190	6.64	3.46	13.83	10.2	2.71	
						1441	1.35	189	6.65	3.4	13.82	9.5	2.69	
MW05	569.31	1.66	46.24	44.55	11/14/2007	NW	NW	NW	NW	NW	NW	NW	NW	Not Stabilized
		1.61	46.14	19.77	3/14/2008	743	0.00	73.3	7.84	4.835	9.94	7.4	6.33	Stabilized
						748	0.20	62.4	7.72	4.859	10.56	6.8	5.5	
						758	0.45	51	7.66	4.883	10.36	7.4	5.17	
						801	0.55	46.8	7.65	4.867	11.27	8.3	4.96	
						804	0.65	45.2	7.65	4.864	11.32	6.6	4.87	
						807	0.75	43.3	7.65	4.864	11.27	6.5	4.87	
						810	0.85	42.4	7.64	4.859	11.59	7.1	4.83	
		1.61	45.77	19.48	6/20/2008	1007	0.13	174	7.7	0.54	17.2	-5	6.94	Stabilized
						1012	0.25	174	7.7	0.55	16.1	-5	7.02	Negative 5 turbidity indicates that the water is so turbid, it is not registering on the meter
						1017	0.50	173	7.7	0.55	16.3	910	7.62	
						1022	0.63	164	7.7	0.56	16.4	750	7.53	
						1027	0.75	163	7.8	0.54	16.8	440	8.09	
						1032	1.00	163	7.9	0.55	17.1	410	8.13	
						1037	1.25	163	7.8	0.55	16.8	360	7.99	
						1042	1.38	165	7.8	0.55	16.5	300	7.85	
						1047	1.50	164	7.8	0.55	16.3	250	7.77	
						1052	1.63	159	7.9	0.55	16.3	230	7.59	
						1057	1.75	163	7.9	0.55	16.5	190	7.63	
						1102	2.00	165	7.8	0.56	16.8	174	7.63	
						1107	2.25	161	7.8	0.55	16.4	110	7.56	
						1112	2.50	159	7.8	0.56	16.4	130	7.65	
						1117	2.75	157	7.8	0.55	16.1	130	7.55	
						1122	3.00	159	7.8	0.55	16.5	100	7.57	
						1127	3.20	160	7.8	0.56	16.8	90	7.59	

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
						1132	3.30	160	7.8	0.55	17.1	100	7.28	
		1.70	46.15	37.17	9/16/2008	1637	0.40	131	8.15	0.422	15.2	89.2	6.14	Stabilized
						1342	0.80	126	8.11	0.418	15	69.2	5.73	
						1647	1.30	124	8.08	0.414	14.9	21.8	5.83	
						1652	1.75	122	8.06	0.422	14.9	16.4	5.82	
						1655	2.00	121	8.04	0.423	14.8	73.6	5.75	
						1658	2.15	120	8.04	0.434	14.8	115	5.57	
						1702	2.25	115	8.13	0.412	15.3	47.5	5.81	
						1705	2.50	114	8.15	0.405	15.4	39.1	5.78	
						1708	2.60	112	8.17	0.401	15.4	35.6	5.72	
						1711	2.80	111	8.18	0.4	15.5	34.8	5.67	
		1.64	46.03	21.34	12/18/2008	1145	0.25	91	7.44	0.55	11.3	3.15	0	Stabilized
						1150	0.50	85	7.44	0.56	11.5	2.97	0	
						1200	0.60	82	7.45	0.56	11.2	1.73	0	
						1205	0.70	80	7.46	0.56	11.2	1.33	0	
						1210	0.75	77	7.48	0.56	10.9	2.58	0	
						1215	1.00	74	7.46	0.55	12	3.63	0	
						1220	1.20	72	7.48	0.55	12.4	2.78	1.43	
						1240	2.25	66	7.43	0.55	13	4.24	0	
						1245	2.35	65	7.39	0.55	12	4.21	0	
						1250	2.50	65	7.41	0.56	11.2	3.87	0	
						1253	2.60	65	7.38	0.56	10.7	3.68	0	
						1256	2.75	65	7.4	0.56	10.5	3.51	0	
		1.67	46.13	19.92	3/20/2009	855	0.20	113	7.58	3.68	5.22	67.1	5.31	Stabilized
						900	0.30	102	7.58	3.68	5.52	61.2	4.56	
						905	0.40	92	7.58	3.68	5.89	59.2	3.71	
						910	0.45	89	7.59	3.64	5.21	54.1	3.58	
						915	0.50	84	7.58	3.63	5.87	52.5	3.31	
						920	0.60	77	7.58	3.75	6.87	50.4	3.14	
						925	0.70	74	7.58	3.83	7.57	48.8	2.95	
						930	0.80	72	7.58	3.86	7.91	46.8	2.8	
						935	0.90	70	7.57	3.89	8.31	42.9	2.6	
						940	1.00	69	7.57	3.91	8.53	40	2.47	
						943	1.05	69	7.57	3.92	8.71	37.7	2.92	
						946	1.11	68	7.57	3.93	8.81	37.3	2.36	
						949	1.17	68	7.57	3.91	10.17	26.7	2.59	
						952	1.23	69	7.57	3.91	10.28	20.9	2.82	
						955	1.30	69	7.57	3.92	10.35	14.2	2.82	
						958	1.36	68	7.56	3.91	10.41	11.8	2.19	
						1001	1.39	67	7.56	3.92	10.46	9.48	2.12	
						1004	1.42	67	7.56	3.92	10.5	8.52	2.07	
						1007	1.50	66	7.56	3.92	10.51	7.79	2.07	
						1010	1.56	66	7.56	3.92	10.51	7.82	2.05	
		1.95	46.18	20.05	6/16/2009	840	0.30	40.9	7.7	3.992	14.45	48	1.32	Stabilized
						845	0.60	32.9	7.7	3.981	14.34	32.9	0.5	
						850	1.00	25.4	7.69	3.981	14.35	21.7	0.3	
						855	1.25	19.7	7.68	3.981	14.36	15.4	0.25	
						900	1.50	15.4	7.68	3.981	14.37	15.2	0.22	
						905	1.80	11.3	7.67	3.982	14.41	16.2	0.2	
		1.62	46.20	20.42	10/9/2009	1402	0.10	57	7.9	4.95	13.47	36.9	0	Stabilized
						1407	0.20	29	7.9	4.95	13.4	37.5	0	
						1412	0.30	17	7.9	4.95	13.42	28	0	
						1417	0.40	12	7.9	4.95	13.45	27	0	
						1422	0.50	0	7.9	4.95	13.47	25.3	0	
						1425	0.55	-3	7.9	4.96	13.51	23.7	0	
						1428	0.60	-6	7.9	4.95	13.53	23.6	0	
						1431	0.70	-6	7.9	4.95	13.54	21.6	0	
						1434	0.80	-7	7.9	4.96	13.53	21.9	0	
MW06	564.5	3.47	17.67	11.07	11/14/2007	1417	1.50	84.9	7.53	1.578	14.75	26.7	240.7	Not Stabilized
						1420	1.70	112.7	7.5	1.144	14.83	25	234.8	
						1423	1.75	136.8	7.16	1.442	14.8	20	207.4	
						1426	2.00	146.8	7.12	1.597	14.8	20	202.8	
						1429	2.25	150.4	7.11	1.627	14.83	15	200.8	
		3.45	17.90	9.96	3/12/2008	1042	0.00	119	7.14	1.34	9.2	323.3	5.6	Stabilized
						1052	1.25	124.1	7.03	1.362	8.2	162	5.99	
						1101	1.45	122.5	7.02	1.38	8.58	61.6	5.56	
						1112	1.90	122.7	6.99	1.399	9.17	16.9	4.58	
						1122	2.40	123.2	6.96	1.399	9.45	11.9	4.39	
						1125	2.50	123.4	6.96	1.402	9.5	12.7	4.33	
						1128	2.65	123.4	6.96	1.403	9.47	12.7	4.36	
		3.45	17.41	9.48	6/20/2008	959	0.30	153	7	0.14	21.4	610	2.6	Stabilized

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
						1004	0.65	144	6.9	0.16	16.6	280	4.09	
						1009	0.95	150	6.7	0.16	14.6	380	4.07	
						1014	1.25	139	6.8	0.16	14.6	280	4.12	
						1019	1.55	138	6.8	0.17	13.3	130	4	
						1024	1.80	142	6.7	0.17	13.4	78	3.27	
						1029	2.10	141	6.6	0.17	13	52	3.56	
						1034	2.35	140	6.7	0.18	13	43	3.78	
						1039	2.65	137	6.7	0.17	13	43	3.71	
						1044	2.95	140	6.7	0.17	12.9	40	3.61	
		3.22	17.67	8.75	9/16/2008	1433	0.30	152	7.19	0.133	17.9	219	8.43	Stabilized
						1438	0.90	140	7.26	0.166	18.2	54.7	7.84	
						1443	1.50	133	7.29	0.111	18.1	44.4	7.59	
						1448	2.00	128	7.3	0.111	18	47.1	7.29	
						1451	2.30	126	7.3	0.111	18	47.9	7.22	
						1454	2.75	124	7.3	0.11	17.9	47.2	6.95	
		3.23	17.63	10.78	12/12/2008	935	0.25	79	6.84	2.17	11	164	5.76	Stabilized
						940	0.50	79	6.87	2.18	11.2	147	5.88	
						945	0.75	79	6.9	2.17	11.4	110	5.97	
						950	1.00	79	6.91	2.18	11.4	84.7	5.66	
						955	1.25	79	6.92	2.18	11.4	50.2	4.13	
						1000	1.50	78	6.93	2.19	11.1	31.6	2.63	
						1005	1.75	79	6.92	2.19	11.4	21.2	1.86	
						1010	2.00	78	6.94	2.19	11.7	19.8	1.41	
						1015	2.25	78	6.94	2.19	11.6	20.1	1.21	
						1018	2.35	78	6.94	2.19	11.5	19.4	1.16	
						1021	2.50	78	6.94	2.19	11.5	19.9	1.1	
		3.21	17.74	9.75	3/18/2009	1548	0.75	114	7.1	1.24	9.09	296	5.3	Stabilized
						1553	1.00	113	7.13	1.19	8.93	229	5.79	
						1558	1.25	114	7.15	1.15	8.43	96.5	6.59	
						1603	1.50	114	7.17	1.15	8.25	58.4	6.58	
						1606	1.60	114	7.15	1.15	8.29	44.1	6.74	
						1609	1.75	112	7.18	1.16	8.25	36.7	6.54	
						1612	1.90	114	7.17	1.16	8.25	28.6	6.52	
						1615	2.05	115	7.17	1.17	8.29	27.3	6.46	
						1618	2.20	115	7.17	1.17	8.31	19	6.46	
						1621	2.30	115	7.19	1.17	8.33	17	6.4	
						1624	2.50	116	7.19	1.17	8.36	13.1	6.4	
						1627	2.60	116	7.19	1.18	8.35	9.1	6.38	
						1630	2.75	117	7.18	1.18	8.3	6.7	6.31	
						1633	2.90	118	7.18	1.18	8.24	3.9	6.35	
						1636	3.05	118	7.17	1.18	8.27	4	6.42	
						1639	3.20	119	7.17	1.18	8.26	1.5	6.33	
						1642	3.30	120	7.15	1.18	8.21	0	6.36	
						1645	3.50	121	7.16	1.18	8.2	0	6.32	

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
		3.43	17.92	10.57	6/16/2009	950	0.75	41.1	7	1.086	13.89	158	12.08	Not Stabilized - Three well volumes purged and then well sampled
						955	1.20	38.8	7	1.062	14.18	121	2.39	
						1000	1.50	38.3	7	1.066	14.13	72.2	2.25	
						1005	2.00	38	6.99	1.073	14	44.8	2.18	
						1010	2.40	37.1	7	1.075	13.89	29.3	2.12	
						1015	2.75	36.9	7	1.076	13.75	17.2	2.09	
						1020	3.25	37.1	6.98	1.08	13.8	11.8	2.03	
						1025	3.75	37.1	6.98	1.082	13.83	7.05	2.02	
						1030	4.25	36.5	6.99	1.082	13.8	5.36	1.99	
						1035	4.60	35.9	7	1.078	13.68	4.41	2	
						1040	5.40	--	6.99	1.077	13.69	4.45	2.01	
						1045	5.70	35.5	7	1.075	13.61	3.36	1.98	
						1055	6.20	35	7	1.074	13.57	1.77	2.01	
						1100	6.50	34	7	1.072	13.57	1.87	1.96	
						1105	7.20	34.5	6.99	1.073	13.57	1.6	1.98	
						1110	7.50	35.5	6.98	1.076	13.7	1.43	1.98	
						1115	8.00	36.3	6.97	1.078	13.77	1.39	1.96	
						1120	8.50	36.9	6.93	1.076	13.72	1.38	1.96	
		3.17	17.79	10.68	10/17/2009	1455	0.40	137	6.8	1.81	17.21	69.2	0	Stabilized
						1505	0.60	142	6.94	1.81	17.32	68.2	0	
						1515	0.75	145	6.97	1.81	17.26	45	0	
						1525	0.90	148	6.97	1.83	17.28	24	0	
						1528	1.00	147	6.99	1.84	17.24	20.7	0	
						1531	1.05	147	7	1.85	17.22	16.9	0	
						1534	1.10	150	6.96	1.85	17.25	13.9	0	
						1537	1.15	147	7	1.86	17.29	12.7	0	
						1540	1.20	149	6.96	1.86	17.34	10.3	0	
						1543	1.25	147	7	1.86	17.37	9.8	0	
						1546	1.30	146	7.01	1.86	17.38	9.4	0	
MW07	547.23	3.25	16.91	6.31	11/14/2007	1205	1.50	66	6.65	1.792	14.12	582.7	85.5	Not Stabilized
						1208	1.75	-11.5	6.6	0.041	14.02	522.7	84.4	
						1211	2.10	-21.5	6.53	1.977	14.1	491.7	47.8	
						1214	2.50	-25	6.55	1.975	14.09	440.1	48.8	
						1217	2.85	-29.3	6.51	1.998	14.07	375.7	45.6	
		3.21	17.16	4.95	3/12/2008	1535	0.00	-6.4	6.51	2.313	10.86	698.7	2.51	Stabilized
						1538	0.25	-7.4	6.45	2.324	11.06	642.1	1.77	
						1548	1.30	-21.5	6.37	2.338	11.34	222.1	1.14	
						1558	1.50	-19.9	6.37	2.334	11.18	110.2	1.48	
						1609	2.33	-16.4	6.36	2.331	11.23	75	1.55	
						1618	2.75	-14.1	6.36	2.333	11.4	69.8	1.84	
						1627	3.50	-12.6	6.36	2.333	11.46	36.3	1.63	
						1630	3.65	-11.7	6.36	2.331	11.5	32.2	1.65	
						1633	3.75	-12	6.37	2.333	11.67	32.5	1.67	
						1636	3.80	-11.5	6.37	2.343	11.33	31.2	1.65	
		3.21	16.61	4.72	6/19/2008	1450	0.25	-32	8.5	0.23	20.3	-5	1.95	Stabilized
						1500	0.80	-56	8.5	0.25	15.4	940	2.8	
						1510	1.30	-31	8	0.26	14.1	630	2.45	
						1520	1.80	-40	8.1	0.26	13	320	2.39	
						1530	2.30	-25	7.8	0.26	12.3	120	2.6	
						1535	2.55	-20	7.6	0.26	12.8	54	2.76	
						1540	2.80	-22	7.7	0.26	12.8	47	2.63	
						1545	3.05	-24	7.7	0.26	12.5	50	2.65	
		3.28	17.00	4.54	9/22/2008	1350	1.25	-43	6.7	2.7	16.0	500	0.37	Stabilized
						1353	1.50	-42	6.7	2.6	16.0	430	0.16	
						1356	2.00	-41	6.7	2.6	15.9	370	0.15	
						1359	2.50	-39	6.7	2.6	15.8	290	0.65	
						1404	3.13	-35	6.7	2.6	15.7	240	0.52	
						1409	3.50	-34	6.69	2.6	15.8	230	0.64	
						1414	3.75	-33	6.68	2.7	15.7	260	0.28	
						1419	4.25	-30	6.68	2.7	15.6	250	0.64	
						1424	4.75	-29	6.69	2.7	15.5	220	0.46	
						1429	5.50	-29	6.68	2.7	15.5	210	0.53	
						1434	6.00	-29	6.68	2.7	15.4	210	0.56	

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
		3.23	16.89	6.06	12/12/2008	1125	0.50	-25	6.63	2.79	11	427	2.84	Stabilized - Different Horiba water quality meter used after 11:45 a.m. because of meter malfunction
						1135	1.00	-42	6.61	2.96	11.7	176	0	
						1145	1.50	-8	7.42	3.53	11.26	230	3.53	
						1155	2.00	--	6.8	3.01	11.38	140	3	
						1200	2.25	-2	7.13	3	11.84	120	3.02	
						1203	2.40	-11	7.23	2.99	12	74	3.01	
						1206	2.50	-13	7.23	2.99	11.97	70	3.03	
						1209	2.60	-15	7.29	2.99	11.99	64	3.1	
		2.91	16.88	4.73	3/18/2009	1348	0.75	-90	6.63	2.53	11.94	513.0	2.25	Stabilized
						1358	1.50	-93	6.61	2.55	11.87	331.0	2.00	
						1403	1.90	-93	6.61	2.55	11.76	266.0	1.94	
						1408	2.30	-93	6.60	2.56	11.75	189.0	1.87	
						1411	2.50	-93	6.60	2.56	11.82	161.0	1.85	
						1414	2.80	-92	6.60	2.57	11.75	143.0	1.94	
						1417	3.00	-92	6.61	2.57	11.81	127.0	1.86	
						1420	3.25	-93	6.60	2.57	11.75	111.0	1.80	
						1423	3.50	-92	6.61	2.58	11.87	97.5	1.73	
						1425	3.75	-94	6.60	2.58	11.74	93.7	1.74	
						1428	3.85	-91	6.58	2.59	11.82	79.2	1.71	
						1431	4.00	-92	6.59	2.58	11.79	76.3	1.67	
						1434	4.25	-91	6.58	2.59	11.81	73.1	1.74	
		3.24	17.00	4.85	6/12/2009	1007	1.00	-22	6.82	2.48	16.41	301	0.57	Stabilized
						1017	1.90	-3	6.78	2.6	14.65	74.3	0.35	
						1020	2.20	-6	6.77	2.6	14.59	65.8	0.33	
						1023	2.50	-8	6.78	2.6	14.49	60.0	0.31	
						1026	2.75	-8	6.77	2.61	14.49	54.0	0.3	
						1029	3.00	-9	6.76	2.61	14.52	44.3	0.29	
						1032	3.25	-10	6.76	2.61	14.50	37.2	0.29	
						1035	3.50	-9	6.75	2.61	14.48	31.1	0.28	
						1038	3.75	-10	6.76	2.61	14.49	26.9	0.27	
						1041	4.00	-10	6.76	2.61	14.48	25.1	0.27	
						1044	4.25	-11	6.76	2.61	14.47	21.6	0.26	
						1047	4.50	-11	6.75	2.61	14.47	119.4	0.26	
						1050	4.75	-12	6.76	2.61	14.50	19.0	0.26	
						1053	5.00	-11	6.76	2.61	14.65	17.9	0.25	
		2.90	16.76	5.58	10/12/2009	1331	0.25	-15	6.69	2.52	13.47	430	0.00	Stabilized
						1341	0.55	-18	6.70	2.52	13.67	270	0.00	
						1351	1.25	-19	6.71	2.50	13.97	103	0.00	
						1401	1.80	-15	6.67	2.52	13.97	44.8	0.00	
						1406	2.75	-14	6.66	2.50	13.46	31	0.00	
						1411	2.80	-5	6.66	2.50	--	29	0.00	
						1421	3.25	-18	6.68	2.57	1396	23.6	0.00	
						1426	3.55	-15	6.68	2.51	13.96	21.3	0.00	
						1431	4.05	-12	6.63	2.51	13.96	16.7	0.00	
						1436	4.50	-13	6.65	2.51	13.94	14.8	0.00	
						1441	4.90	-14	6.66	2.51	13.97	13.4	0.00	
						1446	5.25	-15	6.66	2.51	13.96	11.9	0.00	
						1451	5.60	-14	6.60	2.51	13.95	10.6	0.00	
MW08	534.12	2.53		Dry		Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry Well
		2.52	18.15	14.07	3/18/2008	1230	0.00	11.8	6.56	1.984	7.03	20.5	11.8	Stabilized
						1235	0.05	10.88	6.67	1.999	7.02	22.1	10.88	
						1245	0.20	10.66	6.75	2	7.17	13	10.66	
						1255	0.40	10.46	6.79	1.989	7.81	10.8	10.46	
						1257	0.45	10.18	6.79	2.012	8.34	9.4	10.18	
						1300	0.55	10.2	6.8	2.027	8.28	10.1	10.2	
						1303	0.60	10.29	6.8	2.053	7.96	11	10.29	
		2.52	17.65	14.29	6/18/2008	953	0.50	124	7	0.23	13	380	15.28	Stabilized
						958	0.75	126	7.1	0.79	14.4	190	14.01	
						1003	0.88	129	7	0.22	14.4	160	14.13	
						1008	1.00	130	7.1	0.23	14.9	120	13.69	
						1013	1.13	124	7	0.22	15.2	100	13.57	
						1018	1.25	123	7.1	0.22	15.5	98	13.27	

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
		2.44	17.96	12.31	9/18/2008	1535	0.50	140	6.71	0.82	16.5	77	6.7	Stabilized
						1538	0.75	132	6.86	0.84	16.2	76	6.35	
						1541	1.00	119	7.11	1	16	82	6.17	
						1544	1.13	117	7.11	1.1	15.9	83	6.05	
						1547	1.40	116	7.11	1.2	15.8	84	5.86	
		2.52	17.19	15.21	12/15/2008	1148	0.50	141	6.66	2.54	11.05	36	8.82	Stabilized
						1153	0.70	141	6.63	2.54	11.57	300	8.29	
						1158	0.80	141	6.65	2.56	11.53	100	8.36	
						1203	1.00	141	6.65	2.56	11.59	32	8.15	
						1206	1.15	140	6.65	2.56	11.6	18	8.12	
						1209	1.25	140	6.64	2.55	11.75	17	8.02	
						1212	1.35	140	6.64	2.55	11.71	17	8	
		2.26	17.95	13.52	3/18/2009	1530	0.25	210	6.85	0.748	9.58	20.3	13.92	Stabilized
						1535	0.40	210	6.83	0.731	9.2	9.73	13.64	
						1540	0.60	207	6.84	0.768	8.98	9.3	13.46	
						1545	0.80	207	6.84	0.801	8.92	6.41	13.33	
						1550	1.00	208	6.81	0.864	8.81	5.42	13.21	
						1555	1.20	207	6.81	0.958	8.76	7.76	12.98	
						1600	1.40	204	6.85	1.01	8.71	11.4	12.89	
						1605	1.60	206	6.81	1.06	8.68	21.2	12.8	
						1610	1.80	209	6.74	1.09	8.68	9.26	12.71	
						1615	2.00	208	6.77	1.13	8.68	3.27	12.54	
						1618	2.12	207	6.78	1.14	8.63	2.36	12.48	
						1621	2.24	208	6.77	1.16	8.65	1.49	12.38	
						1624	2.36	207	6.79	1.17	8.64	0.68	12.39	
						1627	2.48	206	6.8	1.18	8.61	0.34	12.28	
						1630	2.60	208	6.78	1.18	8.62	0.34	12.26	
						1633	2.65	207	6.79	1.19	8.62	0	12.3	
		2.53	18.15	14.64	6/15/2009	930	0.30	209.5	7.08	1.18	12	383	8.76	All Stabilized except for Turbidity - Three well volumes purged and then well sampled
						935	0.60	202.4	7.05	10204	11.71	228	8.75	
						940	1.00	197.1	7.05	1.239	11.77	181	9.4	
						945	1.10	192.9	7.06	1.255	12.11	159	9.17	
						950	1.25	189.7	7.04	1.261	12.29	118	9.34	
						955	1.30	186.1	7.04	1.267	12.36	61.7	9.5	
						1000	1.50	182.5	7.06	1.273	12.43	34	9.5	
						1005	1.70	176.6	7.04	1.281	12.51	5.9	9.52	
		2.48	18.01	16.75	10/9/2009	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry Well
MW09	589.04	3.10	18.57	6.32	11/15/2007	1753	1.00	132.1	7.94	0.977	10.11	153.2	2.62	Not Stabilized
						1756	1.25	146.5	7.6	0.551	10.09	241.9	2.43	
						1759	1.50	155	7.4	0.55	10.3	194.5	2.32	
						1802	1.50	160.3	7.4	0.66	10.2	183.7	2.29	
		3.07	18.89	4.58	3/13/2008	1010	0.00	143	6.79	2.449	8.21	40.9	15.02	Stabilized
						1015	0.20	144.1	6.76	2.461	9.07	25.1	15.44	
						1025	0.80	139.7	6.74	2.487	10.14	13.1	15.41	
						1035	1.20	139.7	6.73	2.5	9.85	2.6	14.36	
						1038	1.30	140.2	6.72	2.493	10.01	2.4	14.03	
						1041	1.45	142.1	6.73	2.478	10.65	3.1	14.27	
						1044	1.55	142.4	6.73	2.48	10.91	3.2	14.18	
						1047	1.65	143.1	6.73	2.475	11.2	3.2	14.26	
		3.07	18.37	4.71	6/18/2008	1840	0.50	120	5.9	0.17	12.6	650	2.26	Stabilized
						1845	1.00	122	6	0.19	12.6	430	2.99	
						1850	1.25	128	6	0.2	12.1	180	3.01	
						1855	1.50	136	5.9	0.19	11.7	100	3.2	
						1900	1.75	130	5.9	0.19	11.2	69	3.18	
						1905	2.00	129	5.9	0.19	10.7	63	3.2	
						1910	2.25	125	6	0.19	10.4	30	3.2	
						1915	2.75	130	5.9	0.19	10.5	24	3.2	
						1920	3.00	129	6	0.19	10.4	21	3.2	
						1925	3.25	131	6	0.19	10.4	20	3.2	
		3.06	18.68	4.27	9/17/2008	810	0.60	120	7.31	0.184	16	333	4.74	Stabilized
						815	0.90	80	7.32	0.182	16	200	5.05	
						820	1.30	37	7.33	0.178	15.5	137	5.37	
						825	1.60	18	7.33	0.167	15.5	120	4.91	

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
						830	2.25	5	7.35	0.17	15.6	140	5.09	
						833	2.50	3	7.36	0.17	15.6	134	5.05	
						836	2.75	2	7.36	0.173	15.6	164	4.93	
						839	2.90	1	7.36	0.177	15.6	86.9	5.26	
						842	3.20	1	7.37	0.17	15.6	119	3.54	
						845	3.40	1	7.37	0.166	15.6	173	5.54	
						850	3.75	0	7.38	0.163	15.6	219	5.62	
						855	4.25	0	7.38	0.159	15.7	181	6.5	
						900	4.60	-2	7.38	0.162	15.6	256	6.32	
						908	5.10	-3	7.38	0.171	15.7	77.9	2.6	
						911	5.30	0	7.37	0.169	15.7	73.5	3.95	
						914	5.50	0	7.36	0.163	15.7	104	5.59	
						917	5.75	0	7.36	0.166	15.7	106	5.38	
						920	6.00	-1	7.36	0.171	15.7	105	5.39	
		3.10	18.67	5.50	12/10/2008	945	0.25	117	7.13	1.73	11.1	630	4.91	Stabilized
						950	0.50	98	7.15	1.74	11.6	519	4.22	
						955	0.75	84	7.15	1.75	11.5	424	3.96	
						1000	1.00	79	7.15	1.74	11.6	353	3.52	
						1005	1.25	71	7.15	1.75	11.8	258	3	
						1010	1.50	64	7.14	1.78	11.6	200	2.39	
						1015	1.75	60	7.13	1.79	11.7	154	1.99	
						1020	2.00	56	7.13	1.75	11.8	126	1.8	
						1025	2.25	53	7.13	1.8	11.8	107	1.41	
						1030	2.50	51	7.11	1.83	11.6	83.3	1.11	
						1035	2.75	49	7.11	1.83	11.8	74.4	0.77	
						1040	3.00	46	7.11	1.85	11.8	57.1	0.53	
						1043	3.15	45	7.11	1.84	11.7	56.6	0.45	
						1046	3.25	44	7.11	1.86	11.6	54.2	0.47	
						1049	3.40	44	7.11	1.83	11.4	57	0.5	
		2.86	18.75	4.56	3/16/2009	1653	0.25	164	6.8	2.55	14	457	5.49	Stabilized
						1658	0.50	161	6.86	2.6	12.93	364	5.53	
						1703	0.80	156	6.91	2.6	12.62	260	5.61	
						1708	1.20	154	6.93	2.6	12.72	214	5.57	
						1711	1.30	151	6.95	2.57	12.73	178	5.57	
						1714	1.50	150	6.95	2.6	12.15	160	5.75	
						1717	1.70	148	6.97	2.58	12.37	153	5.75	
						1720	1.90	147	6.98	2.57	12.18	133	5.92	
						1723	2.10	146	6.98	2.57	12.23	127	5.9	
						1726	2.25	144	6.99	2.61	11.43	132	6.03	
						1729	2.40	142	7	2.59	11.52	105	5.86	
						1732	2.60	140	7	2.59	11.3	106	6.26	
						1735	2.80	139	7	2.59	11.38	94.4	5.98	
						1738	3.00	137	7	2.59	11.22	90.2	5.96	
						1741	3.20	135	7.01	2.58	11.13	85.3	6.13	
		3.10	18.86	5.50	6/11/2009	748	0.10	235	6.96	1.86	15.47	657	4.1	Stabilized
						753	0.50	227	7.09	1.85	13.37	260	1.07	
						800	0.60	220	7.09	1.81	13.86	196	0.26	
						805	1.10	199	7.18	1.86	12.21	123	0	
						810	1.75	139	7.22	1.86	12.17	62.3	0	
						815	2.20	99	7.22	1.85	12.26	40.1	0	
						820	2.60	83	7.22	1.85	12.33	25.9	0	
						825	2.75	74	7.21	1.84	12.34	13.4	0	
						830	3.00	70	7.21	1.84	12.29	9.6	0	
						835	3.25	69	7.22	1.84	12.25	7.3	0	
						840	3.50	66	7.24	1.84	12.23	5	0	
						845	4.00	64	7.25	1.83	12.22	3.3	0.12	
						850	4.25	63	7.26	1.86	12.23	3.4	0.23	
						855	4.50	61	7.27	1.83	12.18	3.6	0.34	
						900	4.75	60	7.28	1.83	12.17	2.7	0.42	
						905	5.00	58	7.28	1.83	12.17	0	0.53	
						910	5.25	57	7.29	1.83	12.17	0	0.59	
						915	5.65	55	7.3	1.82	12.1	0	0.73	
						920	5.75	54	7.3	1.82	12.11	0	0.74	
						925	6.00	53	7.31	1.82	12.11	0	0.8	

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
		2.85	18.66	5.40	10/8/2009	1356	0.20	115	7.13	1.65	14.48	222	0.01	Stabilized
						1406	0.35	62	7.16	1.64	14.36	113	0	
						1416	0.60	35	7.15	1.63	14.4	52.7	0	
						1426	0.95	17	7.15	1.63	14.3	23.3	0	
						1431	1.15	8	7.15	1.63	14.22	16	0	
						1436	1.30	7	7.14	1.62	14.23	14	0	
						1439	1.45	7	7.14	1.62	14.2	13.9	0	
						1442	1.55	7	7.16	1.62	14.18	13.2	0	
						1445	1.65	5	7.15	1.62	14.18	13.1	0	
MW10	587.93	2.50	21.42	12.17	11/15/2007	1046	1.00	71.4	6.62	0.009	3.58	14.4	14.34	Not Stabilized
						1052	1.20	110.9	7.3	0.763	12	169.3	92.7	
						1055	1.23	127.7	7.33	0.79	12.33	150.6	93.6	
						1058	1.25	139.4	7.33	0.41	12.15	190.2	92	
						1101	--	152.3	7.24	0.719	12.03	194.2	61.9	
		2.43	21.53	8.05	3/13/2008	1838	0.00	-56.1	6.71	0.833	11.2	1062.9	15.11	Stabilized
						1843	0.20	-42	6.51	0.831	11.33	825.2	16.06	
						1853	0.30	-37.1	6.46	0.826	11.33	560.1	16.42	
						1903	0.60	-38	6.46	0.823	11.17	332.4	15.91	
						1913	1.00	-40.4	6.46	0.823	11.23	173.6	15.64	
						1916	1.10	-40.5	6.45	0.824	11.13	158.2	15.37	
						1920	1.25	-40.3	6.45	0.825	11.01	122.3	15.32	
						1923	1.30	-40.4	6.45	0.825	10.91	117.9	15.34	
						1926	1.35	-40.5	6.45	0.824	10.87	110.1	15.21	
		2.43	21.12	7.74	6/17/2008	912	0.50	-45	7.8	80	18.7	430	10	Stabilized
						915	0.75	-77	8.5	78	17.1	390	10.98	
						918	1.00	-74	8.6	75	14.5	290	12.38	
						921	1.25	-84	8.6	1	16.4	190	11.44	
						924	1.50	-78	8.6	77	15.2	210	12.02	
						927	1.75	-80	8.7	78	15.7	180	11.77	
						930	2.00	-81	8.5	79	16.3	140	11.47	
						933	2.25	-82	8.5	78	15.3	130	12.05	
						936	2.50	-82	8.5	79	14.9	150	12.28	
						939	2.75	-81	8.4	78	15	240	12.36	
						945	3.00	-88	8.3	79	16.8	250	11.4	
						950	3.25	-89	8.4	80	16.7	250	11.76	
		2.41	21.34	7.17	9/17/2008	1121	0.60	-175	6.31	0.81	16.6	110	0.56	Stabilized
						1124	0.90	-173	6.31	0.76	16.8	76	0.62	
						1127	1.25	-177	6.52	0.76	17.2	51	1.29	
						1130	1.50	-176	6.67	0.75	17.4	54	1.53	
						1133	1.75	-177	6.69	0.76	17.4	57	2.55	
						1136	2.00	-177	6.69	0.77	17.3	60	3.1	
						1139	2.25	-160	6.73	0.77	17.2	68	2.49	
						1142	2.50	-156	6.75	0.77	17.1	76	3.98	
						1145	2.75	-162	6.76	0.8	17.1	83	2.04	
						1148	3.00	-171	6.76	0.82	16.9	80	3.94	
						1151	3.25	-177	6.76	0.83	16.7	74	3.35	
						1154	3.50	-177	6.77	0.85	16.6	81	4.05	
						1157	3.75	-177	6.78	0.86	16.6	84	3.67	
		2.19	21.28	9.07	12/9/2008	1125	0.15	-92	6.62	0.856	10.9	268	4.5	Stabilized
						1130	0.35	-92	6.63	0.858	11.6	221	4.85	
						1135	0.50	-92	6.64	0.865	11.4	200	4.72	
						1140	0.75	-94	6.66	0.862	12.6	175	4.83	
						1145	1.00	-95	6.68	0.869	12.7	163	4.65	
						1150	1.25	-95	6.69	0.877	12.7	150	4.61	
						1153	1.50	-95	6.69	0.88	12.8	162	4.58	
						1156	1.75	-96	6.7	0.881	12.8	158	4.52	
						1159	2.00	-96	6.71	0.879	12.8	161	4.5	
		2.25	21.33	7.35	3/23/2009	1607	0.15	-140	6.67	0.778	12.07	>800	3.5	Stabilized
						1612	0.30	-163	6.71	0.764	12.17	110	2.14	
						1617	0.45	-165	6.7	0.762	12.18	86	2.07	
						1622	0.60	-166	6.7	0.757	12.33	82.5	1.81	
						1625	0.70	-162	6.63	0.756	12.35	97	1.75	
						1628	0.75	-163	6.71	0.758	12.3	96.8	1.73	
						1631	0.85	-162	6.7	0.758	12.2	93.9	1.68	
						1634	1.00	-158	6.64	0.757	12.23	89	1.67	

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
		2.48	21.51	8.60	6/9/2009	1507	0.25	-87	6.76	0.7525	15.66	17.4	3.2	Stabilized
						1512	0.50	-88	6.76	0.724	14.46	19.8	2.01	
						1517	0.90	-90	6.75	0.711	14.13	17.9	1.14	
						1520	1.20	-89	6.74	0.702	14.03	19.9	0.82	
						1523	1.40	-88	6.74	0.691	14.07	22.2	0.8	
						1526	1.75	-80	6.76	0.7	14.14	16.2	0.7	
						1529	1.90	-78	6.76	0.7	14.11	16.0	0.66	
						1532	2.20	-73	6.77	0.7	14.05	15.2	0.72	
		2.24	21.32	9.87	10/6/2009	1510	0.00	-58	6.75	0.754	16.62	50.9	3.33	Stabilized
						1515	0.20	-69	6.63	0.752	16.56	51.8	1.91	
						1520	0.40	-76	6.61	0.748	16.6	44.1	1.47	
						1525	0.60	-80	6.61	0.746	16.68	43.9	1.27	
						1530	0.80	-81	6.61	0.745	16.7	41.5	1.19	
						1535	0.00	-82	6.61	0.742	16.81	41.4	1.09	
						1540	1.20	-83	6.61	0.737	16.96	39.5	1.05	
						1545	1.40	-83	6.61	0.735	17	38.2	1	
MW11	580.06	3.16	16.71	16.11	11/15/2007	--	<0.25	NW	NW	NW	NW	NW	NW	Not Stabilized
		3.11	17.04	8.94	3/16/2008	1021	0.00	111.1	7.25	5.894	9.02	51.7	2.44	Stabilized
						1026	0.25	109.7	7.06	6.132	9.44	36.9	0.9	
						1036	0.40	109	6.94	6.117	8.94	26.7	0.94	
						1046	0.60	117.9	6.85	5.408	9.16	31.1	1.82	
						1056	0.85	125.6	6.77	5.001	9.17	25.6	2.57	
						1106	1.00	129.1	6.77	4.842	8.81	15.8	2.86	
						1116	1.20	131.2	6.75	4.752	8.51	17.4	2.65	
						1119	1.30	131.1	6.77	4.747	8.4	23.1	2.45	
						1122	1.40	131.8	6.77	4.739	8.67	24.3	2.37	
						1125	1.50	131.5	6.76	4.739	8.88	24.3	2.23	
		3.11	16.44	7.98	6/19/2008	1253	0.13	159	7.3	0.47	16.9	170	8.45	Stabilized
						1258	0.38	159	7.1	0.45	16.7	120	8.41	
						1303	0.50	156	7.1	0.41	16.1	92	8.6	
						1308	0.75	157	6.9	0.43	16.1	69	8.78	
						1313	1.00	162	6.7	0.36	17.3	42	8.79	
						1318	1.25	165	6.7	0.39	15.9	38	8.7	
						1323	1.50	168	6.7	0.37	15.5	37	8.37	
						1328	1.75	170	6.7	0.38	15.9	34	8.53	
		3.12	16.73	7.30	9/19/2008	839	0.50	156	6.98	3.4	17.0	210	5.33	Stabilized
						842	0.63	154	7.00	3.4	17.0	190	5.21	
						845	0.75	151	7.07	3.4	17.1	170	5.33	
						848	0.88	149	7.13	3.4	17.2	170	5.32	
						851	1.00	147	7.18	3.4	17.2	170	5.36	
		3.15	16.75	9.12	12/16/2008	1035	0.40	141	6.42	0.44	9	17.28	1.11	Stabilized
						1040	0.50	143	6.39	0.41	8.9	18.92	1.65	
						1045	0.60	146	6.37	0.37	8.7	15.08	4.1	
						1050	0.70	152	6.31	0.36	8.7	14.43	5.94	
						1055	0.80	157	6.26	0.35	8.7	9.7	6.4	
						1058	0.85	159	6.26	0.35	8.8	8.02	6.53	
						1102	0.90	162	6.26	0.34	9	8.31	7.3	
						1105	1.00	162	6.26	0.34	8.9	7.98	6.53	
						1109	1.05	163	6.27	0.34	8.8	5.94	6.4	
						1112	1.10	164	6.28	0.34	8.9	6.64	6.13	
						1115	1.20	163	6.29	0.34	9.1	5.1	5.87	
						1118	1.25	163	6.3	0.34	9	5.37	5.81	
						1121	1.30	163	6.33	0.34	9.1	4.83	5.42	
		2.90	16.72	7.82	3/26/2009	735	0.10	229	7.01	3.14	12.78	53.6	6.73	Stabilized
						745	0.40	212	6.83	2.82	11.48	43.9	3.38	
						755	0.70	213	6.67	2.59	10.57	37.8	3.73	
						800	0.80	213	6.64	2.56	10.37	37.2	3.91	
						805	0.90	217	6.57	2.49	10.03	34	4.44	
						815	1.10	227	6.42	2.36	8.89	47.1	5.96	
						820	1.20	237	6.16	2.25	8.83	42.5	6.82	
						825	1.30	243	6.18	2.17	8.77	39	7.68	
						830	1.50	244	6.23	2.1	8.61	8.48	8.1	
						840	1.70	243	6.24	2.12	8.58	8.44	8.02	
						843	1.75	243	6.24	2.13	8.62	8.32	8.01	
						846	1.80	243	6.25	2.14	8.62	8.03	8.01	
		3.15	16.90	10.36	6/11/2009	1325	1.00	106	7.09	3.24	13.04	31.0	4.48	Stabilized
						1330	1.50	112	7.12	3.18	12.93	7.7	5.05	
						1335	2.00	114	7.16	3.17	13.07	0.0	5.14	
						1340	2.50	115	7.20	3.21	13.05	0.0	5.04	
						1345	2.75	115	7.22	3.23	13.03	0.0	4.93	
		2.89	16.69	9.04	10/9/2009	1315	0.30	155	7.00	3.97	14.11	51.4	1.67	Stabilized

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
						1320	0.40	155	6.96	3.94	14.11	44.9	1.43	
						1325	0.50	156	6.91	3.85	14.1	38.4	1.27	
						1330	0.60	157	6.86	3.76	14.13	35.3	1.18	
						1335	0.70	158	6.82	3.68	14.17	37.2	1.18	
						1340	0.80	159	6.78	3.56	14.21	40.0	1.18	
						1345	0.90	160	6.75	3.47	14.19	44.4	1.23	
						1350	1.00	162	6.70	3.37	14.22	45.3	1.41	
						1355	1.10	163	6.68	3.3	14.24	43.8	1.49	
						1400	1.20	164	6.64	3.21	14.24	33.5	1.66	
						1405	1.30	165	6.63	3.17	14.18	22.4	1.6	
						1410	1.40	164	6.62	3.14	14.16	10.1	1.54	
						1415	1.50	164	6.62	3.13	14.12	9.8	1.48	
						1420	1.60	165	6.62	3.11	14.08	9.9	1.53	
MW12	542.04	3.19	23.19	13.56	11/16/2007	1247	1.00	150.4	6.51	3.219	12.77	136.8	7.79	Not Stabilized
						1250	1.25	-7.01	6.58	3.171	12.71	125.1	7.65	
						1253	1.50	-19.09	6.57	3.127	12.63	120.8	7.22	
						1256	--	-23.03	6.51	3.09	12.65	121.1	7.14	
		3.12	23.42	12.22	3/13/2008	1248	0.00	-27.2	6.2	4.408	13.44	390.1	11.45	Stabilized
						1253	0.25	-25.9	6.07	4.304	13.49	52.1	9.75	
						1303	0.75	-21.5	6.04	4.229	13.71	81.2	9.38	
						1313	1.25	-19.2	6.03	4.18	14.18	71	8.98	
						1322	1.60	-15.9	6.02	4.216	15.02	48.5	9.29	
						1325	1.70	-15.5	6.02	4.22	14.78	46.8	9.36	
						1328	1.85	-13.9	6.01	4.229	14.62	45.2	9.68	
		3.12	22.98	11.66	6/18/2008	1530	0.25	-24	8.6	0.31	18	460	3.91	Stabilized
						1535	0.60	-17	8.3	0.35	14.2	270	5.6	
						1540	0.75	-19	8.2	0.27	14.5	250	4.15	
						1545	0.80	-10	8.1	0.22	18.1	160	3.94	
						1555	0.90	-10	8.1	0.3	16.6	120	4.72	
						1600	1.13	-12	8.2	0.36	13.8	87	5.32	
						1610	1.50	-11	7.7	0.32	14.3	130	5.79	
						1615	1.75	-8	7.8	0.29	17.6	73	4.26	
						1620	2.20	-4	7.6	0.36	12.2	67	5.2	
						1625	2.50	-4	7.6	0.37	12.1	56	6.36	
						1630	2.60	-14	7.7	0.37	12.9	64	6.06	
						1635	3.20	-2	7.5	0.37	12.4	63	5.18	
						1640	3.25	-1	7.6	0.36	12.2	93	5.79	
						1645	4.50	-4	7.2	0.37	12.4	53	5.24	
						1700	5.00	8	6.9	0.33	10.4	93	3.09	
						1710	5.50	2	7	0.37	10	55	2.9	
						1715	5.75	2	7.1	0.37	9.6	30	1.99	
						1720	6.00	-1	7.1	0.37	9.5	28	2.03	
						1725	6.25	-1	7.1	0.36	9.6	29	2.01	
		3.15	23.21	9.82	9/18/2008	857	0.50	-44	6.54	0.398	13.3	135	0.23	Stabilized
						902	1.20	-44	6.54	0.379	13.2	72.2	0.19	
						907	1.75	-45	6.56	0.378	13.1	46.3	1.25	
						912	2.40	-45	6.56	0.38	13.1	26.3	2.02	
						917	3.00	-45	6.55	0.382	13.1	26	2.12	
						920	3.30	-45	6.55	0.381	13.1	21.7	2.12	
						923	3.80	-45	6.55	0.379	13.1	21.5	2	
						925	4.25	-45	6.55	0.379	13.1	20.7	1.91	
		3.13	23.20	13.25	12/9/2008	1415	0.50	-17	7.24	4.68	12.23	130	8.15	Stabilized
						1420	0.75	-14	7.31	4.66	12.45	140	8.6	
						1425	1.00	-13	7.35	4.6	12.51	150	8.73	
						1428	1.25	-12	7.37	4.55	12.42	83	8.95	
						1431	1.40	-11	7.38	4.5	12.48	78	9.09	
						1434	1.70	-11	7.39	4.5	12.7	76	8.95	

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
		2.91	23.21	9.79	3/17/2009	1350	1.50	-59	6.36	3.95	15.21	6.5	2.59	Stabilized
						1353	--	-62	6.34	3.87	15.02	3.4	2.11	
						1356	1.75	-65	6.34	3.82	14.67	0	1.97	
						1359	--	-67	6.33	3.79	14.6	0	1.91	
						1402	2.00	-68	6.33	3.77	14.55	0	1.89	
		3.16	23.38	11.71	6/17/2009	1146	1.30	-15	6.41	3.71	13.93	15.3	4.11	Stabilized
						1149	1.60	-15	6.41	3.67	14.14	13.4	3.96	
						1152	1.75	-14	6.4	3.65	14.1	11.7	4.38	
						1155	1.90	-14	6.4	3.63	14.03	8.7	4.12	
						1158	2.10	-15	6.4	3.63	14.07	6.8	3.89	
						1201	2.30	-14	6.4	3.63	14.17	6.2	3.68	
						1204	2.50	-15	6.39	3.62	14.1	4.6	3.52	
						1207	2.70	-14	6.4	3.61	13.97	4.5	3.32	
						1210	2.80	-15	6.39	3.61	14.14	4.2	3.08	
						1213	3.00	-14	6.4	3.6	13.95	3.3	2.94	
						1216	3.20	-15	6.39	3.61	14.01	3.6	2.76	
						1219	3.30	-14	6.38	3.6	14.13	3	2.56	
						1222	3.50	-15	6.38	3.6	14.13	2.3	2.45	
						1225	3.75	-14	6.38	3.6	14.05	2.1	2.47	
						1228	4.00	-15	6.38	3.62	14.16	2.1	2.25	
		3.15	23.25	13.65	10/7/2009	1515	0.20	1	6.39	4.24	16.94	185	2.33	Stabilized
						1520	0.40	-2	6.39	4.36	16.54	179	1.7	
						1525	0.60	-3	6.37	4.55	14.75	99.4	1.74	
						1530	0.80	-5	6.38	4.41	14.47	54.1	1.25	
						1535	1.00	-6	6.37	4.21	14.3	44.1	1.13	
						1540	1.25	-7	6.37	4.09	14.29	38.3	1.07	
						1545	1.50	-5	6.36	3.95	14.16	37.2	1.08	
						1550	1.75	-6	6.36	3.92	14.02	22.8	1.04	
						1553	1.90	-5	6.34	3.91	13.95	21.9	1.05	
						1556	2.10	-5	6.34	3.9	13.83	20.9	1.04	
MW13	585.28	1.87	24.10	20.10	11/16/2007	10.47	1.00	192.7	7.3	4.158	12.07	7.9	0.48	Stabilized
						10.5	1.25	196.2	7.39	4.156	11.99	7.6	0.47	
						10.53	1.50	198.2	7.41	4.148	11.96	7.2	0.41	
		1.86	24.33	15.02	3/16/2008	1747	0.00	178.7	7.29	5.741	10.75	53.3	3.1	Stabilized
						1752	0.20	172	7.17	5.683	11.15	47.8	3.1	
						1802	0.45	166.1	7.07	5.747	10.62	42.1	3.15	
						1812	0.70	161.5	7.06	5.615	11.05	31.9	3.08	
						1815	0.75	160.7	7.05	5.584	11.11	28.2	3.07	
						1818	0.80	159.8	7.04	5.581	10.89	29.2	3.06	
						1821	0.85	158.6	7.06	5.607	10.34	30.3	3.09	
		1.86	23.93	14.97	6/19/2008	1515	0.13	179	7.3	0.52	20.8	190	9.15	Stabilized
						1520	0.38	171	7.4	0.51	17.2	110	9.84	
						1525	0.63	179	7.3	0.51	16.2	91	9.53	
						1530	1.00	180	7.2	0.48	15.8	53	9.61	
						1535	1.13	185	7.3	0.47	16	46	9.37	
						1540	1.25	187	7.3	0.47	16.3	42	9.91	
						1545	1.50	179	7.3	0.48	16	40	9.74	
		1.81	24.18	14.97	9/18/2008	829	0.50	173	6.96	0.47	14.5	27	7.59	Stabilized
						833	1.00	174	6.96	0.47	14.7	24	7.5	
						838	1.50	175	7	0.46	14.9	23	7.35	
						842	2.00	175	7.02	0.46	14.8	31	7.22	
						845	2.50	178	7.03	0.46	14.6	29	7.01	
						849	3.00	178	7.03	0.46	14.6	30	6.96	
		1.85	24.17	15.42	12/15/2008	1220	0.75	135	6.9	0.55	12.3	0 (see notes)	7.45	Stabilized - Turbidity reading was flashing "0"; meter recalibrated but still continued to misfunction; despite malfunction, water appeared clear
						1240	1.50	142	6.76	0.51	10.6	0 (see notes)	7.78	
						1245	1.75	136	6.72	0.51	11	0 (see notes)	6.84	
						1250	1.85	133	6.87	0.51	10.8	0 (see notes)	6.68	
						1253	1.95	131	6.87	0.51	10.9	0 (see notes)	6.69	
						1256	2.00	130	6.89	0.52	11	0 (see notes)	6.71	
		1.91	24.08	15.43	3/20/2009	902	0.50	81	7.02	4.76	11.21	51.4	7.3	Stabilized
						907	0.75	82	7.04	4.72	11.38	41.9	7.62	
						910	0.85	82	7.06	4.71	11.45	31.4	7.63	
						913	1.00	84	7.05	4.71	11.53	22.1	7.54	
						916	1.20	84	7.06	4.72	11.5	3.5	7.41	
						919	1.25	84	7.07	4.72	11.49	0	7.52	
						922	1.30	85	7.06	4.72	11.51	0	7.53	
						925	1.40	86	7.07	4.7	11.51	0	6.83	
		1.84	24.32	15.09	6/15/2009	1130	0.40	84.5	7	3.822	15.13	52.9	16.72	Stabilized
						1135	0.60	78.3	7.06	3.7	14.71	49.8	6.65	
						1140	0.75	73.5	7.05	3.63	14.73	41.5	6.81	
						1145	0.90	71.6	7.02	3.596	14.61	29.2	6.88	

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
						1150	1.10	69.1	7.01	3.57	14.68	17.9	6.82	
						1155	1.25	66.6	7	3.565	14.59	16.6	6.84	
						1200	1.40	65.2	7	3.548	14.51	12.5	6.81	
						1205	1.50	61.5	7.01	3.568	14.62	8.97	6.43	
						1210	1.70	57.9	7.01	3.563	14.53	6.75	6.07	
						1215	--	56.5	6.99	3.561	14.54	7.48	5.89	
						1220	2.00	55.7	6.96	3.571	14.56	7.29	5.85	
						1225	2.20	54.8	6.94	3.576	14.63	6.18	5.91	
						1230	2.30	53.8	6.94	3.587	14.64	5.27	5.98	
						1235	2.50	53.7	6.91	3.593	14.65	5.24	6.02	
						1240	2.60	53.2	6.88	3.611	14.83	4.58	6.1	
						1245	2.75	52	6.86	3.626	14.88	4.33	6.08	
						1250	2.80	51.4	6.86	3.627	14.95	3.69	6.09	
						1255	3.00	52.3	6.84	3.651	15.13	4.33	6.11	
						1300	3.10	52.8	6.85	3.638	14.92	3.94	6.2	
						1305	3.25	51	6.9	3.644	14.99	3.99	6.16	
		1.87	24.20	15.25	10/6/2009	1636	0.55	91	6.06	4.67	16.45	6.1	4.75	Stabilized
						1641	0.60	96	6.06	4.62	17.08	4.2	4.44	
						1644	0.65	99	6.06	4.63	17.19	3.6	4.38	
						1647	0.70	101	6.06	4.64	17.21	3.8	4.43	
						1650	0.75	102	6.07	4.65	17.21	3.7	4.33	
MW14	589.44	2.12	36.34	12.92	11/17/2007	812	1.00	200.6	6.12	0.425	12.44	443.8	3.4	Not Stabilized
						815	1.50	189.9	7.01	0.796	12.47	420	0.95	
						818	1.75	191.3	7.3	0.804	12.48	440.1	0.99	
						821	2.50	195.2	7.37	0.8	12.49	432.1	1.01	
		2.04	36.46	10.90	3/14/2008	1056	0.00	74.8	8.1	1.237	11.41	140.3	9.97	Stabilized
						1101	0.15	61.6	7.95	1.283	11.53	404.1	8.45	
						1111	0.25	56.5	7.85	1.293	11.78	287.5	7.72	
						1121	0.40	54.3	7.83	1.289	11.74	171.3	7.94	
						1131	0.60	71.8	7.81	1.283	12.02	105.4	7.41	
						1141	0.80	69.9	7.81	1.279	12.2	107.5	7.81	
						1144	0.90	77.4	7.8	1.275	12.21	102.1	7.43	
						1147	1.00	83.1	7.79	1.275	12.35	105.5	7.29	
		2.04	36.03	11.27	6/18/2008	1440	0.13	137	7.9	0.11	17.5	560	12.97	Stabilized
						1445	0.25	133	8.1	0.13	14.8	780	13.99	
						1450	0.50	144	8	0.12	16.6	410	12.9	
						1455	0.60	144	8	0.13	15.8	370	13.65	
						1500	0.80	148	7.9	0.13	16.5	370	13.02	
						1505	1.00	143	8	0.13	16.5	260	13.23	
						1510	1.13	144	8	0.13	17.7	150	11.84	
						1515	1.25	149	7.9	0.13	16.6	160	13.71	
						1520	1.50	152	8	0.12	15.3	150	14.24	
						1545	2.13	147	7.8	0.13	14.7	89	7.82	
						1550	2.25	150	7.8	0.13	15	69	8.42	
						1555	2.38	140	7.7	0.13	15.7	65	4.7	
						1600	2.50	134	7.7	0.13	15.8	61	5.26	
						1605	2.63	133	7.7	0.13	15.4	59	5.16	
						1610	2.75	134	7.7	0.13	15.6	60	5.18	
		2.10	36.23	11.37	9/18/2008	1058	0.50	124	8.08	0.116	13.5	72	7.22	Stabilized
						1102	1.00	117	8.06	0.114	13.4	51.6	6	
						1107	1.50	111	8.04	0.113	13.3	62.1	5.08	
						1112	2.20	106	7.99	0.112	13.3	70.1	4.33	
						1122	3.30	98	7.94	0.113	13.4	22.4	0.2	
						1132	4.30	93	7.91	0.115	13.4	17.6	0.53	
						1135	4.70	90	7.89	0.115	13.2	21.9	0.17	
						1138	5.00	85	7.88	0.115	13.2	28.5	0.02	
						1146	5.75	76	7.94	0.115	13.3	186	0.55	
						1149	6.00	72	7.97	0.115	13.3	191	0.29	
						1152	6.30	70	7.87	0.116	13.4	186	0.13	
						1444	6.70	136	8.1	0.108	15.5	95	7.1	
						1447	6.75	135	8.12	0.108	15.3	93	7.26	
						1450	6.80	134	8.13	0.108	15.2	91.3	7.39	
		2.12	36.25	10.09	12/17/2008	838	0.50	128	7.21	1.58	10.81	23	5.12	Stabilized
						843	0.70	123	7.27	1.56	11.46	16	5.56	
						848	0.85	121	7.29	1.56	11.25	16	8.85	
						853	1.15	120	7.29	1.56	11.46	10	9.24	
						858	1.30	120	7.3	1.55	11.4	5	9.19	
						901	1.50	120	7.28	1.56	11.21	0	9.1	
						904	1.70	120	7.27	1.54	11.61	5	9.43	
						910	2.00	120	7.26	1.53	11.38	5	9.04	
						913	2.20	120	7.25	1.52	11.78	5	9.09	

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
		1.85	36.26	10.33	3/18/2009	1530	0.50	171	7.44	1.03	16.13	59.7	8.59	Stabilized
						1535	0.70	176	7.48	1.03	15.83	55.9	9.41	
						1540	0.80	180	7.47	1.04	16.34	47.9	9.5	
						1543	0.90	182	7.49	1.04	16.38	49.2	9.58	
						1546	1.00	184	7.49	1.04	16.32	46.6	9.86	
		2.12	36.51	10.66	6/10/2009	1456	0.60	107	7.9	1.15	15.54	461	0.59	Stabilized
						1506	0.90	96	7.88	1.14	15.21	78.2	0.46	
						1511	1.40	95	7.89	1.14	15.26	45.7	0.43	
						1514	1.60	94	7.87	1.14	15.49	37.1	0.41	
						1517	1.70	94	7.89	1.14	15.5	29.1	0.41	
						1520	1.80	94	7.88	1.14	15.56	27.1	0.41	
						1523	1.90	94	7.87	1.14	15.65	23.3	0.41	
						1526	2.10	93	7.87	1.14	15.57	24.1	0.4	
						1529	2.20	94	7.87	1.14	15.54	23.1	0.41	
		2.05	36.34	10.30	10/13/2009	835	0.35	-73	7.91	1.22	10.32	165	0	Stabilized
						845	0.50	-80	7.9	1.22	10	144	0	
						855	0.75	-91	7.91	1.2	11.17	56.8	0	
						905	1.10	-104	7.89	1.2	11.29	30.7	0	
						915	1.30	-106	7.9	1.2	11.21	27.6	0	
						925	1.50	-110	7.9	1.2	11.26	23.2	0	
						935	1.70	-113	7.88	1.2	11.39	21.9	0	
						945	1.90	-114	7.89	1.2	11.48	20.1	0	
						950	2.00	-115	7.89	1.2	11.49	19.5	0	
						953	2.05	-115	7.89	1.2	11.46	19.6	0	
						956	2.10	-115	7.9	1.2	11.42	18.9	0	
						959	2.15	-115	7.9	1.19	11.43	18.7	0	
						1002	2.20	-116	7.9	1.19	11.43	18.4	0	
MW15	607.98	1.27	26.34	15.44	11/14/2007	840	0.75	258.5	6.34	1.625	11.79	997.2	77.9	Not Stabilized
						843	1.00	223.7	6.74	1.627	11.81	885.4	79.1	
						846	1.25	221.2	6.73	1.611	11.85	720.9	78.9	
						849	1.75	218.7	6.72	1.613	11.88	697.8	77.4	
		1.18	26.65	14.47	3/17/2008	1345	0.00	-47.8	6.73	2.799	9.1	194.8	3.96	Stablilized
						1350	0.15	-48.9	6.7	2.793	9.61	152.1	4.49	
						1400	0.35	-46.8	6.69	2.878	9.15	110.1	4.81	
						1410	0.60	-48.6	6.69	2.855	9.97	138.2	5.21	
						1420	0.85	-46.3	6.69	2.89	9.58	60.2	4.27	
						1430	1.05	-47.7	6.69	2.909	8.92	50.2	3.48	
						1440	1.30	-50.5	6.7	2.909	8.43	52.9	3.22	
						1449	1.55	-51.3	6.7	2.895	8.16	59.6	3.21	
						1453	1.60	-52.1	6.7	2.878	8.18	42.6	3.19	
						1456	1.70	-52.9	6.7	2.869	8.33	42	3.21	
						1459	1.75	-53.1	6.7	2.862	8.52	43.9	2.98	
		1.18	26.18	6.42	6/16/2008	1734	0.50	15	6.8	9.9	13.9	-5	16.39	Stabilized
						1737	1.00	-35	6.8	0.31	12.4	-5	15.29	Negative 5 turbidity indicates that the water is so turbid, it is not registering on the meter
						1740	1.50	-48	6.9	0.31	12.1	-5	15.42	
						1743	1.75	-56	6.9	0.27	13.8	-5	13.91	
						1746	2.00	-57	6.9	9.9	12.6	-5	6.16	
						1749	2.25	-61	6.9	0.3	12.5	-5	14.68	
						1752	2.50	-62	6.9	0.3	12.2	-5	14.75	
						1755	2.75	-66	6.9	0.3	12.2	-5	14.28	
						1758	3.00	-67	6.9	0.3	12	-5	14.33	
						1801	3.25	-68	6.9	0.29	12.3	900	13.93	
						1806	3.40	-80	7	0.3	13.77	670	13.77	
						1811	3.55	-78	7	0.29	12.6	600	13.58	
						1816	3.70	-80	7	0.3	12.3	510	13.9	
						1821	3.85	-81	7	0.29	12.2	570	14.05	
						1826	4.00	-79	7	0.29	12.5	450	13.68	
						1831	4.15	-81	7.1	0.29	12.5	420	13.53	
						1836	4.30	-80	7.1	0.29	12.6	420	13.6	
						1841	4.45	-82	7.2	0.29	12.8	350	13.34	
						1846	4.60	-86	7	0.29	13.1	310	13.36	
						1851	4.75	-86	7.1	0.29	12.2	160	13.67	
						1854	4.90	-88	7.1	0.27	12.5	160	13.76	
						1857	5.05	-90	7	0.26	12	110	14.02	
						1900	5.20	-90	7.1	0.3	11.8	77	13.85	
						1903	5.35	-83	7.1	0.3	11.7	74	13.95	
						1906	5.50	-86	7	0.31	11.7	58	14.07	
						1909	5.65	-89	7	0.3	11.6	56	14.12	
						1912	5.80	-89	7	0.31	11.7	50	14.12	
		1.25	26.46	9.95	9/22/2008	1148	0.50	-76	7.17	0.307	12.8	250	7.11	Stabilized
						1153	1.10	-78	7.15	0.305	12.6	137	5.69	

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
						1158	1.70	-77	7.13	0.301	12.5	89.3	4.93	
						1203	2.25	-79	7.15	0.297	12.5	68.4	4.26	
						1208	2.80	-81	7.18	0.294	12.4	59.8	3.66	
						1211	3.20	-83	7.18	0.299	12.4	41.9	3.22	
						1214	3.50	-83	7.19	0.296	12.4	39.8	2.99	
						1217	4.10	-85	7.18	0.294	12.4	39.2	2.67	
						1220	4.50	-86	7.18	0.292	12.3	38.2	2.47	
						1223	4.75	-87	7.19	0.288	12.3	37.1	2.26	
		1.30	26.44	10.41	12/12/2008	805	0.25	-39	6.76	3.22	9.2	242	0	Stabilized
						810	0.50	-46	6.77	3.23	9.3	162	0	
						815	0.75	-51	6.78	3.24	9.4	92.7	0	
						820	1.00	-55	6.78	3.24	9.3	51.1	0	
						825	1.25	-57	6.78	3.22	9.7	46.7	0	
						828	1.35	-59	6.78	3.22	9.8	38	0	
						831	1.45	-60	6.78	3.23	9.9	33.4	0	
						834	1.55	-61	6.78	3.23	10	31.9	0	
						837	1.75	-62	6.79	3.23	10	30.7	0	
		0.96	26.42	4.35	3/23/2009	1013	1.10	-11	6.85	2.95	9.95	396	2.39	Stabilized
						1018	1.25	-11	6.87	2.95	10.03	290	2.26	
						1023	1.60	-11	6.86	2.95	10.02	247	2.14	
						1028	1.90	-10	6.85	2.96	10.06	199	2.07	
						1033	2.30	-11	6.85	2.95	10.11	179	1.96	
						1038	2.60	-11	6.86	2.95	10.13	178	1.9	
						1041	2.75	-10	6.86	2.95	10.11	180	1.87	
						1044	2.90	-10	6.86	2.95	10.1	158	1.84	
						1047	3.20	-11	6.86	2.95	10.13	137	1.81	
						1050	3.40	-11	6.85	2.95	10.13	136	1.78	
						1053	3.60	-11	6.86	2.96	10.07	120	1.97	
						1058	3.85	-11	6.85	2.96	10.08	114	1.79	
						1101	4.10	-11	6.84	2.96	10.09	111	1.73	
						1104	4.20	-11	6.83	2.96	10.11	106	1.73	
		1.22	26.61	5.75	6/15/2009	1143	1.25	-52	6.95	2.73	16.27	123	0.41	Stabilized
						1147	1.50	-53	6.95	2.73	16.21	120	0.39	
						1150	1.75	-53	6.95	2.73	16.21	116	0.37	
		1.22	26.45	10.52	10/12/2009	928	1.80	-43	6.85	2.96	11.89	17.6	0	Stabilized
						933	2.25	-50	6.9	2.96	11.86	12.3	0	
						938	2.60	-53	6.92	2.96	11.86	11.6	0	
						943	2.90	-55	6.94	2.95	11.99	10.9	0	
						946	3.05	-55	6.93	2.95	11.98	9.8	0	
						949	3.30	-56	6.93	2.95	11.97	7.9	0	
						952	3.50	-57	6.94	2.95	11.97	7.7	0	
						955	3.70	-57	6.94	2.95	11.97	7.7	0	
MW16	597.59	2.81	16.48	12.35	11/16/2007	922	1.00	173.3	6.88	1.954	13.31	120.7	0.05	Not Stabilized
						925	1.25	176.4	7.02	1.953	13.51	130.8	0.05	
						928	1.50	192.3	7.11	1.946	13.46	123	0.05	

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
		2.73	16.72	6.87	3/18/2008	819	0.00	179.9	6.37	1.479	6.84	342.1	14	Stabilized
						824	0.10	179.7	6.59	1.584	6.57	336.2	10.16	
						834	0.30	177.1	6.87	1.486	6.54	197.5	9.8	
						844	0.50	174.6	7	1.361	6.91	162.1	9.6	
						854	0.65	172.3	7.07	1.335	6.54	110.5	9.53	
						904	0.80	170.2	7.11	1.313	6.7	109.6	9.26	
						913	0.95	168	7.14	1.181	6.84	102.2	9.09	
						916	1.00	167.5	7.13	1.159	7	100.1	9.01	
						919	1.05	167.2	7.13	1.16	7.42	101.2	8.79	
		2.73	16.21	6.99	6/19/2008	1229	0.30	135	7.3	85	21.5	780	10.65	Stabilized
						1234	0.60	141	7.1	88	18.1	630	3.9	
						1239	0.90	145	7	83	16	640	5.68	
						1244	1.20	146	6.9	70	15.3	290	6.38	
						1249	1.50	125	6.9	72	15.4	220	6.3	
						1254	1.80	132	6.8	80	15	160	5.63	
						1259	2.10	135	6.6	85	14.7	150	5.53	
						1304	2.40	139	6.7	85	14.6	140	5.5	
						1309	2.70	140	6.7	85	14.3	140	5.47	
		2.75	16.52	7.06	9/23/2008	1318	0.50	173	6.45	82	19.1	180	3.89	Stabilized
						1321	0.80	178	6.48	77	19.2	150	3.47	
						1324	1.25	178	6.48	73	19.6	100	3.25	
						1327	1.65	180	6.47	72	19.6	90	3.16	
						1330	2.00	180	6.46	71	19.5	83	3.25	
		2.80	16.53	7.57	12/11/2008	923	0.50	127	6.68	0.675	11.97	100	8	Stabilized
						933	1.25	138	6.51	0.684	11.49	64	8.72	
						938	1.50	141	6.5	0.684	11.52	53	8.76	
						943	1.75	141	6.51	0.695	11.57	48	8.83	
						948	2.00	141	6.51	0.699	11.67	51	8.84	
						951	2.25	142	6.53	0.705	11.57	39	8.83	
						954	2.50	142	6.53	0.7	11.58	40	8.86	
						957	2.75	142	6.52	0.701	11.62	37	8.82	
		2.55	16.56	5.83	3/25/2009	853	0.50	219	6.31	0.679	8.46	446	3.18	Stabilized
						858	0.70	214	6.38	0.678	8.4	406	3.02	
						903	0.80	212	6.41	0.678	8.46	358	2.95	
						908	1.00	211	6.41	0.672	8.45	318	2.8	
						913	1.15	211	6.40	0.663	8.58	242	2.67	
						918	1.25	209	6.37	0.65	8.57	185	2.63	
						923	1.40	206	6.37	0.643	8.58	114	2.7	
						928	1.50	203	6.41	0.637	8.61	81.5	2.7	
						933	1.50	191	6.49	0.633	8.98	43	3.53	
						938	1.70	190	6.52	0.633	9.04	38.5	2.6	
						943	1.80	194	6.48	0.629	9.2	39.7	2.43	
						948	1.90	197	6.43	0.629	8.85	29.8	2.45	
						951	1.95	198	6.4	0.629	8.8	31.6	2.45	
						954	2.05	199	6.38	0.626	8.88	31.3	2.42	
						957	2.10	200	6.38	0.628	8.92	31.3	2.4	
		2.80	16.79	7.13	6/12/2009	750	0.50	218	6.18	0.488	13.37	5.1	2.53	Stabilized
						755	0.75	221	6.05	0.482	13.14	19.7	2.31	
						800	1.25	227	5.95	0.486	13.69	0	2.14	
						805	1.70	232	5.88	0.495	14.49	0	2.97	
						810	2.00	230	5.92	0.504	14.96	0	3.88	
						815	2.50	226	6.03	0.513	15.06	0	4.3	
						820	2.75	221	6.14	0.518	15.17	0	3.52	
						825	3.00	219	6.18	0.518	15.21	0	2.5	
						830	3.50	218	6.16	0.513	15.16	0	1.44	
						835	3.75	217	6.14	0.512	15.12	0	1.18	
						840	4.25	215	6.11	0.51	14.99	0	0.95	
						845	4.50	215	6.13	0.512	14.87	0	0.93	
						850	4.75	214	6.15	0.516	14.79	0	0.92	
		2.80	16.63	7.32	10/13/2009	1416	0.75	171	6.15	0.751	17.76	11.1	0.42	Stabilized
						1421	0.90	174	6.13	0.76	17.29	9	0.58	
						1424	1.00	174	6.16	0.76	17.31	7.2	0.56	
						1427	1.10	176	6.15	0.76	17.2	6.4	0.82	
						1430	1.15	178	6.16	0.759	17.17	5	0.83	
						1433	1.15	178	6.18	0.759	17.15	4.1	0.94	
						1436	1.20	188	6.18	0.759	17.17	3.1	0.9	
						1439	1.25	182	6.16	0.76	17.11	3.3	0.98	
						1442	1.30	182	6.19	0.76	17.12	1.8	1.07	
						1445	1.40	182	6.2	0.76	17.13	1.1	1.07	
						1448	1.45	181	6.22	0.76	17.11	1	1	
						1451	1.50	181	6.24	0.761	17.09	1	1	

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
MW17	587.52	3.38	17.70	7.48	11/15/2007	858	1.10	153.5	6.12	1.491	12.82	61.7	2.23	Not Stabilized
						901	1.50	139.7	6.33	2.53	12.82	56.1	2.89	
						904	1.65	133.2	6.11	2.565	12.99	47.5	2.59	
						907	2.00	123.3	6.1	2.544	12.96	39.3	2.89	
		3.38	17.02	5.79	3/10/2008	1459	0.00	10.8	6.24	4	10.97	147.5	10.87	Stabilized
						1505	0.25	28.2	5.74	3.924	10.57	87.5	8.37	
						1515	1.00	40.5	5.57	3.61	9.75	25.5	8.22	
						1525	1.50	40.9	5.52	3.544	10.34	20.1	8.6	
						1535	2.00	56.1	5.47	3.534	10.61	9.8	9.13	
						1545	2.50	62.7	5.44	3.497	10.88	7.3	8.84	
						1555	2.85	60	5.48	3.551	11.05	7.3	8.51	
						1558	3.00	63.3	5.44	3.548	10.66	6.8	8.39	
						1601	3.15	65.5	5.42	3.526	10.57	6.2	8.36	
		3.38	16.45	5.27	6/17/2008	851	0.10	54	6.6	0.6	16.3	-5	12.12	Stabilized
						856	0.25	5	6.6	0.6	15.2	690	13.06	
						901	0.40	-31	6.6	0.59	15.3	380	13.06	
						906	0.55	-44	6.5	0.57	14.8	270	13.07	
						911	0.70	-52	6.5	0.56	15.2	170	13.15	
						916	0.85	-58	6.5	0.54	17.3	110	12.74	
						921	1.00	-60	6.5	0.5	16.7	440	13.19	
						926	1.15	-61	6.5	0.51	15.8	440	13.29	
						931	1.30	-62	6.5	0.51	15.6	360	13.8	
						936	1.45	-60	6.5	0.47	15.8	200	13.81	
						941	1.60	-61	6.5	0.44	16	110	13.2	
						946	1.75	-56	6.4	0.45	15.9	70	13.8	
						951	1.90	-58	6.4	0.44	16.7	65	13.77	
						956	2.05	-59	6.4	0.44	16.4	63	13.57	
						1001	2.20	-57	6.4	0.43	16.6	62	13.37	
						1006	2.35	-58	6.3	0.44	16.6	61	13.41	
		3.37	16.81	5.41	9/22/2008	1538	0.25	-29	6.66	0.548	16.9	49.7	0.91	Stabilized
						1543	0.80	-28	6.26	0.383	17.1	49.3	0.59	
						1548	1.40	-13	6.17	0.35	17.4	38.3	0.71	
						1551	1.75	-19	6.25	0.348	17.4	30.1	1.19	
						1554	2.10	-24	6.3	0.344	17.4	27	1.36	
						1557	2.40	-25	6.3	0.343	17.3	26.3	1.18	
						1600	2.70	-23	6.26	0.341	17.3	25.3	1.03	
						1603	3.00	-18	6.19	0.346	17.2	24.4	0.9	
						1606	3.30	-16	6.14	0.344	17	25.3	0.8	
						1609	3.60	-14	6.11	0.343	16.9	26.7	0.72	
						1612	3.90	-11	6.09	0.342	16.9	27.2	0.05	
						1615	4.25	-6	6.03	0.34	16.8	26.7	0	
						1618	4.55	-3	6.01	0.339	16.8	26	0	
						1621	4.95	-3	5.99	0.339	16.7	28	0	
		3.45	16.76	6.57	12/11/2008	1157	0.25	7.1	7.08	6.02	12.06	140	7.1	Stabilized
						1202	0.50	7.26	7.2	5.59	11.88	110	7.26	
						1207	0.90	7.93	7.23	5.34	11.75	89	7.93	
						1212	1.20	7.94	7.23	5.19	11.73	78	7.94	
						1217	1.50	7.92	7.22	5.1	11.62	70	7.92	
						1220	1.60	7.87	7.21	5.06	11.68	83	7.87	
						1223	1.75	7.83	7.21	5.09	11.68	57	7.83	
						1226	1.90	7.82	7.2	4.99	11.64	49	7.82	
						1229	2.10	7.8	7.19	4.95	11.55	49	7.8	
						1232	2.25	7.74	7.18	4.93	11.63	46	7.74	
		3.15	16.96	11.20	3/17/2009	1134	0.40	-53	6.39	5.13	12.74	138	5.76	Stabilized
						1139	0.50	-65	6.36	4.82	13.24	134	5.4	
						1144	0.70	-70	6.34	4.5	13.5	132	5.15	
						1147	0.75	-71	6.32	4.35	13.7	135	5.34	
						1150	0.85	-72	6.31	4.24	13.92	135	4.93	
						1153	0.95	-72	6.3	4.1	14.03	139	4.86	

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
						1156	1.05	-71	6.27	3.97	14.15	135	4.78	
						1159	1.15	-70	6.24	3.87	14.31	138	4.69	
						1202	1.25	-67	6.22	3.81	14.41	135	4.59	
						1205	1.35	-65	6.19	3.78	14.43	124	4.42	
						1208	1.45	-61	6.18	3.76	14.47	120	4.36	
						1211	1.55	-61	6.17	3.75	14.48	117	4.27	
		3.38	17.14	7.16	6/12/2009	803	0.50	-13	6.51	4.86	13.69	27.7	1.98	Stabilized
						813	1.00	-9	6.29	3.77	13.83	30.1	1.83	
						816	1.25	0	6.2	3.57	13.89	24.9	1.86	
						819	1.50	8	6.15	3.48	13.93	18.5	1.74	
						822	1.60	12	6.13	3.45	13.97	15.6	1.65	
						825	1.75	14	6.12	3.44	14.01	13.1	1.58	
						828	1.90	16	6.11	3.43	14.06	11.4	1.49	
						831	2.10	17	6.11	3.42	14.09	10.5	1.42	
						834	2.25	19	6.11	3.42	14.14	9.7	1.35	
						837	2.40	20	6.11	3.42	14.19	9.5	1.29	
		3.14	16.79	6.66	10/13/2009	1350	0.20	31	6.51	5.03	15.98	31.6	1.66	Stabilized
						1400	0.25	31	6.52	5.32	14.93	25.1	1.11	
						1410	0.45	20	6.52	5.27	14.8	32.9	0.91	
						1415	0.55	13	6.5	5.16	14.83	34.4	0.86	
						1420	0.70	7	6.45	5.07	14.9	37.4	0.84	
						1425	0.85	0	6.47	4.88	14.97	34.1	0.79	
						1430	1.00	-5	6.45	4.74	14.93	30.8	0.76	
						1435	1.15	-9	6.44	4.63	14.93	29	0.73	
						1440	1.30	-12	6.43	4.56	14.9	28.1	0.72	
						1443	1.39	-13	6.42	4.48	14.88	25.3	0.71	
						1446	1.48	-14	6.41	4.41	14.84	24.1	0.7	
						1449	1.57	-14	6.39	4.34	14.8	23.1	0.69	
MW18	479.24	2.10	32.04	10.74	11/14/2007	1053	1.25	158.6	7.05	1.884	11.67	246.3	92.4	Not Stabilized
						1056	2.00	183	6.92	1.894	11.68	246.3	6	
						1059	2.50	198.1	6.9	1.899	11.71	167.2	76.2	
						1102	2.75	199.2	6.89	1.81	11.72	166.3	75.6	
		2.05	32.22	9.74	3/12/2008	1259	0.00	90.8	7.01	2.391	10.57	12.5	0.59	Stabilized
						1308	0.35	94.2	6.89	2.426	10.53	5	1.9	
						1320	0.65	99.7	6.85	2.428	10.97	7.7	2.13	
						1329	1.25	103.4	6.83	2.424	11.79	14.4	1.88	
						1338	1.85	111.8	6.81	2.432	12.46	19.4	1.42	
						1341	2.05	111.9	6.81	2.433	12.35	19.8	1.54	
						1344	2.20	115.5	6.81	2.428	12.27	20.2	1.39	
						1347	2.35	118.1	6.81	2.433	12.3	21.1	1.4	
						1350	2.50	127.1	6.81	2.427	11.8	21.6	1.5	
		2.05	31.84	9.33	6/18/2008	1014	1.00	134	7	0.21	22.2	-5	9.11	Not Stabilized; Negative 5 turbidity indicates that the water is so turbid, it is not registering on the meter; Three well volumes purged and then well sampled
						1019	1.25	135	6.9	0.22	18	-5	11.86	
						1024	2.00	144	6.7	0.26	14.2	-5	14.36	
						1029	2.50	139	6.7	0.26	14.3	550	14.16	
						1034	2.75	141	6.7	0.25	13.4	470	14.96	
						1039	3.05	139	6.7	0.26	13.3	440	15.67	
						1044	3.40	102	6.9	0.26	14.2	380	15.84	
						1049	3.70	107	6.9	0.27	13.4	300	16.52	
						1054	3.95	106	6.8	0.26	13.7	330	16.66	
						1059	4.20	123	6.7	0.27	14.3	260	16.18	
						1104	4.50	139	6.7	0.26	13.7	260	16.56	
						1311	12.50	117	6.6	0.2	19.8	-5	1.54	
						1316	13.75	135	6.5	0.24	13.7	-5	3.51	
						1321	15.00	136	6.5	0.22	12.8	660	2.9	
						1326	16.25	135	6.5	0.26	11.2	320	2.91	
						1331	17.50	134	6.5	0.26	11.2	240	3.01	
						1336	18.75	127	6.6	0.26	11	180	3.35	
						1341	20.00	130	6.6	0.26	10.9	140	3.22	
						1346	21.25	136	6.5	0.26	10.8	370	2.52	
						1351	22.50	137	6.5	0.26	10.5	460	2.59	
						1356	23.75	139	6.5	0.26	10.5	280	2.61	
						1401	25.00	136	6.6	0.26	10.4	150	2.62	
						1406	26.25	135	6.6	0.26	10.4	100	2.62	
						1411	27.50	135	6.6	0.21	10.6	46	2.67	
						1416	28.75	139	6.6	0.19	10.9	64	2.59	

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
		2.10	32.03	5.65	9/25/2008	830	0.25	181	6.1	0.29	13.2	-5	0	Stabilized
						833	0.60	177	6.11	0.28	12.9	-5	0	Negative 5 turbidity indicates that the water is so turbid, it is not registering on the meter
						836	0.90	171	6.19	0.28	12.8	-5	0	
						839	1.20	167	6.24	0.28	12.8	-5	0	
						842	1.60	164	6.28	0.28	12.9	-5	0	
						845	1.90	158	6.32	0.28	13	-5	0	
						848	2.10	155	6.34	0.28	13	-5	0	
						851	2.25	153	6.38	0.27	13.3	830	0	
						854	2.35	150	6.4	0.27	13.6	570	0	
						857	2.50	147	6.42	0.27	13.7	400	0	
						900	2.65	145	6.43	0.27	13.9	330	0	
						903	2.75	143	6.44	0.27	13.7	250	0	
						906	2.90	141	6.44	0.27	13.7	220	0	
						909	3.10	139	6.44	0.27	13.8	190	0	
						912	3.25	137	6.45	0.27	13.7	160	0	
						915	3.40	135	6.45	0.27	13.7	160	0	
						918	3.60	134	6.46	0.27	13.7	130	0	
						921	3.75	132	6.47	0.27	13.7	120	0	
						924	3.90	131	6.48	0.27	13.8	110	0	
						927	4.10	130	6.5	0.27	13.9	100	0	
		2.05	32.04	9.78	12/18/2008	925	0.50	109	6.72	0.33	8.8	1026	0.89	Stabilized
						945	0.75	115	6.62	0.31	9.1	1029	1.3	
						950	1.00	116	6.58	0.32	9.7	862.5	0	
						955	1.25	115	6.59	0.32	10	527.7	1.72	
						1000	1.50	114	6.54	0.32	10	459.2	0	
						1005	1.75	111	6.6	0.32	10.4	353.8	0	
						1010	2.00	111	6.61	0.32	10.3	305.1	0	
						1013	2.15	111	6.6	0.32	10.2	231.3	0	
						1016	2.30	111	6.61	0.31	10.3	207.3	0	
						1019	2.45	111	6.61	0.31	10.4	156.6	0	
						1022	2.60	110	6.62	0.31	10.3	139.2	0	
						1025	2.75	109	6.63	0.31	10.2	132	0	
						1028	2.90	109	6.64	0.31	10.3	125.8	0	
		1.79	31.97	7.22	3/17/2009	940	0.75	215	6.79	2.82	11.07	570	1.71	Stabilized
						945	1.00	202	6.78	2.81	11.15	417	0.49	
						950	1.25	197	6.77	2.81	11.17	384	0.25	
						955	1.50	190	6.78	2.8	11.22	314	0.04	
						1000	1.75	185	6.78	2.79	11.19	249	0	
						1005	2.00	182	6.78	2.79	11.22	225	0	
						1010	2.25	180	6.78	2.79	11.26	210	0	
						1013	2.40	175	6.78	2.79	11.32	208	0	
						1016	2.55	173	6.78	2.79	11.37	203	0	
		2.06	32.22	9.50	6/15/2009	936	1.10	178	6.99	2.73	14.22	289	0.6	Stabilized
						941	1.40	170	6.99	2.74	13.87	203	0.45	
						946	1.75	163	7	2.74	13.83	176	0.41	
						949	1.90	161	7.01	2.73	13.81	157	0.4	
						952	2.10	158	7.01	2.73	13.85	140	0.39	
						955	2.25	156	7.01	2.73	13.82	123	0.37	
						958	2.40	154	7.01	2.72	13.94	118	0.36	
						1001	2.20	152	7.02	2.72	13.86	112	0.35	
		2.05	32.11	8.85	10/7/2009	840	1.20	177	6.72	2.91	11.29	329	1.16	Stablilized
						845	1.25	168	6.78	2.9	11.39	312	1.09	
						850	1.50	159	6.82	2.88	11.53	340	0.98	
						855	1.75	153	6.84	2.86	11.56	279	0.91	
						905	2.25	145	6.86	2.85	11.65	206	0.84	
						910	2.50	142	6.85	2.84	11.7	190	0.82	
						913	2.60	140	6.87	2.84	11.7	204	0.82	
MW19	541.43	2.82	26.11	11.73	9/23/2008	907	1.00	116	7.27	2.9	15.2	300	5.54	Stabilized
						912	1.38	116	7.27	3	14.7	240	6.01	Negative 5 turbidity indicates that the water is so turbid, it is not registering on the meter
						917	2.00	118	7.23	3	14.5	470	5.05	
						922	2.50	119	7.22	3	14.4	430	4.78	
						927	3.00	119	7.24	3	14.3	310	5.02	
						932	3.50	119	7.26	3	14.2	290	5.32	
						937	3.75	119	7.27	3	14.2	270	5.37	
						942	4.00	120	7.25	3.1	14.2	330	5.36	
						945	4.25	122	7.22	3.2	14.1	470	5	
						948	4.63	126	7.1	3.3	14.2	410	3.74	
						952	4.75	127	7.06	3.4	14.8	570	2.75	
						957	5.00	126	7.09	3.4	15.5	750	3.99	
						1002	5.13	125	7.16	3.4	16.8	680	5.64	
						1007	5.20	127	7.18	3.5	18	550	6.57	

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
						1022	5.33	102	6.98	3.9	14.6	410	3.26	
						1027	5.50	102	7.03	3.8	14.8	-5	4.06	
						1032	5.63	100	7.14	3.8	16	-5	5.41	
						1037	5.73	100	7.21	3.8	17.5	-5	6.15	
						1042	5.75	103	7.25	3.8	18	-5	6.7	
						1047	5.88	105	7.28	3.8	18.4	-5	6.91	
						1052	6.00	107	7.29	3.8	18.4	-5	7.35	
						1057	6.20	108	7.3	3.8	18.3	-5	7.46	
		2.85	26.10	12.42	12/15/2008	1408	0.25	154	6.49	3.83	11.76	200	8.43	Stabilized
						1418	0.70	150	6.69	3.64	11.82	190	9.32	
						1423	0.75	149	6.7	3.59	11.69	200	9.51	
						1426	0.90	148	6.72	3.57	11.89	210	9.49	
						1429	1.00	147	6.75	3.57	11.67	220	9.66	
		2.60	26.07	11.52	3/18/2009	1030	0.25	190	6.73	2.97	12.52	89.8	4.62	Stabilized
						1035	0.40	186	6.75	2.82	12.56	93.7	3.41	
						1040	0.50	183	6.76	2.73	12.62	96.5	3.11	
						1045	0.60	179	6.81	2.68	12.56	108	3.36	
						1050	0.75	171	6.93	2.36	12.58	66.8	2.95	
						1055	0.90	170	6.93	2.38	12.53	133	2.75	
						1100	1.05	168	6.95	2.33	12.51	67.1	2.68	
						1103	1.15	167	6.95	2.32	12.52	61.7	2.61	
						1106	1.25	166	6.95	2.33	12.53	60	2.58	
						1109	1.35	167	6.94	2.34	12.47	61.1	2.57	
		2.85	26.26	11.19	6/15 and 16/2009	1415	0.25	142.2	7.06	2.391	14.85	475	11.6	Stabilized - Began sampling at 3:40 p.m.; however, groundwater turned very silty; began purging and recording water quality data again at 4:02 p.m.; well went dry at 5:00 p.m., and sampling continued the following day; groundwater did not restabilize on the second day
						1425	0.75	127.6	7.03	2.24	14.61	371	0.28	
						1435	1.30	126.5	7	2.175	14.2	126	0.22	
						1445	1.80	123.7	7.01	2.153	14.19	114	0.3	
						1455	2.50	114.3	7.02	2.148	14.15	165	0.29	
						1505	2.75	114.9	7.02	2.212	15.09	184	0.25	
						1515	3.25	107.7	7.02	2.232	15.05	181	0.22	
						1525	3.50	102.5	7	2.297	15.34	126	0.2	
						1530	3.75	96.9	7.01	2.292	15.46	126	0.18	
						1535	4.00	91.8	7.01	2.295	15.44	127	0.18	
						1605	0.25	116.9	6.95	2.453	14.93	137	1.07	
						1615	0.60	102.9	6.86	2.58	14.9	733	0.39	
						1625	0.75	95.6	6.84	2.796	16.36	910	1.05	
						1635	1.00	85.2	6.83	3.186	--	-5	4.08	
						1645	1.10	75.7	6.89	3.559	20.16	-5	3.25	
						1655	1.20	95.2	6.97	3.193	15.01	-5	0.34	
		2.83	26.11	12.26	10/6/2009	1225	0.50	158	5.79	3.78	15.79	83.3	0	Stabilized
						1228	0.53	155	5.8	3.73	15.85	87.1	0	
						1231	0.56	153	5.8	3.7	15.87	104	0	
						1234	0.60	152	5.8	3.64	15.92	109	0	
						1237	0.65	149	5.82	3.59	15.95	104	0	
MW20	545.79	2.41	29.21	4.39	9/17/2008	1612	0.30	58	9.07	0.325	20.3	122	8.44	Stabilized
						1627	0.80	74	8.79	0.322	13.7	171	6.36	
						1632	1.50	73	8.71	0.317	13.5	178	5.47	
						1637	2.00	69	8.7	0.313	13.5	160	4.52	
						1642	2.60	65	8.72	0.309	13.5	177	4.3	
						1645	3.00	62	8.72	0.309	13.5	252	4.1	
						1652	3.50	61	8.73	0.328	13.4	54.3	2.34	
						1655	3.95	58	8.74	0.327	13.5	78.7	1.91	
						1658	4.25	54	8.76	0.327	13.3	80.1	1.86	
						1701	4.55	51	8.77	0.328	13.3	80.7	1.81	
		2.45	29.04	5.47	12/18/2008	1228	0.80	14	8.53	2.2	11.61	250	5.28	Stabilized
						1238	1.30	7	8.63	3.4	11.09	220	5.8	
						1243	1.50	8	8.62	3.21	10.97	210	5.89	
						1248	1.70	1	8.6	3.34	11.09	198	6.08	
						1253	1.80	12	8.59	3.29	11.01	180	6.1	
						1256	1.85	14	8.58	3.39	10.73	190	6.03	
						1259	2.00	15	8.56	3.39	11	180	6	
		2.17	29.19	4.76	3/19/2009	835	0.25	78	8.12	2.32	7.99	531	5.3	Stabilized
						840	0.40	44	8.14	2.34	8.3	528	4.1	
						845	0.55	-1	8.13	2.36	8.58	465	3.32	
						900	0.90	-28	8.15	2.36	8.15	349	3.34	
						910	1.20	-29	8.15	2.39	9.08	274	3.48	
						915	1.30	-37	8.13	2.4	9.35	261	3.16	
						920	1.45	-39	8.14	2.4	9.47	242	2.98	
						925	1.60	-38	8.13	2.4	9.42	201	2.79	
						930	1.70	-36	8.14	2.4	9.45	194	2.75	
						933	1.75	-35	8.13	2.4	9.48	192	2.72	

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
						936	1.85	-34	8.14	2.4	9.52	187	2.7	
		2.42	29.39	5.19	6/16/2009	1335	0.50	0.1	8.39	2.379	12.88	273	2.14	Stabilized
						1345	1.25	-33.5	8.39	2.342	12.36	270	0.21	
						1355	2.25	-84.5	8.36	2.339	12.39	170	0.12	
						1405	3.00	-115	8.29	2.362	12.69	139	0.1	
						1415	3.75	-128.5	8.3	2.353	12.58	133	0.09-	
						1425	4.25	-115.2	8..32	2.452	14.23	90.2	0.12	
						1430	4.50	-112.4	8.32	2.449	14.23	74	0.13	
						1435	4.60	-113.2	8.33	2.449	14.21	75.3	0.15	
						1440	4.75	-113.2	8.33	2.443	14.12	74	0.15	
		2.42	29.21	5.71	10/8/2009	805	0.20	59	8.26	3.37	12.83	74.8	3.29	Stabilized
						810	0.30	46	8.27	3.37	12.99	74.1	2.26	
						815	0.40	34	8.28	3.38	13.12	62.5	1.81	
						820	0.50	25	8.27	3.37	13.15	58.5	1.62	
						825	0.60	12	8.28	3.38	13.2	51.9	1.49	
						830	0.70	-4	8.29	3.37	13.2	46.5	1.33	
						835	0.80	-18	8.28	3.38	13.22	42.2	1.22	
						840	0.90	-29	8.28	3.38	13.23	40.2	1.14	
						845	1.00	-35	8.28	3.38	13.25	39.3	1.12	
						850	1.10	-41	8.28	3.37	13.25	37.4	1.07	
						855	1.20	-44	8.28	3.37	13.23	37.7	1.05	
MW21	550.8	2.59	26.36	15.22	9/18/2008	845	35.00	-49	7.09	3.7	13.6	380	6.05	Stabilized
						848	1.00	-49	7.12	3.7	13.5	340	6.04	
						851	1.25	-48	7.14	3.7	13.5	310	5.82	
						854	1.50	-52	7.18	3.7	13.5	270	5.78	
						857	1.80	-54	7.22	3.7	13.5	250	5.69	
						900	2.25	-57	7.25	3.7	13.5	210	5.57	
						903	2.50	-58	7.27	3.7	13.6	180	5.43	
						906	2.75	-60	7.3	3.7	13.6	160	5.42	
						909	3.00	-58	7.29	3.6	13.6	140	5.4	
						912	3.25	-57	7.27	3.6	13.9	130	5.17	
						915	3.50	-55	7.26	3.6	13.8	130	5.14	
						918	3.75	-50	7.22	3.6	13.6	130	5.02	
		2.48	26.30	14.83	12/15-16/2008	1515	1.35	-42	7.6	3.94	8.64	100	5.45	Stabilized - Samples for all analytes collected over 2 days (within 24 hours); groundwater did not restabilize on the second day
						1520	1.50	-43	7.75	3.94	7.97	86	4.78	
						1523	1.55	-44	7.76	3.83	8.9	86	4.29	
						1526	1.60	-45	7.76	3.81	9.44	79	4.04	
						1529	1.75	-46	7.75	3.79	10	86	3.83	
						1532	1.85	-47	7.8	3.71	9.3	54	3.83	
						1535	1.95	-47	7.82	3.74	9.21	55	3.78	
						1538	2.00	-47	7.82	3.81	9.6	42	3.6	
						1541	2.10	-48	7.82	3.83	9.72	34	3.5	
						1544	2.20	-47	7.83	3.83	9.62	34	3.47	
						1547	2.30	-48	7.83	3.84	9.32	32	3.48	
		2.22	26.35	14.87	3/24/2009	1015	0.20	-33	6.62	3.1	12.43	268	4.58	Stabilized
						1025	0.40	-40	6.61	3.11	12.41	189	2.31	
						1035	0.60	-30	6.04	3.06	12.57	300	2	
						1045	0.80	81	7.14	2.82	13.12	181	5.29	
						1050	0.90	-32	7	2.84	13.24	173	2.43	
						1055	1.00	-33	6.95	2.86	13.36	160	2.09	
						1100	1.10	-29	6.86	2.88	13.54	149	1.83	
						1105	1.20	-26	6.81	2.88	13.7	137	1.65	
						1110	1.30	-24	6.77	2.89	13.83	127	1.58	
						1115	1.40	-22	6.75	2.89	13.91	119	1.64	
						1118		-22	6.74	2.89	13.93	115	1.55	
						1121	1.50	-21	6.74	2.89	13.93	112	1.51	
		2.50	26.55	14.85	6/11/2009	1005	0.30	-39	6.9	3.77	15.27	144	0.91	Stabilized
						1015	0.75	-37	6.9	3.74	15.46	139	0.62	
						1018	0.90	-37	6.89	3.74	15.41	135	0.52	
						1021	1.00	-36	6.89	3.75	15.36	133	0.49	
						1024	1.10	-36	6.89	3.74	15.31	130	0.46	
		2.50	26.43	14.95	10/13/2009	828	0.40	-43	6.84	4.06	10.51	23.2	1.51	Stabilized
						838	0.70	-45	6.84	4.05	10.55	17.2	0	
						841	0.75	-47	6.85	4.05	10.55	15.4	0	
						844	0.80	-47	6.84	4.04	10.58	14.3	0	
						847	0.75	-48	6.85	4.04	10.56	13.4	0	
						852	0.90	-49	6.85	4.04	10.55	11.7	0	
						855	1.00	-49	6.83	4.03	10.56	11.2	0	
						858	1.05	-49	6.83	4.02	10.58	9.4	0	
						903	1.20	-48	6.82	4	10.59	6.2	0	
						906	1.25	-47	6.81	3.97	10.54	5.4	0	

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
						910	1.30	-46	6.81	3.97	10.51	3.8	0	
						913	1.35	-45	6.81	3.96	10.53	3.4	0	
						916	1.40	-43	6.8	3.95	10.56	2.8	0	
						919	1.50	-43	6.8	3.95	10.65	2.8	0	
						922	1.55	-42	6.8	3.94	10.63	2.6	0	
MW22	552.45	2.13	30.38	19.04	9/17/2008	1650	0.60	46	8.44	2.7	13	640	7.41	Stabilized
						1653	0.75	47	8.48	2.7	12.6	640	7.88	
						1656	1.00	49	8.51	2.7	12.5	640	7.86	
						1659	1.25	49	8.52	2.8	12.4	650	7.45	
						1702	1.50	50	8.52	2.8	12.4	660	7.07	
						1705	1.75	48	8.55	2.8	12.4	670	7.26	
						1708	2.00	48	8.58	2.8	13	660	6.81	
						1711	2.13	48	8.59	2.8	13.9	670	6.86	
						1714	2.25	48	8.6	2.8	14	690	6.84	
						1717	2.38	47	8.61	2.8	14	680	6.9	
		2.69	30.61	18.57	12/17/2008	1235	0.20	42	8.16	0.39	10.1	157.1	6.41	Stabilized except for Dissolved Oxygen (large fluctuations)
						1240	0.30	33	8.18	0.38	10.1	167.2	5.34	
						1245	0.40	22	8.19	0.37	9.9	148.8	5.11	
						1250	0.50	16	8.17	0.36	9.2	126.8	4.67	
						1253	0.55	15	8.13	0.36	8.9	138.4	1.94	
						1256	0.60	13	8.14	0.35	9.1	132.2	9.08	
						1259	0.65	11	8.14	0.35	9.6	115.6	10.14	
						1302	0.70	11	8.13	0.34	9.5	104.1	11.15	
						1305	0.75	14	8.11	0.35	9.3	100.9	11.38	
						1308	0.80	12	8.13	0.34	9	94.6	3.63	
		1.81	30.62	15.71	3/19/2009	1355	0.70	-33	8.16	3.01	12.86	-5	4.06	Stabilized Negative 5 turbidity indicates that the water is so turbid, it is not registering on the meter
						1400	0.80	-38	8.1	2.92	13.1	-5	3.41	
						1405	0.90	-28	8.09	2.83	12.61	-5	3.28	
						1415	1.10	-5	8.07	2.64	12.18	863	4.22	
						1425	1.30	62	8.08	2.49	13.24	279	6.31	
						1435	1.50	67	8.08	2.47	13.41	222	6.2	
						1445	1.70	103	8.06	2.39	12.43	175	6.47	
						1455	1.90	96	8.04	2.49	12.24	146	4.9	
						1500	2.00	94	8.02	2.52	12.1	1398	4.64	
						1503	2.05	94	8.02	2.53	12.1	141	4.37	
						1506	2.10	93	8.01	2.54	12.12	132	4.25	
		2.07	30.82	18.35	6/15/2009	1425	0.40	139	8.51	3.9	15.98	155	0.75	Stabilized
						1430	0.50	132	8.49	3.9	16.49	137	0.63	
						1435	0.60	126	8.48	3.88	16.93	137	0.62	
						1440	0.70	119	8.47	3.84	17.04	147	0.65	
						1445	0.75	116	8.46	3.8	17.08	144	0.68	
		2.08	30.74	19.25	10/8/2009	905	0.55	61	8.27	4.32	11.94	471	0	Stabilized
						910	0.60	35	8.28	4.33	11.96	455	0	
						915	0.65	18	8.28	4.32	12.03	435	0	
						920	0.70	5	8.29	4.32	12.1	418	0	
						925	0.75	-3	8.29	4.32	12.12	397	0	
						930	0.75	-6	8.29	4.32	12.15	380	0	
						940	0.80	-8	8.28	4.29	12.44	348	0	
						945	0.85	-12	8.3	4.28	12.44	339	0	
						950	0.90	18	8.29	4.26	12.45	324	0	

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
MW23	592.39	2.03	21.70	4.81	9/22/2008	1546	0.25	104	5.96	0.43	17.9	-5	1.04	Stabilized
						1549	0.50	89	5.99	0.41	17.4	-5	1.09	Negative 5 turbidity indicates that the water is so turbid, it is not registering on the meter
						1552	1.00	73	6.21	0.4	17.4	-5	1.63	
						1555	1.30	62	6.35	0.38	17.5	-5	2.22	
						1558	1.75	55	6.42	0.37	17.3	-5	2.53	
						1601	2.10	53	6.44	0.37	17.2	-5	2.73	
						1604	2.40	50	6.45	0.37	17.1	-5	2.73	
						1607	2.80	49	6.46	0.37	17	780	2.52	
						1610	3.10	48	6.46	0.37	16.9	740	2.46	
						1613	3.50	49	6.45	0.37	16.8	680	2.3	
		2.50	21.70	9.58	12/10/2008	1017	2.30	50	7.31	4.79	12.81	-5	9.47	Negative 5 turbidity indicates that the water is so turbid, it is not registering on the meter; not sampled on this date because turbidity too high even after purging 9 gal. of groundwater; well redeveloped and sampled the next week
						1022	2.60	48	7.36	4.75	13.44	-5	9.31	
						1027	3.00	44	7.41	4.7	13.26	-5	9.43	
						1032	3.50	38	7.42	4.76	13.5	-5	9.28	
						1130	8.40	14	7.55	4.61	13.99	-5	8.5	
						1133	8.75	13	7.56	4.58	14.02	-5	8.48	
						1136	9.00	12	7.56	4.6	14.03	-5	8.39	
		2.50	21.70	9.58	12/16/2008	1335	0.75	93	6.53	0.36	9.8	784.9	0.22	Stabilized
						1355	1.75	46	6.53	0.37	11	278.1	1.25	
						1405	2.40	39	6.57	0.37	10.9	189.1	1.17	
						1410	2.75	37	6.56	0.38	10.9	155.9	1.07	
						1415	3.00	36	6.56	0.38	11.1	108.2	0.95	
						1420	3.25	36	6.55	0.38	10.9	100.6	0.15	
						1423	3.40	36	6.55	0.39	10.9	105.2	0.14	
						1426	3.55	36	6.55	0.39	10.9	96.75	0.14	
		1.80	21.67	5.36	3/24/2009	1151	0.20	-16	6.61	3.96	12.32	-5	9.48	Stabilized
						1156	0.25	-14	6.58	4.05	12.38	-5	9.12	
						1201	0.45	-4	6.57	4.1	12.28	-5	9.14	
						1206	0.55	-12	6.55	4.17	12.14	-5	8.45	
						1216	1.20	-23	6.52	4.28	11.25	-5	7.8	
						1221	1.60	-30	6.42	4.35	11.18	-5	7.31	
						1226	1.90	-32	6.4	4.35	11.12	-5	6.92	
						1231	2.50	-38	6.42	4.33	11.07	-5	6.53	
						1236	2.90	-40	6.43	4.31	11.09	-5	6.43	
						1241	3.00	-42	6.45	--	11.14	668	6.45	
						1246	3.50	-44	6.46	4.29	11.18	545	5.31	
						1251	--	-45	6.47	4.28	11.2	459	5.19	
						1254	3.65	-45	6.46	4.28	11.25	442	4.9	
						1257	3.80	-46	6.47	4.28	11.23	363	4.71	
						1300	3.95	-46	6.46	4.28	11.23	340	4.62	
						1303	3.15	-48	6.47	4.29	11.24	292	4.33	
						1306	4.30	-48	6.46	4.29	11.31	281	4.21	
						1309	4.50	-48	6.46	4.29	11.39	278	4.12	
						1312	4.70	-49	6.46	4.28	11.47	256	4	
						1315	4.90	-48	6.46	4.29	11.5	226	3.88	
						1318	5.05	-49	6.45	4.29	11.5	226	3.78	
						1321	5.15	-49	6.45	4.29	11.56	195	3.6	
						1324	5.30	-49	6.46	4.29	11.56	197	3.58	
						1327	5.50	-49	6.45	4.28	11.59	178	3.48	
						1330	5.65	-49	6.45	4.28	11.6	170	3.4	
						1333	5.80	-48	6.45	4.28	11.61	163	3.37	
						1336	6.00	-47	6.45	4.29	11.66	158	3.25	
						1339	6.15	-47	6.45	4.29	11.76	143	3.17	
						1342	6.30	-47	6.45	4.28	11.81	138	3.1	
						1345	6.45	-47	6.44	4.27	11.86	136	3.03	
						1348	6.60	-47	6.44	4.27	11.92	132	2.98	
		2.01	21.86	6.39	6/11/2009	1555	1.40	96	6.47	3.09	16.27	94.3	1.17	Stabilized
						1600	1.75	73	6.51	3.02	14.55	92.9	0.8	
						1605	3.00	64	6.51	3.01	14.14	92.6	0.7	
						1610	2.30	59	6.51	3	13.94	85	0.61	
						1620	2.70	56	6.52	2.99	13.78	66.2	0.57	
						1625	3.00	54	6.51	2.99	13.7	35	0.54	
						1630	3.50	--	6.51	2.99	13.67	33	0.83	
						1635	4.00	52	6.51	3.02	13.83	32.8	0.65	
						1640	4.25	51	6.52	3.02	13.82	31.2	0.61	
						1645	4.50	50	6.53	3.02	13.81	30.7	0.55	
		2.05	21.70	7.16	10/8/2009	1553	1.50	74	6.69	4.11	15.76	152	0	Stabilized
						1558	1.75	58	6.66	4.16	15.77	111	0	
						1603	2.00	55	6.65	4.18	15.76	99.4	0	
						1606	2.15	53	6.64	4.18	15.74	92.4	0	
						1609	2.30	52	6.63	4.18	15.74	80.5	0	

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
						1612	2.45	51	6.63	4.19	15.69	77	0	
						1615	2.60	52	6.63	4.18	15.63	68.9	0	
						1618	2.75	50	6.63	4.18	15.6	64.7	0	
						1621	2.90	50	6.64	4.18	15.57	56.5	0	
						1624	3.05	50	6.63	4.18	15.58	55.6	0	
						1627	3.20	49	6.63	4.18	15.57	47.1	0	
						1630	3.35	49	6.63	4.18	15.56	44.6	0	
						1633	3.50	48	6.63	4.18	15.57	44.8	0	
MW24	592.97	2.71	16.39	4.14	9/17/2008	805	1.25	124	6.01	2.7	16.2	480	2.3	Stabilized
						808	1.50	129	5.96	2.7	16.2	410	1.89	
						811	2.00	133	5.9	2.7	16.1	330	0.92	
						814	2.25	137	5.88	2.7	16.1	290	0.92	
						817	2.60	141	5.85	2.7	16.2	250	0.75	
						820	3.00	145	5.84	2.7	16.2	220	0.054	
						823	3.25	146	5.84	2.7	16.3	190	0.32	
						826	3.60	148	5.86	2.7	16.2	160	0.57	
						829	4.00	151	5.84	2.7	16.3	130	0.27	
						832	4.30	154	5.84	2.7	16.3	150	0.39	
						835	4.60	156	5.83	2.7	16.2	150	0.39	
						838	5.00	158	5.82	2.7	16.3	150	0.31	
		3.65	16.04	6.41	12/10/2008	1250	0.75	154	5.76	3.35	13.3	510	9.99	Not Stabilized - Three well volumes purged and then well sampled
						1255	1.00	152	5.76	3.35	13.38	430	9.92	
						1300	1.30	152	5.74	3.34	13.68	360	9.7	
						1305	1.75	158	5.63	3.34	13.63	240	9.72	
						1310	2.25	166	5.51	3.34	13.55	200	9.67	
						1313	2.50	170	5.45	3.33	13.51	160	9.59	
						1316	2.75	174	5.39	3.33	13.3	130	10.1	
						1319	3.00	177	5.34	3.33	13.51	110	10.02	
						1322	3.25	181	5.3	3.32	13.53	96	9.77	
						1325	3.50	184	5.27	3.32	13.54	88	9.5	
						1328	3.75	187	5.23	3.32	13.55	66	8.32	
						1331	4.00	190	5.19	3.31	13.58	64	9.28	
						1334	4.25	192	5.16	3.31	13.22	68	9.23	
						1337	4.50	196	5.13	3.29	13.32	56	9.13	
						1340	4.75	199	5.09	3.3	13.7	47	8.86	
		2.54	16.10	4.52	3/19/2009	956	1.60	170	5.49	2.51	9.15	310	3.05	Stabilized
						1001	2.00	165	5.52	2.52	9.18	198	12.41	
						1006	2.40	162	5.56	2.53	9.24	146	10.79	
						1011	2.60	161	5.55	2.53	9.25	137	2.93	
						1014	2.80	163	5.53	2.53	9.3	123	2.7	
						1017	3.00	161	5.56	2.53	9.31	104	2.36	
						1020	3.25	159	5.56	2.53	9.29	90.1	2.27	
						1023	3.40	158	5.56	2.53	9.31	84.2	2.14	
						1026	3.60	158	5.52	2.52	9.3	80.2	2.1	
						1029	3.80	156	5.54	2.53	9.27	81.2	2.12	
		2.70	16.28	5.83	6/16/2009	748	0.60	226	6.53	2.62	17.11	573	0.66	Stabilized
						758	1.20	196	6.54	2.65	16.6	230	0.44	
						803	1.50	185	6.54	2.65	16.7	152	0.44	
						806	1.70	179	6.55	2.66	16.43	155	0.44	
						809	1.80	175	6.57	2.64	16.62	128	0.42	
						812	2.00	170	6.56	2.65	16.51	123	0.43	
						815	2.20	165	6.57	2.66	16.46	121	0.42	
		2.43	15.97	6.74	10/13/2009	935	0.40	201	5.73	2.74	13.16	185	1.43	Stabilized
						940	0.50	199	5.72	2.74	13.08	163	1.28	
						945	0.60	196	5.71	2.73	13.52	144	1.23	
						950	0.75	193	5.73	2.73	13.9	121	1.19	
						955	0.95	191	5.73	2.73	14.22	104	1.15	
						1000	1.15	188	5.75	2.74	14.28	76.5	1.1	
						1005	1.35	185	5.76	2.74	14.28	55.7	1.04	
						1010	1.55	181	5.75	2.75	14.44	40	0.94	
						1015	1.75	177	5.75	2.75	14.41	30.8	0.93	
						1020	1.95	175	5.74	2.75	14.38	25.9	0.87	
						1025	2.15	173	5.74	2.76	14.47	21.3	0.83	
						1028	2.27	172	5.75	2.76	14.5	19.6	0.82	
						1031	2.36	171	5.74	2.76	14.56	16	0.81	
						1034	2.51	171	5.75	2.76	14.55	15.8	0.8	
						1037	2.64	170	5.74	2.76	14.53	15.2	0.79	
MW25	586.39	1.95	18.57	2.10	9/17/2008	1238	4.75	26	6.08	0.357	19	176	5.6	Not Stabilized - Three well volumes purged and then well sampled
						1243	5.25	28	6.02	0.334	18.4	152	5.74	
						1248	5.75	25	6.04	0.334	18.3	281	5.48	
						1253	6.10	24	6.02	0.34	18.5	335	5.8	

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
						1258	6.50	25	6.02	0.336	18.4	224	5.46	
						1303	7.00	26	6	0.359	18.4	280	5.91	
						1308	7.30	25	6.01	0.359	18.6	244	4.83	
						1313	7.75	24	6.02	0.333	18.5	138	5.94	
						1318	8.25	24	6.07	0.328	18.5	208	6.01	
						1323	8.75	20	6.1	0.341	18.6	382	5.76	
						1328	9.20	22	6.08	0.323	18.4	267	5.92	
		1.96	18.74	3.41	12/10/2008	1203	0.25	45	6.7	3.69	10.6	266	5.24	Stabilized
						1213	0.50	32	6.69	3.67	10.9	339	5.8	
						1223	0.75	20	6.69	3.66	11	327	8.26	
						1245	1.25	19	6.6	3.62	11.5	493	9.75	
						1250	1.50	25	6.49	3.61	11.4	403	8.6	
						1255	1.75	28	6.43	3.61	11.1	378	7.24	
						1300	2.00	28	6.41	3.62	11.1	375	6.75	
						1305	2.25	26	6.43	3.6	11.3	381	7.44	
						1310	2.50	30	6.38	3.6	11.1	341	6.55	
						1315	2.75	34	6.3	3.59	11.2	258	5.28	
						1320	3.00	37	6.23	3.58	11.3	180	3.97	
						1325	3.25	43	6.13	3.56	11	121	2.2	
						1330	3.50	43	6.1	3.56	11.2	128	1.68	
						1335	3.75	44	6.08	3.54	11.1	105	1.27	
						1340	4.00	44	6.05	3.55	11.2	82.5	0.94	
						1345	4.25	45	6.03	3.54	11.2	80.2	0.6	
						1350	4.50	45	6.03	3.54	11.3	70.3	0.41	
						1355	4.75	45	6	3.54	11.3	58.6	0.15	
						1358	4.85	46	6	3.53	11.3	69.8	0.11	
						1401	5.00	46	5.99	3.52	11.4	61.9	0.01	
						1404	5.25	46	5.99	3.52	11.4	57.8	0	
						1407	5.35	46	5.99	3.53	11.3	59.8	0	
		1.77	18.71	2.92	3/26/2009	1047	0.50	47	5.98	2.53	10.21	603	2.52	Stabilized
						1057	0.75	42	5.98	2.52	10.27	509	2.25	
						1107	1.00	51	5.97	2.49	9.87	718	3.23	
						1117	1.25	44	5.97	2.52	9.98	421	2.02	
						1127	1.50	42	5.97	2.53	9.92	306	1.8	
						1217	3.00	61	5.8	2.51	9.99	114	1.68	
						1220	3.08	62	5.79	2.51	9.95	104	1.61	
						1223	3.15	63	5.77	2.51	10	105	1.58	
		2.25	18.85	3.64	6/11/2009	1000	0.75	14	6.67	13.46	12.14	800	3.4	Not Stabilized - Three well volumes purged and then well sampled
						1005	1.00	23	6.68	3.36	12.47	800	11.5	
						1011	1.25	28	6.61	3.3	12.76	582	9.9	
						1016	1.50	35	6.53	3.34	12.32	461	9.65	
						1021	2.00	41	6.45	3.31	12.21	261	8.88	
						1030	2.75	55	6.31	3.33	12.31	157	7.48	
						1035	3.25	63	6.21	3.33	12.13	111	6.57	
						1040	3.50	67	6.15	3.32	12.14	83.7	5.74	
						1045	3.75	70	6.11	3.32	12.13	56.3	5.14	
						1050	4.00	71	6.1	3.31	12.19	40.1	4.79	
						1055	4.25	74	6.07	3.31	12.13	30.2	4.61	
						1100	4.75	76	6.05	3.31	12.16	19	4.56	
						1105	5.25	77	6.03	3.31	12.19	14.1	4.42	
						1110	5.75	79	6.02	3.3	12.25	9.6	4.45	
						1115	6.25	79	6.02	3.3	12.21	8.4	4.34	
						1120	6.50	81	6.01	3.3	12.2	4.8	4.44	
						1125	7.00	83	5.98	3.3	12.2	1.7	4.2	
						1130	7.50	84	5.97	3.29	12.25	1.9	4.06	
						1135	7.75	84	5.97	3.29	12.26	4	3.98	

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
		1.99	18.57	3.43	10/13/2009	1530	0.70	9	6.53	3.37	15.57	192	0	Stabilized
						1540	0.95	14	6.48	3.34	15.71	129	0	
						1550	1.20	41	6.33	3.28	15.74	95	0	
						1600	1.45	55	6.22	3.24	15.66	72.5	0	
						1610	1.75	66	6.07	3.24	15.55	62.5	0	
						1620	2.00	67	6.01	3.25	15.55	59	0	
						1625	2.18	69	5.98	3.25	15.53	56.6	0	
						1630	2.30	69	5.98	3.25	15.46	56.1	0	
						1633	2.45	71	5.96	3.25	15.41	56.4	0	
						1639	2.50	71	5.95	3.25	15.34	55	0	
						1642	2.55	71	5.95	3.25	15.34	54.7	0	
MW26	582.37	2.75	14.42	8.87	9/17/2008	746	0.50	238	5.4	0.26	17.1	570	3.33	Stabilized
						752	1.00	266	4.88	0.26	17.4	270	3.77	
						757	1.50	264	5.28	0.27	17.3	280	3.67	
						802	1.75	239	5.7	0.27	17.1	420	3.21	
						806	2.00	235	5.68	0.27	17	360	3.65	
						809	2.25	227	5.78	0.27	16.9	260	3.28	
						812	2.50	220	5.94	0.27	16.8	290	3.28	
						815	2.75	213	6.07	0.27	16.6	310	3.56	
						818	3.00	210	6.11	0.27	16.6	290	3.63	
		2.31	14.40	12.72	12/16/2008	1405	0.20	161	5.99	3.4	8.69	380	7.03	Well went dry before it could be stabilized or sampled
						1415	0.30	159	6.06	3.46	7.61	120	7.04	
						1420	0.35	159	6	3.57	6.37	120	7.22	
		2.83	14.46	10.07	3/24/2009	1221	0.25	124	6.42	2.53	9.75	295	8.53	Stabilized on 03/23/2009; well went dry after stabilizaton; sample collected at 8:23 a.m. on 3/24/2009
						1226	0.30	127	6.39	2.55	9.87	219	7.95	
						1231	0.50	128	6.43	2.58	9.12	88.4	7.67	
						1236	0.60	128	6.46	2.58	9	53	7.03	
						1241	0.70	130	6.49	2.57	8.89	49.5	6.9	
						1244	0.75	130	6.5	2.57	8.84	137	6.87	
						1249	0.85	135	6.47	2.55	8.96	267	7.14	
						1251	0.90	135	6.47	2.53	9.28	450	6.71	
						1254	0.95	137	6.43	2.53	9.37	>800	6.47	
						1257	1.00	137	6.44	2.51	9.43	>800	6.98	
						1310	1.10	162	6.43	2.42	10.98	407	6.93	
						1315	1.20	157	6.4	2.45	10.74	313	7	
						1320	1.25	158	6.39	2.46	10.34	221	7.3	
						1325	1.30	150	6.51	2.49	9.87	160	7.15	
						1330	1.40	149	6.5	2.48	9.89	131	7.37	
						1335	1.45	153	6.38	2.46	9.78	122	7.14	
						1338	1.50	154	6.39	2.46	9.8	115	7.12	
						1341	1.55	155	6.35	2.47	9.81	112	7.2	
						1344	1.60	154	6.38	2.47	9.85	104	7.5	
		3.05	14.67	12.38	6/16/2009	1225	0.10	57.4	6.3	1.966	15.81	603	6.76	Not Stabilized - Well went dry before it could be stabilized or sampled
						1230	0.15	59.5	6.21	1.938	14.46	-5	5.6	
						1235	0.20	60.7	6.24	1.873	12.69	-5	2.55	
						1245	0.25	60.4	6.37	2.023	15.4	-5	5.8	
		3.05	14.51	12.82	10/12/2009	1020	0.00	157	6.77	2.61	10.68	55.3	0	Not Stabilized - Well went dry before it could be stabilized or sampled
						1030	0.10	157	6.79	2.61	10.4	43.4	0	
						1040	0.20	156	6.77	2.62	10.99	37	0	
						1050	0.25	158	6.77	2.63	10.81	30.2	0	
						1100	0.25	156	6.76	2.63	10.63	26.3	0	
						1110	0.25	156	6.75	2.63	10.51	24.8	0	
						1113	0.25	156	6.74	2.63	10.45	23.9	0	
						1125	0.26	156	6.74	2.63	10.54	21	0	
MW27	583.04	2.38	28.57	27.04	9/24/2008	804	0.20	164	6.47	1.3	14.5	45	8.09	Stabilized
						807	0.30	166	6.47	1.3	14.1	37	7.83	
						810	0.40	164	6.58	1.3	13.8	34	7.62	
						813	0.60	164	6.59	1.3	13.7	34	7.65	
						816	0.70	163	6.64	1.3	13.7	33	7.62	
		1.94	28.67	28.47	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
		1.94	28.72	27.44	03/17/2009	1600	0.30	128	6.82	1.08	14.58	56.7	8.77	Stabilized
						1605	0.70	132	6.67	1.09	13.22	15.5	8.87	
						1610	1.00	133	6.63	1.1	12.77	0	8.89	
						1613	1.25	134	6.61	1.1	12.6	0	8.85	
						1616	1.40	135	6.59	1.11	12.55	0	8.93	
		1.27	28.96	28.30	--	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
		1.27	28.64	Dry	--	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
MW28	584.96	2.42	31.36	24.01	9/18/2008	1036	0.50	191	7.1	0.36	15.2	-5	2.99	Stabilized
						1053	2.00	187	7.3	0.34	15.2	180	4.23	
						1057	2.50	187	7.24	0.37	15.2	100	3.86	
						1102	3.00	187	7.21	0.39	15.2	100	3.64	
						1107	3.50	187	7.21	0.39	15.1	110	3.65	
						1111	4.00	187	7.2	0.4	15	120	3.52	
		2.35	31.23	23.66	12/10 and 11/2008	1540	0.80	139	7.05	4.03	13.77	180	8.24	Stabilized - Samples for all analytes collected over 2 days (within 24 hours); groundwater did not restabilize on the second day
						1545	1.25	137	7.1	4.06	13.81	150	8.19	
						1550	1.70	1336	7.14	4.02	13.45	180	10.07	
						1555	2.00	134	7.19	4.03	13.62	230	9.96	
						1558	2.25	134	7.22	4.03	13.6	250	9.9	
						1501	2.50	133	7.25	4.02	13.54	300	9.91	
						1606	2.75	132	7.26	4.04	12.94	390	10.13	
						1611	2.90	131	7.28	4.09	12.6	380	9.14	
						1614	3.00	131	7.3	4.03	12.6	370	10.55	
						1617	3.20	131	7.3	4.06	12.35	350	10.59	
						1620	3.25	131	7.33	3.97	12.7	360	10.45	
		2.41	31.29	19.22	03/17/2009	857	0.45	67	7.05	3.66	13.56	95.4	3.05	Stabilized
						902	0.60	65	7.11	3.57	13.71	30.9	3.71	
						907	0.80	69	7.16	3.53	13.79	12.5	4.51	
						912	1.00	78	7.19	3.51	13.85	1.8	5.05	
						917	1.20	83	7.16	3.52	13.87	0.2	5.41	
						920	1.25	85	7.2	3.52	13.89	0	5.34	
						923	1.30	87	7.2	3.52	13.91	0	5.37	
		2.65	31.47	20.31	6/9/2009	1510	0.15	172	7.57	3.18	19.55	330	8.67	Stabilized
						1515	0.70	169	7.56	3.25	18.06	315	7.47	
						1520	1.10	170	7.54	3.17	17.61	229	7.91	
						1525	1.40	169	7.55	3.14	17.22	202	6.96	
						1530	1.75	168	7.57	3.28	16.82	169	7.94	
						1535	1.90	169	7.57	3.21	19.13	79.8	4.34	
						1540	2.10	168	7.61	3.19	19.74	49	7.02	
						1545	2.20	168	7.64	3.18	20.11	49.2	7.04	
						1550	2.30	168	7.66	3.18	20.23	46.5	7.14	
		2.40	31.25	21.00	10/9/2009	842	0.20	144	7.22	3.64	12.23	37.8	20.65	Stabilized
						852	0.30	144	7.23	3.66	12.17	30.5	0	
						902	0.50	139	7.23	3.66	12.12	30.1	0	
						912	0.60	135	7.25	3.69	11.98	27.4	0	
						922	0.70	134	7.25	3.68	11.97	26.4	0	
						927	0.80	133	7.25	3.68	11.97	25.5	0	
						930	0.85	132	7.25	3.67	12.06	24.6	0	
						933	0.90	132	7.26	3.67	12.07	23.6	0	
						936	0.95	131	7.26	3.67	12.01	23.9	0	
MW29	584.19	1.49	20.10	13.35	9/16/2008	925	0.40	70	6.95	0.208	16.6	197	0.34	Not Stabilized - Three well volumes purged and then well sampled
						930	0.80	72	7	0.0205	16.9	215	0.29	
						933	1.20	71	7	0.196	16.8	169	0.13	
						936	1.40	70	6.99	0.182	16.7	165	0.12	
						939	1.75	56	6.99	0.176	16.5	172	0.02	
						942	2.00	25	7	0.176	16.4	211	0.01	
						945	2.25	3	7.02	0.173	16.3	215	0	
						948	2.30	-4	7.03	0.175	16.1	178	0	
						951	2.90	-8	7.06	0.176	16	158	0	
						954	3.20	-9	7.07	0.172	15.9	165	0	
						958	3.50	-6	7.08	0.169	15.8	254	0	
						1004	3.75	-4	7.11	0.161	15.8	381	0.08	
						1009	4.25	1	7.11	0.159	15.7	596	0.22	
						1019	5.10	20	7.18	0.159	15.6	999	3.58	
						1115	7.50	86	7.12	0.117	17.4	328	5.54	
						1118	7.75	98	7.1	0.111	17.5	248	6.74	
						1121	8.00	101	7.09	0.106	17.5	210	6.84	
						1123	8.25	100	7.08	0.104	17.5	169	6.79	
						1125	8.50	99	7.08	0.104	17.5	199	6.89	
		2.50	22.08	14.25	12/16/2008	845	0.40	17	7.64	2.42	11.36	430	3.4	Stabilized
						855	0.70	37	7.33	2.27	11.09	300	3.31	
						900	0.80	45	7.26	2.25	11.48	250	3.21	
						905	1.00	48	7.23	2.24	11.28	250	3.2	
						908	1.10	49	7.21	2.22	11.59	230	3.12	
						911	1.20	51	7.2	2.22	11.42	200	3.06	
						914	1.30	52	7.19	2.2	11.58	200	3.01	
						917	1.40	54	7.17	2.2	11.48	210	2.98	

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
		1.34	22.03	13.47	3/25/2009	810	0.30	39	6.89	1.42	8.09	575	0	Stabilized
						820	0.70	46	6.93	1.39	8.57	420	8.38	
						830	1.00	43	6.99	1.38	8.75	333	9.17	
						840	1.30	32	7.03	1.33	8.88	268	9.39	
						850	1.60	30	7.04	1.31	9.04	251	9.4	
						853	1.70	29	7.04	1.31	9.07	251	9.31	
						856	1.75	29	7.05	1.29	9.07	251	9.35	
		1.67	22.36	13.80	6/9/2009	933	0.50	-4	7.03	1.98	14.51	258	0.86	Stabilized
						943	0.80	12	7.02	1.87	14.13	132	0.74	
						948	1.00	19	7.02	1.86	14.05	98.2	0.75	
						951	1.20	20	7.02	1.86	14.00	87.7	0.71	
						954	1.30	19	7.01	1.85	13.96	81.2	0.65	
						957	1.40	17	7.01	1.85	13.94	75.1	0.64	
						1000	1.50	16	7.01	1.89	13.92	74.5	0.61	
						1003	1.60	13	7.01	1.84	13.93	74.1	0.57	
						1006	1.70	10	7	1.83	13.92	72	0.56	
		1.46	21.90	13.95	10/7/2009	815	0.20	-2	7.07	2.29	12.86	0	0	Stabilized
						820	0.25	-1	7.03	2.11	14.01	800	0	
						825	0.45	3	7	2.02	14.16	516	0	
						830	0.55	7	6.99	1.97	14.23	243	0	
						835	0.70	16	6.98	1.94	14.33	153	0	
						840	0.85	24	6.97	1.91	14.40	103	0	
						845	1.00	25	6.95	1.88	14.47	69.2	0	
						850	1.15	22	6.93	1.85	14.48	55.4	0	
						855	1.30	18	6.92	1.83	14.45	42.5	0	
						900	1.45	16	6.92	1.8	14.48	47	0	
						903	1.50	15	6.92	1.79	14.46	46.3	0	
						908	1.65	12	6.91	1.76	14.46	48.4	0	
						911	1.75	9	6.9	1.74	14.46	46	0	
						914	1.85	7	6.9	1.72	14.5	44.3	0	
MW30	580.56	2.13	24.35	15.52	9/16/2008	949	0.50	124	6.75	1.1	14.4	67	4.04	Stabilized
						954	1.00	108	6.72	1.1	14.2	52	4.02	
						957	1.25	105	6.86	1.1	14.2	57	1.76	
						1000	1.50	104	6.88	1.1	14	48	0.91	
						1003	1.75	103	6.89	1.1	14	44	4.35	
						1006	2.00	100	6.93	1.1	13.9	39	1.48	
						1009	2.25	99	6.94	1.2	13.8	43	1.43	
						1012	2.50	99	6.97	1.2	13.8	45	1.57	
						1015	2.75	98	6.98	1.2	13.7	47	1.28	
		2.12	24.33	21.55	12/12/2008	1030	0.25	123	6.81	1.97	11.31	29	8.48	Stabilized
						1035	0.50	119	6.93	1.97	11.13	12	8.82	
						1040	0.70	117	7.03	1.94	11.47	19	8.66	
						1045	0.85	116	7.06	1.94	11.11	12	8.39	
						1048	0.95	116	7.05	1.94	10.99	11	8.26	
						1051	1.00	116	7.05	1.93	10.87	11	8.15	
		2.12	24.40	18.79	3/26/2009	1352	0.20	141	6.84	1.29	14.68	83.3	4.07	Stabilized
						1402	0.45	136	6.83	1.3	13.79	41.7	4.22	
						1407	0.55	135	6.82	1.32	13.4	30.6	4.29	
						1412	0.65	133	6.83	1.32	13.22	22.1	4.26	
						1417	0.80	133	6.82	1.33	12.71	26.8	4.39	
						1420	0.90	132	6.82	1.34	12.71	21.6	4.34	
						1423	1.00	131	6.82	1.34	12.56	16.4	4.35	
						1426	1.15	131	6.82	1.33	12.48	13.2	4.29	
						1429	1.25	131	6.81	1.35	12.51	9.2	4.2	
						1432	1.35	135	6.82	1.35	12.46	7.6	4.16	
						1435	--	131	6.82	1.34	12.43	6.9	4.07	
						1438	1.65	131	6.82	1.33	12.46	5.6	3.94	
						1441	1.75	131	6.82	1.31	12.49	3.6	3.84	
						1444	1.85	132	6.82	1.33	12.48	2.6	3.76	
						1447	1.95	132	6.82	1.32	12.5	1.9	3.63	
						1450	2.05	131	6.82	1.32	12.62	1.1	3.53	
						1453	2.20	131	6.82	1.31	12.6	0.4	3.44	
						1456	2.30	132	6.82	1.31	12.58	0	.3.32	
						1459	2.40	131	6.82	1.3	12.66	0	3.2	
						1502	2.50	131	6.81	1.3	12.68	0	3.13	
		2.40	24.57	21.02	6/9/2009	1111	0.50	216	7.28	1.06	13.64	25.4	7.93	Stabilized
						1118	0.50	215	7.22	0.969	14.67	61.1	6.91	
						1125	0.75	212	7.21	0.963	14.93	19.1	4.89	
						1130	1.50	209	7.18	0.961	14.96	30.3	6.42	
						1135	1.80	206	7.18	0.979	15.16	63.9	6.21	

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
						1140	2.00	205	7.18	1.01	15.26	104	5.94	
						1145	2.20	202	7.21	0.974	15.39	53.6	4.58	
						1150	2.50	199	7.25	0.97	15.53	27.2	7.18	
						1155	2.70	197	7.27	0.999	15.63	20.9	6.36	
						1200	2.80	195	7.27	0.92	15.77	20	7.2	
						1205	--	193	7.26	0.989	15.86	21.3	7.23	
						1210	3.25	193	7.26	0.994	16.08	22.7	6.81	
						1215	3.50	190	7.32	0.984	16.29	22.1	6.32	
		2.12	24.12	21.07	10/7/2009	725	0.20	142	6.83	1.23	11.73	28.4	6.08	Stabilized
						730	0.40	144	6.83	1.23	11.81	19.2	3.71	
						735	0.50	145	6.89	1.23	11.76	13.1	2.72	
						740	0.60	145	6.89	1.23	11.99	8.09	2.45	
						745	0.70	144	6.89	1.23	11.97	4.73	2.07	
						750	0.80	144	6.9	1.23	11.99	4	1.96	
						755	0.90	143	6.9	1.23	12.18	3.48	1.89	
MW31	578.12	2.12	34.08	24.99	9/16/2008	1541	0.75	179	6.48	2.9	14.8	38	4.64	Stabilized
						1544	1.00	178	6.46	2.8	14.6	34	4.26	
						1547	1.30	177	6.47	2.8	14.5	29	4.08	
						1550	1.75	175	6.47	2.8	14.4	27	3.98	
						1553	2.25	174	6.46	2.8	14.4	26	3.86	
						1556	2.50	174	6.45	2.8	14.4	26	3.83	
		2.56	34.06	31.43	12/11/2008	1155	0.25	120	5.96	2.99	12.3	77.6	0	Stabilized
						1200	0.50	109	6.02	2.99	12.5	59.4	0	
						1205	0.75	95	6.09	2.99	12.9	55.7	0	
						1210	1.00	88	6.11	3	13.2	52.8	0	
						1215	1.25	83	6.13	2.99	13.2	60.6	0	
						1218	1.40	79	6.14	3	13.2	31.7	0	
						1221	1.55	78	6.14	3	13.1	24.8	0	
						1224	2.00	76	6.14	3	12.9	21.9	0	
						1227	2.25	74	6.14	3	13.1	19.6	0	
						1230	2.50	72	6.14	3.01	13.2	18.4	0	
						1233	2.75	72	6.15	3	13.1	18.5	0	
		2.08	34.07	24.67	3/18/2009	835	0.40	167	6.3	2.8	12.06	0	5.14	Stabilized
						840	0.60	169	6.28	2.79	12.17	0	4.94	
						845	0.80	170	6.28	2.79	12.23	0	4.87	
						850	1.00	169	6.29	2.79	12.3	0	4.76	
						855	1.25	171	6.29	2.79	12.34	0	4.67	
		2.30	34.27	28.82	6/17/2009	830	0.25	170.7	6.31	1.912	14.66	42.9	18.86	Stabilized
						835	0.50	178.4	6.32	1.909	14.54	12.2	4.73	
						840	0.75	184.3	6.31	1.925	14.81	3.78	4.55	
						845	0.90	184.7	6.31	1.923	14.76	2.16	4.59	
						850	1.00	186.7	6.3	1.916	14.6	1.83	4.66	
						855	1.20	187.1	6.3	1.915	14.61	1.54	4.58	
						900	1.30	188.1	6.29	1.916	14.61	1.53	4.55	
						905	1.50	187.8	6.29	1.918	14.64	0.95	4.55	
						910	1.75	190.3	6.29	1.921	14.69	1.15	4.55	
						915	1.90	191.3	6.29	1.922	14.73	1.54	4.55	
						920	2.20	192	6.29	1.92	14.67	1.11	4.54	
						925	2.30	191.3	6.29	1.921	14.69	1.04	4.55	
						930	2.50	190	6.29	1.914	14.65	1	4.52	
		2.05	34.10	31.04	10/7/2009	1520	0.00	90	6.29	2.47	18.04	132	1.89	Stabilized
						1525	0.20	110	6.44	2.46	15.91	37.8	0.00	
						1530	0.50	111	6.46	2.46	15.04	14	0.00	
						1535	0.85	105	6.44	2.46	14.3	7.8	0.00	
						1540	1.25	109	6.42	2.47	14.11	4.4	0.00	
						1545	1.60	116	6.41	2.47	14.04	2.7	0.00	
						1548	1.90	119	6.41	2.46	14.02	2.7	0.00	
						1551	2.10	119	6.41	2.48	13.98	2.5	0.00	
						1554	2.25	119	6.41	2.48	13.99	2.5	0.00	
MW32	572.44	2.53	17.98	10.55	9/24/2008	1455	0.25	115	7.4	1.7	19.1	350	6.96	Stabilized
						1458	0.38	112	7.42	1.7	18.5	260	6.45	
						1501	0.50	111	7.42	1.7	18.2	190	6.38	
						1504	0.60	110	7.41	1.7	18.2	150	6.37	
						1507	0.63	108	7.43	1.7	18.1	110	6.37	
						1510	0.63	107	7.44	1.8	18	100	6.48	
		2.56	18.38	16.90	12/17-18/2008	1516	0.13	160	6.43	1.71	7.35	230	7.93	Stabilized - Samples for all analytes collected over 2 days (within 24 hours); groundwater did not restabilize on second day
						1526	0.25	158	6.51	1.73	7.9	210	6.48	
						1536	0.35	158	6.57	1.78	8.52	99	5.43	
						1541	0.50	155	6.6	1.82	8.53	130	5.09	
						1544	0.55	155	6.61	1.88	8.39	130	4.91	
						1547	0.60	155	6.6	1.91	8.22	120	4.81	

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
		2.57	18.34	14.86	3/25/2009	1420	0.10	156	7.18	0.99	9.35	199	11.31	Stabilized
						1430	0.25	161	7.14	1.04	9.47	178	8.45	
						1440	0.40	163	7.11	1.12	9.65	156	6.45	
						1445	0.50	163	7.11	1.2	9.85	142	5.52	
						1450	0.60	162	7.11	1.24	10	141	4.88	
						1455	0.70	161	7.1	1.27	10.09	137	4.46	
						1500	0.80	161	7.1	1.29	10.12	132	4.13	
						1503	0.86	160	7.09	1.29	10.21	128	4.16	
		2.77	18.54	17.54	6/17/2009	746	0.13	218	7.33	1.29	19.79	117	2.7	Not Stabilized - Three well volumes purged and then well sampled
						756	0.30	209	7.35	1.46	17.82	106	2.18	
						809	0.60	201	7.36	1.54	17.19	94.3	1.4	
						811	0.75	198	7.37	1.59	16.99	90.5	1.16	
						816	1.00	195	7.37	1.63	16.87	81.1	1.06	
						826	1.25	194	7.37	1.64	16.75	76	1.13	
						831	1.40	190	7.38	1.65	16.61	71.2	0.98	
						836	1.50	189	7.38	1.66	16.71	69	0.88	
		2.44	18.33	17.77	10/2008	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW33	579.41	1.93	20.32	11.71	9/16/2008	1627	1.00	116	7.87	0.19	16.3	-5	9.52	well not sampled on this date due to insufficient water and high turbidity ; well redeveloped and sampled later
						1633	1.50	115	8.01	0.19	16.3	-5	9.36	
						1636	1.75	114	8.07	0.19	16.2	-5	9.38	
						1640	Dry	Dry	Dry	Dry	Dry	Dry	Dry	
		1.93	20.32	11.71	9/24/2008	927	0.40	371	7.97	0.127	16.9	66.8	7.79	Stabilized
						932	0.75	386	8.01	0.121	16.9	46.9	7.86	
						937	1.10	388	7.97	0.125	17.2	49.6	7.93	
						940	1.30	386	7.93	0.132	17.3	51.9	7.8	
						948	1.50	381	7.89	0.141	17.2	49.9	7.34	
						946	1.75	368	7.83	0.148	16.8	129	8.1	
						949	3.00	364	7.91	0.14	17	120	7.48	
						959	2.25	346	7.85	0.126	20	226	8.13	
						1009	2.25	342	7.79	0.151	20.6	118	7.78	
						1019	2.30	343	7.68	0.159	21.2	60.4	8	
						1022	2.35	344	7.65	0.16	21.4	45.4	7.87	
						1025	2.40	346	7.62	0.162	21.4	47.3	7.62	
						1028	2.45	351	7.6	0.163	21.5	40.3	7.94	
						1031	2.50	357	7.57	0.162	21.7	39.7	8.1	
						1034	2.50	359	7.55	0.162	21.9	39.4	7.84	
						1037	2.55	362	7.53	0.164	21.8	40.3	8.2	
		1.71	20.03	12.16	12/17/2008	1100	0.25	133	6.67	2.55	9.32	56	5.8	Stabilized
						1110	0.55	125	6.87	2.5	11.32	52	6.89	
						1120	0.85	123	6.91	2.52	11.16	46	7.32	
						1123	0.95	122	6.93	2.53	11.11	43	7.37	
						1126	1.05	122	6.93	2.55	10.68	42	7.47	
		1.69	20.36	8.21	3/19/2009	1331	0.40	154	6.96	3.91	13.34	128	6.17	Stabilized
						1336	0.60	150	6.98	3.94	13.01	83.5	6.26	
						1339	0.75	148	6.98	3.95	13.01	82.5	6.25	
						1342	0.85	147	6.98	3.95	13.08	65	6.21	
						1345	1.00	146	6.98	3.95	13.03	58.7	6.21	
						1348	1.10	143	6.98	3.95	12.86	52.7	6.4	
						1351	1.20	143	6.97	3.95	12.82	52.6	6.19	
						1354	1.30	143	6.97	3.95	12.86	55.2	6.15	
		1.81	20.55	9.67	6/10 and 11/2009	1346	0.20	143	7.48	3.24	24.34	0	5.62	Stabilized - Upon consultation with the project manager, it was decided to resample this well because the water was silty; samples collected on 6/10/2009 were discarded
						1351	0.75	143	7.6	3.5	19.38	0	6.05	
						1356	1.00	143	7.56	3.58	20.73	0	5.48	
						1401	1.50	141	7.73	3.37	19.13	0	6.3	
						1406	1.80	140	7.78	3.35	18.83	0	6.42	
						1411	2.40	139	7.85	3.28	18.74	0	6.28	
						1527	0.30	194	7.49	2.3	16.35	104	4.82	
						1532	0.50	190	7.48	2.27	17.08	102	4.31	
						1537	0.70	188	7.47	2.27	17.31	76.5	4.14	
						1540	0.75	186	7.47	2.26	17.31	62.9	4.08	
						1543	0.80	185	7.46	2.28	17.24	58.8	4.04	
						1546	0.90	185	7.45	2.28	17.24	52.5	4.06	
						1549	1.00	184	7.45	2.3	17.2	40.7	4.04	
						1552	1.05	184	7.43	2.3	17.51	42.3	3.87	
						1555	1.10	184	7.43	2.31	17.61	42.9	3.9	
		1.55	20.15	12.09	10/12/2009	930	0.45	218	6.7	2.65	12.24	86.3	2.42	Stabilized
						935	0.50	209	6.88	2.61	12.26	71.6	1.97	
						940	0.55	203	6.98	2.56	12.3	63.3	1.73	
						945	0.60	200	7.02	2.54	12.36	55.2	1.63	
						950	0.65	198	7.04	2.51	12.42	49.1	1.54	
						955	0.70	196	7.06	2.49	12.39	43.4	1.51	

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
						1000	0.75	194	7.07	2.47	12.41	37.3	1.52	
						1003	0.78	193	7.07	2.45	12.47	36	1.54	
						1006	0.81	192	7.07	2.44	12.46	35.4	1.58	
MW34	579.41	2.05	25.29	4.63	9/16/2008	1145	7.50	-14	7.6	0.41	19	140	8.43	Stabilized
						1148	8.00	-14	7.61	0.4	19	150	8.68	
						1152	8.50	-14	7.62	0.4	19.2	160	8.76	
		2.04	25.26	5.32	12/11/2008	1430	0.25	103	6.85	103	11.3	-5	0.03	Stabilized - Negative 5 turbidity indicates that water is so turbid, it is not registering on the meter
						1440	0.50	90	6.92	90	10.75	-5	4.31	
						1450	0.75	85	7.03	85	11.8	-5	5.13	
						1500	1.00	83	7.07	83	11.22	-5	6.04	
						1510	1.25	82	7.1	82	11.31	-5	6.9	
						1520	1.50	81	7.17	81	12.33	-5	7.6	
						1530	1.75	80	7.21	80	11.94	-5	8.16	
						1540	2.00	65	7.37	65	12.21	-5	8.04	
						1550	2.50	55	7.41	55	14.06	-5	8.22	
						1610	3.00	38	7.51	38	12.14	-5	8.56	
						1630	4.00	31	7.57	31	12.25	630	8.2	
						1633	4.08	29	7.59	29	11.87	580	8.37	
						1636	4.16	29	7.59	29	12.11	540	8.22	
		2.00	25.22	5.64	3/25/2009	1741	0.50	152	6.86	9.2	10.72	0	1.89	Stabilized - Because it was getting too late to stay on site, purging was terminated at 6:31 p.m. on 3/25/2009 and continued the following day
						1746	0.75	144	6.87	9.21	10.75	0	1.7	
						1751	0.90	130	6.88	9.19	10.63	0	1.71	
						1756	1.00	118	6.89	9.12	10.2	0	1.72	
						1801	1.20	102	6.89	9.17	10.21	0	1.64	
						1806	1.40	88	6.88	9.18	10.44	0	1.54	
						1811	1.60	71	6.87	9.17	10.66	0	1.5	
						1816	1.70	56	6.88	9.27	10.71	0	1.57	
						1821	1.80	48	6.89	9.24	10.73	0	1.42	
						1826	2.00	32	6.9	9.22	10.78	0	1.36	
						1831	2.00	19	6.91	9.21	10.78	0	1.32	
					3/26/2009	740	0.45	-14	6.78	8.68	10.12	257	2.11	
						750	0.80	-43	6.84	8.66	10.42	506	1.68	
						755	1.00	-47	6.88	8.68	10.52	681	1.58	
						800	1.20	-49	6.9	8.75	10.61	762	1.57	
						805	1.40	-53	6.9	8.68	10.67	726	1.45	
						810	1.60	-56	6.91	8.67	10.76	744	1.38	
						815	1.75	-57	6.92	8.66	10.85	648	1.34	
						820	1.85	-59	6.92	8.68	10.8	542	1.34	
						830	2.00	-62	6.94	8.81	10.65	312	1.83	
						835	2.20	-65	6.95	8.67	10.73	215	1.37	
						840	2.30	-68	6.96	8.65	10.75	188	1.28	
						845	2.50	-69	6.97	8.63	10.8	176	1.24	
						850	2.60	-69	6.97	8.62	10.85	171	1.22	
						853	2.70	-70	6.97	8.61	10.88	168	1.22	
						856	2.75	-71	6.98	8.6	10.9	158	1.24	
						859	2.80	-72	6.98	8.59	10.94	145	1.2	
						902	2.85	-70	6.99	8.61	10.99	139	1.26	
						905	2.90	-71	6.98	8.59	10.98	140	1.26	
						908	3.00	-71	6.99	8.59	10.95	132	1.22	
		2.30	25.51	4.91	6/10/2009	1130	0.20	109	7.17	8.39	16.8	132	5.24	Stabilized
						1135	0.50	100	7.18	8.39	16.83	220	4.22	
						1140	0.75	93	7.19	8.44	16.51	349	3.73	
						1145	0.90	87	7.19	8.4	16.73	406	2.94	
						1150	1.00	84	7.2	8.35	16.93	438	2.6	
						1155	1.20	80	7.21	8.31	16.83	439	2.47	
						1200	1.30	76	7.22	8.3	16.61	450	2.35	
		2.05	25.25	4.67	10/8/2009	825	0.25	30	6.98	8.03	15.19	800	0	Stabilized
						835	0.50	22	6.96	7.94	15.25	800	0	
						845	0.80	15	6.99	7.75	15.45	800	0	
						855	1.25	11	7	7.66	15.49	800	0	
						925	1.50	39	7.03	7.42	15.07	650	0	
						935	1.75	1	7.05	7.12	15.2	394	0	
						945	2.05	-6	7.07	7.07	15.34	419	0	
						950	2.20	-4	7.08	6.8	15.38	397	0	
						953	2.30	-4	7.08	6.8	15.39	362	0	
						956	2.40	-3	7.09	6.79	15.4	360	0	
						959	2.50	-2	7.01	6.8	15.43	338	0	
						1002	2.60	-2	7.08	6.8	15.41	330	0	
MW35	599.67	2.02	20.32	11.23	9/23/2008	1621	0.40	-59	7.01	2.7	13.8	-5	0.42	Stabilized but Turbidity still too high; negative 5 turbidity indicates that water is so turbid, it is not registering
						1624	0.80	-53	7.05	2.5	13.9	900	0.31	
						1627	1.20	-29	7.08	2.1	14.1	740	0.6	

Table 2.2.2-3
Phase I and II Water Quality Parameters
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Elevation (ft msl)	Height of Steel Riser from GS (ft)	Depth to Bottom (ft) from TOC	Depth to Water (ft) from TOC	Sampling Date[a]	Time of Reading	Volume Purged (gal.)	Oxidation-Reduction Potential (mV)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Stabilization of Parameters and Notes
						1630	1.60	-19	7.08	2	14.1	970	0.53	on the meter; well sampled after three well volumes purged
						1633	2.00	-23	7.09	2.1	13.9	-5	0.35	
						1636	2.25	-30	7.11	2.4	13.6	-5	0.14	
						1639	2.60	-33	7.11	2.6	13.6	-5	0.04	
						1641	3.00	-37	7.11	2.7	13.4	-5	0.11	
						1644	3.30	-41	7.12	2.7	13.3	-5	0	
						1647	3.60	-40	7.11	2.8	13.2	-5	0	
						1650	3.85	-37	7.14	2.7	13.2	-5	0	
						1653	4.20	-34	7.14	2.8	12.9	-5	0	
						1656	4.50	-29	7.14	2.8	13	-5	0	
		2.03	20.33	11.10	12/11 and 17/2008	836	1.75	--	--	--	--	-5	--	On 12/11/2008, negative 5 turbidity indicated water was so turbid, it was not registering on the meter; therefore, purging and sampling stopped; well redeveloped and sampled the following week on 12/17/2008
						830	0.25	120	6.85	0.26	8.2	256.5	1.94	
						840	0.50	107	6.88	0.2	9	291	4.89	
						850	0.75	98	6.92	0.18	9	173.4	5.75	
						900	1.00	87	6.93	0.17	9.1	72	6.15	
						910	1.25	69	6.95	0.18	9.2	32.97	6.16	
						913	1.35	65	6.96	0.18	9	57.19	6.19	
						916	1.45	60	6.96	0.18	9.3	59.29	6.04	
						919	1.55	54	6.98	0.19	9.1	44.96	5.91	
						922	1.65	50	6.94	0.19	9	37.76	5.84	
						925	1.70	49	6.94	0.19	9	35.32	5.74	
						928	1.80	46	6.97	0.19	8.8	34.3	5.74	
		1.76	20.35	3.04	3/25/2009	1142	0.30	134	6.88	2.31	9.07	800	1.92	Stabilized
						1147	0.55	123	6.89	2.31	9.19	800	1.74	
						1153	0.80	116	6.91	2.31	9.23	703	1.61	
						1158	1.15	112	6.91	2.28	9.22	531	1.56	
						1203	1.35	111	6.91	2.26	9.14	433	2.59	
						1208	1.55	106	6.93	2.26	9.15	338	1.62	
						1213	1.75	103	6.93	2.24	9.09	229	1.52	
						1218	1.90	99	6.93	2.22	9.17	179	1.49	
						1223	2.10	94	6.93	2.19	9.31	144	1.45	
						1228	2.25	88	6.93	2.17	9.44	113	1.43	
						1233	2.40	84	6.93	2.16	9.42	96.2	1.43	
						1228	2.55	78	6.93	2.14	9.52	81.4	1.41	
						1243	2.70	71	6.93	2.12	9.6	69.1	1.39	
						1248	2.85	65	6.94	2.11	9.6	64.7	1.4	
						1253	3.10	60	6.94	2.11	9.62	68.4	1.4	
						1256	3.10	56	6.94	2.1	9.68	57	1.41	
						1259	3.20	52	6.94	2.1	9.68	55	1.4	
						1302	3.30	45	6.94	2.09	9.71	54	1.38	
						1305	3.40	40	6.94	2.09	9.69	51.7	1.46	
						1308	3.50	35	6.93	2.09	9.69	52.1	1.4	
						1311	3.60	22	6.93	2.08	9.73	49	1.39	
						1314	3.70	16	6.93	2.08	9.74	48.3	1.39	
						1317	3.80	13	6.93	2.08	9.72	44.6	1.39	
						1320	3.90	7	6.93	2.08	9.68	41.9	1.38	
						1323	4.00	2	6.93	2.07	9.72	45	1.37	
						1326	4.10	-2	6.93	2.08	9.76	45	1.36	
		2.00	20.53	5.19	6/16/2009	1021	0.40	57	6.99	2.63	15.61	280	6.01	Stabilized
						1031	0.70	57	7.01	2.52	15.83	289	0.6	
						1041	0.75	31	7.01	2.56	16.12	267	0.45	
						1046	0.80	33	7	2.54	15.77	251	0.39	
						1051	0.90	34	7	2.54	15.56	241	0.61	
						1056	1.00	31	7	2.5	15.39	226	0.36	
						1101	1.10	31	7.01	2.48	15.21	221	0.34	
						1106	1.20	29	7.01	2.45	14.89	217	0.33	
		2.05	20.38	12.52	10/14/2009	800	0.20	25	6.98	2.85	9.32	184	1.92	Stabilized
						815	0.50	-3	6.96	2.83	10.47	147	1.26	
						820	0.60	-6	6.95	2.82	10.57	147	1.22	
						825	0.70	-7	6.94	2.81	10.59	126	1.19	
						830	0.80	-6	6.94	2.8	10.59	112	1.16	
						835	0.90	-4	6.93	2.8	10.58	99	1.14	
						840	1.00	-2	6.92	2.8	10.67	78.6	1.1	
						845	1.10	2	6.91	2.79	10.68	68.7	1.03	
						850	1.20	7	6.91	2.8	10.74	61.8	1.02	
						853	1.26	7	6.91	2.8	10.73	61.1	1.01	
						856	1.32	8	6.91	2.8	1073	58.1	0.99	

Section 2.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 2.2.2-3

Notes:

Light grey shading indicates separate turbidity meter used (Micro TPI)

Dark grey shading indicates Horiba water meter not functioning properly, most likely due to extreme cold (as explained by Field Environmental Decision Support technical staff)

--	No reading taken
ft	Foot
gal.	Gallon
GS	Ground surface
ID	Identification
mg/L	Milligram per liter
mS/cm	MicroSiemen per centimeter
msl	Mean sea level
mV	Millivolt
NTU	Nephelometric turbidity unit
NW	Not enough water to measure readings
TOC	Top of casing
a	The sampling date indicates when samples were collected and not when TOC measurements were taken.

Table 2.2.2-4
Phase II Slug Test Summary
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

MW ID	Test No.	Date Test Started	Date Test Ended	Time Test Started	Time Test Ended	Depth To Bottom (ft)	Initial Depth To Water (ft)	Depth to Water after Transducer in Well (ft)	Type of Slug Test
MW06	1	10-29-08	10-29-08	1132	1156	17.69	10.43	10.37	Slug Out
	2	10-29-08	10-29-08	1203	1225			10.37	Slug In
	3	10-29-08	10-29-08	1229	1237			10.37[a]	Slug Out
	4	10-29-08	10-29-08	1239	1253			10.37[a]	Slug In
MW07	1	10-29-08	10-29-08	0919	0924	16.98	5.34	5.34	Slug In
	2	10-29-08	10-29-08	0930	0932			5.34	Slug Out
	3	10-29-08	10-29-08	0947	0948			5.34[a]	Slug In
	4	10-29-08	10-29-08	0952	0956			5.34[a]	Slug Out
MW09	1	10-30-08	10-30-08	0922	0949	18.66	5.48	5.30	Slug In
	2	10-30-08	10-30-08	0951	1009			5.28	Slug Out
	3	10-30-08	10-30-08	1014	1106			5.44	Slug In
MW15	1	10-28-08	10-28-08	0947	1015	26.43	10.33	10.28	Slug out - Bailer
	2	10-28-08	10-28-08	1026	1035			10.35	Slug out - Bailer
	3	10-28-08	10-28-08	1042	1055			10.38	Slug out - Bailer
	4	10-28-08	10-28-08	1250	1305			10.33	Slug In
MW17	1	10-28-08	10-29-08	1741	0757	16.80	6.25	6.13	Slug In
	2	10-29-08	10-29-08	0806	1427			6.18	Slug Out
	3	10-29-08	10-29-08	1427	1706			6.21	Slug In
MW18	1	10-30-08	10-30-08	1206	1215	32.05	9.46	9.25	Slug In
	2	10-30-08	10-30-08	1220	1233			9.11	Slug Out
	3	10-30-08	10-30-08	1237	1249			9.34	Slug In
MW19	1	10-28-08	10-28-08	1137	1715	26.12	12.22	12.05	Slug In
	2	10-28-08	10-29-08	1717	0820			12.4	Slug Out
	3	10-30-08	10-31-08	1740	1155			12.53	Slug out - Bailer
MW20	1	10-28-08	10-29-08	1732	0845	29.18	5.56	5.21	Slug In
	2	10-29-08	10-29-08	0847	1735			5.20	Slug Out
	3	10-29-08	10-30-08	1742	1318			5.24	Slug In
MW23	1	10-29-08	10-29-08	1530	1558	21.69	6.56	6.30	Slug In
	2	10-29-08	10-29-08	1602	1625			6.10	Slug Out
	3	10-29-08	10-29-08	1630	1651			6.54	Slug In
MW24	1	10-28-08	10-28-08	1500	1520	16.20	6.09	6.06	Slug out - Bailer
	2	10-28-08	10-28-08	1525	1540			6.07	Slug out - Bailer
	3	10-28-08	10-28-08	1601	1604			6.12	Slug In
MW25	1	10-28-08	10-28-08	1158	1235	18.82	3.51	3.25	Slug In
	2	10-28-09	10-28-08	1235	1430			3.16	Slug Out
	3	10-28-08	10-28-08	1441	1548			1.83	Slug In
MW29	1	10-29-08	10-30-08	1829	0710	22.19	14.29	14.18	Slug In
	2	10-30-08	10-30-08	0728	0750			14.21	Slug Out
	3	10-30-08	10-30-08	0756	0846			14.27	Slug In

Section 2.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 2.2.2-4

Notes:

ft	Foot
ID	Identification
MW	Monitoring well
No.	Number
a	The water level is inferred. Equilibrium was reached very quickly and to expedite slug tests water levels were not collected after first two tests.

Table 2.2.8-1
Asbestos Air Sampling Data
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Sample ID	Sampling Date	Start Time	Stop Time	Pump Run Time (min)	Beginning Flow Rate (L/min)	End Flow Rate (L/min)	Average Flow Rate (L/min)	Volume of Sample Collected (L)	Sample Description
AbsAir1	7/9/2008	0909	1709	480	4.7	4.7	4.7	2,256	TEM 25-mm asbestos air filter collected using Eberline pump
AbsAir2	7/9/2009	0909	1709	480	4.4	4.4	4.4	2,112	TEM 25-mm asbestos air filter collected using Eberline pump
AbsAir3	7/9/2009	0918	1718	480	2.09	2.09	2.09	1,003	TEM 25-mm asbestos air filter collected using Gilian pump
AbsAir4	7/9/2009	0923	1723	480	2.06	2.06	2.06	989	TEM 25-mm asbestos air filter collected using Gilian pump
AbsAir6-Low	9/30/2009	1725	1905	100	6.028	6.169	6.0985	610	Personal air sample collected at low flow rate from AbsAir 6 while raking (collocated sample collection with AbsAir6-High)
AbsAir6-High	9/30/2009	1725	1905	100	12.75	12.88	12.815	1,282	Personal air sample collected at high flow rate from AbsAir 6 while raking (collocated sample collection with AbsAir6-Low)
AbsAir8-Low	9/30/2009	1420	1600	100	6.317	6.324	6.3205	632	Personal air sample collected at low flow rate from AbsAir 8 while raking (collocated sample collection with AbsAir8-High)
AbsAir8-High	9/30/2009	1420	1600	100	12.51	12.85	12.68	1,268	Personal air sample collected at high flow rate from AbsAir 8 while raking (collocated sample collection with AbsAir8-Low)
PS1	9/30/2009	1128	2008	519	10.89	11.61	11.25	5,839	Downwind southwestern perimeter sampling location
PS2	9/30/2009	1038	1451[a]	253	11.00	NA	11.00	2,783	Downwind western perimeter sampling location; pump stopped prematurely for unknown reason; generator running the entire time
PS3	9/30/2009	1152	1417[a]	135	12.79	12.59	12.69	1,713	Upwind perimeter sample; pump stopped prematurely because generator for personal sampling did not work properly
PS4	9/30/2009	1212	1303[a]	51	12.13	11.87	12	612	Downwind permeter sample; used a car battery to run the pump but battery died prematurely
B1	9/30/2009	1104	1212[a]	68	12.32	12.80	12.56	854	Background sampling location; pump plugged in but stopped prematurely for unknown reason

Section 2.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 2.2.8-1

Notes:

AbsAir	Asbestos air sample
B	Background
ID	Identification
L/min	Liter per minute
min	Minute
PS	Perimeter sample
TEM	Transmission Electron Microscope
a	These pump stop times are calculated based on the number of minutes the pump was running (according to the pump data logger). These pumps stopped prematurely before sampling was completed either because of pump malfunction or because the electrical source malfunctioned.

Table 3.2.3-1
Summary of the Hydraulic Conductivity Testing for OU1 Wells
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Well/ Piezometer	Hydraulic Conductivity		Remarks	Geological Unit	Intercepted WBZ
	(cm/sec)	(ft/min)			
P-6	$1.6 \times l0^{-4}$	3.2×10^{-4}	Slug Test	Till	WBZ 1
P-7	9.5×10^{-5}	$1.9 \times l0^{-4}$	Slug Test	Bedrock	WBZ 2
P-9	$5.0 \times l0^{-4}$	1.0×10^{-3}	Slug Test	Bedrock	WBZ 2
P-15	4.6×10^{-6}	9.1×10^{-5}	Slug Test	Bedrock	WBZ 2
P-17	$\sim 5 \times 10^{-3}$	$\sim 1 \times 10^{-2}$	Pump Test	Alluvium	WBZ 1
P-18	2.2×10^{-2}	4.3×10^{-2}	Slug test	Alluvium	WBZ 1
P-18	$\sim 4 \times 10^{-2}$	8×10^{-2}	Pump Test	Alluvium	WBZ 1
MW- 1	$\sim 2 \times 10^{-1}$	$\sim 4 \times 10^{-1}$	Pump Test	Slag	WBZ 1
MW-1	$*5.7 \times 10^{-2}$	$*1.1 \times 10^{-1}$	Slug Test	Slag	WBZ 1
MW-2	$\sim 7 \times 10^{-3}$	1×10^{-2}	Pump Test	Alluvium	WBZ 1
G-02	4.0×10^{-6}	7.9×10^{-5}	Slug Test	Bedrock	WBZ 2
G-04	2.7×10^{-3}	5.4×10^{-3}	Slug Test	Till	WBZ 1
G-05	2.0×10^{-3}	4.0×10^{-3}	Slug Test	Till	WBZ 1

Notes:

1. Slug tests and pump tests were performed during the 1994 Investigation Investigation following groundwater sampling. Slug test data were analyzed using the Bouwer and Rice model. Pump test data were analyzed using the Theis equation.
2. "*" indicates a second set of data for the same well.
3. WBZ = water bearing zone

Table 3.2.3-2
OU1 Water Levels in the Sampling Points and the LVR
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Location	Geology	WBZ	Water Level Elevation (feet)																						
			11/20/1991	10/3/1993	10/10/1994	11/4/1994	11/12/1994	7/10/2007	7/19/2007	11/12/2007	1/7/2008	1/14/2008	1/15/2008	3/11/2008	6/16/2008	9/8/2008	9/22/2008	9/30/2008	10/2/2008	3/17/2009	6/8/2009	6/19/2009	8/17/2009	8/19/2009	8/20/2009	10/5/2009
G-02	Bedrock	2	--	557.72	557.62	558.26	558.81	557.47	--	556.82	--	--	--	557.55	558.34	--	557.97	--	--	557.84	557.38	--	--	--	--	557.99
G-04	Till	1	--	559.12	559.27	559.58	560.17	560.19	--	559.39	--	--	--	561.08	561.40	--	561.61	--	--	562.35	560.76	--	--	--	--	559.75
G-05	Fill	1	--	562.30	562.15	562.08	562.41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-101	Bedrock	2	551.45	562.00	561.92	561.93	562.75	562.88	--	562.70	--	--	--	563.12	563.85	--	564.21	--	--	563.83	563.52	--	--	--	--	562.61
G-103	Till	1	551.07	559.16	559.53	559.37	559.98	560.06	--	559.49	--	--	--	560.83	561.09	--	561.45	--	--	562.16	560.84	--	--	--	--	559.77
G-106	Slag	1	541.23	548.05	548.11	548.23	548.48	547.68	--	547.01	--	--	--	547.78	548.68	--	547.33	--	--	547.00	547.97	--	--	--	--	546.19
ISW-001		1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	466.50	466.68	466.41		466.14
ISW-001-River [a]	River		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	466.57	66.88	466.39	--	466.25
ISW-002		1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	464.80	464.79	--	465.38 [b]	464.09
ISW-002-River [a]	River		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	464.45	464.93	464.21 [b]	--	463.80
MW-1	Slag	1	--	555.94	555.87	555.78	556.03	--	DRY < 547.58	DRY < 547.58	DRY < 547.58	--	--	DRY < 547.58	DRY < 547.58	--	DRY < 547.58	--	--	DRY < 547.58	DRY < 547.58	--	--	--	--	DRY < 547.58
MW-2	Alluvium	1	--	455.92	456.13	456.67	457.63	--	--	456.41	457.94	457.88	--	457.29	457.03	--	458.24	--	--	458.75	457.38	--	--	--	--	456.73
MW-301H	Alluvium	1	--	--	--	--	--	--	--	454.74	455.37	--	--	456.05	457.11	--	458.10	--	--	460.02	460.66	--	--	--	--	461.25
MW-301S	Slag	1	--	--	--	--	--	--	--	DRY < 547.58	495.69	--	--	495.94	496.07	--	496.17	--	--	496.22	496.14	--	--	--	--	495.79
MW-303H	Alluvium	1	--	--	--	--	--	--	--	463.77	460.58	--	--	465.11	465.05	--	465.80	--	--	465.72	465.52	--	--	--	--	463.93
MW-303S	Slag	1	--	--	--	--	--	--	--	464.99	464.35	--	--	466.01	465.66	--	466.93	--	--	466.73	466.60	--	--	--	--	465.20
MW-304S	Slag	1	--	--	--	--	--	--	--	DRY < 547.58	495.31	--	--	495.35	495.35	--	--	--	--	495.99	495.63	--	--	--	--	495.31
MW-305H	Alluvium	1	--	--	--	--	--	--	--	463.31	462.93	--	--	464.67	464.81	--	465.31	--	--	465.20	463.94	--	--	--	--	463.37
MW-305R	Bedrock	2	--	--	--	--	--	--	--	461.82	464.32	--	--	465.23	465.52	--	465.63	--	--	465.92	465.72	--	--	--	--	464.67
MW-305S	Slag	1	--	--	--	--	--	--	--	464.59	464.16	--	--	465.97	466.70	--	466.45	--	--	466.28	464.74	--	--	--	--	464.58
MW-306S	Slag	1	--	--	--	--	--	--	--	DRY < 547.58	473.83	--	--	447.01	474.11	--	474.13	--	--	474.19	474.24	--	--	--	--	474.40
MW-311R	Bedrock	2	--	--	--	--	--	--	--	561.48	569.08	--	--	566.18	565.11	--	566.77	--	--	565.62	565.12	--	--	--	--	567.00
MW-317R	Bedrock	2	--	--	--	--	--	--	--	569.86	570.51	--	--	571.75	571.83	--	572.68	--	--	572.81	572.07	--	--	--	--	571.43
MW-320H	Alluvium	1	--	--	--	--	--	--	--	--	--	--	--	467.71	466.97	--	469.23	--	--	469.34	467.44	--	--	--	--	467.04
MW-321H	Alluvium	1	--	--	--	--	--	--	--	--	--	--	466.23	466.95	466.50	--	467.28	--	--	467.35	467.18	--	--	--	--	466.71
MW-322H	Alluvium	1	--	--	--	--	--	--	--	--	--	--	461.62	462.69	462.59	--	463.18	--	--	463.10	461.93	--	--	--	--	461.43
MW-A	Unknown	1	--	--	--	--	--	--	--	554.40	--	--	--	554.50	555.50	--	555.90	--	--	554.69	555.86	--	--	--	--	554.90
P-1	Slag	1	--	--	464.02	464.13	464.89	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
P-15	Bedrock	2	--	466.90	455.35	466.07	467.04	--	466.07	469.71	468.28	--	--	468.24	467.73	--	467.66	--	--	468.10	467.64	--	--	--	--	468.72
P-15A	Slag	1	--	468.37	468.32	467.99	468.14	--	468.43	470.64	470.32	--	--	471.00	469.97	--	469.90	--	--	470.19	470.06	--	--	--	--	471.07
P-17	Alluvium	1	--	458.09	469.22	458.47	459.34	--	459.67	458.00	459.55	--	458.96	459.06	458.74	--	459.51	--	--	459.72	458.88	--	--	--	--	458.36
P-18	Alluvium	1	--	460.54	465.50	460.91	461.81	461.24	--	462.23	462.54	462.41	--	463.41	463.40	--	463.91	--	--	463.73	462.84	--	--	--	--	462.30
P-19	Slag	1	--	461.83	461.76	462.09	463.12	--	463.15	464.28	463.12	--	--	465.89	467.00	--	466.26	--	--	466.10	464.58	--	--	--	--	464.18
P-20	Fill	1	--	--	--	--	--	--	--	--	--	--	--	--	525.15	--	525.13	--	--	525.28	524.99	--	--	--	--	524.77
P-6	Till	1	--	--	--	553.51	553.62	--	560.52	DRY < 547.58	--	--	--	555.07	554.62	--	555.08	--	--	555.31	554.80	--	--	--	--	554.14
P-7	Bedrock	2	--	528.34	529.31	529.74	529.92	--	534.10	533.45	--	--	--	533.89	534.44	--	534.12	--	--	534.11	534.01	--	--	--	--	533.97
P-9	Bedrock	2	--	525.62	525.64	525.69	525.72	--	525.13	525.27	--	--	--	525.40	525.45	--	525.49	--	--	525.53	525.43	--	--	--	--	525.38
RL-1	River		--	--	--	--	--	--	--	--	--	--	--	--	--	477.42	467.42	467.92	467.92	--	467.63	--	--	--	--	--
RL-2	River		--	--	--	--	--	--	--	--	--	--	--	--	--	475.28	465.20	--	--	465.47	464.62	--	--	--	--	--
RL-3	River		--	--	--	--	--	--	--	--	--	--	--	--	--	463.34	456.34	--	458.34	--	455.50	--	--	--	--	--

Note:

[a] ISW-001-River and ISW-002-River represent water level measurments at river locations adjacent to the temporary monitoring wells ISW-001 and ISW-002, respectively.

[b] ISW-002-River was measured on 8/19/2009, while ISW-002 was measured on 8/20/2009. Rain overnight raised the river level 1-2 feet.

Table 3.3.3-1
OU2 Monitoring Well Details and WBZ Designations
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

MW or Pz No.	Depth To Bottom of Well (ft bgs)	Screened Interval (ft bgs)	Generalized Soil Boring Lithology	WBZ Designation
MW01	14	14-4	0' to 8' bgs - Unconsolidated Materials 8' to 14' bgs - Pmc Shale	WBZ1
MW02S	18	18-8	0' to 15' bgs - Unconsolidated Materials 15' to 18' bgs - Pmc Shale	WBZ1
MW02D	26	26-21	0' to 15' bgs - Unconsolidated Materials 15' to 24' bgs - Pmc Shale 24' to 26' bgs - Pmc Limestone	WBZ2
MW03	18	18-8	0' to 18' bgs - Unconsolidated Materials	WBZ1
MW04	28	28-18	0' to 28' bgs - Unconsolidated Materials	WBZ1
MW05	44	44-34	0' to 28' bgs - Unconsolidated Materials 28' to 44' bgs - Pmc Shale	WBZ2
MW06	14	14-4	0' to 14' bgs - Unconsolidated Materials	WBZ1
MW07	15	15-5	0' to 15' bgs - Unconsolidated Materials	WBZ1
MW08	15.5	15.5-5.5	0' to 14' bgs - Unconsolidated Materials 14' to 14.5' bgs - Pmc Shale 14.5' to 15.5' bgs - Pmc Limestone	WBZ1
MW09	15	15.5-5.5	0' to 15.5' bgs - Unconsolidated Materials	WBZ1
MW10	18.5	18.5-8.5	0' to 15' bgs - Unconsolidated Materials 15' to 18.5' bgs - Pmc Shale	WBZ1
MW11	13.5	13.5-3.5	0' to 13.5' bgs - Unconsolidated Materials	WBZ1
MW12	19.5	19.5-9.5	0' to 17.75' bgs - Unconsolidated Materials 17.75' to 19.5' bgs - Pmc Shale	WBZ1
MW13	22	22-12	0' to 9' bgs - Unconsolidated Materials 9' to 20.5' bgs - Pmc Shale 20.5' to 22' bgs - Pmc Limestone	WBZ2
MW14	34	34-24	0' to 10.5' bgs - Unconsolidated Materials 10.5' to 32' bgs - Pmc Shale 32' to 34' bgs - Pmc Limestone	WBZ2
MW15	25	25-15	0' to 25' bgs - Unconsolidated Materials	WBZ1
MW16	13	13-3	0' to 13' bgs - Unconsolidated Materials	WBZ1
MW17	13	13-3	0' to 13' bgs - Unconsolidated Materials	WBZ1
MW18	30	30-20	0' to 8' bgs - Unconsolidated Materials 8' to 29.5' bgs - Pmc Shale 29.5' to 30' bgs - Pmc Limestone	WBZ2
MW19	22	22-12	0' to 3' bgs - Unconsolidated Materials 3' to 22' bgs - Pmc Shale 22' bgs Pmc Limestone	WBZ2
MW20	25	25-15	0' to 6.5' bgs - Unconsolidated Materials 6.5' to 25' bgs - Pmc Shale	WBZ2
MW21	24	24-14	0' to 24' bgs - Unconsolidated Materials	WBZ1
MW22	28	28-18	0' to 5' bgs - Unconsolidated Materials 5' to 26' bgs - Pmc Shale 26' bgs to 28' Pmc Limestone	WBZ2
MW23	20.5	20.5-10.5	0' to 10.5' bgs - Unconsolidated Materials 10.5' to 20.5' bgs - Pmc Shale	WBZ2
MW24	14	14-4	0' to 14' bgs - Unconsolidated Materials	WBZ1
MW25	15	15-5	0' to 15' bgs - Unconsolidated Materials	WBZ1
MW26	12	2-Dec	0' to 10.5'bgs - Unconsolidated Materials 10.5' to 12' bgs - Pmc Shale	WBZ1

Table 3.3.3-1
OU2 Monitoring Well Details and WBZ Designations
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

MW or Pz No.	Depth To Bottom of Well (ft bgs)	Screened Interval (ft bgs)	Generalized Soil Boring Lithology	WBZ Designation
MW27	33	33-23	0' to 33' bgs - Unconsolidated Materials	WBZ1
MW28	30	30-20	0' to 14.5' bgs - Unconsolidated Materials 14.5' to 30' bgs - Pmc Shale	WBZ2
MW29	20	20-10	0' to 15' bgs - Unconsolidated Materials 15' to 20' bgs - Pmc Shale	WBZ1
MW30	22	22-12	0' to 22' bgs - Unconsolidated Materials	WBZ1
MW31	32	32-22	0' to 32' bgs - Unconsolidated Materials	WBZ1
MW32	16	16-6	0' to 5' bgs - Unconsolidated Materials 5' to 15.5' bgs - Pmc Shale 15.5' to 16' bgs - Pmc Limestone	WBZ2
MW33	28	28-18	0' to 10' bgs - Unconsolidated Materials 10' to 26' bgs - Pmc Shale 26' to 28' bgs - Pmc Limestone	WBZ2
MW34	23	23-13	0' to 9' bgs - Unconsolidated Materials 9' to 23' bgs - Pmc Shale	WBZ2
MW35	18	18-8	0' to 18' bgs - Unconsolidated Materials	WBZ1
Pz1	40	40-30	0' to 18' bgs - Unconsolidated Materials 18' to 40' bgs - Pmc Shale	WBZ2
Pz2	34	34-24	0' to 34' bgs - Unconsolidated Materials	WBZ1
Pz3	13	13-3	0' to 10.75' bgs - Unconsolidated Materials 10.75' to 12.5' bgs - Pmc Shale 12.75' to 13' bgs - Pmc Limestone	WBZ1
Pz4	32	32-22	0' to 13.75' bgs - Unconsolidated Materials 13.75' to 30' bgs - Pmc Shale 30' to 32' bgs - Pmc Limestone	WBZ2
Pz5	16.5	16.5-6.5	0' to 15.5' bgs - Unconsolidated Materials 15.5' to 16.5' bgs - Pmc Shale	WBZ1
Pz6	16	16-6	0' to 15.25' bgs - Unconsolidated Materials 15.25' to 16' bgs - Pmc Shale	WBZ1

Section 3.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 3.3.3-1

Notes:

bgs	Below ground surface
ft	Feet
MW	Monitoring well
Pmc	Pennsylvanian-aged McLeansboro Group
Pz	Piezometer
WBZ	Water-bearing zone

Table 3.3.3-2
OU2 Monitoring Well Depths and Quarterly Groundwater Elevations
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

MW or Pz No.	TOC Survey (ft above msl)	Depth to Groundwater from TOC (ft)								Groundwater Elevation (ft above msl)							
		11/2007	03/2008	06/2008	09/2008	12/2008	03/2009	06/2009	10/2009	11/2007	03/2008	06/2008	09/2008	12/2008	03/2009	06/2009	10/2009
MW01	603.99	16.69	13.25	10.38	10.86	11.76	9.73	8.8	12.02	587.3	590.74	593.61	593.13	592.23	594.26	595.19	591.97
MW02S	586.29	19.7	13.65	13.37	12.59	14.16	12.84	13.75	14.24	566.59	572.64	572.92	573.7	572.13	573.45	572.54	572.05
MW02D	587.73	24.53	15.37	15.37	14.96	15.4	14.76	15.52	15.61	563.2	572.36	572.36	572.77	572.33	572.97	572.21	572.12
MW03	588.39	21.02	20.76	20.44	18.14	20.71	19.55	20.72	20.93	567.37	567.63	567.95	570.25	567.68	568.84	567.67	567.46
MW04	580.93	27.97	27.99	27.44	25.56	27.99	25.67	27.9	27.85	552.96	552.94	553.49	555.37	552.94	555.26	553.03	553.08
MW05	570.97	44.55	19.77	19.48	37.17	21.34	19.92	20.05	20.42	526.42	551.2	551.49	533.8	549.63	551.05	550.92	550.55
MW06	567.97	11.07	9.96	9.48	8.75	10.78	9.75	10.57	10.68	556.9	558.01	558.49	559.22	557.19	558.22	557.4	557.29
MW07	550.48	6.31	4.95	4.72	4.54	6.06	4.73	4.85	5.58	544.17	545.53	545.76	545.94	544.42	545.75	545.63	544.90
MW08	536.65	Dry	14.07	14.29	12.31	15.21	13.52	14.64	16.75	Dry	522.58	522.36	524.34	521.44	523.13	522.01	519.90
MW09	592.14	6.32	4.58	4.71	4.27	5.5	4.56	5.5	5.4	585.82	587.56	587.43	587.87	586.64	587.58	586.64	586.74
MW10	590.43	12.17	8.05	7.74	7.17	9.07	7.35	8.6	9.87	578.26	582.38	582.69	583.26	581.36	583.08	581.83	580.56
MW11	583.22	16.11	8.94	7.98	7.3	9.12	7.82	10.36	9.04	567.11	574.28	575.24	575.92	574.1	575.4	572.86	574.18
MW12	588.47	13.56	12.22	11.66	9.82	13.25	9.79	11.71	13.65	574.91	576.25	576.81	578.65	575.22	578.68	576.76	574.82
MW13	543.91	20.1	15.02	14.97	14.97	15.42	15.43	15.09	15.25	523.81	528.89	528.94	528.94	528.49	528.48	528.82	528.66
MW14	591.56	12.92	10.9	11.27	11.37	10.09	10.33	10.66	10.3	578.64	580.66	580.29	580.19	581.47	581.23	580.9	581.26
MW15	609.25	15.44	14.47	6.42	9.95	10.41	4.35	5.75	10.52	593.81	594.78	602.83	599.3	598.84	604.9	603.5	598.73
MW16	600.4	12.35	6.87	6.99	7.06	7.57	5.83	7.13	7.32	588.05	593.53	593.41	593.34	592.83	594.57	593.27	593.08
MW17	590.9	7.48	5.79	5.27	5.41	6.57	11.2	7.16	6.66	583.42	585.11	585.63	585.49	584.33	579.7	583.74	584.24
MW18	481.34	10.74	9.74	9.33	5.65	9.78	7.22	9.5	8.85	470.6	471.6	472.01	475.69	471.56	474.12	471.84	472.49
MW19	544.28	NC	NC	NC	11.73	12.42	11.52	11.19	12.26	NC	NC	NC	532.55	531.86	532.76	533.09	532.02
MW20	548.19	NC	NC	NC	4.39	5.47	4.76	5.19	5.71	NC	NC	NC	543.80	542.72	543.43	543.00	542.48
MW21	553.29	NC	NC	NC	15.22	14.83	14.87	14.85	14.95	NC	NC	NC	538.07	538.46	538.42	538.44	538.34
MW22	554.52	NC	NC	NC	19.04	18.57	15.71	18.35	19.25	NC	NC	NC	535.48	535.95	538.81	536.17	535.27
MW23	594.45	NC	NC	NC	4.81	9.58	5.36	6.39	7.16	NC	NC	NC	589.64	584.87	589.09	588.06	587.29
MW24	595.67	NC	NC	NC	4.14	6.41	4.52	5.83	6.74	NC	NC	NC	591.53	589.26	591.15	589.84	588.93
MW25	588.34	NC	NC	NC	2.10	3.41	2.92	3.64	3.43	NC	NC	NC	586.24	584.93	585.42	584.70	584.91
MW26	585.44	NC	NC	NC	8.87	12.72	10.07	12.38	12.82	NC	NC	NC	576.57	572.72	575.37	573.06	572.62
MW27	585.43	NC	NC	NC	27.04	28.47	27.44	28.30	NC	NC	NC	NC	558.39	556.96	557.99	557.13	NC
MW28	587.47	NC	NC	NC	24.01	23.66	19.22	20.31	21	NC	NC	NC	563.46	563.81	568.25	567.16	566.47
MW29	586.00	NC	NC	NC	13.35	14.25	13.47	13.80	13.95	NC	NC	NC	572.65	571.75	572.53	572.20	572.05
MW30	582.97	NC	NC	NC	15.52	21.55	18.79	21.02	21.07	NC	NC	NC	567.45	561.42	564.18	561.95	561.90
MW31	580.42	NC	NC	NC	24.99	31.43	24.67	28.82	31.04	NC	NC	NC	555.43	548.99	555.75	551.60	549.38
MW32	575.22	NC	NC	NC	10.55	16.9	14.86	17.54	17.77	NC	NC	NC	564.67	558.32	560.36	557.68	557.45
MW33	581.46	NC	NC	NC	11.71	12.16	8.21	9.67	12.09	NC	NC	NC	569.75	569.30	573.25	571.79	569.37
MW34	585.20	NC	NC	NC	4.63	5.32	5.64	4.91	4.67	NC	NC	NC	580.57	579.88	579.56	580.29	580.53
MW35	601.70	NC	NC	NC	11.23	11.1	3.04	5.19	12.52	NC	NC	NC	590.47	590.60	598.66	596.51	589.18
Pz1	597.96	NC	NC	NC	12.26	12.06	11.59	11.22	12.15	NC	NC	NC	585.70	585.90	586.37	586.74	585.81
Pz2	584.94	NC	NC	NC	28.83	30.64	28.78	30.59	30.69	NC	NC	NC	556.11	554.30	556.16	554.35	554.25
Pz3	586.95	NC	NC	NC	5.75	7.25	5.61	8.81	4.08	NC	NC	NC	581.20	579.70	581.34	578.14	582.87
Pz4	586.69	NC	NC	NC	8.19	5.56	9.12	8.96	8.15	NC	NC	NC	578.50	581.13	577.57	577.73	578.54
Pz5	587.59	NC	NC	NC	4.58	6.37	4.98	6.63	6.63	NC	NC	NC	583.01	581.22	582.61	580.96	580.96
Pz6	549.33	NC	NC	NC	3.25	4.79	3.37	3.55	4.17	NC	NC	NC	546.08	544.54	545.96	545.78	545.16

Section 3.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 3.3.3-2

Notes:

ft	Feet below ground surface
msl	Mean sea level
MW	Monitoring well
Pz	Piezometer
NC	Monitoring well not constructed
TOC	Top of casing

Table 3.3.3-3
OU2 Monitoring Well Hydraulic Conductivity Values
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Monitoring Well	WBZ	Slug Test No.	Hydraulic Conductivity (cm/s)	
			Method of Hvorslev Value	Average of Three Tests
MW06	1	MW06_2	2.79E-04	3.19E-04
		MW06_3	3.72E-04	
		MW06_4	3.06E-04	
MW07	1	MW07_2	1.30E-02	1.43E-02
		MW07_4	1.56E-02	
		MW07_5	1.42E-02	
MW09	1	MW09_1	6.25E-04	6.42E-04
		MW09_2	5.21E-04	
		MW09_3	7.81E-04	
MW15	1	MW15_1	4.88E-03	4.52E-03
		MW15_2	4.22E-03	
		MW15_3	4.46E-03	
MW17	1	MW17_1	3.67E-04	3.55E-04
		MW17_2	3.29E-04	
		MW17_3	3.67E-04	
MW18	2	MW18_1	6.51E-04	7.90E-04
		MW18_2	1.04E-03	
		MW18_3	6.79E-04	
MW19	2	MW19_1	4.46E-06	2.20E-06
		MW19_3	8.44E-07	
		MW19_4	1.30E-06	
MW20	2	MW20_1	6.37E-05	5.59E-05
		MW20_2	4.73E-05	
		MW20_3	5.68E-05	
MW23	2	MW23_1	5.38E-04	3.95E-04
		MW23_2	2.23E-04	
		MW23_3	4.22E-04	
MW24	1	MW24_1	1.04E-02	9.55E-03
		MW24_2	1.12E-02	
		MW24_3	7.10E-03	
MW25	1	MW25_1	4.46E-04	4.42E-04
		MW25_2	3.12E-04	
		MW25_3	5.68E-04	
MW29	1	MW29_1	2.08E-04	2.16E-04
		MW29_2	2.97E-04	
		MW29_3	1.42E-04	

Section 3.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 3.3.3-3

Notes:

cm/s	Centimeter per second
MW	Monitoring well
WBZ	Water-bearing zone

Table 3.4.2-1
Site and Vicinity Geologic Units
Matthiessen and Hegeler Zinc Company Site
LaSalle, Illinois

ERA	SYSTEM	SERIES	FORMATION, MEMBER
CENEZOIC	QUATERNARY	PLEISTOCENE	ARTIFICIAL FILL: Undifferentiated (late Holocene) deposits of fill resulting from human construction, mining, or quarrying activities; includes compacted engineered and non-compacted, non-engineered fill consisting of, but not limited to, reworked glacial till and Pennsylvanian-aged shale. Site-specific fill includes sinter, slag, and construction debris. ALLUVIUM: Forms terraces inside of meanders and at the mouth of tributaries (modern stream deposits) and includes the Cahokia Formation. Thickness: 0-6m; Dark gray to black stratified silt, sand, and some gravel. EQUALITY FORMATION: Lacustrine sediment deposited in glacial and postglacial lakes; Brown to gray to red bedded silt and clay. LEMONT FORMATION: Subglacial and ice-marginal facies of several offlapping glacigenic sequences. Predominant clast lithologies consist of Paleozoic shale and carbonate. Locally is overlain by Illinoian till; Calcareous, gray fine to coarse textured diamicton. Silty clay (mCL) to sandy loam.
PALEOZOIC	PENNSYLVANIAN	McLeansboro Group	BOND FORMATION: Sandstone, shale, limestone, and coal.

Table 4.0-1
Screening Values for Soil, Air, Groundwater, Sediment, and Surface Water Samples
Matthiessen and Hegeler Zinc Company Site
LaSalle, Illinois

Analyte	CAS No.	Screening Levels																	
		Resident Soil [1] (mg/kg)	key	Industrial Soil [1] (mg/kg)	key	Resident Air [1] (ug/m^3)	key	Industrial Air [1] (ug/m^3)	key	Tap Water [1] (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	MCL-based SSL [1] (mg/kg)	Sediment [3]	SED key	Sediment Units	Surface Water [4] (ug/L)	SW key
2-Butanone (MEK)	78-93-3	2.80E+04	n	2.00E+05	nms	5.20E+03	n	2.20E+04	n	7.10E+03	n	--	1.50E+00	--	4.24E+01	(b)	ug/kg	2.60E+04	(b)
2-Chloronaphthalene	91-58-7	6.30E+03	ns	8.20E+04	ns	--		--		2.90E+03	n	--	1.50E+01	--	4.17E+02	(b)	ug/kg	3.00E+01	(b)
2-Nitrophenol [1]	88-75-5	1.20E+02	n	1.20E+03	n	--		--		7.30E+01	n	--	--	--	1.33E+01	(b)	ug/kg	5.40E+02	(b)
4,4'-DDD	72-54-8	2.00E+00	c	7.20E+00	c	3.50E-02	c	1.80E-01	c	2.80E-01	c	--	6.60E-02	--	4.88E+00	(a)	ug/kg	--	
4,4'-DDE	72-55-9	1.40E+00	c	5.10E+00	c	--		--		2.00E-01	c	--	--	--	3.16E+00	(a)		4.51E-09	
4,4'-DDT	50-29-3	1.70E+00	c*	7.00E+00	c*	2.50E-02	c	1.30E-01	c	2.00E-01	c*	--	6.70E-02	--	4.16E+00	(a)	ug/kg	0.001	(c)
4,6-Dinitro-2-methylpheno	534-52-1	6.10E+00	n	6.20E+01	n	--		--		3.70E+00	n	--	6.20E-03	--	1.04E+02	(b)	ug/kg	2.30E+00	(b)
4-Chloro-3-methylpheno	59-50-7	6.10E+03	n	6.20E+04	n	--		--		3.70E+03	n	--	4.30E+00	--	3.88E+02	(b)	ug/kg	2.50E+01	(b)
4-Chloroanaline	106-47-8	2.40E+00	c	8.60E+00	c	--		--		3.40E-01	c	--	1.40E-04	--	1.46E+02	(b)	ug/kg	2.00E-01	(b)
4-Chlorophenyl-phenylether [1,4]	7005-72-3	7.80E+00	n	1.00E+02	n	--		--		3.70E+00	n	--	--	--	--			2.90E+00	(b)
4-methyl-2-pentanone	108-10-1	5.30E+03	ns	5.30E+04	ns	3.10E+03	n	1.30E+04	n	2.00E+03	n	--	4.50E-01	--	2.51E+01	(b)	ug/kg	1.40E+03	(b)
4-Methylpheno	106-44-5	3.10E+02	n	3.10E+03	n	6.30E+02	n	2.60E+03	n	1.80E+02	n	--	1.50E-01	--	2.02E+01	(b)	ug/kg	1.20E+02	(b)
4-Nitrophenol [1,3]	100-02-7	1.20E+02	n	1.20E+03	n	--		--		7.30E+01	n	--	--	--	1.33E+01	(b)	ug/kg	1.90E+03	(b)
Acenaphthene	83-32-9	3.40E+03	n	3.30E+04	n	--		--		2.20E+03	n	--	2.20E+01	--	6.71E+00	(b)	ug/kg	6.20E+01	(b)
Acenaphthylene [1]	208-96-8	3.40E+03	n	3.30E+04	n	--		--		2.20E+03	n	--	--	--	5.87E+00	(b)	ug/kg	1.50E+01	(b)
Acetone	67-64-1	6.10E+04	n	6.30E+05	nms	3.20E+04	n	1.40E+05	n	2.20E+04	n	--	4.50E+00	--	9.90E+00	(b)	ug/kg	1.20E+05	(b)
Acetophenone	98-86-2	7.80E+03	ns	1.00E+05	nms	--		--		3.70E+03	n	--	1.10E+00	--	--			--	
Aldrin	309-00-2	2.90E-02	c*	1.00E-01	c	5.00E-04	c	2.50E-03	c	4.00E-03	c	--	6.50E-04	--	2.00E+00	(b)	ug/kg	1.70E-02	(d)
alpha-BHC	319-84-6	7.70E-02	c	2.70E-01	c	1.40E-03	c	6.80E-03	c	1.10E-02	c	--	6.20E-05	--	6.00E+00	(b)	ug/kg	2.50E+00	(b)
alpha-Chlordane	5103-71-9	1.60E+00	c*	6.50E+00	c	--		--		1.90E-01	c	--	--	--	3.24E+00	(b)	ug/kg	4.30E-03	(b)
Aluminum	7429-90-5	7.70E+04	n	9.90E+05	nm	5.20E+00	n	2.20E+01	n	3.70E+04	n	--	5.50E+04	--	--			8.70E+01	(c)
Anthracene	120-12-7	1.70E+04	n	1.70E+05	nm	--		--		1.10E+04	n	--	3.60E+02	--	5.72E+01	(a)	ug/kg	5.30E-01	(b)
Antimony (metallic)	7440-36-0	3.10E+01	n	4.10E+02	n	--		--		1.50E+01	n	6.00E+00	6.60E-01	2.70E-01	--			3.20E+02	(b)
Aroclor 1016	12674-11-2	3.90E+00	n	2.10E+01	c**	1.20E-01	c	6.10E-01	c	9.60E-01	c**	5.00E-01	9.20E-02	--	5.98E+01	(a)	ug/kg	1.40E-02	(c)
Aroclor 1221	11104-28-2	1.40E-01	c	5.40E-01	c	4.30E-03	c	2.10E-02	c	6.80E-03	c	5.00E-01	1.20E-04	--	5.98E+01	(a)	ug/kg	1.40E-02	(c)
Aroclor 1232	11141-16-5	1.40E-01	c	5.40E-01	c	4.30E-03	c	2.10E-02	c	6.80E-03	c	5.00E-01	1.20E-04	--	5.98E+01	(a)	ug/kg	1.40E-02	(c)
Aroclor 1242	53469-21-9	2.20E-01	c	7.40E-01	c	4.30E-03	c	2.10E-02	c	3.40E-02	c	5.00E-01	5.30E-03	--	5.98E+01	(a)	ug/kg	1.40E-02	(c)
Aroclor 1248	12672-29-6	2.20E-01	c	7.40E-01	c	4.30E-03	c	2.10E-02	c	3.40E-02	c	5.00E-01	5.20E-03	--	5.98E+01	(a)	ug/kg	1.40E-02	(c)
Aroclor 1254	11097-69-1	2.20E-01	c**	7.40E-01	c*	4.30E-03	c	2.10E-02	c	3.40E-02	c*	5.00E-01	8.80E-03	--	5.98E+01	(a)	ug/kg	1.40E-02	(c)
Aroclor 1260	11096-82-5	2.20E-01	c	7.40E-01	c	4.30E-03	c	2.10E-02	c	3.40E-02	c	5.00E-01	2.40E-02	--	5.98E+01	(a)	ug/kg	1.40E-02	(c)
Arsenic, Inorganic	7440-38-2	3.90E-01	c*	1.60E+00	c	5.70E-04	c*	2.90E-03	c*	4.50E-02	c	1.00E+01	1.30E-03	2.90E-01	9.79E+00	(a)	mg/kg	1.90E+02	(a)
Atrazine	1912-24-9	2.10E+00	c	7.50E+00	c	--		--		2.90E-01	c	3.00E+00	1.90E-04	1.90E-03	--			9.00E+00	(b)
Barium	7440-39-3	1.50E+04	n	1.90E+05	nm	5.20E-01	n	2.20E+00	n	7.30E+03	n	2.00E+03	3.00E+02	8.20E+01	--			2.20E+02	(d)
Benzaldehyde	100-52-7	7.80E+03	ns	1.00E+05	nms	--		--		3.70E+03	n	--	8.10E-01	--	--			1.40E+04	(b)
Benzene	71-43-2	1.10E+00	c*	5.40E+00	c*	3.10E-01	c	1.60E+00	c*	4.10E-01	c	5.00E+00	2.10E-04	2.60E-03	1.42E+02	(b)	ug/kg	8.60E+02	(a)
Benzo(g,h,i)perylene [1]	191-24-2	1.50E-01	c	2.10E+00	c	8.70E-03	c	1.10E-01	c	2.90E-02	c	--	--	--	1.70E+02	(b)	ug/kg	7.64E+00	(d)
Benzo[a]anthracene	56-55-3	1.50E-01	c	2.10E+00	c	8.70E-03	c	1.10E-01	c	2.90E-02	c	--	1.00E-02	--	1.08E+02	(a)	ug/kg	2.50E-02	(d)
Benzo[a]pyrene	50-32-8	1.50E-02	c	2.10E-01	c	8.70E-04	c	1.10E-02	c	2.90E-03	c	2.00E-01	3.50E-03	2.40E-01	1.50E+02	(a)	ug/kg	1.40E-02	(d)
Benzo[b]fluoranthene	205-99-2	1.50E-01	c	2.10E+00	c	8.70E-03	c	1.10E-01	c	2.90E-02	c	--	3.50E-02	--	1.00E+04	(b)	ug/kg	9.07E+00	(d)
Benzo[k]fluoranthene [4]	207-08-9	1.50E+00	c	2.10E+01	c	8.70E-03	c	1.10E-01	c	2.90E-01	c	--	3.50E-01	--	2.40E+02	(b)	ug/kg	1.40E-02	(d)
Beryllium and compounds	7440-41-7	1.60E+02	n	2.00E+03	n	1.00E-03	c*	5.10E-03	c*	7.30E+01	n	4.00E+00	5.80E+01	3.20E+00	--			3.60E+00	(d)
beta-BHC	319-85-7	2.70E-01	c	9.60E-01	c	4.60E-03	c	2.30E-02	c	3.70E-02	c	--	2.20E-04	--	5.00E+00	(b)	ug/kg	4.95E-01	(d)
Biphenyl, 1,1'-	92-52-4	3.90E+03	ns	5.10E+04	ns	--		--		1.80E+03	n	--	1.90E+01	--	--			--	
Bis(2-chloro-1-methylethyl) ether	108-60-1	4.60E+00	c	2.20E+01	c	2.40E-01	c	1.20E+00	c	3.20E-01	c	--	1.20E-04	--	--			--	
Bis(2-chloroethoxy)methane	111-91-1	1.80E+02	n	1.80E+03	n	--		--		1.10E+02	n	--	2.50E-02	--	--			--	
Bis(2-chloroethyl)ether	111-44-4	2.10E-01	c	1.00E+00	c	7.40E-03	c	3.70E-02	c	1.20E-02	c	--	3.10E-06	--	3.52E+03	(b)	ug/kg	1.90E+03	(b)
Bis(2-ethylhexyl)phthalate	117-81-7	3.50E+01	c*	1.20E+02	c	1.00E+00	c	5.10E+00	c	4.80E+00	c	6.00E+00	1.10E+00	1.40E+00	1.82E+02	(b)	ug/kg	3.80E+02	(b)
Bromoform	75-25-2	6.10E+01	c*	2.20E+02	c*	2.20E+00	c	1.10E+01	c	8.50E+00	c*	8.00E+01	2.30E-03	2.10E-02	4.92E+02	(b)	ug/kg	2.30E+02	(d)
Bromomethane	74-83-9	7.30E+00	n	3.20E+01	n	5.20E+00	n	2.20E+01	n	8.70E+00	n	--	2.20E-03	--	1.37E+00	(b)	ug/kg	1.60E+01	(d)
Bromophenyl-phenylether, 4-	101-55-3	7.80E+00	n	1.00E+02	c	--		--		--		--	--	--	1.55E+03	(b)	ug/kg	2.90E+00	(b)
Butyl Benzyl Phthlate	85-68-7	2.60E+02	c*	9.10E+02	c	--		--		3.50E+01	c	--	5.10E-01	--	1.97E+03	(b)	ug/kg	2.30E+01	(b)
Cadmium	7440-43-9	7.00E+01	n	8.00E+02	n	1.40E-03	c**	6.80E-03	c**	1.80E+01	n	5.00E+00	1.40E+00	3.80E-01	9.90E-01	(a)	mg/kg	1.18E+00	(a)
Caprolactam	105-60-2	3.10E+04	n	3.10E+05	nm	--		--		1.80E+04	n	--	4.50E+00	--	--			--	
Carbazole [1,3]	86-74-8	1.70E+04	n	1.70E+05	nm	--		--		1.10E+04	n	--	--	--	5.72E+01	(a)	ug/kg	7.40E+00	(b)

Table 4.0-1
Screening Values for Soil, Air, Groundwater, Sediment, and Surface Water Samples
Matthiessen and Hegeler Zinc Company Site
LaSalle, Illinois

Analyte	CAS No.	Screening Levels																	
		Resident Soil [1] (mg/kg)	key	Industrial Soil [1] (mg/kg)	key	Resident Air [1] (ug/m^3)	key	Industrial Air [1] (ug/m^3)	key	Tap Water [1] (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	MCL-based SSL [1] (mg/kg)	Sediment [3]	SED key	Sediment Units	Surface Water [4] (ug/L)	SW key
Carbon Disulfide	75-15-0	8.20E+02	ns	3.70E+03	ns	7.30E+02	n	3.10E+03	n	1.00E+03	n	--	3.10E-01	--	2.39E+01	(b)	ug/kg	2.00E+01	(b)
Carbon Tetrachloride	56-23-5	2.50E-01	c	1.20E+00	c	1.60E-01	c	8.20E-01	c	2.00E-01	c	5.00E+00	7.70E-05	1.90E-03	1.45E+03	(b)	ug/kg	2.80E+02	(b)
Chlordane	12789-03-6	1.60E+00	c*	6.50E+00	c*	2.40E-02	c*	1.20E-01	c*	1.90E-01	c*	2.00E+00	1.30E-02	1.40E-01	3.24E+00	(b)	ug/kg	4.30E-03	(c)
Chlorobenzene	108-90-7	2.90E+02	n	1.40E+03	ns	5.20E+01	n	2.20E+02	n	9.10E+01	n	1.00E+02	6.20E-02	6.80E-02	2.91E+02	(b)	ug/kg	7.90E+01	(b)
Chloroethane	75-00-3	1.50E+04	ns	6.10E+04	ns	1.00E+04	n	4.40E+04	n	2.10E+04	n	--	5.90E+00	--	--			1.00E+03	(b)
Chloroform	67-66-3	2.90E-01	c	1.50E+00	c	1.10E-01	c	5.30E-01	c	1.90E-01	c	8.00E+01	5.30E-05	2.20E-02	1.21E+02	(b)	ug/kg	1.50E+02	(b)
Chloromethane	74-87-3	1.20E+02	n	5.00E+02	n	9.40E+01	n	3.90E+02	n	1.90E+02	n	--	4.90E-02	--	--			1.30E+03	(b)
Chlorophenol, 2-	95-57-8	3.90E+02	n	5.10E+03	n	--		--		1.80E+02	n	--	1.50E-01	--	3.19E+01	(b)	ug/kg	4.10E+01	(b)
Chromium(III)	16065-83-1	1.20E+05	nm	1.50E+06	nm	--		--		5.50E+04	n	--	9.90E+07	--	--			2.07E+02	(a)
Chromium(VI)	18540-29-9	2.90E-01	c	5.60E+00	c	1.10E-05	c	1.50E-04	c	4.30E-02	c	--	8.30E-04	--	--			1.10E+01	(a)
Chromium, Total	7440-47-3	2.80E+02	n[5]	1.40E+03	n[5]	--		--		--		1.00E+02	--	1.80E+05	4.34E+01	(a)	mg/kg	1.10E+01	(a)
Chrysene [4]	218-01-9	1.50E+01	c	2.10E+02	c	8.70E-02	c	1.10E+00	c	2.90E+00	c	--	1.10E+00	--	1.66E+02	(a)	ug/kg	1.40E-02	(d)
Cobalt	7440-48-4	2.30E+01	n	3.00E+02	n	2.70E-04	c*	1.40E-03	c*	1.10E+01	n	--	4.90E-01	--	5.00E+01	(b)	mg/kg	2.40E+01	(d)
Copper	7440-50-8	3.10E+03	n	4.10E+04	n	--		--		1.50E+03	n	1.30E+03	5.10E+01	4.60E+01	3.16E+01	(a)	mg/kg	1.326E+01	(a)
Cresol, o-	95-48-7	3.10E+03	n	3.10E+04	n	6.30E+02	n	2.60E+03	n	1.80E+03	n	--	1.50E+00	--	5.54E+01	(b)	ug/kg	3.70E+02	(b)
Cyanide (CN-)	57-12-5	1.60E+03	n	2.00E+04	n	--		--		7.30E+02	n	2.00E+02	7.40E+00	2.00E+00	1.00E-04	(b)	mg/kg	5.20E+00	(a)
Cyclohexane	110-82-7	7.00E+03	ns	2.90E+04	ns	6.30E+03	n	2.60E+04	n	1.30E+04	n	--	1.30E+01	--	--			--	
delta-BHC [1]	319-86-8	7.70E-02	c	2.70E-01	c	1.40E-03	c	6.80E-03	c	1.10E-02	c	--	--	--	7.15E+04	(b)	ug/kg	6.67E+02	(d)
Dibenz[a,h]anthracene [4]	53-70-3	1.50E-02	c	2.10E-01	c	8.00E-04	c	1.00E-02	c	2.90E-03	c	--	1.10E-02	--	3.30E+01	(a)	ug/kg	1.40E-02	(d)
Dibenzofuran	132-64-9	7.80E+01	n	1.00E+03	ns	--		--		3.70E+01	n	--	6.80E-01	--	4.49E+02	(b)	ug/kg	1.50E+01	(b)
Dibromo-3-chloropropane, 1,2-	96-12-8	5.40E-03	c	6.90E-02	c	1.60E-04	c	2.00E-03	c	3.20E-04	c	2.00E-01	1.40E-07	8.60E-05	--			1.90E+02	(b)
Dibromochloromethane	124-48-1	6.80E-01	c	3.30E+00	c	9.00E-02	c	4.50E-01	c	1.50E-01	c	8.00E+01	3.90E-05	2.10E-02	--			--	
Dibromoethane, 1,2-	106-93-4	3.40E-02	c	1.70E-01	c	4.10E-03	c	2.00E-02	c	6.50E-03	c	5.00E-02	1.80E-06	1.40E-05	--			--	
Dichlorobenzene, 1,2-	95-50-1	1.90E+03	ns	9.80E+03	ns	2.10E+02	n	8.80E+02	n	3.70E+02	n	6.00E+02	3.60E-01	5.80E-01	2.94E+02	(b)	ug/kg	1.70E+02	(b)
Dichlorobenzene, 1,3-	541-73-1	2.40E+00	c	1.20E+01	c	--		--		4.30E-01	c	7.50E+01	--	--	1.35E+03	(b)	ug/kg	2.00E+02	(b)
Dichlorobenzene, 1,4-	106-46-7	2.40E+00	c	1.20E+01	c	2.20E-01	c	1.10E+00	c	4.30E-01	c	7.50E+01	4.10E-04	7.20E-02	3.18E+02	(b)	ug/kg	6.20E+02	(b)
Dichlorobenzidine, 3,3'-	91-94-1	1.10E+00	c	3.80E+00	c	7.20E-03	c	3.60E-02	c	1.50E-01	c	--	9.80E-04	--	1.27E+02	(b)	ug/kg	4.50E+00	(d)
Dichlorobromomethane	75-27-4	2.70E-01	c	1.40E+00	c	6.60E-02	c	3.30E-01	c	1.20E-01	c	8.00E+01	3.20E-05	2.20E-02	--			1.00E+00	(b)
Dichloroethane, 1,1-	75-34-3	3.30E+00	c	1.70E+01	c	1.50E+00	c	7.70E+00	c	2.40E+00	c	--	6.90E-04	--	5.75E-01	(b)	ug/kg	2.00E+03	(b)
Dichloroethane, 1,2-	107-06-2	4.30E-01	c	2.20E+00	c	9.40E-02	c	4.70E-01	c	1.50E-01	c	5.00E+00	4.20E-05	1.40E-03	2.60E+02	(b)	ug/kg	4.50E+03	(b)
Dichloroethylene, 1,1-	75-35-4	2.40E+02	n	1.10E+03	n	2.10E+02	n	8.80E+02	n	3.40E+02	n	7.00E+00	1.20E-01	2.50E-03	1.94E+01	(b)	ug/kg	2.40E+02	(b)
Dichloroethylene, 1,2- (Mixed Isomers) [3]	540-59-0	1.50E+02	n	6.90E+02	n	--		--		3.30E+02	n	--	9.70E-02	--	6.54E+02	(b)	ug/kg	1.10E+03	(b)
Dichloroethylene, 1,2-cis- [3,4]	156-59-2	7.80E+02	n	1.00E+04	ns	--		--		3.70E+02	n	7.00E+01	1.10E-01	2.10E-02	6.54E+02	(b)	ug/kg	9.70E+02	(d)
Dichloroethylene, 1,2-trans- [4]	156-60-5	1.50E+02	n	6.90E+02	n	6.30E+01	n	2.60E+02	n	1.10E+02	n	1.00E+02	3.10E-02	2.90E-02	6.54E+02	(b)	ug/kg	9.70E+02	(d)
Dichlorophenol, 2,4-	120-83-2	1.80E+02	n	1.80E+03	n	--		--		1.10E+02	n	--	1.30E-01	--	8.17E+01	(b)	ug/kg	8.30E+01	(b)
Dichloropropane, 1,2-	78-87-5	8.90E-01	c*	4.50E+00	c*	2.40E-01	c*	1.20E+00	c*	3.90E-01	c*	5.00E+00	1.30E-04	1.70E-03	3.33E+02	(b)	ug/kg	3.80E+02	(b)
Dichloropropene, 1,3-	542-75-6	1.70E+00	c*	8.10E+00	c*	6.10E-01	c*	3.10E+00	c*	4.30E-01	c*	--	1.50E-04	--	--		ug/kg	7.90E+00	(b)
Dichloropropene, 1,3- cis-	10061-01-5	1.70E+00	c*	8.10E+00	c*	--		--		4.30E-01	c*	--	--	--	--			--	
Dichloropropene, 1,3- trans-	10061-02-6	1.70E+00	c*	8.10E+00	c*	--		--		4.30E-01	c*	--	--	--	--			--	
Dieldrin	60-57-1	3.00E-02	c	1.10E-01	c	5.30E-04	c	2.70E-03	c	4.20E-03	c	--	1.70E-04	--	1.90E+00	(a)	ug/kg	5.60E-02	(c)
Diethyl Phthalate	84-66-2	4.90E+04	n	4.90E+05	nm	--		--		2.90E+04	n	--	1.20E+01	--	2.95E+02	(b)	ug/kg	2.50E+02	(b)
Dimethylphenol, 2,4-	105-67-9	1.20E+03	n	1.20E+04	n	--		--		7.30E+02	n	--	8.60E-01	--	3.04E+02	(b)	ug/kg	2.20E+02	(b)
Dimethylphthalate [1,3]	131-11-3	4.90E+04	n	4.90E+05	nm	--		--		2.90E+04	n	--	--	--	2.95E+02	(b)	ug/kg	2.60E+02	(b)
Di-n-butylphthalate	84-74-2	6.10E+03	n	6.20E+04	n	--		--		3.70E+03	n	--	9.20E+00	--	1.11E+03	(b)	ug/kg	4.80E+01	(b)
Dinitrophenol, 2,4-	51-28-5	1.20E+02	n	1.20E+03	n	--		--		7.30E+01	n	--	8.20E-02	--	6.21E+00	(b)	ug/kg	4.10E+00	(b)
Dinitrotoluene, 2,4-	121-14-2	1.60E+00	c*	5.50E+00	c	2.70E-02	c	1.40E-01	c	2.20E-01	c	--	2.90E-04	--	1.44E+01	(b)	ug/kg	3.20E+02	(b)
Dinitrotoluene, 2,6-	606-20-2	6.10E+01	n	6.20E+02	n	--		--		3.70E+01	n	--	5.00E-02	--	3.98E+01	(b)	ug/kg	1.50E+02	(b)
Di-n-octylphthalate [1]	117-84-0	3.50E+01	c*	1.20E+02	c	1.00E+00	c	5.10E+00	c	4.80E+00	c	--	--	--	4.06E+04	(b)	ug/kg	3.00E+01	(d)
Endosulfan [3]	115-29-7	3.70E+02	n	3.70E+03	n	--		--		2.20E+02	n	--	3.00E+00	--	1.94E+00	(b)	ug/kg	5.60E-03	(b)
Endosulfan I [1]	959-98-8	3.70E+02	n	3.70E+03	n	--		--		2.20E+02	n	--	--	--	3.26E+00	(b)	ug/kg	5.60E-03	(b)
Endosulfan II [1]	33213-65-9	3.70E+02	n	3.70E+03	n	--		--		2.20E+02	n	--	--	--	1.94E+00	(b)	ug/kg	5.60E-03	(b)
Endosulfan sulfate [1]	1031-07-8	3.70E+02	n	3.70E+03	n	--		--		2.20E+02	n	--	--	--	3.46E+01	(b)	ug/kg	5.60E-03	(b)
Endrin	72-20-8	1.80E+01	n	1.80E+02	n	--		--		1.10E+01	n	2.00E+00	4.40E-01	8.10E-02	2.22E+00	(a)	ug/kg	3.30E-02	(b)

Table 4.0-1
Screening Values for Soil, Air, Groundwater, Sediment, and Surface Water Samples
Matthiessen and Hegeler Zinc Company Site
LaSalle, Illinois

Analyte	CAS No.	Screening Levels																	
		Resident Soil [1] (mg/kg)	key	Industrial Soil [1] (mg/kg)	key	Resident Air [1] (ug/m^3)	key	Industrial Air [1] (ug/m^3)	key	Tap Water [1] (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	MCL-based SSL [1] (mg/kg)	Sediment [3]	SED key	Sediment Units	Surface Water [4] (ug/L)	SW key
Endrin Aldehyde [1,3]	7421-93-4	1.80E+01	n	1.80E+02	n	--		--		1.10E+01	n	--	--	--	2.22E+00	(a)	ug/kg	3.30E-02	(b)
Endrin ketone [1,3]	53494-70-5	1.80E+01	n	1.80E+02	n	--		--		1.10E+01	n	--	--	--	2.22E+00	(a)	ug/kg	3.30E-02	(b)
Ethylbenzene	100-41-4	5.40E+00	c	2.70E+01	c	9.70E-01	c	4.90E+00	c	1.50E+00	c	7.00E+02	1.70E-03	7.80E-01	1.75E+02	(b)	ug/kg	1.40E+01	(a)
Fluoranthene	206-44-0	2.30E+03	n	2.20E+04	n	--		--		1.50E+03	n	--	1.60E+02	--	4.23E+02	(a)	ug/kg	1.80E+00	(b)
Fluorene	86-73-7	2.30E+03	n	2.20E+04	n	--		--		1.50E+03	n	--	2.70E+01	--	7.74E+01	(a)	ug/kg	1.60E+01	(b)
Freon-11	75-69-4	7.90E+02	n	3.40E+03	ns	7.30E+02	n	3.10E+03	n	1.30E+03	n	--	8.30E-01	--	--			--	
Freon-113	76-13-1	4.30E+04	ns	1.80E+05	nms	3.10E+04	n	1.30E+05	n	5.90E+04	n	--	1.50E+02	--	--			--	
Freon-12	75-71-8	1.80E+02	n	7.80E+02	n	2.10E+02	n	8.80E+02	n	3.90E+02	n	--	6.10E-01	--	--			--	
gamma-BHC (lindane)	58-89-9	5.20E-01	c*	2.10E+00	c	7.80E-03	c	4.00E-02	c	6.10E-02	c	2.00E-01	3.60E-04	1.20E-03	2.37E+00	(a)	ug/kg	9.50E-01	(d)
gamma-Chlordane [1,4]	5566-34-7	1.60E+00	c*	6.50E+00	c*	2.40E-02	c*	1.20E-01	c*	1.90E-01	c*	2.00E+00	--	--	3.24E+00	(b)	ug/kg	4.30E-03	(c)
Heptachlor	76-44-8	1.10E-01	c	3.80E-01	c	1.90E-03	c	9.40E-03	c	1.50E-02	c	4.00E-01	1.20E-03	3.30E-02	6.00E-01	(b)	ug/kg	3.80E-03	(b)
Heptachlor Epoxide	1024-57-3	5.30E-02	c*	1.90E-01	c*	9.40E-04	c	4.70E-03	c	7.40E-03	c*	2.00E-01	1.50E-04	4.10E-03	2.47E+00	(a)	ug/kg	3.80E-03	(b)
Hexachlorobenzene	118-74-1	3.00E-01	c	1.10E+00	c	5.30E-03	c	2.70E-02	c	4.20E-02	c	1.00E+00	5.30E-04	1.30E-02	2.00E+01	(b)	ug/kg	3.00E-04	(d)
Hexachlorobutadiene	87-68-3	6.20E+00	c**	2.20E+01	c*	1.10E-01	c	5.60E-01	c	8.60E-01	c*	--	1.70E-03	--	2.65E+01	(b)	ug/kg	2.80E+00	(b)
Hexachlorocyclopentadiene	77-47-4	3.70E+02	n	3.70E+03	n	2.10E-01	n	8.80E-01	n	2.20E+02	n	5.00E+01	6.80E-01	1.60E-01	9.01E+02	(b)	ug/kg	1.00E-01	(b)
Hexachloroethane	67-72-1	3.50E+01	c**	1.20E+02	c**	6.10E-01	c	3.10E+00	c	4.80E+00	c**	--	2.90E-03	--	5.84E+02	(b)	ug/kg	3.10E+01	(b)
Hexanone, 2-	591-78-6	2.10E+02	n	1.40E+03	n	3.10E+01	n	1.30E+02	n	4.70E+01	n	--	1.10E-02	--	5.82E+01	(b)	ug/kg	9.50E+02	(b)
Indeno[1,2,3-cd]pyrene	193-39-5	1.50E-01	c	2.10E+00	c	8.70E-03	c	1.10E-01	c	2.90E-02	c	--	1.20E-01	--	2.00E+02	(b)	ug/kg	4.31E+00	(d)
Iron	7439-89-6	5.50E+04	n	7.20E+05	nm	--		--		2.60E+04	n	--	6.40E+02	--	--			1.00E+03	(c)
Isophorone	78-59-1	5.10E+02	c*	1.80E+03	c*	2.10E+03	n	8.80E+03	n	7.10E+01	c	--	2.30E-02	--	4.32E+02	(b)	ug/kg	9.60E+02	(b)
Isopropylbenzene	98-82-8	2.10E+03	ns	1.10E+04	ns	4.20E+02	n	1.80E+03	n	6.80E+02	n	--	1.10E+00	--	--			--	
Lead	7439-92-1	4.00E+02	n	8.00E+02	n	--		--		--		1.50E+01	--	1.40E+01	3.58E+01	(a)	mg/kg	1.94E+01	(a)
Manganese	7439-96-5	1.80E+03	n	2.30E+04	n	5.20E-02	n	2.20E-01	n	8.80E+02	n	--	5.70E+01	--	--			--	
Mercury	7439-97-6	5.60E+00	ns	3.40E+01	ns	3.10E-01	n	1.30E+00	n	5.70E-01	n	2.00E+00	3.00E-02	1.00E-01	1.80E-01	(a)	mg/kg	1.10E+00	(a)
Methoxychlor	72-43-5	3.10E+02	n	3.10E+03	n	--		--		1.80E+02	n	4.00E+01	9.90E+00	2.20E+00	1.36E+01	(b)	ug/kg	2.00E-02	(b)
Methyl Acetate	79-20-9	7.80E+04	ns	1.00E+06	nms	--		--		3.70E+04	n	--	7.50E+00	--	--			--	
Methyl tert-Butyl Ether (MTBE)	1634-04-4	4.30E+01	c	2.20E+02	c	9.40E+00	c	4.70E+01	c	1.20E+01	c	--	2.80E-03	--	--			5.40E+03	(b)
Methylcyclohexane [1]	108-87-2	7.00E+03	ns	2.90E+04	ns	6.30E+03	n	2.60E+04	n	1.30E+04	n	--	--	--	--			--	
Methylene Chloride	75-09-2	1.10E+01	c	5.30E+01	c	5.20E+00	c	2.60E+01	c	4.80E+00	c	5.00E+00	1.20E-03	1.30E-03	1.59E+02	(b)	ug/kg	1.40E+03	(b)
Methylnaphthalene, 1- [3,4]	90-12-0	2.20E+01	c	9.90E+01	c	--		--		2.30E+00	c	--	1.20E-02	--	2.02E+01	(b)	ug/kg	1.20E+01	(b)
Methylnaphthalene, 2- [4]	91-57-6	3.10E+02	n	4.10E+03	ns	--		--		1.50E+02	n	--	7.50E-01	--	2.02E+01	(b)	ug/kg	1.20E+01	(b)
Naphthalene	91-20-3	3.60E+00	c*	1.80E+01	c*	7.20E-02	c*	3.60E-01	c*	1.40E-01	c*	--	4.70E-04	--	1.76E+02	(a)	ug/kg	6.80E+01	(b)
Nickel Soluble Salts	7440-02-0	1.50E+03	n	2.00E+04	n	9.40E-03	c*	4.70E-02	c**	7.30E+02	n	--	4.80E+01	--	2.27E+01	(a)	mg/kg	5.82E+00	(a)
Nitroaniline, 2-	88-74-4	6.10E+02	n	6.00E+03	n	5.20E-02	n	2.20E-01	n	3.70E+02	n	--	1.50E-01	--	--			2.00E+02	(b)
Nitroaniline, 3-	99-09-2	2.40E+01	c*	8.60E+01	c*	--		--		--		--	--	--	--			1.20E+02	(b)
Nitroaniline, 4-	100-01-6	2.40E+01	c*	8.60E+01	c*	6.30E+00	n	2.60E+01	n	3.40E+00	c*	--	1.40E-03	--	--			1.20E+02	(b)
Nitrobenzene	98-95-3	4.80E+00	c*	2.40E+01	c*	6.10E-02	c	3.10E-01	c	1.20E-01	c	--	7.90E-05	--	1.45E+02	(b)	ug/kg	8.50E+03	(b)
Nitroso-di-N-propylamine, N-	621-64-7	6.90E-02	c	2.50E-01	c	1.20E-03	c	6.10E-03	c	9.60E-03	c	--	7.20E-06	--	--			--	
Nitrosodiphenylamine, N-	86-30-6	9.90E+01	c	3.50E+02	c	9.40E-01	c	4.70E+00	c	1.40E+01	c	--	7.50E-02	--	--			--	
Pentachloropheno	87-86-5	3.00E+00	c	9.00E+00	c	4.80E-01	c	2.40E+00	c	5.60E-01	c	1.00E+00	5.70E-03	1.00E-02	2.30E+04	(b)	ug/kg	1.30E+01	(b)
Phenanthrene [1]	85-01-8	1.70E+04	n	1.70E+05	nm	--		--		1.10E+04	n	--	--	--	2.04E+02	(a)	ug/kg	3.70E+00	(b)
Phenol	108-95-2	1.80E+04	n	1.80E+05	nm	2.10E+02	n	8.80E+02	n	1.10E+04	n	--	6.30E+00	--	4.91E+01	(b)	ug/kg	1.80E+02	(d)
Pyrene	129-00-0	1.70E+03	n	1.70E+04	n	--		--		1.10E+03	n	--	1.20E+02	--	1.95E+02	(a)	ug/kg	3.00E-01	(d)
Selenium	7782-49-2	3.90E+02	n	5.10E+03	n	2.10E+01	n	8.80E+01	n	1.80E+02	n	5.00E+01	9.50E-01	2.60E-01	--			5.00E+00	(c)
Silver	7440-22-4	3.90E+02	n	5.10E+03	n	--		--		1.80E+02	n	--	1.60E+00	--	5.00E-01	(b)	mg/kg	1.20E-01	(d)
Styrene	100-42-5	6.30E+03	ns	3.60E+04	ns	1.00E+03	n	4.40E+03	n	1.60E+03	n	1.00E+02	1.80E+00	1.10E-01	2.54E+02	(b)	ug/kg	2.00E+02	(b)
Tetrachloroethane, 1,1,2,2-	79-34-5	5.60E-01	c	2.80E+00	c	4.20E-02	c	2.10E-01	c	6.70E-02	c	--	2.60E-05	--	8.50E+02	(b)	ug/kg	1.40E+02	(b)
Tetrachloroethylene	127-18-4	5.50E-01	c	2.60E+00	c	4.10E-01	c	2.10E+00	c	1.10E-01	c	5.00E+00	4.90E-05	2.30E-03	9.90E+02	(b)	ug/kg	1.50E+02	(b)
Thallium	7440-28-0	5.10E+00	n[2]	6.60E+01	n[2]	--		--		2.40E+00	c**	2.00E+00	--	1.40E-01	--		--	1.50E+01	(b)
Toluene	108-88-3	5.00E+03	ns	4.50E+04	ns	5.20E+03	n	2.20E+04	n	2.30E+03	n	1.00E+03	1.60E+00	6.90E-01	1.22E+03	(b)	ug/kg	6.00E+02	(a)
Toxaphene	8001-35-2	4.40E-01	c	1.60E+00	c	7.60E-03	c	3.80E-02	c	6.10E-02	c	3.00E+00	9.40E-03	4.60E-01	7.70E-02	(b)	ug/kg	2.00E-04	(c)
Trichlorobenzene, 1,2,4-	120-82-1	2.20E+01	c**	9.90E+01	c**	2.10E+00	n	8.80E+00	n	2.30E+00	c**	7.00E+01	6.80E-03	2.00E-01	5.06E+03	(b)	ug/kg	7.20E+01	(b)
Trichloroethane, 1,1,1-	71-55-6	8.70E+03	ns	3.80E+04	ns	5.20E+03	n	2.20E+04	n	9.10E+03	n	2.00E+02	3.20E+00	7.00E-02	2.13E+02	(b)	ug/kg	3.90E+02	(b)
Trichloroethane, 1,1,2-	79-00-5	1.10E+00	c	5.30E+00	c	1.50E-01	c	7.70E-01	c	2.40E-01	c	5.00E+00	7.80E-05	1.60E-03	5.18E+02	(b)	ug/kg	4.40E+03	(b)

Table 4.0-1
Screening Values for Soil, Air, Groundwater, Sediment, and Surface Water Samples
Matthiessen and Hegeler Zinc Company Site
LaSalle, Illinois

Analyte	CAS No.	Screening Levels																	
		Resident Soil [1] (mg/kg)	key	Industrial Soil [1] (mg/kg)	key	Resident Air [1] (ug/m^3)	key	Industrial Air [1] (ug/m^3)	key	Tap Water [1] (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	MCL-based SSL [1] (mg/kg)	Sediment [3]	SED key	Sediment Units	Surface Water [4] (ug/L)	SW key
Trichloroethylene	79-01-6	2.80E+00	c	1.40E+01	c	1.20E+00	c	6.10E+00	c	2.00E+00	c	5.00E+00	7.20E-04	1.80E-03	1.12E+02	(b)	ug/kg	9.40E+02	(b)
Trichlorophenol, 2,4,5- [3,4]	95-95-4	6.10E+03	n	6.20E+04	n	--		--		3.70E+03	n	--	1.40E+01	--	2.08E+02	(b)	ug/kg	6.30E+00	(b)
Trichlorophenol, 2,4,6-	88-06-2	4.40E+01	c**	1.60E+02	c**	7.80E-01	c	4.00E+00	c	6.10E+00	c**	--	2.30E-02	--	2.08E+02	(b)	ug/kg	6.30E+00	(b)
Vanadium and Compounds	7440-62-2	3.90E+02	n	5.20E+03	n	--		--		1.8E+02	n	--	2.6	--	--			1.20E+01	(d)
Vinyl Chloride	75-01-4	6.00E-02	c	1.70E+00	c	1.60E-01	c	2.80E+00	c	1.60E-02	c	2.00E+00	5.60E-06	6.90E-04	2.02E+02	(b)	ug/kg	1.70E+03	(b)
Xylene, m- [3,4]	108-38-3	3.40E+03	ns	1.70E+04	ns	7.30E+02	n	3.10E+03	n	1.20E+03	n	--	1.20E+00	--	4.33E+02	(b)	ug/kg	3.60E+02	(a)
Xylene, m,p-	179601-23-1	3.40E+03	ns	1.70E+04	ns	--		--		1.20E+03	n	--	--	--	4.33E+02	(b)	ug/kg	3.60E+02	(a)
Xylene, Mixture	1330-20-7	6.30E+02	ns	2.70E+03	ns	1.00E+02	n	4.40E+02	n	2.00E+02	n	1.00E+04	2.00E-01	9.80E+00	4.33E+02	(b)	ug/kg	3.60E+02	(a)
Xylene, o- [3,4]	95-47-6	3.80E+03	ns	1.90E+04	ns	7.30E+02	n	3.10E+03	n	1.20E+03	n	--	1.20E+00	--	4.33E+02	(b)	ug/kg	3.60E+02	(a)
Xylene, P- [3,4]	106-42-3	3.40E+03	ns	1.70E+04	ns	7.30E+02	n	3.10E+03	n	1.20E+03	n	--	1.20E+00	--	4.33E+02	(b)	ug/kg	3.60E+02	(a)
Zinc (Metallic)	7440-66-6	2.30E+04	n	3.10E+05	nm	--		--		1.10E+04	n	--	6.80E+02	--	1.21E+02	(a)	mg/kg	2.52E+01	(a)

Notes:

(1) Screening levels for soil, groundwater, and indoor air are the default USEPA Regional Screening Levels (RSLs). Key: c = cancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; n = noncancer; m = Concentration may exceed ceiling limit; s Concentration may exceed Csat; SSL values are based on DAF=1. Note: for carbazole and total chromium, a screening value or appropriate surrogate value was not identified in the RSL tables; therefore, Illinois TACOs (t) were selected as screening criteria. Surrogate values were assigned as follows:

- 2-nitrophenol uses 2,4-dinitrophenol as a surrogate
- 4-chlorophenyl-phenylether uses 2,2',4',4'-tetrabromodiphenyl ether as a surrogate
- 4-nitrophenol uses 2,4-dinitrophenol as a surrogate
- Acenaphthylene uses acenaphthene as a surrogate
- benzo(g,h,i)perylene uses indeno(1,2,3-cd)pyrene as a surrogate
- delta-BHC uses alpha-BHC as a surrogate
- Dimethylphthalate uses diethyl phthalate as a surrogate
- Di-n-octylphthalate uses bis(2-ethylhexyl) phthalate as a surrogate
- Carbazole uses anthracene as a surrogate
- Endosulfan I uses endosulfan as a surrogate
- Endosulfan II uses endosulfan as a surrogate
- Endosulfan sulfate uses endosulfan as a surrogate
- Endrin aldehyde uses endrin as a surrogate
- Endrin ketone uses endrin as a surrogate
- gamma-chlordane uses chlordane as a surrogate
- Methylcyclohexane uses cyclohexane as a surrogate
- Phenanthrene uses pyrene as a surrogate

(2) For thallium, the April 2009 RSLs are used as the soil screening concentrations

(3) Screening levels for sediment are based on ecological endpoints and were selected from the following sources in the following order of priorit

(a) MacDonald, D.D. , C.G. Ingersoll, and T.A. Berger. 2000. Development and evaluation of consensus-based sediment quality guidelines for freshwater ecosystems. Arch. Environ. Contam. Toxicol. 39: 20-31

(b) EPA. 2003. Region 5 Ecological Screening Levels (ELSs). On-line Address: http://www.epa.gov/reg5rcra/ca/edql.html

Surrogate values were assigned as follow:

- 1,2-cis-dichloroethylene uses 1,2-trans-dichloroethylene as a surrogate
- 1,2-dichloroethylene (mixed isomers) uses 1,2-trans-dichloroethylene
- 1-methylnaphthalene uses 2-methylnapthalene as a surrogate
- 2,4,5-trichlorophenol uses 2,4,6-trichlorophenol as a surrogate
- Carbazole uses anthracene as a surrogate
- Dimethylphthalate uses diethyl phthalate as a surrogate
- Endosulfan uses endosulfan II as a surrogate
- Endrin aldehyde uses endrin as a surrogate
- Endrin ketone uses endrin as a surrogate
- m-, p-, and o-xylenes use total xylenes as a surrogate

(4) Screening levels for surface water are based on ecological endpoints and were selected from the following sources in the following order of priorit

(a) Illinois Water Quality Standards for the protection of Aquatic Organisms (Chronic Standard). Cd, Cr+3, Cu, Pb, Ni, and Zn are hardness dependent and assume a CaCO3 (mg/L) of: 120

(b) Illinois EPA Derived Aquatic Life Water Quality Criteria (General Use, Chronic).

(c) Current National Recommended Water Quality Criteria (Freshwater, CCC-Chronic)

(d) EPA, 2003. Region 5 Ecological Screening Levels

Surrogate values were assigned as follow:

- gamma-chlordane uses chlordane as a surrogate
- benzo(k)fluoranthene uses benzo(a)pyrene as a surrogate
- chrysene uses benzo(a)pyrene as a surrogate
- dibenz(a,h)antracene uses benzo(a)pyrene as a surrogate
- 4-chlorophenyl phenylether uses 4-bromophenyl phenylether
- 2,4,5-trichlorphenol uses 2,4,6-trichlorophenol as a surrogate
- 1-methylnaphthalene uses methylnaphthalene as a surrogate
- 2-methylnaphthalene uses methylnaphthalene as a surrogate
- m-, o-, and p-xylene uses total xylenes as a surrogate
- cis-1,2-dichloroethyelen uses 1,2-dichloroethylene as a surrogate
- trans-1,2-dichloroethyelen uses 1,2-dichloroethylene as a surrogate

(5) Total chromium soil screening values are IEPA TACOs.

Table 4.1.2-1
Summary of Historical Analyses Conducted on Shallow Soil Samples
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Investigation Area	Sample Name	Location ID	Sample Date	Depth	Analytical Group								
					TAL Metals [1]	SVOCs	VOCs	PCBs	Pesticides	SPLP [3]	TCLP [3]	SEP [3]	XRD [3]
Plant Area	B3/S1	BH-3	10/1/1992	0'							X [2]		
Plant Area	B6/S1	BH-6	10/1/1992	0'							X		
Plant Area	C-10	C-10	11/10/1993	0'	X	X	X	X	X		X		
Plant Area	C-11	C-11	11/9/1993	0'	X						X		
Plant Area	C-8	C-8	11/11/1993	0'	X						X		
Plant Area	C-9	C-9	11/9/1993	0'	X						X		
Plant Area	OU1-SS-SB311-0-1	SB-311	10/3/2007	0 - 1'	X	X	X	X	X			X	
Plant Area	OU1-SS-SB312-0-1	SB-312	10/3/2007	0 - 1'	X								
Plant Area	OU1-SS-SB313-0-1	SB-313	10/3/2007	0 - 1'	X								
Plant Area	OU1-SS-SB314-0-1	SB-314	10/3/2007	0 - 1'	X								
Plant Area	OU1-SS-SB315-0-1	SB-315	10/3/2007	0 - 1'	X	X	X	X	X				
Plant Area	OU1-SS-SB317-0-1	SB-317	10/3/2007	0 - 1'	X								
Plant Area	OU1-SS-SB318-0-1	SB-318	10/3/2007	0 - 1'	X								
Plant Area	OU1-SS-SB319-0-1	SB-319	10/3/2007	0 - 1'	X	X	X		X				
Plant Area	SSI-X102	SSI-X102	11/20/1991	0'	X	X	X	X	X				
Plant Area	SSI-X105	SSI-X105	11/20/1991	0 - 0.667'	X	X	X	X	X				
Plant Area	SSI-X207	SSI-X207	11/20/1991	0 - 0.25'	X	X	X						
Slag Pile Area	B12/S1	BH-12	10/1/1992	0'							X		
Slag Pile Area	B12/S2	BH-12	10/1/1992	0'							X		
Slag Pile Area	GW1/S1	GW1	10/1/1992	0'							X		
Slag Pile Area	GW2/S1	GW2	10/1/1992	0'							X		
Slag Pile Area	ISA-X104	ISA-X104	12/14/1993	0 - 0.833'	X	X	X	X	X				
Slag Pile Area	ISA-X105	ISA-X105	34317	0 - 0.833'	X	X	X	X	X				
Slag Pile Area	ISA-X106	ISA-X106	34317	0 - 0.833'	X	X	X	X	X				
Slag Pile Area	OU1-SS-SB301-0-1	MW-301H	39364	0 - 1'	X	X	X	X	X	X		X	X
Slag Pile Area	OU1-SS-SB302-0-1	SB-302	39364	0 - 1'	X								
Slag Pile Area	OU1-SS-SB303-0-1	MW-303H	39366	0 - 1'	X			X	X				
Slag Pile Area	OU1-SS-SB304-0-1	MW-304S	39365	0 - 1'	X					X			
Slag Pile Area	OU1-SS-SB305-0-1	MW-305H	39373	0 - 1'	X			X	X				
Slag Pile Area	OU1-SS-SB306-0-1	MW-306S	39371	0 - 1'	X	X	X						
Slag Pile Area	OU1-SS-SB307-0-1	SB-307	39379	0 - 1'	X			X	X	X			
Slag Pile Area	OU1-SS-SB308-0-1	SB-308	39372	0 - 1'	X								
Slag Pile Area	OU1-SS-SB309-0-1	SB-309	39372	0 - 1'	X			X	X				
Slag Pile Area	OU1-SS-SB316-0-1	SB-316	39358	0 - 1'	X							X	
Slag Pile Area	SSI-X103	SSI-X103	33563	0 - 0.5'	X	X	X	X	X				
Slag Pile Area	SSI-X104	SSI-X104	33563	0 - 0.5'	X	X	X	X	X				
Slag Pile Area	SS-SB307-0-1-SPLP	SB-307	39379	0 - 1'						X			
Slag Pile Area	OU1-SS-SLP415S-0908	SLP-415	8/13/2009	0'							X		

Notes:
(1) TAL = Target Analyte List includes total metals for soil and sediments (including mercury and cyanide) as per the US EPA Contract Laboratory Program Scope of Work.
(2) X signifies that the parameter shown was analyzed at the location shown.
(3) Results presented and discussed in Section 5.0.

Table 4.1.2-2
Summary of Historical Analyses Conducted on Deep Soil Samples
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Investigation Area	Sample Name	Location ID	Sample Date	Depth	Analytical Group								
					TAL Metals [1]	SVOCs	VOCs	PCBs	Pesticides	SPLP [3]	TCLP [3]	SEP [3]	XRD [3]
Plant Area	C-10	C-10	11/10/1993	7'	X [2]	X	X	X	X		X		
Plant Area	C-11	C-11	11/9/1993	10'	X						X		
Plant Area	C-11	C-11	11/9/1993	15'	X						X		
Plant Area	C-5	C-5	11/11/1993	3'	X						X		
Plant Area	C-5-12	C-5	11/12/1993	12'		X	X				X		
Plant Area	C-7-6	C-7	11/12/1993	6'		X	X				X		
Plant Area	C-9	C-9	11/9/1993	7'	X						X		
Plant Area	G-03	G-03	11/9/1993	15'	X						X		
Plant Area	G-03	G-03	11/9/1993	5'	X						X		
Plant Area	OU1-SS-SB311-2-4	SB-311	10/3/2007	2 - 4'	X								X
Plant Area	OU1-SS-SB312-2-4	SB-312	10/3/2007	2 - 4'	X	X	X	X	X				
Plant Area	OU1-SS-SB313-2-4	SB-313	10/3/2007	2 - 4'	X							X	X
Plant Area	OU1-SS-SB314-2-4	SB-314	10/3/2007	2 - 4'	X								
Plant Area	OU1-SS-SB315-2-4	SB-315	10/3/2007	2 - 4'	X								
Plant Area	OU1-SS-SB317-2-4	SB-317	10/3/2007	2 - 4'	X							X	
Plant Area	OU1-SS-SB318-2-4	SB-318	10/3/2007	2 - 4'	X								X
Plant Area	OU1-SS-SB319-2-4	SB-319	10/3/2007	2 - 4'	X								
Slag Pile Area	OU1-SS-SB301-40-41	MW-301H	10/9/2007	40 - 41'	X								
Slag Pile Area	OU1-SS-SB301-44-50	MW-301H	10/9/2007	44 - 50'	X								
Slag Pile Area	OU1-SS-SB302-10.5-11	SB-302	10/9/2007	10.5 - 11.5'	X	X	X			X			
Slag Pile Area	OU1-SS-SB302-10.5-11.5	SB-302	10/9/2007	10.5 - 11.5'								X	X
Slag Pile Area	OU1-SS-SB302-12-13	SB-302	10/9/2007	12 - 13'	X								
Slag Pile Area	OU1-SS-SB303-108-109	MW-303H	10/11/2007	108 - 109'	X					X		X	
Slag Pile Area	OU1-SS-SB303-85-86	MW-303H	10/11/2007	85 - 86'	X								
Slag Pile Area	OU1-SS-SB303-89-90	MW-303H	10/11/2007	89 - 90'	X	X	X					X	X
Slag Pile Area	OU1-SS-SB303-89-90-S	MW-303H	10/11/2007	89 - 90'						X			
Slag Pile Area	OU1-SS-SB304-58-59	MW-304S	10/10/2007	58 - 59'	X							X	
Slag Pile Area	OU1-SS-SB304-59-60	MW-304S	10/10/2007	59 - 60'	X	X	X						
Slag Pile Area	OU1-SS-SB305-89-90	MW-305H	10/18/2007	89 - 90'	X								
Slag Pile Area	OU1-SS-SB305-90-91	MW-305H	10/18/2007	90 - 91'	X								
Slag Pile Area	OU1-SS-SB305-90-91-S	MW-305H	10/18/2007	90 - 91'						X			
Slag Pile Area	OU1-SS-SB306-66-67	MW-306S	10/16/2007	66 - 67'	X								
Slag Pile Area	OU1-SS-SB306-67-68	MW-306S	10/16/2007	67 - 68'	X								
Slag Pile Area	OU1-SS-SB307-7-8	SB-307	10/24/2007	7 - 8'	X	X	X						
Slag Pile Area	OU1-SS-SB307-8-9	SB-307	10/24/2007	8 - 9'	X								
Slag Pile Area	OU1-SS-SB308-26.5-27.5	SB-308	10/17/2007	26.5 - 27'	X					X			
Slag Pile Area	OU1-SS-SB308-36.5-37.5	SB-308	10/17/2007	36.5 - 37'	X	X	X						
Slag Pile Area	OU1-SS-SB309-18.25-19.25	SB-309	10/17/2007	18.25 - 19.25'	X								
Slag Pile Area	OU1-SS-SB309-28.25-29.25	SB-309	10/17/2007	28.25 - 29'	X								
Slag Pile Area	OU1-SS-SB309-28.5-29.5	SB-309	10/17/2007	28.5 - 29'						X			
Slag Pile Area	OU1-SS-SB309-48-49	SB-309	10/17/2007	48 - 49'	X	X	X						
Slag Pile Area	OU1-SS-SB316-2-4	SB-316	10/3/2007	2 - 4'	X	X	X	X	X				
Slag Pile Area	P-1	P-1	10/3/1994	21'	X						X		
Slag Pile Area	P-1	P-1	10/3/1994	80'	X						X		
Slag Pile Area	P-15A	P-15A	9/29/1994	20'	X						X		
Slag Pile Area	P-17	P-17	9/10/1994	10'	X						X		
Slag Pile Area	P-17	P-17	9/10/1994	42'	X						X		
Slag Pile Area	P-18	P-18	9/28/1994	39'	X						X		
Slag Pile Area	P-19	P-19	9/29/1994	20'	X						X		
Slag Pile Area	P-19	P-19	9/29/1994	42'	X						X		
Slag Pile Area	P-2	P-2	10/3/1994	19'	X						X		
Slag Pile Area	P-2	P-2	10/4/1994	42'	X						X		
Slag Pile Area	P-2 DP	P-2	10/4/1994	42'	X						X		
Slag Pile Area	P-21	P-21	9/30/1994	21'	X						X		
Slag Pile Area	P-21	P-21	9/30/1994	41'	X						X		
Slag Pile Area	P-21	P-21	9/30/1994	60'	X						X		
Slag Pile Area	P-21	P-21	10/3/1994	2.5'	X						X		
Slag Pile Area	P-22	P-22	10/4/1994	41'	X						X		
Slag Pile Area	P-22	P-22	10/5/1994	106'	X						X		
Slag Pile Area	SS-SB306-67-68-SPLP	MW-306S	10/16/2007	67 - 68'						X			

Notes:
(1) TAL = Target Analyte List includes total metals for soil and sediments (including mercury and cyanide) as per the US EPA Contract Laboratory Program Scope of Work.
(2) X signifies that the parameter shown was analyzed at the location shown.
(3) Results presented and discussed in Section 5.0.

Table 4.1.2-3
Summary of Analytical Data for Shallow Soil Samples from the Plant Area that Exceeded Screening Values
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	Number of Samples Above RRSL	Number of Samples Above IRSL	Number of Samples Above Surface BTV	Total Number of Samples	Minimum Concentration	Maximum Concentration	Units
Inorganic COIs							
Arsenic	14	14	5	15	3.0	33.6 J	mg/kg
Iron	2	0	--	14	3,990	160,000	mg/kg
Lead	2	2	--	15	2.8	3,660	mg/kg
Manganese	7	1	--	15	231	118,000	mg/kg
Mercury	1	0	--	15	0.020 J	8.6	mg/kg
Zinc	1	0	--	15	14.1 J	26,500	mg/kg
SVOCs							
Benzo(a)anthracene	2	0	NA	7	110 J	740	µg/Kg
Benzo(a)pyrene	3	2	NA	7	130 J	1,000	µg/Kg
Benzo(b)fluoranthene	2	0	NA	7	41.0 J	1,200	µg/Kg
Benzo(g,h,i)perylene	1	0	NA	7	64.0 J	760	µg/Kg
Dibenzo(a,h)anthracene	1	0	NA	7	200 J	430 U	µg/Kg
Indeno(1,2,3-cd)pyrene	2	0	NA	7	23.0 U	690	µg/Kg
PCBs							
Aroclor 1254	1	1	NA	5	38.0 U	2,800	µg/Kg
Aroclor 1260	1	1	NA	5	38.0 U	1,100	µg/Kg

Notes:
RRSL = Residential Regional Screening Level
IRSL = Industrial Regional Screening Level
BTV = Background Threshold Value
-- = Surface BTV value is below the RRSL
NA = Not applicable

Table 4.1.2-4
Summary of Analytical Data for Deep Soil Samples from the Plant Area that Exceeded Screening Values
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	Number of Samples Above RRSL	Number of Samples Above IRSL	Number of Samples Above Subsurface BTV	Total Number of Samples	Minimum Concentration (mg/kg)	Maximum Concentration (mg/kg)
Inorganic COIs						
Arsenic	12	11	2	15	0.21	50.5
Cobalt	1	0	--	15	3.5 J	24.7
Lead	1	0	--	15	2.9	510
Manganese	4	0	4	15	81	9,380

Notes:
RRSL = Residential Regional Screening Level
IRSL = Industrial Regional Screening Level
BTV = Background Threshold Value
-- = Subsurface BTV value is below the RRSL

Table 4.1.2-5
Metals Results for Shallow Soil Samples Collected from the Plant Area
Matthieseen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID / Sample ID / Date / Units / Depth / Surface BTV (mg/kg)	C-8 / C-8 / 11/11/1993 / mg/Kg / 0'	C-9 / C-9 / 11/9/1993 / mg/Kg / 0'	C-10 / C-10 / 11/10/1993 / mg/Kg / 0'	C-11 / C-11 / 11/9/1993 / mg/Kg / 0'	SB-311 / OU1-SS-SB311-0-1 / 10/3/2007 / mg/Kg / 0 - 1'	SB-312 / OU1-SS-SB312-0-1 / 10/3/2007 / mg/Kg / 0 - 1'	SB-313 / OU1-SS-SB313-0-1 / 10/3/2007 / mg/Kg / 0 - 1'	SB-314 / OU1-SS-SB314-0-1 / 10/3/2007 / mg/Kg / 0 - 1'	SB-315 / OU1-SS-SB315-0-1 / 10/3/2007 / mg/Kg / 0 - 1'	SB-317 / OU1-SS-SB317-0-1 / 10/3/2007 / mg/Kg / 0 - 1'	SB-318 / OU1-SS-SB318-0-1 / 10/3/2007 / mg/Kg / 0 - 1'	SB-319 / OU1-SS-SB319-0-1 / 10/3/2007 / mg/Kg / 0 - 1'
Aluminum	7429-90-5	77,000	990,000	15,400	**5,330**	**9,260**	**12,400**	**4,580**	**3,190**	**25,100**	**7,200**	**16,700**	**8,560**	**873**	**7,470**	**17,300**
Antimony	7440-36-0	31	410	NA	5.6 U	5.6 U	6.1 U	5.6 U	**0.77 J**	**5.4 J**	**1.2 J**	**2.9 J**	**20.2 J**	0.44 U	**5.2 J**	**3.8 J**
Arsenic	7440-38-2	0.39	1.6	10.7	**5.4 J**	**3.3 J**	**11.9 J**	**21.1**	**6.6**	**4.8**	**4.9**	**3**	**33.6 J**	**3**	**16.6**	**6.3**
Barium	7440-39-3	15,000	190,000	276	**25.6**	**29.3**	**190**	**217**	**59.7**	**196**	**93.2**	**95**	**158**	**3.5**	**146**	**445**
Beryllium	7440-41-7	160	2,000	0.81	**0.34 J**	**0.54 J**	**0.97 J**	**0.76 J**	**0.18 J**	**0.63 J**	**0.26 J**	**0.59 J**	**1.9**	**0.090 J**	**0.82 J**	**0.83 J**
Cadmium	7440-43-9	70	800	7.1	0.90 U	0.90 U	**9.8**	**38.3**	**0.68 J**	**4.5**	**0.70 J**	**0.87 J**	**44.6**	**0.28 J**	**18.8**	**0.65 J**
Chromium	7440-47-3	280**	1400**	21.2	**9.8**	**16.6**	**44.2**	**22.1**	**16.1**	**25.9**	**13.1**	**22.9**	**167**	**7.4**	**18.5**	**19.2**
Cobalt	7440-48-4	23	300	12.9	**8.5 J**	**12.1**	**14.7**	**16**	**4**	**5.1 J**	**4.6**	**9.8**	**15.7**	**1.4**	**8.4**	**6.9**
Copper	7440-50-8	3,100	41,000	31.5	**17**	**13**	**59**	**232**	**17**	**21**	**9**	**30**	**357**	**3**	**169**	**20**
Iron	7439-89-6	55,000	720,000	24,691	**16,700**	**14,300**	**20,000**	**59,100**	**19,000**	**31,000**	**10,800**	**23,700**	**160,000**	**3,990**	**38,400**	**23,000**
Lead	7439-92-1	400	800	103	**14.6**	**6**	**190**	**3,660**	**28**	**12.4**	**7.3**	**130**	**336**	**2.8**	**2,280**	**10.5**
Manganese	7439-96-5	1,800	23,000	1,527	**395**	**1,530**	**3,980**	**1,480**	**1,520**	**231**	**350**	**2,500**	**5,350**	**295**	**2,670**	**697**
Mercury	7439-97-6	5.6	34	1.32	0.11 U	0.11 U	**0.76**	**1.8**	**0.054 J**	**0.064 J**	**0.052 J**	**0.020 J**	**0.18**	**0.052 J**	**8.6**	**0.044 J**
Nickel	7440-02-0	1,500	20,000	19.9	**22**	**30.4 J**	**37**	**22**	**17**	**17**	**12**	**33**	**20.5 J**	**8**	**21**	**44**
Selenium	7782-49-2	390	5,100	NA	0.23 U	1.1 U	**3.5**	**2.4 J**	**0.49 J**	**0.49 J**	**0.45 J**	**0.44 J**	17.3 U	**0.44 J**	**2.2 J**	**1.0 J**
Silver	7440-22-4	390	5,100	NA	1.1 U	1.1 U	1.2 U	1.1 U	0.077 U	0.081 U	0.073 U	0.072 U	0.35 U	0.065 U	**0.28 J**	0.073 U
Thallium	7440-28-0	5.1++	66++	NA	**0.24 J**	0.23 U	0.24 U	**0.25 J**	0.053 U	**0.19 J**	**0.050 J**	**0.10 J**	**0.26 J**	0.043 U	**0.22 J**	**0.12 J**
Vanadium	7440-62-2	390	5,200	39.5	**10.6 J**	**0.55**	**20**	**28**	**20.1**	**38.5**	**26.3**	**15.8**	**68**	**15.8**	**30**	**31.3**
Zinc	7440-66-6	23,000	310,000	1,310	**71.7**	**49.1**	**2,390**	**8,550**	**220 J**	**136**	**60.6**	**399 J**	**26,500**	**14.1 J**	**6,230**	**60.3 J**

Analyte	CAS #	Residential RSL	Industrial RSL	Location ID / Sample ID / Date / Units / Depth / Surface BTV	SSI-X102 / SSI-X102 / 11/20/1991 / mg/Kg / 0'	SSI-X105 / SSI-X105 / 11/20/1991 / mg/Kg / 0 - 0.667'	SSI-X207 / SSI-X207 / 11/20/1991 / mg/Kg / 0 - 0.25'
Aluminum	7429-90-5	77,000	990,000	15,400	0.0 U	**10,900**	**5,580**
Antimony	7440-36-0	31	410	NA	NM	5.5 U	**19.9**
Arsenic	7440-38-2	0.39	1.6	10.7	0.0 U*	**27.1**	**6.8**
Barium	7440-39-3	15,000	190,000	276	0.0 U*	**159**	**99.5**
Beryllium	7440-41-7	160	2,000	0.81	NM	**0.88 J**	**1.0 J**
Cadmium	7440-43-9	70	800	7.1	0.0 U*	**10.6**	**5.4**
Chromium	7440-47-3	280**	1400**	21.2	NM	**24.7**	**19.5**
Cobalt	7440-48-4	23	300	12.9	NM	**20.9**	**8.5 J**
Copper	7440-50-8	3,100	41,000	31.5	**409**	**42**	**73**
Iron	7439-89-6	55,000	720,000	24,691	NM	**18,800**	**14,100**
Lead	7439-92-1	400	800	103	0.0 U*	**324**	**363**
Manganese	7439-96-5	1,800	23,000	1,527	**118,000**	**10,500**	**2,030**
Mercury	7439-97-6	5.6	34	1.32	0.0 U*	**0.19**	**0.1**
Nickel	7440-02-0	1,500	20,000	19.9	**44.7**	**38**	**21.1**
Selenium	7782-49-2	390	5,100	NA	NM	4.5 U	4.4 U
Silver	7440-22-4	390	5,100	NA	**20.6**	2.0 U	1.9 U
Thallium	7440-28-0	5.1++	66++	NA	NM	0.67 U	0.67 U
Vanadium	7440-62-2	390	5,200	39.5	NM	**16**	**17**
Zinc	7440-66-6	23,000	310,000	1,310	0.0 U*	**1,700**	**1,810**

Notes:

Exceedance of Industrial and Residential RSLs (in the case of Arsenic, red signifies an exceedance of the Surface Background Threshold Value (BTV)).

Exceedance of Residential RSL (does not apply in the case of Arsenic)

Exceedance of Industrial and/or Residential RSL but does not exceed the Surface BTV (ONLY applies in the case of Arsenic)

1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
NM	Not Measured
*	Detection limit not available in data report from others.
**	Screening value for total chromium is based on April 2009 US EPA RSL.
++	Screening value for thallium is based on April 2009 US EPA RSL.
NA	Not Available

Table 4.1.2-6
Metals Results for Deep Soil Samples Collected from the Plant Area
Matthieseen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID / Sample ID / Date / Units / Depth / Subsurface BTV (mg/kg)	C-5 C-5 11/11/1993 mg/Kg 3'	C-9 C-9 11/9/1993 mg/Kg 7'	C-10 C-10 11/10/1993 mg/Kg 7'	C-11 C-11 11/9/1993 mg/Kg 10'	C-11 C-11 11/9/1993 mg/Kg 15'	G-03 G-03 11/9/1993 mg/Kg 15'	G-03 G-03 11/9/1993 mg/Kg 5'	SB-311 OU1-SS-SB311-2-4 10/3/2007 mg/Kg 2 - 4'	SB-312 OU1-SS-SB312-2-4 10/3/2007 mg/Kg 2 - 4'	SB-313 OU1-SS-SB313-2-4 10/3/2007 mg/Kg 2 - 4'	SB-314 OU1-SS-SB314-2-4 10/3/2007 mg/Kg 2 - 4'	SB-315 OU1-SS-SB315-2-4 10/3/2007 mg/Kg 2 - 4'
Aluminum	7429-90-5	77,000	990,000	15,847	**9,560**	**11,600**	**12,900**	**23,100**	**14,600**	**10,900**	**15,000**	**6,820**	**9,870**	**18,300**	**18,100**	**16,100**
Antimony	7440-36-0	31	410	1.05	5.9 U	5.7 U	6.1 U	5.5 U	6.1 U	5.3 U	5.8 U	**2.2 J**	**2.2 J**	**4.1 J**	**4.4 J**	**3.5 J**
Arsenic	7440-38-2	0.39	1.6	12.44	**2.3 J**	**8.2 J**	**3.0 J**	**6.7 J**	**2.8 J**	1.1 U	**4.0 J**	**9.3**	**1.3**	**0.21 J**	**50.5**	**6.9**
Barium	7440-39-3	15,000	190,000	274	**53**	**81.9**	**107**	**79.9**	**59.2**	**19.9**	**179**	**81.6**	**160**	**560**	**131**	**167**
Beryllium	7440-41-7	160	2,000	0.878	**0.66 J**	**2.4**	**0.88 J**	**2.9**	**1.1 J**	**0.57**	**1.1 J**	**0.30 J**	**0.60 J**	**1.0 J**	**0.56 J**	**0.75 J**
Cadmium	7440-43-9	70	800	4.68	**2.7**	**8.3**	**8.4**	**2.4**	**20.9**	**0.97**	0.93 U	**0.67 J**	**0.37 J**	**0.56 J**	**1.4**	**18.5**
Chromium	7440-47-3	280**	1400**	25.2	**14.4**	**22.6**	**20.7**	**6.1**	**40**	**23.1**	**26.8**	**10.3**	**12**	**21.4**	**14**	**22.2**
Cobalt	7440-48-4	23	300	13.8	**9.5 J**	**6.9 J**	**15**	**3.5 J**	**16.4**	**8.2 J**	**10.9 J**	**6.6**	**4.7**	**12.1**	**24.7**	**12.1**
Copper	7440-50-8	3,100	41,000	35.9	**20**	**54**	**39**	**27**	**30**	**11.9**	**47**	**20**	**30**	**6**	**98**	**30**
Iron	7439-89-6	55,000	720,000	25,035	**16,400**	**41,000**	**18,700**	**9,980**	**18,600**	**8.2**	**25,700**	**53,700**	**13,600**	**34,300**	**29,300**	**24,600**
Lead	7439-92-1	400	800	66.1	**18.6**	**49.1**	**225**	**77.4**	**510**	**2.9**	**20.9**	**13**	**5.4**	**7**	**35.7**	**77**
Manganese	7439-96-5	1,800	23,000	2,726	**600**	**81**	**1,350**	**122**	**1,440**	**1,560**	**417**	**1,680**	**342**	**2,750**	**412**	**3,870**
Mercury	7439-97-6	5.6	34	1.33	0.11 U	0.11 U	0.12 U	0.11 U	0.12 U	0.10 U	0.12 U	**0.034 J**	**0.018 J**	**0.0080 J**	**0.077 J**	**0.53**
Nickel	7440-02-0	1,500	20,000	45	**29.4**	**16.8**	**36.7**	**7**	**48.6**	**27.2**	**29.4**	**21.4**	**29.1**	**42.4**	**44.6**	**38.3**
Selenium	7782-49-2	390	5,100	NA	0.24 U	1.1 U	0.25 U	1.1 U	1.2 U	0.21 U	1.2 U	**0.40 J**	**0.43 J**	**0.60 J**	**0.47 J**	**0.69 J**
Thallium	7440-28-0	5.1++	66++	NA	0.24 U	0.23 U	0.25 U	0.22 U	0.24 U	0.21 U	0.23 U	**0.33 J**	0.051 U	**0.095 J**	**0.16 J**	**0.12 J**
Vanadium	7440-62-2	390	5,200	37.8	**12.3**	**53.7**	**16**	**27**	**28.4**	**13.5**	**30**	**11.9**	**12.6**	**21.7**	**8.1**	**13**
Zinc	7440-66-6	23,000	310,000	740	**443**	**506**	**4,130**	**2,160**	**390**	**39.4**	**45.5**	**112 J**	**35.3 J**	**45.6**	**630**	**3,470**

Analyte	CAS #	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID / Sample ID / Date / Units / Depth / Subsurface BTV (mg/kg)	SB-317 OU1-SS-SB317-2-4 10/3/2007 mg/Kg 2 - 4'	SB-318 OU1-SS-SB318-2-4 10/3/2007 mg/Kg 2 - 4'	SB-319 OU1-SS-SB319-2-4 10/3/2007 mg/Kg 2 - 4'
Aluminum	7429-90-5	77,000	990,000	15,847	**9,760**	**17,400**	**9,150**
Antimony	7440-36-0	31	410	1.05	**2.6 J**	**6.5 J**	0.47 U
Arsenic	7440-38-2	0.39	1.6	12.44	**5**	**35.7**	**0.26 J**
Barium	7440-39-3	15,000	190,000	274	**328**	**354**	**260**
Beryllium	7440-41-7	160	2,000	0.878	**0.59 J**	**1.5**	**0.41 J**
Cadmium	7440-43-9	70	800	4.68	**3.7**	**21.9**	**0.57 J**
Chromium	7440-47-3	280**	1400**	25.2	**11.5**	**39.9**	**14.1**
Cobalt	7440-48-4	23	300	13.8	**14.9**	**15.3**	**8.4**
Copper	7440-50-8	3,100	41,000	35.9	**11**	**82**	**6**
Iron	7439-89-6	55,000	720,000	25,035	**13,500**	**49,800**	**16,900**
Lead	7439-92-1	400	800	66.1	**71**	**323**	**8**
Manganese	7439-96-5	1,800	23,000	2,726	**1,140**	**9,380**	**5,860**
Mercury	7439-97-6	5.6	34	1.33	**0.026 J**	**0.46**	**0.0080 J**
Nickel	7440-02-0	1,500	20,000	45	**19.2**	**44.3**	**23.1**
Selenium	7782-49-2	390	5,100	NA	**0.69 J**	**1**	**0.50 J**
Thallium	7440-28-0	5.1++	66++	NA	**0.19 J**	**0.56 J**	0.047 U
Vanadium	7440-62-2	390	5,200	37.8	**28.6**	**31**	**8.5**
Zinc	7440-66-6	23,000	310,000	740	**930**	**3,320**	**30**

Notes:

	Exceedance of Industrial and Residential RSLs (in the case of Arsenic, red signifies an exceedance of the Subsurface Background Threshold Value (BTV) and in the case of Manganese, red signifies an exceedance of the Industrial RSL only).
	Exceedance of Residential RSL (does not apply in the case of Arsenic; in the case of Manganese, yellow signifies an exceedance of the Subsurface BTV but not an exceedance of the Industrial RSL).
	Exceedance of Industrial and/or Residential RSL but does not exceed the Surface BTV (applies in the case of Arsenic and Manganese; for Manganese, gray signifies an exceedance of the Residential RSL but not an exceedance of the Subsurface BTV).
1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
**	Screening value for total chromium is based on April 2009 US EPA RSL.
++	Screening value for thallium is based on April 2009 US EPA RSL.
NA	Not Available

Table 4.1.2-7
VOC Results for Shallow Soil Samples Collected from the Plant Area
Matthieseen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Residential RSL (µg/Kg)	Industrial RSL (µg/Kg)	Location ID Sample ID Date Units Depth	C-10 C-10 11/10/1993 µg/Kg 0'	SB-311 OU1-SS-SB311-0-1 10/3/2007 µg/Kg 0 - 1'	SB-315 OU1-SS-SB315-0-1 10/3/2007 µg/Kg 0 - 1'	SB-319 OU1-SS-SB319-0-1 10/3/2007 µg/Kg 0 - 1'	SSI-X102 SSI-X102 11/20/1991 µg/Kg 0'	SSI-X105 SSI-X105 11/20/1991 µg/Kg 0 - 0.667'	SSI-X207 SSI-X207 11/20/1991 µg/Kg 0 - 0.25'
2-Butanone (MEK)	78-93-3	28,000,000	200,000,000		12.0 U	12.0 UJ	**1.9 J**	NM	13.0 U	13.0 U	12.0 U
2-Hexanone	591-78-6	210,000	1,400,000		12.0 U	12.0 UJ	18.0 UJ	**22.0 J**	13.0 U	13.0 U	12.0 U
4-Methyl-2-pentanone	108-10-1	5,300,000	53,000,000		12.0 U	12.0 UJ	18.0 UJ	**17.0 J**	13.0 U	13.0 U	12.0 U
Acetone	67-64-1	61,000,000	630,000,000		12.0 U	**8.9 J**	**34.0 J**	NM	13.0 U	**53**	12.0 U
Carbon disulfide	75-15-0	820,000	3,700,000		12.0 U	**0.63 J**	18.0 UJ	**11.0 J**	13.0 U	13.0 U	12.0 U
Cyclohexane	110-82-7	7,000,000	29,000,000		NM	**1.5 J**	9.2 UJ	**6.7 J**	NM	NM	NM
Dichloromethane (Methylene chloride)	75-09-2	11,000	53,000		12.0 U	**0.60 J**	9.2 UJ	**3.4 J**	13.0 U	13.0 U	12.0 U
Ethyl benzene	100-41-4	5,400	27,000		12.0 U	**0.43 J**	9.2 UJ	38.0 UJ	13.0 U	13.0 U	12.0 U
Methylcyclohexane	108-87-2	7,000,000	29,000,000		NM	**2.1 J**	9.2 UJ	**9.5 J**	NM	NM	NM
Toluene	108-88-3	5,000,000	45,000,000		12.0 U	**0.93 J**	9.2 UJ	**4.6 J**	13.0 U	13.0 U	**7.0 J**

Notes:

1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
NM	Not Measured

Table 4.1.2-8
VOC Results for Deep Soil Samples Collected from the Plant Area
Matthieseen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Residential RSL (µg/Kg)	Location ID Sample ID Date Units Depth Industrial RSL (µg/Kg)	C-10 C-10 11/10/1993 µg/Kg 7'	C-5 C-5-12 11/12/1993 µg/Kg 12'	C-7 C-7-6 11/12/1993 µg/Kg 6'	SB-312 OU1-SS-SB312-2-4 10/3/2007 µg/Kg 2 - 4'
Acetone	67-64-1	61,000,000	630,000,000	**9.0 J**	NM	NM	**10.0 J**
Benzene	71-43-2	1,100	5,400	12.0 U	11.0 U	12.0 U	**1.0 J**
Cyclohexane	110-82-7	7,000,000	29,000,000	NM	NM	NM	**0.63 J**
Dichloromethane (Methylene chloride)	75-09-2	11,000	53,000	12.0 U	NM	NM	**0.70 J**
Ethyl benzene	100-41-4	5,400	27,000	12.0 U	**16**	13.0 U	7.3 UJ
Methylcyclohexane	108-87-2	7,000,000	29,000,000	NM	NM	NM	**0.75 J**
Toluene	108-88-3	5,000,000	45,000,000	12.0 U	11.0 U	12.0 U	**0.75 J**
Xylenes (unspecified)	XYLENES	NS	NS	12.0 U	**41**	14.0 U	NM

Notes:

1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
NM	Not Measured
NS	No applicable standard

Table 4.1.2-9
SVOC Results for Shallow Soil Samples Collected from the Plant Area
Matthieseen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Residential RSL (µg/Kg)	Location ID Sample ID Date Units Depth Industrial RSL (µg/Kg)	C-10 C-10 11/10/1993 µg/Kg 0'	SB-311 OU1-SS-SB311-0-1 10/3/2007 µg/Kg 0 - 1'	SB-315 OU1-SS-SB315-0-1 10/3/2007 µg/Kg 0 - 1'	SB-319 OU1-SS-SB319-0-1 10/3/2007 µg/Kg 0 - 1'	SSI-X102 SSI-X102 11/20/1991 µg/Kg 0'	SSI-X105 SSI-X105 11/20/1991 µg/Kg 0 - 0.667'	SSI-X207 SSI-X207 11/20/1991 µg/Kg 0 - 0.25'
Anthracene	120-12-7	17,000,000	170,000,000	400 U	**89.0 J**	380 U	400 U	430 U	420 U	410 U
Benzo(a)anthracene	56-55-3	150	2,100	400 U	**740**	**110 J**	400 U	**720**	420 U	410 U
Benzo(a)pyrene	50-32-8	15	210	400 U	**1,000**	**130 J**	400 U	**400 J**	420 U	410 U
Benzo(b)fluoranthene	205-99-2	150	2,100	**41.0 J**	**1,200**	**150 J**	400 U	**970**	420 U	410 U
Benzo(g,h,i)perylene	191-24-2	150	2,100	400 U	**760**	**64.0 J**	400 U	430 U	420 U	410 U
Benzo(k)fluoranthene	207-08-9	1,500	21,000	**35.0 J**	**940**	**130 J**	400 U	**450**	420 U	410 U
bis(2-Ethylhexyl) phthalate	117-81-7	35,000	120,000	**230 J**	**97.0 J**	380 U	400 U	**600**	420 U	**120 J**
Carbazole	86-74-8	17,000,000	170,000,000	400 U	**88.0 J**	380 U	400 U	430 U	420 U	410 U
Chrysene	218-01-9	15,000	210,000	400 U	**1,100**	**180 J**	400 U	**620**	420 U	410 U
Dibenzo(a,h)anthracene	53-70-3	15	210	400 U	**200 J**	380 U	400 U	430 U	420 U	410 U
Di-n-butylphthalate	84-74-2	6,100,000	62,000,000	**71.0 J**	420 U	380 U	400 U	430 U	420 U	410 U
Fluoranthene	206-44-0	2,300,000	22,000,000	**39.0 J**	**2,100**	**310 J**	400 U	**1,200**	420 U	410 U
Indeno(1,2,3-cd)pyrene	193-39-5	150	2,100	400 U	**690**	**59.0 J**	400 U	**300 J**	420 U	410 U
Phenanthrene	85-01-8	17,000,000	170,000,000	400 U	**680**	**160 J**	400 U	**800**	420 U	410 U
Pyrene	129-00-0	1,700,000	17,000,000	**46.0 J**	**1,500**	**230 J**	400 U	**1,200**	**170 J**	410 U

Notes:

	Exceedance of Industrial and Residential RSLs
	Exceedance of Residential RSL
1,000	Bold indicates a detection
P	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

Table 4.1.2-10
SVOC Results for Deep Soil Samples Collected from the Plant Area
Matthieseen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Residential RSL (µg/Kg)	Location ID Sample ID Date Units Depth Industrial RSL (µg/Kg)	C-10 C-10 11/10/1993 µg/Kg 7'	SB-312 OU1-SS-SB312-2-4 10/3/2007 µg/Kg 2 - 4'
bis(2-Ethylhexyl) phthalate	117-81-7	35,000	120,000	**58.0 J**	390 U
Di-n-butylphthalate	84-74-2	6,100,000	62,000,000	**97.0 J**	390 U

Notes:

1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

Table 4.1.2-11
PCB Results for Shallow Soil Samples Collected from the Plant Area
Matthieseen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Residential RSL (µg/Kg)	Location ID Sample ID Date Units Depth Industrial RSL (µg/Kg)	C-10 C-10 11/10/1993 µg/Kg 0'	SB-311 OU1-SS-SB311-0-1 10/3/2007 µg/Kg 0 - 1'	SB-315 OU1-SS-SB315-0-1 10/3/2007 µg/Kg 0 - 1'	SSI-X102 SSI-X102 11/20/1991 µg/Kg 0'	SSI-X105 SSI-X105 11/20/1991 µg/Kg 0 - 0.667'
Aroclor 1254	11097-69-1	220	740	**120 J**	**61**	38.0 U	**2,800**	**220**
Aroclor 1260	11096-82-5	220	740	40.0 U	42.0 U	38.0 U	**1,100**	**170**

Notes:

	Exceedance of Industrial and Residential RSLs
1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

Table 4.1.2-12
PCB Results for Deep Soil Samples Collected from the Plant Area
Matthieseen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Residential RSL (µg/Kg)	Location ID Sample ID Date Units Depth Industrial RSL (µg/Kg)	C-10 C-10 11/10/1993 µg/Kg 7'	SB-312 OU1-SS-SB312-2-4 10/3/2007 µg/Kg 2 - 4'
Aroclor 1254	11097-69-1	220	740	**11.0 J**	39.0 U

Notes:

1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

Table 4.1.2-13
Other Inorganics Results for Shallow Soil Samples Collected from the Plant Area
Matthieseen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Location ID / Sample ID / Date / Units / Depth							
		C-8 C-8 11/11/1993 mg/Kg 0'	C-9 C-9 11/9/1993 mg/Kg 0'	C-10 C-10 11/10/1993 mg/Kg 0'	C-11 C-11 11/9/1993 mg/Kg 0'	SB-311 OU1-SS-SB311-0-1 10/3/2007 mg/Kg 0 - 1'	SB-312 OU1-SS-SB312-0-1 10/3/2007 mg/Kg 0 - 1'	SB-313 OU1-SS-SB313-0-1 10/3/2007 mg/Kg 0 - 1'	SB-314 OU1-SS-SB314-0-1 10/3/2007 mg/Kg 0 - 1'
Calcium	7440-70-2	**66,200**	**62,300**	**36,400**	**16,300**	**192,000**	**3,300**	**97,600**	**105,000**
Magnesium	7439-95-4	**36,300**	**12,000**	**10,100**	**5,190**	**106,000**	**3,650**	**57,400**	**10,700**
Potassium	7440-09-7	**1,250**	**3,010**	**4,670**	**1,470**	**972 J**	**1,700 J**	**850 J**	**4,400**
Sodium	7440-23-5	203 U	203 U	**572 J**	**334 J**	**177 J**	**4,530**	**220 J**	**2,590**
Sulfate	14808-79-8	**1,070**	**767**	**637**	**10,800**	NM	NM	NM	NM
Sulfide	18496-25-8	**19.7**	5.7 U	5.6 U	**6**	NM	NM	NM	NM

Analyte	CAS #	Location ID / Sample ID / Date / Units / Depth						
		SB-315 OU1-SS-SB315-0-1 10/3/2007 mg/Kg 0 - 1'	SB-317 OU1-SS-SB317-0-1 10/3/2007 mg/Kg 0 - 1'	SB-318 OU1-SS-SB318-0-1 10/3/2007 mg/Kg 0 - 1'	SB-319 OU1-SS-SB319-0-1 10/3/2007 mg/Kg 0 - 1'	SSI-X102 SSI-X102 11/20/1991 mg/Kg 0'	SSI-X105 SSI-X105 11/20/1991 mg/Kg 0 - 0.667'	SSI-X207 SSI-X207 11/20/1991 mg/Kg 0 - 0.25'
Calcium	7440-70-2	**10,400**	**168,000**	**44,800**	**6,230**	**64,400**	**48,900**	**67,400**
Magnesium	7439-95-4	**829**	**96,900**	**19,900**	**5,630**	**35,600**	**19,700**	**34,400**
Potassium	7440-09-7	**1,520 J**	**597 J**	**1,100 J**	**1,450 J**	0.0 U	**13,500**	**6,570**
Sodium	7440-23-5	**256 J**	**295 J**	**307 J**	**1,000**	NM	**5,670**	**3,960**
Sulfate	14808-79-8	NM	NM	NM	NM	**254**	**296**	**88**
Sulfide	18496-25-8	NM	NM	NM	NM	NM	1.0 U	1.0 U

Notes:

1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
NM	Not Measured

Table 4.1.2-14
Other Inorganics Results for Deep Soil Samples Collected from the Plant Area
Matthieseen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	Location ID / Sample ID / Date / Units / Depth CAS #	C-5 C-5 11/11/1993 mg/Kg 3'	C-9 C-9 11/9/1993 mg/Kg 7'	C-10 C-10 11/10/1993 mg/Kg 7'	C-11 C-11 11/9/1993 mg/Kg 10'	C-11 C-11 11/9/1993 mg/Kg 15'	G-03 G-03 11/9/1993 mg/Kg 15'	G-03 G-03 11/9/1993 mg/Kg 5'	SB-311 OU1-SS-SB311-2-4 10/3/2007 mg/Kg 2 - 4'
Calcium	7440-70-2	**56,700**	**20,200**	**38,600**	**25,500**	**103,000**	**78,800**	**38,100**	**72,200**
Magnesium	7439-95-4	**12,400**	**693 J**	**6,580**	**2,390**	**1,080**	**11,700**	**10,600**	**34,100**
Potassium	7440-09-7	**2,210**	**5,330**	**3,010**	**572 J**	**2,570**	**2,320**	**2,740**	**1,450 J**
Sodium	7440-23-5	213 U	**1,050 J**	**356 J**	**1,130**	**591 J**	**336 J**	210 U	**229 J**
Sulfate	14808-79-8	**479**	**8,640**	**503**	**4,160**	**1,830**	**527**	**498**	NM
Sulfide	18496-25-8	8.4 U	**16.7**	5.7 U	**6**	5.6 U	**5.7**	8.4 U	NM

Analyte	Location ID / Sample ID / Date / Units / Depth CAS #	SB-312 OU1-SS-SB312-2-4 10/3/2007 mg/Kg 2 - 4'	SB-313 OU1-SS-SB313-2-4 10/3/2007 mg/Kg 2 - 4'	SB-314 OU1-SS-SB314-2-4 10/3/2007 mg/Kg 2 - 4'	SB-315 OU1-SS-SB315-2-4 10/3/2007 mg/Kg 2 - 4'	SB-317 OU1-SS-SB317-2-4 10/3/2007 mg/Kg 2 - 4'	SB-318 OU1-SS-SB318-2-4 10/3/2007 mg/Kg 2 - 4'	SB-319 OU1-SS-SB319-2-4 10/3/2007 mg/Kg 2 - 4'
Calcium	7440-70-2	**3,620**	**78,600**	**8,430**	**73,900**	**3,200**	**45,900**	**153,000**
Magnesium	7439-95-4	**2,310**	**18,200**	**6,920**	**21,500**	**1,660**	**8,020**	**21,700**
Potassium	7440-09-7	**2,310**	**4,550**	**5,710**	**5,730**	**1,320 J**	**3,470**	**1,860 J**
Sodium	7440-23-5	**1,150**	**512 J**	**1,120**	**260 J**	**664**	**564 J**	**266 J**
Sulfate	14808-79-8	NM	NM	NM	NM	NM	NM	NM
Sulfide	18496-25-8	NM	NM	NM	NM	NM	NM	NM

Notes:

1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
NM	Not Measured

Table 4.1.2-15
Summary of Analytical Data for Shallow Soil Samples from the Slag Pile Area that Exceeded Screening Values
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	Number of Samples Above RRSL	Number of Samples Above IRSL	Number of Samples Above Surface BTV	Total Number of Samples	Minimum Concentration	Maximum Concentration	Units
Inorganic COIs							
Arsenic	17	17	16	17	3.3	251	mg/kg
Cadmium	4	0	--	17	4.3	181	mg/kg
Cobalt	4	0	--	17	2.8	273	mg/kg
Copper	1	0	--	17	44.5	4,340	mg/kg
Lead	11	8	--	17	116	38,700	mg/kg
Manganese	7	1	--	17	287	123,000	mg/kg
Mercury	2	0	--	15	0.074 U	18.5	mg/kg
Vanadium	1	0	--	17	7.6	899	mg/kg
Zinc	5	0	--	17	1,830	79,900	mg/kg
SVOCs							
Benzo(a)pyrene	1	0	NA	7	380 U	96.0 J	µg/Kg
Hexachlorobenzene	1	1	NA	7	380 U	7,300	µg/Kg

Notes:
RRSL = Residential Regional Screening Level
IRSL = Industrial Regional Screening Level
BTV = Background Threshold Value
-- = Surface BTV value is below the RRSL
NA = Not applicable

Table 4.1.2-16
Summary of Analytical Data for Deep Soil Samples from the Slag Pile Area that Exceeded Screening Values
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	Number of Samples Above RRSL	Number of Samples Above IRSL	Number of Samples Above Subsurface BTV	Total Number of Samples	Minimum Concentration	Maximum Concentration	Units
Inorganic COIs							
Antimony	2	0	--	21	0.86 U	81.4	mg/kg
Arsenic	20	20	10	21	0.19 J	117	mg/kg
Cadmium	6	0	--	38	0.70 J	521	mg/kg
Cobalt	7	0	--	21	3.2	55.2	mg/kg
Iron	10	0	--	38	5,240	209,000	mg/kg
Lead	10	7	--	38	1.4	3,850	mg/kg
Manganese	10	1	7	38	23.6	40,600	mg/kg
Mercury	1	0	--	38	0.0030 U	6.1	mg/kg
Zinc	5	0	--	38	63	170,000	mg/kg
SVOCs							
Benzo(a)anthracene	2	0	NA	7	380 U	390	µg/Kg
Benzo(a)pyrene	4	1	NA	7	380 U	390	µg/Kg
Benzo(b)fluoranthene	2	0	NA	7	380 U	360 J	µg/Kg
Benzo(g,h,i)perylene	1	0	NA	7	380 U	210 J	µg/Kg
Dibenzo(a,h)anthracene	3	0	NA	7	380 U	73.0 J	µg/Kg
Indeno(1,2,3-cd)pyrene	1	0	NA	7	380 U	190 J	µg/Kg

Notes:
RRSL = Residential Regional Screening Level
IRSL = Industrial Regional Screening Level
BTV = Background Threshold Value
-- = Subsurface BTV value is below the RRSL
NA = Not applicable

Table 4.1.2-17
Metals and Cyanide Results for Shallow Soil Samples Collected from the Slag Pile
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID / Sample ID / Date / Units / Depth / Surface BTV (mg/kg)	ISA-X104 / ISA-X104 / 12/14/1993 / mg/Kg / 0 - 0.833'	ISA-X105 / ISA-X105 / 12/14/1993 / mg/Kg / 0 - 0.833'	ISA-X106 / ISA-X106 / 12/14/1993 / mg/Kg / 0 - 0.833'	MW-301H / OU1-SS-SB301-0-1 / 10/9/2007 / mg/Kg / 0 - 1'	MW-303H / OU1-SS-SB303-0-1 / 10/11/2007 / mg/Kg / 0 - 1'	MW-304S / OU1-SS-SB304-0-1 / 10/10/2007 / mg/Kg / 0 - 1'	MW-305H / OU1-SS-SB305-0-1 / 10/18/2007 / mg/Kg / 0 - 1'	MW-306S / OU1-SS-SB306-0-1 / 10/16/2007 / mg/Kg / 0 - 1'	SB-302 / OU1-SS-SB302-0-1 / 10/9/2007 / mg/Kg / 0 - 1'
Aluminum	7429-90-5	77,000	990,000	15,400	**35,300**	**22,700**	**14,100**	**12,400**	**25,700**	**9,600**	**13,200**	**15,400 J**	**27,700**
Antimony	7440-36-0	31	410	NA	NM	NM	NM	**1.8 J**	**13**	**6.5 J**	**6.0 J**	**4.2 J**	**1.0 J**
Arsenic	7440-38-2	0.39	1.6	10.7	**21.5**	**65**	**110**	**115**	**251**	**28.1**	**39.5**	**40.1**	**39.4**
Barium	7440-39-3	15,000	190,000	276	**169**	**410**	**191**	**1,530**	**13,800**	**175**	**1,030**	**390**	**611**
Beryllium	7440-41-7	160	2,000	0.81	**1.6**	**12.7**	**1.7**	1.0 U	**5.1 J**	**1.3 J**	**1.2 J**	**0.92 J**	**1.6**
Cadmium	7440-43-9	70	800	7.1	**36.1**	**59.9**	**181**	**88.1**	**10.3**	**109**	**36.8**	**13.4**	**54.9**
Chromium	7440-47-3	280**	1400**	21.2	**43.3**	**31.9**	**28.1**	**18.2 J**	**17.6 J**	**19.4 J**	**47.5**	**20.1**	**25.5**
Cobalt	7440-48-4	23	300	12.9	0.0 U*	**46.4**	0.0 U*	**26.7**	**273**	**10.4 J**	**12.5**	**10.1**	**8.1**
Copper	7440-50-8	3,100	41,000	31.5	**906**	**429**	**4,340**	**522**	**185**	**296**	**203**	**44.5**	**190**
Iron	7439-89-6	55,000	720,000	24,691	0.0 U*	0.0 U*	0.0 U*	**49,000**	**51,600**	**21,900**	**35,300**	**34,500**	**39,200**
Lead	7439-92-1	400	800	103	**905**	**342**	**1,370**	**4,400**	**215**	**627**	**1,650**	**116**	**944**
Manganese	7439-96-5	1,800	23,000	1,527	0.0 U*	**5,450**	**1,290**	**289**	**123,000**	**918**	**4,860**	**11,500**	**1,220**
Mercury	7439-97-6	5.6	34	1.32	0.0 U*	**1.4**	**2.1**	**18.5**	**2.3**	**0.69**	**5**	**0.2**	**12.5**
Nickel	7440-02-0	1,500	20,000	19.9	0.0 U*	**105**	**119**	**39.9 J**	**668**	**46**	**39**	**30.8**	**23**
Selenium	7782-49-2	390	5,100	NA	**18**	0.0 U*	**28**	21.3 U	**3**	**4.4 J**	**10.4**	**0.87 J**	**4.2 J**
Silver	7440-22-4	390	5,100	NA	0.0 U*	0.0 U*	**18**	**15**	**11**	**3**	0.37 U	**1.3 J**	0.089 U
Thallium	7440-28-0	5.1++	66++	NA	**0.72 J**	0.0 U*	**0.98 J**	**2**	**4**	**0.62 J**	**1**	**0.40 J**	**0.28 J**
Vanadium	7440-62-2	390	5,200	39.5	0.0 U*	**110**	0.0 U*	**27**	**899**	**24**	**45**	**52**	**61**
Zinc	7440-66-6	23,000	310,000	1,310	**10,200**	**42,000**	**37,500**	**79,900**	**1,970**	**46,000**	**12,500**	**1,830**	**12,100**
Cyanide	57-12-5	1,600	20,000	NA	0.0 U*	0.0 U*	0.0 U*	1.4 U	NM	NM	NM	1.3 U	NM

Analyte	CAS #	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID / Sample ID / Date / Units / Depth / Surface BTV (mg/kg)	SB-307 / OU1-SS-SB307-0-1 / 10/24/2007 / mg/Kg / 0 - 1'	SB-308 / OU1-SS-SB308-0-1 / 10/17/2007 / mg/Kg / 0 - 1'	SB-309 / OU1-SS-SB309-0-1 / 10/17/2007 / mg/Kg / 0 - 1'	SB-316 / OU1-SS-SB316-0-1 / 10/3/2007 / mg/Kg / 0 - 1'	SLP-415 / OU1-SS-SLP415S-0908 / 8/13/2009 / mg/Kg / 0'	SLP-415 / OU1-SS-SLP415T-0908 / 8/13/2009 / mg/Kg / 0'	SSI-X103 / SSI-X103 / 11/21/1991 / mg/Kg / 0 - 0.5'	SSI-X104 / SSI-X104 / 11/21/1991 / mg/Kg / 0 - 0.5'
Aluminum	7429-90-5	77,000	990,000	15,400	**5,060**	**11,900**	**9,460**	**12,100**	**14,800**	**1,600**	**9,360**	**13,600**
Antimony	7440-36-0	31	410	NA	**10.2**	**13.3**	**9.8**	**11.2 J**	0.0 U*	0.0 U	**30.4**	4.8 U
Arsenic	7440-38-2	0.39	1.6	10.7	**16.9**	**122**	**53.6**	**25.7**	**3.3**	**57.9**	**245**	**20.6**
Barium	7440-39-3	15,000	190,000	276	**612**	**3,550**	**341**	**673**	**63.7**	**66.8**	**820**	**259**
Beryllium	7440-41-7	160	2,000	0.81	**1.0 J**	**2.6**	**2.3**	**1.2**	**1.8**	**0.33**	**1.6**	**1.5**
Cadmium	7440-43-9	70	800	7.1	**13.8**	**24.5**	**68.3**	**37.7**	**4.3**	**6.5**	**40.5**	**70.7**
Chromium	7440-47-3	280**	1400**	21.2	**11.8**	**49.7**	**17.5**	**18.8**	**2.8**	**6.7**	**46.7**	**35**
Cobalt	7440-48-4	23	300	12.9	**6**	**35.1**	**14**	**17.6**	**2.8**	**22.8**	**3.6**	**14.3**
Copper	7440-50-8	3,100	41,000	31.5	**51.4**	**607**	**1,460**	**199**	**78**	**1,770**	**278**	**417**
Iron	7439-89-6	55,000	720,000	24,691	**34,300**	**49,500**	**29,100**	**43,000**	**18,100**	**48,200**	**40,000**	**29,400**
Lead	7439-92-1	400	800	103	**393**	**1,210**	**799**	**1,530**	**116**	**206**	**38,700**	**730**
Manganese	7439-96-5	1,800	23,000	1,527	**332**	**10,700**	**1,510**	**9,650**	**443**	**1,210**	**287**	**2,510**
Mercury	7439-97-6	5.6	34	1.32	**1.1**	**0.92**	**0.16**	**0.82**	NM	NM	0.074 U	**1.3**
Nickel	7440-02-0	1,500	20,000	19.9	**20**	**79**	**27.8**	**34**	**13**	**23**	**4.0 J**	**39**
Selenium	7782-49-2	390	5,100	NA	**0.64 J**	**1**	**2**	**2**	0.39 U	1.9 U	4.4 U	4.1 U
Silver	7440-22-4	390	5,100	NA	0.33 U	0.35 U	0.36 U	**4.3 J**	0.0 U	0.0 U	2.0 U	1.7 U
Thallium	7440-28-0	5.1++	66++	NA	**0.59 J**	**1**	**0.29 J**	**0.38 J**	0.028 U	**0.029 J**	0.66 U	0.62 U
Vanadium	7440-62-2	390	5,200	39.5	**28**	**86**	**35**	**25**	**7.6**	**12**	**34**	**28**
Zinc	7440-66-6	23,000	310,000	1,310	**3,110**	**10,600**	**8,310**	**22,600**	**2,620**	**13,600**	**3,490**	**43,700**
Cyanide	57-12-5	1,600	20,000	NA	NM	NM	NM	NM	NM	NM	0.29 U	**0.27**

Notes:

	Exceedance of Industrial and Residential RSLs (in the case of Arsenic, red signifies an exceedance of the Surface Background Threshold Value (BTV)).
	Exceedance of Residential RSL (does not apply in the case of Arsenic)
	Exceedance of Industrial and/or Residential RSL but does not exceed the Surface BTV (ONLY applies in the case of Arsenic)
1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
NA	Not Available
NM	Not Measured
*	Detection limit not available in report from others.
**	Screening value for total chromium is based on April 2009 US EPA RSL.
++	Screening value for thallium is based on April 2009 US EPA RSL.

Table 4.1.2-18
Metals and Cyanide Results for Deep Soil Samples Collected from the Slag Pile
Matthiessen and Hegeler Zinc Company Site- OU1
LaSalle, Illinois

Analyte	CAS #	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID / Sample ID / Date / Units / Depth / Subsurface BTV (mg/kg)	MW-301H / OU1-SS-SB301-40-41 / 10/9/2007 / mg/Kg / 40 - 41'	MW-301H / OU1-SS-SB301-44-50 / 10/9/2007 / mg/Kg / 44 - 50'	MW-303H / OU1-SS-SB303-108-109 / 10/11/2007 / mg/Kg / 108 - 109'	MW-303H / OU1-SS-SB303-85-86 / 10/11/2007 / mg/Kg / 85 - 86'	MW-303H / OU1-SS-SB303-89-90 / 10/11/2007 / mg/Kg / 89 - 90'	MW-304S / OU1-SS-SB304-58-59 / 10/10/2007 / mg/Kg / 58 - 59'	MW-304S / OU1-SS-SB304-59-60 / 10/10/2007 / mg/Kg / 59 - 60'
Aluminum	7429-90-5	77,000	990,000	15,847	**12,600**	**20,000**	**3,850**	**6,180**	**20,900**	**6,090**	**7,760**
Antimony	7440-36-0	31	410	1.05	**2.5 J**	0.95 U	**1.2 J**	**9.6 J**	**7.5 J**	0.92 U	0.91 U
Arsenic	7440-38-2	0.39	1.6	12.44	**45.5 J**	**15.5**	**8.4**	**15.5 J**	**4.2**	**4.4**	**4.3**
Barium	7440-39-3	15,000	190,000	274	**167**	**45.1**	**37.2**	**248**	**73.2**	**203**	**63.1**
Beryllium	7440-41-7	160	2,000	0.878	**1.6**	**1.5 J**	**0.25 J**	**5.9 J**	**2**	**2.1**	**0.46 J**
Cadmium	7440-43-9	70	800	4.68	**21.2**	**0.70 J**	**3.4**	**29.7**	**521**	**97.6**	**212**
Chromium	7440-47-3	280**	1400**	25.2	**5.4**	**22.3**	**8.6**	**9.1 J**	**21**	**8.2**	**16.1**
Cobalt	7440-48-4	23	300	13.8	**10**	**35**	**5**	**21**	**39**	**18**	**55**
Copper	7440-50-8	3,100	41,000	35.9	**239**	**23.4**	**12.6**	**1,200**	**337**	**289**	**175**
Iron	7439-89-6	55,000	720,000	25,035	**21,800**	**22,500**	**24,100**	**29,700**	**60,000**	**18,400**	**13,700**
Lead	7439-92-1	400	800	66.1	**86.1**	**18.4**	**18**	**683**	**108**	**206**	**14.9**
Manganese	7439-96-5	1,800	23,000	2,726	**179**	**289**	**983**	**324**	**371**	**388**	**1,940**
Mercury	7439-97-6	5.6	34	1.33	0.0030 U	**0.016 J**	**0.082**	**0.0070 J**	**0.25**	0.0030 U	**0.0050 J**
Nickel	7440-02-0	1,500	20,000	45	**41.4 J**	**44**	**25**	**16.8 J**	**54**	**23**	**72**
Selenium	7782-49-2	390	5,100	NA	18.2 U	**0.59 J**	**1**	16.3 U	**3**	**2**	**4**
Silver	7440-22-4	390	5,100	NA	**0.18 J**	0.089 U	0.14 U	2.7 U	0.17 U	0.087 U	0.086 U
Thallium	7440-28-0	5.1++	66++	NA	0.051 U	**0.30 J**	**0.092 J**	0.46 U	**0.25 J**	**0.064 J**	**0.091 J**
Vanadium	7440-62-2	390	5,200	37.8	**24**	**20.2**	**29**	**13**	**35**	**29**	**16.7**
Zinc	7440-66-6	23,000	310,000	740	**41,900**	**63**	**123**	**6,010**	**8,890**	**20,500**	**48,200**
Cyanide	57-12-5	1,600	20,000	NA	NM	NM	NM	NM	1.3 U	NM	1.2 U

Analyte	CAS #	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID / Sample ID / Date / Units / Depth / Subsurface BTV (mg/kg)	MW-305H / OU1-SS-SB305-89-90 / 10/18/2007 / mg/Kg / 89 - 90'	MW-305H / OU1-SS-SB305-90-91 / 10/18/2007 / mg/Kg / 90 - 91'	MW-306S / OU1-SS-SB306-66-67 / 10/16/2007 / mg/Kg / 66 - 67'	MW-306S / OU1-SS-SB306-67-68 / 10/16/2007 / mg/Kg / 67 - 68'	P-1 / P-1 / 10/3/1994 / mg/Kg / 21'	P-1 / P-1 / 34,610 / mg/Kg / 80'	P-2 / P-2 / 10/3/1994 / mg/Kg / 19'
Aluminum	7429-90-5	77,000	990,000	15,847	**13,600**	**16,700**	**33,000 J**	**13,900 J**	NM	NM	NM
Antimony	7440-36-0	31	410	1.05	**3.2 J**	**3.8 J**	**5.1 J**	**4.8 J**	NM	NM	NM
Arsenic	7440-38-2	0.39	1.6	12.44	**10.3**	**6.8**	**0.19 J**	**11.3**	NM	NM	NM
Barium	7440-39-3	15,000	190,000	274	**153**	**136**	**51.3**	**155**	**161**	**54.5**	**152**
Beryllium	7440-41-7	160	2,000	0.878	**0.78 J**	**1.1 J**	**1.3**	**2.1 J**	NM	NM	NM
Cadmium	7440-43-9	70	800	4.68	**21.6**	**38.1**	**7.2**	**62**	**1.9**	**9.5**	**228**
Chromium	7440-47-3	280**	1400**	25.2	**8.9**	**18**	**1.8 J**	**25.8**	**6.3**	**12.9**	**19.3**
Cobalt	7440-48-4	23	300	13.8	**4**	**16**	**3.2**	**40**	NM	NM	NM
Copper	7440-50-8	3,100	41,000	35.9	**380**	**51**	**30.9**	**31.7**	NM	NM	NM
Iron	7439-89-6	55,000	720,000	25,035	**32,400**	**35,700**	**13,000**	**26,100**	**14,100**	**24,500**	**35,100**
Lead	7439-92-1	400	800	66.1	**1,490**	**161**	**1.4**	**30.7**	**1,470**	**2.1**	**2,300**
Manganese	7439-96-5	1,800	23,000	2,726	**126**	**332**	**173**	**1,740**	**38.1**	**185**	**1,170**
Mercury	7439-97-6	5.6	34	1.33	**6.1**	**0.39**	0.0030 U	**0.0050 J**	0.12 U	0.11 U	0.11 U
Nickel	7440-02-0	1,500	20,000	45	**13**	**37**	**9**	**77**	**10.5**	**75.1**	**9.1 J**
Selenium	7782-49-2	390	5,100	NA	**5**	**0.67 J**	0.33 U	**3**	NM	NM	NM
Silver	7440-22-4	390	5,100	NA	0.40 U	3.8 U	0.13 U	0.16 U	NM	NM	NM
Thallium	7440-28-0	5.1++	66++	NA	**0.21 J**	**0.26 J**	0.046 U	**0.16 J**	NM	NM	NM
Vanadium	7440-62-2	390	5,200	37.8	**24**	**26**	**16**	**35**	NM	NM	NM
Zinc	7440-66-6	23,000	310,000	740	**3,340**	**9,560**	**1,500**	**10,300**	**1,090**	**8,860**	**5,400**
Cyanide	57-12-5	1,600	20,000	NA	NM	NM	NM	NM	0.55 U	0.53 U	0.50 U

Table 4.1.2-18
Metals and Cyanide Results for Deep Soil Samples Collected from the Slag Pile
Matthiessen and Hegeler Zinc Company Site- OU1
LaSalle, Illinois

Analyte	CAS #	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID / Sample ID / Date / Units / Depth — Subsurface BTV (mg/kg)	P-2 / P-2 DP / 10/4/1994 / mg/Kg / 42'	P-2 / P-2 / 10/4/1994 / mg/Kg / 42'	P-15A / P-15A / 34,606 / mg/Kg / 20'	P-17 / P-17 / 9/10/1994 / mg/Kg / 10'	P-17 / P-17 / 9/10/1994 / mg/Kg / 42'	P-17 / P-17 / 9/10/1994 / mg/Kg / 42'	P-18 / P-18 / 9/28/1994 / mg/Kg / 39'	P-19 / P-19 / 9/29/1994 / mg/Kg / 20'	P-19 / P-19 / 9/29/1994 / mg/Kg / 42'
Aluminum	7429-90-5	77,000	990,000	15,847	NM	NM	NM	NM	NM	NM	NM	NM	NM
Antimony	7440-36-0	31	410	1.05	NM	NM	NM	NM	NM	NM	NM	NM	NM
Arsenic	7440-38-2	0.39	1.6	12.44	NM	NM	NM	NM	NM	NM	NM	NM	NM
Barium	7440-39-3	15,000	190,000	274	**84.6**	**80.4**	**258**	**236**	**189**	**189**	**608**	**49.8**	**16.7 J**
Beryllium	7440-41-7	160	2,000	0.878	NM	NM	NM	NM	NM	NM	NM	NM	NM
Cadmium	7440-43-9	70	800	4.68	**8.1**	**8.4**	**49.5**	**51.5**	**45.4**	**45.4**	**22.9**	**6.1**	**15.1**
Chromium	7440-47-3	280**	1400**	25.2	**26.6**	**27.3**	**37.1**	**97.5**	**11.7**	**11.7**	**22**	**6.7**	**21.8**
Cobalt	7440-48-4	23	300	13.8	NM	NM	NM	NM	NM	NM	NM	NM	NM
Copper	7440-50-8	3,100	41,000	35.9	NM	NM	NM	NM	NM	NM	NM	NM	NM
Iron	7439-89-6	55,000	720,000	25,035	**94,600**	**97,800**	**33,000**	**55,800**	**60,300**	**60,300**	**54,900**	**10,600**	**55,700**
Lead	7439-92-1	400	800	66.1	**261**	**267**	**2,340**	**1,400**	**47.9**	**47.9**	**290**	**23**	**34.1**
Manganese	7439-96-5	1,800	23,000	2,726	**28.1**	**23.6**	**40,600**	**1,500**	**2,030**	**2,030**	**2,280**	**56.5**	**217**
Mercury	7439-97-6	5.6	34	1.33	0.11 U	0.12 U	**2.3**	**0.42**	0.12 U	0.12 U	0.11 U	0.10 U	0.12 U
Nickel	7440-02-0	1,500	20,000	45	**15.1**	**13.3**	**53.1**	**88.7**	**37.7**	**37.7**	**65.5**	**19.4**	**41**
Selenium	7782-49-2	390	5,100	NA	NM	NM	NM	NM	NM	NM	NM	NM	NM
Silver	7440-22-4	390	5,100	NA	NM	NM	NM	NM	NM	NM	NM	NM	NM
Thallium	7440-28-0	5.1++	66++	NA	NM	NM	NM	NM	NM	NM	NM	NM	NM
Vanadium	7440-62-2	390	5,200	37.8	NM	NM	NM	NM	NM	NM	NM	NM	NM
Zinc	7440-66-6	23,000	310,000	740	**489**	**488**	**21,600**	**15,100**	**21,800**	**21,800**	**9,700**	**9,120**	**3,000**
Cyanide	57-12-5	1,600	20,000	NA	**0.74**	0.53 U	0.59 U	0.56 U	0.60 U	0.60 U	0.45 U	0.52 U	0.61 U

Analyte	CAS #	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID / Sample ID / Date / Units / Depth — Subsurface BTV (mg/kg)	P-21 / P-21 / 9/30/1994 / mg/Kg / 21'	P-21 / P-21 / 9/30/1994 / mg/Kg / 41'	P-21 / P-21 / 9/30/1994 / mg/Kg / 60'	P-21 / P-21 / 10/3/1994 / mg/Kg / 2.5'	P-22 / P-22 / 10/5/1994 / mg/Kg / 106'	SB-302 / OU1-SS-SB302-12-13 / 10/9/2007 / mg/Kg / 12 - 13'	SB-308 / OU1-SS-SB308-26.5-27.5 / 10/17/2007 / mg/Kg / 26.5 - 27'	SB-308 / OU1-SS-SB308-36.5-37.5 / 10/17/2007 / mg/Kg / 36.5 - 37'	SB-309 / OU1-SS-SB309-18.25-19.25 / 10/17/2007 / mg/Kg / 18.25 - 19.25'
Aluminum	7429-90-5	77,000	990,000	15,847	NM	NM	NM	NM	NM	**3,130**	**5,400**	**9,800**	**17,200**
Antimony	7440-36-0	31	410	1.05	NM	NM	NM	NM	NM	0.86 U	**16**	**35.6 J**	**17.5**
Arsenic	7440-38-2	0.39	1.6	12.44	NM	NM	NM	NM	NM	**5.6**	**46.5**	**6.3**	**53.1**
Barium	7440-39-3	15,000	190,000	274	**124**	**117**	**65.4**	**471**	**32.0 J**	**24.6**	**2,130**	**45**	**372**
Beryllium	7440-41-7	160	2,000	0.878	NM	NM	NM	NM	NM	**0.23 J**	**1.1 J**	**1.2**	**2.8**
Cadmium	7440-43-9	70	800	4.68	**2.1**	**4.6**	**18.2**	**6.3**	**7.2**	**279**	**53.5**	**189**	**68.5**
Chromium	7440-47-3	280**	1400**	25.2	**41.1**	**2.8**	**4.1**	**4**	**8.7**	**7.5**	**78.7**	**5.7**	**15.6**
Cobalt	7440-48-4	23	300	13.8	NM	NM	NM	NM	NM	**12**	**31**	**23**	**15**
Copper	7440-50-8	3,100	41,000	35.9	NM	NM	NM	NM	NM	**20.2**	**1,410**	**35.9**	**754**
Iron	7439-89-6	55,000	720,000	25,035	**209,000**	**7,920**	**5,240**	**60,800**	**39,700**	**13,500**	**64,800**	**34,100**	**33,800**
Lead	7439-92-1	400	800	66.1	**221**	**99.3**	**75.5**	**3,850**	**5.5**	**73.5**	**500**	**53**	**2,640**
Manganese	7439-96-5	1,800	23,000	2,726	**203**	**50.2**	**66.8**	**95.6**	**859**	**874**	**7,870**	**3,440**	**8,030**
Mercury	7439-97-6	5.6	34	1.33	0.11 U	**0.15**	**0.16**	0.11 U	0.12 U	**0.037**	**2.5 J**	**0.071**	**0.96**
Nickel	7440-02-0	1,500	20,000	45	**24.4**	**4.4**	**4.9 J**	**41.3**	**19.9**	**23**	**50.3**	**33.1**	**28.6**
Selenium	7782-49-2	390	5,100	NA	NM	NM	NM	NM	NM	**1**	**2**	**5**	**3**
Silver	7440-22-4	390	5,100	NA	NM	NM	NM	NM	NM	0.082 U	**9**	3.3 U	**0.66 J**
Thallium	7440-28-0	5.1++	66++	NA	NM	NM	NM	NM	NM	**0.26 J**	**0.34 J**	0.048 U	**0.57 J**
Vanadium	7440-62-2	390	5,200	37.8	NM	NM	NM	NM	NM	**13**	**38**	**11**	**35**
Zinc	7440-66-6	23,000	310,000	740	**2,960**	**852**	**1,270**	**26,100**	**687**	**18,100**	**10,300**	**170,000**	**21,300**
Cyanide	57-12-5	1,600	20,000	NA	0.55 U	0.53 U	0.54 U	0.53 U	0.45 U	NM	NM	1.1 U	NM

Table 4.1.2-18
Metals and Cyanide Results for Deep Soil Samples Collected from the Slag Pile
Matthiessen and Hegeler Zinc Company Site- OU1
LaSalle, Illinois

Analyte	CAS #	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID / Sample ID / Date / Units / Depth — Subsurface BTV (mg/kg)	SB-307 OU1-SS-SB307-7-8 10/24/2007 mg/Kg 7 - 8'	SB-307 OU1-SS-SB307-8-9 10/24/2007 mg/Kg 8 - 9'	SB-309 OU1-SS-SB309-28.25-29.25 10/17/2007 mg/Kg 28.25 - 29'	SB-309 OU1-SS-SB309-48-49 10/17/2007 mg/Kg 48 - 49'	SB-316 OU1-SS-SB316-2-4 10/3/2007 mg/Kg 2 - 4'
Aluminum	7429-90-5	77,000	990,000	15,847	**4,620**	**4,640**	**8,110**	**4,340**	**8,060**
Antimony	7440-36-0	31	410	1.05	**2.9 J**	**3.3 J**	**81.4**	**5.9 J**	**4.9 J**
Arsenic	7440-38-2	0.39	1.6	12.44	**3.7**	**33**	**117**	**17.1**	**13.4**
Barium	7440-39-3	15,000	190,000	274	**65.3**	**68.9**	**812**	**133**	**728**
Beryllium	7440-41-7	160	2,000	0.878	**1.1**	**4.9**	**1.6**	**0.36 J**	**0.46 J**
Cadmium	7440-43-9	70	800	4.68	**7.3**	**9.2**	**26.7**	**21.4**	**19.1**
Chromium	7440-47-3	280**	1400**	25.2	**7.4**	**10.2**	**27.8**	**11.1**	**18.2**
Cobalt	7440-48-4	23	300	13.8	**6**	**12**	**31**	**32**	**9**
Copper	7440-50-8	3,100	41,000	35.9	**39.6**	**56.3**	**2,810**	**17.1**	**81.8**
Iron	7439-89-6	55,000	720,000	25,035	**44,100**	**54,200**	**123,000**	**34,700**	**29,100**
Lead	7439-92-1	400	800	66.1	**90.8**	**88.5**	**328**	**9.4**	**568**
Manganese	7439-96-5	1,800	23,000	2,726	**239**	**1,630**	**13,800**	**5,830**	**5,000**
Mercury	7439-97-6	5.6	34	1.33	**0.030 J**	**0.061**	**0.39**	**0.020 J**	**0.36**
Nickel	7440-02-0	1,500	20,000	45	**13**	**37**	**62.8**	**50**	**27.1**
Selenium	7782-49-2	390	5,100	NA	**0.56 J**	**1.3 J**	**2**	**2**	**1**
Silver	7440-22-4	390	5,100	NA	0.34 U	0.38 U	**52**	3.4 U	**0.77 J**
Thallium	7440-28-0	5.1++	66++	NA	**0.43 J**	**0.69 J**	**0.29 J**	**0.18 J**	**0.19 J**
Vanadium	7440-62-2	390	5,200	37.8	**15**	**29**	**29**	**36**	**17**
Zinc	7440-66-6	23,000	310,000	740	**1,300**	**18,600**	NM	**43,000**	**9,970**
Cyanide	57-12-5	1,600	20,000	NA	1.2 U	NM	NM	NM	1.2 U

Notes:

	Exceedance of Industrial and Residential RSLs (in the case of Arsenic, red signifies an exceedance of the Subsurface Background Threshold Value (BTV) and in the case of Manganese, red signifies an exceedance of the Industrial RSL only).
	Exceedance of Residential RSL (does not apply in the case of Arsenic; in the case of Manganese, yellow signifies an exceedance of the Subsurface BTV but not an exceedance of the Industrial RSL).
	Exceedance of Industrial and/or Residential RSL but does not exceed the Surface BTV (applies in the case of Arsenic and Manganese; for Manganese, gray signifies an exceedance of the Residential RSL but not an exceedance of the Subsurface BTV).
1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
NA	Not Available
NM	Not Measured
*	Detection limit not available in report from others.
**	Screening value for total chromium is based on April 2009 US EPA RSL.
++	Screening value for thallium is based on April 2009 US EPA RSL.

Table 4.1.2-19
VOC Results for Shallow Soil Samples Collected from the Slag Pile
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Residential RSL (µg/Kg)	Industrial RSL (µg/Kg)	Location ID Sample ID Date Units Depth	ISA-X104 ISA-X104 12/14/1993 µg/Kg 0 - 0.833'	ISA-X105 ISA-X105 12/14/1993 µg/Kg 0 - 0.833'	ISA-X106 ISA-X106 12/14/1993 µg/Kg 0 - 0.833'	MW-301H OU1-SS-SB301-0-1 10/9/2007 µg/Kg 0 - 1'	MW-306S OU1-SS-SB306-0-1 10/16/2007 µg/Kg 0 - 1'	SSI-X103 SSI-X103 11/21/1991 µg/Kg 0 - 0.5'	SSI-X104 SSI-X104 11/21/1991 µg/Kg 0 - 0.5'
1,1,1-Trichloroethane	71-55-6	8,700,000	38,000,000		0.0 U	0.0 U	0.0 U	8.1 U	8.5 U	12.0 U	**5.0 J**
2-Butanone (MEK)	78-93-3	28,000,000	200,000,000		**23.0 J**	**4.0 J**	**12.0 J**	**1.7 J**	**21**	12.0 U	11.0 U
Acetone	67-64-1	61,000,000	630,000,000		0.0 U	0.0 U	0.0 U	**26.0 J**	**180**	12.0 U	11.0 U
Benzene	71-43-2	1,100	5,400		NM	NM	NM	8.1 U	**1.0 J**	12.0 U	11.0 U
Carbon disulfide	75-15-0	820,000	3,700,000		NM	NM	NM	16.0 U	**5.8 J**	12.0 U	11.0 U
Chloroform	67-66-3	290	1,500		NM	NM	NM	8.1 U	8.5 U	**2.0 J**	11.0 U
cis/trans-1,2-Dichloroethene	540-59-0	NS	NS		NM	NM	NM	NM	NM	**3.0 J**	11.0 U
cis-1,3-Dichloropropene	10061-01-5	1,700	8,100		NM	NM	NM	8.1 U	8.5 U	**2.0 J**	11.0 U
Dichloromethane (Methylene chloride)	75-09-2	11,000	53,000		**100**	0.0 U	0.0 U	8.1 U	**0.74 J**	12.0 U	**8.0 J**
Methyl acetate	79-20-9	78,000,000	1,000,000,000		NM	NM	NM	16.0 U	**1.8 J**	NM	NM
Methylcyclohexane	108-87-2	7,000,000	29,000,000		NM	NM	NM	8.1 U	**1.8 J**	NM	NM
Tetrachloroethene	127-18-4	550	2,600		NM	NM	NM	8.1 U	8.5 U	**1.0 J**	11.0 U
Toluene	108-88-3	5,000,000	45,000,000		0.0 U	0.0 U	0.0 U	8.1 U	**1.3 J**	**1.0 J**	**8.0 J**
Xylenes (unspecified)	XYLENES	NS	NS		0.0 U	**4.0 J**	**4.0 J**	NM	NM	12.0 U	**11.0 J**

Notes:

1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
NM	Not Measured
NS	No applicable standard

Table 4.1.2-20
VOC Results for Deep Soil Samples Collected from the Slag Pile
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Residential RSL (µg/Kg)	Industrial RSL (µg/Kg)	Location ID Sample ID Date Units Depth	MW-303H OU1-SS-SB303-89-90 10/11/2007 µg/Kg 89 - 90'	MW-304S OU1-SS-SB304-59-60 10/10/2007 µg/Kg 59 - 60'	SB-302 OU1-SS-SB302-10.5-11 10/9/2007 µg/Kg 10.5 - 11.5'	SB-307 OU1-SS-SB307-7-8 10/24/2007 µg/Kg 7 - 8'	SB-308 OU1-SS-SB308-36.5-37.5 10/17/2007 µg/Kg 36.5 - 37'	SB-309 OU1-SS-SB309-48-49 10/17/2007 µg/Kg 48 - 49'	SB-316 OU1-SS-SB316-2-4 10/3/2007 µg/Kg 2 - 4'
2-Butanone (MEK)	78-93-3	28,000,000	200,000,000		**29**	**2.8 J**	16.0 U	**3.6 J**	**6.6 J**	**4.0 J**	30.0 U
Acetone	67-64-1	61,000,000	630,000,000		**190**	**22.0 J**	**20.0 J**	**45**	**43**	**28.0 J**	60.0 U
Benzene	71-43-2	1,100	5,400		**0.94 J**	**4.6 J**	**3.4 J**	**1.4 J**	**0.73 J**	**1.5 J**	**2.9 J**
Carbon disulfide	75-15-0	820,000	3,700,000		**47**	**2.2 J**	16.0 U	**49**	**44**	**0.66 J**	30.0 U
Cyclohexane	110-82-7	7,000,000	29,000,000		**3.1 J**	**1.7 J**	**3.1 J**	**6.7 J**	**0.83 J**	**1.1 J**	**4.6 J**
Dichloromethane (Methylene chloride)	75-09-2	11,000	53,000		**0.85 J**	**0.45 J**	**0.51 J**	**0.54 J**	**0.37 J**	**0.53 J**	15.0 U
Ethyl benzene	100-41-4	5,400	27,000		12.0 U	**0.83 J**	**0.72 J**	**1.2 J**	5.7 U	**0.43 J**	**1.8 J**
Isopropylbenzene	98-82-8	2,100,000	11,000,000		12.0 U	6.4 U	8.0 U	**0.44 J**	5.7 U	6.7 U	15.0 U
m&p-Xylene	XYLMP	NS	NS		12.0 U	**1.8 J**	**1.5 J**	**3.1 J**	5.7 U	6.7 U	**2.5 J**
Methyl acetate	79-20-9	78,000,000	1,000,000,000		**4.3 J**	**1.1 J**	16.0 U	14.0 U	**0.84 J**	13.0 U	30.0 U
Methylcyclohexane	108-87-2	7,000,000	29,000,000		**2.9 J**	**2.5 J**	**4.0 J**	**17**	**1.5 J**	**1.7 J**	**7.3 J**
o-Xylene	95-47-6	3,800,000	19,000,000		12.0 U	**0.91 J**	**0.72 J**	**1.9 J**	5.7 U	6.7 U	**1.1 J**
Toluene	108-88-3	5,000,000	45,000,000		**0.94 J**	**4.4 J**	**3.7 J**	**2.4 J**	5.7 U	**1.5 J**	**5.5 J**

Notes:

1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
NS	No applicable standard

Table 4.1.2-21
SVOC Results for Shallow Soil Samples Collected from the Slag Pile
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Residential RSL (µg/Kg)	Industrial RSL (µg/Kg)	Location ID Sample ID Date Units Depth	ISA-X104 ISA-X104 12/14/1993 µg/Kg 0 - 0.833'	ISA-X105 ISA-X105 12/14/1993 µg/Kg 0 - 0.833'	ISA-X106 ISA-X106 12/14/1993 µg/Kg 0 - 0.833'	MW-301H OU1-SS-SB301-0-1 10/9/2007 µg/Kg 0 - 1'	MW-306S OU1-SS-SB306-0-1 10/16/2007 µg/Kg 0 - 1'	SSI-X103 SSI-X103 11/21/1991 µg/Kg 0 - 0.5'	SSI-X104 SSI-X104 11/21/1991 µg/Kg 0 - 0.5'
4-Methylphenol	106-44-5	310,000	3,100,000		NM	NM	NM	**21.0 J**	430 U	400 U	380 U
Benzo(a)anthracene	56-55-3	150	2,100		0.0 U*	0.0 U*	0.0 U*	470 U	**110 J**	400 U	380 U
Benzo(a)pyrene	50-32-8	15	210		0.0 U*	0.0 U*	0.0 U*	470 U	**96.0 J**	400 U	380 U
Benzo(b)fluoranthene	205-99-2	150	2,100		0.0 U*	0.0 U*	0.0 U*	470 U	**100 J**	400 U	380 U
Benzo(g,h,i)perylene	191-24-2	150	2,100		NM	NM	NM	470 U	**92.0 J**	400 U	380 U
Benzo(k)fluoranthene	207-08-9	1,500	21,000		NM	NM	NM	470 U	**98.0 J**	400 U	380 U
bis(2-Ethylhexyl) phthalate	117-81-7	35,000	120,000		NM	NM	NM	470 U	430 U	**110 J**	**130 J**
Chrysene	218-01-9	15,000	210,000		0.0 U*	0.0 U*	0.0 U*	**33.0 J**	**120 J**	400 U	380 U
Fluoranthene	206-44-0	2,300,000	22,000,000		0.0 U*	0.0 U*	**96.0 J**	**81.0 J**	**180 J**	400 U	380 U
Hexachlorobenzene	118-74-1	300	1,100		0.0 U*	0.0 U*	**7,300**	470 U	430 U	400 U	380 U
Indeno(1,2,3-cd)pyrene	193-39-5	150	2,100		NM	NM	NM	470 U	**72.0 J**	400 U	380 U
Naphthalene	91-20-3	3,600	18,000		0.0 U*	0.0 U*	0.0 U*	**140 J**	430 U	400 U	380 U
Phenanthrene	85-01-8	17,000,000	170,000,000		0.0 U*	0.0 U*	**83.0 J**	**210 J**	**94.0 J**	400 U	380 U
Pyrene	129-00-0	1,700,000	17,000,000		0.0 U*	0.0 U*	**89.0 J**	**56.0 J**	**170 J**	400 U	380 U

Notes:

	Exceedance of Industrial and Residential RSLs
	Exceedance of Residential RSL
1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
NM	Not Measured
*	Detection limit not available in report from others.

Table 4.1.2-22
SVOC Results for Deep Soil Samples Collected from the Slag Pile
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Residential RSL (µg/Kg)	Industrial RSL (µg/Kg)	Location ID Sample ID Date Units Depth MW-303H OU1-SS-SB303-89-90 10/11/2007 µg/Kg 89 - 90'	MW-304S OU1-SS-SB304-59-60 10/10/2007 µg/Kg 59 - 60'	SB-302 OU1-SS-SB302-10.5-11 10/9/2007 µg/Kg 10.5 - 11.5'	SB-307 OU1-SS-SB307-7-8 10/24/2007 µg/Kg 7 - 8'	SB-308 OU1-SS-SB308-36.5-37.5 10/17/2007 µg/Kg 36.5 - 37'	SB-309 OU1-SS-SB309-48-49 10/17/2007 µg/Kg 48 - 49'	SB-316 OU1-SS-SB316-2-4 10/3/2007 µg/Kg 2 - 4'
1,1-Biphenyl	92-52-4	3,900,000	51,000,000	440 U	380 U	410 U	**100 J**	370 U	380 U	380 U
2-Methylnaphthalene	91-57-6	310,000	4,100,000	440 U	380 U	410 U	**1,100**	370 U	380 U	**37.0 J**
Acenaphthene	83-32-9	3,400,000	33,000,000	440 U	380 U	410 U	390 U	370 U	380 U	**25.0 J**
Acenaphthylene	208-96-8	3,400,000	33,000,000	440 U	380 U	410 U	390 U	370 U	380 U	**60.0 J**
Anthracene	120-12-7	17,000,000	170,000,000	440 U	380 U	410 U	**120 J**	**73.0 J**	380 U	**130 J**
Benzo(a)anthracene	56-55-3	150	2,100	**72.0 J**	380 U	410 U	**240 J**	**140 J**	380 U	**390**
Benzo(a)pyrene	50-32-8	15	210	**81.0 J**	380 U	410 U	**140 J**	**110 J**	380 U	**390**
Benzo(b)fluoranthene	205-99-2	150	2,100	**64.0 J**	380 U	410 U	**190 J**	**93.0 J**	380 U	**360 J**
Benzo(g,h,i)perylene	191-24-2	150	2,100	**49.0 J**	380 U	410 U	**110 J**	**79.0 J**	380 U	**210 J**
Benzo(k)fluoranthene	207-08-9	1,500	21,000	**63.0 J**	380 U	410 U	**130 J**	**88.0 J**	380 U	**320 J**
Carbazole	86-74-8	17,000,000	170,000,000	440 U	380 U	410 U	**77.0 J**	370 U	380 U	**50.0 J**
Chrysene	218-01-9	15,000	210,000	**78.0 J**	380 U	410 U	**300 J**	**140 J**	380 U	**420**
Dibenzo(a,h)anthracene	53-70-3	15	210	440 U	380 U	410 U	**36.0 J**	**26.0 J**	380 U	**73.0 J**
Dibenzofuran	132-64-9	78,000	1,000,000	440 U	380 U	410 U	**380 J**	370 U	380 U	**34.0 J**
Di-n-butylphthalate	84-74-2	6,100,000	62,000,000	**36.0 J**	380 U	410 U	390 U	370 U	380 U	380 U
Fluoranthene	206-44-0	2,300,000	22,000,000	**130 J**	380 U	410 U	**890**	**320 J**	380 U	**850**
Fluorene	86-73-7	2,300,000	22,000,000	440 U	380 U	410 U	390 U	370 U	380 U	**37.0 J**
Indeno(1,2,3-cd)pyrene	193-39-5	150	2,100	**45.0 J**	380 U	410 U	**85.0 J**	**68.0 J**	380 U	**190 J**
Naphthalene	91-20-3	3,600	18,000	440 U	380 U	410 U	**580**	370 U	380 U	**37.0 J**
Phenanthrene	85-01-8	17,000,000	170,000,000	**100 J**	380 U	410 U	**1,700**	**310 J**	380 U	**480**
Pyrene	129-00-0	1,700,000	17,000,000	**130 J**	380 U	410 U	**570**	**310 J**	380 U	**610**

Notes:

	Exceedance of Industrial and Residential RSLs
	Exceedance of Residential RSL
1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

Table 4.1.2-23
PCB Results for Shallow Soil Samples Collected from the Slag Pile
Matthiessen and Hegeler Zinc Company Site- OU1
LaSalle, Illinois

Analyte	CAS #	Residential RSL (µg/Kg)	Location ID Sample ID Date Units Depth Industrial RSL (µg/Kg)	ISA-X104 ISA-X104 12/14/1993 µg/Kg 0 - 0.833'	ISA-X105 ISA-X105 12/14/1993 µg/Kg 0 - 0.833'	ISA-X106 ISA-X106 12/14/1993 µg/Kg 0 - 0.833'	MW-301H OU1-SS-SB301-0-1 10/9/2007 µg/Kg 0 - 1'	MW-303H OU1-SS-SB303-0-1 10/11/2007 µg/Kg 0 - 1'	MW-305H OU1-SS-SB305-0-1 10/18/2007 µg/Kg 0 - 1'	SB-307 OU1-SS-SB307-0-1 10/24/2007 µg/Kg 0 - 1'
Aroclor 1254	11097-69-1	220	740	0.0 U	**25.0 J**	**88**	47.0 U	55.0 U	43.0 U	37.0 U
Aroclor 1260	11096-82-5	220	740	0.0 U	0.0 U	**130**	47.0 U	**73**	43.0 U	37.0 U

Analyte	CAS #	Residential RSL (µg/Kg)	Location ID Sample ID Date Units Depth Industrial RSL (µg/Kg)	SB-309 OU1-SS-SB309-0-1 10/17/2007 µg/Kg 0 - 1'	SSI-X103 SSI-X103 11/21/1991 µg/Kg 0 - 0.5'	SSI-X104 SSI-X104 11/21/1991 µg/Kg 0 - 0.5'
Aroclor 1254	11097-69-1	220	740	40.0 U	40.0 U	38.0 U
Aroclor 1260	11096-82-5	220	740	40.0 U	40.0 U	38.0 U

Notes:

1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

Table 4.1.2-24
Pesticides Results for Shallow Soil Samples Collected from the Slag Pile
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Residential RSL (µg/Kg)	Industrial RSL (µg/Kg)	Location ID Sample ID Date Units Depth	ISA-X104 ISA-X104 12/14/1993 µg/Kg 0 - 0.833'	ISA-X105 ISA-X105 12/14/1993 µg/Kg 0 - 0.833'	ISA-X106 ISA-X106 12/14/1993 µg/Kg 0 - 0.833'	MW-301H OU1-SS-SB301-0-1 10/9/2007 µg/Kg 0 - 1'	MW-303H OU1-SS-SB303-0-1 10/11/2007 µg/Kg 0 - 1'
4,4'-DDD	72-54-8	2,000	7,200		0.0 U	0.0 U	**5**	4.7 U	5.5 U
4,4'-DDE	72-55-9	1,400	5,100		0.0 U	0.0 U	**7**	4.7 U	5.5 U
4,4'-DDT	50-29-3	1,700	7,000		0.0 U	0.0 U	**14**	4.7 U	5.5 U
Aldrin	309-00-2	29	100		0.0 U	**0.64 J**	0.0 U	2.4 U	2.8 U
beta-BHC	319-85-7	270	960		0.0 U	0.0 U	**35**	2.4 U	2.8 U
delta-BHC	319-86-8	77	270		0.0 U	0.0 U	**3.1**	2.4 U	2.8 U
Dieldrin	60-57-1	30	110		0.0 U	0.0 U	**20**	4.7 U	5.5 U
Endosulfan II	33213-65-9	370,000	3,700,000		0.0 U	0.0 U	**3.9 J**	4.7 U	5.5 U
Endrin	72-20-8	18,000	180,000		0.0 U	**5**	**14**	4.7 U	5.5 U
Endrin ketone	53494-70-5	18,000	180,000		0.0 U	**4.0 J**	**35**	4.7 U	5.5 U
gamma-Chlordane	5566-34-7	1,600	6,500		0.0 U	**0.68 J**	**3**	2.4 U	2.8 U
Methoxychlor	72-43-5	310,000	3,100,000		**1.2**	0.0 U	0.0 U	24.0 U	28.0 U
Toxaphene	8001-35-2	440	1,600		0.0 U	**220**	0.0 U	47.0 U	55.0 U

Analyte	CAS #	Residential RSL (µg/Kg)	Industrial RSL (µg/Kg)	Location ID Sample ID Date Units Depth	MW-305H OU1-SS-SB305-0-1 10/18/2007 µg/Kg 0 - 1'	SB-307 OU1-SS-SB307-0-1 10/24/2007 µg/Kg 0 - 1'	SB-309 OU1-SS-SB309-0-1 10/17/2007 µg/Kg 0 - 1'	SSI-X103 SSI-X103 11/21/1991 µg/Kg 0 - 0.5'	SSI-X104 SSI-X104 11/21/1991 µg/Kg 0 - 0.5'
4,4'-DDD	72-54-8	2,000	7,200		4.3 U	3.7 U	4.0 U	4.0 U	3.8 U
4,4'-DDE	72-55-9	1,400	5,100		4.3 U	3.7 U	4.0 U	4.0 U	3.8 U
4,4'-DDT	50-29-3	1,700	7,000		4.3 U	3.7 U	4.0 U	4.0 U	3.8 U
Aldrin	309-00-2	29	100		2.2 U	1.9 U	2.1 U	2.1 U	2.0 U
beta-BHC	319-85-7	270	960		2.2 U	1.9 U	2.1 U	2.1 U	2.0 U
delta-BHC	319-86-8	77	270		2.2 U	1.9 U	2.1 U	2.1 U	2.0 U
Dieldrin	60-57-1	30	110		4.3 U	3.7 U	4.0 U	4.0 U	3.8 U
Endosulfan II	33213-65-9	370,000	3,700,000		4.3 U	3.7 U	4.0 U	4.0 U	3.8 U
Endrin	72-20-8	18,000	180,000		4.3 U	3.7 U	4.0 U	4.0 U	3.8 U
Endrin ketone	53494-70-5	18,000	180,000		4.3 U	3.7 U	4.0 U	4.0 U	3.8 U
gamma-Chlordane	5566-34-7	1,600	6,500		2.2 U	1.9 U	2.1 U	2.1 U	2.0 U
Methoxychlor	72-43-5	310,000	3,100,000		22.0 U	19.0 U	21.0 U	21.0 U	20.0 U
Toxaphene	8001-35-2	440	1,600		43.0 U	37.0 U	40.0 U	210 U	200 U

Notes:

1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
NM	Not Measured

Table 4.1.2-25
Other Inorganics Results for Shallow Soil Samples Collected from the Slag Pile
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Location ID	Sample ID	Date	Units	Depth
		ISA-X104	ISA-X104	12/14/1993	mg/Kg	0 - 0.833'
Calcium	7440-70-2	0.0 U*	**33,400**	**50,700**	**7,070**	**115,000**
Magnesium	7439-95-4	NM	NM	NM	**5,910**	**4,580**
Potassium	7440-09-7	**8,100**	0.0 U*	0.0 U*	**330**	**15,900**
Sodium	7440-23-5	**1,440**	**1,190**	**790 J**	**437**	**370**
Sulfate	14808-79-8	NM	NM	NM	NM	NM

Analyte	CAS #	ISA-X105	ISA-X106	MW-301H	MW-303H	MW-304S	MW-305H	MW-306S
		ISA-X105	ISA-X106	OU1-SS-SB301-0-1	OU1-SS-SB303-0-1	OU1-SS-SB304-0-1	OU1-SS-SB305-0-1	OU1-SS-SB306-0-1
		12/14/1993	12/14/1993	10/9/2007	10/11/2007	10/10/2007	10/18/2007	10/16/2007
		mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
		0 - 0.833'	0 - 0.833'	0 - 1'	0 - 1'	0 - 1'	0 - 1'	0 - 1'
Calcium	7440-70-2	**33,400**	**50,700**	**7,070**	**115,000**	**14,600**	**13,200**	**7,730 J**
Magnesium	7439-95-4	NM	NM	**5,910**	**4,580**	**991**	**3,590**	**2,970**
Potassium	7440-09-7	0.0 U*	0.0 U*	**330**	**15,900**	**892**	**3,170**	**2,340**
Sodium	7440-23-5	**1,190**	**790 J**	**437**	**370**	**507**	**1,260**	**126 J**
Sulfate	14808-79-8	NM	NM	NM	NM	NM	NM	NM

Analyte	CAS #	SB-302	SB-307	SB-308	SB-309	SB-316	SLP-415	SLP-415	SSI-X103
		OU1-SS-SB302-0-1	OU1-SS-SB307-0-1	OU1-SS-SB308-0-1	OU1-SS-SB309-0-1	OU1-SS-SB316-0-1	OU1-SS-SLP415S-0908	OU1-SS-SLP415T-0908	SSI-X103
		10/9/2007	10/24/2007	10/17/2007	10/17/2007	10/3/2007	8/13/2009	8/13/2009	11/21/1991
		mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
		0 - 1'	0 - 1'	0 - 1'	0 - 1'	0 - 1'	0'	0'	0 - 0.5'
Calcium	7440-70-2	**22,200**	**40,000**	**11,600**	**13,700**	**23,500**	**38,600**	**2,490**	**32,200**
Magnesium	7439-95-4	**1,110**	**20,500**	**3,680**	**627**	**5,270**	**607 J**	**862 J**	**1,220**
Potassium	7440-09-7	**3,620**	**845**	**1,420**	**727**	**2,160 J**	**1,390 J**	**650 J**	**5,090**
Sodium	7440-23-5	**1,690**	**399 J**	**564**	**520**	**242 J**	**335 J**	**464 J**	**916 J**
Sulfate	14808-79-8	NM	NM	NM	NM	NM	NM	NM	**274**

Analyte	CAS #	Location ID	Sample ID	Date	Units	Depth
		SSI-X104	SSI-X104	11/21/1991	mg/Kg	0 - 0.5'
Calcium	7440-70-2	**12,400**				
Magnesium	7439-95-4	**1,520**				
Potassium	7440-09-7	**1,380**				
Sodium	7440-23-5	**815 J**				
Sulfate	14808-79-8	**90**				

Notes:

1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
NM	Not Measured
*	Detection limit not available in data from others.

Table 4.1.2-26
Other Inorganics Results for Deep Soil Samples Collected from the Slag Pile
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Location ID Sample ID Date Units Depth	MW-301H OU1-SS-SB301-40-41 10/9/2007 mg/Kg 40 - 41'	MW-301H OU1-SS-SB301-44-50 10/9/2007 mg/Kg 44 - 50'	MW-303H OU1-SS-SB303-108-109 10/11/2007 mg/Kg 108 - 109'	MW-303H OU1-SS-SB303-85-86 10/11/2007 mg/Kg 85 - 86'	MW-303H OU1-SS-SB303-89-90 10/11/2007 mg/Kg 89 - 90'	MW-304S OU1-SS-SB304-58-59 10/10/2007 mg/Kg 58 - 59'	MW-304S OU1-SS-SB304-59-60 10/10/2007 mg/Kg 59 - 60'
Bicarbonate	71-52-3		NM	NM	NM	NM	NM	NM	NM
Calcium	7440-70-2		**26,900**	**45,300**	**142,000**	**1,180 J**	**15,600**	**28,500**	**216,000**
Carbonate	3812-32-6		NM	NM	NM	NM	NM	NM	NM
Magnesium	7439-95-4		**1,120**	**7,490**	**20,000**	1,260 U	**1,460**	**1,110**	**5,900**
Potassium	7440-09-7		**157 J**	**4,060**	**741**	**2,110 J**	**1,810**	**773**	**1,940**
Sodium	7440-23-5		**978**	**1,120**	**305**	**413 J**	**1,200**	**380**	**245**
Sulfate	14808-79-8		NM	NM	NM	NM	NM	NM	NM
Sulfide	18496-25-8		NM	NM	NM	NM	NM	NM	NM

Analyte	CAS #	Location ID Sample ID Date Units Depth	MW-305H OU1-SS-SB305-89-90 10/18/2007 mg/Kg 89 - 90'	MW-305H OU1-SS-SB305-90-91 10/18/2007 mg/Kg 90 - 91'	MW-306S OU1-SS-SB306-66-67 10/16/2007 mg/Kg 66 - 67'	MW-306S OU1-SS-SB306-67-68 10/16/2007 mg/Kg 67 - 68'	P-1 P-1 10/3/1994 mg/Kg 21'	P-1 P-1 10/3/1994 mg/Kg 80'	P-2 P-2 10/3/1994 mg/Kg 19'
Bicarbonate	71-52-3		NM	NM	NM	NM	**90.4**	**470**	**374**
Calcium	7440-70-2		**9,100**	**6,080**	**25,500 J**	**127,000 J**	NM	NM	NM
Carbonate	3812-32-6		NM	NM	NM	NM	**0.009**	**0.003**	**1.5**
Magnesium	7439-95-4		**2,090**	**5,870**	**715**	**5,350**	NM	NM	NM
Potassium	7440-09-7		**4,700**	**3,460**	**1,210**	**2,950**	NM	NM	NM
Sodium	7440-23-5		**696**	**614**	**1,880**	**457 J**	NM	NM	NM
Sulfate	14808-79-8		NM	NM	NM	NM	**23,200**	**19,800**	**5,990**
Sulfide	18496-25-8		NM	NM	NM	NM	24.0 U	21.3 U	22.8 U

Table 4.1.2-26
Other Inorganics Results for Deep Soil Samples Collected from the Slag Pile
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Location ID / Sample ID / Date / Units / Depth							
		P-2 / P-2 / 10/4/1994 / mg/Kg / 42'	P-2 / P-2 DP / 10/4/1994 / mg/Kg / 42'	P-15A / P-15A / 9/29/1994 / mg/Kg / 20'	P-17 / P-17 / 9/10/1994 / mg/Kg / 10'	P-17 / P-17 / 9/10/1994 / mg/Kg / 42'	P-18 / P-18 / 9/28/1994 / mg/Kg / 39'	P-19 / P-19 / 9/29/1994 / mg/Kg / 20'	P-19 / P-19 / 9/29/1994 / mg/Kg / 42'
Bicarbonate	71-52-3	**93.2**	**96**	**773**	**376**	**909**	**191**	**193**	**957**
Calcium	7440-70-2	NM	NM	NM	NM	NM	NM	NM	NM
Carbonate	3812-32-6	**0.001**	**0.001**	**7.3**	**11.2**	**17.5**	**0.52**	**0.052**	**0.73**
Magnesium	7439-95-4	NM	NM	NM	NM	NM	NM	NM	NM
Potassium	7440-09-7	NM	NM	NM	NM	NM	NM	NM	NM
Sodium	7440-23-5	NM	NM	NM	NM	NM	NM	NM	NM
Sulfate	14808-79-8	**12,500**	**12,100**	**176**	**289**	**774**	**3,080**	**3,580**	**3,990**
Sulfide	18496-25-8	**23**	23.4 U	**547**	20.9 U	**380**	21.6 U	**24**	**129**

Analyte	CAS #	Location ID / Sample ID / Date / Units / Depth							
		P-21 / P-21 / 9/30/1994 / mg/Kg / 21'	P-21 / P-21 / 9/30/1994 / mg/Kg / 41'	P-21 / P-21 / 9/30/1994 / mg/Kg / 60'	P-21 / P-21 / 10/3/1994 / mg/Kg / 2.5'	P-22 / P-22 / 10/4/1994 / mg/Kg / 41'	P-22 / P-22 / 10/5/1994 / mg/Kg / 106'	SB-309 / OU1-SS-SB309-18.25-19.25 / 10/17/2007 / mg/Kg / 18.25 - 19.25'	SB-309 / OU1-SS-SB309-28.25-29.25 / 10/17/2007 / mg/Kg / 28.25 - 29'
Bicarbonate	71-52-3	**479**	**183**	**185**	**191**	**1,050**	**2,610**	NM	NM
Calcium	7440-70-2	NM	NM	NM	NM	NM	NM	**17,800**	**40,600**
Carbonate	3812-32-6	**0.057**	**0.014**	**0.025**	**0.021**	**0.12**	**302**	NM	NM
Magnesium	7439-95-4	NM	NM	NM	NM	NM	NM	**871**	**2,540**
Potassium	7440-09-7	NM	NM	NM	NM	NM	NM	**808**	**945**
Sodium	7440-23-5	NM	NM	NM	NM	NM	NM	**614**	**391**
Sulfate	14808-79-8	**11,500**	**12,900**	**9,300**	**3,100**	**6,120**	**472**	NM	NM
Sulfide	18496-25-8	**78**	**13**	**23.9**	23.0 U	**20.8**	22.4 U	NM	NM

Table 4.1.2-26
Other Inorganics Results for Deep Soil Samples Collected from the Slag Pile
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Location ID / Sample ID / Date / Units / Depth					
		SB-302 / OU1-SS-SB302-10.5-11 / 10/9/2007 / mg/Kg / 10.5 - 11.5'	SB-302 / OU1-SS-SB302-12-13 / 10/9/2007 / mg/Kg / 12 - 13'	SB-307 / OU1-SS-SB307-7-8 / 10/24/2007 / mg/Kg / 7 - 8'	SB-307 / OU1-SS-SB307-8-9 / 10/24/2007 / mg/Kg / 8 - 9'	SB-308 / OU1-SS-SB308-26.5-27.5 / 10/17/2007 / mg/Kg / 26.5 - 27'	SB-308 / OU1-SS-SB308-36.5-37.5 / 10/17/2007 / mg/Kg / 36.5 - 37'
Bicarbonate	71-52-3	NM	NM	NM	NM	NM	NM
Calcium	7440-70-2	**15,800**	**121,000**	**6,130**	**7,550**	**11,200**	**49,900**
Carbonate	3812-32-6	NM	NM	NM	NM	NM	NM
Magnesium	7439-95-4	**3,530**	**66,600**	**634**	**1,040**	**1,890**	**16,100**
Potassium	7440-09-7	**1,790**	**830**	**726**	**1,430**	**742**	**828 J**
Sodium	7440-23-5	**172**	**140**	**338 J**	**367 J**	**326**	**514 J**
Sulfate	14808-79-8	NM	NM	NM	NM	NM	NM
Sulfide	18496-25-8	NM	NM	NM	NM	NM	NM

Analyte	CAS #	Location ID / Sample ID / Date / Units / Depth	
		SB-309 / OU1-SS-SB309-48-49 / 10/17/2007 / mg/Kg / 48 - 49'	SB-316 / OU1-SS-SB316-2-4 / 10/3/2007 / mg/Kg / 2 - 4'
Bicarbonate	71-52-3	NM	NM
Calcium	7440-70-2	**122,000**	**71,300**
Carbonate	3812-32-6	NM	NM
Magnesium	7439-95-4	**17,600**	**25,400**
Potassium	7440-09-7	**1,120**	**1,530 J**
Sodium	7440-23-5	**228**	**196 J**
Sulfate	14808-79-8	NM	NM
Sulfide	18496-25-8	NM	NM

Notes:

1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
NM	Not Measured

Table 4.1.3-1
Summary of Historical Analyses Conducted on Groundwater Samples
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Investigation Area	Sample Name	Location ID	Sample Date	Total or Dissolved	Analytical Group				
					TAL Metals (1)	SVOCs	VOCs	PCBs	Pesticides
Plant Area	G-02	G-02	11/15/1993	D	X (2)				
Plant Area	G-02	G-02	11/15/1993	T	X	X	X	X	X
Plant Area	G-05	G-05	11/15/1993	D	X				
Plant Area	G-05	G-05	11/15/1993	T	X				
Plant Area	G101	G-101	11/1/1991	T	X	X	X	X	X
Plant Area	G101	G-101	10/1/1992	T	X				
Plant Area	G101	G-101	11/15/1993	D	X				
Plant Area	G101	G-101	11/15/1993	T	X				
Plant Area	G103	G-103	11/1/1991	T	X	X	X	X	X
Plant Area	G103	G-103	10/1/1992	T	X				
Plant Area	G103	G-103	11/15/1993	D	X				
Plant Area	G103	G-103	11/15/1993	T	X				
Plant Area	G106	G-106	11/1/1991	T	X	X	X	X	X
Plant Area	G106	G-106	10/1/1992	T	X				
Plant Area	G106	G-106	11/16/1993	D	X				
Plant Area	G106	G-106	11/16/1993	T	X				
Plant Area	OU1-GW-G-02-0712	G-02	12/5/2007	T	X				
Plant Area	OU1-GW-G-101-0712	G-101	12/5/2007	T	X	X			
Plant Area	OU1-GW-G-101-0712	G-101	12/6/2007	D	X				
Plant Area	OU1-GW-G-103-0712	G-103	12/3/2007	T	X	X	X		
Plant Area	OU1-GW-G-106-0712	G-106	12/4/2007	D	X				
Plant Area	OU1-GW-G-106-0712	G-106	12/4/2007	T	X	X	X		
Plant Area	OU1-GW-MW404-0712	MW-A	12/5/2007	T	X	X	X		
Plant Area	OU1-GW-MW-A-0712	MW-A	12/5/2007	D	X				
Plant Area	OU1-GW-MW-A-0712	MW-A	12/5/2007	T	X	X	X		
Slag Pile Area	MW-1	MW-1	10/1/1992	T	X				
Slag Pile Area	MW-1	MW-1	11/16/1993	D	X				
Slag Pile Area	MW-1	MW-1	11/16/1993	T	X	X	X	X	X
Slag Pile Area	MW-1	MW-1	11/5/1994	T	X				
Slag Pile Area	MW-1-Dup	MW-1	11/5/1994	T	X				
Slag Pile Area	MW-2	MW-2	10/1/1992	T	X				
Slag Pile Area	MW-2	MW-2	11/16/1993	D	X				
Slag Pile Area	MW-2	MW-2	11/16/1993	T	X				
Slag Pile Area	MW-2	MW-2	11/9/1994	T	X				
Slag Pile Area	OU1-GW-ISW001-0906	ISW-001	6/19/2009	D	X				
Slag Pile Area	OU1-GW-ISW001-0906	ISW-001	6/19/2009	T	X				
Slag Pile Area	OU1-GW-ISW001-0908	ISW-001	8/19/2009	D	X				
Slag Pile Area	OU1-GW-ISW001-0908	ISW-001	8/19/2009	T	X				
Slag Pile Area	OU1-GW-ISW002-0906	ISW-002	6/19/2009	D	X				
Slag Pile Area	OU1-GW-ISW002-0906	ISW-002	6/19/2009	T	X				
Slag Pile Area	OU1-GW-ISW002-0908	ISW-002	8/20/2009	D	X				
Slag Pile Area	OU1-GW-ISW002-0908	ISW-002	8/20/2009	T	X				
Slag Pile Area	OU1-GW-MW2-0801	MW-2	1/14/2008	D	X				
Slag Pile Area	OU1-GW-MW2-0801	MW-2	1/14/2008	T	X	X	X		
Slag Pile Area	OU1-GW-MW-303H-0712	MW-303H	12/4/2007	D	X				
Slag Pile Area	OU1-GW-MW-303H-0712	MW-303H	12/4/2007	T	X				
Slag Pile Area	OU1-GW-MW-305H-0712	MW-305H	12/4/2007	D	X				
Slag Pile Area	OU1-GW-MW-305H-0712	MW-305H	12/4/2007	T	X				
Slag Pile Area	OU1-GW-MW-321-H	MW-321H	1/15/2008	T	X				
Slag Pile Area	OU1-GW-MW-322-H	MW-322H	1/15/2008	T	X	X	X		
Slag Pile Area	OU1-GW-P-17	P-17	1/15/2008	T	X				
Slag Pile Area	OU1-GW-P-18	P-18	1/14/2008	T	X				
Slag Pile Area	P-1	P-1	11/10/1994	T	X				
Slag Pile Area	OU1-GW-P-7-0712	P-7	12/6/2007	T	X				
Slag Pile Area	OU1-GW-P-9-0712	P-9	12/6/2007	T	X				
Slag Pile Area	P-6	P-6	11/8/1994	T	X	X	X		
Slag Pile Area	P-6	P-6	11/9/1994	T	X				
Slag Pile Area	P-7	P-7	11/7/1994	T	X				
Slag Pile Area	P-9	P-9	11/7/1994	T	X				
Slag Pile Area	P-15	P-15	11/10/1994	T	X				
Slag Pile Area	P-17	P-17	11/9/1994	T	X				
Slag Pile Area	P-18	P-18	11/10/1994	T	X				
Slag Pile Area	P-18-DUP	P-18	11/10/1994	D	X				
Slag Pile Area	P-19	P-19	11/10/1994	T	X				

Notes:
(1) TAL = Target Analyte List includes filtered and unfiltered metals for (including mercury and cyanide) as per the US EPA Contract Laboratory Program Scope of Work.
(2) X signifies that the parameter shown was analyzed at the location shown.

Table 4.1.3-2
Summary of Analytical Data for Groundwater Samples from the Plant Area that Exceeded Screening Values
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	Number of Samples Above Tap Water RSL	Number of Samples Above MCL	Total Number of Samples	Number of Wells with Samples Above Tap Water RSL	Number of Wells with Samples Above MCL	Total Number of Wells	Minimum Concentration (µg/L)	Maximum Concentration (µg/L)
Inorganic COIs								
Aluminum	3	NS	22	3	NS	6	100 U	123,000
Arsenic	18	1	25	6	1	6	0.52 U	21.1
Barium	0	2	25	0	1	6	100 U	2,530
Beryllium	0	2	22	0	2	6	0.48 U	13.0
Cadmium	10	13	25	5	5	6	0.21 U	82.4
Chromium	NS	4	25	NS	3	6	1.1 U	417
Cobalt	10	NS	22	5	NS	6	5.0 U	74.0
Iron	3	NS	22	3	NS	6	21.6 U	208,000
Lead	NS	7	25	NS	4	6	0.60 U	2,180
Manganese	16	NS	22	6	NS	6	1.1 J	14,400
Mercury	2	1	25	2	1	6	0.028 U	12.9
Vanadium	1	NS	22	1	NS	6	1.0 U	253
Zinc	6	NS	22	2	NS	6	6.4	17,100
SVOCs								
bis(2-Ethylhexyl) phthalate	1	1	9	1	1	5	10.0 U	7.0 J
VOCs								
1,2-Dichloroethane	1	0	8	1	0	5	1.0 U	1.6
Vinyl chloride	1	0	8	1	0	5	1.0 U	0.55 J

Notes:
RSL = Regional Screening Level
MCL = Maximum Contaminant Level
NS = No applicable standard

Table 4.1.3-3
Metals and Cyanide Results for Groundwater Samples Collected from the Plant Area
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Tap Water RSL (µg/L)	MCL (µg/L)	Location ID / Sample ID / Date / Units / Total or Dissolved											
				G-02 G-02 11/15/1993 µg/L D	G-02 G-02 11/15/1993 µg/L T	G-02 OU1-GW-G-02-0712 12/5/2007 µg/L T	G-05 G-05 11/15/1993 µg/L D	G-05 G-05 11/15/1993 µg/L T	G-101 G101 10/1/1992 µg/L T	G-101 G101 11/1/1991 µg/L T	G-101 G101 11/15/1993 µg/L D	G-101 G101 11/15/1993 µg/L T	G-101 OU1-GW-G-101-0712 12/5/2007 µg/L T	G-103 G103 10/1/1992 µg/L T	G-103 G103 11/1/1991 µg/L T
Aluminum	7429-90-5	37,000	NS	100 U	**996**	**1,430**	100 U	**6,310**	NM	**48,300**	100 U	100 U	**260**	NM	**123,000**
Arsenic	7440-38-2	0.045	10	**1.3**	1.0 U	**1.1 J**	**2.6 J**	**5.5 J**	**3**	**21.1**	**2.0 J**	**1.2 J**	0.52 U	**3**	**7.1 J**
Barium	7440-39-3	7,300	2,000	**39.8**	**55.2**	**37.6**	**47.8 J**	**134**	100 U	**362**	**17.8 J**	**18.2 J**	**32.9**	**2,180**	**2,530**
Beryllium	7440-41-7	73	4	1.0 U	1.0 U	0.48 U	1.0 U	1.0 U	NM	**2.0 J**	1.0 U	1.0 U	0.48 U	NM	**13**
Cadmium	7440-43-9	18	5	4.0 U	4.0 U	**2.1 J**	**5.3**	**25.5**	5.0 U	**37**	4.0 U	4.0 U	0.21 U	**12**	**19**
Chromium	7440-47-3	NS	100**	5.0 U	**5.7**	**417**	5.0 U	**7.7 J**	**13**	**57**	5.0 U	5.0 U	**1.5 J**	**163**	**248**
Cobalt	7440-48-4	11	NS	**20.3**	**19**	**22.6**	**13.9 J**	**22.4 J**	NM	**47.0 J**	5.0 U	5.0 U	**2.0 J**	NM	**71.1**
Copper	7440-50-8	1,500	1,300	**77**	**31.1**	**13.7**	5.0 U	**94**	NM	**100**	**9.9 J**	**13.4**	**6.7**	NM	**249**
Iron	7439-89-6	26,000	NS	75.0 U	**838**	**2,450**	**597**	**11,200**	NM	**33,800**	75.0 U	75.0 U	**151**	NM	**208,000**
Lead	7439-92-1	NS	15	**2**	**5.8**	**2.4 J**	**291**	**2,180**	**38**	**614**	**11.3**	**11**	**0.74 J**	**45**	20.0 U
Manganese	7439-96-5	880	NS	**4,370**	**3,830**	**5,690**	**3,150**	**3,240**	NM	**3,700**	**23.7**	**26.3**	**6.8 J**	NM	**14,400**
Mercury	7439-97-6	0.57	2	0.20 U	0.20 U	0.028 U	0.20 U	**12.9**	0.20 U	**1.6**	0.20 U	0.20 U	0.028 U	0.20 U	0.20 U
Nickel	7440-02-0	730	NS	**38.7**	**41.3**	**385**	**13.6 J**	**38**	NM	**75**	**11.0 J**	**13.6 J**	**18.7**	NM	**207**
Selenium	7782-49-2	180	50	5.0 U	5.0 U	0.74 U	5.0 U	5.0 U	2.0 U	20.0 U	5.0 U	5.0 U	0.74 U	2.0 U	20.0 U
Silver	7440-22-4	180	NS	5.0 U	5.0 U	**6.7 J**	5.0 U	5.0 U	10.0 U	9.0 U	5.0 U	5.0 U	3.7 U	**33**	9.0 U
Vanadium	7440-62-2	180	NS	5.0 U	5.0 U	1.0 U	5.0 U	**15.0 J**	NM	**62**	5.0 U	5.0 U	1.0 U	NM	**253**
Zinc	7440-66-6	11,000	NS	**538**	**305**	**1,010**	**3,280**	**6.4**	NM	**3,320**	**216**	**229**	**19.9 J**	NM	**3,640**

Analyte	CAS #	Tap Water RSL (µg/L)	MCL (µg/L)	Location ID / Sample ID / Date / Units / Total or Dissolved									
				G-103 G103 11/15/1993 µg/L D	G-103 G103 11/15/1993 µg/L T	G-106 G106 10/1/1992 µg/L T	G-106 G106 11/1/1991 µg/L T	G-106 G106 11/16/1993 µg/L D	G-106 G106 11/16/1993 µg/L T	G-101 OU1-GW-G-101-0712 12/6/2007 µg/L D	G-103 OU1-GW-G-103-0712 12/3/2007 µg/L T	G-106 OU1-GW-G-106-0712 12/4/2007 µg/L D	G-106 OU1-GW-G-106-0712 12/4/2007 µg/L T
Aluminum	7429-90-5	37,000	NS	100 U	100 U	NM	**55,000**	100 U	100 U	36.4 U	100 U	100 U	100 U
Arsenic	7440-38-2	0.045	10	**3**	**1**	**6**	**8.4 J**	**7.6**	**2.5**	**1.9 J**	5.0 U	5.0 U	5.0 U
Barium	7440-39-3	7,300	2,000	**18.6**	**23.7**	**320**	**384**	**22.3**	**17.2**	**33.1**	**27.3**	**20.1**	**20.4**
Beryllium	7440-41-7	73	4	1.0 U	1.0 U	NM	**5.0 J**	1.0 U	1.0 U	0.48 U	5.0 U	5.0 U	5.0 U
Cadmium	7440-43-9	18	5	4.0 U	4.0 U	**46**	**35**	4.0 U	**5.6**	0.21 U	5.0 U	**45.7**	**47.9**
Chromium	7440-47-3	NS	100**	5.0 U	5.0 U	**65**	**121**	5.0 U	5.0 U	**1.2 J**	15.0 U	15.0 U	15.0 U
Cobalt	7440-48-4	11	NS	5.0 U	5.0 U	NM	**74**	**16.1**	**12.4**	**2.1 J**	5.0 U	**8.2**	**8.6**
Copper	7440-50-8	1,500	1,300	5.0 U	5.0 U	NM	**385**	5.0 U	5.0 U	**6.3**	5.0 U	**5.6**	5.0 U
Iron	7439-89-6	26,000	NS	75.0 U	75.0 U	NM	**84,600**	**3,210**	**3,050**	21.6 U	**288**	**947**	**889**
Lead	7439-92-1	NS	15	**3.2**	5.0 U	**130**	**605**	5.2 U	**9.6**	0.60 U	5.0 U	5.0 U	5.0 U
Manganese	7439-96-5	880	NS	**460**	**433**	NM	**9,110**	**6,550**	**6,240**	**1.1 J**	**1,900**	**1,960**	**1,890**
Mercury	7439-97-6	0.57	2	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.028 U	0.20 U	0.20 U	0.20 U
Nickel	7440-02-0	730	NS	**10.8**	**12**	NM	**116**	**22.5**	**22.2**	**21.3**	**25.2**	**63**	**62.3**
Selenium	7782-49-2	180	50	5.0 U	5.0 U	2.0 U	20.0 U	5.0 U	5.0 U	**6.2**	5.0 U	5.0 U	5.0 U
Silver	7440-22-4	180	NS	5.0 U	5.0 U	**55**	9.0 U	5.0 U	5.0 U	3.7 U	10.0 U	10.0 U	10.0 U
Vanadium	7440-62-2	180	NS	5.0 U	5.0 U	NM	**19.0 J**	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U
Zinc	7440-66-6	11,000	NS	**180**	**175**	NM	**17,100**	**11,000**	**10,200**	**10.7 J**	**180**	**15,300**	**14,300**

Table 4.1.3-3
Metals and Cyanide Results for Groundwater Samples Collected from the Plant Area
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Tap Water RSL (µg/L)	MCL (µg/L)	Location ID: MW-A1-GW-MW404-0712	MW-A1-GW-MW-A-0712	MW-A1-GW-MW-A-0712
				Sample ID: MW-A1-GW-MW404-0712	MW-A1-GW-MW-A-0712	MW-A1-GW-MW-A-0712
				Date: 12/5/2007	12/5/2007	12/5/2007
				Units: µg/L	µg/L	µg/L
				Total or Dissolved: T	D	T
Aluminum	7429-90-5	37,000	NS	36.4 U	36.4 U	36.4 U
Arsenic	7440-38-2	0.045	10	0.52 U	**1.3 J**	0.52 U
Barium	7440-39-3	7,300	2,000	**15.4**	**15.3**	**15.5**
Beryllium	7440-41-7	73	4	0.48 U	0.48 U	0.48 U
Cadmium	7440-43-9	18	5	**81.8**	**82.4**	**81.5**
Chromium	7440-47-3	NS	100**	1.1 U	1.1 U	1.1 U
Cobalt	7440-48-4	11	NS	**4.7 J**	**4.7 J**	**4.5 J**
Copper	7440-50-8	1,500	1,300	**6.4**	**6.5**	**6.3**
Iron	7439-89-6	26,000	NS	**1,510**	**1,500**	**1,530**
Lead	7439-92-1	NS	15	0.60 U	0.60 U	0.60 U
Manganese	7439-96-5	880	NS	**4,550**	**4,540**	**4,470**
Mercury	7439-97-6	0.57	2	0.028 U	0.028 U	0.028 U
Nickel	7440-02-0	730	NS	**84.9**	**97.4**	**80.6**
Selenium	7782-49-2	180	50	**1.6 J**	**6.2**	**1.2 J**
Silver	7440-22-4	180	NS	**7.8 J**	**7.8 J**	**8.6 J**
Vanadium	7440-62-2	180	NS	1.0 U	1.0 U	1.0 U
Zinc	7440-66-6	11,000	NS	**16,300**	**16,100**	**16,200**

Notes:

	Exceedance of Tap Water RSL and/or MCL
1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
NM	Not Measured
NS	No applicable standard
T	Total
D	Dissolved
**	Screening value for total chromium is based on April 2009 US EPA RSL.
++	Screening value for thallium is based on April 2009 US EPA RSL.

Table 4.1.3-4
VOC Results for Groundwater Samples Collected from the Plant Area
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Tap Water RSL (µg/L)	Location ID Sample ID Date Units MCL (µg/L)	G-02 G-02 11/15/1993 µg/L	G-101 G101 11/1/1991 µg/L	G-103 G103 11/1/1991 µg/L	G-103 OU1-GW-G-103-0712 12/3/2007 µg/L	G-106 OU1-GW-G-106-0712 12/4/2007 µg/L	G-106 G106 11/1/1991 µg/L	MW-A OU1-GW-MW404-0712 12/5/2007 µg/L	MW-A OU1-GW-MW-A-0712 12/5/2007 µg/L
1,2-Dichloroethane	107-06-2	0.15	5	10.0 U	10.0 U	10.0 U	**1.6**	1.0 U	10.0 U	1.0 U	1.0 U
Dichloromethane (Methylene chloride)	75-09-2	4.8	5	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	10.0 U	**0.26 J**	**0.24 J**
Trichloroethene	79-01-6	2	5	10.0 U	10.0 U	10.0 U	**0.65 J**	1.0 U	10.0 U	1.0 U	1.0 U
Vinyl chloride	75-01-4	0.016	2	10.0 U	10.0 U	10.0 U	**0.55 J**	1.0 U	10.0 U	1.0 U	1.0 U

Notes:

	Exceedance of Tap Water RSL
1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

Table 4.1.3-5
SVOC Results for Groundwater Samples Collected from the Plant Area
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Tap Water RSL (µg/L)	MCL (µg/L)	Location ID Sample ID Date Units	G-02 G-02 11/15/1993 µg/L	G-101 G101 11/1/1991 µg/L	G-101 OU1-GW-G-101-0712 12/5/2007 µg/L	G-103 G103 11/1/1991 µg/L	G-103 OU1-GW-G-103-0712 12/3/2007 µg/L	G-106 G106 11/1/1991 µg/L	G-106 OU1-GW-G-106-0712 12/4/2007 µg/L	MW-A OU1-GW-MW404-0712 12/5/2007 µg/L
bis(2-Ethylhexyl) phthalate	117-81-7	4.8	6		10.0 U	10.0 U	10.0 U	10.0 U	9.5 U	**7.0 J**	9.4 U	9.4 U

Analyte	CAS #	Tap Water RSL (µg/L)	MCL (µg/L)	Location ID Sample ID Date Units	MW-A OU1-GW-MW-A-0712 12/5/2007 µg/L
bis(2-Ethylhexyl) phthalate	117-81-7	4.8	6		9.4 U

Notes:

	Exceedance of MCL and Tap Water RSL
1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

Table 4.1.3-6
Other Inorganics Results for Groundwater Samples Collected from the Plant Area
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Location ID / Sample ID / Date / Units / Total or Dissolved	G-02 / G-02 / 11/15/1993 / µg/L / D	G-02 / G-02 / 11/15/1993 / µg/L / T	G-02 / OU1-GW-G-02-0712 / 12/5/2007 / µg/L / T	G-05 / G-05 / 11/15/1993 / µg/L / D	G-05 / G-05 / 11/15/1993 / µg/L / T	G-101 / G101 / 11/1/1991 / µg/L / T	G-101 / G101 / 11/15/1993 / µg/L / D	G-101 / G101 / 11/15/1993 / µg/L / T
Calcium	7440-70-2		**461,000**	**437,000**	**577,000**	**274,000**	**260,000**	**303 J**	**226,000**	**204,000**
Magnesium	7439-95-4		**95,900**	**103,000**	**99,900**	**138,000**	**132,000**	**119,000**	**119,000**	**111,000**
Potassium	7440-09-7		**10,600**	**12,800**	**14,600**	**77,300**	**77,300 J**	**33,800**	**8,640**	**8,160**
Sodium	7440-23-5		**104,000**	**115,000**	**164,000**	**153,000**	**151,000**	**278,000**	**215,000**	**215,000**
Sulfate	14808-79-8		NM	**1,300,000**	NM	NM	**885,000**	**1,060,000**	NM	**610,000**

Analyte	CAS #	Location ID / Sample ID / Date / Units / Total or Dissolved	G-103 / G103 / 11/1/1991 / µg/L / T	G-103 / G103 / 11/15/1993 / µg/L / D	G-103 / G103 / 11/15/1993 / µg/L / T	G-103 / OU1-GW-G-103-0712 / 12/3/2007 / µg/L / T	G-106 / G106 / 11/1/1991 / µg/L / T	G-106 / G106 / 11/16/1993 / µg/L / D	G-106 / G106 / 11/16/1993 / µg/L / T	G-106 / OU1-GW-G-106-0712 / 12/4/2007 / µg/L / D
Calcium	7440-70-2		**655,000**	**326,000**	**292,000**	**466,000**	**654,000**	**596,000**	**578,000**	**715,000**
Magnesium	7439-95-4		**195,000**	**146,000**	**136,000**	**141,000**	**120,000**	**68,000**	**64,200**	**75,400**
Potassium	7440-09-7		**46,100**	**2,550**	**2,420**	**3,610**	**133,000**	**83,300**	**80,200**	**89,300**
Sodium	7440-23-5		**2,000,000**	**124,000**	**125,000**	**252,000**	**215,000**	**132,000**	**12,900**	**372,000**
Sulfate	14808-79-8		**1,680,000**	NM	**908,000**	NM	**2,080,000**	NM	**1,520,000**	NM

Table 4.1.3-6
Other Inorganics Results for Groundwater Samples Collected from the Plant Area
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	Location ID Sample ID Date Units Total or Dissolved CAS #	G-101 OU1-GW-G-101-0712 12/5/2007 µg/L T	G-101 OU1-GW-G-101-0712 12/5/2007 µg/L D	MW-A OU1-GW-MW404-0712 12/5/2007 µg/L T	MW-A OU1-GW-MW-A-0712 12/5/2007 µg/L D	MW-A OU1-GW-MW-A-0712 12/5/2007 µg/L T
Calcium	7440-70-2	**250,000**	**253,000**	**720,000**	**719,000**	**719,000**
Magnesium	7439-95-4	**132,000**	**135,000**	**81,000**	**81,200**	**80,100**
Potassium	7440-09-7	**13,900**	**14,000**	**114,000**	**113,000**	**111,000**
Sodium	7440-23-5	**272,000**	**275,000**	**417,000**	**412,000**	**423,000**
Sulfate	14808-79-8	NM	NM	NM	NM	NM

Analyte	Location ID Sample ID Date Units Total or Dissolved CAS #	G-106 OU1-GW-G-106-0712 12/4/2007 µg/L T
Calcium	7440-70-2	**663,000**
Magnesium	7439-95-4	**72,000**
Potassium	7440-09-7	**86,700**
Sodium	7440-23-5	**362,000**
Sulfate	14808-79-8	NM

Notes:

1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
NM	Not Measured
T	Total
D	Dissolved

Table 4.1.3-7
Summary of Analytical Data for Groundwater Samples from the Slag Pile Area that Exceeded Screening Values
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	Number of Samples Above Tap Water RSL	Number of Samples Above MCL	Total Number of Samples	Number of Wells with Samples Above Tap Water RSL	Number of Wells with Samples Above MCL	Total Number of Wells	Minimum Concentration (µg/L)	Maximum Concentration (µg/L)
Inorganic COIs								
Arsenic	22	6	27	10	3	16	1.0 U	57.2
Cadmium	6	15	39	5	8	16	0.33 U	2,220
Cobalt	14	NS	24	7	NS	16	5.0 U	124
Copper	1	1	24	1	1	16	1.0 U	3,120
Iron	5	NS	37	2	NS	16	50.0 U	137,000
Lead	NS	10	39	NS	5	16	0.26 U	303
Manganese	34	NS	37	16	NS	16	106	25,300
Mercury	1	1	39	1	1	16	0.019 U	2.1
Nickel	1	NS	37	1	NS	16	20.0 U	1,090
Zinc	8	NS	37	6	NS	16	20.0 U	831,000

Notes:
RSL = Regional Screening Level
MCL = Maximum Contaminant Level
NS = No applicable standard

Table 4.1.3-8
Inorganic COI Results for Groundwater Samples Collected from the Slag Pile
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Tap Water RSL (µg/L)	Location ID Sample ID Date Units Total or Dissolved MCL (µg/L)	MW-1 MW-1 10/1/1992 µg/L T	MW-1 MW-1 11/16/1993 µg/L D	MW-1 MW-1 11/16/1993 µg/L T	MW-1 MW-1 11/5/1994 µg/L T	MW-1 MW-1-Dup 11/5/1994 µg/L T	MW-2 MW-2 10/1/1992 µg/L T	MW-2 MW-2 11/16/1993 µg/L D	MW-2 MW-2 11/16/1993 µg/L T	MW-2 MW-2 11/9/1994 µg/L T
Aluminum	7429-90-5	37,000	NS	NM	**479**	**3,740**	NM	NM	NM	**780**	**25,800**	NM
Antimony	7440-36-0	15	6	NM	25.0 U	25.0 U	NM	NM	NM	25.0 U	25.0 U	NM
Arsenic	7440-38-2	0.045	10	**3**	**5.6**	**9**	NM	NM	**19**	**7.1**	**22.1**	NM
Barium	7440-39-3	7,300	2,000	**350**	**41.7**	**85.1**	**24.3 J**	**24.2 J**	**480**	**28**	**1,080**	**33.8 J**
Beryllium	7440-41-7	73	4	NM	1.0 U	1.0 U	NM	NM	NM	1.0 U	**3.7**	NM
Cadmium	7440-43-9	18	5	**15**	**12.1**	**28.9**	**13.9**	**12.5**	**11**	4.0 U	**51**	3.0 U
Chromium	7440-47-3	NS	100**	**22**	5.0 U	5.0 U	5.0 U	5.0 U	**79**	5.0 U	**76.7**	5.0 U
Cobalt	7440-48-4	11	NS	NM	**8.2**	**8.2**	NM	NM	NM	**29.6**	**101**	NM
Copper	7440-50-8	1,500	1,300	NM	5.0 U	**21.7**	NM	NM	NM	**7**	**3,120**	NM
Cyanide	57-12-5	730	200	NM	NM	6.2 U	**8.5**	6.2 U	NM	NM	5.0 U	**7**
Iron	7439-89-6	26,000	NS	NM	**1,160**	**7,280**	**3,910**	**4,450**	NM	**3,910**	**137,000**	**5,900**
Lead	7439-92-1	NS	15	**22**	**10.8**	**31.3**	5.0 U	5.0 U	**110**	**24.5**	**303**	5.0 U
Manganese	7439-96-5	880	NS	NM	**7,700**	**6,580**	**9,800**	**10,800**	NM	**4,020**	**16,900**	**2,650**
Mercury	7439-97-6	0.57	2	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	**2.1**	0.20 U
Nickel	7440-02-0	730	NS	NM	**14.9**	**30.1**	**47.1**	**29.0 J**	NM	**14.7**	**212**	**37.7 J**
Selenium	7782-49-2	180	50	**2**	5.0 U	5.0 U	NM	NM	**2**	5.0 U	5.0 U	NM
Silver	7440-22-4	180	NS	**18**	5.0 U	5.0 U	NM	NM	**38**	5.0 U	5.0 U	NM
Thallium	7440-28-0	2.4[++]	2	NM	1.0 U	1.0 U	NM	NM	NM	1.0 U	**1.3**	NM
Vanadium	7440-62-2	180	NS	NM	**6.8**	**15.9**	NM	NM	NM	5.0 U	**155**	NM
Zinc	7440-66-6	11,000	NS	NM	**5,090**	**7,200**	**8,370**	**8,280**	NM	**2,270**	**26,400**	**1,130**

Analyte	CAS #	Tap Water RSL (µg/L)	Location ID Sample ID Date Units Total or Dissolved MCL (µg/L)	MW-303H OU1-GW-MW-303H-0712 12/4/2007 µg/L T	MW-305H OU1-GW-MW-305H-0712 12/4/2007 µg/L D	MW-305H OU1-GW-MW-305H-0712 12/4/2007 µg/L T	MW-321H OU1-GW-MW-321-H 1/15/2008 µg/L T	MW-322H OU1-GW-MW-322-H 1/15/2008 µg/L T	P-17 OU1-GW-P-17 1/15/2008 µg/L T	P-18 OU1-GW-P-18 1/14/2008 µg/L T	P-1 P-1 11/10/1994 µg/L T	P-6 P-6 11/8/1994 µg/L T
Aluminum	7429-90-5	37,000	NS	100 U	**268**	100 U	**234**	**385**	**131**	100 U	NM	NM
Antimony	7440-36-0	15	6	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NM	NM
Arsenic	7440-38-2	0.045	10	5.0 U	5.0 U	5.0 U	**3.8**	**5.6**	**8.7**	**2.8**	NM	1.0 U
Barium	7440-39-3	7,300	2,000	**53.5**	**40.6**	**30.2**	**31.1**	**26**	**31.4**	**37.2**	**6.8 J**	**47.8 J**
Beryllium	7440-41-7	73	4	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NM	NM
Cadmium	7440-43-9	18	5	5.0 U	5.0 U	5.0 U	1.0 U	**3.5**	1.0 U	**1.4**	**2,220**	**3.0 J**
Chromium	7440-47-3	NS	100**	15.0 U	15.0 U	15.0 U	3.0 U	3.0 U	3.0 U	3.0 U	**6.6 J**	5.0 U
Cobalt	7440-48-4	11	NS	5.0 U	**5.5**	5.0 U	**7.1**	**51**	**33**	**1.1**	NM	NM
Copper	7440-50-8	1,500	1,300	5.0 U	5.0 U	5.0 U	**6.6**	**3.5**	**5**	**1.8**	NM	NM
Cyanide	57-12-5	730	200	NM	NM	NM	NM	10.0 U	NM	NM	5.0 U	5.0 U
Iron	7439-89-6	26,000	NS	**1,370**	**3,500**	**2,340**	**3,250**	**15,500**	**6,660**	**1,920**	**1,480**	**1,290**
Lead	7439-92-1	NS	15	5.0 U	5.0 U	5.0 U	**1.8**	**9.4**	**11.3**	1.0 U	5.0 U	5.0 U
Manganese	7439-96-5	880	NS	**4,000**	**5,450**	**5,220**	**8,390**	**6,600**	**2,260**	**106**	**12,400**	**25,300**
Mercury	7439-97-6	0.57	2	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	**0.25**	0.20 U
Nickel	7440-02-0	730	NS	**18.4**	**16.7**	**16.2**	**19.4**	**134**	**61.5**	**8.6**	**1,090**	**31.9 J**
Selenium	7782-49-2	180	50	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	NM	5.0 U
Silver	7440-22-4	180	NS	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	NM	NM
Thallium	7440-28-0	2.4[++]	2	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NM	NM
Vanadium	7440-62-2	180	NS	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NM	NM
Zinc	7440-66-6	11,000	NS	20.0 U	**97.1**	**61.5**	**62.4**	**34,500**	**2,670**	**3,120**	**831,000**	**921**

Table 4.1.3-8
Inorganic COI Results for Groundwater Samples Collected from the Slag Pile
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Tap Water RSL (µg/L)	MCL (µg/L)	Location ID Sample ID Date Units Total or Dissolved	ISW-001 OU1-GW-ISW001-0906 6/19/2009 µg/L D	ISW-001 OU1-GW-ISW001-0906 6/19/2009 µg/L T	ISW-001 OU1-GW-ISW001-0908 8/19/2009 µg/L D	ISW-001 OU1-GW-ISW001-0908 8/19/2009 µg/L T	ISW-002 OU1-GW-ISW002-0906 6/19/2009 µg/L D	ISW-002 OU1-GW-ISW002-0906 6/19/2009 µg/L T	ISW-002 OU1-GW-ISW002-0908 8/20/2009 µg/L D
Aluminum	7429-90-5	37,000	NS		100 U	**1,150**	14.9 U	**1,340**	100 U	100 U	14.9 U
Antimony	7440-36-0	15	6		60.0 U	60.0 U	0.93 U	60.0 U	60.0 U	60.0 U	0.93 U
Arsenic	7440-38-2	0.045	10		**6.7**	**10.9**	**7.4 J**	**13.7**	**9.9**	**9.9**	**12.1**
Barium	7440-39-3	7,300	2,000		**123**	**135**	**157**	**174**	**23.7**	**23.9**	**25.3**
Beryllium	7440-41-7	73	4		1.0 U	1.0 U	0.14 U	0.14 U	1.0 U	1.0 U	0.14 U
Cadmium	7440-43-9	18	5		1.0 U	**13.3**	0.33 U	**15.9**	1.0 U	1.0 U	0.33 U
Chromium	7440-47-3	NS	100**		2.0 U	**5**	1.8 U	**4.9 J**	2.0 U	**7.4**	1.8 U
Cobalt	7440-48-4	11	NS		**16.1**	**16.4**	**5.1 J**	**8.5 J**	**124**	**123**	**69.3**
Copper	7440-50-8	1,500	1,300		**1.3**	**101**	**1.9 J**	**121**	1.0 U	**5.3**	**2.5 J**
Cyanide	57-12-5	730	200		NM	NM	NM	NM	NM	NM	NM
Iron	7439-89-6	26,000	NS		**5,130**	**8,340**	**3,780**	**9,280**	**62,900**	**61,800**	**41,700**
Lead	7439-92-1	NS	15		1.0 U*	**53.9**	1.0 U	**71**	1.0 U*	**1.8**	0.26 U
Manganese	7439-96-5	880	NS		**1,220**	**1,060**	**811**	**910**	**7,010**	**6,810**	**5,730**
Mercury	7439-97-6	0.57	2		0.20 U	**0.47**	0.019 U	**0.42**	0.20 U	0.20 U	0.019 U
Nickel	7440-02-0	730	NS		**20**	**21.8**	**12.9**	**19.9**	**86.5**	**87.9**	**44.3**
Selenium	7782-49-2	180	50		2.0 U	2.0 U	0.56 U	0.56 U	2.0 U	2.0 U	0.56 U
Silver	7440-22-4	180	NS		10.0 U	10.0 U	0.83 U	**2.0 J**	10.0 U	10.0 U	**1.8 J**
Thallium	7440-28-0	2.4[++]	2		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vanadium	7440-62-2	180	NS		1.0 U	**2**	5.5 U	5.5 U	1.0 U	1.0 U	5.5 U
Zinc	7440-66-6	11,000	NS		**58.9**	**472**	**34**	**450**	**21,500**	**21,400**	**5,620**

Analyte	CAS #	Tap Water RSL (µg/L)	MCL (µg/L)	Location ID Sample ID Date Units Total or Dissolved	P-6 P-6 11/9/1994 µg/L T	P-7 P-7 11/7/1994 µg/L T	P-7 OU1-GW-P-7-0712 12/6/2007 µg/L T	P-9 P-9 11/7/1994 µg/L T	P-9 OU1-GW-P-9-0712 12/6/2007 µg/L T	P-15 P-15 11/10/1994 µg/L T	P-17 P-17 11/9/1994 µg/L T
Aluminum	7429-90-5	37,000	NS		NM	NM	**86.3 J**	NM	**187**	NM	NM
Antimony	7440-36-0	15	6		NM	NM	0.39 U	NM	**0.48 J**	NM	NM
Arsenic	7440-38-2	0.045	10		NM	NM	**1.3 J**	NM	**3.4 J**	NM	NM
Barium	7440-39-3	7,300	2,000		**91.5 J**	**46.8 J**	**30.6**	**24.3 J**	**49**	**41.5 J**	**24.7 J**
Beryllium	7440-41-7	73	4		NM	NM	0.48 U	NM	0.48 U	NM	NM
Cadmium	7440-43-9	18	5		**3.0 J**	3.0 U	**2.7 J**	**5.2**	**1.8 J**	3.0 U	3.0 U
Chromium	7440-47-3	NS	100**		5.0 U	5.0 U	**3.4 J**	5.0 U	**1.3 J**	5.0 U	5.0 U
Cobalt	7440-48-4	11	NS		NM	NM	**70.1**	NM	**16.3**	NM	NM
Copper	7440-50-8	1,500	1,300		NM	NM	**4.6 J**	NM	**2.7 J**	NM	NM
Cyanide	57-12-5	730	200		6.2 U	5.0 U	NM	5.0 U	NM	5.0 U	5.0 U
Iron	7439-89-6	26,000	NS		**163**	**14,700**	**689**	50.0 U	**1,420**	**190**	**5,380**
Lead	7439-92-1	NS	15		**67.4**	**10.9 J**	**0.65 J**	5.0 U	0.60 U	**10.4 J**	**11.4 J**
Manganese	7439-96-5	880	NS		**2,530**	**20,700**	**19,600**	**629**	**4,740**	**3,280**	**2,020**
Mercury	7439-97-6	0.57	2		0.20 U	0.20 U	0.028 U	**0.48**	0.028 U	0.20 U	0.20 U
Nickel	7440-02-0	730	NS		**45.9**	**31.0 J**	**80**	20.0 U	**54.3**	20.0 U	**91**
Selenium	7782-49-2	180	50		NM	NM	**2.6 J**	NM	**2.7 J**	NM	NM
Silver	7440-22-4	180	NS		NM	NM	**10.6**	NM	**9.3 J**	NM	NM
Thallium	7440-28-0	2.4[++]	2		NM	NM	0.38 U	NM	0.38 U	NM	NM
Vanadium	7440-62-2	180	NS		NM	NM	1.0 U	NM	1.0 U	NM	NM
Zinc	7440-66-6	11,000	NS		**5,260**	**2,670**	**13,600**	**941**	**405**	**517**	**8,840**

Table 4.1.3-8
Inorganic COI Results for Groundwater Samples Collected from the Slag Pile
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Tap Water RSL (µg/L)	Location ID Sample ID Date Units Total or Dissolved MCL (µg/L)	ISW-002 OU1-GW-ISW002-0908 8/20/2009 µg/L T	MW-2 OU1-GW-MW2-0801 1/14/2008 µg/L D	MW-2 OU1-GW-MW2-0801 1/14/2008 µg/L T	MW-303H OU1-GW-MW-303H-0712 12/4/2007 µg/L D
Aluminum	7429-90-5	37,000	NS	**10,600**	100 U	**427**	100 U
Antimony	7440-36-0	15	6	60.0 U	1.0 U	**1.1**	5.0 U
Arsenic	7440-38-2	0.045	10	**57.2**	**5.3**	**9**	5.0 U
Barium	7440-39-3	7,300	2,000	**80.5**	**33.6**	**42.2**	**54.3**
Beryllium	7440-41-7	73	4	**0.37 J**	1.0 U	1.0 U	5.0 U
Cadmium	7440-43-9	18	5	**7.4 J**	1.0 U	1.0 U	5.0 U
Chromium	7440-47-3	NS	100**	**28.4**	3.0 U	3.0 U	15.0 U
Cobalt	7440-48-4	11	NS	**89.8**	**12**	**12**	5.0 U
Copper	7440-50-8	1,500	1,300	**611**	**2**	**7.6**	5.0 U
Cyanide	57-12-5	730	200	NM	NM	10.0 U	NM
Iron	7439-89-6	26,000	NS	**72,700**	**2,160**	**4,000**	**1,730**
Lead	7439-92-1	NS	15	**163**	1.0 U	**19**	5.0 U
Manganese	7439-96-5	880	NS	**6,070**	**1,340**	**1,540**	**4,020**
Mercury	7439-97-6	0.57	2	**0.41**	0.20 U	0.20 U	0.20 U
Nickel	7440-02-0	730	NS	**86.4**	**16.4**	**17.5**	**17.7**
Selenium	7782-49-2	180	50	**0.71 J**	2.0 U	2.0 U	5.0 U
Silver	7440-22-4	180	NS	**9.6 J**	10.0 U	10.0 U	10.0 U
Thallium	7440-28-0	2.4[++]	2	1.0 U	1.0 U	1.0 U	5.0 U
Vanadium	7440-62-2	180	NS	**15.9**	1.0 U	**1.1**	5.0 U
Zinc	7440-66-6	11,000	NS	**9,900**	**457**	**827**	20.0 U

Analyte	CAS #	Tap Water RSL (µg/L)	Location ID Sample ID Date Units Total or Dissolved MCL (µg/L)	P-18 P-18 11/10/1994 µg/L T	P-18 P-18-DUP 11/10/1994 µg/L D	P-19 P-19 11/10/1994 µg/L T
Aluminum	7429-90-5	37,000	NS	NM	NM	NM
Antimony	7440-36-0	15	6	NM	NM	NM
Arsenic	7440-38-2	0.045	10	NM	NM	NM
Barium	7440-39-3	7,300	2,000	**15.0 J**	**15.0 J**	**23.2 J**
Beryllium	7440-41-7	73	4	NM	NM	NM
Cadmium	7440-43-9	18	5	**562**	**552**	**72**
Chromium	7440-47-3	NS	100**	5.0 U	5.0 U	5.0 U
Cobalt	7440-48-4	11	NS	NM	NM	NM
Copper	7440-50-8	1,500	1,300	NM	NM	NM
Cyanide	57-12-5	730	200	**5.4**	NM	**6.1**
Iron	7439-89-6	26,000	NS	**17,300**	**17,100**	**130**
Lead	7439-92-1	NS	15	5.0 U	5.0 U	5.0 U
Manganese	7439-96-5	880	NS	**11,500**	**11,400**	**1,210**
Mercury	7439-97-6	0.57	2	**0.24**	0.20 U	0.20 U
Nickel	7440-02-0	730	NS	**485**	**480**	**46**
Selenium	7782-49-2	180	50	NM	NM	NM
Silver	7440-22-4	180	NS	NM	NM	NM
Thallium	7440-28-0	2.4[++]	2	NM	NM	NM
Vanadium	7440-62-2	180	NS	NM	NM	NM
Zinc	7440-66-6	11,000	NS	**382,000**	**393,000**	**6,460**

Notes:

	Exceedance of Tap Water RSL and/or MCL
1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
NM	Not Measured
NS	No applicable standard
T	Total
D	Dissolved
**	Screening value for total chromium is based on April 2009 US EPA RSL.
[++]	Screening value for thallium is based on April 2009 US EPA RSL.

Table 4.1.3-9
SVOC Results for Groundwater Samples Collected from the Slag Pile
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Tap Water RSL (µg/L)	MCL (µg/L)	Location ID / Sample ID / Date / Units	MW-1 / MW-1 / 11/16/1993 / µg/L
Di-n-butylphthalate	84-74-2	3,700	NS		**2.0 J**

Notes:

1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
NS	No applicable standard

Table 4.1.3-10
Other Inorganics Results for Groundwater Samples Collected from the Slag Pile
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	Location ID Sample ID Date Units Total or Dissolved CAS #	ISW-001 OU1-GW-ISW001-0906 6/19/2009 µg/L D	ISW-001 OU1-GW-ISW001-0906 6/19/2009 µg/L T	ISW-001 OU1-GW-ISW001-0908 8/19/2009 µg/L D	ISW-001 OU1-GW-ISW001-0908 8/19/2009 µg/L T	ISW-002 OU1-GW-ISW002-0906 6/19/2009 µg/L D	ISW-002 OU1-GW-ISW002-0906 6/19/2009 µg/L T	ISW-002 OU1-GW-ISW002-0908 8/20/2009 µg/L D
Bicarbonate**	71-52-3	NM	NM	NM	NM	NM	NM	NM
Calcium	7440-70-2	**87,600**	**85,300**	**104,000**	**100,000**	**351,000**	**335,000**	**367,000**
Carbonate**	3812-32-6	NM	NM	NM	NM	NM	NM	NM
Magnesium	7439-95-4	**37,000**	**35,700**	**41,500**	**41,900**	**45,400**	**44,300**	**55,500**
Potassium	7440-09-7	**4,700**	**4,560**	**4,840**	**4,930**	**28,400**	**28,700**	**43,300**
Sodium	7440-23-5	**20,500**	**19,700**	**26,200**	**25,700**	**53,700**	**54,500**	**95,800**
Sulfate	14808-79-8	NM	NM	NM	NM	NM	NM	NM
Sulfide	18496-25-8	NM	NM	NM	NM	NM	NM	NM

Analyte	Location ID Sample ID Date Units Total or Dissolved CAS #	ISW-002 OU1-GW-ISW002-0908 8/20/2009 µg/L T	MW-2 MW-2 11/16/1993 µg/L D	MW-2 MW-2 11/16/1993 µg/L T	MW-2 MW-2 11/9/1994 µg/L T	MW-2 OU1-GW-MW2-0801 1/14/2008 µg/L D	MW-2 OU1-GW-MW2-0801 1/14/2008 µg/L T	MW-303H OU1-GW-MW-303H-0712 12/4/2007 µg/L D
Bicarbonate**	71-52-3	NM	NM	NM	**203,000**	NM	NM	NM
Calcium	7440-70-2	**360,000**	**432,000**	**706,000**	NM	**188,000**	**190,000**	**435,000**
Carbonate**	3812-32-6	NM	NM	NM	**170**	NM	NM	NM
Magnesium	7439-95-4	**58,000**	**126,000**	**140,000**	NM	**49,600**	**51,400**	**190,000**
Potassium	7440-09-7	**48,700**	**108,000**	**108,000**	NM	**38,500**	**41,800**	**48,800**
Sodium	7440-23-5	**103,000**	**228,000**	**227,000**	NM	**232,000**	**240,000**	**218,000**
Sulfate	14808-79-8	NM	NM	**1,460,000**	**1,170,000**	NM	NM	NM
Sulfide	18496-25-8	NM	NM	**2,300**	1,000 U	NM	NM	NM

Table 4.1.3-10
Other Inorganics Results for Groundwater Samples Collected from the Slag Pile
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	Location ID Sample ID Date Units Total or Dissolved CAS #	MW-303H OU1-GW-MW-303H-0712 12/4/2007 µg/L T	MW-305H OU1-GW-MW-305H-0712 12/4/2007 µg/L D	MW-305H OU1-GW-MW-305H-0712 12/4/2007 µg/L T	MW-321H OU1-GW-MW-321-H 1/15/2008 µg/L T	MW-322H OU1-GW-MW-322-H 1/15/2008 µg/L T	P-1 P-1 11/10/1994 µg/L T	MW-1 MW-1 11/16/1993 µg/L T	MW-1 MW-1 11/5/1994 µg/L T	MW-1 MW-1-Dup 11/5/1994 µg/L T	MW-1 MW-1 11/16/1993 µg/L D
Bicarbonate**	71-52-3	NM	NM	NM	NM	NM	**4,960**	NM	**229,000**	229,000 U	NM
Calcium	7440-70-2	**422,000**	**512,000**	**496,000**	**590,000**	**480,000**	NM	**603,000**	NM	NM	**647,000**
Carbonate**	3812-32-6	NM	NM	NM	NM	NM	0.0 U	NM	**206**	175 U	NM
Magnesium	7439-95-4	**191,000**	**155,000**	**149,000**	**140,000**	**176,000**	NM	**48,400**	NM	NM	**49,800**
Potassium	7440-09-7	**48,200**	**98,100**	**98,600**	**5,820**	**178,000**	NM	**96,700**	NM	NM	**102,000**
Sodium	7440-23-5	**209,000**	**161,000**	**162,000**	**413,000**	**172,000**	NM	**114,000**	NM	NM	**117,000**
Sulfate	14808-79-8	NM	NM	NM	NM	NM	**4,440,000**	**1,480,000**	**1,590,000**	**1,640,000**	NM
Sulfide	18496-25-8	NM	NM	NM	NM	NM	1,000 U	1,000 U	1,000 U	1,000 U	NM

Analyte	Location ID Sample ID Date Units Total or Dissolved CAS #	P-15 P-15 11/10/1994 µg/L T	P-17 P-17 11/9/1994 µg/L T	P-17 OU1-GW-P-17 1/15/2008 µg/L T	P-18 P-18 11/10/1994 µg/L T	P-18 OU1-GW-P-18 1/14/2008 µg/L T	P-19 P-19 11/10/1994 µg/L T	P-7 P-7 11/7/1994 µg/L T	P-7 OU1-GW-P-7-0712 12/6/2007 µg/L T	P-9 P-9 11/7/1994 µg/L T	P-9 OU1-GW-P-9-0712 12/6/2007 µg/L T	P-6 P-6 11/8/1994 µg/L T	P-6 P-6 11/9/1994 µg/L T
Bicarbonate**	71-52-3	**466,000**	**223,000**	NM	**124,000**	NM	**332,000**	**384,000**	NM	**413,000**	NM	**453,000**	**396,000**
Calcium	7440-70-2	NM	NM	**329,000**	NM	**136,000**	NM	NM	**720,000**	NM	**744,000**	NM	NM
Carbonate**	3812-32-6	**390**	**276**	NM	**36**	NM	**291**	**249**	NM	**224**	NM	**331**	**526**
Magnesium	7439-95-4	NM	NM	**92,800**	NM	**30,000**	NM	NM	**89,400**	NM	**123,000**	NM	NM
Potassium	7440-09-7	NM	NM	**82,700**	NM	**23,700**	NM	NM	**87,300**	NM	**79,200**	NM	NM
Sodium	7440-23-5	NM	NM	**211,000**	NM	**189,000**	NM	NM	**390,000**	NM	**217,000**	NM	NM
Sulfate	14808-79-8	**502,000**	**1,350,000**	NM	**2,450,000**	NM	**1,300,000**	**1,890,000**	NM	**1,510,000**	NM	**1,890,000**	**157,000**
Sulfide	18496-25-8	1,000 U	1,000 U	NM	1,000 U	NM	1,000 U	1,000 U	NM	1,000 U	NM	1,000 U	1,000 U

Notes:

1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
NM	Not Measured
T	Total
D	Dissolved
**	Expressed as $CaCO_3$

Table 4.1.4-1
Summary of Historical Analyses Conducted on Sediment Samples
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Investigation Area	Sample Name	Location ID	Sample Date	Depth	Total or Dissolved	Analytical Group								
						TAL Metals [1]	SVOCs	VOCs	PCBs	Pesticides	SPLP [3]	TCLP [3]	SEP [3]	XRD [3]
LVR	5thSt 05B	5thSt-05B	11/8/1994	0'	T	X [2]						X		
LVR	ISA-X202	ISA-X202	12/14/1993	0 - 0.25'	T	X	X	X	X	X				
LVR	ISA-X203	ISA-X203	12/14/1993	0'	T	X	X	X	X	X				
LVR	ISA-X204	ISA-X204	12/14/1993	0 - 0.5'	T	X	X	X	X	X				
LVR	ISA-X205	ISA-X205	12/14/1993	0 - 0.25'	T	X	X	X	X	X				
LVR	LVR205-071030	LVR-205	10/30/2007	0'	T	X	X	X	X	X				X
LVR	OU1-SE-LVR401C-0908	LVR-401	8/11/2009	0'	T	X								
LVR	OU1-SE-LVR401E-0908	LVR-401	8/11/2009	0'	T	X								
LVR	OU1-SE-LVR401W-0908	LVR-401	8/11/2009	0'	T	X								
LVR	OU1-SE-LVR402C-0908	LVR-402	8/12/2009	0'	T	X								
LVR	OU1-SE-LVR402E-0908	LVR-402	8/12/2009	0'	T	X								
LVR	OU1-SE-LVR402W-0908	LVR-402	8/12/2009	0'	T	X								
LVR	OU1-SE-LVR403C-0908	LVR-403	8/12/2009	0'	T	X								
LVR	OU1-SE-LVR403E-0908	LVR-403	8/12/2009	0'	T	X								
LVR	OU1-SE-LVR403W-0908	LVR-403	8/12/2009	0'	T	X								
LVR	OU1-SE-LVR404C-0908	LVR-404	8/12/2009	0'	T	X								
LVR	OU1-SE-LVR404E-0908	LVR-404	8/12/2009	0'	T	X								
LVR	OU1-SE-LVR404W-0908	LVR-404	8/12/2009	0'	T	X								
LVR	OU1-SE-LVR405C-0908	LVR-405	8/13/2009	0'	T	X								
LVR	OU1-SE-LVR405E-0908	LVR-405	8/13/2009	0'	T	X								
LVR	OU1-SE-LVR405W-0908	LVR-405	8/13/2009	0'	T	X								
LVR	OU1-SE-LVR406-0908	LVR-406	8/14/2009	0'	T	X								
LVR	OU1-SE-LVR407-0908	LVR-407	8/14/2009	0'	T	X								
LVR	OU1-SE-LVR408-0908	LVR-408	8/14/2009	0'	T	X								
LVR	OU1-SS-LRS412S-0908	LRS-412	8/11/2009	0'	T	X					X		X	
LVR	OU1-SS-LRS412T-0908	LRS-412	8/11/2009	0'	T	X					X			
LVR	OU1-SS-LRS413S-0908	LRS-413	8/12/2009	0'	T	X					X		X	
LVR	OU1-SS-LRS413T-0908	LRS-413	8/12/2009	0'	T	X					X			
LVR	OU1-SS-LVR201-071029	LVR-201	10/29/2007	0'	T	X	X	X	X	X				X
LVR	OU1-SS-LVR202-071030	LVR-202	10/30/2007	0'	T	X								
LVR	OU1-SS-LVR203-071030	LVR-203	10/30/2007	0'	T	X								X
LVR	OU1-SS-LVR204-071030	LVR-204	10/30/2007	0'	T	X								
LVR	OU1-SS-LVR206-071030	LVR-206	10/30/2007	0'	T	X				X				
LVR	OU1-SS-LVR207-071030	LVR-207	10/30/2007	0'	T	X				X				X
LVR	OU1-SS-LVR208-071030	LVR-208	10/30/2007	0'	T	X				X				
LVR	OU1-SS-LVR209-071031	LVR-209	10/31/2007	0'	T	X	X	X	X	X				
LVR	OU1-SS-LVR210-071031	LVR-210	10/31/2007	0'	T	X								
LVR	OU1-SS-LVR211-071031	LVR-211	10/31/2007	0'	T	X								
LVR	OU1-SS-LVR212-071031	LVR-212	10/31/2007	0'	T	X								
LVR	OU1-SS-LVR406-071029	LVR-201	10/29/2007	0'	T	X	X	X	X	X				X
LVR	OU1-SS-SB406-0908	LRS-412	8/11/2009	0'	T	X					X		X	
LVR	S/S1	S/S1	10/1/1992	0'	T							X		
LVR	S/S2	S/S2	10/1/1992	0'	T							X		
LVR	Sctn Line	Section_Line_DP	11/11/1994	0'	T	X						X		
LVR	SSI-X201	SSI-X201	11/21/1991	0 - 0.583'	T	X	X	X	X	X				
LVR	SSI-X202	SSI-X202	11/21/1991	0 - 0.25'	T	X	X	X	X	X				
LVR	SSI-X203	SSI-X203	11/21/1991	0 - 0.667'	T	X	X	X	X	X				
LVR	SSI-X204	SSI-X204	11/21/1991	0 - 0.667'	T	X	X	X	X	X				

Table 4.1.4-1
Summary of Historical Analyses Conducted on Sediment Samples
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Investigation Area	Sample Name	Location ID	Sample Date	Depth	Total or Dissolved	Analytical Group								
						TAL Metals [1]	SVOCs	VOCs	PCBs	Pesticides	SPLP [3]	TCLP [3]	SEP [3]	XRD [3]
LVR	SSI-X208	SSI-X208	11/20/1991	0 - 0.667'	T	X	X	X	X	X				
LVR-Upstream	ISA-X201	ISA-X201	12/14/1993	0 - 0.25'	T	X	X	X	X	X				
LVR-Upstream	OU1-SE-LVR409-0908	LVR-409	8/14/2009	0'	T	X								
LVR-Upstream	OU1-SS-LVR213-071031	LVR-213	10/31/2007	0'	T	X	X	X	X	X				
LVR-Upstream	OU1-SS-LVR214-071031	LVR-214	10/31/2007	0'	T	X	X	X	X	X				
LVR-Upstream	QB-07B-94312-07	QuarryBridge-07B	11/8/1994	0'	T	X						X		
Slag Pile Area	OU1-SE-UL215-071101	UL-215	11/1/2007	0'	T	X	X	X	X	X				
Slag Pile Area	Pond Line 1	Pond Line 1	11/1/1994	0'	T	X	X					X		
Slag Pile Area	Pond Line 1 DP	Pond Line 1	11/1/1994	0'	T	X	X					X		
Slag Pile Area	Pond Line 2	Pond Line 2	11/1/1994	0'	T	X	X					X		
Slag Pile Area	Pond Line 4	Pond Line 4	11/1/1994	0'	T	X	X					X		
Slag Pile Area	SSI-X205	SSI-X205	11/21/1991	0 - 0.667'	T	X	X	X	X	X				
Slag Pile Area	SSI-X206	SSI-X206	11/21/1991	0 - 0.667'	T	X	X	X	X	X				

Notes:
(1) TAL = Target Analyte List includes total metals (including mercury and cyanide) as per the US EPA Contract Laboratory Program Scope of Work.
(2) X signifies that the parameter shown was analyzed at the location shown.
(3) Results presented and discussed in Section 5.0.

Table 4.1.4-2
Summary of Historical Analyses Conducted on Surface Water Samples
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Investigation Area	Sample Name	Location ID	Sample Date	Total or Dissolved	Analytical Group				
					TAL Metals (1)	SVOCs	VOCs	PCBs	Pesticides
LVR	5th St. Bridge	5thstbridge	11/8/1994	T	X (2)				
LVR	OU1-GW-MW404-0908	LVR-401	8/11/2009	D	X				
LVR	OU1-GW-MW404-0908	LVR-401	8/11/2009	T	X				
LVR	OU1-GW-MW404-090814	ASO-411	8/14/2009	D	X				
LVR	OU1-GW-MW404-090814	ASO-411	8/14/2009	T	X				
LVR	OU1-SW-AS0411-090817	ASO-411	8/17/2009	D	X				
LVR	OU1-SW-AS0411-090817	ASO-411	8/17/2009	T	X				
LVR	OU1-SW-AS0411-090818	ASO-411	8/18/2009	D	X				
LVR	OU1-SW-AS0411-090818	ASO-411	8/18/2009	T	X				
LVR	OU1-SW-AS0411-090820	ASO-411	8/20/2009	T	X				
LVR	OU1-SW-ASO411-0908	ASO-411	8/11/2009	D	X				
LVR	OU1-SW-ASO411-0908	ASO-411	8/11/2009	T	X				
LVR	OU1-SW-ASO411-090812	ASO-411	8/12/2009	D	X				
LVR	OU1-SW-ASO411-090812	ASO-411	8/12/2009	T	X				
LVR	OU1-SW-ASO411-090813	ASO-411	8/13/2009	D	X				
LVR	OU1-SW-ASO411-090813	ASO-411	8/13/2009	T	X				
LVR	OU1-SW-ASO411-090814	ASO-411	8/14/2009	D	X				
LVR	OU1-SW-ASO411-090814	ASO-411	8/14/2009	T	X				
LVR	OU1-SW-ASO411-090820 DISSOLVED	ASO-411	8/20/2009	D	X				
LVR	OU1-SW-CS0410-0908	CSO-410	8/11/2009	D	X				
LVR	OU1-SW-CS0410-0908	CSO-410	8/11/2009	T	X				
LVR	OU1-SW-CS0410-0908	CSO-410	8/11/2009	D	X				
LVR	OU1-SW-CS0410-0908	CSO-410	8/11/2009	T	X				
LVR	OU1-SW-CS0410-090810	CSO-410	8/10/2009	D	X				
LVR	OU1-SW-CS0410-090810	CSO-410	8/10/2009	T	X				
LVR	OU1-SW-CS0410-090817	CSO-410	8/17/2009	D	X				
LVR	OU1-SW-CS0410-090817	CSO-410	8/17/2009	T	X				
LVR	OU1-SW-LV201-071029	LVR-201	10/29/2007	T	X	X	X	X	X
LVR	OU1-SW-LV406-071029	LVR-201	10/29/2007	T	X	X	X	X	X
LVR	OU1-SW-LVR203-071030	LVR-203	10/30/2007	T	X				
LVR	OU1-SW-LVR205-071030	LVR-205	10/30/2007	T	X	X	X	X	X
LVR	OU1-SW-LVR207-071030	LVR-207	10/30/2007	T	X				X
LVR	OU1-SW-LVR209-071031	LVR-209	10/31/2007	T	X	X	X	X	X
LVR	OU1-SW-LVR211-071031	LVR-211	10/31/2007	T	X				
LVR	OU1-SW-LVR401C-0908	LVR-401	8/11/2009	D	X				
LVR	OU1-SW-LVR401C-0908	LVR-401	8/11/2009	T	X				
LVR	OU1-SW-LVR401E-0908	LVR-401	8/11/2009	D	X				
LVR	OU1-SW-LVR401E-0908	LVR-401	8/11/2009	T	X				
LVR	OU1-SW-LVR401W-0908	LVR-401	8/11/2009	D	X				
LVR	OU1-SW-LVR401W-0908	LVR-401	8/11/2009	T	X				
LVR	OU1-SW-LVR402C-0908	LVR-402	8/12/2009	D	X				
LVR	OU1-SW-LVR402C-0908	LVR-402	8/12/2009	T	X				
LVR	OU1-SW-LVR402E-0908	LVR-402	8/12/2009	D	X				
LVR	OU1-SW-LVR402E-0908	LVR-402	8/12/2009	T	X				
LVR	OU1-SW-LVR402W-0908	LVR-402	8/12/2009	D	X				
LVR	OU1-SW-LVR402W-0908	LVR-402	8/12/2009	T	X				
LVR	OU1-SW-LVR403C-0908	LVR-403	8/12/2009	D	X				
LVR	OU1-SW-LVR403C-0908	LVR-403	8/12/2009	T	X				
LVR	OU1-SW-LVR403E-0908	LVR-403	8/12/2009	D	X				
LVR	OU1-SW-LVR403E-0908	LVR-403	8/12/2009	T	X				
LVR	OU1-SW-LVR403W-0908	LVR-403	8/12/2009	D	X				
LVR	OU1-SW-LVR403W-0908	LVR-403	8/12/2009	T	X				
LVR	OU1-SW-LVR404C-0908	LVR-404	8/12/2009	D	X				
LVR	OU1-SW-LVR404C-0908	LVR-404	8/12/2009	T	X				
LVR	OU1-SW-LVR404E-0908	LVR-404	8/12/2009	D	X				
LVR	OU1-SW-LVR404E-0908	LVR-404	8/12/2009	T	X				
LVR	OU1-SW-LVR404W-0908	LVR-404	8/12/2009	D	X				
LVR	OU1-SW-LVR404W-0908	LVR-404	8/12/2009	T	X				
LVR	OU1-SW-LVR405C-0908	LVR-405	8/13/2009	D	X				
LVR	OU1-SW-LVR405C-0908	LVR-405	8/13/2009	T	X				
LVR	OU1-SW-LVR405E-0908	LVR-405	8/13/2009	D	X				
LVR	OU1-SW-LVR405E-0908	LVR-405	8/13/2009	T	X				
LVR	OU1-SW-LVR405W-0908	LVR-405	8/13/2009	D	X				
LVR	OU1-SW-LVR405W-0908	LVR-405	8/13/2009	T	X				
LVR	OU1-SW-LVR408-0908	LVR-408	8/14/2009	D	X				
LVR	OU1-SW-LVR408-0908	LVR-408	8/14/2009	T	X				
LVR	Section Line	Section_Line_DP	11/8/1994	T	X				
LVR	Section Line DP	Section_Line_DP	11/8/1994	T	X				
LVR - Upstream	Quarry Bridge	QuarryBridge	11/8/1994	T	X				
LVR - Upstream	OU1-SW-LVR213-071031	LVR-213	10/31/2007	T	X	X	X	X	X
LVR - Upstream	OU1-SW-LVR214-071031	LVR-214	10/31/2007	T	X	X	X	X	X
LVR - Upstream	OU1-SW-LVR409-0908	LVR-409	8/14/2009	D	X				
LVR - Upstream	OU1-SW-LVR409-0908	LVR-409	8/14/2009	T	X				
Slag Pile Area	Seep	Seep	6/19/2009	T	X				
Slag Pile Area	Seep	Seep	6/19/2009	D	X				

Table 4.1.4-3
Summary of Analytical Data for Sediment Samples from the Slag Pile Area that Exceeded Screening Values
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	Number of Samples Above Sediment ESV	Total Number of Samples	Minimum Concentration	Maximum Concentration	Units
Inorganic COIs					
Arsenic	3	3	31.5	42.8	mg/kg
Cadmium	7	7	2.9	99.3	mg/kg
Chromium	5	7	16.8	280	mg/kg
Copper	3	3	185	550	mg/kg
Lead	7	7	69.8	1,810	mg/kg
Mercury	7	7	0.27	1.9	mg/kg
Nickel	7	7	50.4	737	mg/kg
Silver	1	3	3.8 U	15.2	mg/kg
Zinc	7	7	513	87,700	mg/kg
VOCs					
Acetone	2	3	3.2 J	410 J	µg/kg
SVOCs					
Acenaphthene	1	7	18.0 U	160 J	µg/kg
Acenaphthylene	1	7	10.0 U	1,400 J	µg/kg
Anthracene	2	7	6.6 U	1,800 J	µg/kg
Benzo(a)anthracene	2	7	0.13 U	6,700	µg/kg
Benzo(a)pyrene	2	7	0.23 U	6,700	µg/kg
Benzo(g,h,i)perylene	1	7	0.76 U	4,400	µg/kg
Benzo(k)fluoranthene	2	7	0.17 U	5,300	µg/kg
bis(2-Ethylhexyl) phthalate	2	3	460 J	580 J	µg/kg
Carbazole	1	3	1,000 U	470 J	µg/kg
Chrysene	2	7	1.5 U	7,000	µg/kg
Dibenzo(a,h)anthracene	1	7	0.30 U	1,100 J	µg/kg
Fluoranthene	2	7	2.1 U	14,000	µg/kg
Indeno(1,2,3-cd)pyrene	1	7	0.43 U	3,700	µg/kg
Phenanthrene	2	7	6.4 U	6,000	µg/kg
Pyrene	2	7	2.7 U	14,000	µg/kg
PCBs					
Aroclor 1254	1	3	240 U	2,900	µg/kg
Aroclor 1260	1	3	790 U	1,900	µg/kg

Notes:
ESV = Ecological Screening Value

Table 4.1.4-4
Inorganic COI Results for Sediment Samples Collected from the Slag Pile
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Location ID Sample ID Date Units Depth Sediment ESV (mg/kg)	Pond Line 1 Pond Line 1 11/1/1994 mg/Kg 0'	Pond Line 1 Pond Line 1 DP 11/1/1994 mg/Kg 0'	Pond Line 2 Pond Line 2 11/1/1994 mg/Kg 0'	Pond Line 4 Pond Line 4 11/1/1994 mg/Kg 0'	SSI-X205 SSI-X205 11/21/1991 mg/Kg 0 - 0.667'	SSI-X206 SSI-X206 11/21/1991 mg/Kg 0 - 0.667'	UL-215 OU1-SE-UL215-071101 11/1/2007 mg/Kg 0'
Aluminum	7429-90-5	NS	NM	NM	NM	NM	**4,160**	**5,810**	**11,200**
Antimony	7440-36-0	NS	NM	NM	NM	NM	**52.3**	**30.8**	**4.8 J**
Arsenic	7440-38-2	9.79	NM	NM	NM	NM	**31.5**	**37.7**	**42.8**
Barium	7440-39-3	NS	**2,020**	**6,770**	**7,310**	**3,620**	**361**	**867**	**626**
Beryllium	7440-41-7	NS	NM	NM	NM	NM	0.48 U	0.43 U	**0.99 J**
Cadmium	7440-43-9	0.99	**8.3**	**4.9**	**4.5**	**5.2**	**2.9**	**10.3**	**99.3**
Chromium	7440-47-3	43.4**	**130**	**277**	**255**	**280**	**57.1**	**41.9**	**16.8**
Cobalt	7440-48-4	50	NM	NM	NM	NM	**11.9 J**	**18.4 J**	**29.5**
Copper	7440-50-8	31.6	NM	NM	NM	NM	**185**	**383**	**550**
Iron	7439-89-6	NS	**33,800**	**127,000**	**109,000**	**193,000**	**3,890**	**10,200**	**52,000**
Lead	7439-92-1	35.8	**133**	**141**	**148**	**130**	**69.8**	**326**	**1,810**
Manganese	7439-96-5	NS	**46,700**	**103,000**	**76,200**	**155,000**	**17,000**	**28,900**	**5,370**
Mercury	7439-97-6	0.18	**0.81**	**1.40**	**1.90**	**0.97**	**0.27**	**0.29**	**0.43**
Nickel	7440-02-0	22.7	**174**	**448**	**495**	**737**	**50.4**	**91**	**78.8**
Selenium	7782-49-2	NS	NM	NM	NM	NM	9.4 U	7.7 U	**5.4**
Silver	7440-22-4	0.5	NM	NM	NM	NM	4.3 U	3.8 U	**15.2**
Thallium	7440-28-0	NS	NM	NM	NM	NM	1.4 U	1.1 U	**0.62 J**
Vanadium	7440-62-2	NS	NM	NM	NM	NM	**57.5**	**49.6**	**34.3**
Zinc	7440-66-6	121	**1,620**	**513**	**595**	**551**	**609**	**2,790**	**87,700**

Notes:

	Exceedance of Sediment Ecological Screening Value (ESV)
1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
NM	Not Measured
NS	No applicable standard
**	Screening value for total

Table 4.1.4-5
VOC Results for Sediment Samples Collected from the Slag Pile
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Location ID Sample ID Date Units Depth Sediment ESV (µg/Kg)	SSI-X205 SSI-X205 11/21/1991 µg/Kg 0 - 0.667'	SSI-X206 SSI-X206 11/21/1991 µg/Kg 0 - 0.667'	UL-215 OU1-SE-UL215-071101 11/1/2007 µg/Kg 0'
Acetone	67-64-1	9.9	**410 J**	**220 J**	**3.2 J**
Carbon disulfide	75-15-0	23.9	30.0 U	**10.0 J**	14.0 U

Notes:

	Exceedance of Sediment Ecological Screening Value (ESV)
1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
NM	Not Measured

Table 4.1.4-6
SVOC Results for Sediment Samples Collected from the Slag Pile
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Location ID Sample ID Date Units Depth Sediment ESV (µg/Kg)	Pond Line 1 Pond Line 1 11/1/1994 µg/Kg 0'	Pond Line 1 Pond Line 1 DP 11/1/1994 µg/Kg 0'	Pond Line 2 Pond Line 2 11/1/1994 µg/Kg 0'	Pond Line 4 Pond Line 4 11/1/1994 µg/Kg 0'	SSI-X205 SSI-X205 11/21/1991 µg/Kg 0 - 0.667'	SSI-X206 SSI-X206 11/21/1991 µg/Kg 0 - 0.667'	UL-215 OU1-SE-UL215-071101 11/1/2007 µg/Kg 0'
Acenaphthene	83-32-9	6.71	18.0 U	18.0 U	18.0 U	18.0 U	1,000 U	790 U	**160 J**
Acenaphthylene	208-96-8	5.87	10.0 U	10.0 U	10.0 U	10.0 U	1,000 U	790 U	**1,400 J**
Anthracene	120-12-7	57.2	6.6 U	6.6 U	6.6 U	6.6 U	1,000 U	**250 J**	**1,800 J**
Benzo(a)anthracene	56-55-3	108	0.13 U	0.13 U	0.13 U	0.13 U	1,000 U	**1,100**	**6,700**
Benzo(a)pyrene	50-32-8	150	0.23 U	0.23 U	0.23 U	0.23 U	1,000 U	**1,000**	**6,700**
Benzo(b)fluoranthene	205-99-2	10,000	0.18 U	0.18 U	0.18 U	0.18 U	1,000 U	**1,600**	**5,300**
Benzo(g,h,i)perylene	191-24-2	170	0.76 U	0.76 U	0.88 U	0.76 U	1,000 U	790 U	**4,400**
Benzo(k)fluoranthene	207-08-9	240	0.17 U	0.17 U	0.17 U	0.17 U	1,000 U	**420 J**	**5,300**
bis(2-Ethylhexyl) phthalate	117-81-7	182	NM	NM	NM	NM	**460 J**	**580 J**	2,900 U
Carbazole	86-74-8	57.2	NM	NM	NM	NM	1,000 U	790 U	**470 J**
Chrysene	218-01-9	166	1.5 U	1.5 U	1.5 U	1.5 U	1,000 U	**1,100**	**7,000**
Dibenzo(a,h)anthracene	53-70-3	33	0.30 U	0.30 U	0.30 U	0.30 U	1,000 U	790 U	**1,100 J**
Fluoranthene	206-44-0	423	2.1 U	2.1 U	2.1 U	2.1 U	1,000 U	**2,300**	**14,000**
Indeno(1,2,3-cd)pyrene	193-39-5	200	0.43 U	0.43 U	0.43 U	0.43 U	1,000 U	790 U	**3,700**
Phenanthrene	85-01-8	24	6.4 U	6.4 U	6.4 U	6.4 U	1,000 U	**1,400**	**6,000**
Pyrene	129-00-0	195	2.7 U	2.7 U	2.7 U	2.7 U	1,000 U	**2,000**	**14,000**

Notes:

	Exceedance of Sediment Ecological Screening Value (ESV)
1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
NM	Not Measured

Table 4.1.4-7
PCB Results for Sediment Samples Collected from the Slag Pile
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Location ID Sample ID Date Units Depth Sediment ESV (µg/Kg)	SSI-X205 SSI-X205 11/21/1991 µg/Kg 0 - 0.667'	SSI-X206 SSI-X206 11/21/1991 µg/Kg 0 - 0.667'	UL-215 OU1-SE-UL215-071101 11/1/2007 µg/Kg 0'
Aroclor 1254	11097-69-1	59.8	1,000 U	**2,900**	240 U
Aroclor 1260	11096-82-5	59.8	1,000 U	790 U	**1,900**

Notes:

	Exceedance of Sediment Ecological Screening Value (ESV)
1,000	Bold indicates a detection
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
NM	Not Measured

Table 4.1.4-8
Other Inorganic Results for Sediment Samples Collected from the Slag Pile
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Location ID Sample ID Date Units Depth	Pond Line 1 Pond Line 1 11/1/1994 mg/Kg 0'	Pond Line 1 Pond Line 1 DP 11/1/1994 mg/Kg 0'	Pond Line 2 Pond Line 2 11/1/1994 mg/Kg 0'	Pond Line 4 Pond Line 4 11/1/1994 mg/Kg 0'	SSI-X205 SSI-X205 11/21/1991 mg/Kg 0 - 0.667'	SSI-X206 SSI-X206 11/21/1991 mg/Kg 0 - 0.667'	UL-215 OU1-SE-UL215-071101 11/1/2007 mg/Kg 0'
Bicarbonate	71-52-3		**638**	**538**	**539**	**289**	NM	NM	NM
Calcium	7440-70-2		NM	NM	NM	NM	**243,000**	**194,000**	**13,900 J**
Carbonate	3812-32-6		**51.1**	**47.2**	**49.5**	**4.9**	NM	NM	NM
Magnesium	7439-95-4		NM	NM	NM	NM	**15,600**	**17,400**	**3,900**
Potassium	7440-09-7		NM	NM	NM	NM	**942 J**	**1,280 J**	**1,480 J**
Sodium	7440-23-5		NM	NM	NM	NM	**808 J**	**842 J**	**242 J**
Sulfate	14808-79-8		**719**	**967**	**1,240**	**25,800**	**161**	**191**	NM
Sulfide	18496-25-8		142 U	137 U	155 U	177 U	**140**	1.0 U	NM

Notes:

1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
NM	Not Measured

Table 4.1.4-9
Summary of Analytical Data for Sediment Samples from the Little Vermilion River that Exceeded Screening Values
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	Number of Samples Above Sediment ESV	Total Number of Samples	Number of Locations with Samples Above Sediment ESV	Total Number of Locations	Minimum Concentration	Maximum Concentration	Units
Inorganic COIs							
Arsenic	12	49	11	35	2.2	276	mg/kg
Cadmium	48	52	34	38	0.72 U	46.5	mg/kg
Cobalt	1	49	1	35	3.5	182 J	mg/kg
Copper	23	49	16	35	5.0	3,320	mg/kg
Lead	21	52	16	38	3.9	1,050	mg/kg
Mercury	5	48	5	37	0.0060 J	0.53	mg/kg
Nickel	20	52	17	38	5.6 J	22,000	mg/kg
Silver	22	49	13	35	0.18	46.4	mg/kg
Zinc	41	52	29	38	0.16	49,100	mg/kg
Cyanide	2	16	2	15	0.48	1.3	mg/kg
VOCs							
2-Butanone (MEK)	1	16	7	15	2.9 J	66	mg/kg
Acetone	10	16	9	16	7.0 J	240 J	mg/kg
SVOCs							
Benzo(a)anthracene	2	16	2	15	58.0 J	330 J	mg/kg
Benzo(a)pyrene	1	16	1	15	63.0 J	250 J	mg/kg
bis(2-Ethylhexyl) phthalate	2	11	2	10	130 J	230 J	mg/kg
Chrysene	1	16	1	15	73.0 J	330 J	mg/kg
Fluoranthene	1	16	1	15	150 J	670	mg/kg
Phenanthrene	3	16	3	15	91.0 J	400 J	mg/kg
Pyrene	2	16	2	15	120 J	580 J	mg/kg
PCBs							
Aroclor 1242	2	16	2	14	38.0 J	810	mg/kg
Aroclor 1254	5	16	5	14	32.0 J	820	mg/kg
Aroclor 1260	1	16	1	14	12.0 J	190	mg/kg
Pesticides							
4,4'-DDD	1	19	1	18	3.8 U	9.7	µg/kg
4,4'-DDT	1	19	1	18	3.8 U	9.2	µg/kg
alpha-Chlordane	2	19	2	18	2.0 U	17.0	µg/kg
Dieldrin	3	19	3	18	3.8 U	17.0	µg/kg
Endrin	4	19	4	18	3.8 U	67.0	µg/kg
Endrin Aldehyde	1	19	1	18	3.8 U	9.9	µg/kg
gamma-Chlordane	1	19	1	18	2.0 U	5.1	µg/kg

Notes:
ESV = Ecological Screening Value

Table 4.1.4-10
Summary of Analytical Data for Surface Water Samples from the Little Vermilion River that Exceeded Screening Values
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	Number of Samples Above Surface Water ESV	Total Number of Samples	Number of Locations with Samples Above Surface Water ESV	Total Number of Locations	Minimum Concentration (µg/L)	Maximum Concentration (µg/L)
Inorganic COIs						
Aluminum	28	67	16	17	14.9 U	5,050
Cadmium	24	71	4	20	0.11 U	317
Chromium	1	71	1	20	1.8 U	23.5
Copper	21	67	2	17	5.0 U	129
Iron	7	71	6	20	100 U	3,540
Lead	15	71	1	20	0.13 U	91.0
Nickel	28	71	8	20	10.0 U	75.2
Selenium	12	67	1	17	0.56 U	13.2 J
Silver	4	67	3	17	0.74 U	1.0 J
Zinc	61	71	13	20	20.0 U	69,200
Cyanide	3	10	2	8	10.0 U	10.0

Notes:
ESV = Ecological Screening Value

Table 4.1.4-11
Inorganic COI Results for Sediment Samples Collected from the Little Vermilion River
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Sediment ESV (mg/kg)	Location ID Sample ID Date Units Depth	5thSt-05B 5thSt 05B 11/8/1994 mg/Kg 0'	ISA-X201 ISA-X201 12/14/1993 mg/Kg 0 - 0.25'	ISA-X202 ISA-X202 12/14/1993 mg/Kg 0 - 0.25'	ISA-X203 ISA-X203 12/14/1993 mg/Kg 0'	ISA-X204 ISA-X204 12/14/1993 mg/Kg 0 - 0.5'	ISA-X205 ISA-X205 12/14/1993 mg/Kg 0 - 0.25'	LRS-412 OU1-SS-SB406-0908 8/11/2009 mg/Kg 0'	LRS-412 OU1-SS-LRS412S-0908 8/11/2009 mg/Kg 0'
Aluminum	7429-90-5	NS		NM	**4170**	0.0 U*	0.0 U*	0.0 U*	0.0 U*	**0.73 J+**	**9,290 J**
Antimony	7440-36-0	NS		NM	NM	NM	NM	NM	NM	0.0030 U	**49.0 J**
Arsenic	7440-38-2	9.79		NM	**3.2**	0.0 U*	0.0 U*	0.0 U*	**15.8**	**20.0 J**	**79.7**
Barium	7440-39-3	NS		**42.2 J**	0.0 U*	0.0 U*	0.0 U*	0.0 U*	0.0 U*	**79.5**	**488**
Beryllium	7440-41-7	NS		NM	0.24 U	**0.48 J**	**0.82 J**	**0.61 J**	**0.55 J**	**0.74**	**2.6**
Cadmium	7440-43-9	0.99		**4.3**	0.72 U	**28.4**	**46.5**	**2.7**	**2.8**	**3.9**	**2.5**
Chromium	7440-47-3	43.4**		**4.6**	**5.3**	0.0 U*	0.0 U*	**18.7**	**20.1**	**6.9**	**11.1**
Cobalt	7440-48-4	50		NM	0.0 U*	0.0 U*	0.0 U*	0.0 U*	0.0 U*	**4.4**	**16**
Copper	7440-50-8	31.6		NM	**5.5 J**	**109**	**259**	0.0 U*	0.0 U*	**95.8**	**3,320**
Iron	7439-89-6	NS		**9,990**	0.0 U*	0.0 U*	0.0 U*	0.0 U*	0.0 U*	**15,700**	**45,000**
Lead	7439-92-1	35.8		**31.2**	**6.9**	**164**	**325**	**28.8**	0.0 U*	**34.1**	**94.5**
Manganese	7439-96-5	NS		**313**	0.0 U*	0.0 U*	0.0 U*	0.0 U*	0.0 U*	**622**	**3,580 J**
Mercury	7439-97-6	0.18		0.13 U	0.070 U	**0.4**	**0.51**	**0.060 J**	0.0 U*	0.00040 U	NM
Nickel	7440-02-0	22.7		**12.8**	**5.6 J**	0.0 U*	**22**	**17.7**	**25.3**	**13.8 J**	**339**
Selenium	7782-49-2	NS		NM	0.54 U	0.0 U*	**0.41 J**	**0.69 J**	0.0 U*	**0.63**	**1.7 J**
Silver	7440-22-4	0.5		NM	0.0 U*	0.0 U*	0.0 U*	0.0 U*	0.0 U*	0.0030 U	**33.8**
Thallium	7440-28-0	NS		NM	0.32 U	0.0 U*	**0.29 J**	**0.38 J**	0.0 U*	**0.063 J**	0.030 U
Vanadium	7440-62-2	NS		NM	**10.6 J**	0.0 U*	0.0 U*	0.0 U*	**66**	**12.9**	**11.1**
Zinc	7440-66-6	121		**598**	**48.2**	**4,670**	**12,100**	**282**	**150**	**0.16**	**5,970**
Cyanide	57-12-5	0.0001		NM	0.0 U*	0.0 U*	0.0 U*	0.0 U*	0.0 U*	NM	NM

Analyte	CAS #	Sediment ESV (mg/kg)	Location ID Sample ID Date Units Depth	LRS-413 OU1-SS-LRS413S-0908 8/12/2009 mg/Kg 0'	LRS-413 OU1-SS-LRS413T-0908 8/12/2009 mg/Kg 0'	LVR-201 OU1-SS-LVR201-071029 10/29/2007 mg/Kg 0'	LVR-202 OU1-SS-LVR202-071030 10/30/2007 mg/Kg 0'	LVR-205 OU1-SS-LVR205-071030 10/30/2007 mg/Kg 0'	LVR-401 OU1-SE-LVR401C-0908 8/11/2009 mg/Kg 0'	LVR-401 OU1-SE-LVR401E-0908 8/11/2009 mg/Kg 0'	LVR-401 OU1-SE-LVR401W-0908 8/11/2009 mg/Kg 0'
Aluminum	7429-90-5	NS		**18,100**	**3,270**	**3,990**	**2,220**	**13,500**	**2,180**	**3,140**	**3,170**
Antimony	7440-36-0	NS		0.0 U*	0.0 U*	**22.5 J**	0.88 U	1.2 U	**7.9**	6.8 U	7.2 U
Arsenic	7440-38-2	9.79		**73.7**	**3.9**	**9.6**	**5**	**7.6**	**8.3 J**	**6.9 J**	**22.0 J**
Barium	7440-39-3	NS		**204**	**29.9**	**59.1**	**27.6**	**82**	**35.8**	**41.2**	**54.2**
Beryllium	7440-41-7	NS		**3.6**	**0.26**	**0.45 J**	**0.15 J**	**0.85 J**	**0.35**	**0.23**	**0.41 J-**
Cadmium	7440-43-9	0.99		**4.5**	**2.3**	**6.2**	**1.8**	**13.9**	**2.2**	**2.7**	**4.3 J-**
Chromium	7440-47-3	43.4**		**10.5**	**5.2**	**5.2**	**4.2**	**15.3**	**4.5**	**4.8**	**6**
Cobalt	7440-48-4	50		**27.4**	**38**	**8.7**	**3.7**	**9.8**	**5**	**5.1**	**5.3 J+**
Copper	7440-50-8	31.6		**1,870**	**19.5**	**28.6**	**36.6**	**27.5**	**73.3**	**69.2**	**150 J**
Iron	7439-89-6	NS		**116,000**	**48,800**	**73,500**	**9,880**	**27,600**	**25,600**	**26,900**	**14,000 J**
Lead	7439-92-1	35.8		**66**	**12.2**	**37.3**	**19.8**	**125**	**29.8**	**35.8**	**44.8 J**
Manganese	7439-96-5	NS		**3,060**	**2,210**	**759**	**521**	**336**	**831**	**959**	**757 J**
Mercury	7439-97-6	0.18		NM	NM	**0.0060 J**	**0.014 J**	**0.17**	0.20 U	0.19 U	0.20 U
Nickel	7440-02-0	22.7		**289**	**24.4**	**28.3**	**16.6**	**32.2**	**27.2 J**	**15.3 J**	**15.1 J**
Selenium	7782-49-2	NS		**0.43 J**	**0.55 J**	**0.91 J**	**0.38 J**	**1.2 J**	**0.43**	**0.33**	**0.42 J-**
Silver	7440-22-4	0.5		**46.4**	0.0 U*	**10.5 J**	**0.61 J**	**0.76 J**	**13.3**	**0.78 J**	**1.2 J**
Thallium	7440-28-0	NS		0.0 U*	0.031 U	**0.080 J**	0.047 U	**0.34 J**	**0.060 J**	**0.069 J**	**0.061 J**
Vanadium	7440-62-2	NS		**13.3**	**11.1**	**16.6**	**13.4**	**19.1**	**9.9**	**15**	**11.7**
Zinc	7440-66-6	121		**49,100**	**1,840**	**2,620**	**393**	**4,210**	**1,090**	**1,050**	**1,230**
Cyanide	57-12-5	0.0001		NM	NM	1.5 U	NM	1.5 U	NM	NM	NM

Table 4.1.4-11
Inorganic COI Results for Sediment Samples Collected from the Little Vermilion River
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Sediment ESV (mg/kg)	Location ID / Sample ID / Date / Units / Depth	LRS-412 OU1-SS-LRS412T-0908 8/11/2009 mg/Kg 0'	LVR-402 OU1-SE-LVR402C-0908 8/12/2009 mg/Kg 0'	LVR-402 OU1-SE-LVR402E-0908 8/12/2009 mg/Kg 0'	LVR-402 OU1-SE-LVR402W-0908 8/12/2009 mg/Kg 0'	LVR-403 OU1-SE-LVR403C-0908 8/12/2009 mg/Kg 0'	LVR-403 OU1-SE-LVR403E-0908 8/12/2009 mg/Kg 0'	LVR-403 OU1-SE-LVR403W-0908 8/12/2009 mg/Kg 0'
Aluminum	7429-90-5	NS		2,540	2,650	3,610	2250	3,120	2,310	3,230
Antimony	7440-36-0	NS		1.6 J	1.2 J	7.0 J	18	0.46 U	52.5	1.7 J
Arsenic	7440-38-2	9.79		8.7 J	6.5	19.2	8.9	16.5	5.6	9.1
Barium	7440-39-3	NS		120 J	49.6	143	86.4	62.8	24.2	46.5
Beryllium	7440-41-7	NS		0.56 J-	0.29 J	0.76	0.27 J	0.54 J	0.24 J	0.38 J
Cadmium	7440-43-9	0.99		3.0 J+	2.8	9.3	6	5.1	2.7	5.4
Chromium	7440-47-3	43.4**		5.3 J+	5.1	8.8	7.4	11.1	8.8	5.9
Cobalt	7440-48-4	50		5.6 J+	5.2	11.5	7.5	11.1	4.1	7.3
Copper	7440-50-8	31.6		184 J	61.8	600	80.5	844	30	107
Iron	7439-89-6	NS		13,700	18,400	65,600	43100	24,900	54,300	81,400
Lead	7439-92-1	35.8		45.5 J	130	914	300	63.9	19.4	39.6
Manganese	7439-96-5	NS		609	1,980	1,930	3230	1,030	1,310	1,320
Mercury	7439-97-6	0.18		NM	0.20 U	0.20 U	0.20 U	0.18 U	0.20 U	0.20 U
Nickel	7440-02-0	22.7		23.1 J	14.5	39	21	23.5	15.3	19.6
Selenium	7782-49-2	NS		0.45 U	0.55	0.93	0.59	0.61	0.39	0.74
Silver	7440-22-4	0.5		0.0 U	1.4	6	2.2	0.54	27.6	2
Thallium	7440-28-0	NS		0.043 J	0.13 U	0.20 J	0.12 U	0.11 U	0.12 U	0.12 U
Vanadium	7440-62-2	NS		10.8 J	10.7	13.7	22.3	20.8	17.1	13.6
Zinc	7440-66-6	121		781	1,250	6,910	1620	526	1,840	2,060
Cyanide	57-12-5	0.0001		NM	NM	NM	NM	NM	NM	NM

Analyte	CAS #	Sediment ESV (mg/kg)	Location ID / Sample ID / Date / Units / Depth	LVR-404 OU1-SE-LVR404E-0908 8/12/2009 mg/Kg 0'	LVR-404 OU1-SE-LVR404W-0908 8/12/2009 mg/Kg 0'	LVR-405 OU1-SE-LVR405C-0908 8/13/2009 mg/Kg 0'	LVR-405 OU1-SE-LVR405E-0908 8/13/2009 mg/Kg 0'	LVR-405 OU1-SE-LVR405W-0908 8/13/2009 mg/Kg 0'	LVR-406 OU1-SE-LVR406-0908 8/14/2009 mg/Kg 0'	LVR-407 OU1-SE-LVR407-0908 8/14/2009 mg/Kg 0'
Aluminum	7429-90-5	NS		1,550	2,150	5,760	1,850	185	14,000	10,200
Antimony	7440-36-0	NS		4.3 J	0.46 U	0.47 U	0.47 U	9.0 J	8.6 U	0.56 U
Arsenic	7440-38-2	9.79		6.4	4.3	9.6	4.4	276	7.9	4.2
Barium	7440-39-3	NS		36.9	32.6	77	44.2	6.6 J	127	112
Beryllium	7440-41-7	NS		0.25 J	0.15 J	0.52 J	0.16 J	1,170	0.025 J	0.45 J
Cadmium	7440-43-9	0.99		3.8	1.8	1.5	2.6	11.6	10.5 J+	8.4 J+
Chromium	7440-47-3	43.4**		3.6	4.3	9.6	4.7	1.1 U	0.53	12.8
Cobalt	7440-48-4	50		5.2	3.9	7.4	4	182 J	12.7	6.7
Copper	7440-50-8	31.6		29.6	16.7	10.8	5	4.8 U	25.6	17.4 J+
Iron	7439-89-6	NS		19,800 J	21,200	19,900	14,600	27.9	30,000	16,600
Lead	7439-92-1	35.8		28.5	12.6	14.7	10.9	0.83 U	6.2	16.3 J+
Manganese	7439-96-5	NS		671 J	775	1,770	1,870	0.12 U	1,580 J+	667 J+
Mercury	7439-97-6	0.18		0.19 U	0.19 U	0.19 U	0.19 U	0.019 U	0.23 U	0.24 U
Nickel	7440-02-0	22.7		13.3	9.9	16.1	9.5	22,000	35.5 J+	18.1 J+
Selenium	7782-49-2	NS		0.42	0.36	0.46	0.26	2.5 U	0.72 U	0.73 U
Silver	7440-22-4	0.5		7.7 J-	0.51	0.48	0.18	10.0 U	1.0 J	0.39 J
Thallium	7440-28-0	NS		0.12 U	0.12 U	0.46 J	0.046 J	0.38 J	0.23 J	0.22 J
Vanadium	7440-62-2	NS		9.8	8.1	19.3	12.4	47.2	0.65	20.2
Zinc	7440-66-6	121		2,770 J	2,160	195	523	21.3	4,340 J+	1,760 J+
Cyanide	57-12-5	0.0001		NM	NM	NM	NM	NM	NM	NM

Table 4.1.4-11
Inorganic COI Results for Sediment Samples Collected from the Little Vermilion River
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Sediment ESV (mg/kg)	Location ID Sample ID Date Units Depth	LVR-404 OU1-SE-LVR404C-0908 8/12/2009 mg/Kg 0'	LVR-408 OU1-SE-LVR408-0908 8/14/2009 mg/Kg 0'	LVR-409 OU1-SE-LVR409-0908 8/14/2009 mg/Kg 0'	LVR-201 OU1-SS-LVR406-071029 10/29/2007 mg/Kg 0'	LVR-203 OU1-SS-LVR203-071030 10/30/2007 mg/Kg 0'	LVR-204 OU1-SS-LVR204-071030 10/30/2007 mg/Kg 0'	LVR-206 OU1-SS-LVR206-071030 10/30/2007 mg/Kg 0'
Aluminum	7429-90-5	NS		1,510	3,480	2,330	8,370	1,530	3,750	2,250
Antimony	7440-36-0	NS		0.43 U	0.54 U	7.2 U	10.9 J	2.0 J	1.5 U	0.98 U
Arsenic	7440-38-2	9.79		6.2 J+	2.9	2.5	50.8	17.9	10.6	4
Barium	7440-39-3	NS		72.6 J	46.4	31.5	44.7	90.2	81	29
Beryllium	7440-41-7	NS		0.14 J	0.25 J	0.16 J	0.51 J	0.14 J	0.42 J	0.23 J
Cadmium	7440-43-9	0.99		2.6 J-	1.3 J+	0.71 J+	9.7	6.4	3.3	1.1 J
Chromium	7440-47-3	43.4**		3.4 J+	6.1	4.4	14.1	3.5	11.5	6.2
Cobalt	7440-48-4	50		5.2 J+	4.4	3.5	21.5	8.3	10.3	3.5
Copper	7440-50-8	31.6		91.0 J	10.4 J+	6.5 J+	440	54	298	7.8
Iron	7439-89-6	NS		19,200	11,100	8,190	27,700	30,200	265,000	11,700
Lead	7439-92-1	35.8		34.1 J	16.5 J+	8.6 J+	61	124	25	9.3
Manganese	7439-96-5	NS		620	313	225	1,050	595	922	274
Mercury	7439-97-6	0.18		0.18 U	0.22 U	0.19 U	0.010 J	0.022 J	0.041 J	0.011 J
Nickel	7440-02-0	22.7		10.9	10.9 J+	7.0 J+	57.5	16.2	25.1	9.1
Selenium	7782-49-2	NS		0.29 J-	0.69 U	0.60 U	2.2	0.35 U	0.98 J	0.52 J
Silver	7440-22-4	0.5		0.56	0.22 J	0.25 J	4.2 J	0.76 J	0.14 U	0.39 J
Thallium	7440-28-0	NS		0.11 U	0.070 J	0.050 J	0.23 J	0.048 U	0.074 U	0.057 J
Vanadium	7440-62-2	NS		11.6 J	11.3	7.6	80.8	9.5	21.6	13.5
Zinc	7440-66-6	121		488	116 J+	97.7 J+	2,700	783	11,100	101
Cyanide	57-12-5	0.0001		NM	NM	NM	1.8 U	NM	NM	NM

Analyte	CAS #	Sediment ESV (mg/kg)	Location ID Sample ID Date Units Depth	LVR-209 OU1-SS-LVR209-071031 10/31/2007 mg/Kg 0'	LVR-210 OU1-SS-LVR210-071031 10/31/2007 mg/Kg 0'	LVR-211 OU1-SS-LVR211-071031 10/31/2007 mg/Kg 0'	LVR-212 OU1-SS-LVR212-071031 10/31/2007 mg/Kg 0'	LVR-213 OU1-SS-LVR213-071031 10/31/2007 mg/Kg 0'	LVR-214 OU1-SS-LVR214-071031 10/31/2007 mg/Kg 0'	QuarryBridge-07B QB-07B 11/8/1994 mg/Kg 0'
Aluminum	7429-90-5	NS		4,930	2,900	10,200	2,710	7,760	3,420	NM
Antimony	7440-36-0	NS		0.93 U	1.3 U	1.1 U	0.95 U	1.3 U	0.87 U	NM
Arsenic	7440-38-2	9.79		5.3	3.3	8.1	3.4	3.8	12.4	NM
Barium	7440-39-3	NS		44.1	103	71.4	53.7	91.6	88.5	101
Beryllium	7440-41-7	NS		0.36 J	0.22 J	0.62 J	0.26 J	0.39 J	0.34 J	NM
Cadmium	7440-43-9	0.99		1.4	1.9	3.5	0.99 J	1.1 J	1.6	2.4
Chromium	7440-47-3	43.4**		6.2	4.9 J	14.3	6.3	9.5	7	13.1
Cobalt	7440-48-4	50		5.9	4.4	10.9	4.8	7.8	5.5	NM
Copper	7440-50-8	31.6		9.8	8.9	21.5	10.7	15.3	8.6	NM
Iron	7439-89-6	NS		23,900	10,600	23,700	20,300	16,300	34,900	16,100
Lead	7439-92-1	35.8		9.7	9.1	29.7	8.8	12.1	17.4	101
Manganese	7439-96-5	NS		781	291	656	676	468	2160	584
Mercury	7439-97-6	0.18		0.051 J	0.0080 J	0.033 J	0.0090 J	0.027 J	0.0060 J	0.35
Nickel	7440-02-0	22.7		19	11.5	30.7	13.5	16.9	14.1	24
Selenium	7782-49-2	NS		0.49 J	0.71 J	0.66 J	0.51 J	0.51 U	0.67 J	NM
Silver	7440-22-4	0.5		0.35 J	0.22 J	0.41 J	0.38 J	0.24 J	0.57 J	NM
Thallium	7440-28-0	NS		0.085 J	0.073 U	0.16 J	0.061 J	0.13 J	0.12 J	NM
Vanadium	7440-62-2	NS		16.5	10.4	15.9	10.6	13.8	17	NM
Zinc	7440-66-6	121		229 J	86.2	626	103	94.7	184 J	175
Cyanide	57-12-5	0.0001		1.2 U	NM	NM	NM	1.7 U	1.2 U	NM

Table 4.1.4-11
Inorganic COI Results for Sediment Samples Collected from the Little Vermilion River
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Location ID Sample ID Date Units Depth Sediment ESV (mg/kg)	LVR-207 OU1-SS-LVR207-071030 10/30/2007 mg/Kg 0'	LVR-208 OU1-SS-LVR208-071030 10/30/2007 mg/Kg 0'	SSI-X203 SSI-X203 11/21/1991 mg/Kg 0 - 0.667'	SSI-X204 SSI-X204 11/21/1991 mg/Kg 0 - 0.667'	SSI-X208 SSI-X208 11/20/1991 mg/Kg 0 - 0.667'
Aluminum	7429-90-5	NS	**3,000**	**5,690**	**6,200**	**6,810**	**3,430**
Antimony	7440-36-0	NS	0.97 U	1.2 U	5.3 U	7.1 U	**58.4**
Arsenic	7440-38-2	9.79	**4.7**	**2.2**	0.44 U	**7.7**	**4.5**
Barium	7440-39-3	NS	**33.1**	**76.6**	**111**	**226**	33.5 U
Beryllium	7440-41-7	NS	**0.29 J**	**0.36 J**	**2.3**	**1.1 J**	**0.50 J**
Cadmium	7440-43-9	0.99	**1.2**	**0.76 J**	**15.3**	**5.1**	**1.3**
Chromium	7440-47-3	43.4**	**4.6**	**10**	**37.5**	**21.3**	**6**
Cobalt	7440-48-4	50	**4.8**	**6.4**	**11.1**	**11.6 J**	**5.5 J**
Copper	7440-50-8	31.6	**5.9 J**	**6.5 J**	**186**	**49.1**	**7.7**
Iron	7439-89-6	NS	**15,300**	**66,200**	**46,000**	**15,400**	**8,600**
Lead	7439-92-1	35.8	**8.6**	**3.9**	**733**	**262**	**7.6**
Manganese	7439-96-5	NS	**455**	**1,230**	**1,580**	**1,210**	**520**
Mercury	7439-97-6	0.18	**0.012 J**	**0.0070 J**	**0.35**	**0.18**	0.074 U
Nickel	7440-02-0	22.7	**12.5**	**24.8**	**85.4**	**16.7**	**7.4**
Selenium	7782-49-2	NS	**0.52 J**	**0.54 J**	0.44 U	5.5 U	3.5 U
Silver	7440-22-4	0.5	**0.25 J**	**0.88 J**	1.9 U	2.6 U	1.5 U
Thallium	7440-28-0	NS	0.052 U	0.063 U	0.67 U	0.82 U	0.52 U
Vanadium	7440-62-2	NS	**10.9**	**13.1**	**68.8**	**19.9**	**8.7**
Zinc	7440-66-6	121	**76.1**	**162 J**	**6,290**	**1,570**	**60.2**
Cyanide	57-12-5	0.0001	NM	NM	**0.48**	0.32 U	0.26 U

Analyte	CAS #	Location ID Sample ID Date Units Depth Sediment ESV (mg/kg)	Section_Line_DP Sctn Line 11/11/1994 mg/Kg 0'	SSI-X201 SSI-X201 11/21/1991 mg/Kg 0 - 0.583'	SSI-X202 SSI-X202 11/21/1991 mg/Kg 0 - 0.25'
Aluminum	7429-90-5	NS	NM	**7,980**	**20,000**
Antimony	7440-36-0	NS	NM	5.8 U	7.6 U
Arsenic	7440-38-2	9.79	NM	**3.3**	**8.6**
Barium	7440-39-3	NS	**35.3 J**	**72**	**157**
Beryllium	7440-41-7	NS	NM	**0.69 J**	**1.5**
Cadmium	7440-43-9	0.99	**20.5**	**36.8**	**22.8**
Chromium	7440-47-3	43.4**	**7.1**	**19.9**	**39.3**
Cobalt	7440-48-4	50	NM	**9.7 J**	**18.6**
Copper	7440-50-8	31.6	NM	**102**	**46.3**
Iron	7439-89-6	NS	**41,500**	**15,000**	**23,100**
Lead	7439-92-1	35.8	**55.8**	**594**	**1,050**
Manganese	7439-96-5	NS	**662**	**500**	**758**
Mercury	7439-97-6	0.18	0.12 U	**0.53**	0.15 U
Nickel	7440-02-0	22.7	**25.4**	**19.9**	**28.9**
Selenium	7782-49-2	NS	NM	4.7 U	6.2 U
Silver	7440-22-4	0.5	NM	2.1 U	2.7 U
Thallium	7440-28-0	NS	NM	0.71 U	0.94 U
Vanadium	7440-62-2	NS	NM	**25.7**	**43.9**
Zinc	7440-66-6	121	**1,400**	**6,500**	**4,630**
Cyanide	57-12-5	0.0001	NM	0.32 U	**1.3**

Notes:

	Exceedance of Sediment Ecological Screening Value (ESV)
1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
NM	Not Measured
NS	No applicable standard
J-	The analyte was posively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due to bias attributable to matrix interference.
J+	The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to bias attributable to matrix interference.
*	Detection limits not available in data from others.
**	Screening value for total chromium is based on April 2009 US EPA RSL.

Table 4.1.4-12
Metals and Cyanide Results for Surface Water Samples Collected from the Little Vermilion River
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Location ID / Sample ID / Date / Units / Total or Dissolved / Surface Water ESV (µg/L)	5thstbridge 5th St. Bridge 11/8/1994 µg/L T	ASO-411 OU1-SW-ASO411-0908 8/11/2009 µg/L D	ASO-411 OU1-SW-ASO411-0908 8/11/2009 µg/L T	ASO-411 OU1-SW-ASO411-090812 8/12/2009 µg/L D	ASO-411 OU1-SW-ASO411-090812 8/12/2009 µg/L T	ASO-411 OU1-SW-ASO411-090813 8/13/2009 µg/L D	ASO-411 OU1-SW-ASO411-090813 8/13/2009 µg/L T	ASO-411 OU1-SW-ASO411-090818 8/18/2009 µg/L T	ASO-411 OU1-SW-AS0411-090820 8/20/2009 µg/L T
Aluminum	7429-90-5	87	NM	14.9 U	14.9 U	14.9 U	14.9 U	14.9 U	14.9 U	14.9 U	14.9 U
Arsenic	7440-38-2	190	NM	1.3 U	1.3 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Barium	7440-39-3	220	**115 J**	**23.7**	**22.7**	**23.6**	**22.8**	**22.6**	**23.6**	**24.5**	**24.1**
Beryllium	7440-41-7	3.6	NM	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Cadmium	7440-43-9	1.18	3.0 U	**296**	**291**	**307**	**316**	**305**	**317**	**298**	**299**
Chromium	7440-47-3	11**	5.0 U	10.0 U	10.0 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
Cobalt	7440-48-4	24.00	NM	**1.2 J**	**1.1 J**	**1.4 J**	**1.3 J**	**1.1 J**	**1.2 J**	1.0 U	1.0 U
Copper	7440-50-8	13.26	NM	**21.8 J+**	**21**	**21.2**	**21.7**	**21.8**	**22.7**	**30.5**	**22.9**
Iron	7439-89-6	1,000	**1930**	31.7 U	31.7 U	31.7 U	31.7 U	7.7 U	100 U	31.7 U	31.7 U
Lead	7439-92-1	19.35	**2.0 J**	**75.5**	**78.1**	**84.9**	**91**	**79.6**	**82.7**	**87.1**	**86.9**
Manganese	7439-96-5	NS	**106**	**29.9 J+**	**29.7**	**27.3**	**27.1**	**24.6 J+**	**23.4 J+**	10.0 U	10.0 U
Mercury	7439-97-6	1.10	**0.22**	**0.021 J**	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U
Nickel	7440-02-0	5.82	20.0 U	**62.5**	**61.9**	**59.7**	**62.9**	**61.9**	**66.4**	**60**	**59.4**
Selenium	7782-49-2	5.00	NM	**11.9**	**11.9**	**11.5 J**	**11.4 J**	**11.9 J**	**13.2 J**	**11.9 J**	**10.9 J**
Silver	7440-22-4	0.12	NM	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	**0.84 J**	0.83 U	0.83 U
Thallium	7440-28-0	15++	NM	0.51 U	0.51 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vanadium	7440-62-2	12.00	NM	2.7 U	2.7 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U
Zinc	7440-66-6	25.17	**96.3**	**62,100**	**62,000**	**62,300**	**62,200**	**61,900**	**62,400**	**58,800**	**59,500**
Cyanide	57-12-5	5.2	6.2 U	NM	NM	NM	NM	NM	NM	NM	NM

Analyte	CAS #	Location ID / Sample ID / Date / Units / Total or Dissolved / Surface Water ESV (µg/L)	ASO-411 OU1-SW-ASO411-090814 8/14/2009 µg/L D	ASO-411 OU1-SW-ASO411-090814 8/14/2009 µg/L T	ASO-411 OU1-GW-MW404-090814 8/14/2009 µg/L D	ASO-411 OU1-GW-MW404-090814 8/14/2009 µg/L T	ASO-411 OU1-SW-AS0411-090817 8/17/2009 µg/L D	ASO-411 OU1-SW-AS0411-090817 8/17/2009 µg/L T	ASO-411 OU1-SW-AS0411-090818 8/18/2009 µg/L D	CSO-410 OU1-SW-CS0410-0908 8/11/2009 µg/L T	CSO-410 OU1-SW-CS0410-090817 8/17/2009 µg/L D
Aluminum	7429-90-5	87	14.9 U	14.9 U	14.9 U	14.9 U	14.9 U	14.9 U	14.9 U	**22.9 J**	14.9 U
Arsenic	7440-38-2	190	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.3 U	2.5 U
Barium	7440-39-3	220	**23.4 J+**	**22.5 J+**	10.0 U	**24.1 J+**	**22.3**	**24.6**	**25**	**15.6**	**16.3**
Beryllium	7440-41-7	3.6	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Cadmium	7440-43-9	1.18	**300 J+**	**294 J+**	10.0 U	**305 J+**	**280**	**300**	**303**	**197**	**172**
Chromium	7440-47-3	11**	1.8 U	1.8 U	10.0 U	1.8 U	1.8 U	1.8 U	1.8 U	10.0 U	**2.1 J**
Cobalt	7440-48-4	24.00	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	**8.5**	**6.5 J**
Copper	7440-50-8	13.26	**21.0 J+**	**21.0 J+**	10.0 U	**21.4 J+**	**20.9**	**22.3**	**22.8**	**117**	**86.2**
Iron	7439-89-6	1,000	100 U	100 U	100 U	100 U	31.7 U	31.7 U	31.7 U	**51.2 J**	31.7 U
Lead	7439-92-1	19.35	**77.7 J+**	**77.9 J+**	10.0 U	**79.1 J+**	**80.6**	**85.1**	**84.4**	**14.8**	**12.6**
Manganese	7439-96-5	NS	**15.3 J+**	**15.7 J+**	10.0 U	**15.3 J+**	10.0 U	10.0 U	10.0 U	**429**	**290**
Mercury	7439-97-6	1.10	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U
Nickel	7440-02-0	5.82	**67.2 J+**	**67.6 J+**	10.0 U	**70.0 J+**	**56.7**	**60**	**59.7**	**73.5**	**59.9**
Selenium	7782-49-2	5.00	20.0 U	20.0 U	0.56 UJ	20.0 U	**11.0 J**	**11.6 J**	**11.7 J**	**4.1 J**	**3.9 J**
Silver	7440-22-4	0.12	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U
Thallium	7440-28-0	15++	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**1.9 J**	1.0 U	0.51 U	1.0 U
Vanadium	7440-62-2	12.00	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	2.7 U	5.5 U
Zinc	7440-66-6	25.17	**58,000 J+**	**57,900 J+**	**21.0 J+**	**55,500 J+**	**56,500**	**57,100**	**61,000**	**69,000**	**56,600**
Cyanide	57-12-5	5.2	NM	NM	NM	NM	NM	NM	NM	NM	NM

Table 4.1.4-12
Metals and Cyanide Results for Surface Water Samples Collected from the Little Vermilion River
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Surface Water ESV (µg/L)	ASO-411 OU1-SW-ASO411-090820 DISSOLVED 8/20/2009 µg/L D	CSO-410 OU1-SW-CS0410-090810 8/10/2009 µg/L D	CSO-410 OU1-SW-CS0410-090810 8/10/2009 µg/L T	CSO-410 OU1-SW-CS0410-0908 8/11/2009 µg/L D	LVR-205 OU1-SW-LVR205-071030 10/30/2007 µg/L T	LVR-207 OU1-SW-LVR207-071030 10/30/2007 µg/L T	LVR-209 OU1-SW-LVR209-071031 10/31/2007 µg/L T	LVR-211 OU1-SW-LVR211-071031 10/31/2007 µg/L T
Aluminum	7429-90-5	87	14.9 U	14.9 U	14.9 U	14.9 U	**274**	**3,000**	**2,440**	**5,050**
Arsenic	7440-38-2	190	2.5 U	1.3 U	1.3 U	1.3 U	**1.1**	**0.43 J**	**0.88 J**	**1.5**
Barium	7440-39-3	220	**24.9**	**15.6**	**16.1**	**15.5**	**77**	**86.4**	**84.7**	**91.9**
Beryllium	7440-41-7	3.6	0.14 U	0.14 U	0.14 U	0.14 U	0.075 U	0.075 U	0.075 U	**0.12 J**
Cadmium	7440-43-9	1.18	**296**	**193**	**203**	**199**	0.11 U	0.11 U	0.11 U	**0.48 J**
Chromium	7440-47-3	11**	1.8 U	10.0 U	10.0 U	10.0 U	**0.59 J**	**3.7**	**3.0 J**	**5**
Cobalt	7440-48-4	24.00	1.0 U	**7.8**	**8.4**	**8.8**	**0.42 J**	**1.1**	**0.88 J**	**1.5**
Copper	7440-50-8	13.26	**23.5**	**116 J+**	**129**	**110 J+**	**1.5 J**	**2.6 J**	**2.2 J**	**3.8 J**
Iron	7439-89-6	1,000	31.7 U	31.7 U	31.7 U	31.7 U	**271**	**2,220**	**1,580**	**3,430**
Lead	7439-92-1	19.35	**83.8**	**13.9**	**16.3**	**12.9**	**0.28 J**	**1.2**	**0.77 J**	**2.9**
Manganese	7439-96-5	NS	10.0 U	**385**	**399**	**424**	**21.5**	**44.5**	**37.1**	**69.3**
Mercury	7439-97-6	1.10	0.019 U	**0.031 J**	0.019 U	0.019 U	0.014 U	**0.018 J**	0.014 U	0.014 U
Nickel	7440-02-0	5.82	**59.3**	**70.3**	**75.2**	**74.7**	**3.7**	**6.1**	**5.7**	**8.2**
Selenium	7782-49-2	5.00	**11.9 J**	**4.0 J**	**4.4 J**	**4.1 J**	**0.66 J**	**0.68 J**	**1.3**	**1.4**
Silver	7440-22-4	0.12	0.83 U	0.83 U	0.83 U	0.83 U	0.74 U	0.74 U	0.74 U	0.74 U
Thallium	7440-28-0	15++	1.0 U	0.51 U	0.51 U	0.51 U	**0.064 J**	0.042 U	0.042 U	**0.043 J**
Vanadium	7440-62-2	12.00	5.5 U	2.7 U	2.7 U	2.7 U	**1.1**	**1.8**	**1.7**	**4.3**
Zinc	7440-66-6	25.17	**57,900**	**66,300**	**68,300**	**69,200**	**22.9**	**8.4 J**	**9.8 J**	**45.6**
Cyanide	57-12-5	5.2	NM	NM	NM	NM	10.0 U	NM	10.0 U	NM

Analyte	CAS #	Surface Water ESV (µg/L)	CSO-410 OU1-SW-CS0410-090817 8/17/2009 µg/L T	LVR-201 OU1-SW-LV201-071029 10/29/2007 µg/L T	LVR-201 OU1-SW-LV406-071029 10/29/2007 µg/L T	LVR-203 OU1-SW-LVR203-071030 10/30/2007 µg/L T	LVR-401 OU1-SW-LVR401C-0908 8/11/2009 µg/L D	LVR-401 OU1-SW-LVR401C-0908 8/11/2009 µg/L T	LVR-401 OU1-SW-LVR401E-0908 8/11/2009 µg/L D	LVR-401 OU1-SW-LVR401E-0908 8/11/2009 µg/L T
Aluminum	7429-90-5	87	**205**	**223**	**330**	**460**	14.9 U	**728**	14.9 U	**733**
Arsenic	7440-38-2	190	2.5 U	**0.34 J**	**0.31 J**	**0.42 J**	1.3 U	1.3 U	1.3 U	1.3 U
Barium	7440-39-3	220	**16.5**	**76.2**	**77.3**	**76.4**	**84.4**	**88.5**	**84.4**	**88.7**
Beryllium	7440-41-7	3.6	0.14 U	0.075 U	0.075 U	0.075 U	0.14 U	**0.17**	0.14 U	0.14 U
Cadmium	7440-43-9	1.18	**169**	**6.4**	**6.5**	**7.1**	0.16 U	**0.29 J**	0.16 U	**0.26 J**
Chromium	7440-47-3	11**	**2.4 J**	**1.1 J**	**1.2 J**	**1.4 J**	10.0 U	10.0 U	10.0 U	10.0 U
Cobalt	7440-48-4	24.00	**6.6 J**	**1.3**	**1.3**	**1.5**	**0.32 J**	**0.52 J**	**0.40 J**	**0.50 J**
Copper	7440-50-8	13.26	**120**	**2.5 J**	**2.5 J**	**2.8 J**	5.0 U	**2.1 J**	5.0 U	**2.1 J**
Iron	7439-89-6	1,000	**182**	**362**	**482**	**494**	100 U	**599**	31.7 U	**601**
Lead	7439-92-1	19.35	**18.8**	**0.35 J**	**0.36 J**	**0.39 J**	0.13 U	**1.1 J**	0.13 U	5.0 U
Manganese	7439-96-5	NS	**282**	**73.5**	**75.2**	**72.1**	**39.0 J+**	**64.7**	**39.4 J+**	**62.7**
Mercury	7439-97-6	1.10	0.019 U	0.014 U	0.014 U	0.014 U	0.019 U	0.019 U	0.019 U	0.019 U
Nickel	7440-02-0	5.82	**57.9**	**7.8**	**7.9**	**8.7**	**4.2 J**	**3.9 J**	**4.1 J**	**4.1 J**
Selenium	7782-49-2	5.00	**3.4 J**	**0.84 J**	**0.92 J**	**0.99 J**	**0.67 J**	**0.58 J**	**0.53 J**	**0.65 J**
Silver	7440-22-4	0.12	0.83 U	0.74 U	0.74 U	0.74 U	0.83 U	0.83 U	0.83 U	0.83 U
Thallium	7440-28-0	15++	1.0 U	0.042 U	0.042 U	0.042 U	0.51 U	**0.72 J**	0.51 U	0.51 U
Vanadium	7440-62-2	12.00	5.5 U	0.098 U	0.098 U	0.098 U	2.7 U	2.7 U	2.7 U	2.7 U
Zinc	7440-66-6	25.17	**56,100**	**1,790**	**1,830**	**1,960**	**97.8**	**145**	**99.2**	**137**
Cyanide	57-12-5	5.2	NM	10.0 U	10.0 U	NM	NM	NM	NM	NM

Table 4.1.4-12
Metals and Cyanide Results for Surface Water Samples Collected from the Little Vermilion River
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Location ID / Sample ID / Date / Units / Total or Dissolved / Surface Water ESV (µg/L)	LVR-213 OU1-SW-LVR213-071031 10/31/2007 µg/L T	LVR-214 OU1-SW-LVR214-071031 10/31/2007 µg/L T	LVR-401 OU1-GW-MW404-0908 8/11/2009 µg/L D	LVR-401 OU1-GW-MW404-0908 8/11/2009 µg/L T	LVR-402 OU1-SW-LVR402C-0908 8/12/2009 µg/L D	LVR-402 OU1-SW-LVR402C-0908 8/12/2009 µg/L T	LVR-402 OU1-SW-LVR402E-0908 8/12/2009 µg/L D	LVR-402 OU1-SW-LVR402E-0908 8/12/2009 µg/L T	LVR-402 OU1-SW-LVR402W-0908 8/12/2009 µg/L D
Aluminum	7429-90-5	87	**331**	**1380**	**32.1 J**	**670**	14.9 U	**531**	14.9 U	**673**	14.9 U
Arsenic	7440-38-2	190	**0.48 J**	**0.53 J**	1.3 U	1.3 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Barium	7440-39-3	220	**81.5**	**78.6**	**82.8**	**85.5**	**86.3**	**90.2**	**86.5**	**94.3**	**85.9**
Beryllium	7440-41-7	3.6	0.075 U	0.075 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Cadmium	7440-43-9	1.18	0.11 U	0.11 U	**0.17 J**	**0.31 J**	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Chromium	7440-47-3	11**	**1.5 J**	**2.4 J**	10.0 U	10.0 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
Cobalt	7440-48-4	24.00	**0.49 J**	**0.64 J**	**0.39 J**	**0.56 J**	**0.65 J**	**0.62 J**	**0.49 J**	**0.72 J**	**0.50 J**
Copper	7440-50-8	13.26	**1.6 J**	**1.6 J**	5.0 U	**1.9 J**	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Iron	7439-89-6	1,000	**333**	**904**	31.7 U	**597**	31.7 U	**626**	31.7 U	**755**	31.7 U
Lead	7439-92-1	19.35	**0.25 J**	**0.35 J**	0.13 U	5.0 U	0.26 U	**1.2**	10.0 U	**1.5**	0.26 U
Manganese	7439-96-5	NS	**20.3**	**21.7**	**38.3 J+**	**63.8**	**37.9**	**67.9**	**39.8**	**74.8**	**37.5**
Mercury	7439-97-6	1.10	0.014 U	**0.015 J**	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	**0.022 J**
Nickel	7440-02-0	5.82	**4.3**	**4.8**	**4.1 J**	**4.5 J**	**5**	**4.2**	**4.2**	**4.6**	**4.4**
Selenium	7782-49-2	5.00	**0.78 J**	**1**	**0.72 J**	**0.68 J**	0.56 U	0.56 U	0.56 U	0.56 U	0.56 U
Silver	7440-22-4	0.12	0.74 U	0.74 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U
Thallium	7440-28-0	15++	0.042 U	0.042 U	0.51 U	0.51 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vanadium	7440-62-2	12.00	0.098 U	**0.48 J**	2.7 U	2.7 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U
Zinc	7440-66-6	25.17	**4.7 J**	**4.9 J**	**102**	**139**	**130**	**180**	**130**	**186**	**157**
Cyanide	57-12-5	5.2	10.0 U	10.0 U	NM	NM	NM	NM	NM	NM	NM

Analyte	CAS #	Location ID / Sample ID / Date / Units / Total or Dissolved / Surface Water ESV (µg/L)	LVR-401 OU1-SW-LVR401W-0908 8/11/2009 µg/L D	LVR-401 OU1-SW-LVR401W-0908 8/11/2009 µg/L T	LVR-403 OU1-SW-LVR403E-0908 8/12/2009 µg/L T	LVR-403 OU1-SW-LVR403W-0908 8/12/2009 µg/L D	LVR-403 OU1-SW-LVR403W-0908 8/12/2009 µg/L T	LVR-403 OU1-SW-LVR403C-0908 8/12/2009 µg/L D	LVR-403 OU1-SW-LVR403C-0908 8/12/2009 µg/L T	LVR-403 OU1-SW-LVR403E-0908 8/12/2009 µg/L D	LVR-405 OU1-SW-LVR405C-0908 8/13/2009 µg/L D
Aluminum	7429-90-5	87	14.9 U	**816**	**451**	14.9 U	**549**	14.9 U	**465**	14.9 U	**72.4 J**
Arsenic	7440-38-2	190	1.3 U	1.3 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Barium	7440-39-3	220	**83.9**	**85.4**	**89.7**	**89.6**	**90.2**	**88.7**	**89.2**	**84.4**	**82.5**
Beryllium	7440-41-7	3.6	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Cadmium	7440-43-9	1.18	0.16 U	**0.22 J**	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Chromium	7440-47-3	11**	10.0 U	10.0 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
Cobalt	7440-48-4	24.00	**0.31 J**	**0.37 J**	**0.60 J**	**0.42 J**	**0.64 J**	**0.40 J**	**0.61 J**	**0.40 J**	10.0 U
Copper	7440-50-8	13.26	5.0 U	**1.8 J**	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Iron	7439-89-6	1,000	31.7 U	**674**	**545**	31.7 U	**641**	31.7 U	**564**	31.7 U	100 U
Lead	7439-92-1	19.35	0.13 U	5.0 U	**1.4**	10.0 U	**1.4**	10.0 U	**1.2**	10.0 U	0.26 U
Manganese	7439-96-5	NS	**39.1 J+**	**65.9**	**66.9**	**42.7**	**70**	**40.6**	**67.7**	**41.8**	**33.4 J+**
Mercury	7439-97-6	1.10	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	**0.044 J**	0.019 U	**0.039 J**	**0.035 J**
Nickel	7440-02-0	5.82	**3.5 J**	**3.8 J**	**4.3**	**4.1**	**4.3**	**3.8**	**4.1**	**3.8**	10.0 U
Selenium	7782-49-2	5.00	**0.64 J**	**0.62 J**	**0.79 J**	0.56 U	0.56 U	0.56 U	0.56 U	**0.67 J**	**0.76 J**
Silver	7440-22-4	0.12	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U
Thallium	7440-28-0	15++	0.51 U	0.51 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vanadium	7440-62-2	12.00	2.7 U	2.7 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U
Zinc	7440-66-6	25.17	**102**	**141**	**178**	**180**	**180**	**160**	**177**	**164**	**39.9 J+**
Cyanide	57-12-5	5.2	NM	NM	NM	NM	NM	NM	NM	NM	NM

Table 4.1.4-12
Metals and Cyanide Results for Surface Water Samples Collected from the Little Vermilion River
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Surface Water ESV (µg/L)	LVR-402 OU1-SW-LVR402W-0908 8/12/2009 µg/L T	LVR-404 OU1-SW-LVR404W-0908 8/12/2009 µg/L D	LVR-404 OU1-SW-LVR404W-0908 8/12/2009 µg/L T	LVR-404 OU1-SW-LVR404C-0908 8/12/2009 µg/L D	LVR-404 OU1-SW-LVR404C-0908 8/12/2009 µg/L T	LVR-404 OU1-SW-LVR404E-0908 8/12/2009 µg/L D	LVR-404 OU1-SW-LVR404E-0908 8/12/2009 µg/L T	LVR-408 OU1-SW-LVR408-0908 8/14/2009 µg/L D	LVR-408 OU1-SW-LVR408-0908 8/14/2009 µg/L T
Aluminum	7429-90-5	87	**504**	14.9 U	**719**	14.9 U	**557**	14.9 U	**483**	14.9 U	**702**
Arsenic	7440-38-2	190	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Barium	7440-39-3	220	**91**	**87.3**	**91.1**	**82.1**	**88.9**	**85.8**	**90.4**	**82.9 J+**	**87.0 J+**
Beryllium	7440-41-7	3.6	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Cadmium	7440-43-9	1.18	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Chromium	7440-47-3	11**	1.8 U	1.8 U	10.0 U	1.8 U	1.8 U	**9.7 J**	1.8 U	10.0 U	**23.5**
Cobalt	7440-48-4	24.00	**0.65 J**	**0.51 J**	**0.75 J**	**0.59 J**	**0.88 J**	**0.47 J**	**0.74 J**	10.0 U	10.0 U
Copper	7440-50-8	13.26	10.0 U	10.0 U	**2.9 J+**	10.0 U	10.0 U	10.0 U	10.0 U	**10.0 J**	10.0 U
Iron	7439-89-6	1,000	**604**	**17.8 J**	**797**	31.7 U	**610**	**19.8 J**	**598**	100 U	**735**
Lead	7439-92-1	19.35	**1.3**	10.0 U	**1.6 J+**	0.26 U	**1.4**	10.0 U	**1.4**	10.0 U	10.0 U
Manganese	7439-96-5	NS	**65.6**	**36.8**	**66.8**	**34.6**	**57.3**	**33.4**	**58.1**	**34.3 J+**	**55.0 J+**
Mercury	7439-97-6	1.10	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	**0.026 J**	0.019 UJ
Nickel	7440-02-0	5.82	**4.1**	**4.4**	**4.6**	**4**	**4.2**	**8.7**	**4.1**	10.0 U	10.0 U
Selenium	7782-49-2	5.00	0.56 U	**0.96 J**	**0.80 J**	0.56 U	0.56 U	**0.78 J**	**0.78 J**	0.56 U	0.56 U
Silver	7440-22-4	0.12	0.83 U	0.83 U	**0.93 J**	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U
Thallium	7440-28-0	15++	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Vanadium	7440-62-2	12.00	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U
Zinc	7440-66-6	25.17	**176**	**153**	**214**	**156**	**218**	**122**	**194**	20.0 U	20.0 U
Cyanide	57-12-5	5.2	NM	NM	NM	NM	NM	NM	NM	NM	NM

Analyte	CAS #	Surface Water ESV (µg/L)	LVR-405 OU1-SW-LVR405C-0908 8/13/2009 µg/L T	LVR-405 OU1-SW-LVR405E-0908 8/13/2009 µg/L D	LVR-405 OU1-SW-LVR405E-0908 8/13/2009 µg/L T	LVR-405 OU1-SW-LVR405W-0908 8/13/2009 µg/L D	LVR-405 OU1-SW-LVR405W-0908 8/13/2009 µg/L T
Aluminum	7429-90-5	87	**502**	14.9 U	**475**	14.9 U	**464**
Arsenic	7440-38-2	190	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Barium	7440-39-3	220	**82.3**	**81.2**	**86.2**	**83.6**	**84.4**
Beryllium	7440-41-7	3.6	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Cadmium	7440-43-9	1.18	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Chromium	7440-47-3	11**	1.8 U	1.8 U	**2.3 J**	**2.1 J**	**2.0 J**
Cobalt	7440-48-4	24.00	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Copper	7440-50-8	13.26	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Iron	7439-89-6	1,000	**539 J+**	100 U	**438 J+**	100 U	**508 J+**
Lead	7439-92-1	19.35	10.0 U	0.26 U	10.0 U	0.26 U	10.0 U
Manganese	7439-96-5	NS	**52.7 J+**	**33.5 J+**	**49.3 J+**	**31.0 J+**	**51.0 J+**
Mercury	7439-97-6	1.10	**0.019 J**	**0.031 J**	**0.020 J**	0.019 U	0.019 U
Nickel	7440-02-0	5.82	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Selenium	7782-49-2	5.00	**0.67 J**	**0.97 J**	**0.83 J**	**0.79 J**	**0.68 J**
Silver	7440-22-4	0.12	0.83 U	0.83 U	**0.95 J**	**1.0 J**	0.83 U
Thallium	7440-28-0	15++	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vanadium	7440-62-2	12.00	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U
Zinc	7440-66-6	25.17	**53.5 J+**	**39.7 J+**	**35.9 J+**	**33.9 J+**	**49.0 J+**
Cyanide	57-12-5	5.2	NM	NM	NM	NM	NM

Table 4.1.4-12
Metals and Cyanide Results for Surface Water Samples Collected from the Little Vermilion River
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Location ID Sample ID Date Units Total or Dissolved Surface Water ESV (µg/L)	LVR-409 OU1-SW-LVR409-0908 8/14/2009 µg/L D	LVR-409 OU1-SW-LVR409-0908 8/14/2009 µg/L T	QuarryBridge Quarry Bridge 11/8/1994 µg/L T	Section_Line_DP Section Line 11/8/1994 µg/L T	Section_Line_DP Section Line DP 11/8/1994 µg/L T
Aluminum	7429-90-5	87	14.9 U	**769**	NM	NM	NM
Arsenic	7440-38-2	190	2.5 U	2.5 U	NM	NM	NM
Barium	7440-39-3	220	**75.8 J+**	**80.3 J+**	**98.4 J**	**113 J**	**113 J**
Beryllium	7440-41-7	3.6	0.14 U	0.14 U	NM	NM	NM
Cadmium	7440-43-9	1.18	10.0 U	0.33 U	3.0 U	3.0 U	3.0 U
Chromium	7440-47-3	11**	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U
Cobalt	7440-48-4	24.00	10.0 U	10.0 U	NM	NM	NM
Copper	7440-50-8	13.26	10.0 U	10.0 U	NM	NM	NM
Iron	7439-89-6	1,000	100 U	**710**	**1,400**	**3,180**	**3,540**
Lead	7439-92-1	19.35	10.0 U	**0.99 J**	**2.8 J**	**7.6**	**2.2 J**
Manganese	7439-96-5	NS	**25.7 J+**	**46.1 J+**	**187**	**1240**	**1770**
Mercury	7439-97-6	1.10	**0.032 J**	0.019 UJ	**0.2**	0.20 U	0.20 U
Nickel	7440-02-0	5.82	10.0 U	**4.7 J+**	20.0 U	20.0 U	**28.4 J**
Selenium	7782-49-2	5.00	20.0 U	20.0 U	NM	NM	NM
Silver	7440-22-4	0.12	0.83 U	0.83 U	NM	NM	NM
Thallium	7440-28-0	15++	1.0 U	1.0 U	NM	NM	NM
Vanadium	7440-62-2	12.00	5.5 U	5.5 U	NM	NM	NM
Zinc	7440-66-6	25.17	20.0 U	20.0 U	**27.6**	**88.7**	**116**
Cyanide	57-12-5	5.2	NM	NM	**10**	**8.2**	**10**

Notes:

	Exceedance of Surface Water Ecological Screening Value (ESV)
1,000	Bold indicates a detection
J+	The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to bias attributable to matrix interference.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
NM	Not Measured
NS	No applicable standard
T	Total
D	Dissolved
**	Screening value for total chromium is based on April 2009 US EPA RSL.
++	Screening value for thallium is based on April 2009 US EPA RSL.

Table 4.1.4-13
VOC Results for Sediment Samples Collected from the Little Vermilion River
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Location ID Sample ID Date Units Depth Sediment ESV (µg/Kg)	ISA-X201 ISA-X201 12/14/1993 µg/Kg 0 - 0.25'	ISA-X202 ISA-X202 12/14/1993 µg/Kg 0 - 0.25'	ISA-X203 ISA-X203 12/14/1993 µg/Kg 0'	ISA-X204 ISA-X204 12/14/1993 µg/Kg 0 - 0.5'	ISA-X205 ISA-X205 12/14/1993 µg/Kg 0 - 0.25'	LVR-201 OU1-SS-LVR201-071029 10/29/2007 µg/Kg 0'	LVR-201 OU1-SS-LVR406-071029 10/29/2007 µg/Kg 0'	LVR-205 LVR205-071030 10/30/2007 µg/Kg 0'	LVR-209 OU1-SS-LVR209-071031 10/31/2007 µg/Kg 0'
1,1,1-Trichloroethane	71-55-6	213	0.0 U*	0.0 U*	0.0 U*	0.0 U*	0.0 U*	7.8 U	8.8 U	7.6 U	3.7 U
2-Butanone (MEK)	78-93-3	42.4	0.0 U*	0.0 U*	0.0 U*	0.0 U*	0.0 U*	**4.6 J**	**5.0 J**	**27**	**6.1 J**
Acetone	67-64-1	9.9	0.0 U*	0.0 U*	0.0 U*	0.0 U*	0.0 U*	**49**	**41**	**130**	**37**
Benzene	71-43-2	142	NM	NM	NM	NM	NM	**1.1 J**	**1.8 J**	**1.0 J**	3.7 U
Carbon disulfide	75-15-0	23.9	NM	NM	NM	NM	NM	**4.6 J**	**14.0 J**	**6.6 J**	**0.92 J**
Chloroform	67-66-3	121	NM	NM	NM	NM	NM	7.8 U	8.8 U	7.6 U	3.7 U
cis/trans-1,2-Dichloroethene	540-59-0	654	NM	NM	NM	NM	NM	NM	NM	NM	NM
Cyclohexane	110-82-7	NS	NM	NM	NM	NM	NM	**6.1 J**	**1.7 J**	**1.2 J**	3.7 U
Dichloromethane (Methylene chloride)	75-09-2	159	0.0 U*	0.0 U*	0.0 U*	0.0 U*	0.0 U*	7.8 U	8.8 U	7.6 U	3.7 U
Ethyl benzene	100-41-4	175	0.0 U*	0.0 U*	0.0 U*	0.0 U*	0.0 U*	**0.97 J**	8.8 U	7.6 U	3.7 U
m&p-Xylene	XYLMP	433	NM	NM	NM	NM	NM	**0.94 J**	8.8 U	7.6 U	3.7 U
Methyl acetate	79-20-9	NS	NM	NM	NM	NM	NM	16.0 U	18.0 U	**1.7 J**	7.4 U
Methylcyclohexane	108-87-2	NS	NM	NM	NM	NM	NM	**7.5 J**	**3.6 J**	**1.7 J**	**0.34 J**
Toluene	108-88-3	1,220	0.0 U*	0.0 U*	0.0 U*	0.0 U*	0.0 U*	**2.6 J**	**2.1 J**	**1.7 J**	**0.23 J**
Trichloroethene	79-01-6	112	NM	NM	NM	NM	NM	7.8 U	8.8 U	7.6 U	3.7 U
Xylenes (unspecified)	XYLENES	433	0.0 U*	0.0 U*	0.0 U*	0.0 U*	0.0 U*	NM	NM	NM	NM

Analyte	CAS #	Location ID Sample ID Date Units Depth Sediment ESV (µg/Kg)	LVR-213 OU1-SS-LVR213-071031 10/31/2007 µg/Kg 0'	LVR-214 OU1-SS-LVR214-071031 10/31/2007 µg/Kg 0'	SSI-X201 SSI-X201 11/21/1991 µg/Kg 0 - 0.583'	SSI-X202 SSI-X202 11/21/1991 µg/Kg 0 - 0.25'	SSI-X203 SSI-X203 11/21/1991 µg/Kg 0 - 0.667'	SSI-X204 SSI-X204 11/21/1991 µg/Kg 0 - 0.667'	SSI-X208 SSI-X208 11/20/1991 µg/Kg 0 - 0.667'
1,1,1-Trichloroethane	71-55-6	213	450 U	4.8 U	**6.0 J**	19.0 U	13.0 U	**2.0 J**	12.0 U
2-Butanone (MEK)	78-93-3	42.4	**66**	**2.9 J**	14.0 U	19.0 U	13.0 U	16.0 U	12.0 U
Acetone	67-64-1	9.9	**240 J**	**21**	**18**	**80.0 J**	**13.0 J**	**14.0 J**	**7.0 J**
Benzene	71-43-2	142	450 U	**0.91 J**	14.0 U	19.0 U	13.0 U	16.0 U	12.0 U
Carbon disulfide	75-15-0	23.9	**4.0 J**	**0.88 J**	14.0 U	19.0 U	13.0 U	16.0 U	12.0 U
Chloroform	67-66-3	121	450 U	4.8 U	14.0 U	**2.0 J**	**1.0 J**	**1.0 J**	**1.0 J**
cis/trans-1,2-Dichloroethene	540-59-0	654	NM	NM	14.0 U	**8.0 J**	13.0 U	16.0 U	12.0 U
Cyclohexane	110-82-7	NS	450 U	**1.3 J**	NM	NM	NM	NM	NM
Dichloromethane (Methylene chloride)	75-09-2	159	450 U	4.8 U	**7.0 J**	19.0 U	**2.0 J**	**3.0 J**	**2.0 J**
Ethyl benzene	100-41-4	175	450 U	4.8 U	14.0 U	19.0 U	13.0 U	16.0 U	12.0 U
m&p-Xylene	XYLMP	433	450 U	4.8 U	NM	NM	NM	NM	NM
Methyl acetate	79-20-9	NS	**240 J**	9.7 U	NM	NM	NM	NM	NM
Methylcyclohexane	108-87-2	NS	450 U	**1.8 J**	NM	NM	NM	NM	NM
Toluene	108-88-3	1,220	450 U	**0.93 J**	**6.0 J**	19.0 U	13.0 U	16.0 U	**11.0 J**
Trichloroethene	79-01-6	112	450 U	**7.7**	14.0 U	19.0 U	13.0 U	16.0 U	12.0 U
Xylenes (unspecified)	XYLENES	433	NM	NM	**9.0 J**	19.0 U	13.0 U	16.0 U	12.0 U

Notes:

	Exceedance of Sediment Ecological Screening Value (ESV)
1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
NM	Not Measured
NS	No applicable standard
*	Detection limits not available in data from others.

Table 4.1.4-14
VOC Results for Surface Water Samples Collected from the Little Vermilion River
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Location ID Sample ID Date Units Total or Dissolved Surface Water ESV (µg/L)	LVR-201 OU1-SW-LV201-071029 10/29/2007 µg/L T	LVR-201 OU1-SW-LV406-071029 10/29/2007 µg/L T	LVR-205 OU1-SW-LVR205-071030 10/30/2007 µg/L T	LVR-209 OU1-SW-LVR209-071031 10/31/2007 µg/L T	LVR-213 OU1-SW-LVR213-071031 10/31/2007 µg/L T	LVR-214 OU1-SW-LVR214-071031 10/31/2007 µg/L T
Acetone	67-64-1	120,000	10.0 U	10.0 U	**2.0 J**	10.0 U	**1.7 J**	**2.7 J**

Notes:

1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
NM	Not Measured

Table 4.1.4-15
SVOC Results for Sediment Samples Collected from the Little Vermilion River
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Location ID Sample ID Date Units Depth Sediment ESV (µg/Kg)	ISA-X201 ISA-X201 12/14/1993 µg/Kg 0 - 0.25'	ISA-X202 ISA-X202 12/14/1993 µg/Kg 0 - 0.25'	ISA-X203 ISA-X203 12/14/1993 µg/Kg 0'	ISA-X204 ISA-X204 12/14/1993 µg/Kg 0 - 0.5'	ISA-X205 ISA-X205 12/14/1993 µg/Kg 0 - 0.25'	LVR-205 LVR205-071030 10/30/2007 µg/Kg 0'	LVR-201 OU1-SS-LVR201-071029 10/29/2007 µg/Kg 0'	LVR-209 OU1-SS-LVR209-071031 10/31/2007 µg/Kg 0'	LVR-201 OU1-SS-LVR406-071029 10/29/2007 µg/Kg 0'
Anthracene	120-12-7	57.2	NM	NM	NM	NM	NM	**44.0 J**	480 U	410 U	590 U
Benzo(a)anthracene	56-55-3	108	0.0 U*	0.0 U*	0.0 U*	0.0 U*	0.0 U*	**130 J**	480 U	410 U	590 U
Benzo(a)pyrene	50-32-8	150	0.0 U*	0.0 U*	0.0 U*	0.0 U*	0.0 U*	**130 J**	480 U	410 U	590 U
Benzo(b)fluoranthene	205-99-2	10,000	0.0 U*	0.0 U*	0.0 U*	0.0 U*	0.0 U*	**91.0 J**	480 U	410 U	590 U
Benzo(g,h,i)perylene	191-24-2	170	NM	NM	NM	NM	NM	**72.0 J**	480 U	410 U	590 U
Benzo(k)fluoranthene	207-08-9	240	NM	NM	NM	NM	NM	**100 J**	480 U	410 U	590 U
bis(2-Ethylhexyl) phthalate	117-81-7	182	NM	NM	NM	NM	NM	500 U	480 U	410 U	590 U
Chrysene	218-01-9	166	0.0 U*	0.0 U*	0.0 U*	0.0 U*	0.0 U*	**140 J**	480 U	410 U	590 U
Fluoranthene	206-44-0	423	0.0 U*	0.0 U*	0.0 U*	0.0 U*	0.0 U*	**340 J**	480 U	410 U	590 U
Indeno(1,2,3-cd)pyrene	193-39-5	200	NM	NM	NM	NM	NM	**72.0 J**	480 U	410 U	590 U
Phenanthrene	85-01-8	24	0.0 U*	0.0 U*	0.0 U*	0.0 U*	0.0 U*	**200 J**	480 U	410 U	590 U
Pyrene	129-00-0	195	0.0 U*	0.0 U*	0.0 U*	0.0 U*	0.0 U*	**260 J**	480 U	410 U	590 U

Analyte	CAS #	Location ID Sample ID Date Units Depth Sediment ESV (µg/Kg)	LVR-213 OU1-SS-LVR213-071031 10/31/2007 µg/Kg 0'	LVR-214 OU1-SS-LVR214-071031 10/31/2007 µg/Kg 0'	SSI-X201 SSI-X201 11/21/1991 µg/Kg 0 - 0.583'	SSI-X202 SSI-X202 11/21/1991 µg/Kg 0 - 0.25'	SSI-X203 SSI-X203 11/21/1991 µg/Kg 0 - 0.667'	SSI-X204 SSI-X204 11/21/1991 µg/Kg 0 - 0.667'	SSI-X208 SSI-X208 11/20/1991 µg/Kg 0 - 0.667'
Anthracene	120-12-7	57.2	1,100 U	380 U	470 U	630 U	430 U	540 U	400 U
Benzo(a)anthracene	56-55-3	108	**58.0 J**	380 U	470 U	**330 J**	430 U	540 U	400 U
Benzo(a)pyrene	50-32-8	150	**63.0 J**	380 U	470 U	**250 J**	430 U	540 U	400 U
Benzo(b)fluoranthene	205-99-2	10,000	1,100 U	380 U	470 U	**320 J**	430 U	540 U	400 U
Benzo(g,h,i)perylene	191-24-2	170	1,100 U	380 U	470 U	630 U	430 U	540 U	400 U
Benzo(k)fluoranthene	207-08-9	240	1,100 U	380 U	470 U	**220 J**	430 U	540 U	400 U
bis(2-Ethylhexyl) phthalate	117-81-7	182	1,100 U	380 U	**160 J**	**170 J**	**230 J**	**200 J**	**130 J**
Chrysene	218-01-9	166	**73.0 J**	380 U	470 U	**330 J**	430 U	540 U	400 U
Fluoranthene	206-44-0	423	**150 J**	380 U	470 U	**670**	430 U	540 U	400 U
Indeno(1,2,3-cd)pyrene	193-39-5	200	1,100 U	380 U	470 U	630 U	430 U	540 U	400 U
Phenanthrene	85-01-8	24	**91.0 J**	380 U	470 U	**400 J**	430 U	540 U	400 U
Pyrene	129-00-0	195	**120 J**	380 U	470 U	**580 J**	430 U	540 U	400 U

Notes:

	Exceedance of Sediment Ecological Screening Value (ESV)
1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
NM	Not Measured
*	Detection limit not available in data from others.

Table 4.1.4-16
PCB Results for Sediment Samples Collected from the Little Vermilion River
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Location ID Sample ID Date Units Depth Sediment ESV (µg/Kg)	ISA-X201 ISA-X201 12/14/1993 µg/Kg 0 - 0.25'	ISA-X202 ISA-X202 12/14/1993 µg/Kg 0 - 0.25'	ISA-X203 ISA-X203 12/14/1993 µg/Kg 0'	ISA-X204 ISA-X204 12/14/1993 µg/Kg 0 - 0.5'	ISA-X205 ISA-X205 12/14/1993 µg/Kg 0 - 0.25'	LVR-205 LVR205-071030 10/30/2007 µg/Kg 0'	LVR-201 OU1-SS-LVR201-071029 10/29/2007 µg/Kg 0'	LVR-209 OU1-SS-LVR209-071031 10/31/2007 µg/Kg 0'	LVR-201 OU1-SS-LVR406-071029 10/29/2007 µg/Kg 0'	SSI-X201 SSI-X201 11/21/1991 µg/Kg 0 - 0.583'
Aroclor 1242	53469-21-9	59.8	50.0 U	0.0 U*	**75**	**810**	**38.0 J**	50.0 U	48.0 U	41.0 U	59.0 U	47.0 U
Aroclor 1254	11097-69-1	59.8	50.0 U	**96**	**96**	**820**	**32.0 J**	50.0 U	48.0 U	41.0 U	59.0 U	**81**
Aroclor 1260	11096-82-5	59.8	50.0 U	**33.0 J**	**23.0 J**	**190**	**12.0 J**	50.0 U	48.0 U	41.0 U	59.0 U	47.0 U

Analyte	CAS #	Location ID Sample ID Date Units Depth Sediment ESV (µg/Kg)	LVR-213 OU1-SS-LVR213-071031 10/31/2007 µg/Kg 0'	LVR-214 OU1-SS-LVR214-071031 10/31/2007 µg/Kg 0'	SSI-X202 SSI-X202 11/21/1991 µg/Kg 0 - 0.25'	SSI-X203 SSI-X203 11/21/1991 µg/Kg 0 - 0.667'	SSI-X204 SSI-X204 11/21/1991 µg/Kg 0 - 0.667'	SSI-X208 SSI-X208 11/20/1991 µg/Kg 0 - 0.667'
Aroclor 1242	53469-21-9	59.8	56.0 U	38.0 U	63.0 U	43.0 U	54.0 U	40.0 U
Aroclor 1254	11097-69-1	59.8	56.0 U	38.0 U	63.0 U	43.0 U	**140**	40.0 U
Aroclor 1260	11096-82-5	59.8	56.0 U	38.0 U	63.0 U	43.0 U	54.0 U	40.0 U

Notes:

	Exceedance of Sediment Ecological Screening Value (ESV)
1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
*	Detection limit not available in data from others.

Table 4.1.4-17
Pesticides Results for Sediment Samples Collected from the Little Vermilion River
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Location ID Sample ID Date Units Depth Sediment ESV (µg/Kg)	ISA-X201 ISA-X201 12/14/1993 µg/Kg 0 - 0.25'	ISA-X202 ISA-X202 12/14/1993 µg/Kg 0 - 0.25'	ISA-X203 ISA-X203 12/14/1993 µg/Kg 0'	ISA-X204 ISA-X204 12/14/1993 µg/Kg 0 - 0.5'	ISA-X205 ISA-X205 12/14/1993 µg/Kg 0 - 0.25'	LVR-201 OU1-SS-LVR201-071029 10/29/2007 µg/Kg 0'	LVR-201 OU1-SS-LVR406-071029 10/29/2007 µg/Kg 0'	LVR-205 LVR205-071030 10/30/2007 µg/Kg 0'	LVR-206 OU1-SS-LVR206-071030 10/30/2007 µg/Kg 0'
4,4'-DDD	72-54-8	4.88	5.0 U	**2.7 J**	**1.6 J**	**9.7**	**0.79 J**	4.8 U	5.9 U	5.0 U	4.1 U
4,4'-DDE	72-55-9	3.16	0.0 U	0.0 U	0.0 U	0.0 U	**1.4 J**	4.8 U	5.9 U	5.0 U	4.1 U
4,4'-DDT	50-29-3	4.16	5.0 U	**1.6 J**	**1.7 J**	**9.2**	**1.3 J**	4.8 U	5.9 U	5.0 U	4.1 U
alpha-Chlordane	5103-71-9	3.24	**0.62 J**	**3.5**	**3**	**17**	0.0 U	2.5 U	3.0 U	2.6 U	2.1 U
delta-BHC	319-86-8	71,500	2.6 U	**1.2 J**	**1.0 J**	**1.0 J**	**3**	2.5 U	3.0 U	2.6 U	2.1 U
Dieldrin	60-57-1	1.90	**1.5 J**	**6.5**	**5.2**	**17**	0.0 U	4.8 U	5.9 U	5.0 U	4.1 U
Endrin	72-20-8	2.22	5.0 U	**7.9**	**7**	**67**	**2.6 J**	4.8 U	5.9 U	5.0 U	4.1 U
Endrin Aldehyde	7421-93-4	2.22	5.0 U	0.0 U	0.0 U	**9.9**	0.0 U	4.8 U	5.9 U	5.0 U	4.1 U
Endrin ketone	53494-70-5	2.22	5.0 U	0.0 U	**1.4 J**	0.0 U	0.0 U	4.8 U	5.9 U	5.0 U	4.1 U
gamma-Chlordane	5566-34-7	3.24	2.6 U	**1.4 J**	**0.97 J**	**5.1**	**0.56 J**	2,5 U	3.0 U	2.6 U	2,1 U

Analyte	CAS #	Location ID Sample ID Date Units Depth Sediment ESV (µg/Kg)	LVR-213 OU1-SS-LVR213-071031 10/31/2007 µg/Kg 0'	LVR-214 OU1-SS-LVR214-071031 10/31/2007 µg/Kg 0'	LVR-207 OU1-SS-LVR207-071030 10/30/2007 µg/Kg 0'	LVR-208 OU1-SS-LVR208-071030 10/30/2007 µg/Kg 0'	LVR-209 OU1-SS-LVR209-071031 10/31/2007 µg/Kg 0'	SSI-X201 SSI-X201 11/21/1991 µg/Kg 0 - 0.583'	SSI-X202 SSI-X202 11/21/1991 µg/Kg 0 - 0.25'	SSI-X203 SSI-X203 11/21/1991 µg/Kg 0 - 0.667'	SSI-X204 SSI-X204 11/21/1991 µg/Kg 0 - 0.667'	SSI-X208 SSI-X208 11/20/1991 µg/Kg 0 - 0.667'
4,4'-DDD	72-54-8	4.88	5.6 U	3.8 U	4.1 U	5.1 U	4.1 U	4.7 U	6.3 U	4.3 U	5.4 U	4.0 U
4,4'-DDE	72-55-9	3.16	5.6 U	3.8 U	4.1 U	5.1 U	4.1 U	4.7 U	6.3 U	4.3 U	5.4 U	4.0 U
4,4'-DDT	50-29-3	4.16	5.6 U	3.8 U	4.1 U	5.1 U	4.1 U	4.7 U	6.3 U	4.3 U	5.4 U	4.0 U
alpha-Chlordane	5103-71-9	3.24	2.9 U	2.0 U	2.1 U	2.6 U	2.1 U	2.4 U	3.3 U	2.2 U	2.8 U	2.1 U
delta-BHC	319-86-8	71,500	2.9 U	2.0 U	2.1 U	2.6 U	2.1 U	2.4 U	3.3 U	2.2 U	2.8 U	2.1 U
Dieldrin	60-57-1	1.90	5.6 U	3.8 U	4.1 U	5.1 U	4.1 U	4.7 U	6.3 U	4.3 U	5.4 U	4.0 U
Endrin	72-20-8	2.22	5.6 U	3.8 U	4.1 U	5.1 U	4.1 U	4.7 U	6.3 U	4.3 U	5.4 U	4.0 U
Endrin Aldehyde	7421-93-4	2.22	5.6 U	3.8 U	4.1 U	5.1 U	4.1 U	4.7 U	6.3 U	4.3 U	5.4 U	4.0 U
Endrin ketone	53494-70-5	2.22	5.6 U	3.8 U	4.1 U	5.1 U	4.1 U	4.7 U	6.3 U	4.3 U	5.4 U	4.0 U
gamma-Chlordane	5566-34-7	3.24	2.9 U	2.0 U	2.1 U	2.6 U	2.1 U	2.4 U	3.3 U	2.2 U	2.8 U	2.1 U

Notes:

	Exceedance of Sediment Ecological Screening Value (ESV)
1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
NM	Not Measured

Table 4.1.4-18
Other Inorganics Results for Sediment Samples Collected from the Little Vermilion River
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Location ID Sample ID Date Units Depth	ISA-X202 ISA-X202 12/14/1993 mg/Kg 0 - 0.25'	ISA-X203 ISA-X203 12/14/1993 mg/Kg 0'	ISA-X204 ISA-X204 12/14/1993 mg/Kg 0 - 0.5'	ISA-X205 ISA-X205 12/14/1993 mg/Kg 0 - 0.25'	LRS-412 OU1-SS-LRS412S-0908 8/11/2009 mg/Kg 0'	LRS-412 OU1-SS-LRS412T-0908 8/11/2009 mg/Kg 0'	LRS-412 OU1-SS-SB406-0908 8/11/2009 mg/Kg 0'	LRS-413 OU1-SS-LRS413S-0908 8/12/2009 mg/Kg 0'
Calcium	7440-70-2		0.0 U*	0.0 U*	0.0 U*	0.0 U*	**32,300 J**	**140,000**	**9.8**	**35,600**
Magnesium	7439-95-4		NM	NM	NM	NM	**1,550**	**15,700**	**2.1**	**2,300**
Potassium	7440-09-7		0.0 U*	**1,650**	**1,480**	0.0 U*	**767 J**	**384 J**	**364**	**822 J**
Sodium	7440-23-5		0.0 U*	0.0 U*	0.0 U*	0.0 U*	**602 J**	**159 J**	**19.0 J+**	**565 J**
Sulfate	14808-79-8		NM	NM	NM	NM	NM	NM	NM	NM
Sulfide	18496-25-8		NM	NM	NM	NM	NM	NM	NM	NM

Analyte	CAS #	Location ID Sample ID Date Units Depth	LRS-413 OU1-SS-LRS413T-0908 8/12/2009 mg/Kg 0'	LVR-201 OU1-SS-LVR201-071029 10/29/2007 mg/Kg 0'	LVR-201 OU1-SS-LVR406-071029 10/29/2007 mg/Kg 0'	LVR-202 OU1-SS-LVR202-071030 10/30/2007 mg/Kg 0'	LVR-203 OU1-SS-LVR203-071030 10/30/2007 mg/Kg 0'	LVR-204 OU1-SS-LVR204-071030 10/30/2007 mg/Kg 0'	LVR-205 LVR205-071030 10/30/2007 mg/Kg 0'	LVR-206 OU1-SS-LVR206-071030 10/30/2007 mg/Kg 0'
Calcium	7440-70-2		**123,000**	**58,900**	**154,000**	**57,300**	**87,300**	**105,000**	**10,000 J**	**21,100**
Magnesium	7439-95-4		**30,300**	**17,600**	**18,600**	**11,500**	**40,300**	**43,300**	**4,990**	**3,950**
Potassium	7440-09-7		**534 J**	**946 J**	**3,510**	**459 J**	**333 J**	**1,000 J**	**3,190**	**589 J**
Sodium	7440-23-5		**180 J**	**209 J**	**614 J**	**121 J**	**106 J**	**312 J**	**221 J**	**86.9 J**
Sulfate	14808-79-8		NM	NM	NM	NM	NM	NM	NM	NM
Sulfide	18496-25-8		NM	NM	NM	NM	NM	NM	NM	NM

Analyte	CAS #	Location ID Sample ID Date Units Depth	LVR-207 OU1-SS-LVR207-071030 10/30/2007 mg/Kg 0'	LVR-208 OU1-SS-LVR208-071030 10/30/2007 mg/Kg 0'	LVR-209 OU1-SS-LVR209-071031 10/31/2007 mg/Kg 0'	LVR-210 OU1-SS-LVR210-071031 10/31/2007 mg/Kg 0'	LVR-211 OU1-SS-LVR211-071031 10/31/2007 mg/Kg 0'	LVR-212 OU1-SS-LVR212-071031 10/31/2007 mg/Kg 0'	LVR-401 OU1-SE-LVR401C-0908 8/11/2009 mg/Kg 0'	LVR-401 OU1-SE-LVR401E-0908 8/11/2009 mg/Kg 0'
Calcium	7440-70-2		**44,000**	**126,000**	**102,000**	**30,800**	**33,900**	**46,800**	**45,300**	**26,500**
Magnesium	7439-95-4		**9,940**	**39,300**	**10,400**	**6,940**	**5,830**	**16,600**	**9,690**	**8,490**
Potassium	7440-09-7		**644 J**	**1,460 J**	**692 J**	**699 J**	**2,470 J**	**655 J**	**288**	**445**
Sodium	7440-23-5		**123 J**	**174 J**	**156 J**	**129 J**	**195 J**	**120 J**	**131**	114 U
Sulfate	14808-79-8		NM	NM	NM	NM	NM	NM	NM	NM
Sulfide	18496-25-8		NM	NM	NM	NM	NM	NM	NM	NM

Analyte	CAS #	Location ID Sample ID Date Units Depth	LVR-401 OU1-SE-LVR401W-0908 8/11/2009 mg/Kg 0'	LVR-402 OU1-SE-LVR402C-0908 8/12/2009 mg/Kg 0'	LVR-402 OU1-SE-LVR402E-0908 8/12/2009 mg/Kg 0'	LVR-402 OU1-SE-LVR402W-0908 8/12/2009 mg/Kg 0'	LVR-403 OU1-SE-LVR403C-0908 8/12/2009 mg/Kg 0'	LVR-403 OU1-SE-LVR403E-0908 8/12/2009 mg/Kg 0'	LVR-403 OU1-SE-LVR403W-0908 8/12/2009 mg/Kg 0'	LVR-404 OU1-SE-LVR404C-0908 8/12/2009 mg/Kg 0'
Calcium	7440-70-2		**77,700 J**	**99,800**	**108,000**	**68,100**	**133,000**	**105,000**	**117,000**	**103,000**
Magnesium	7439-95-4		**24,300**	**31,200**	**33,000**	**15,900**	**32,700**	**25,400**	**23,700**	**23,700**
Potassium	7440-09-7		**472**	**552**	**564**	**472**	**567**	**449**	**412**	**281**
Sodium	7440-23-5		**160**	**157**	**480**	**138**	**178**	**213**	**167**	**178**
Sulfate	14808-79-8		NM	NM	NM	NM	NM	NM	NM	NM
Sulfide	18496-25-8		NM	NM	NM	NM	NM	NM	NM	NM

Table 4.1.4-18
Other Inorganics Results for Sediment Samples Collected from the Little Vermilion River
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Location ID / Sample ID / Date / Units / Depth	LVR-404 OU1-SE-LVR404E-0908 8/12/2009 mg/Kg 0'	LVR-404 OU1-SE-LVR404W-0908 8/12/2009 mg/Kg 0'	LVR-405 OU1-SE-LVR405C-0908 8/13/2009 mg/Kg 0'	LVR-405 OU1-SE-LVR405E-0908 8/13/2009 mg/Kg 0'	LVR-405 OU1-SE-LVR405W-0908 8/13/2009 mg/Kg 0'	LVR-406 OU1-SE-LVR406-0908 8/14/2009 mg/Kg 0'	LVR-407 OU1-SE-LVR407-0908 8/14/2009 mg/Kg 0'
Calcium	7440-70-2		**59,900 J**	**96,700**	**91,500**	**207,000**	3.2 U	**30,300 J+**	**16,300 J+**
Magnesium	7439-95-4		**20,000 J**	**30,400**	**20,800**	**53,700**	0.12 U	**7,060 J+**	**6,630 J+**
Potassium	7440-09-7		**326**	**404**	**1,110**	**618**	**11,800**	**1,970 J+**	**1,320 J+**
Sodium	7440-23-5		**183**	**125**	**137**	**158**	0.36 U	**147 J+**	147 U
Sulfate	14808-79-8		NM	NM	NM	NM	NM	NM	NM
Sulfide	18496-25-8		NM	NM	NM	NM	NM	NM	NM

Analyte	CAS #	Location ID / Sample ID / Date / Units / Depth	LVR-408 OU1-SE-LVR408-0908 8/14/2009 mg/Kg 0'	SSI-X201 SSI-X201 11/21/1991 mg/Kg 0 - 0.583'	SSI-X202 SSI-X202 11/21/1991 mg/Kg 0 - 0.25'	SSI-X203 SSI-X203 11/21/1991 mg/Kg 0 - 0.667'	SSI-X204 SSI-X204 11/21/1991 mg/Kg 0 - 0.667'	SSI-X208 SSI-X208 11/20/1991 mg/Kg 0 - 0.667'
Calcium	7440-70-2		**17,800 J+**	**24,500**	**25,100**	**27,100**	**75,800**	**87,500**
Magnesium	7439-95-4		**6,330 J+**	**8,190**	**8,290**	**9,160**	**9,360**	**34,600**
Potassium	7440-09-7		**565 J+**	**1,490**	**3,350**	**812 J**	**1,280 J**	**733 J**
Sodium	7440-23-5		137 U	**175 J**	**302 J**	**358 J**	**304 J**	**171 J**
Sulfate	14808-79-8		NM	**125**	**250**	**267**	**238**	**265**
Sulfide	18496-25-8		NM	1.0 U	**16**	1.0 U	1.0 U	1.0 U

Analyte	CAS #	Location ID / Sample ID / Date / Units / Depth	ISA-X201 ISA-X201 12/14/1993 mg/Kg 0 - 0.25'	LVR-409 OU1-SE-LVR409-0908 8/14/2009 mg/Kg 0'	LVR-213 OU1-SS-LVR213-071031 10/31/2007 mg/Kg 0'	LVR-214 OU1-SS-LVR214-071031 10/31/2007 mg/Kg 0'
Calcium	7440-70-2		0.0 U	**18,700 J+**	**35,900**	**69,800**
Magnesium	7439-95-4		NM	**6,060 J+**	**7,460**	**12,500**
Potassium	7440-09-7		**409 J**	**406 J+**	**1,590 J**	**791 J**
Sodium	7440-23-5		0.0 U	120 U	**146 J**	**155 J**
Sulfate	14808-79-8		NM	NM	NM	NM
Sulfide	18496-25-8		NM	NM	NM	NM

Notes:

1,000	Bold indicates a detection
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J-	The analyte was posively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due
J+	The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to bias attributable to matrix interference.
*	Detection limit not available in data from others.
NM	Not Measured

Table 4.1.4-19
Other Inorganics Results for Surface Water Samples Collected from the Little Vermilion River
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	Location ID / Sample ID / Date / Units / Total or Dissolved / CAS #								
	Location ID	5thstbridge	ASO-411	ASO-411	ASO-411	ASO-411	ASO-411	ASO-411	ASO-411
	Sample ID	5th St. Bridge	OU1-SW-ASO411-0908	OU1-SW-ASO411-0908	OU1-SW-ASO411-090812	OU1-SW-ASO411-090812	OU1-SW-ASO411-090813	OU1-SW-AS0411-090817	OU1-SW-AS0411-090818
	Date	11/8/1994	8/11/2009	8/11/2009	8/12/2009	8/12/2009	8/13/2009	8/17/2009	8/18/2009
	Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	Total or Dissolved	T	D	T	D	T	D	T	D
Bicarbonate	71-52-3	**246,000**	NM	NM	NM	NM	NM	NM	NM
Calcium	7440-70-2	NM	**469,000**	**455,000**	**444,000**	**475,000**	**446,000**	**474,000**	**445,000**
Carbonate	3812-32-6	**3,050**	NM	NM	NM	NM	NM	NM	NM
Magnesium	7439-95-4	NM	**55,700**	**56,100**	**57,700**	**58,700**	**55,900**	**58,300**	**59,900**
Potassium	7440-09-7	NM	**26,600**	**26,000**	**24,300**	**24,900**	**24,200**	**23,800**	**23,600**
Sodium	7440-23-5	NM	**33,900**	**32,200**	**32,600**	**33,800**	**32,600**	**31,700**	**31,600**
Sulfate	14808-79-8	**40,400**	NM	NM	NM	NM	NM	NM	NM

Analyte	Location ID / Sample ID / Date / Units / Total or Dissolved / CAS #								
	Location ID	ASO-411	ASO-411	ASO-411	ASO-411	ASO-411	ASO-411	CSO-410	CSO-410
	Sample ID	OU1-SW-ASO411-090813	OU1-GW-MW404-090814	OU1-GW-MW404-090814	OU1-SW-ASO411-090814	OU1-SW-ASO411-090814	OU1-SW-AS0411-090817	OU1-SW-CS0410-090810	OU1-SW-CS0410-0908
	Date	8/13/2009	8/14/2009	8/14/2009	8/14/2009	8/14/2009	8/17/2009	8/10/2009	8/11/2009
	Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	Total or Dissolved	T	D	T	D	T	D	T	D
Bicarbonate	71-52-3	NM	NM	NM	NM	NM	NM	NM	NM
Calcium	7440-70-2	**542,000**	1,000 U	**426,000 J+**	**419,000 J+**	**40,500 J+**	**423,000**	**485,000**	**500,000**
Carbonate	3812-32-6	NM	NM	NM	NM	NM	NM	NM	NM
Magnesium	7439-95-4	**53,800**	9.8 UJ	**59,700 J+**	**60,600 J+**	**60,000 J+**	**55,900**	**56,300**	**55,800**
Potassium	7440-09-7	**22,800**	**78.7 J**	**23,500 J+**	**23,200 J+**	**22,900 J+**	**23,300**	**51,000**	**54,100**
Sodium	7440-23-5	**31,200**	1,000 U	**30,900 J+**	**30,500 J+**	**30,200 J+**	**31,500**	**47,400**	**49,900**
Sulfate	14808-79-8	NM	NM	NM	NM	NM	NM	NM	NM

Table 4.1.4-19
Other Inorganics Results for Surface Water Samples Collected from the Little Vermilion River
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	Location ID / Sample ID / Date / Units / Total or Dissolved / CAS #	ASO-411 OU1-SW-AS0411-090818 8/18/2009 µg/L T	ASO-411 OU1-SW-AS0411-090820 8/20/2009 µg/L T	ASO-411 OU1-SW-ASO411-090820 DISSOLVED 8/20/2009 µg/L D	CSO-410 OU1-SW-CS0410-090810 8/10/2009 µg/L D	LVR-201 OU1-SW-LV406-071029 10/29/2007 µg/L T	LVR-203 OU1-SW-LVR203-071030 10/30/2007 µg/L T	LVR-205 OU1-SW-LVR205-071030 10/30/2007 µg/L T	LVR-207 OU1-SW-LVR207-071030 10/30/2007 µg/L T
Bicarbonate	71-52-3	NM	NM	NM	NM	NM	NM	NM	NM
Calcium	7440-70-2	**439,000**	**463,000**	**429,000**	**474,000**	**88,900**	**87,600**	**81,900**	**89,200**
Carbonate	3812-32-6	NM	NM	NM	NM	NM	NM	NM	NM
Magnesium	7439-95-4	**59,700**	**60,000**	**58,900**	**54,300**	**40,500**	**40,500**	**39,500**	**42,600**
Potassium	7440-09-7	**24,900**	**25,100**	**24,100**	**50,600**	**5,820**	**5,530**	**3,990**	**5,100**
Sodium	7440-23-5	**33,500**	**33,600**	**32,200**	**47,000**	**47,500**	**45,300**	**44,700**	**46,100**
Sulfate	14808-79-8	NM	NM	NM	NM	NM	NM	NM	NM

Analyte	Location ID / Sample ID / Date / Units / Total or Dissolved / CAS #	CSO-410 OU1-SW-CS0410-0908 8/11/2009 µg/L T	CSO-410 OU1-SW-CS0410-090817 8/17/2009 µg/L D	CSO-410 OU1-SW-CS0410-090817 8/17/2009 µg/L T	LVR-201 OU1-SW-LV201-071029 10/29/2007 µg/L T	LVR-401 OU1-GW-MW404-0908 8/11/2009 µg/L D	LVR-401 OU1-GW-MW404-0908 8/11/2009 µg/L T	LVR-401 OU1-SW-LVR401C-0908 8/11/2009 µg/L D	LVR-401 OU1-SW-LVR401C-0908 8/11/2009 µg/L T
Bicarbonate	71-52-3	NM	NM	NM	NM	NM	NM	NM	NM
Calcium	7440-70-2	**476,000**	**425,000**	**419,000**	**88,200**	**81,600**	**80,000**	**79,100**	**82,200**
Carbonate	3812-32-6	NM	NM	NM	NM	NM	NM	NM	NM
Magnesium	7439-95-4	**57,500**	**50,900**	**48,500**	**40,100**	**34,300**	**34,700**	**34,600**	**34,300**
Potassium	7440-09-7	**51,800**	**47,000**	**43,000**	**5,770**	**3,620**	**3,660**	**3,510**	**3,820**
Sodium	7440-23-5	**47,900**	**44,500**	**40,200**	**47,100**	**37,600**	**36,600**	**36,100**	**37,300**
Sulfate	14808-79-8	NM	NM	NM	NM	NM	NM	NM	NM

Table 4.1.4-19
Other Inorganics Results for Surface Water Samples Collected from the Little Vermilion River
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	Location ID Sample ID Date Units Total or Dissolved CAS #	LVR-209 OU1-SW-LVR209-071031 10/31/2007 µg/L T	LVR-211 OU1-SW-LVR211-071031 10/31/2007 µg/L T	LVR-213 OU1-SW-LVR213-071031 10/31/2007 µg/L T	LVR-214 OU1-SW-LVR214-071031 10/31/2007 µg/L T	LVR-401 OU1-SW-LVR401W-0908 8/11/2009 µg/L D	LVR-401 OU1-SW-LVR401W-0908 8/11/2009 µg/L T	LVR-402 OU1-SW-LVR402C-0908 8/12/2009 µg/L D	LVR-402 OU1-SW-LVR402C-0908 8/12/2009 µg/L T
Bicarbonate	71-52-3	NM	NM	NM	NM	NM	NM	NM	NM
Calcium	7440-70-2	**79,500**	**81,600**	**82,400**	**75,500**	**81,000**	**79,700**	**81,600**	**82,300**
Carbonate	3812-32-6	NM	NM	NM	NM	NM	NM	NM	NM
Magnesium	7439-95-4	**39,100**	**39,700**	**40,200**	**38,800**	**35,400**	**35,200**	**36,700**	**37,900**
Potassium	7440-09-7	**5,030**	**5,860**	**3,980**	**4,370**	**3,570**	**3,710**	**3,280**	**3,430**
Sodium	7440-23-5	**53,300**	**53,500**	**45,000**	**47,200**	**37,400**	**36,500**	**36,800**	**36,600**
Sulfate	14808-79-8	NM	NM	NM	NM	NM	NM	NM	NM

Analyte	Location ID Sample ID Date Units Total or Dissolved CAS #	LVR-401 OU1-SW-LVR401E-0908 8/11/2009 µg/L D	LVR-401 OU1-SW-LVR401E-0908 8/11/2009 µg/L T	LVR-402 OU1-SW-LVR402W-0908 8/12/2009 µg/L D	LVR-402 OU1-SW-LVR402W-0908 8/12/2009 µg/L T	LVR-403 OU1-SW-LVR403C-0908 8/12/2009 µg/L D	LVR-403 OU1-SW-LVR403C-0908 8/12/2009 µg/L T	LVR-403 OU1-SW-LVR403E-0908 8/12/2009 µg/L D	LVR-403 OU1-SW-LVR403E-0908 8/12/2009 µg/L T
Bicarbonate	71-52-3	NM	NM	NM	NM	NM	NM	NM	NM
Calcium	7440-70-2	**82,200**	**82,900**	**80,200**	**80,700**	**82,200**	**82,300**	**85,600**	**80,400**
Carbonate	3812-32-6	NM	NM	NM	NM	NM	NM	NM	NM
Magnesium	7439-95-4	**35,100**	**34,900**	**36,800**	**36,900**	**36,000**	**37,600**	**37,400**	**38,000**
Potassium	7440-09-7	**3,640**	**3,800**	**3,470**	**3,320**	**3,230**	**3,400**	**3,430**	**3,340**
Sodium	7440-23-5	**37,500**	**37,300**	**36,400**	**35,700**	**37,500**	**37,300**	**38,900**	**36,300**
Sulfate	14808-79-8	NM	NM	NM	NM	NM	NM	NM	NM

Table 4.1.4-19
Other Inorganics Results for Surface Water Samples Collected from the Little Vermilion River
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	Location ID Sample ID Date Units Total or Dissolved CAS #	LVR-402 OU1-SW-LVR402E-0908 8/12/2009 µg/L D	LVR-402 OU1-SW-LVR402E-0908 8/12/2009 µg/L T	LVR-403 OU1-SW-LVR403W-0908 8/12/2009 µg/L D	LVR-403 OU1-SW-LVR403W-0908 8/12/2009 µg/L T	LVR-404 OU1-SW-LVR404C-0908 8/12/2009 µg/L D	LVR-404 OU1-SW-LVR404C-0908 8/12/2009 µg/L T	LVR-404 OU1-SW-LVR404E-0908 8/12/2009 µg/L D	LVR-404 OU1-SW-LVR404E-0908 8/12/2009 µg/L T
Bicarbonate	71-52-3	NM	NM	NM	NM	NM	NM	NM	NM
Calcium	7440-70-2	**81,800**	**83,000**	**86,300**	**81,800**	**85,000**	**84,200**	**77,800**	**85,100**
Carbonate	3812-32-6	NM	NM	NM	NM	NM	NM	NM	NM
Magnesium	7439-95-4	**38,200**	**38,300**	**37,800**	**37,600**	**39,000**	**38,200**	**35,500**	**39,100**
Potassium	7440-09-7	**3,280**	**3,430**	**3,350**	**3,330**	**3,130**	**3,280**	**2,880**	**3,250**
Sodium	7440-23-5	**37,000**	**37,100**	**38,800**	**36,900**	**35,500**	**35,000**	**32,500**	**35,100**
Sulfate	14808-79-8	NM	NM	NM	NM	NM	NM	NM	NM

Analyte	Location ID Sample ID Date Units Total or Dissolved CAS #	LVR-404 OU1-SW-LVR404W-0908 8/12/2009 µg/L D	LVR-404 OU1-SW-LVR404W-0908 8/12/2009 µg/L T	LVR-405 OU1-SW-LVR405C-0908 8/13/2009 µg/L D	LVR-405 OU1-SW-LVR405C-0908 8/13/2009 µg/L T	LVR-405 OU1-SW-LVR405E-0908 8/13/2009 µg/L D	LVR-405 OU1-SW-LVR405E-0908 8/13/2009 µg/L T
Bicarbonate	71-52-3	NM	NM	NM	NM	NM	NM
Calcium	7440-70-2	**83,400**	**82,800**	**83,700**	**80,600**	**81,600**	**81,800**
Carbonate	3812-32-6	NM	NM	NM	NM	NM	NM
Magnesium	7439-95-4	**38,100**	**37,600**	**39,700**	**37,300**	**38,700**	**38,600**
Potassium	7440-09-7	**3,210**	**3,290**	**2,990**	**2,950**	**2,900**	**2,940**
Sodium	7440-23-5	**35,000**	**34,300**	**33,600**	**31,800**	**32,600**	**32,500**
Sulfate	14808-79-8	NM	NM	NM	NM	NM	NM

Table 4.1.4-19
Other Inorganics Results for Surface Water Samples Collected from the Little Vermilion River
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	Location ID Sample ID Date Units Total or Dissolved CAS #	LVR-405 OU1-SW-LVR405W-0908 8/13/2009 µg/L D	LVR-405 OU1-SW-LVR405W-0908 8/13/2009 µg/L T	LVR-408 OU1-SW-LVR408-0908 8/14/2009 µg/L D	LVR-408 OU1-SW-LVR408-0908 8/14/2009 µg/L T	LVR-409 OU1-SW-LVR409-0908 8/14/2009 µg/L D	LVR-409 OU1-SW-LVR409-0908 8/14/2009 µg/L T	QuarryBridge Quarry Bridge 11/8/1994 µg/L T	Section_Line_DP Section Line 11/8/1994 µg/L T	Section_Line_DP Section Line DP 11/8/1994 µg/L T
Bicarbonate**	71-52-3	NM	NM	NM	NM	NM	NM	**251,000**	**246,000**	**251,000**
Calcium	7440-70-2	**82,500**	**84,400**	**80,300 J+**	**79,600 J+**	**76,800 J+**	**76,800 J+**	NM	NM	NM
Carbonate**	3812-32-6	NM	NM	NM	NM	NM	NM	**3,040**	**3,190**	**3,330**
Magnesium	7439-95-4	**38,900**	**39,600**	**40,300 J+**	**39,500 J+**	**38,900 J+**	**38,600 J+**	NM	NM	NM
Potassium	7440-09-7	**2,970**	**3,090**	**2,840 J+**	**2,880 J+**	**2,650 J+**	**2,830 J+**	NM	NM	NM
Sodium	7440-23-5	**32,900**	**33,400**	**30,900 J+**	**29,500 J+**	**31,900 J+**	**31,900 J+**	NM	NM	NM
Sulfate	14808-79-8	NM	NM	NM	NM	NM	NM	**37,100**	**38,600**	**39,100**

Notes:

1,000	Bold indicates a detection
J+	The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to bias attributable to matrix interference.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
NM	Not Measured
T	Total
D	Dissolved
**	Expressed as $CaCO_3$

Table 4.1.7-1
Air Monitoring Results for Arsenic, Lead, and Asbestos
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Analyte	CAS #	Location ID / Sample ID / Date / OSHA PEL (µg/m^3)	T1-UWN / OU1-AA-T1-UWN / 9/25/2007	T3-UWN / OU1-AA-T3-UWN / 9/25/2007	T1-DWN / OU1-AA-T1-DWN / 9/25/2007	T3-DWN / OU1-AA-T3-DWN / 9/25/2007	T8-UWN / OU1-AA-T8-UWN / 9/26/2007	T8-DWN / OU1-AA-T8-DWN / 9/26/2007	T9-UWN / OU1-AA-T9-UWN / 9/27/2007	T9-DWN / OU1-AA-T9-DWN / 9/27/2007
Arsenic	7440-38-2	10	0.00846 U	0.00846 U	0.00846 U	0.00846 U	0.00846 U	**0.0209**	**0.00294 B**	**0.00589 B**
Lead	7439-92-1	50	**0.0110**	**0.0191**	**0.00699**	**0.0228**	**0.0346**	**0.537**	**0.0269**	**0.102**
Asbestos	1332-21-4	0.1 (fibers/mL)	**6.39E-04**		**2.62E-03**		**2.84E-03**	**7.02E-04**	NS	NS

Notes:

1. Analytical results are presented in µg/m^3.
2. U indicates that constituent concentration was below the indicated detection limit.
3. B indicates estimated concentration for inorganic parameters.
4. Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PEL), February 2008.
5. Asbestos concentrations (fibers per mL) were estimated assuming cassette area of 385 mm^2, pumping rate of 16 L/min, and pumping duration of 8 hours. Composite samples were collected from the upwind sides of trenches 1 and 3 (Sample IDs OU1-AA-T1-UWN and OU1-AA-T3-UWN), and the downwind sides of trenches 1 and 3 (Sample IDs OU1-AA-T1-DWN and OU1-AA-T3-DWN). For each composite sample, air samples were collected for 4 hours at trench 1 and 4 hours at trench 3 (using the same
6. NS = Not sampled.

TABLE 4.2.1-1
Current and Historical Buildings and Uses
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Building Number(s)	Building Name	Uses
1	Rolling Mill	Power house and used for rolling zinc Coal fuel was used as well as oil-filled transformers Zinc was reheated in this building Heavy oil staining observed on the floor Currently used for storage and with possibility of re-starting the rolling mill processes
2	Building 1943	Historical use unsure, currently used as storage
5	Main Office	Job press and addressograph machine was used in the building Carbon tetrachloride fire extinguisher was present
6	Ore Bins	Storage
7	Ore crusher	Coal, ore crushing
8	Office	Office
9	Thaw House	Coal heat used for melting frozen zinc ore in cars as received from railroad
16	Shaft Hoist house	Used to bring up mined coal
17	Tipple	Switch room (electrical)
19	Furnace Building	Composed of transite roof and produced gas and small amounts of oil. Coal, spelter, steam, calcined zinc oxide was used in this building
20	Old Power House	Electric switch house
32, 33, 34, 35, 36	Pottery Building Area	Pottery for making clay retorts and condensers. No kiln firing. Steam-heated oven was used.
37, 38, 39	Ore mixing	Buildings contained coal and rock salt for ore mixing.
40	Deep Well Pump House	Utilized two centrifugal pumps
41	Pump House	Utilized two centrifugal pumps
42	Reservoir	Unsure
52, 53,54	Acid reservoir houses: 52 – Acid Reservoir #2 53 – Acid Reservoir #3 54 – Acid Reservoir #4	Lead-lined below-ground reservoirs for storage of sulfuric acid
55	Kiln No. 9/Oxide plant	Producer gas generator
58	Acid system No. 3.	Built with transite and part of the Glover and Gay-Lussac Towers, acid tanks, lead piping, and nitrate pots.
60-61	Acid system No. 4	Built with transite and part of the Glover and Gay-Lussac Towers
62	Acid System No. 1 & 2	Unsure but possibly contains Glover and Gay-Lussac Towers, acid tanks, lead piping, nitrate pots

Building Number(s)	Building Name	Uses
63	River pump house	Used two pumps, drawing water from the LVR
64, 65, 66, 67	Sulfuric Acid Reservoir houses: 64 – Reservoir #8 65 – Reservoir #6 66 – Reservoir #7 67 – Reservoir #9	Lead-lined reservoirs, sunk below ground level
68	Acid System # 5	Open into kiln No. 11 building. Lead acid-forming chambers. Acid tanks, Gay-Lussac and Glover towers. Nitrate storage building.
69	Lead Burners House	Hydrogen generated as needed (method not specified). Construction and repair of lead apparatus for acid plant.
73	Tool House	Railroad section crew's tool house. Gasoline motor car used with storage of paint cans metal oil tanks and coal stove
74	Kiln #07 & Coke crusher	One gas producer and one ore kiln, brick and concrete construction. Same process as Kiln 8 & Kiln10, Buildings 77 & 79
77, 79	Kiln # 8 & Kiln # 10	Clad with transite Used for roasting blend (zinc sulfide), which is converted to zinc oxide, then treated in furnace building. Sulfur dioxide gas carried through brick flues to acid buildings for manufacture of sulfuric acid
84	Kiln # 11/wedge kilns & Sintering plant	Corrugated transite walls. wedge kilns, calcined and crushed dry ore storage
86	Boiler House	Basement contained ash cars and elevator. Boiler house used 3 boilers
92	Salt shed and scrap metal melting.	Used to store rock salt and melt scrap metal. Building size is approximately 716 square feet.
97	Calcined Ore	Brick walled bins approximately 8 feet high, for storage of calcined ore (zinc oxide/sinter ore)
98	Nitrate storage building	Storage of nitrate in burlap bags
100	Building 100	Locomotive repair shop used 3 tracks for locomotive repair work. Contained two barrels of oil
101	Furnace wash room and locker room	Wash room and locker room for furnace building employees
104	Scale House	Scale house for railroad cars
107	Kiln #09 air heater	Oxide plant air heater
113	Refining Plant	Ore refining and reclamation
115	Retort and ash screening tank	Silt coal storage bin
119	Ammonia storage	Ammonia storage house
120	Acid storage No. 10	Acid storage tank, 50 feet in diameter and 32 feet deep. Approximate capacity is 470,000 gallons
123	Water tank	Water storage

Building Number(s)	Building Name	Uses
142, 143	Lead melting house	Open frame
146	Chemical laboratory	Chemicals storage
149	Dryer	Ore drying building
150	Ore Storage	Flotation ore unloading and storage building
155	Storage shed	Storage
156	Tank car inspectors shed	Possible storage

Notes:

1 Building Numbers and Building Names are as shown on Figure 4.2.1-1.
2 Building numbers are not in sequential order because these numbers are referenced from old blue prints and some building numbers are missing or are not shown for the purposes of this RI report.
3 Current and Historical designations of the buildings are shown on Figure 4.2.1-1.

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.1-1

Notes:

a Building numbers, building names, and current and historical designations of the buildings are shown on Figure 4.2.1-1.

b Building numbers are not in sequential order because these numbers are from old blue prints, and some building numbers are missing or are not shown for the purposes of the remedial investigation (RI) report.

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB001A MEQ374 36631 7/16/2007 mg/kg 1 L1 0-2	SB001B ME3Q75 36631 7/16/2007 mg/kg 1 L3 8-10	SB002A ME3Q76 36631 7/16/2007 mg/kg 1 L3, L4 0-2	SB002B ME3Q77 36631 7/16/2007 mg/kg 1 L3, L4 8-10	SB003A ME3Q78 36631 7/16/2007 mg/kg 1 L2, L3, L4 0-2	SB250A ME3Q86 36631 7/16/2007 mg/kg SB003A 1 L2, L3, L4 0-2	SB003B ME3Q79 36631 7/16/2007 mg/kg 1 L1 8-10	SB004A ME3Q87 36631 7/17/2007 mg/kg 1 L1, L2, L3 0-2	SB004B ME3Q88 36631 7/17/2007 mg/kg 1 L2, L3 8-10	SB005A ME3Q80 36631 7/16/2007 mg/kg 1 L1 0-2
Aluminum	77,000	990,000	15,400	15,847		**12,100 J**	**4,980 J**	**11,100 J**	**3,810 J**	**4,570 J**	**5,880 J**	**13,800 J**	**6,990**	**9,060**	**7,210 J**
Antimony	31	410	NC	1.05		**4.6 J**	**6.3 J**	**5.8 J**	**4.2 J**	**5.9 J**	**8.5**	6.9 U	**3.2 J-**	**3.2 J-**	**3.5 J**
Arsenic	0.39	1.6	10.7	12.44		**24.1 J-**	**99.9 J-**	**32 J-**	**34.5 J-**	**25.1 J-**	**36.2 J-**	**6.1 J-**	**24**	**30.1**	**31.1 J-**
Barium	15,000	190,000	276	274		**150 J**	**248 J**	**360 J**	**315 J**	**273 J**	**32.9 J**	**148 J**	**190 J**	**154 J**	**176 J**
Beryllium	160	2,000	0.81	0.878		**1.5 J+**	**0.34 J+**	**1.2 J+**	**0.34 J+**	**0.55 J+**	**0.78 J+**	**0.9 J+**	**1.2 J+**	**1.6 J+**	**0.88 J+**
Cadmium	70	800	7.1	4.68		**71.1**	**14.8**	**86.3**	**9.9**	**46.8**	**59.4**	**1.7 J+**	**78.9**	**20.4**	**6.1**
Calcium	NC	NC	NC	NC		**34,500 J**	**4,870 J**	**6,950 J**	**1,830 J**	**2,880 J**	**8,110 J**	**89,500 J**	**12,800**	**4,410**	**1,840 J**
Chromium (total)[a]	280	1,400	21.2	25.2		**24.9 J-**	**20.8 J-**	**18.9 J-**	**9 J-**	**11.8 J-**	**15.3 J-**	**23.1 J-**	**13.7 J**	**28.5 J**	**35.7 J-**
Cobalt	23	300	12.9	13.8		**20.8**	5.8 U	**21.7**	**3.3 J**	**19.8**	**25.1**	**12.4**	**12.8**	**16.4**	**7.2**
Copper	3,100	41,000	31.5	35.9		**284**	**132**	**569**	**252**	**554**	**790**	**28.4**	**241**	**641**	**305**
Cyanide	1,600	20,000	NC	NC		2.8 U	2.9 U	2.9 U	3 U	**2.9 J**	2.9 U	**22.9**	2.8 U	3.1 U	3 U
Iron	55,000	720,000	24,691	25,035		**41,600**	**45,200**	**60,500**	**15,300**	**29,800**	**40,800**	**22,600**	**47,000**	**77,700**	**81,800**
Lead	400	800	103	66.1		**552**	**6,200**	**1,150**	**5,740**	**6,700**	**6,630**	**104**	**920**	**4,650**	**4,980**
Magnesium	NC	NC	NC	NC		**10,100 J**	**276 J**	**2,680 J**	**310 J**	**807 J**	**2,900 J**	**22,900 J**	**2,830**	**874**	**981 J**
Manganese	1,800	23,000	1,527	2,726		**1,500 J**	**27.7 J**	**536 J**	**53.3 J**	**244 J**	**624 J**	**454 J**	**824 J**	**215 J**	**93.8 J**
Mercury	5.6	34	1.32	1.33		**0.43**	0.12 U	**0.36**	**0.39**	**0.15 J-**	**0.14 J-**	0.12 U	**0.5 J**	**0.19 J-**	**0.73**
Nickel	1,500	20,000	19.9	45		**42.8**	**2.9 J**	**36.1**	**6.9**	**27.4**	**35.5**	**34.4**	**26.1**	**27.7**	**20.1**
Potassium	NC	NC	NC	NC		**1,650 J**	**2,770 J**	**850 J**	**504 J**	**183 J**	**244 J**	**3,090 J**	**839 J**	**789 J**	**1,400 J**
Selenium	390	5,100	NC	NC		**2.8 J-**	**8.4 J-**	**3.2 J-**	**2.6 J-**	**3.4 J-**	**4.8 J-**	4.1 UJ	**2 J-**	**3.4 J-**	**18.4 J-**
Silver	390	5,100	NC	NC		**1.9**	**14.7**	**2.9**	**8.2**	**4.9**	**6.9**	1.2 U	**2.6**	**4.8**	**4.9**
Sodium	NC	NC	NC	NC		**351 J**	**562 J**	**331 J**	611 U	571 U	571 U	579 U	**247 J**	**323 J**	**207 J**
Thallium[a]	5.1	66	NC	NC		2.8 U	2.9 U	2.9 U	3.1 U	2.9 U	2.9 U	2.9 U	2.8 U	3.1 U	3 U
Vanadium	390	5,200	39.5	37.8		**35.3**	**41.2**	**27.2**	**13.3**	**148**	**19.1**	**23.9**	**21.7**	**37.7**	**41.6**
Zinc	23,000	310,000	1,310	740		**16,600**	**1,190**	**28,900**	**4,550**	**24,800**	**31,000**	**853**	**19,200**	**15,400**	**3,950**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB005B ME3Q81 36631 7/16/2007 mg/kg 1 L2 6-8	SB006A ME3RF4 36631 7/17/2007 mg/kg 1 L3 0-2	SB006B ME3RF5 36631 7/17/2007 mg/kg 1 L4 4-6	SB007A ME3S07 36664 8/1/2007 mg/kg 1 L1, L2 0-2	SB007B ME3S08 36664 8/1/2007 mg/kg 1 L1 8-10	SB291B ME3S09 36664 8/1/2007 mg/kg SB007B 1 L1 8-10	SB008A ME3Q93 36631 7/17/2007 mg/kg 1 L2, L3 0-2	SB252A ME3Q97 36631 7/17/2007 mg/kg SB008A 1 L2, L3 0-2	SB008B ME3Q94 36631 7/17/2007 mg/kg 1 L1 4-6	SB009A ME3Q98 36631 7/17/2007 mg/kg 1 L1, L3 0-2
Aluminum	77,000	990,000	15,400	15,847		**11,200 J**	**7,700**	**11,400**	**12,600**	**9,320**	**7,930**	**3,520**	**898**	**10,600**	**6,180**
Antimony	31	410	NC	1.05		**2.3 J**	**3.6 J-**	R	**4.7 J+**	**12.3 J+**	**2 J+**	**6.5 J-**	**5.1 J-**	R	R
Arsenic	0.39	1.6	10.7	12.44		**19.5 J-**	**20.8**	**5.3**	**8.7**	**5**	**3.2**	**39.5**	**15.9**	**7.6**	**6.2**
Barium	15,000	190,000	276	274		**62 J**	**147 J**	**104 J**	**148**	**249**	**123**	**188 J**	**40.3 J**	**89.4 J**	**176 J**
Beryllium	160	2,000	0.81	0.878		**1.4**	**1.1 J+**	**0.38 J+**	**0.87**	**0.86**	**0.69**	**0.92 J+**	**0.47 J**	**0.61 J+**	**0.58 J+**
Cadmium	70	800	7.1	4.68		**39.7**	**16.1**	**4.3**	**9**	**6.6**	**2.2 J+**	**133**	**265**	**13**	**42.9**
Calcium	NC	NC	NC	NC		**3,140 J**	**2,510**	**2,410**	**6,110**	**37,300**	**27,300**	**1,290**	**380 J**	**1,810**	**824**
Chromium (total)[a]	280	1,400	21.2	25.2		**31 J-**	**12.3 J**	**15.1 J**	**18.6**	**19.5**	**14.5**	**11 J**	**3.9 J**	**16.9 J**	**10.5 J**
Cobalt	23	300	12.9	13.8		**22.2**	**12.7**	**5.1 J**	**9.8**	**9.9**	**8.3**	**27.5**	**2.5 J**	**5.7 J**	**5.2 J**
Copper	3,100	41,000	31.5	35.9		**238**	**415**	**13.9**	**30.4**	**32.5**	**14.2**	**758**	**592**	**46**	**74.4**
Cyanide	1,600	20,000	NC	NC		2.8 U	3 U	3.2 U	3.4 U	3 U	2.9 U	2.9 U	3 U	3.1 U	3.1 U
Iron	55,000	720,000	24,691	25,035		**101,000**	**32,400**	**16,400**	**21,500**	**20,100**	**18,900**	**57,300**	**10,400**	**18,300**	**12,700**
Lead	400	800	103	66.1		**2,680**	**3,510**	**11**	**40.5**	**62.9**	**19.7**	**764**	**659**	**41.3**	**116**
Magnesium	NC	NC	NC	NC		**343 J**	**1,080**	**2,120**	**3,060**	**5,500**	**5,800**	**781**	**190 J**	**2,480**	**1,300**
Manganese	1,800	23,000	1,527	2,726		**96.4 J**	**360 J**	**250 J**	**364**	**1,180**	**522**	**685 J**	**465 J**	**436 J**	**259 J**
Mercury	5.6	34	1.32	1.33		**0.68**	**0.14 J-**	0.13 UJ	0.13 U	0.12 U	0.12 U	**0.38 J**	**2 J-**	**0.045 J-**	**0.75 J**
Nickel	1,500	20,000	19.9	45		**58.6**	**21.8**	**11.9**	**18**	**32.2**	**28.6**	**23.8**	**4.1 J**	**17.5**	**9.4**
Potassium	NC	NC	NC	NC		**753 J**	**648 J**	**830 J**	**792 J**	**1,980 J**	**2,260 J**	**286 J**	**226 J**	**686 J**	**767 J**
Selenium	390	5,100	NC	NC		**5.9 J-**	**2 J-**	4.4 UJ	**0.85 J**	4.2 U	4 U	**3.3 J-**	**4.3 J-**	4.4 UJ	4.3 UJ
Silver	390	5,100	NC	NC		**2.6**	**3.3**	1.3 U	1.4 U	1.2 U	1.1 U	**3.9**	**7.3**	1.3 U	1.2 U
Sodium	NC	NC	NC	NC		**308 J**	601 U	632 U	676 U	**1,100 J+**	631 U	599 U	599 U	631 U	619 U
Thallium[a]	5.1	66	NC	NC		2.8 U	3 U	3.2 U	3.4 U	3 U	2.9 U	3 U	3 U	3.2 U	3.1 U
Vanadium	390	5,200	39.5	37.8		**44.9**	**17.2**	**24.5**	**30.3**	**21.9**	**17.6**	**13**	**16.2**	**21.8**	**20.7**
Zinc	23,000	310,000	1,310	740		**11,000**	**17,700**	**1,290**	**2,280 J**	**1,940 J**	**427 J**	**138,000**	**211,000**	**14,400**	**8,650**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB009B ME3Q99 36631 7/17/2007 mg/kg 1 L1 2-4	SB010A ME3R84 36631 7/20/2007 mg/kg 3 L1 0-2	SB010B ME3R85 36631 7/20/2007 mg/kg 3 L1 8-10	SB011A ME3R86 36631 7/20/2007 mg/kg 3 L1 0-2	SB256A ME3RB6 36631 7/20/2007 mg/kg SB011A 3 L1 0-2	SB011B ME3R87 36631 7/20/2007 mg/kg 3 L1 8-10	SB012A ME3R88 36631 7/20/2007 mg/kg 1 L1 0-2	SB012B ME3R89 36631 7/20/2007 mg/kg 1 L1 8-10	SB013A ME3Q82 36631 7/16/2007 mg/kg 1 L1 0-2	SB013B ME3Q83 36631 7/16/2007 mg/kg 1 L1 8-10
Aluminum	77,000	990,000	15,400	15,847		**14,000**	**10,800**	**837**	**10,800**	**12,300**	**4,280**	**13,800**	**10,700**	**8,060 J**	**7,830 J**
Antimony	31	410	NC	1.05		R	7.7 UJ	6.5 UJ	8.1 UJ	7.6 UJ	6.3 UJ	7.5 UJ	6.8 UJ	6.6 U	6.8 U
Arsenic	0.39	1.6	10.7	12.44		**9**	**6.2**	**0.92 J**	**7.8**	**5.7**	**8.9**	**2.7 J+**	**7.3**	**15.7 J-**	**31.6 J-**
Barium	15,000	190,000	276	274		**126 J**	**191 J**	**8.1 J**	**313 J**	**245 J**	**282 J**	**261 J**	**114 J**	**25.3 J**	**172 J**
Beryllium	160	2,000	0.81	0.878		**0.73 J+**	**0.53 J+**	0.54 U	**0.71 J+**	**0.61 J+**	**0.28 J+**	**1.2 J+**	**0.75 J+**	**0.51 J+**	**1.1 J+**
Cadmium	70	800	7.1	4.68		**18**	**8.9 J**	**0.39 J**	**15.7 J**	**3.3 J**	**0.56 J**	**3.3 J**	**0.35 J**	**2 J+**	**5**
Calcium	NC	NC	NC	NC		**2,990**	**3,030 J+**	**1,420 J+**	**5,940 J+**	**4,610 J+**	**137,000 J**	**3,630 J**	**41,700 J+**	**6,010 J**	**113,000 J**
Chromium (total)[a]	280	1,400	21.2	25.2		**18.5 J**	**12.9 J+**	**5 J+**	**14.1 J+**	**15.1 J+**	**9.2 J+**	**17.7 J+**	**16.5 J+**	**20.5 J-**	**15.4 J-**
Cobalt	23	300	12.9	13.8		**10.2**	**8.4 J+**	5.4 U	**10.2 J+**	**7.5 J+**	**6 J+**	**8.6 J+**	**72.7 J+**	**8**	**13.4**
Copper	3,100	41,000	31.5	35.9		**16.2**	**14.4 J+**	**3.1 J+**	**21.9 J+**	**12.1 J+**	**15.2 J+**	**19.3 J+**	**170 J+**	**34**	**164**
Cyanide	1,600	20,000	NC	NC		**0.68 J**	3.2 UJ	2.7 UJ	3.3 UJ	3.2 UJ	2.6 UJ	3.1 UJ	2.8 UJ	2.7 U	2.8 U
Iron	55,000	720,000	24,691	25,035		**20,700**	**13,400 J+**	**2,320 J+**	**15,200 J+**	**14,400 J+**	**6,170 J+**	**14,600 J+**	**12,400 J+**	**37,800**	**85,700**
Lead	400	800	103	66.1		**12.5**	**52.1 J**	**3.9 J**	**94.6 J**	**17 J**	**7.7 J**	**11.1 J**	**17.9 J**	**46.1**	**26.5**
Magnesium	NC	NC	NC	NC		**2,430**	**1,440 J+**	**857 J+**	**1,970 J+**	**1,960 J+**	**2,940 J+**	**2,920 J+**	**5,620 J+**	**2,830 J**	**38,400 J**
Manganese	1,800	23,000	1,527	2,726		**512 J**	**729 J+**	**28.2 J+**	**1,240 J+**	**819 J+**	**2,120 J+**	**418 J+**	**602 J+**	**148 J**	**1,150 J**
Mercury	5.6	34	1.32	1.33		**0.051 J**	**0.2 J+**	0.11 U	**0.25 J+**	**0.044 J+**	0.1 U	0.13 U	0.11 U	**0.081 J-**	0.11 U
Nickel	1,500	20,000	19.9	45		**16.3**	**10.1**	**2.3 J**	**15**	**14.3**	**14**	**22.9**	**38.2**	**17.6**	**34**
Potassium	NC	NC	NC	NC		**950 J**	**1,070 J**	**138 J**	**1,120 J**	**1,020 J**	**1,200 J**	**3,280 J**	**3,300 J**	**2,080 J**	**1,230 J**
Selenium	390	5,100	NC	NC		4.4 UJ	4.5 U	3.8 U	4.7 U	4.4 U	**1.5 J**	4.4 U	4 U	3.8 UJ	**2.1 J-**
Silver	390	5,100	NC	NC		1.3 U	1.3 U	1.1 U	1.4 U	1.3 U	1 U	1.2 U	1.1 U	1.1 U	**0.45 J**
Sodium	NC	NC	NC	NC		633 U	640 U	539 U	676 U	632 U	521 U	623 U	**199 J**	**591**	564 U
Thallium[a]	5.1	66	NC	NC		3.2 U	3.2 U	2.7 U	3.4 U	3.2 U	**1.6 J**	3.1 U	2.8 U	2.7 U	2.8 U
Vanadium	390	5,200	39.5	37.8		**33.4**	**24.8**	**2.8 J**	**27.4**	**26.7**	**9.6**	**21.6**	**15.6**	**21.9**	**19.9**
Zinc	23,000	310,000	1,310	740		**5,060**	**977 J**	**73.6 J**	**1,850 J**	**887 J**	**17.6 J**	**418 J**	**45.7 J**	**386**	**232**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB014A ME3Q89 36631 7/17/2007 mg/kg 1 L2, L3 0-2	SB014B ME3Q90 36631 7/17/2007 mg/kg 1 L2, L3, L4 8-10	SB015A ME3Q95 36631 7/17/2007 mg/kg 1 L2, L3 0-2	SB015B ME3Q96 36631 7/17/2007 mg/kg 1 L3 8-10	SB016A ME3RZ5 36664 7/31/2007 mg/kg 1 L2, L4 0-2	SB016B ME3RZ6 36664 7/31/2007 mg/kg 1 L2, L3, L4 4-6	SB017A ME3S10 36664 8/1/2007 mg/kg 1 L2, L3 0-2	SB017B ME3S11 36664 8/1/2007 mg/kg 1 L1 8-10	SB018A ME3Q91 36631 7/17/2007 mg/kg 1 L2, L3 0-2	SB018B ME3Q92 36631 7/17/2007 mg/kg 1 L1, L2, L3 8-10
Aluminum	77,000	990,000	15,400	15,847		**3,450**	**8,630**	**5,180**	**2,240**	**14,200**	**4,970**	**5,050**	**8,950**	**6,750**	**6,250**
Antimony	31	410	NC	1.05		**4.8 J-**	**4.2 J-**	**4.7 J-**	**3.7 J-**	**5.9 J**	7.2 U	**6.7 J+**	**3.3 J+**	**3.5 J-**	**2.5 J-**
Arsenic	0.39	1.6	10.7	12.44		**26.6**	**46.5**	**35.3**	**46.5**	**22.9 J**	**11.6 J**	**36.9**	**8.5**	**84.4**	**20.9**
Barium	15,000	190,000	276	274		**149 J**	**485 J**	**165 J**	**378 J**	**141**	**42.2**	**297**	**180**	**485 J**	**157 J**
Beryllium	160	2,000	0.81	0.878		**0.63 J+**	**1.5 J+**	**1.1 J+**	**0.44 J+**	**1.4**	**0.79 J+**	**0.86**	**0.79**	**1.4 J+**	**0.92 J+**
Cadmium	70	800	7.1	4.68		**36.7**	**16.2**	**292**	**43.1**	**9 J**	**21.5 J**	**53**	**13**	**48.7**	**36.6**
Calcium	NC	NC	NC	NC		**2,130**	**24,600**	**2,480**	**4,430**	**1,050 J**	**6,150 J**	**10,500**	**42,200**	**13,600**	**8,200**
Chromium (total)[a]	280	1,400	21.2	25.2		**10.3 J**	**17.3 J**	**12.1 J**	**12.5 J**	**10.8**	**5.5**	**15.3**	**20**	**27.8 J**	**18.9 J**
Cobalt	23	300	12.9	13.8		**19.6**	**14.4**	**17.9**	**12.4**	**10.6 J**	6 UJ	**15.5**	**11.2**	**33.2**	**16.1**
Copper	3,100	41,000	31.5	35.9		**732**	**565**	**573**	**737**	**766**	**179**	**264**	**58.2**	**247**	**288**
Cyanide	1,600	20,000	NC	NC		2.9 U	3 U	3.1 U	2.8 U	**0.11 J**	3 U	**0.45 J**	3.1 U	2.9 U	2.8 U
Iron	55,000	720,000	24,691	25,035		**44,100**	**45,700**	**55,300**	**50,500**	**33,300**	**17,000**	**39,100**	**31,700**	**50,800**	**64,100**
Lead	400	800	103	66.1		**1,610**	**5,730**	**1,690**	**2,090**	**14,500 J**	**9,240 J**	**815**	**230**	**1,780**	**899**
Magnesium	NC	NC	NC	NC		**696**	**508 J**	**991**	**391 J**	**347 J**	**330 J**	**4,380**	**6,650**	**2,430**	**1,870**
Manganese	1,800	23,000	1,527	2,726		**369 J**	**153 J**	**488 J**	**104 J**	**82.3 J**	**56.5 J**	**7,640**	**1,360**	**28,400 J**	**3,970 J**
Mercury	5.6	34	1.32	1.33		**0.11 J-**	**0.18 J-**	**1.1 J**	**0.53 J**	0.11 U	**0.083 J**	**0.48**	0.12 U	**0.37 J**	**0.087 J-**
Nickel	1,500	20,000	19.9	45		**26.4**	**30**	**23.4**	**20.3**	**12.9 J**	**0.35 J**	**25.5**	**32.4**	**62.3**	**24.8**
Potassium	NC	NC	NC	NC		**142 J**	**2,440 J**	**510 J**	**233 J**	575 UJ	**694 J**	599 UJ	**1,970 J**	**2,040 J**	**708 J**
Selenium	390	5,100	NC	NC		**3 J-**	**3.4 J-**	**3.9 J-**	**3.1 J-**	**3.7 J**	**3.9 J**	4.2 U	4.3 U	**17 J-**	**4.4 J-**
Silver	390	5,100	NC	NC		**2**	**3.2**	**3.4**	**7.9**	**8.2 J**	**3.1 J+**	**4.5 J+**	**2.5 J+**	**5.4**	**1.6**
Sodium	NC	NC	NC	NC		577 U	**402 J**	613 U	562 U	**792 J+**	**1,610 J+**	**1,560 J+**	758 U	**398 J**	**213 J**
Thallium[a]	5.1	66	NC	NC		2.9 U	3 U	3.1 U	2.8 U	2.9 UJ	R	R	3.1 U	**13.9**	**1.5 J**
Vanadium	390	5,200	39.5	37.8		**11**	**35.5**	**15.6**	**13.7**	**12.1**	**9.7 J-**	**22.7**	**21.4**	**42**	**26.1**
Zinc	23,000	310,000	1,310	740		**31,100**	**10,400**	**30,200**	**12,800**	**13,100 J**	**24,100 J**	**18,400 J**	**3,580 J**	**16,100**	**20,900**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB019A ME3Q84 36631 7/16/2007 mg/kg 1 L2, L3 0-2	SB019B ME3Q85 36631 7/16/2007 mg/kg 1 L2, L3 5-7	SB020A ME3RX4 36664 7/31/2007 mg/kg 3 L1 0-2	SB020B ME3RX5 36664 7/31/2007 mg/kg 3 L1 5-7	SB021A ME3RX6 36664 7/31/2007 mg/kg 3 L1 0-2	SB021B ME3RX7 36664 7/31/2007 mg/kg 3 L1 4-6	SB022A ME3RX8 36664 7/31/2007 mg/kg 3 L3 0-2	SB022B ME3RX9 36664 7/31/2007 mg/kg 3 L1 4-6	SB023A ME3RA0 36631 7/19/2007 mg/kg 3 L4 0-2	SB023B ME3RA1 36631 7/19/2007 mg/kg 3 L4 8-10
Aluminum	77,000	990,000	15,400	15,847		**7,760 J**	**5,590 J**	**291**	**598**	**301**	**353**	**1,470**	**12,700**	**647**	**14,100**
Antimony	31	410	NC	1.05		**8.1**	**6.5 J**	**73.5**	**2 J**	**24**	**4.7 J**	**2.9 J**	**2.2 J**	7.8 UJ	7.2 UJ
Arsenic	0.39	1.6	10.7	12.44		**50.6 J-**	**34.1 J-**	**43.1**	**22.5**	**9.9**	**7**	**4.9**	**10.5**	**26.4**	**3.2**
Barium	15,000	190,000	276	274		**354 J**	**195 J**	**861**	**91.9**	**469**	**518**	**213**	**201**	**94.9 J**	**181 J**
Beryllium	160	2,000	0.81	0.878		**1.2 J+**	**0.77 J+**	0.75 UJ	R	0.67 UJ	0.72 UJ	0.66 UJ	0.63 UJ	**0.36 J+**	**1 J+**
Cadmium	70	800	7.1	4.68		**63.6**	**45.6**	**8.6**	0.65 U	**5.6**	**1.3**	**14.1**	**0.83 J-**	**3.8**	**0.51 J+**
Calcium	NC	NC	NC	NC		**29,600 J**	**12,000 J**	749 U	**9,310**	672 U	**3,010**	665 U	**1,590**	**1,270 J**	**42,700 J**
Chromium (total)[a]	280	1,400	21.2	25.2		**24.8 J-**	**16.3 J-**	**2.8**	**4.2**	**1.5**	**2.5**	**3.9**	**23.2**	**9.6**	**21.6**
Cobalt	23	300	12.9	13.8		**25.6**	**17**	**1.3 J**	**1.7 J**	**0.66 J**	**0.62 J**	**0.96 J**	**7.8**	6.5 U	**9.7**
Copper	3,100	41,000	31.5	35.9		**616**	**453**	**79.9**	**2.2 J**	**18.2**	**7.8**	**31.7**	**27.2**	**134**	**5.9**
Cyanide	1,600	20,000	NC	NC		2.8 U	**20.3**	3.8 U	3.3 U	3.4 U	3.6 U	3.3 U	3.2 U	3.2 U	3 U
Iron	55,000	720,000	24,691	25,035		**73,900**	**49,700**	**26,300 J**	**31,800 J**	**3,710 J**	**3,700 J**	**4,330 J**	**24,600 J**	**40,600 J**	**21,000 J**
Lead	400	800	103	66.1		**2,490**	**3,910**	**19,300**	**35.3**	**21,700**	**4,170**	**691**	**74.7**	**11,100 J**	**21.6**
Magnesium	NC	NC	NC	NC		**8,440 J**	**1,920 J**	749 U	652 U	672 U	722 U	665 U	**2,520**	646 U	**14,400**
Manganese	1,800	23,000	1,527	2,726		**6,150 J**	**441 J**	**8.3 J**	**8.6 J**	**2.9 J**	**3.3 J**	**23.8 J**	**638 J**	**33**	**1,380**
Mercury	5.6	34	1.32	1.33		**0.32**	**0.22 J-**	**154 J-**	R	**140 J-**	**49.6 J-**	**1.7 J-**	**2.1 J-**	**5.6 J+**	0.12 U
Nickel	1,500	20,000	19.9	45		**40.5**	**26.4**	**1.3 J**	**0.28 J**	**0.52 J**	**0.44 J**	**1.5 J**	**17.2 J**	**4.2 J**	**35**
Potassium	NC	NC	NC	NC		**1,050 J**	**726 J**	**847 J**	**4,620 J**	**291 J**	**369 J**	**272 J**	**681 J**	**982 J**	**4,750 J**
Selenium	390	5,100	NC	NC		**6.6 J-**	**2.8 J-**	**526**	**1.5 J**	**347**	**75.2**	**6.8**	4.4 U	**3.5 J-**	4.2 UJ
Silver	390	5,100	NC	NC		**4.6**	**4.1**	**25.7**	1.3 UJ	**4.8**	**0.98 J**	**0.59 J**	1.3 UJ	**10.4 J+**	1.2 U
Sodium	NC	NC	NC	NC		**177 J**	602 U	749 U	**1,010**	672 U	722 U	665 U	631 U	**695**	**348 J**
Thallium[a]	5.1	66	NC	NC		**2.5 J**	3 U	3.7 UJ	3.3 UJ	3.4 U	3.6 U	3.3 U	3.2 UJ	3.2 UJ	3 UJ
Vanadium	390	5,200	39.5	37.8		**30.6**	**27.4**	**2.9 J**	**9.2**	**1.3 J**	**1.3 J**	**4.6 J**	**33.3**	**19.5**	**21.5**
Zinc	23,000	310,000	1,310	740		**20,600**	**17,900**	**1,360**	**55.2**	**412**	**115**	**1,590**	**399**	**1,010**	**50.7**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB024A ME3RB1 36631 7/19/2007 mg/kg 3 L1, L4 0-2	SB024B ME3RB2 36631 7/19/2007 mg/kg 3 L1, L4 8-10	SB255B ME3RB3 36631 7/19/2007 mg/kg SB024B 3 L1, L4 8-10	SB025A ME3SH8 36697 8/10/2007 mg/kg 3 L1 0-2	SB025B ME3SH9 36697 8/10/2007 mg/kg 3 L1 8-10	SB026A ME3RA5 36631 7/19/2007 mg/kg 3 L4 0-2	SB026B ME3RA6 36631 7/19/2007 mg/kg 3 L1 8-10	SB027A ME3S63 36664 8/3/2007 mg/kg 3 L1 0-2	SB027B ME3S64 36664 8/3/2007 mg/kg 3 L1 6-8	SB028A ME3S65 36664 8/3/2007 mg/kg 3 L1, L2, L3 0-2
Aluminum	77,000	990,000	15,400	15,847		**154**	**438**	**103**	**303**	**3,330**	**1,820**	**6,250**	**353**	**903**	**9,910**
Antimony	31	410	NC	1.05		**10.8 J-**	6.8 UJ	7.4 UJ	**10.3**	**3.9 J+**	8.3 UJ	7.9 UJ	**4.8 J**	8.8 U	**18**
Arsenic	0.39	1.6	10.7	12.44		**0.79 J**	**0.98 J**	1.2 U	**22.7 J**	**17.5 J**	**12.6**	**5.9**	**3.9**	**3.3**	**57.3**
Barium	15,000	190,000	276	274		**191 J**	**56.6 J**	**8.8 J**	**160**	**115**	**59.2 J**	**163 J**	**327**	**657**	**171**
Beryllium	160	2,000	0.81	0.878		0.79 U	0.56 U	0.61 U	0.6 UJ	**0.048 J+**	**0.39 J+**	**0.4 J+**	0.8 U	0.74 U	0.64 U
Cadmium	70	800	7.1	4.68		**6**	**0.87**	**0.34 J**	**1,020**	**21.8**	**11.8**	**4**	**5.7**	**4.9**	**45.2**
Calcium	NC	NC	NC	NC		786 UJ	**1,370 J**	615 UJ	**34,900**	**108,000**	**20,100 J**	**21,900 J**	**9,750**	**8,100**	**4,240**
Chromium (total)[a]	280	1,400	21.2	25.2		1.6 U	**1.2**	**0.39 J**	**2.7**	**16.7**	**6.4**	**13.2**	**1.8 J**	**3.4 J**	**20.4 J**
Cobalt	23	300	12.9	13.8		7.9 U	5.6 U	6.1 U	**0.22 J+**	**1.3 J+**	6.9 U	**5.1 J**	**0.41 J**	**1.2 J**	**4.5 J**
Copper	3,100	41,000	31.5	35.9		**2.8**	2.8 U	3.1 U	**26.6**	**24.1**	**187**	**15.8**	**11.6**	**16.2**	**297**
Cyanide	1,600	20,000	NC	NC		4 U	2.8 U	3.1 U	3.1 U	3.5 U	3.5 U	3.3 U	**0.32 J**	3.7 U	**0.44 J**
Iron	55,000	720,000	24,691	25,035		**188 J**	**217 J**	**52.3 J**	**894**	**29,500**	**25,200 J**	**16,400 J**	**8,210**	**320**	**33,600**
Lead	400	800	103	66.1		**27,100 J**	**48.2**	**15.8**	**209,000**	**3,150**	**826**	**163**	**15,800**	**484**	**12,300**
Magnesium	NC	NC	NC	NC		786 U	564 U	615 U	**1,130**	689 U	**1,120**	**6,530**	796 U	737 U	**1,070**
Manganese	1,800	23,000	1,527	2,726		**1.5 J**	**3.3**	**1.5 J**	**30.7**	**69.1**	**15.7**	**315**	**23.3**	**8.6**	**177**
Mercury	5.6	34	1.32	1.33		**1.6 J+**	**0.31 J+**	**0.42 J+**	**79.1**	**1.9**	**5 J+**	0.19 U	**54.9 J+**	**1.7 J+**	**55.2 J+**
Nickel	1,500	20,000	19.9	45		6.3 U	4.5 U	4.9 U	R	**2.3 J+**	**5.8**	**11.4**	**0.39 J**	**2.9 J**	**17.9**
Potassium	NC	NC	NC	NC		**194 J**	**234 J**	615 UJ	**604 J**	**6,470 J**	**2,380 J**	**2,170 J**	796 UJ	737 UJ	**3,000 J**
Selenium	390	5,100	NC	NC		5.5 UJ	4 UJ	4.3 UJ	**23.7**	**5.1**	**2.7 J-**	4.5 UJ	**7.3**	**2.2 J**	**26.5**
Silver	390	5,100	NC	NC		1.6 U	1.1 U	1.2 U	**55**	**2.3**	**0.62 J+**	1.3 U	1.6 U	1.5 U	**8.4**
Sodium	NC	NC	NC	NC		786 U	564 U	615 U	**1,040 J+**	**903 J+**	**615 J**	**338 J**	796 U	737 U	**1,340 J+**
Thallium[a]	5.1	66	NC	NC		3.9 UJ	2.8 UJ	3.1 UJ	3 U	3.4 U	**2.8 J-**	3.2 UJ	4 U	3.7 U	3.2 U
Vanadium	390	5,200	39.5	37.8		7.9 U	5.6 U	6.1 U	6 UJ	**17.6 J-**	**8.2**	**17.3**	**1.3 J-**	**7.1 J**	**22.3**
Zinc	23,000	310,000	1,310	740		**28.8**	**50.3**	**55.7**	**14,100**	**582**	**1,810**	**1,190**	**492 J**	**154 J**	**12,800 J**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB297A ME3S66 36664 8/3/2007 mg/kg SB028A 3 L1, L2, L3 0-2	SB028B ME3S67 36664 8/3/2007 mg/kg 3 L1 6-8	SB029A ME3S70 36664 8/3/2007 mg/kg 3 L1 0-2	SB029B ME3S72 36664 8/3/2007 mg/kg 3 L1 6-8	SB030A ME3S68 36664 8/3/2007 mg/kg 3 L1, L2 0-2	SB030B ME3S69 36664 8/3/2007 mg/kg 3 L1 5-7	SB031A ME3RY2 36664 7/31/2007 mg/kg 3 L4 0-2	SB032A ME3S75 36664 8/3/2007 mg/kg 3 L2, L3, L4 0-2	SB033A ME3S73 36664 8/3/2007 mg/kg 3 L1, L4 0-2	SB034A ME3RY0 36664 7/31/2007 mg/kg 3 L2, L3 0-2
Aluminum	77,000	990,000	15,400	15,847		**742**	**1,400**	**6,400**	**11,600**	**2,440**	**11,900**	**7,730**	**10,400 J**	**7,260**	**12,300**
Antimony	31	410	NC	1.05		8.1 U	8.9 U	**7.6 J+**	**2.5 J+**	**11.5 J+**	**2.4 J**	**5.4 J**	**8.9**	**3.7 J+**	**1.5 J**
Arsenic	0.39	1.6	10.7	12.44		**2.6**	**7.7**	**15.9**	**5.8**	**246**	**3.8**	**96.9**	**24.2 J**	**70.9**	**12.5**
Barium	15,000	190,000	276	274		**153**	**302**	**140**	**114**	**216**	**123**	**258**	**147**	**236**	**69**
Beryllium	160	2,000	0.81	0.878		0.68 U	0.74 U	0.63 U	**0.64 J+**	0.75 U	0.66 U	0.61 UJ	**2**	0.58 U	**1.6 J**
Cadmium	70	800	7.1	4.68		0.87 U	**2.2**	**33.3**	**2.8 J+**	**185**	**9.7**	**274**	**30.9**	**78.6**	**361**
Calcium	NC	NC	NC	NC		**2,740**	**4,330**	**4,020**	**40,900**	**52,400**	**13,300**	**7,150**	**7,480 J**	**20,800**	**27,200**
Chromium (total)[a]	280	1,400	21.2	25.2		1.4 UJ	**3.5 J**	**11.2 J**	**20.9 J**	**20.8 J**	**20.5 J**	**12.4**	**16.9 J**	**9 J**	**16.9**
Cobalt	23	300	12.9	13.8		**0.36 J**	**0.95 J**	**6 J**	**11.6**	**3.3 J**	**4 J**	**24.3**	**12.1**	**12.8**	**15.1**
Copper	3,100	41,000	31.5	35.9		**6.4**	**16.4**	**112**	**19.2**	**138**	**17.2**	**353**	**210**	**156**	**139**
Cyanide	1,600	20,000	NC	NC		3.4 U	3.7 U	**0.2 J**	**0.19 J**	3.8 U	3.3 U	**0.18 J**	2.8 U	**0.5 J**	**0.18 J**
Iron	55,000	720,000	24,691	25,035		**2,120**	**1,880**	**18,200**	**19,800**	**24,200**	**11,700**	**33,700 J**	**41,200**	**24,500**	**32,100 J**
Lead	400	800	103	66.1		**64.7**	**523**	**888**	**14**	**8,630**	**31.6**	**1,580**	**968 J**	**679**	**319**
Magnesium	NC	NC	NC	NC		677 U	740 U	**1,540**	**13,300**	753 U	**2,940**	**4,640**	**837**	**5,650**	**776**
Manganese	1,800	23,000	1,527	2,726		**4**	**14.8**	**123**	**390**	**66.5**	**76.3**	**850 J**	**251**	**245**	**687 J**
Mercury	5.6	34	1.32	1.33		**1.1 J+**	0.15 U	**0.15 J+**	0.12 U	**7 J+**	**0.16 J+**	**3 J-**	**2.1**	**0.18 J+**	**0.28 J-**
Nickel	1,500	20,000	19.9	45		5.4 U	5.9 U	**7.7**	**33.1**	R	**15.2**	**31.4 J**	**31.4 J**	**0.93 J**	**32.4 J**
Potassium	NC	NC	NC	NC		677 UJ	740 UJ	629 UJ	**2,370 J**	753 UJ	**836 J**	**719 J**	**1,530 J**	579 UJ	**1,470 J**
Selenium	390	5,100	NC	NC		**0.85 J**	5.2 U	**2 J**	4.2 U	**32.7**	4.6 U	**2 J**	**1.1 J**	**0.71 J**	4 U
Silver	390	5,100	NC	NC		1.4 U	1.5 U	**1.9 J+**	1.2 U	**7.6 J+**	1.3 U	**6.8**	**2.8**	**5.7 J+**	**1.2 J-**
Sodium	NC	NC	NC	NC		677 U	740 U	**829 J+**	606 U	**2,410 J+**	661 U	610 U	**604**	**3,570 J+**	**930**
Thallium[a]	5.1	66	NC	NC		3.4 U	3.7 U	3.1 U	3 U	3.8 U	3.3 U	3 UJ	**1.3 J-**	2.9 U	2.9 UJ
Vanadium	390	5,200	39.5	37.8		**2.6 J**	**5.6 J**	**17.5**	**20.4**	**8.9**	**29.5**	**16.9**	**30.1**	**11.2**	**32.5**
Zinc	23,000	310,000	1,310	740		**216 J**	**1,250 J**	**8,340 J**	**642 J**	**37,100 J**	**753 J**	**83,200**	**21,100**	**51,200 J**	**32,300**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB034B ME3RY1 36664 7/31/2007 mg/kg 3 L2, L3, L4 8-10	SB035A ME3SH3 36697 8/9/2007 mg/kg 3 L4 0-2	SB035B ME3SH4 36697 8/9/2007 mg/kg 3 L1 8-10	SB036A ME3RC4 36648 7/23/2007 mg/kg 3 L4 0-2	SB036B ME3RC5 36648 7/23/2007 mg/kg 3 L1 8-10	SB037A ME3RC2 36631 7/20/2007 mg/kg 3 L1 0-2	SB037B ME3RC3 36631 7/20/2007 mg/kg 3 L1 8-10	SB038A ME3RC0 36631 7/20/2007 mg/kg 3 L1 0-2	SB038B ME3RC1 36631 7/20/2007 mg/kg 3 L2, L3 2-4	SB039A ME3RB8 36631 7/20/2007 mg/kg 3 L2, L3 0-2
Aluminum	77,000	990,000	15,400	15,847		**8,500**	**5,530**	**8,900**	**4,580**	**13,100**	**12,400**	**9,230**	**12,900**	**5,030**	**6,310**
Antimony	31	410	NC	1.05		**1.5 J**	**5.9 J**	**2.2 J**	**12.2**	**3.1 J**	**14.7 J-**	**6.6 J-**	**8.3 J-**	**87.5 J-**	**72.4 J-**
Arsenic	0.39	1.6	10.7	12.44		**15.9**	**14.7**	**14.2**	**62 J**	**13.4 J**	**50.2**	**22**	**49.4**	**528**	**476**
Barium	15,000	190,000	276	274		**101**	**133**	**69.2**	**129**	**102**	**85.7 J**	**107 J**	**79 J**	**246 J**	**295 J**
Beryllium	160	2,000	0.81	0.878		**0.95 J**	0.63 U	**0.63 J+**	0.69 U	**0.86 J**	**0.59 J+**	**0.84 J+**	**0.62 J+**	**0.69 J+**	**0.71 J+**
Cadmium	70	800	7.1	4.68		**127**	**65.8**	**0.54 J-**	**40.8**	**11.7**	**100 J**	**68.6 J**	**91.9 J**	**72 J**	**82.2 J**
Calcium	NC	NC	NC	NC		**22,400**	**26,400 J**	**17,500 J**	**30,000**	**24,400**	**1,110 J+**	**24,300 J+**	**3,330 J+**	**4,430 J+**	**6,320 J+**
Chromium (total)[a]	280	1,400	21.2	25.2		**15.7**	**11.8 J**	**13.3 J**	**29.2**	**20.6**	**14.3 J+**	**16.8 J+**	**12.5 J+**	**21.3 J+**	**15.9 J+**
Cobalt	23	300	12.9	13.8		**14.4**	**3.2 J**	**40.8 J**	**5 J**	**11**	**16.3 J+**	**12.1 J+**	**11.1 J+**	**34.8 J+**	**29.9 J+**
Copper	3,100	41,000	31.5	35.9		**203**	**77.1**	**96.4**	**294 J**	**63.9 J**	**922 J+**	**313 J+**	**364 J+**	**2,430 J+**	**1,280 J+**
Cyanide	1,600	20,000	NC	NC		3 U	3.2 U	2.9 U	**1 J**	3 U	3.2 UJ	3.1 UJ	3.5 UJ	2.9 UJ	3.1 UJ
Iron	55,000	720,000	24,691	25,035		**30,500 J**	**21,200 J**	**16,400 J**	**55,000**	**28,600**	**19,500 J+**	**17,500 J+**	**13,700 J**	**63,100 J**	**61,000 J**
Lead	400	800	103	66.1		**406**	**11,300**	**55**	**16,200**	**1,130**	**1,030 J**	**3,990 J**	**922 J**	**3,090 J**	**2,880 J**
Magnesium	NC	NC	NC	NC		**1,620**	**2,800**	**5,300**	**486 J**	**4,440**	**1,150 J+**	**2,860 J+**	**2,380 J+**	**793 J+**	**1,190 J+**
Manganese	1,800	23,000	1,527	2,726		**557 J**	**205 J**	**225 J**	**140**	**258**	**447 J+**	**463 J+**	**349 J+**	**1,930 J+**	**1,660 J+**
Mercury	5.6	34	1.32	1.33		**0.13 J-**	**19.5 J-**	**0.37 J-**	**13.9**	**0.48**	**0.8 J+**	**0.43 J+**	**0.2 J+**	**0.32 J+**	**0.46 J+**
Nickel	1,500	20,000	19.9	45		**26.1 J**	**4.7 J**	**45.9 J**	**17.1**	**36.2**	**236**	**103**	**33.1**	**62.1**	**107**
Potassium	NC	NC	NC	NC		**1,590 J**	**3,340 J**	**2,790 J**	**2,270 J**	**2,460 J**	**1,150 J**	**1,930 J**	**1,360 J**	**353 J**	**519 J**
Selenium	390	5,100	NC	NC		4.2 U	**4.5 J+**	**1.3 J+**	**10.7**	4.2 U	**1.4 J**	**2.4 J**	4.8 U	**6.7**	**5.7**
Silver	390	5,100	NC	NC		**0.87 J-**	**2.9 J+**	**1.1 J+**	**2.7**	1.2 UJ	**17.6 J+**	**4.5 J+**	**4.7 J+**	**51.7 J+**	**44.9 J+**
Sodium	NC	NC	NC	NC		597 U	**1,060**	**1,710**	688 UJ	600 UJ	**809**	**232 J**	**776**	**908**	**643**
Thallium[a]	5.1	66	NC	NC		3 UJ	**9.1**	2.9 U	3.4 U	3 U	3.2 U	3.1 U	3.5 U	2.9 U	3.1 U
Vanadium	390	5,200	39.5	37.8		**21.4**	**14 J-**	**11.3 J-**	**35.4**	**33.3**	**15.5**	**20.4**	**17.1**	**20.4**	**16.7**
Zinc	23,000	310,000	1,310	740		**22,500**	**5,740 J**	**49.3 J**	**7,540**	**3,200**	**27,900 J**	**16,100 J**	**29,900 J**	**23,900 J**	**25,100 J**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB039B ME3RB9 36631 7/20/2007 mg/kg 3 L1 8-10	SB040A ME3S15 36664 8/1/2007 mg/kg 3 L3, L4 0-2	SB040B ME3S16 36664 8/1/2007 mg/kg 3 L1 6-8	SB041A ME3RD8 36631 7/20/2007 mg/kg 3 L1 0-2	SB041B ME3RD9 36631 7/20/2007 mg/kg 3 L1 9-11	SB042A ME3RD4 36631 7/20/2007 mg/kg 3 L4 0-2	SB042B ME3RD5 36631 7/20/2007 mg/kg 3 L1 8-10	SB043A ME3RF0 36648 7/23/2007 mg/kg 3 L4 0-2	SB043B ME3RF1 36648 7/23/2007 mg/kg 3 L2, L3 4-5	SB044A ME3RE8 36648 7/23/2007 mg/kg 3 L4 0-2
Aluminum	77,000	990,000	15,400	15,847		**10,800**	**22,100**	**7,840**	**10,100**	**2,160**	**8,770**	**8,250**	**5,620**	**3,850**	**5,870**
Antimony	31	410	NC	1.05		**2.5 J-**	**8.6**	6.7 U	**138 J-**	6.9 UJ	**11.4 J-**	7.5 UJ	**47**	**26.4**	**106**
Arsenic	0.39	1.6	10.7	12.44		**46.9**	**106**	**9.3**	**343**	**3**	**75.8**	**15.5**	**206 J**	**34.6 J**	**410 J**
Barium	15,000	190,000	276	274		**263 J**	**512**	**282**	**869 J**	**26.3 J**	**321 J**	**1,000 J**	**146**	**159**	**201**
Beryllium	160	2,000	0.81	0.878		**1.1 J+**	**2.2**	**1**	**0.98 J+**	**0.17 J+**	**0.7 J+**	**1.1 J+**	0.58 UJ	0.61 UJ	0.58 UJ
Cadmium	70	800	7.1	4.68		**17.4 J**	**17.7**	**3.6 J+**	**298 J**	**2.6 J**	**45.1 J**	**2.5 J**	**87.1**	**173**	**59.7**
Calcium	NC	NC	NC	NC		**15,900 J+**	**3,040**	**5,040**	**16,900 J+**	**606 J+**	**693 J+**	**61,600 J+**	**18,100**	**62,300**	**1,800**
Chromium (total)[a]	280	1,400	21.2	25.2		**14.3 J+**	**11**	**6.8**	**42.1 J+**	**3.6 J+**	**10.6 J+**	**19.9 J+**	**11.8**	**30.1**	**39.3**
Cobalt	23	300	12.9	13.8		**15 J+**	**13.2**	5.6 U	**32.2 J+**	**5 J+**	**37 J+**	**21.2 J+**	**33.9**	**6.3**	**56.8**
Copper	3,100	41,000	31.5	35.9		**167 J+**	**347**	**33.2**	**7,020 J+**	**17.8 J+**	**522 J+**	**69.1 J+**	**1,270 J**	**211 J**	**4,160 J**
Cyanide	1,600	20,000	NC	NC		3.1 UJ	**0.17 J**	2.8 U	3.5 UJ	2.9 UJ	3.2 UJ	3.1 UJ	**0.71 J**	**0.3 J**	**0.88 J**
Iron	55,000	720,000	24,691	25,035		**30,300 J**	**40,800**	**23,000**	**61,200 J+**	**5,030 J+**	**20,400 J+**	**35,400 J+**	**37,400**	**22,800**	**71,300**
Lead	400	800	103	66.1		**206 J**	**1,320**	**34.5 J**	R	R	R	R	**11,700**	**62,600**	**5,140**
Magnesium	NC	NC	NC	NC		**5,480 J+**	**1,220**	**2,500**	**1,280 J+**	**543 J+**	**713 J+**	**17,700 J+**	**4,610**	**3,120**	**565 J**
Manganese	1,800	23,000	1,527	2,726		**391 J+**	**189**	**166**	**1,680 J+**	**155 J+**	**949 J+**	**5,740 J+**	**1,770**	**363**	**2,110**
Mercury	5.6	34	1.32	1.33		0.12 U	0.22 U	0.11 U	**9.9 J+**	**0.058 J+**	**0.58 J+**	0.12 U	**77.5**	**145**	**1.3**
Nickel	1,500	20,000	19.9	45		**49.7**	**17.4**	**29.2**	**462**	**8**	**159**	**53.3**	**25.2**	**17.6**	**1,030**
Potassium	NC	NC	NC	NC		**2,680 J**	683 UJ	557 UJ	**913 J**	**298 J**	**781 J**	**1,920 J**	**709 J**	**821 J**	585 UJ
Selenium	390	5,100	NC	NC		**1.5 J**	**2.8 J**	**0.79 J**	**15.4**	4 U	**1.7 J**	**2.7 J**	**11.8**	**72.3**	**4.7**
Silver	390	5,100	NC	NC		**2.1 J+**	**6.4 J+**	**1.2 J+**	**34.4 J+**	1.2 U	**6 J+**	**0.55 J+**	**22.6**	**6.1**	**54.3**
Sodium	NC	NC	NC	NC		**599 J**	**1,210 J+**	557 U	**589 J**	576 U	**545 J**	**198 J**	575 UJ	606 UJ	**743 J**
Thallium[a]	5.1	66	NC	NC		3.1 U	3.4 U	2.8 U	**1.3 J**	2.9 U	3.2 U	**2.6 J**	2.9 U	3 U	2.9 U
Vanadium	390	5,200	39.5	37.8		**12.9**	**15.4**	**14.3**	**22.7**	**6.4**	**13.2**	**28.9**	**17.4**	**17.2**	**12.8**
Zinc	23,000	310,000	1,310	740		**12,100 J**	**10,000 J**	**2,660 J**	**55,200 J**	**708 J**	**27,800 J**	**1,060 J**	**33,600**	**24,100**	**68,300**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB044B ME3RE9 36648 7/23/2007 mg/kg 3 L2, L3, L4 8-10	SB261B ME3RF3 36648 7/23/2007 mg/kg SB044B 3 L2, L3, L4 8-10	SB045A ME3RE6 36648 7/23/2007 mg/kg 3 L4 0-2	SB045B ME3RE7 36648 7/23/2007 mg/kg 3 L1 8-10	SB046A ME3RE4 36648 7/23/2007 mg/kg 3 L3, L4 0-2	SB046B ME3RE5 36648 7/23/2007 mg/kg 3 L1 8-10	SB047A ME3RD6 36631 7/20/2007 mg/kg 3 L2, L3 0-2	SB258A ME3RE0 36631 7/20/2007 mg/kg SB047A 3 L2, L3 0-2	SB047B ME3RD7 36631 7/20/2007 mg/kg 3 L1 9-11	SB048A ME3RE1 36631 7/20/2007 mg/kg 3 L1, L2, L3 0-2
Aluminum	77,000	990,000	15,400	15,847		**6,040**	**16,000**	**5,150**	**13,200**	**8,860**	**10,300**	**5,230**	**6,890**	**3,600**	**6,220**
Antimony	31	410	NC	1.05		**14.3**	7.5 U	**26.8**	**1.5 J**	**40.1**	**2.8 J**	**66.6 J-**	7.2 UJ	7.1 UJ	**100 J-**
Arsenic	0.39	1.6	10.7	12.44		**22.6 J**	**5.3 J**	**141 J**	**23.8 J**	**126 J**	**8.9 J**	**812**	**14.1**	**8.9**	**304 J-**
Barium	15,000	190,000	276	274		**101**	**237**	**391**	**101**	**224**	**229**	**115 J**	**54.4 J**	**43.8 J**	**202 J**
Beryllium	160	2,000	0.81	0.878		**0.67 J**	**1.2 J**	0.59 UJ	**0.73 J**	**2.2 J**	0.63 UJ	**1.1 J+**	**2.9 J+**	**0.32 J+**	**1.5**
Cadmium	70	800	7.1	4.68		**297**	**618**	**234**	0.61 U	**121**	**8.8**	**109 J**	**29.7 J**	**2.5 J**	**111 J-**
Calcium	NC	NC	NC	NC		**34,400**	**26,400**	**17,000**	**10,000**	**19,600**	**25,900**	**10,800 J+**	**6,560 J+**	**1,190 J+**	**11,200**
Chromium (total)[a]	280	1,400	21.2	25.2		**18**	**21.8**	**12.5**	**26.6**	**20.8**	**22.3**	**10.5 J+**	**13.1 J+**	**6 J+**	**27 J-**
Cobalt	23	300	12.9	13.8		**10.6**	**14.3**	**138**	**8.2**	**54.4**	**6 J**	**103 J+**	**59.1 J+**	**2.9 J+**	**48.4**
Copper	3,100	41,000	31.5	35.9		**199 J**	**16.4 J**	**1,400 J**	**4.9 J**	**1,190 J**	**25.5 J**	**4,710 J+**	**197 J+**	**133 J+**	**4,140 J-**
Cyanide	1,600	20,000	NC	NC		**1 J**	**4.2**	**4.2**	**0.15 J**	**2.2 J**	**0.12 J**	3.1 UJ	3 UJ	3 UJ	3 UJ
Iron	55,000	720,000	24,691	25,035		**17,300**	**20,300**	**42,800**	**21,200**	**66,500**	**30,200**	**61,200 J+**	**19,100 J+**	**7,150 J+**	**57,100 J**
Lead	400	800	103	66.1		**851**	**26**	**5,480**	**12.8**	**2,520**	**122**	R	R	R	**3,620 J**
Magnesium	NC	NC	NC	NC		**1,090**	**3,730**	**5,040**	**4,960**	**856**	**2,480**	**531 J+**	**466 J+**	**566 J+**	**652 J**
Manganese	1,800	23,000	1,527	2,726		**2,510**	**3,900**	**4,570**	**249**	**1,650**	**169**	**2,970 J+**	**991 J+**	**115 J+**	**1,380**
Mercury	5.6	34	1.32	1.33		**8.8**	**0.15**	**5.8**	**0.14**	**4.6**	0.13 U	**0.39 J+**	**4.3 J+**	**0.042 J+**	**6.9 J**
Nickel	1,500	20,000	19.9	45		**55.1**	**60**	**48.1**	**40.6**	**78.4**	**20.2**	**135**	**64.9**	**27.1**	**380 J-**
Potassium	NC	NC	NC	NC		**1,040 J**	**2,010 J**	593 UJ	**3,070 J**	**990 J**	**3,530 J**	**260 J**	**533 J**	**288 J**	**521 J**
Selenium	390	5,100	NC	NC		**2.6 J**	4.4 U	4.2 U	4.3 U	4.2 U	4.4 U	**11**	**1.6 J**	4.1 U	**8.5 J-**
Silver	390	5,100	NC	NC		**2.3 J-**	1.2 UJ	**13**	1.2 UJ	**11.5**	1.3 UJ	**124 J+**	**1.4 J+**	**0.75 J+**	**41.3**
Sodium	NC	NC	NC	NC		607 UJ	623 UJ	593 UJ	612 UJ	604 UJ	**758 J**	**584 J**	**218 J**	590 U	**622**
Thallium[a]	5.1	66	NC	NC		3 U	3.1 U	3 U	3.1 U	3 U	3.2 U	**2 J**	3 U	3 U	3.1 U
Vanadium	390	5,200	39.5	37.8		**15.9**	**19.6**	**14.8**	**21.6**	**30.2**	**26.5**	**11.2**	**31**	**9.2**	**16.9**
Zinc	23,000	310,000	1,310	740		**18,700**	**18,900**	**117,000**	**988**	**33,600**	**2,320**	**66,800 J**	**10,300 J**	**2,090 J**	**23,600 J**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB048B ME3RE2 36631 7/20/2007 mg/kg 3 L1 9-11	SB049A ME3S17 36664 8/1/2007 mg/kg 3 L1, L3 0-2	SB049B ME3S18 36664 8/1/2007 mg/kg 3 L1 5-7	SB050A ME3S19 36664 8/1/2007 mg/kg 3 L1, L2 0-2	SB050B ME3S20 36664 8/1/2007 mg/kg 3 L1 8-10	SB051A ME3S21 36664 8/1/2007 mg/kg 3 L1 0-2	SB051B ME3S22 36664 8/1/2007 mg/kg 3 L1 4-6	SB052A ME3S40 36664 8/2/2007 mg/kg 3 L1 0-2	SB052B ME3S41 36664 8/2/2007 mg/kg 3 L1 8-10	SB053A ME3RZ7 36664 8/1/2007 mg/kg 3 L4 0-2
Aluminum	77,000	990,000	15,400	15,847		**13,800**	**545**	**7,320**	**2,370**	**7,480**	**11,800**	**962**	**19,500**	**15,700**	**10,900**
Antimony	31	410	NC	1.05		7.4 UJ	**91.9**	**12.1 J+**	**51.9**	7 U	**3.6 J**	**1.6 J**	**5.6 J+**	**3 J+**	**24.1**
Arsenic	0.39	1.6	10.7	12.44		**14.9 J-**	**191**	**9.6**	**155**	**2.8**	**8.4**	**5.6**	**11.6**	2 U	**90.7 J**
Barium	15,000	190,000	276	274		**172 J**	**198**	**129**	**115**	**137**	**171**	**119**	**267**	**122**	**140**
Beryllium	160	2,000	0.81	0.878		**1.2**	0.61 U	**0.67**	0.65 U	**0.63**	0.66 U	0.6 U	**0.84**	**0.94 J+**	**0.88 J+**
Cadmium	70	800	7.1	4.68		**5.6**	**14.6**	**20.8**	**17.8**	0.59 U	**8.9**	**6.6**	**19.4**	**0.59 J+**	**175 J**
Calcium	NC	NC	NC	NC		**31,600**	**557 J**	**43,700**	**14,400**	**36,200**	**1,590**	**636**	**2,820**	**28,200 J**	**2,220 J**
Chromium (total)[a]	280	1,400	21.2	25.2		**23 J-**	**4.7**	**14.7**	**6**	**15**	**17.3**	**2.1**	**23.7 J**	**25.4 J**	**21.6**
Cobalt	23	300	12.9	13.8		**6.9**	**7.8**	**19**	**13.2**	**9.2**	**11.4**	6 U	**31.2**	**11.3 J**	**9.5 J+**
Copper	3,100	41,000	31.5	35.9		**36.5 J-**	**362**	**46.7**	**873**	**9.7**	**17.2**	**5.3**	**44**	**7.3**	**245**
Cyanide	1,600	20,000	NC	NC		3.1 UJ	**0.3 J**	3.3 U	3.3 U	3 U	3.3 U	3 U	**0.86 J**	2.9 U	3.1 U
Iron	55,000	720,000	24,691	25,035		**33,900 J**	**31,400**	**27,300**	**29,000**	**19,200**	**20,400**	**8,400**	**37,100**	**28,300**	**28,600**
Lead	400	800	103	66.1		**109 J**	**10,700**	**795 J**	**862 J**	**22.5 J**	**21.8**	**18.6**	**738**	**6.8**	**8,310 J**
Magnesium	NC	NC	NC	NC		**7,600 J**	614 U	**10,700**	651 U	**5,610**	**2,400**	601 U	**3,390**	**7,530**	**2,010**
Manganese	1,800	23,000	1,527	2,726		**273**	**292**	**1,310**	**561**	**1,240**	**664**	**16.1**	**7,110**	**449 J**	**240 J**
Mercury	5.6	34	1.32	1.33		0.12 UJ	**8.2**	0.12 U	**0.44**	0.12 U	0.13 U	0.12 U	**0.49 J+**	0.12 U	**0.77**
Nickel	1,500	20,000	19.9	45		**25.1 J-**	**0.67 J**	**39.6**	5.2 U	**35.4**	**16.5**	**0.86 J**	**26.4**	**41.2 J**	4.8 UJ
Potassium	NC	NC	NC	NC		**3,770 J**	**1,200 J**	**1,650 J**	**1,660 J**	**2,120 J**	**819 J**	**1,140 J**	**1,680 J**	**2,260 J**	**2,670 J**
Selenium	390	5,100	NC	NC		4.3 UJ	**60.4**	**4 J**	**2.1 J**	4.1 U	4.6 U	**0.7 J**	4.8 U	4.1 U	**2 J**
Silver	390	5,100	NC	NC		1.2 U	**264**	**5.6 J+**	**13.6**	1.2 U	1.3 U	1.2 U	**2.5 J+**	**1.6 J+**	**5.2 J+**
Sodium	NC	NC	NC	NC		**169 J**	**981 J+**	**1,480 J+**	**2,310 J+**	587 U	**934 J+**	601 U	680 U	**336 J**	**4,210 J+**
Thallium[a]	5.1	66	NC	NC		3.1 U	3.1 U	3.3 U	3.3 U	2.9 U	3.3 U	3 U	3.4 U	2.9 U	3 UJ
Vanadium	390	5,200	39.5	37.8		**40.3**	**7.9**	**15.7**	**16.5**	**18.5**	**27.2**	6 U	**33.4**	**15.2 J**	**24.9**
Zinc	23,000	310,000	1,310	740		**1,580 J**	**3,230 J**	**8,240 J**	**23,800 J**	**121 J**	**2,260 J**	**1,170 J**	**4,330 J**	**60.8 J**	**62,500 J**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB053B ME3RZ8 36664 8/1/2007 mg/kg 3 L1 6-8	SB054A ME3RZ9 36664 8/1/2007 mg/kg 3 L4 0-2	SB054B ME3S01 36664 8/1/2007 mg/kg 3 L1 4-6	SB055A ME3S02 36664 8/1/2007 mg/kg 3 L4 0-2	SB055B ME3S03 36664 8/1/2007 mg/kg 3 L1, L2, L4 4-6	SB056A ME3S04 36664 8/1/2007 mg/kg 3 L2, L3 0-2	SB056B ME3S05 36664 8/1/2007 mg/kg 3 L1, L2, L3 8-10	SB290B ME3S06 36664 8/1/2007 mg/kg SB056B 3 L1, L2, L3 8-10	SB057A ME3S42 36664 8/2/2007 mg/kg 3 L4 0-2	SB057B ME3S43 36664 8/2/2007 mg/kg 3 L4 4-6
Aluminum	77,000	990,000	15,400	15,847		**9,520**	**10,500**	**13,500**	**9,310**	**9,310**	**3,900**	**13,000**	**5,240**	**7,700**	**11,500**
Antimony	31	410	NC	1.05		**2.1 J**	**84.4**	**3.5 J**	**9.5**	6.9 U	**7.5**	**4.6 J+**	**1.2 J+**	**5.4 J+**	**2.1 J+**
Arsenic	0.39	1.6	10.7	12.44		**5.1 J**	**222 J**	**14.1 J**	**42.5 J**	**4.4 J**	**32.3 J**	**13.3 J**	**4.8**	**18.7**	**14.9**
Barium	15,000	190,000	276	274		**44.1**	**265**	**89.7**	**112**	**42**	**150**	**164**	22.1 U	**101**	**42.1**
Beryllium	160	2,000	0.81	0.878		**0.69 J+**	**1**	**0.97 J+**	**0.67 J+**	**0.86 J+**	0.6 U	**0.97 J+**	0.55 U	0.68 UJ	**0.73 J+**
Cadmium	70	800	7.1	4.68		**93.2 J**	**624 J**	**127 J**	**208 J**	**770 J**	**182 J**	**290 J**	**0.76 J+**	**6.1**	**324**
Calcium	NC	NC	NC	NC		**174,000 J**	**2,860 J**	**44,500 J**	**29,100 J**	**179,000 J**	**1,660 J**	**3,940 J**	**191,000**	**28,200 J**	**10,600 J**
Chromium (total)[a]	280	1,400	21.2	25.2		**23.6**	**30.7**	**24.8**	**22.3**	**14.5**	**12.6**	**21.9**	**14.5**	**20.2 J**	**18.5 J**
Cobalt	23	300	12.9	13.8		**23.7 J**	**17.2 J**	**19.1 J**	**22.4 J**	**14.5 J**	**22 J**	**22.5 J**	**17.5**	6.8 UJ	**23.4 J**
Copper	3,100	41,000	31.5	35.9		**32.7**	**803**	**65.4**	**332**	**101**	**710**	**252**	**31.2**	**57.2**	**96.6**
Cyanide	1,600	20,000	NC	NC		**0.43 J**	**0.28 J**	3.9 U	**0.16 J**	**0.1 J**	**0.17 J**	3.1 U	2.8 U	3.4 U	3.1 U
Iron	55,000	720,000	24,691	25,035		**12,900**	**59,600**	**24,500**	**57,300**	**14,400**	**49,800**	**34,300**	**10,400**	**23,400**	**20,600**
Lead	400	800	103	66.1		**15.1 J**	**10,100 J**	**345 J**	**1,310 J**	**79 J**	**4,600 J**	**1,840 J**	**12**	**2,080**	**154**
Magnesium	NC	NC	NC	NC		**5,950**	**2,070**	**5,240**	**14,400**	**4,640**	**940**	**5,200**	**4,610**	**1,870**	**5,130**
Manganese	1,800	23,000	1,527	2,726		**2,660 J**	**559 J**	**1,020 J**	**638 J**	**4,280 J**	**245 J**	**417 J**	**3,420**	**64.6 J**	**1,520 J**
Mercury	5.6	34	1.32	1.33		0.11 U	**22**	0.16 U	**0.096 J**	**0.078 J**	**5.2**	**0.79**	0.11 U	0.13 U	**0.19 J-**
Nickel	1,500	20,000	19.9	45		**41.4 J**	**129 J**	**36.6 J**	**36.7 J**	**68.7 J**	**5.5 J**	**26.3 J**	**37.2**	**14.9 J**	**41.4 J**
Potassium	NC	NC	NC	NC		**2,920 J**	**1,280 J**	**2,860 J**	**1,500 J**	**1,850 J**	596 UJ	**1,850 J**	**1,410 J**	**2,300 J**	**2,270 J**
Selenium	390	5,100	NC	NC		3.9 U	**11.7**	**0.74 J**	**1.4 J**	4 U	**4.4**	**1.2 J**	3.9 U	**2.4 J**	4.3 U
Silver	390	5,100	NC	NC		**0.73 J+**	**31.5 J**	**2.2 J+**	**7.1 J+**	**0.94 J+**	**10.6 J**	**3.5 J+**	1.1 U	**3.1 J+**	1.2 U
Sodium	NC	NC	NC	NC		**954 J+**	**6,940 J+**	**983 J+**	**2,660 J+**	**2,520 J+**	**2,810 J+**	**2,970 J+**	**825 J+**	**300 J**	**2,150 J+**
Thallium[a]	5.1	66	NC	NC		2.8 UJ	3.1 UJ	3.9 UJ	2.9 UJ	2.9 UJ	3 UJ	3.1 UJ	2.8 U	3.4 U	3.1 U
Vanadium	390	5,200	39.5	37.8		**15**	**19.9**	**19.5**	**14.1**	**11.1**	**23.3**	**19.2**	**9**	**18.6 J**	**10.8 J-**
Zinc	23,000	310,000	1,310	740		**2,880 J**	**107,000 J**	**7,910 J**	**41,900 J**	**33,800 J**	**46,100 J**	**45,000 J**	**1,460 J**	**1,350 J**	**30,000 J**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID	SB058A	SB058B	SB293B	SB059A	SB059B	SB060A	SB060B	SB061A	SB061B	SB062A
					Sample ID	ME3S44	ME3S45	ME3S46	ME3S25	ME3S26	ME3S23	ME3S24	ME3SC1	ME3SC2	ME3SC6
					Case	36664	36664	36664	36664	36664	36664	36664	36697	36697	36697
					Sampling date	8/2/2007	8/2/2007	8/2/2007	8/1/2007	8/1/2007	8/1/2007	8/1/2007	8/7/2007	8/7/2007	8/7/2007
					Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
					Duplicate info			SB058B							
					Investigation area	3	3	3	3	3	3	3	3	3	3
					Lithology	L1	L1	L1	L1, L4	L1	L1	L1	L1, L2	L1	L4
					Depth (ft bgs)	0-2	4-6	4-6	0-2	8-10	0-2	8-10	0-2	8-10	0-2
Aluminum	77,000	990,000	15,400	15,847		**9,980**	**10,200**	**10,200**	**6,300**	**13,000**	**8,190**	**24,200**	**9,680**	**9,740**	**2,080**
Antimony	31	410	NC	1.05		**51.6**	**1.5 J+**	**2.9 J+**	**13.1**	**2.8 J**	**3.8 J**	**2.2 J**	**1.9 J**	**2.2 J**	**14**
Arsenic	0.39	1.6	10.7	12.44		**97.8**	**4.7**	**6.9**	**65.4**	**4**	**11.1**	**2**	**4.5**	**10.1**	**28.2**
Barium	15,000	190,000	276	274		**153**	23.8 UJ	**98.6**	**182**	**149**	**166**	**118**	**204**	**204**	**84.8**
Beryllium	160	2,000	0.81	0.878		**0.83 J+**	**0.85 J+**	**0.8 J+**	**0.74**	**0.83**	0.63 U	**1.1**	**0.62 J+**	0.59 U	0.59 U
Cadmium	70	800	7.1	4.68		**96.4**	**0.83 J+**	**7.7**	**299**	**18.4**	**3 J+**	**6.6**	**1.4 J-**	**1.3 J-**	**94.6**
Calcium	NC	NC	NC	NC		**2,900 J**	**20,600 J**	**15,700 J**	**23,800**	**19,400**	**1,880**	**36,700**	**54,200 J**	**69,700**	**1,370 J**
Chromium (total)[a]	280	1,400	21.2	25.2		**24.8 J**	**15.8 J**	**15.8 J**	**20.5**	**21.1**	**23.6**	**27.8**	**20.7 J**	**17.5**	**4.8 J**
Cobalt	23	300	12.9	13.8		**22.6 J**	**9.4 J**	**23.3 J**	**14.3**	**12.3**	**17**	**8.2**	**14 J**	**21.8 J**	**3.8 J**
Copper	3,100	41,000	31.5	35.9		**1,140**	**10.6**	**129**	**512**	**28.9**	**48.2**	**56**	**17.4**	**23.1 J**	**146**
Cyanide	1,600	20,000	NC	NC		**0.13 J**	3 U	3 U	2.6 U	3 U	3.1 U	3.2 U	3 U	3 U	**0.12 J**
Iron	55,000	720,000	24,691	25,035		**44,700**	**14,600**	**20,500**	**35,300**	**24,500**	**27,000**	**25,800**	**25,500 J**	**16,600**	**6,730 J**
Lead	400	800	103	66.1		**11,900**	**61.9**	**40.6**	**3,830**	**137**	**274**	**8**	**11.9**	**15.7**	**27,100**
Magnesium	NC	NC	NC	NC		**1,690**	**5,100**	**4,970**	**12,200**	**7,580**	**1,770**	**2,830**	**7,900 J**	**4,810**	**335 J**
Manganese	1,800	23,000	1,527	2,726		**1,220 J**	**295 J**	**613 J**	**812**	**648**	**904**	**528**	**1,800 J**	**1,990 J**	**255 J**
Mercury	5.6	34	1.32	1.33		**13.7**	**0.17 J-**	**0.3**	**2.6**	0.12 U	**1.3**	0.17 U	0.12 U	**0.2 J-**	**2**
Nickel	1,500	20,000	19.9	45		**160 J**	**32 J**	**43 J**	**12.7**	**39.2**	**12.6**	**47**	**35 J**	**43.9**	4.7 UJ
Potassium	NC	NC	NC	NC		**1,170 J**	**2,170 J**	**1,880 J**	**555 J**	**1,660 J**	**885 J**	**1,270 J**	**2,240 J**	**1,550 J**	**234 J**
Selenium	390	5,100	NC	NC		**7.7**	**6**	4.2 U	**3.2 J**	4.3 U	**4.3 J**	4.4 U	4.3 U	4.1 U	**105**
Silver	390	5,100	NC	NC		**16**	1.2 UJ	**1.3 J+**	**7.7**	**1.4 J+**	**1.4 J+**	1.2 U	**1.4 J+**	**0.93 J+**	**3.9**
Sodium	NC	NC	NC	NC		**4,160 J+**	**372 J**	**561 J**	**5,890 J+**	608 U	626 U	623 U	**138 J-**	**228 J-**	**1,060**
Thallium[a]	5.1	66	NC	NC		3 U	3 U	3 U	2.6 U	3 U	3.1 U	3.1 U	3 U	2.9 U	2.9 U
Vanadium	390	5,200	39.5	37.8		**23.6 J**	**18.6 J**	**8.4 J-**	**27.5**	**18.5**	**27.4**	**10.3**	**16.4 J-**	**12.4 J-**	**6.6 J-**
Zinc	23,000	310,000	1,310	740		**63,600 J**	**94 J**	**1,440 J**	**76,100 J**	**3,030 J**	**690 J**	**2,790 J**	**76 J**	**96.7**	**18,600 J**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB063A ME3SB7 36697 8/7/2007 mg/kg 3 L1 0-2	SB063B ME3SB8 36697 8/7/2007 mg/kg 3 L1 4-6	SB064A ME3SC7 36697 8/7/2007 mg/kg 3 L1, L4 0-2	SB064B ME3SC8 36697 8/7/2007 mg/kg 3 L1 8-10	SB065A ME3SC9 36697 8/7/2007 mg/kg 3 L1, L4 0-2	SB065B ME3SD0 36697 8/7/2007 mg/kg 3 L1, L4 8-10	SB066A ME3SA7 36697 8/7/2007 mg/kg 3 L1 0-2	SB299A ME3SA9 36697 8/7/2007 mg/kg SB066A 3 L1 0-2	SB066B ME3SA8 36697 8/7/2007 mg/kg 3 L1 8-10	SB067A ME3RY6 36664 7/31/2007 mg/kg 3 L1, L4 0-2
Aluminum	77,000	990,000	15,400	15,847		**5,910**	**7,750**	**6,090**	**7,870**	**4,030**	**8,310**	**6,210**	**8,390**	**9,140**	**1,010**
Antimony	31	410	NC	1.05		**4.2 J**	**2.2 J**	**2.8 J**	6.9 U	**2.1 J**	**3.1 J**	**1.9 J+**	**2.7 J+**	**3.1 J+**	9.7 U
Arsenic	0.39	1.6	10.7	12.44		**14.5**	**4.9**	**2.3**	**3.1**	**2.4**	**6.7**	**4 J+**	**3.9 J+**	**12.4**	**3.6**
Barium	15,000	190,000	276	274		**148**	**234**	**219**	**28.5**	**159**	**61.3**	**74.1**	**130**	**82.8**	**164**
Beryllium	160	2,000	0.81	0.878		0.6 U	0.6 U	**0.94**	0.58 U	**0.73**	**0.89**	**1**	**1.1**	0.61 U	0.81 UJ
Cadmium	70	800	7.1	4.68		**16.6**	**1.9 J-**	**1.1 J-**	**0.31 J-**	**14.5**	**0.58 J-**	**3.5**	**2.5**	**2.4**	**3.4**
Calcium	NC	NC	NC	NC		**2,450**	**85,500**	**2,530 J**	**31,300 J**	**7,200 J**	**25,300 J**	**5,420**	**14,000**	**1,300**	**40,000**
Chromium (total)[a]	280	1,400	21.2	25.2		**16.8**	**13.6**	**22.5 J**	**12 J**	**10.8 J**	**15.4 J**	**12.5**	**14.9**	**21.5**	**1.9**
Cobalt	23	300	12.9	13.8		6 UJ	**12.7 J**	5.9 UJ	**12.8 J**	5.7 UJ	**8.7 J**	**7.8 J**	**8.8 J**	6.1 UJ	**0.68 J**
Copper	3,100	41,000	31.5	35.9		**32.5 J**	**26.9 J**	**15.6**	**10.6**	**19.7**	**4.6**	**15.9 J**	**13.8 J**	**15 J**	**5.7**
Cyanide	1,600	20,000	NC	NC		3 U	**0.5 J**	3 U	2.9 U	2.8 U	2.8 U	2.9 U	**0.12 J**	3.1 U	4 U
Iron	55,000	720,000	24,691	25,035		**29,000**	**21,700**	**19,400 J**	**8,120 J**	**7,020 J**	**24,400 J**	**17,000**	**19,000**	**22,100**	**1,490 J**
Lead	400	800	103	66.1		**1,060**	**11.1**	**8.3**	**6.5**	**32**	**6**	**19**	**9.9**	**15.1**	**182**
Magnesium	NC	NC	NC	NC		**1,460**	**16,400**	**2,380 J**	**5,700 J**	**1,680 J**	**5,240 J**	**2,710**	**3,820**	**2,200**	809 U
Manganese	1,800	23,000	1,527	2,726		**284 J**	**7,550 J**	**57.1 J**	**426 J**	**35.8 J**	**350 J**	**113 J**	**316 J**	**111 J**	**7 J**
Mercury	5.6	34	1.32	1.33		**6**	**0.035 J-**	0.12 U	0.12 U	**0.064 J-**	0.11 U	**0.034 J**	0.12 U	**0.074 J**	**1.7 J-**
Nickel	1,500	20,000	19.9	45		**10.2**	**42.7**	**20 J**	**29.5 J**	**9.4 J**	**31.3 J**	**34.1**	**35.9**	**12.4**	**0.32 J**
Potassium	NC	NC	NC	NC		**1,730 J**	**1,710 J**	**928 J**	**2,590 J**	**1,020 J**	**2,350 J**	**1,370 J**	**1,980 J**	**807 J**	**731 J**
Selenium	390	5,100	NC	NC		**1.7 J+**	4.2 U	**0.91 J**	4 U	4 U	**0.69 J**	**0.62 J+**	**0.58 J+**	**1.1 J+**	**3.8 J**
Silver	390	5,100	NC	NC		**1.6 J+**	**1.6 J+**	1.2 U	1.2 U	1.1 U	**1.2 J+**	**0.87 J+**	**1 J+**	**1.1 J+**	**0.66 J-**
Sodium	NC	NC	NC	NC		**355 J-**	**277 J-**	**95 J-**	**198 J-**	**254 J-**	**122 J-**	**179 J-**	**254 J-**	**155 J-**	809 U
Thallium[a]	5.1	66	NC	NC		3 U	3 U	2.9 U	2.9 U	2.8 U	2.8 U	2.9 U	2.9 U	3 U	4 UJ
Vanadium	390	5,200	39.5	37.8		**41.3**	**16.3 J-**	**25**	**10.9 J-**	**13.6**	**30**	**21.3**	**21.6**	**45.8**	**2.5 J**
Zinc	23,000	310,000	1,310	740		**1,910**	**291**	**42.2 J**	**32.7 J**	**1,250 J**	**39.1 J**	**380**	**211**	**199**	**131**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB067B ME3RY7 36664 7/31/2007 mg/kg 3 L1 4-6	SB068A ME3RY8 36664 7/31/2007 mg/kg 3 L1 0-2	SB068B ME3RY9 36664 7/31/2007 mg/kg 3 L1 10-12	SB283B ME3RZ0 36664 7/31/2007 mg/kg SB068B 3 L1 10-12	SB069A ME3RY4 36664 7/31/2007 mg/kg 3 L1 0-2	SB069B ME3RY5 36664 7/31/2007 mg/kg 3 L1 8-10	SB070A ME3RY3 36664 7/31/2007 mg/kg 3 L1, L4 0-2	SB071A ME3S54 36664 8/2/2007 mg/kg 3 L2, L3 0-2	SB071B ME3S55 36664 8/2/2007 mg/kg 3 L1 6-8	SB072A ME3S52 36664 8/2/2007 mg/kg 3 L4 0-2
Aluminum	77,000	990,000	15,400	15,847		**13,500**	**11,900**	**6,670**	**12,300**	**1,010**	**2,530**	**6,310**	**6,200**	**11,400**	**8,440**
Antimony	31	410	NC	1.05		**1.6 J**	**2.9 J**	**5.2 J**	7.3 U	8.1 U	7 U	**3.6 J**	**19**	**3 J+**	**16.5**
Arsenic	0.39	1.6	10.7	12.44		**6.8**	**17.6**	**76.7**	**7.1**	**12.7**	**11.2**	**27.9**	**30.9**	**7.7**	**36.4**
Barium	15,000	190,000	276	274		**126**	**148**	**380**	**668**	**259**	**99.2**	**170**	**403**	**62.2**	**294**
Beryllium	160	2,000	0.81	0.878		0.63 UJ	0.66 UJ	**0.77 J**	**0.65 J**	0.68 UJ	0.58 UJ	0.64 UJ	**0.73 J+**	**1.5 J**	**1.2 J**
Cadmium	70	800	7.1	4.68		**0.21 J**	**8.4**	**3.1**	**1.6**	**5**	**1.3**	**6.8**	**73**	**55.1**	**114**
Calcium	NC	NC	NC	NC		**48,900**	**1,920**	**39,600**	**47,600**	**1,120**	**4,130**	**36,900**	**2,660 J**	**25,500 J**	**8,200 J**
Chromium (total)[a]	280	1,400	21.2	25.2		**24.5**	**50.7**	**13.6**	**20.1**	**3.8**	**6.1**	**13.1**	**19 J**	**14 J**	**22.7 J**
Cobalt	23	300	12.9	13.8		**12.7**	**7.3**	**14.8**	**17.4**	**0.73 J**	**0.96 J**	**8.6**	**15.6 J**	**13.6 J**	**21.2 J**
Copper	3,100	41,000	31.5	35.9		**18.7**	**30.7**	**90.1**	**27.1**	**19**	**9.6**	**53.1**	**387**	**29.7**	**361**
Cyanide	1,600	20,000	NC	NC		3.1 U	3.3 U	3.1 U	3 U	3.4 U	3 U	3.2 U	**0.24 J**	**0.45 J**	**0.22 J**
Iron	55,000	720,000	24,691	25,035		**23,700 J**	**44,600 J**	**81,500 J**	**24,600 J**	**3,780 J**	**15,800 J**	**33,200 J**	**66,800**	**30,300**	**67,700**
Lead	400	800	103	66.1		**13.9**	**62.6**	**145**	**14**	**79.7**	**74.8**	**1,020**	**3,920**	**149**	**1,740**
Magnesium	NC	NC	NC	NC		**18,800**	**3,650**	**23,500**	**19,100**	676 U	**934**	**2,670**	**1,380**	**2,630**	**1,770**
Manganese	1,800	23,000	1,527	2,726		**704 J**	**247 J**	**718 J**	**4,380 J**	**4 J**	**31.8 J**	**413 J**	**432 J**	**933 J**	**800 J**
Mercury	5.6	34	1.32	1.33		0.12 UJ	**0.21 J-**	0.12 UJ	0.12 UJ	**0.091 J-**	**0.42 J-**	**2.4 J-**	**4.5**	0.12 U	**3.5**
Nickel	1,500	20,000	19.9	45		**34.5 J**	**23.4 J**	**35.9**	**53.1**	**0.4 J**	**2.4 J**	**22.7 J**	**12.3 J**	**18.8 J**	**21.8 J**
Potassium	NC	NC	NC	NC		**3,060 J**	**1,460 J**	**1,390 J**	**2,190 J**	**293 J**	**892 J**	**1,360 J**	**994 J**	**1,280 J**	**1,390 J**
Selenium	390	5,100	NC	NC		4.4 U	4.6 U	4.3 U	4.3 U	4.7 U	**1.6 J**	**71.8**	**4.2 J**	4.3 U	**2.2 J**
Silver	390	5,100	NC	NC		1.3 UJ	1.3 UJ	R	1.2 UJ	**0.25 J**	1.2 UJ	**0.98 J-**	**5.6 J+**	**1.7 J+**	**6.6 J+**
Sodium	NC	NC	NC	NC		629 U	655 U	616 U	610 U	676 U	581 U	640 U	**1,520 J+**	**1,300 J+**	**1,680 J+**
Thallium[a]	5.1	66	NC	NC		3.1 UJ	3.3 UJ	R	3 UJ	3.4 U	2.9 UJ	3.2 UJ	3.2 U	3 U	3.1 U
Vanadium	390	5,200	39.5	37.8		**25.9**	**58.4**	**43.3**	**24.4**	**3.2 J**	**10.1**	**12.2**	**19.4 J**	**20.2 J**	**32.2 J**
Zinc	23,000	310,000	1,310	740		**68.4**	**1,490**	**534**	**167**	**124**	**187**	**2,710**	**20,700 J**	**18,500 J**	**24,200 J**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB072B ME3S53 36664 8/2/2007 mg/kg 3 L1 6-8	SB073A ME3S56 36664 8/2/2007 mg/kg 3 L2 0-2	SB074A ME3S57 36664 8/2/2007 mg/kg 3 L2, L3 0-2	SB074B ME3S58 36664 8/2/2007 mg/kg 3 L1, L2, L3 4-6	SB075A ME3S50 36664 8/2/2007 mg/kg 3 L2 0-2	SB075B ME3S51 36664 8/2/2007 mg/kg 3 L1 8-10	SB076A ME3S59 36664 8/2/2007 mg/kg 3 L2, L3 0-2	SB295A ME3S60 36664 8/2/2007 mg/kg SB076A 3 L2, L3 0-2	SB076B ME3S61 36664 8/2/2007 mg/kg 3 L2, L3 4-6	SB077A ME3RH1 36648 7/24/2007 mg/kg 3 0-2
Aluminum	77,000	990,000	15,400	15,847		**6,760**	**7,870**	**4,240**	**4,660**	**4,900**	**10,400**	**7,270**	**4,190**	**14,100**	**4,190**
Antimony	31	410	NC	1.05		**3.3 J+**	**16.5**	**16.8**	**12.2 J+**	**14**	**6.3 J+**	**20.8**	**22.4**	**8 J+**	**9.8 J+**
Arsenic	0.39	1.6	10.7	12.44		**23.4**	**32.5**	**31.3**	**29.2**	**9.5**	**7.5**	**24.6**	**29.6**	**11.6**	**21.5**
Barium	15,000	190,000	276	274		**141**	**193**	**240**	**185**	**65.9**	**26.3**	**205**	**204**	**125**	**113 J**
Beryllium	160	2,000	0.81	0.878		0.75 UJ	**1.1 J**	**0.67 J+**	**0.69 J+**	**0.79 J+**	**1.4 J**	**1 J+**	0.59 UJ	**0.94 J+**	**0.77 J**
Cadmium	70	800	7.1	4.68		**41.3**	**133**	**65.3**	**35.6**	**33.1**	**0.78 J+**	**50.6**	**41.8**	**7.2**	**14.3**
Calcium	NC	NC	NC	NC		**19,800 J**	**4,480 J**	**3,110 J**	**3,390 J**	**3,000 J**	**6,330 J**	**4,410 J**	**5,580 J**	**4,120 J**	**759 J**
Chromium (total)[a]	280	1,400	21.2	25.2		**111 J**	**20.8 J**	**11 J**	**14.6 J**	**22.5 J**	**20.6 J**	**20.3 J**	**11.4 J**	**28.5 J**	**9.9 J**
Cobalt	23	300	12.9	13.8		7.5 UJ	**26.9 J**	**24.5 J**	**18.5 J**	**9.1 J**	**12.9 J**	**15.2 J**	**8.2 J**	**8.4 J**	**10.4 J**
Copper	3,100	41,000	31.5	35.9		**457**	**556**	**650**	**630**	**154**	**32.1**	**199**	**163**	**95.3**	**185**
Cyanide	1,600	20,000	NC	NC		**0.27 J**	**0.22 J**	**0.12 J**	**0.12 J**	**0.15 J**	3 U	**0.22 J**	**0.15 J**	**0.12 J**	**0.75 J**
Iron	55,000	720,000	24,691	25,035		**14,800**	**79,300**	**43,600**	**43,200**	**79,500**	**53,100**	**47,700**	**36,400**	**61,600**	**29,300 J**
Lead	400	800	103	66.1		**614**	**1,390**	**1,330**	**2,550**	**419**	**32.9**	**2,500**	**14,300**	**380**	**1,540**
Magnesium	NC	NC	NC	NC		**1,540**	**1,920**	**489 J**	**639**	**631**	**4,570**	**1,650**	**1,830**	**2,530**	**242 J**
Manganese	1,800	23,000	1,527	2,726		**39.1 J**	**514 J**	**163 J**	**141 J**	**193 J**	**328 J**	**402 J**	**329 J**	**127 J**	**157 J**
Mercury	5.6	34	1.32	1.33		**0.2 J-**	**3.3**	**0.33**	**0.13 J-**	**0.43**	0.12 U	**6.8**	**53.3**	**0.56**	**0.57**
Nickel	1,500	20,000	19.9	45		**13.2 J**	**23 J**	**12 J**	**6.9 J**	**13.4 J**	**40.6 J**	**19.5 J**	**9.3 J**	**34.4 J**	**7.1 J**
Potassium	NC	NC	NC	NC		**1,420 J**	**1,020 J**	**132 J**	**287 J**	**719 J**	**1,160 J**	**1,350 J**	**1,190 J**	**1,550 J**	583 UJ
Selenium	390	5,100	NC	NC		**6.2**	**2.5 J**	**4.2**	**4.1**	**3.2 J**	4.2 U	**7.2**	**25.7**	**2.9 J**	**5.2**
Silver	390	5,100	NC	NC		**2.1 J+**	**5.7 J+**	**5.2 J+**	**6.2 J+**	**4.9 J+**	**3.1 J+**	**4.5 J+**	**6.4 J+**	**3.7 J+**	**3.9 J+**
Sodium	NC	NC	NC	NC		**689 J**	**2,340 J+**	**1,990 J+**	**1,880 J+**	**648 J**	**352 J**	**794 J**	**787 J**	**381 J**	583 U
Thallium[a]	5.1	66	NC	NC		3.7 U	3.2 U	2.7 U	2.8 U	2.9 U	3 U	3.2 U	3 U	3.4 U	2.9 U
Vanadium	390	5,200	39.5	37.8		**51.2 J**	**23.3 J**	**12.7 J**	**15.8 J**	**27.1 J**	**156 J**	**22.4 J**	**15.2 J**	**37.4 J**	**9.9 J-**
Zinc	23,000	310,000	1,310	740		**5,700 J**	**32,600 J**	**29,200 J**	**32,100 J**	**6,380 J**	**42.5 J**	**7,570 J**	**7,030 J**	**1,990 J**	**2,920**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB077B ME3RH2 36648 7/24/2007 mg/kg 3 L1 4-6	SB264B ME3RH3 36648 7/24/2007 mg/kg SB077B 3 L1 4-6	SB078A ME3RJ0 36648 7/24/2007 mg/kg 3 L2, L3 0-2	SB078B ME3RJ1 36648 7/24/2007 mg/kg 3 L1 8-10	SB079A ME3RJ4 36648 7/24/2007 mg/kg 3 L3 0-2	SB079B ME3RJ5 36648 7/24/2007 mg/kg 3 L2 6-8	SB080A ME3RJ6 36648 7/24/2007 mg/kg 3 L1 0-2	SB080B ME3RJ7 36648 7/24/2007 mg/kg 3 L1 8-10	SB265B ME3RJ8 36648 7/24/2007 mg/kg SB080B 3 L1 8-10	SB081A ME3RH7 36648 7/24/2007 mg/kg 3 L2, L3 0-2
Aluminum	77,000	990,000	15,400	15,847		**21,300**	**20,600**	**15,300**	**16,200**	**7,960**	**9,690**	**18,500**	**16,700**	**15,100**	**7,770**
Antimony	31	410	NC	1.05		**4.4 J+**	**5.5 J+**	**7.7 J+**	**7.6 J+**	**64.6**	**8.7 J+**	**3.9 J+**	**7.3 J+**	**6.7 J+**	**16.5**
Arsenic	0.39	1.6	10.7	12.44		**4 J-**	**7.7 J-**	**17.5**	**5.1**	**101**	**7.1**	**16.2**	**5.3**	**5.7**	**34.1**
Barium	15,000	190,000	276	274		**78.5 J**	**69 J**	**222 J**	**75.3 J**	**291 J**	**62**	**128**	**40.2**	**41.5**	**158 J**
Beryllium	160	2,000	0.81	0.878		**1.6 J**	**1.8 J**	**1.8 J**	**1.1 J**	**0.92 J**	**1.3 J+**	**1.3 J+**	**0.91 J+**	**0.82 J+**	**1.6 J**
Cadmium	70	800	7.1	4.68		**5.6**	**3.2**	**39.7**	**5**	**223**	**48.2 J**	**25.3 J**	**3.8 J**	**4.3 J**	**63.6**
Calcium	NC	NC	NC	NC		**43,400 J**	**26,300 J**	**25,900 J**	**25,500 J**	**31,500 J**	**4,090 J**	**8,000 J**	**2,460 J**	**2,710 J**	**7,470 J**
Chromium (total)[a]	280	1,400	21.2	25.2		**29 J**	**32.4 J**	**27.2 J**	**39.7 J**	**18.8 J**	**26.8**	**21.8**	**42.6**	**42.4**	**17.1 J**
Cobalt	23	300	12.9	13.8		**10.7 J**	**11.3 J**	**19.4 J**	**15 J**	**21 J**	**15**	**16.1**	**18**	**16.3**	**27.9 J**
Copper	3,100	41,000	31.5	35.9		**11**	**1**	**68.6**	**5.2**	**792**	**52.5**	**53.8**	**1.8 J**	**4.2**	**238**
Cyanide	1,600	20,000	NC	NC		**0.31 J**	3.2 U	**1.1 J**	**0.54 J**	**0.93 J**	**0.93 J**	**0.8 J**	2.9 U	2.8 U	**0.56 J**
Iron	55,000	720,000	24,691	25,035		**32,600 J**	**36,700 J**	**39,000 J**	**55,600 J**	**41,100 J**	**82,500**	**27,300**	**60,300**	**53,500**	**57,600 J**
Lead	400	800	103	66.1		**90.6**	**26.6**	**9,940**	**76.8**	**4,010**	**173 J**	**373 J**	**12.5 J**	**19.8 J**	**7,390**
Magnesium	NC	NC	NC	NC		**8,190 J**	**9,010 J**	**4,200 J**	**7,130 J**	**11,800 J**	**660**	**5,020**	**8,040**	**7,450**	**2,600 J**
Manganese	1,800	23,000	1,527	2,726		**497 J**	**271 J**	**1,370 J**	**695 J**	**1,020 J**	**309**	**345**	**220**	**225**	**629 J**
Mercury	5.6	34	1.32	1.33		0.13 U	0.13 U	**67.9**	0.12 U	**24.8**	**0.1 J**	**0.15 J**	0.12 UJ	0.11 UJ	**10.8**
Nickel	1,500	20,000	19.9	45		**40.3 J**	**42.2 J**	**36.4 J**	**46.6 J**	**32.4 J**	**24.3**	**28.4**	**48.2**	**44.9**	**21.5 J**
Potassium	NC	NC	NC	NC		**3,460 J**	**3,800 J**	**2,600 J**	**1,800 J**	**901 J**	**955 J**	**1,460 J**	**2,210 J**	**1,930 J**	**690 J**
Selenium	390	5,100	NC	NC		4.4 U	4.4 U	**42.1**	**0.89 J**	**5**	4.4 U	4.7 U	4.1 U	3.9 U	**7.4**
Silver	390	5,100	NC	NC		**2.5 J+**	**2.6 J+**	**5.5 J+**	**3.9 J+**	**20.9**	**6.8 J+**	**2.8 J+**	**4.2 J+**	**3.7 J+**	**14.3**
Sodium	NC	NC	NC	NC		**478 J-**	**524 J-**	639 U	**134 J-**	R	**460 J**	**603 J**	**60.1 J**	**133 J**	R
Thallium[a]	5.1	66	NC	NC		3.1 U	3.2 U	3.2 U	3 U	3.2 U	R	3.3 UJ	R	R	R
Vanadium	390	5,200	39.5	37.8		**38.9**	**35.9**	**31**	**66**	**22.7**	**40.3 J**	**21.3 J**	**84.2 J**	**73.8 J**	**26.8**
Zinc	23,000	310,000	1,310	740		**423**	**63**	**15,800**	**150**	**94,300**	**3,780 J**	**8,200 J**	**237 J**	**863 J**	**35,300**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB081B ME3RH8 36648 7/24/2007 mg/kg 3 L4 4-5	SB082A ME3RH5 36648 7/24/2007 mg/kg 3 L1, L2 0-2	SB082B ME3RH6 36648 7/24/2007 mg/kg 3 L4 10-12	SB083A ME3RJ2 36648 7/24/2007 mg/kg 3 L2, L3 0-2	SB083B ME3RJ3 36648 7/24/2007 mg/kg 3 L4 8-10	SB084A ME3RJ9 36648 7/24/2007 mg/kg 3 L1 0-2	SB084B ME3RK0 36648 7/24/2007 mg/kg 3 L1 8-10	SB085A ME3RK4 36648 7/25/2007 mg/kg 3 L4 0-2	SB085B ME3RK5 36648 7/25/2007 mg/kg 3 L1 8-10	SB086A ME3RK7 36648 7/25/2007 mg/kg 3 L4 0-2
Aluminum	77,000	990,000	15,400	15,847		**13,000**	**2,560**	**12,300**	**5,350**	**5,660**	**12,400**	**15,100**	**6,250**	**16,100**	**13,100**
Antimony	31	410	NC	1.05		**19.7**	**11.9 J+**	**14.9 J+**	**26.8**	**21.9**	**16.4**	**4 J**	**110**	**4 J+**	**7.6 J+**
Arsenic	0.39	1.6	10.7	12.44		**83.2**	**13.2**	**35.1**	**51**	**48.7**	**46.6 J**	**6.1 J**	**45.6**	**4.2**	**13.7**
Barium	15,000	190,000	276	274		**293 J**	**204 J**	**164 J**	**443 J**	**300 J**	**424**	**37.3**	**141**	**28.8**	**91.5**
Beryllium	160	2,000	0.81	0.878		**2.4 J**	0.61 UJ	**2.3 J**	**0.74 J**	**0.67 J+**	**1.2 J**	**1.1 J**	**1 J+**	**0.73 J+**	**1 J+**
Cadmium	70	800	7.1	4.68		**42.1**	**24.2**	**18.1**	**148**	**132**	**147**	R	**159 J**	**2.6 J**	**43 J**
Calcium	NC	NC	NC	NC		**12,800 J**	**1,560 J**	**23,800 J**	**4,530 J**	**57,700 J**	**9,620**	**20,000**	**30,700 J**	**4,460 J**	**23,800 J**
Chromium (total)[a]	280	1,400	21.2	25.2		**14.1 J**	**8.6 J**	**30.7 J**	**15 J**	**17.1 J**	**22.1**	**51**	**19.6**	**44.4**	**31.1**
Cobalt	23	300	12.9	13.8		**36.8 J**	6.1 UJ	**10.7 J**	**38.1 J**	**31.9 J**	**30.5**	**16.8**	**13.9**	**16.2**	**15.4**
Copper	3,100	41,000	31.5	35.9		**270**	**64.5**	**64.4**	**357**	**206**	**414 J**	**5.9 J**	**339**	**2.1 J**	**44.9**
Cyanide	1,600	20,000	NC	NC		**0.43 J**	**2.1 J**	**0.17 J**	**0.84 J**	**0.8 J**	**2.2 J**	2.9 U	**0.33 J**	2.8 U	**0.28 J**
Iron	55,000	720,000	24,691	25,035		**51,200 J**	**14,300 J**	**79,100 J**	**67,000 J**	**53,600 J**	**47,200**	**71,600**	**48,100**	**43,500**	**50,300**
Lead	400	800	103	66.1		**7,690**	**7,010**	**2,230**	**8,610**	**8,870**	**3,790**	**13.1**	**1,350 J**	**10 J**	**763 J**
Magnesium	NC	NC	NC	NC		**913 J**	**511 J**	**591 J**	**1,640 J**	**3,290 J**	**2,990**	**7,230**	**14,800**	**7,730**	**9,070**
Manganese	1,800	23,000	1,527	2,726		**406 J**	**29 J**	**141 J**	**604 J**	**904 J**	**1,310**	**292**	**571**	**217**	**513**
Mercury	5.6	34	1.32	1.33		**4.5**	**92.9**	**0.69**	**0.19**	**4.7**	**1.5**	0.12 U	**0.38 J**	0.11 UJ	**0.16 J**
Nickel	1,500	20,000	19.9	45		**94 J**	**5.2 J**	**33.1 J**	**16.8 J**	**13.3 J**	**58.1**	**47.2**	**25.4**	**47.1**	**32.2**
Potassium	NC	NC	NC	NC		**829 J**	**848 J**	**3,830 J**	595 UJ	**628 J**	**2,060 J**	**1,940 J**	**967 J**	**2,330 J**	**5,050 J**
Selenium	390	5,100	NC	NC		**4.6**	**57**	**4.6**	**4 J**	**2.7 J**	4.6 U	4.1 U	4.1 U	3.9 U	4.4 U
Silver	390	5,100	NC	NC		**21.7**	**11.1**	**6.7 J+**	**14.8**	**17.7**	**6.1**	R	**8.4 J+**	**3 J+**	**5.6 J+**
Sodium	NC	NC	NC	NC		R	612 U	**427 J-**	R	R	660 UJ	**873 J**	**2,410 J+**	**147 J**	**3,110 J+**
Thallium[a]	5.1	66	NC	NC		R	3.1 U	R	R	3 U	3.3 U	2.9 U	R	R	R
Vanadium	390	5,200	39.5	37.8		**30.2**	**10.2 J-**	**58.5**	**18.9**	**16.9**	**27.1**	**90.8**	**23.4 J**	**53.3 J**	**54 J**
Zinc	23,000	310,000	1,310	740		**26,800**	**3,230**	**3,940**	**66,900**	**60,800**	**64,200**	**139**	**50,200 J**	**113 J**	**7,110 J**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB086B ME3RK8 36648 7/25/2007 mg/kg 3 L1 8-10	SB087A ME3RK9 36648 7/25/2007 mg/kg 3 L1, L2 0-2	SB088A ME3RL0 36648 7/25/2007 mg/kg 3 L1 0-2	SB089A ME3RL1 36648 7/25/2007 mg/kg 3 L1, L2 0-2	SB090A ME3RL2 36648 7/25/2007 mg/kg 3 L4 0-2	SB091A ME3RL4 36648 7/25/2007 mg/kg 3 L1, L4 0-2	SB266A ME3RL5 36648 7/25/2007 mg/kg SB091A 3 L1, L4 0-2	SB092A ME3RM1 36648 7/25/2007 mg/kg 3 L2, L3 0-2	SB092B ME3RM2 36648 7/25/2007 mg/kg 3 L1 4-6	SB093A ME3RM3 36648 7/25/2007 mg/kg 3 L4 0-2
Aluminum	77,000	990,000	15,400	15,847		**12,300**	**9,300**	**11,900**	**8,330**	**9,390**	**8,870**	**9,550**	**8,940**	**1,050**	**4,410**
Antimony	31	410	NC	1.05		**10.5 J+**	**48.3**	**23.1 J+**	**27.8**	**15.3**	**8.4 J+**	**8.4**	**25.3**	**21.8**	**74.6**
Arsenic	0.39	1.6	10.7	12.44		**33.1**	**85.6**	**46.4**	**45**	**20**	**24.9**	**30.2**	**67.5**	**11.9**	**37.3**
Barium	15,000	190,000	276	274		**269**	**460**	**462**	**306**	**182**	**216**	**203**	**169 J**	**207 J**	**93.3 J**
Beryllium	160	2,000	0.81	0.878		**0.98 J+**	**1.4 J+**	**1 J+**	**1.3 J+**	**1 J+**	**0.91 J+**	**0.96 J+**	0.6 U	0.61 U	0.54 U
Cadmium	70	800	7.1	4.68		**28.8 J**	**226 J**	**231 J**	**302 J**	**115 J**	**104 J**	**167 J**	**172 J**	**25 J**	**233 J**
Calcium	NC	NC	NC	NC		**39,000 J**	**9,540 J**	**18,900 J**	**16,800 J**	**22,800 J**	**32,100 J**	**32,800 J**	**28,900 J**	**37,300 J**	**25,400 J**
Chromium (total)[a]	280	1,400	21.2	25.2		**27.4**	**34.2**	**71.5**	**32.5**	**19.9**	**27.4**	**31.6**	**19.5 J**	**8.4 J**	**24.7 J**
Cobalt	23	300	12.9	13.8		**23.7**	**33**	**13.5**	**22.6**	**14.4**	**13.3**	**11.8**	**8.1**	**1.8 J+**	**51**
Copper	3,100	41,000	31.5	35.9		**119**	**718**	**775**	**621**	**266**	**289**	**188**	**282 J**	**86.5 J**	**2,360 J**
Cyanide	1,600	20,000	NC	NC		3.3 U	**4**	**2.7 J**	**4.2**	**3.2**	**0.47 J**	**0.36 J**	3 U	3.1 U	2.8 U
Iron	55,000	720,000	24,691	25,035		**33,200**	**90,500**	**59,800**	**54,700**	**30,600**	**38,800**	**52,500**	**35,400 J**	**30,000 J**	**94,600 J**
Lead	400	800	103	66.1		**3,650 J**	**6,700 J**	**2,380 J**	**3,190 J**	**1,920 J**	**1,180 J**	**850 J**	**33,700 J**	**49,100 J**	**4,000 J**
Magnesium	NC	NC	NC	NC		**5,190**	**4,130**	**8,880**	**5,930**	**7,960**	**14,300**	**14,100**	**5,220 J**	**1,340 J**	**9,000 J**
Manganese	1,800	23,000	1,527	2,726		**1,380**	**658**	**780**	**623**	**608**	**1,270**	**1,050**	**514 J**	**37.4 J**	**1,290 J**
Mercury	5.6	34	1.32	1.33		0.13 UJ	**3.1 J**	**7 J**	**2.2 J**	**1.1 J**	**2.9 J**	**0.84 J**	**93.6**	**106**	**25**
Nickel	1,500	20,000	19.9	45		**44.4**	**50.9**	**38.9**	**35.2**	**32.3**	**22.9**	**26.8**	**20.4**	**1.5 J**	**278**
Potassium	NC	NC	NC	NC		**6,320 J**	**2,110 J**	**3,240 J**	**2,850 J**	**1,740 J**	**5,370 J**	**1,950 J**	**1,610 J**	**2,570 J**	**595 J**
Selenium	390	5,100	NC	NC		4.6 U	**5.9**	**7.9**	**5.9**	4 U	3.9 U	**0.84 J+**	**118**	**211**	**9.7**
Silver	390	5,100	NC	NC		**13.7**	**27**	**14.6**	**14**	**7.3 J+**	**5.9 J+**	**6.7 J+**	**19.4**	**5.8 J+**	**21.7**
Sodium	NC	NC	NC	NC		**4,780 J+**	**4,210 J+**	**3,470 J+**	**3,930 J+**	**1,290 J+**	**4,280 J+**	**1,050 J+**	**1,310**	**804**	**1,810**
Thallium[a]	5.1	66	NC	NC		R	R	R	R	R	R	R	3 U	3.1 U	R
Vanadium	390	5,200	39.5	37.8		**28.7 J**	**29.9 J**	**30.8 J**	**29.5 J**	**23.9 J+**	**29.9 J**	**30 J**	**17.2**	**11.7**	**20.1**
Zinc	23,000	310,000	1,310	740		**10,600 J**	**66,300 J**	**27,300 J**	**43,700 J**	**22,000 J**	**14,300 J**	**13,400 J**	**18,300**	**1,620 J**	**41,900 J**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB094A ME3RM6 36648 7/25/2007 mg/kg 3 L4 0-2	SB094B ME3RM7 36648 7/25/2007 mg/kg 3 L1 6-8	SB095A ME3RN0 36648 7/26/2007 mg/kg 3 L2, L4 0-2	SB095B ME3RN1 36648 7/26/2007 mg/kg 3 L4 8-10	SB096A ME3RN2 36648 7/26/2007 mg/kg 3 L4 0-2	SB096B ME3RN3 36648 7/26/2007 mg/kg 3 L4 8-10	SB097A ME3RN7 36648 7/26/2007 mg/kg 3 L1, L4 0-2	SB097B ME3RN8 36648 7/26/2007 mg/kg 3 L1, L4 8-10	SB098A ME3RN9 36648 7/26/2007 mg/kg 3 L4 0-2	SB099A ME3RP5 36648 7/26/2007 mg/kg 3 L4 0-2
Aluminum	77,000	990,000	15,400	15,847		**6,090**	**23,300**	**9,490**	**2,820**	**6,560**	**4,140**	**6,100**	**9,370**	**8,540**	**8,850**
Antimony	31	410	NC	1.05		**14.5 J+**	**4.3 J+**	**15.4 J+**	**8.2 J+**	**11.3 J+**	**13.8 J+**	**12.1 J+**	**8.1 J+**	**17.3 J**	**30.6**
Arsenic	0.39	1.6	10.7	12.44		**50.9**	2.8 U	**82.9**	**27.2**	**32.5**	**45.8**	**37.9**	**15.8**	**31.8**	**90.6**
Barium	15,000	190,000	276	274		**332 J**	**136 J**	**301 J**	**392 J**	**209 J**	**119 J**	**366 J**	**227 J**	**530 J**	**1,010**
Beryllium	160	2,000	0.81	0.878		0.56 U	**1.1**	**0.58 J+**	0.56 U	**0.58 J+**	0.6 U	0.59 U	**0.77 J+**	**0.77 J+**	**1.5**
Cadmium	70	800	7.1	4.68		**26.2 J**	**3.5 J**	**105 J**	**25.5 J**	**120 J**	**118 J**	**126 J**	**101 J**	**114 J**	**143 J**
Calcium	NC	NC	NC	NC		**37,600 J**	**19,800 J**	**14,400 J**	**9,650 J**	**3,270 J**	**5,570 J**	**5,820 J**	**35,400 J**	**6,420 J**	**15,800 J**
Chromium (total)[a]	280	1,400	21.2	25.2		**37.4 J**	**38.7 J**	**159 J**	**16.8 J**	**58.6 J**	**12.3 J**	**15.8 J**	**19.1 J**	**38.8 J**	**34.6 J**
Cobalt	23	300	12.9	13.8		**22.2**	**12.7**	**13.6**	**11.3**	**19.8**	**20.7**	**32.5**	**20.1**	**32.2**	**41.7 J**
Copper	3,100	41,000	31.5	35.9		**635 J**	**8 J**	**319 J**	**457 J**	**418 J**	**334 J**	**314 J**	**191 J**	**353 J**	**523**
Cyanide	1,600	20,000	NC	NC		2.8 U	2.8 U	**0.27 J**	2.9 U	2.9 U	3 U	3 U	3 U	3 U	**0.13 J**
Iron	55,000	720,000	24,691	25,035		**62,500 J**	**37,600 J**	**29,700 J**	**19,000 J**	**25,000 J**	**33,000 J**	**25,800 J**	**31,800 J**	**37,500 J**	**75,200 J**
Lead	400	800	103	66.1		**192 J**	**8.9 J**	**1,520 J**	**7,430 J**	**8,240 J**	**9,940 J**	**6,580 J**	**4,660 J**	**7,290 J**	**6,860 J**
Magnesium	NC	NC	NC	NC		**2,670 J**	**8,720 J**	**3,720 J**	**721 J**	**1,210 J**	**1,150 J**	**2,550 J**	**3,400 J**	**1,290 J**	**2,710**
Manganese	1,800	23,000	1,527	2,726		**1,210 J**	**265 J**	**2,370 J**	**2,570 J**	**371 J**	**625 J**	**1,570 J**	**1,290 J**	**2,220 J**	**2,080 J**
Mercury	5.6	34	1.32	1.33		**0.5**	0.11 U	**1.8**	**0.14**	**0.38**	**0.12**	**0.15**	**0.073 J**	**0.26**	**0.12 J**
Nickel	1,500	20,000	19.9	45		**25.3**	**50.8**	**71.6**	**1.9 J**	**9**	**6.9**	**23**	**12.1 J**	**26.5**	**57.9**
Potassium	NC	NC	NC	NC		**1,740 J**	**6,080 J**	**1,390 J**	**387 J**	**650 J**	**286 J**	**855 J**	**2,090 J**	**877 J**	**2,060 J**
Selenium	390	5,100	NC	NC		**1.5 J**	4 U	3.9 U	**0.82 J**	**2.9 J**	**4.5**	**1.5 J**	**0.73 J**	**0.9 J**	**3.3 J**
Silver	390	5,100	NC	NC		**6.7 J+**	**2.9 J+**	**6.1 J+**	**4.8 J+**	**5.9 J+**	**10.8**	**10**	**7.1 J+**	**14.7**	**34.6**
Sodium	NC	NC	NC	NC		**897**	**407 J-**	**1,940 J**	**2,020**	**4,180**	**3,600**	**2,680**	**2,350**	**3,330**	**2,400 J+**
Thallium[a]	5.1	66	NC	NC		R	2.8 U	2.8 U	2.8 U	2.9 U	3 U	2.9 U	2.9 U	R	R
Vanadium	390	5,200	39.5	37.8		**24.8**	**26.1**	**149**	**26.8**	**18.9**	**13.2**	**16.9**	**22.5**	**32.4**	**35.1 J**
Zinc	23,000	310,000	1,310	740		**20,800 J**	**76.4 J**	**38,900 J**	**48,800 J**	**105,000 J**	**84,700 J**	**69,200 J**	**54,700 J**	**13,300 J**	**64,900 J**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB099B ME3RP6 36648 7/26/2007 mg/kg 3 L1 4-6	SB100A ME3RF8 36648 7/23/2007 mg/kg 3 L2, L3 0-2	SB262 ME3RG0 36648 7/23/2007 mg/kg SB100A 3 L2, L3 0-2	SB100B ME3RF9 36648 7/23/2007 mg/kg 3 L1 6-8	SB101A ME3RK2 36648 7/25/2007 mg/kg 3 L4 0-2	SB101B ME3RK3 36648 7/25/2007 mg/kg 3 L1 8-10	SB102A ME3RF6 36648 7/23/2007 mg/kg 3 L1 0-2	SB102B ME3RF7 36648 7/23/2007 mg/kg 3 L1 4-6	SB103A ME3RG1 36648 7/23/2007 mg/kg 3 L4 0-2	SB103B ME3RG2 36648 7/23/2007 mg/kg 3 L1 6-8
Aluminum	77,000	990,000	15,400	15,847		**10,700**	**8,220**	**9,090**	**15,600**	**13,200**	**14,200**	**2,860**	**4,880**	**5,880**	**13,000**
Antimony	31	410	NC	1.05		7 U	**15**	**14.9**	**3.1 J**	**15.6 J+**	**3 J+**	**12**	**1.7 J**	**16.6**	**3.4 J**
Arsenic	0.39	1.6	10.7	12.44		**6.4**	**42.3 J**	**37.8 J**	**6.2 J**	**36.1**	**8**	**35 J**	**6.8 J**	**34.5 J**	**6 J**
Barium	15,000	190,000	276	274		**95.7**	**188**	**191**	**42.9**	**199**	**36.3**	**325**	**64.6**	**83.9**	**20.1 J**
Beryllium	160	2,000	0.81	0.878		**0.65 J+**	**1 J**	**1.1 J**	**0.95 J**	**1.5 J**	**1.2 J+**	0.61 UJ	0.57 UJ	**0.9 J**	0.57 UJ
Cadmium	70	800	7.1	4.68		**1.8 J**	**103**	**94**	R	**145 J**	**6.6 J**	**56.2**	**4.6**	**87.8**	**1.8**
Calcium	NC	NC	NC	NC		**174,000 J**	**26,300**	**9,950**	**3,140**	**18,800 J**	**14,600 J**	**155,000**	**17,200**	**28,500**	**6,180**
Chromium (total)[a]	280	1,400	21.2	25.2		**20 J**	**17.5**	**18.3**	**41.9**	**26.1**	**46.5**	**11.7**	**9.9**	**21.6**	**35.9**
Cobalt	23	300	12.9	13.8		**13.1 J**	**16.6**	**17.4**	**15.9**	**16.8**	**15.6**	**9.7**	**4.6 J**	**9.5**	**14.3**
Copper	3,100	41,000	31.5	35.9		**62.1**	**559 J**	**528 J**	**3.2 J**	**277**	**9.7**	**208 J**	**31.7 J**	**232 J**	**9.2 J**
Cyanide	1,600	20,000	NC	NC		2.9 U	**0.47 J**	**0.9 J**	2.9 U	**0.33 J**	2.7 U	**0.3 J**	**2.1 J**	**0.47 J**	2.8 U
Iron	55,000	720,000	24,691	25,035		**15,900 J**	**34,200**	**34,700**	**43,100**	**43,000**	**66,000**	**30,700**	**14,300**	**36,000**	**50,700**
Lead	400	800	103	66.1		**19.1 J**	**1,080**	**1,190**	**8.1 J-**	**1,040 J**	**35.9 J**	**459**	**59.2**	**650**	**31.1**
Magnesium	NC	NC	NC	NC		**4,340**	**7,320**	**4,020**	**8,400**	**5,110**	**7,090**	**67,800**	**9,560**	**12,400**	**7,290**
Manganese	1,800	23,000	1,527	2,726		**3,350 J**	**1,390**	**939**	**260**	**562**	**594**	**828**	**389**	**474**	**259**
Mercury	5.6	34	1.32	1.33		0.12 U	**0.74**	**0.37**	0.12 U	**1.4 J**	0.11 UJ	**0.25**	0.12 U	**1.1**	**0.21**
Nickel	1,500	20,000	19.9	45		**36.7**	**56.5**	**69.8**	**48.6**	**15.8**	**41.6**	**29.9**	**18.6**	**23.4**	**43.6**
Potassium	NC	NC	NC	NC		**4,170 J**	**1,150 J**	**1,220 J**	**2,030 J**	**2,310 J**	**2,040 J**	**464 J**	**1,010 J**	**1,060 J**	**1,870 J**
Selenium	390	5,100	NC	NC		4.1 U	4.1 U	**1.1 J**	4 U	4.2 U	3.8 U	4.2 U	4 U	4.3 U	4 U
Silver	390	5,100	NC	NC		**1.4 J+**	**4.3**	**2.9 J-**	1.1 UJ	**7.1 J+**	**4.7 J+**	**2.1 J-**	1.1 UJ	**2.8 J-**	1.1 UJ
Sodium	NC	NC	NC	NC		**467 J+**	584 UJ	611 UJ	574 UJ	**2,180 J+**	**349 J**	605 UJ	574 UJ	608 UJ	**605 J**
Thallium[a]	5.1	66	NC	NC		R	2.9 U	3.1 U	2.9 U	R	R	3 U	2.9 U	3 U	2.8 U
Vanadium	390	5,200	39.5	37.8		**16.6 J**	**24.8**	**24.9**	**57.2**	**38.7 J**	**93.2 J**	**10.3**	**17.3**	**23.1**	**58**
Zinc	23,000	310,000	1,310	740		**82.4 J**	**32,300**	**44,100**	**81**	**39,300 J**	**700 J**	**15,000**	**990**	**13,900**	**474**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB104A ME3RG3 36648 7/24/2007 mg/kg 4 L1 0-2	SB104B ME3RG4 36648 7/24/2007 mg/kg 4 L1 8-10	SB105A ME3RG5 36648 7/24/2007 mg/kg 4 L1, L2 0-2	SB105B ME3RG6 36648 7/24/2007 mg/kg 4 L4 4-6	SB106A ME3RG7 36648 7/24/2007 mg/kg 4 L2, L3 0-2	SB106B ME3RG8 36648 7/24/2007 mg/kg 4 L1 8-10	SB107A ME3SD1 36697 8/8/2007 mg/kg 3 L4 0-2	SB107B ME3SD2 36697 8/8/2007 mg/kg 3 L3 8-10	SB108A ME3SD3 36697 8/8/2007 mg/kg 3 L4 0-2	SB302A ME3SD4 36697 8/8/2007 mg/kg SB108A 3 L4 0-2
Aluminum	77,000	990,000	15,400	15,847		**4,930**	**19,100**	**15,200**	**7,270**	**3,670**	**23,100**	**30,500**	**4,920**	**12,200**	**9,840**
Antimony	31	410	NC	1.05		**10 J+**	**8.4 J+**	**4.5 J+**	**6.7 J+**	**10.7 J**	**7.5 J+**	**4.1 J**	**2.2 J**	**2.2 J**	7 U
Arsenic	0.39	1.6	10.7	12.44		**17.6**	**8.8**	**6.7 J-**	**6.4 J-**	**61.4**	**5.4 J-**	**32.9**	**17.5**	**5.9**	**5.5**
Barium	15,000	190,000	276	274		**63.2 J**	**75.8 J**	**91.5 J**	**74.8 J**	**45 J**	**247 J**	**73.7**	**18.4 J**	**52.6**	**41.9**
Beryllium	160	2,000	0.81	0.878		**1.1 J**	**1.5 J**	**0.92 J**	**0.93 J**	0.55 UJ	**1.7 J**	**1.6 J**	**0.8 J+**	**0.85 J**	**0.75 J+**
Cadmium	70	800	7.1	4.68		**23.9**	**3.5**	**8**	**7.1**	**6.9**	**4.5**	**2 J+**	**2.5 J+**	**6.7**	**2.2 J+**
Calcium	NC	NC	NC	NC		**27,500 J**	**37,700 J**	**42,400 J**	**35,600 J**	**33,500 J**	**38,700 J**	**4,290**	**16,500**	**36,200**	**60,300**
Chromium (total)[a]	280	1,400	21.2	25.2		**13.9 J**	**32.8 J**	**23.5 J**	**14.4 J**	**11.4 J**	**37.9 J**	**62.5**	**19.4**	**29.8**	**16.6**
Cobalt	23	300	12.9	13.8		**9.8 J**	**10.8 J**	**13.4 J**	**8.2 J**	**5.5 J**	**12.1 J**	**9.9**	**1.7 J**	**14.4**	**10.5**
Copper	3,100	41,000	31.5	35.9		**65.9**	2.8 U	**36**	**42.1**	**74.6**	**8.1**	**49.9 J**	**43.5 J**	**30.2 J**	**27.9 J**
Cyanide	1,600	20,000	NC	NC		**0.37 J**	2.8 U	**0.45 J**	**0.38 J**	**0.2 J**	**0.15 J**	3.2 U	3.1 U	3 U	3 U
Iron	55,000	720,000	24,691	25,035		**39,400 J**	**37,500 J**	**25,800 J**	**30,000 J**	**30,200 J**	**47,000 J**	**47,500**	**38,000**	**35,500**	**14,900**
Lead	400	800	103	66.1		**133**	**16.7**	**26.8**	**50.7**	**72.4**	**16**	**104**	**62.5**	**53.1**	**20.9**
Magnesium	NC	NC	NC	NC		**13,500 J**	**9,760 J**	**9,760 J**	**11,700 J**	**16,200 J**	**10,300 J**	**1,810 J**	**332 J**	**4,600 J**	**4,430 J**
Manganese	1,800	23,000	1,527	2,726		**398 J**	**326 J**	**1,170 J**	**649 J**	**293 J**	**327 J**	**218**	**29.9**	**590**	**481**
Mercury	5.6	34	1.32	1.33		**0.11 J-**	0.11 U	**0.066 J-**	**0.067 J-**	**0.13 J-**	0.12 U	0.13 U	0.12 U	**0.19 J-**	**0.14 J-**
Nickel	1,500	20,000	19.9	45		**20.3 J**	**39.6 J**	**37.6 J**	**21.9 J**	**23.9 J**	**46.8 J**	**74.3**	**8.5**	**43.7 J**	**25.5 J**
Potassium	NC	NC	NC	NC		**928 J**	**4,720 J**	**6,100 J**	**2,560 J**	**577 J**	**6,310 J**	**8,090 J**	**3,430 J**	**2,660 J**	**2,680 J**
Selenium	390	5,100	NC	NC		**1.6 J**	3.9 U	3.9 U	**1.1 J**	3.8 U	**0.83 J**	**3.1 J**	**0.87 J**	4.2 U	4.1 U
Silver	390	5,100	NC	NC		**3 J+**	**2.7 J+**	**2.1 J+**	**2.2 J+**	**2.1 J+**	**3.4 J+**	**0.51 J**	1.2 U	1.2 U	1.2 U
Sodium	NC	NC	NC	NC		**539 J**	**1,130**	**383 J**	**387 J**	**177 J-**	**350 J**	**2,200**	**2,120**	374 U	586 U
Thallium[a]	5.1	66	NC	NC		R	2.8 U	2.8 U	2.8 U	2.7 U	2.9 U	3.2 UJ	3.1 UJ	3 UJ	2.9 UJ
Vanadium	390	5,200	39.5	37.8		**20.8**	**49**	**27.2**	**23.3**	**19**	**39.5**	**47.3**	**26**	**30.9**	**13.6**
Zinc	23,000	310,000	1,310	740		**3,160**	**47.7**	**819**	**774**	**833**	**86.7**	**297**	**61.5**	**1,440**	**350**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB108B ME3SD5 36697 8/8/2007 mg/kg 3 L1 8-10	SB109A ME3SD6 36697 8/8/2007 mg/kg 3 L1 0-2	SB109B ME3SD7 36697 8/8/2007 mg/kg 3 L1 8-10	SB110A ME3SE0 36697 8/8/2007 mg/kg 3 L1 0-2	SB110B ME3SE1 36697 8/8/2007 mg/kg 3 L1 8-10	SB111A ME3SD8 36697 8/8/2007 mg/kg 3 L4 0-2	SB111B ME3SD9 36697 8/8/2007 mg/kg 3 L1 8-10	SB112A ME3RZ2 36664 7/31/2007 mg/kg 4 L1 0-2	SB112B ME3RZ3 36664 7/31/2007 mg/kg 4 L1 8-10	SB113A ME3RZ4 36664 7/31/2007 mg/kg 4 L1 0-2
Aluminum	77,000	990,000	15,400	15,847		**12,300**	**11,200**	**17,200**	**15,200**	**14,600**	**10,300**	**16,000**	**9,150**	**8,130**	**14,500**
Antimony	31	410	NC	1.05		**1.9 J**	**1.9 J**	**2.4 J**	**1.7 J**	**2.1 J**	**5.6 J**	**1.8 J**	7.2 U	**1.6 J**	7 U
Arsenic	0.39	1.6	10.7	12.44		**11**	**5.9**	**12.8**	**7.9**	**9.6**	**14.4**	**4.4**	**5**	**5.9**	**0.57 J**
Barium	15,000	190,000	276	274		**75.5**	**80.2**	**84.9**	**90.6**	**60**	**128**	**38.4**	**58.2**	**32.2**	**45.3**
Beryllium	160	2,000	0.81	0.878		**1.1 J**	**0.64 J+**	**1.2 J**	**1.2 J**	**1.3 J**	**0.6 J+**	**1.3 J**	0.6 UJ	0.59 UJ	**0.86 J**
Cadmium	70	800	7.1	4.68		**31.8**	**11.3**	**44.9**	**4.3**	**0.93 J+**	**54.8**	**0.69 J+**	**0.11 J**	**0.26 J**	0.58 U
Calcium	NC	NC	NC	NC		**64,600**	**63,000**	**9,960**	**10,500**	**5,720**	**13,200**	**8,760**	**57,900**	**60,100**	**22,600**
Chromium (total)[a]	280	1,400	21.2	25.2		**17.7**	**22.3**	**32.1**	**28.8**	**29.2**	**17.9**	**28.4**	**17.9**	**18.4**	**21.7**
Cobalt	23	300	12.9	13.8		**18**	**9.9**	**15.3**	**11.3**	**15.6**	**9**	**10.8**	**11.3**	**11.7**	**10.3**
Copper	3,100	41,000	31.5	35.9		**56.9 J**	**33.4 J**	**40.6 J**	**28.9 J**	**39.2 J**	**116 J**	**31.2 J**	**17.7**	**17.3**	**30.6**
Cyanide	1,600	20,000	NC	NC		3.2 U	3 U	3.5 U	**0.15 J**	3.1 U	3 U	3.3 U	3 U	3 U	2.9 U
Iron	55,000	720,000	24,691	25,035		**19,500**	**21,000**	**44,600**	**34,600**	**32,800**	**22,300**	**26,600**	**19,100 J**	**18,600 J**	**20,300 J**
Lead	400	800	103	66.1		**175**	**149**	**168**	**28.4**	**28.9**	**446**	**14.3**	**11.3**	**15.9**	**3.6**
Magnesium	NC	NC	NC	NC		**4,260 J**	**8,690 J**	**5,300 J**	**4,710 J**	**5,680 J**	**5,040 J**	**5,510 J**	**28,600**	**31,200**	**9,370**
Manganese	1,800	23,000	1,527	2,726		**1,730**	**807**	**454**	**419**	**191**	**356**	**412**	**402 J**	**449 J**	**355 J**
Mercury	5.6	34	1.32	1.33		**0.079 J-**	**1.4**	**0.065 J**	0.13 U	0.12 U	**1.6**	0.13 U	**0.085 J-**	**0.22 J-**	**0.17 J-**
Nickel	1,500	20,000	19.9	45		**34.2**	**34.5 J**	**48.8 J**	**34.6 J**	**40.3 J**	**28.1 J**	**39.1 J**	**26.7**	**24.9**	**36**
Potassium	NC	NC	NC	NC		**2,030 J**	**2,910 J**	**2,680 J**	**2,360 J**	**1,940 J**	**1,580 J**	**2,800 J**	**2,740 J**	**2,530 J**	**2,580 J**
Selenium	390	5,100	NC	NC		4.3 U	4.1 U	4.9 U	4.4 U	4.4 U	**1.6 J**	4.6 U	4.2 U	4.1 U	4.1 U
Silver	390	5,100	NC	NC		1.2 U	1.2 U	1.4 U	1.3 U	1.3 U	**1.4**	1.3 U	1.2 UJ	1.2 UJ	1.2 UJ
Sodium	NC	NC	NC	NC		618 U	592 U	706 U	627 U	628 U	598 U	653 U	**4,190**	**5,150**	583 U
Thallium[a]	5.1	66	NC	NC		3.1 UJ	3 UJ	3.5 UJ	3.1 UJ	3.1 UJ	3 UJ	3.3 UJ	3 UJ	3 UJ	2.9 UJ
Vanadium	390	5,200	39.5	37.8		**26**	**23.5**	**43.4**	**40.4**	**39.8**	**24.7**	**33.9**	**18.8**	**16.8**	**17.6**
Zinc	23,000	310,000	1,310	740		**3,310**	**1,720**	**4,910**	**660**	**143**	**8,520**	**72.9**	**52.9**	**57**	**50.2**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB114A ME3SE8 36697 8/8/2007 mg/kg 4 L1 0-2	SB114B ME3SE9 36697 8/8/2007 mg/kg 4 L1, L4 8-10	SB115A ME3SE6 36697 8/8/2007 mg/kg 4 L1 0-2	SB115B ME3SE7 36697 8/8/2007 mg/kg 4 L1 8-10	SB116A ME3RL7 36648 7/25/2007 mg/kg 3 L1, L4 0-2	SB116B ME3RL8 36648 7/25/2007 mg/kg 3 L2 8-10	SB118A ME3RT3 36720 8/15/2007 mg/kg 3 L2 0-2	SB119A ME3RT4 36720 8/15/2007 mg/kg 3 L2, L3 0-2	SB120A ME3SH2 36697 8/9/2007 mg/kg 3 L4 0-2	SB121A ME3SH0 36697 8/9/2007 mg/kg 3 L1 0-2
Aluminum	77,000	990,000	15,400	15,847		**17,000**	**5,860**	**10,800**	**7,810**	**8,330**	**2,560**	**3,950**	**6,400**	**3,100**	**11,600**
Antimony	31	410	NC	1.05		**2 J**	**1.6 J**	**1.6 J**	6.8 U	**13.5**	**5.7 J-**	**2.6 J-**	**448 J**	6.8 U	**1.9 J**
Arsenic	0.39	1.6	10.7	12.44		**9.4**	**4.3**	**12.4**	**61.4**	**187**	**40.3**	**32 J**	**76.5**	**3**	**1.6**
Barium	15,000	190,000	276	274		**144**	**54.8**	**89.6**	**124**	**227**	**203**	**397**	**540 J-**	**29.1**	**30.3**
Beryllium	160	2,000	0.81	0.878		**0.58 J+**	**0.77 J+**	**0.96 J**	**1.6 J**	0.74 UJ	0.57 U	**0.55 J+**	**0.93 J+**	0.57 U	**0.9 J+**
Cadmium	70	800	7.1	4.68		**4.5**	**5.7**	**9.9**	**18.1**	**607 J**	**322 J**	**102**	**206**	**146**	**64.8**
Calcium	NC	NC	NC	NC		**2,580**	**3,540**	**3,980**	**5,360**	**5,250 J**	**5,670**	**1,660**	**2,380 J**	**75,700 J**	**7,620 J**
Chromium (total)[a]	280	1,400	21.2	25.2		**22.2**	**18.1**	**24.9**	**19.6**	**13.8**	**11.2**	**12.3 J**	**16.3**	**6.1 J**	**17.7 J**
Cobalt	23	300	12.9	13.8		**7.3**	**3.8 J**	**10.1**	**21**	**19.4**	**20.7**	**19.5**	**33.2**	**2.5 J**	**35.5 J**
Copper	3,100	41,000	31.5	35.9		**21.8 J**	**16 J**	**43.8 J**	**304 J**	**663**	**554 J**	**712 J**	**895**	**6.5**	**26.4**
Cyanide	1,600	20,000	NC	NC		3.1 U	3 U	2.9 U	2.8 U	2.9 U	2.9 U	3.7 UJ	3.6 UJ	2.8 U	2.9 U
Iron	55,000	720,000	24,691	25,035		**23,900**	**14,500**	**26,000**	**24,900**	**46,700**	**59,500**	**48,600**	**43,500**	**7,440 J**	**14,300 J**
Lead	400	800	103	66.1		**13.6**	**41**	**62**	**168**	**1,080 J**	**545 J**	**2,180 J**	**2,920**	**16.9**	**63.8**
Magnesium	NC	NC	NC	NC		**3,430 J**	**1,370 J**	**2,290 J**	**2,910 J**	**1,510**	**779**	**513 J**	**1,290**	**8,320**	**9,180 J**
Manganese	1,800	23,000	1,527	2,726		**314**	**72.3**	**153**	**130**	**1,330**	**87.3**	**170**	**1,390**	**354 J**	**333 J**
Mercury	5.6	34	1.32	1.33		0.13 U	0.12 U	0.11 U	0.11 U	**4.5 J**	0.11 U	**1**	**2.2**	0.11 UJ	0.12 U
Nickel	1,500	20,000	19.9	45		**18.6 J**	**10.1 J**	**24.6 J**	**42.2 J**	**7.8**	**32.2**	**28.9**	**50.6**	**1.8 J**	**47.4 J**
Potassium	NC	NC	NC	NC		**1,340 J**	**1,740 J**	**2,040 J**	**2,350 J**	**982 J**	**114 J**	739 U	723 U	**331 J**	**2,480 J**
Selenium	390	5,100	NC	NC		4.4 U	4.2 U	4 U	4 U	**24.6**	**4.5**	**4.7 J-**	**2.6 J**	4 U	4.1 U
Silver	390	5,100	NC	NC		1.3 U	**0.36 J**	1.1 U	**0.81 J**	**14.1**	**1 J**	**6.4 J+**	**14.2 J**	**0.22 J**	**0.76 J+**
Sodium	NC	NC	NC	NC		627 U	605 U	566 U	**889**	**2,290 J+**	574 UJ	739 U	R	**338 J-**	**739 J-**
Thallium[a]	5.1	66	NC	NC		3.1 UJ	3 UJ	2.8 UJ	2.8 UJ	3.2 UJ	2.9 U	3.7 U	3.6 U	2.8 U	2.9 U
Vanadium	390	5,200	39.5	37.8		**39.4**	**22.5**	**32.3**	**39.4**	**17.2 J+**	**13.7**	**12.5**	**19.7**	**8.1 J-**	**10.3 J-**
Zinc	23,000	310,000	1,310	740		**714**	**1,280**	**6,040**	**41,000**	**46,400 J**	**43,500**	**38,200**	**88,400**	**3,790 J**	**8,330 J**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB122A ME3SG9 36697 8/9/2007 mg/kg 3 L1, L4 0-2	SB308A ME3SH1 36697 mg/kg SB122A 3 L1, L4 0-2	SB123A ME3SG5 36697 8/9/2007 mg/kg 3 L1, L4 0-2	SB123B ME3SG6 36697 8/9/2007 mg/kg 3 L1 8-10	SB124A ME3SG2 36697 8/9/2007 mg/kg 3 L1, L4 0-2	SB124B ME3SG3 36697 8/9/2007 mg/kg 3 L1 4-6	SB125A ME3SJ8 36697 8/10/2007 mg/kg 3 L4 0-2	SB125B ME3SJ9 36697 8/10/2007 mg/kg 3 L1 6-8	SB126A ME3SJ6 36697 8/10/2007 mg/kg 3 L4 0-2	SB126B ME3SJ7 36697 8/10/2007 mg/kg 3 L4 4-6
Aluminum	77,000	990,000	15,400	15,847		**9,850**	**12,000**	**13,200**	**13,200**	**22,700**	**9,560**	**9,710**	**1,950**	**12,400**	**15,800**
Antimony	31	410	NC	1.05		**1.5 J**	**1.6 J**	**3.2 J**	**3.2 J**	**12.4**	7.1 U	**9.6 J+**	**3 J+**	**11.7**	**6.5 J+**
Arsenic	0.39	1.6	10.7	12.44		**3.4**	**4.1**	**3.7**	**2.3**	**3.1**	**4.9**	**38.7 J**	**26.5 J**	**48.2 J**	**26 J**
Barium	15,000	190,000	276	274		**12.5 J**	**21.5 J**	**17.3 J**	**38.1**	**14.3 J**	**103**	**173**	29.9 U	**206**	**187**
Beryllium	160	2,000	0.81	0.878		**0.65 J+**	**0.9 J+**	**0.77 J+**	**0.81**	**0.87 J+**	**0.6 J+**	**2.1 J**	0.75 UJ	**1.8 J**	**1.3 J**
Cadmium	70	800	7.1	4.68		**0.55 J-**	**70.7**	**1.8 J-**	**0.73 J-**	**33.3**	**22.2**	**164**	**36.2**	**345**	**28.4**
Calcium	NC	NC	NC	NC		**13,200 J**	**9,610 J**	**25,100 J**	**28,700 J**	**27,900 J**	**75,400 J**	**18,400**	**19,500**	**10,600**	**26,400**
Chromium (total)[a]	280	1,400	21.2	25.2		**14.8 J**	**18.7 J**	**22 J**	**24.2 J**	**23.9 J**	**27.2 J**	**146**	**11.8**	**27.8**	**23.9**
Cobalt	23	300	12.9	13.8		**31.6 J**	**27 J**	**9.9 J**	**8.7 J**	**8.2 J**	**17.7 J**	**15.3**	**2.1 J+**	**17.3**	**26.2**
Copper	3,100	41,000	31.5	35.9		**159**	**21.5**	**9.6**	**13.3**	**51.4**	**75.4**	**445**	**21.6**	**330**	**188**
Cyanide	1,600	20,000	NC	NC		2.8 U	3 U	2.8 U	2.8 U	3.1 U	2.9 U	**0.21 J**	**0.14 J**	**0.15 J**	2.9 U
Iron	55,000	720,000	24,691	25,035		**16,100 J**	**16,200 J**	**27,000 J**	**25,300 J**	**25,200 J**	**18,300 J**	**50,700**	**34,900**	**59,600**	**40,100**
Lead	400	800	103	66.1		**17.7**	**38.2**	**58.7**	**6.4**	**185**	**474**	**1,670**	**1,210**	**1,010**	**1,840**
Magnesium	NC	NC	NC	NC		**6,560 J**	**9,540**	**8,120 J**	**8,440**	**6,030 J**	**6,680 J**	**3,480**	747 U	**2,180**	**3,180**
Manganese	1,800	23,000	1,527	2,726		**148 J**	**326 J**	**387 J**	**486 J**	**104 J**	**1,570 J**	**677**	**26.2**	**619**	**712**
Mercury	5.6	34	1.32	1.33		0.11 U	**0.054 J-**	**0.057 J-**	0.11 UJ	**0.48 J-**	**0.42 J-**	**3**	**2**	**0.31**	0.12 U
Nickel	1,500	20,000	19.9	45		**66.5 J**	**55.2 J**	**37 J**	**36 J**	**39.3 J**	**42.3 J**	**33.7**	**6.2**	**11**	**33.2**
Potassium	NC	NC	NC	NC		**2,700 J**	**2,740 J**	**3,730 J**	**3,370 J**	**2,020 J**	**3,480 J**	**1,370 J**	**2,410 J**	**907 J**	**1,960 J**
Selenium	390	5,100	NC	NC		**51.8**	4.2 U	**0.58 J**	3.9 U	**1.6 J**	**6**	**6.6**	**11.8**	**3.7 J**	**1.7 J**
Silver	390	5,100	NC	NC		**0.92 J+**	**0.82 J+**	**1.6 J+**	**1.2 J+**	**1.2 J+**	**2.2 J+**	**6.6 J+**	**1.9 J+**	**4.8 J+**	**4.7 J+**
Sodium	NC	NC	NC	NC		**243 J-**	**481 J-**	**304 J-**	**360 J-**	**405 J-**	**559 J-**	**2,580 J+**	**2,020 J+**	**3,190 J+**	**920 J+**
Thallium[a]	5.1	66	NC	NC		2.8 U	3 U	2.8 U	2.8 U	3.1 U	2.9 U	R	3.7 U	3 U	2.9 U
Vanadium	390	5,200	39.5	37.8		**11.5 J-**	**9.7 J-**	**15.2 J-**	**14.5 J-**	**14.1 J-**	**13.2 J-**	**31.5**	**10.7 J-**	**29**	**39.3**
Zinc	23,000	310,000	1,310	740		**48.2 J**	**5,110 J**	**451 J**	**54.7 J**	**6,320 J**	**2,160 J**	**42,000**	**6,450**	**45,700**	**16,400**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB127A ME3RX2 36664 7/30/2007 mg/kg 3 L4 0-2	SB127B ME3RX3 36664 7/30/2007 mg/kg 3 L1, L4 8-10	SB128A ME3RW2 36664 7/30/2007 mg/kg 3 L4 0-2	SB281A ME3RW6 36664 7/30/2007 mg/kg SB128A 3 L4 0-2	SB128B ME3RW3 36664 7/30/2007 mg/kg 3 L4 8-10	SB129A ME3RX0 36664 7/30/2007 mg/kg 2 L4 0-2	SB129B ME3RX1 36664 7/30/2007 mg/kg 2 L1 4-6	SB130A ME3RW7 36664 7/30/2007 mg/kg 2 L1 0-2	SB130B ME3RW8 36664 7/30/2007 mg/kg 2 L4 8-10	SB282B ME3RW9 36664 7/30/2007 mg/kg SB130B 2 L4 8-10
Aluminum	77,000	990,000	15,400	15,847		**11,400**	**9,570**	**8,400**	**8,770**	**6,240**	**6,450**	**11,900**	**12,200**	**5,390**	**3,680**
Antimony	31	410	NC	1.05		**4.8 J**	**7.2**	**4.2 J**	**7 J**	**2.5 J**	**17.1**	**2.3 J**	**2.2 J**	**2.8 J**	**6.9 J**
Arsenic	0.39	1.6	10.7	12.44		**9.6 J**	**16.7 J**	**35.9**	**45.1**	**37.1**	**48.7 J**	**4.3 J**	**17.1**	**25.4**	**29.1 J**
Barium	15,000	190,000	276	274		**46.1**	**114**	**213**	**246**	**181**	**270**	**50.8**	**159**	**296**	**471**
Beryllium	160	2,000	0.81	0.878		0.57 U	**0.59 J+**	**1.7**	**1.2**	0.59 U	**0.96**	**0.75 J+**	**1.1**	**0.6**	0.59 U
Cadmium	70	800	7.1	4.68		**83.8 J**	**103 J**	**111**	**147**	**70**	**197 J**	**6.1 J**	**43.4**	**117**	**133 J**
Calcium	NC	NC	NC	NC		**1,640 J**	**4,360 J**	**8,090**	**9,690**	**4,070**	**52,100 J**	**32,900 J**	**5,010**	**12,300**	**2,130 J**
Chromium (total)[a]	280	1,400	21.2	25.2		**39.3**	**20.1**	**19.6**	**29.9**	**22.5**	**19.5**	**24.2**	**21**	**14.8**	**16.1**
Cobalt	23	300	12.9	13.8		**6.9 J**	**11.5 J**	**20.1**	**23.1**	**28.5**	**14 J**	**22.6 J**	**30.7**	**19.7**	**16.9 J**
Copper	3,100	41,000	31.5	35.9		**72.1**	**259**	**435**	**512**	**482**	**335**	**32.9**	**179**	**790**	**395**
Cyanide	1,600	20,000	NC	NC		**0.15 J**	**0.12 J**	**0.12 J**	**0.29 J**	**0.11 J**	**1.2 J**	2.9 U	**0.19 J**	**0.13 J**	**0.13 J**
Iron	55,000	720,000	24,691	25,035		**9,010**	**20,400**	**54,900**	**63,800**	**71,800**	**51,900**	**26,600**	**35,200**	**49,400**	**46,900**
Lead	400	800	103	66.1		**450 J**	**1,040 J**	**930**	**1,800**	**5,030**	**1,210 J**	**17 J**	**1,350**	**2,370**	**2,340 J**
Magnesium	NC	NC	NC	NC		**758**	**1,140**	**2,090**	**3,260**	**921**	**7,400**	**6,070**	**3,670**	**917**	**512 J**
Manganese	1,800	23,000	1,527	2,726		**154 J**	**203 J**	**430**	**1,600**	**305**	**1,330 J**	**347 J**	**571**	**293**	**92.2 J**
Mercury	5.6	34	1.32	1.33		**0.42**	**0.36**	**0.49**	**1.5**	**0.22**	**0.95**	**0.11**	0.13 U	**0.061 J**	0.11 U
Nickel	1,500	20,000	19.9	45		R	R	**46.1**	**53.4**	**51.5**	**11.4 J**	**39.6 J**	**44.9**	**31.3**	**10.2 J**
Potassium	NC	NC	NC	NC		**1,240 J**	**940 J**	**1,050 J**	**1,080 J**	**465 J**	**788 J**	**3,470 J**	**2,930 J**	**548 J**	592 UJ
Selenium	390	5,100	NC	NC		**0.79 J**	**1.5 J**	**2.4 J**	**2.3 J**	**1.8 J**	**1.4 J**	4 U	4.5 U	**1.1 J**	**2.9 J**
Silver	390	5,100	NC	NC		**2.3 J**	**2.6 J+**	**3**	**5.2**	**6.7**	**7.4 J+**	**1.2 J+**	**1.7**	**4.7**	**7.4 J+**
Sodium	NC	NC	NC	NC		**4,280 J+**	**3,970 J+**	577 UJ	587 UJ	588 UJ	**2,620 J+**	**428 J**	643 UJ	583 UJ	**1,690 J+**
Thallium[a]	5.1	66	NC	NC		2.8 UJ	2.9 UJ	2.9 UJ	2.9 UJ	2.9 UJ	3 UJ	2.9 UJ	3.2 UJ	2.9 UJ	3 UJ
Vanadium	390	5,200	39.5	37.8		**14.6**	**16.9**	**26.7**	**31.2**	**37.3**	**21.1**	**11.3**	**33.3**	**18.2**	**15.8**
Zinc	23,000	310,000	1,310	740		**57,000 J**	**56,200 J**	**34,200 J**	**34,700 J**	**66,900 J**	**35,100 J**	**541 J**	**26,800 J**	**26,200 J**	**26,700 J**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB131A ME3RS9 36664 7/30/2007 mg/kg 2 L4 0-2	SB131B ME3RT0 36664 7/30/2007 mg/kg 2 L4 4-6	SB132A ME3RT1 36664 7/30/2007 mg/kg 2 L4 0-2	SB132B ME3RT2 36664 7/30/2007 mg/kg 2 L4 8-10	SB133A ME3RR2 36648 7/27/2007 mg/kg 2 L1, L4 0-2	SB133B ME3RR3 36648 7/27/2007 mg/kg 2 L1 8-10	SB134A ME3RQ7 36648 7/26/2007 mg/kg 2 L1 0-2	SB269A ME3RQ9 36648 7/26/2007 mg/kg SB134A 2 L1 0-2	SB134B ME3RQ8 36648 7/26/2007 mg/kg 2 L2, L3 4-6	SB135A ME3RW0 36664 7/30/2007 mg/kg 3 L4 0-2
Aluminum	77,000	990,000	15,400	15,847		**10,400**	**5,840**	**10,500**	**11,900**	**11,900**	**10,900**	**14,500**	**6,930**	**5,590**	**7,380**
Antimony	31	410	NC	1.05		**4.8 J**	**10.4**	**1.9 J**	**4 J**	**12.1 J+**	**6 J+**	**8.3 J+**	**9.2 J+**	**8.9 J+**	**4.3 J**
Arsenic	0.39	1.6	10.7	12.44		**32.6**	**30.6**	**22.1**	**8.7**	**12.7**	**5.3**	**8.6**	**11.7**	**29.1**	**22.4**
Barium	15,000	190,000	276	274		**199**	**85.2**	**771**	**181**	**194**	**74.6**	**1,160**	**1,050**	**588**	**165**
Beryllium	160	2,000	0.81	0.878		**1.6**	**0.84**	**0.75**	**0.71**	**0.99**	0.6 U	0.56 U	**0.62 J+**	**0.85**	**0.88**
Cadmium	70	800	7.1	4.68		**38.9**	**31.6**	**34.3**	**48.7**	**47.6 J**	**23.1 J**	**43.9 J**	**41.5 J**	**72.1 J**	**777**
Calcium	NC	NC	NC	NC		**2,360**	**1,010**	**4,800**	**3,410**	**15,400 J**	**73,000 J**	**18,400 J**	**33,600 J**	**7,940 J**	**4,260**
Chromium (total)[a]	280	1,400	21.2	25.2		**17.1**	**9.3**	**21.2**	**29.2**	**25.7 J**	**18.6 J**	**35.1 J**	**35.9 J**	**17.7 J**	**17.7**
Cobalt	23	300	12.9	13.8		**19.1**	**13.4**	**16.9**	**21.5**	**14.9 J**	**9.9 J**	5.6 UJ	**7.1 J**	**22.6 J**	**9.3**
Copper	3,100	41,000	31.5	35.9		**460**	**383**	**257**	**86.6**	**426**	**178**	**1,780**	**1,060**	**641**	**263**
Cyanide	1,600	20,000	NC	NC		**0.54 J**	**0.16 J**	3.2 U	**0.2 J**	**0.4 J**	**0.13 J**	**3.6**	**2.2 J**	**0.56 J**	**0.31 J**
Iron	55,000	720,000	24,691	25,035		**50,600**	**21,800**	**31,400**	**76,300**	**49,000 J**	**32,800 J**	**12,400 J**	**35,100 J**	**43,900 J**	**31,500**
Lead	400	800	103	66.1		**2,570**	**6,260**	**4,020**	**1,230**	**533 J**	**279 J**	**301 J**	**301 J**	**424 J**	**2,500**
Magnesium	NC	NC	NC	NC		585 U	644 U	**2,470**	**2,010**	**6,820**	**9,050**	**6,850**	**13,000**	**2,080**	**682**
Manganese	1,800	23,000	1,527	2,726		**138**	**193**	**307**	**540**	**520 J**	**1,930 J**	**323 J**	**511 J**	**457 J**	**422**
Mercury	5.6	34	1.32	1.33		**0.062 J-**	**0.26 J-**	**0.24 J-**	**0.088 J-**	**0.66**	0.11 U	**0.18**	**0.29**	**0.14**	**0.22**
Nickel	1,500	20,000	19.9	45		**35.2**	**77.7**	**31.9**	**44.9**	**26.4**	**25.2**	R	**21.8**	**22.3**	**19.7**
Potassium	NC	NC	NC	NC		**314 J**	**321 J**	**1,460 J**	**2,940 J**	**880 J**	**4,590 J**	**508 J**	**734 J**	**440 J**	**628 J**
Selenium	390	5,100	NC	NC		**2.9 J**	**1.1 J**	**2.4 J**	**1.1 J**	**2.4 J**	4.2 U	**3.9**	**3.6 J**	**2.4 J**	**2 J**
Silver	390	5,100	NC	NC		**4.7**	**11**	**2.1 J-**	**1.4 J-**	**5 J+**	**3.1 J+**	**0.66 J+**	**3.1 J+**	**4.7 J+**	**2.5 J-**
Sodium	NC	NC	NC	NC		585 UJ	644 UJ	644 UJ	656 UJ	**784 J+**	**659 J+**	**4,430 J+**	**3,160 J+**	**1,390 J+**	**604 J**
Thallium[a]	5.1	66	NC	NC		2.9 UJ	3.2 UJ	3.2 UJ	3.3 UJ	R	R	2.8 U	R	R	3 UJ
Vanadium	390	5,200	39.5	37.8		**21.6**	**12.7**	**26.6**	**39.1**	**24.6 J**	**16.6 J**	**11.4 J**	**14.1 J**	**16.5 J**	**37.1**
Zinc	23,000	310,000	1,310	740		**21,900 J**	**39,600 J**	**38,500 J**	**12,000 J**	**20,000 J**	**5,350 J**	**129,000 J**	**84,700 J**	**36,100 J**	**14,600 J**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB135B ME3RW1 36664 7/30/2007 mg/kg 3 L4 8-10	SB136A ME3RT8 36664 7/30/2007 mg/kg 3 L4 0-2	SB136B ME3RT9 36664 7/30/2007 mg/kg 3 L4 4-6	SB137A ME3RT6 36664 7/30/2007 mg/kg 3 L4 0-2	SB137B ME3RT7 36664 7/30/2007 mg/kg 3 L4 4-6	SB138A ME3RW4 36664 7/30/2007 mg/kg 3 L4 0-2	SB138B ME3RW5 36664 7/30/2007 mg/kg 3 L4 8-10	SB139A ME3SQ1 36720 8/14/2007 mg/kg 3 L2 0-2	SB139B ME3SQ2 36720 8/14/2007 mg/kg 3 L2 8-10	SB140A ME3RP0 36648 7/26/2007 mg/kg 2 L1, L2, L3 0-2
Aluminum	77,000	990,000	15,400	15,847		**15,800**	**7,560**	**10,800**	**5,520**	**6,980**	**7,880**	**5,730**	**5,650**	**12,500**	**4,760**
Antimony	31	410	NC	1.05		6.6 U	**5.2 J**	**3.9 J**	7.2 U	**21.8**	**7.6**	7.2 U	**8.4 J-**	**2.8 J**	**13.5 J+**
Arsenic	0.39	1.6	10.7	12.44		**13.1**	**49.5**	**24.3**	**22.2**	**137**	**38.1**	**6.8**	**52.2 J**	**10.2 J**	**39.3**
Barium	15,000	190,000	276	274		**95.1**	**302**	**193**	**124**	**415**	**260**	**141**	**273**	**87.4**	**138 J**
Beryllium	160	2,000	0.81	0.878		**1.7**	**0.83**	**1.3**	0.6 U	**0.61**	**0.92**	**0.8**	**0.79 J+**	**2**	0.58 U
Cadmium	70	800	7.1	4.68		**79.4**	**79.8**	**59.9**	**106**	**41.1**	**123**	**4.2**	**43.8**	**35.4**	**128 J**
Calcium	NC	NC	NC	NC		**12,300**	**6,400**	**7,760**	**3,060**	**4,070**	**3,330**	**3,660**	**2,930**	**16,600**	**15,800 J**
Chromium (total)[a]	280	1,400	21.2	25.2		**8.1**	**19.9**	**16.9**	**14.9**	**15.6**	**31.4**	**9.1**	**10.3 J**	**6.4 J**	**10.7 J**
Cobalt	23	300	12.9	13.8		**6.2**	**12.8**	**8.6**	**25.3**	**19.6**	**14.1**	**2.8 J**	**7.9**	**2.8 J**	**12**
Copper	3,100	41,000	31.5	35.9		**86.9**	**417**	**258**	**393**	**392**	**395**	**27**	**485 J**	**44.3 J**	**368 J**
Cyanide	1,600	20,000	NC	NC		2.7 U	2.9 U	2.9 U	**0.7 J**	2.8 U	**0.18 J**	3 U	3 UJ	2.9 UJ	2.9 U
Iron	55,000	720,000	24,691	25,035		**14,800**	**55,400**	**38,000**	**25,700**	**53,800**	**71,100**	**13,200**	**38,000**	**6,820**	**34,300 J**
Lead	400	800	103	66.1		**393**	**2,350**	**1,010**	**4,360**	**18,000**	**2,490**	**97.5**	**6,000 J**	**634 J**	**4,490 J**
Magnesium	NC	NC	NC	NC		**745**	**1,100**	**897**	**2,330**	556 U	**703**	602 U	**661**	**567 J**	**6,400 J**
Manganese	1,800	23,000	1,527	2,726		**314**	**444**	**275**	**509**	**113**	**797**	**128**	**222**	**124**	**422 J**
Mercury	5.6	34	1.32	1.33		**0.18**	**0.34**	**0.22**	**0.12**	**0.18**	**0.38**	**0.055 J**	**0.31**	0.12 U	**0.23**
Nickel	1,500	20,000	19.9	45		**12.3**	**25.2**	**18.2**	**38.2**	**54.7**	**26.8**	**8**	**18.4**	**6.8**	R
Potassium	NC	NC	NC	NC		**370 J**	**1,340 J**	**1,070 J**	**605 J**	**1,690 J**	**3,180 J**	**613 J**	**965**	589 U	**617 J**
Selenium	390	5,100	NC	NC		3.8 U	**4.9**	**1.6 J**	**3.8 J**	**18.4**	**3.1 J**	4.2 U	**8.3 J-**	4.1 UJ	**2.5 J**
Silver	390	5,100	NC	NC		**0.83 J-**	**2.7 J-**	**1.4 J-**	**3.1 J-**	**8.8**	**2.9 J-**	1.2 UJ	**5.5 J+**	1.2 U	**7.4 J+**
Sodium	NC	NC	NC	NC		**1,160 J**	581 UJ	**921 J**	598 UJ	556 UJ	**738 J**	**714 J**	R	R	**2,440**
Thallium[a]	5.1	66	NC	NC		2.7 UJ	2.9 UJ	2.8 UJ	3 UJ	**6**	3 UJ	3 UJ	3 U	2.9 U	2.9 U
Vanadium	390	5,200	39.5	37.8		**27.6**	**38.2**	**41.9**	**15.6**	**23.3**	**46.8**	**30.2**	**21.8**	**20.8**	**13.7**
Zinc	23,000	310,000	1,310	740		**20,800 J**	**21,300 J**	**12,000 J**	**97,600 J**	**13,000 J**	**19,600 J**	**1,530 J**	**13,200**	**14,200**	**64,200 J**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB140B ME3RQ3 36648 7/19/2007 mg/kg 2 L1 8-10	SB141A ME3SP9 36720 8/14/2007 mg/kg 2 L1 0-2	SB141B ME3SQ0 36720 8/14/2007 mg/kg 2 L1 8-10	SB142A ME3SP4 36720 8/14/2007 mg/kg 2 L1 0-2	SB318A ME3SP5 36720 8/14/2007 mg/kg SB142A 2 L1 0-2	SB142B ME3SP6 36720 8/14/2007 mg/kg 2 L1 6-8	SB143A ME3RS1 36648 7/27/2007 mg/kg 2 L1 0-2	SB143B ME3RS2 36648 7/27/2007 mg/kg 2 L1 8-10	SB272 ME3RS3 36648 7/27/2007 mg/kg SB143B 2 L1 8-10	SB144A ME3RR9 36648 7/20/2007 mg/kg 2 L1, L4 0-2
Aluminum	77,000	990,000	15,400	15,847		**14,900**	**8,860**	**15,600**	**10,400**	**9,010**	**5,200**	**8,790**	**7,730**	**9,010**	**11,000**
Antimony	31	410	NC	1.05		**3.6 J+**	**1.7 J-**	7.5 UJ	7.3 UJ	6.9 UJ	6.8 UJ	**3.8 J+**	7.2 UJ	**4.1 J-**	**5 J+**
Arsenic	0.39	1.6	10.7	12.44		**5.3**	**15 J**	**1.2 J+**	**6.5 J-**	**4.1 J-**	**3.8 J-**	**10**	1.2 U	**25.3**	**6.2**
Barium	15,000	190,000	276	274		**254**	**298**	**134**	**134**	**176**	**53.5**	**132**	**271**	**141**	**180**
Beryllium	160	2,000	0.81	0.878		**0.84 J+**	**0.76 J+**	**1.1**	**0.62 J+**	**0.64 J+**	0.57 UJ	0.56 U	0.6 U	**0.68**	**1**
Cadmium	70	800	7.1	4.68		**3.1 J**	**33**	**2.5 J+**	**9.3 J**	**8 J**	**1.8 J**	**13.1 J**	0.6 U	R	**2.4 J**
Calcium	NC	NC	NC	NC		**32,800 J**	**11,700**	**5,780**	**17,800 J**	**13,200 J**	**1,550 J**	**16,600 J**	**151,000**	**22,700**	**8,720 J**
Chromium (total)[a]	280	1,400	21.2	25.2		**22.6**	**12.3 J**	**21.1 J**	**13 J**	**14.6 J**	**7.9 J**	**13.9 J**	**12.4**	**15.7**	**21 J**
Cobalt	23	300	12.9	13.8		**9**	**11.5**	**8.6**	**6.9 J**	**9.4 J**	5.7 UJ	**7.6 J**	**7**	**18.8**	**12.2 J**
Copper	3,100	41,000	31.5	35.9		**28.7**	**80.7 J**	**24.8 J**	**24.1 J**	**23.1 J**	**11.5 J**	**293**	**3.5 J**	**21.5 J**	**87**
Cyanide	1,600	20,000	NC	NC		**0.68 J**	3 UJ	3.1 UJ	3 U	2.9 U	2.8 U	**0.16 J**	3 U	3 U	3.2 U
Iron	55,000	720,000	24,691	25,035		**30,200**	**16,500**	**17,900**	**15,300**	**22,400**	**10,200**	**15,800 J**	**18,600**	**67,000**	**25,000 J**
Lead	400	800	103	66.1		**26.8 J**	**479 J**	**21.6 J**	**66.4 J**	**60.8 J**	**6 J**	**141 J**	**4.8 J**	**12.5 J**	**44.2 J**
Magnesium	NC	NC	NC	NC		**7,440**	**4,310**	**5,450**	**7,400**	**5,530**	**1,070**	**7,170**	**6,280**	**6,940**	**3,950**
Manganese	1,800	23,000	1,527	2,726		**725**	**2,650**	**332**	**396**	**5,190**	**230**	**660 J**	**3,700**	**705**	**317 J**
Mercury	5.6	34	1.32	1.33		0.11 UJ	**0.24**	**0.16**	0.12 U	**0.072 J**	0.11 U	**0.069 J**	0.12 U	0.12 U	**0.085 J**
Nickel	1,500	20,000	19.9	45		**28.5**	**17.3**	**37.8**	**14.3 J**	**14.2 J**	**10.5 J**	**0.53 J**	**16.8**	**45.4**	**41.3**
Potassium	NC	NC	NC	NC		**9,830 J**	**1,150**	**2,720**	**1,290**	**957**	**633**	**1,250 J**	**1,410 J**	**2,400 J**	**2,680 J-**
Selenium	390	5,100	NC	NC		4 U	**1.6 J-**	4.4 UJ	4.3 U	4 U	4 U	3.9 U	4.2 U	4.1 U	4.5 U
Silver	390	5,100	NC	NC		**2.2 J+**	**2.8 J+**	**0.32 J**	**3 J+**	**4.7 J+**	**2.2**	**2 J+**	1.2 U	R	**1.9 J+**
Sodium	NC	NC	NC	NC		**3,780 J+**	R	**307 J**	609 U	574 U	569 U	**1,070 J+**	597 UJ	592 UJ	**891 J+**
Thallium[a]	5.1	66	NC	NC		R	3 U	3.1 U	3 U	2.9 U	2.8 U	2.8 U	3 U	3 U	3.2 U
Vanadium	390	5,200	39.5	37.8		**28 J**	**30.6**	**16.6**	**25.7**	**22.2**	**14.3**	**22.3 J**	**14**	**22.5**	**38.3 J**
Zinc	23,000	310,000	1,310	740		**688 J**	**5,790**	**402**	**1,270**	**1,740**	**265**	**26,200 J**	**53**	**222**	**3,440 J**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB144B ME3RS0 36648 7/27/2007 mg/kg 2 L1 8-10	SB145A ME3SP7 36720 8/14/2007 mg/kg 2 L1 0-2	SB145B ME3SP8 36720 8/14/2007 mg/kg 2 L1 6-8	SB153A ME3S76 36664 8/3/2007 mg/kg 3 L1 0-2	SB154A ME3SF0 36697 8/8/2007 mg/kg 4 L1 0-2	SB154B ME3SF1 36697 8/8/2007 mg/kg 4 L1 6-8	SB155A ME3SQ8 36720 8/14/2007 mg/kg 3 L1, L4 0-2	SB155B ME3SQ9 36720 8/14/2007 mg/kg 3 L4 8-10	SB156A ME3SJ0 36697 8/10/2007 mg/kg 3 L1, L4 0-2	SB156B ME3SJ1 36697 8/10/2007 mg/kg 3 L1 8-10
Aluminum	77,000	990,000	15,400	15,847		**14,900**	**7,240**	**11,600**	**10,300 J**	**13,800**	**11,500**	**13,800**	**11,400**	**8,090**	**14,600**
Antimony	31	410	NC	1.05		**3.3 J+**	**1.5 J**	7.1 UJ	**7.9**	6.8 U	**1.5 J**	7.1 UJ	6.6 UJ	**13.8**	**2.4 J+**
Arsenic	0.39	1.6	10.7	12.44		**9.2**	**5.3 J-**	**2.4 J+**	**26.4 J**	**3.7**	**3.2**	**24.1 J**	**3.5 J**	**66 J**	**2.8 J+**
Barium	15,000	190,000	276	274		**244**	**159**	**170**	**75.2**	**129**	**79.1**	**240**	**56.3**	**263**	**358**
Beryllium	160	2,000	0.81	0.878		**0.8 J+**	0.66 UJ	**0.74 J+**	**0.73**	**1.1 J**	**0.76 J+**	**3.2**	**1.1**	**0.76 J+**	**0.99 J+**
Cadmium	70	800	7.1	4.68		**4.2 J**	**21.6 J**	**0.85 J+**	**129**	**0.58 J+**	**0.78 J+**	**123**	**10.9**	**77.3**	**1.7**
Calcium	NC	NC	NC	NC		**59,900 J**	**20,400 J**	**74,700**	**26,700 J**	**24,700**	**50,600**	**16,800**	**11,200**	**2,830**	**74,000**
Chromium (total)[a]	280	1,400	21.2	25.2		**20.8 J**	**11.2 J**	**18.2 J**	**15.8 J**	**19.9**	**17.4**	**33.9 J**	**3.2 J**	**17.2**	**24.8**
Cobalt	23	300	12.9	13.8		**9 J**	6.6 UJ	**9.6**	**13.8**	**11.9**	**8.7**	**11.7**	**1.7 J**	**25.2**	**11.1**
Copper	3,100	41,000	31.5	35.9		**29.6**	**36.4 J**	**58.8 J**	**235**	**32.1 J**	**7.9 J**	**333 J**	**30.3 J**	**596**	**23**
Cyanide	1,600	20,000	NC	NC		3.3 U	3.3 U	2.9 UJ	**0.098 J**	**0.11 J**	2.8 U	2.9 UJ	2.7 UJ	2.9 U	3 U
Iron	55,000	720,000	24,691	25,035		**24,600 J**	**12,500**	**21,700**	**30,600**	**18,800**	**22,700**	**57,200**	**6,000**	**25,200**	**23,200**
Lead	400	800	103	66.1		**31.8 J**	**238 J**	**11.1 J**	**3,380 J**	**7.6**	**5.1**	**2,340 J**	**114 J**	**830**	**15.4**
Magnesium	NC	NC	NC	NC		**38,100**	**10,700**	**31,200**	**12,300**	**6,260 J**	**15,300 J**	**1,370**	**653**	**1,510**	**9,660**
Manganese	1,800	23,000	1,527	2,726		**930 J**	**281**	**1,080**	**708**	**444**	**2,490**	**644**	**112**	**724**	**2,230**
Mercury	5.6	34	1.32	1.33		0.13 U	**0.25**	0.12 U	**6.6**	0.12 U	0.11 U	**0.38**	0.11 U	**0.97**	0.12 U
Nickel	1,500	20,000	19.9	45		**24.1**	**15.1 J**	**27.8**	**49.3 J**	**45.7 J**	**30.1 J**	**30.7**	**3.7 J**	**7.6**	**39.7**
Potassium	NC	NC	NC	NC		**1,990 J**	**1,300**	**3,070**	**898 J**	**5,390 J**	**4,980 J**	**1,830**	549 U	**918 J**	**4,710 J**
Selenium	390	5,100	NC	NC		4.6 U	**1.1 J**	**1.2 J-**	**4.1**	4 U	4 U	**4.7 J-**	3.8 UJ	**1.2 J**	4.2 U
Silver	390	5,100	NC	NC		**2.7 J+**	**3.2 J+**	**0.31 J**	**2.8**	1.1 U	1.1 U	**2.9 J+**	**0.26 J-**	**10.4**	**1.3 J+**
Sodium	NC	NC	NC	NC		**393 J+**	R	**43.8 J**	**445 J**	568 U	566 U	590 U	**490 J**	**1,630 J+**	**608 J+**
Thallium[a]	5.1	66	NC	NC		3.3 U	3.3 U	2.9 U	2.8 UJ	2.8 UJ	2.8 UJ	2.9 U	2.7 U	2.9 U	3 U
Vanadium	390	5,200	39.5	37.8		**28.6 J**	**21.9**	**17.7**	**16.5**	**23**	**19.6**	**36.2**	**12.5**	**22.2**	**21.9**
Zinc	23,000	310,000	1,310	740		**821 J**	**5,990**	**137**	**67,400**	**43.7**	**27.2**	**23,900**	**1,630**	**23,700**	**203**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB157A ME3SJ2 36697 8/10/2007 mg/kg 3 L1 0-2	SB157B ME3SJ3 36697 8/10/2007 mg/kg 3 L1 8-10	SB312B ME3SJ4 36697 8/10/2007 mg/kg SB157B 3 L1 8-10	SB158A ME3SW3 36720 8/16/2007 mg/kg 3 L1, L2 0-2	SB158B ME3SW4 36720 8/16/2007 mg/kg 3 L2 8-10	SB160A ME3RP7 36648 7/26/2007 mg/kg 3 L4 0-2	SB160B ME3RP8 36648 7/26/2007 mg/kg 3 L1, L4 8-10	SB161A ME3RP1 36648 7/26/2007 mg/kg 3 L2, L3 0-2	SB161B ME3RP2 36648 7/26/2007 mg/kg 3 L2, L3, L4 4-6	SB162A ME3RL9 36648 7/25/2007 mg/kg 3 L2, L3 0-2
Aluminum	77,000	990,000	15,400	15,847		**5,590**	**16,100**	**17,900**	**19,200**	**12,000**	**11,000**	**11,300**	23.2 U	**3,740**	**7,150**
Antimony	31	410	NC	1.05		**5 J+**	**1.6 J+**	**3.1 J+**	**2.5 J**	**5.6 J**	**11.8 J+**	**20.8**	7 U	**16.2 J+**	**7.5 J**
Arsenic	0.39	1.6	10.7	12.44		**23.8 J**	**13.2 J**	**6.4 J**	**18.9**	**18**	**8.5**	**46.8**	1.2 U	**43.8**	**24.5**
Barium	15,000	190,000	276	274		23.4 U	**108**	**217**	**62.4 J-**	**69.7 J-**	**99.4**	**226**	23.2 UJ	**178**	**189**
Beryllium	160	2,000	0.81	0.878		**0.4 J+**	**0.59 J+**	**0.66 J+**	**1.2**	**0.93 J+**	**1.5**	**1.1 J+**	0.58 U	0.62 U	**1.8 J+**
Cadmium	70	800	7.1	4.68		**83.5**	**1 J+**	**0.77 J+**	**47.4**	**8.1**	**17.3 J**	**20 J**	0.58 UJ	**46.4 J**	**50.7 J**
Calcium	NC	NC	NC	NC		**130,000**	**3,590**	**2,070**	**57,500 J**	**10,000 J**	**8,160 J**	**13,100 J**	**108 J**	**2,670 J**	**23,200 J**
Chromium (total)[a]	280	1,400	21.2	25.2		**19.2**	**20.4**	**23.1**	**32.3**	**21**	**39.3 J**	**16.2**	1.2 UJ	**8.7 J**	**15**
Cobalt	23	300	12.9	13.8		**2.9 J**	**16.3**	**19.2**	**12.7**	6.3 U	**18 J**	**31.8**	5.8 U	**40.5 J**	**15.5**
Copper	3,100	41,000	31.5	35.9		**89.1**	**15.3**	**19.3**	**161 J**	**207 J**	**138**	**166**	**1.3 J**	**447**	**201**
Cyanide	1,600	20,000	NC	NC		2.9 U	3.3 U	3.3 U	3.1 UJ	3.2 UJ	**0.15 J**	**0.47 J**	2.9 U	3.1 U	3.2 U
Iron	55,000	720,000	24,691	25,035		**32,700**	**12,800**	**17,600**	**25,100**	**54,100**	**97,300 J**	**73,900**	**12.4**	**37,900 J**	**57,400**
Lead	400	800	103	66.1		**60.7**	**30.9**	**28.7**	**755**	**485**	**193 J**	**9,270 J**	**1.2 J-**	**8,390 J**	**1,510 J**
Magnesium	NC	NC	NC	NC		**16,600**	**2,970**	**3,190**	**5,070**	**1,120**	**716**	**1,410**	**9.7 J**	**1,130**	**1,110**
Manganese	1,800	23,000	1,527	2,726		**243**	**81.9**	**82.2**	**2,470**	**63.7**	**241 J**	**471**	**0.33 J**	**490 J**	**438**
Mercury	5.6	34	1.32	1.33		**1.6**	0.13 U	0.13 U	**2.5**	**0.48**	0.12 U	0.12 UJ	**0.67**	0.12 U	**0.8 J**
Nickel	1,500	20,000	19.9	45		**5**	**22.1**	**20.1**	**35.5**	**6.8**	**49.1**	**35.1**	4.6 U	**18.2**	**23.4**
Potassium	NC	NC	NC	NC		**753 J**	**1,000 J**	**1,140 J**	**3,370**	**2,360**	**1,860 J**	**1,010 J**	**4.6 J**	**266 J**	**2,090 J**
Selenium	390	5,100	NC	NC		**6.2**	**0.75 J**	4.6 U	**0.81 J**	4.4 U	**3.5 J**	4.1 U	4.1 U	**4.5**	**3.7 J+**
Silver	390	5,100	NC	NC		**1.7 J+**	**0.68 J+**	**0.85 J+**	**3.4 J+**	**3.6 J+**	**6.9 J+**	**29.7**	1.2 U	**19.1**	**6.5 J+**
Sodium	NC	NC	NC	NC		**871 J+**	**216 J**	**269 J**	R	635 U	**1,110 J+**	**1,610 J+**	**341 J**	**1,800 J+**	**998 J+**
Thallium[a]	5.1	66	NC	NC		2.9 U	3.3 U	3.3 U	3.1 U	3.2 U	R	R	2.9 U	3.1 U	R
Vanadium	390	5,200	39.5	37.8		**23.4**	**73.1**	**40.5**	**19.1**	**45.5**	**54.9 J**	**28.3 J**	5.8 U	**11.4 J**	**27.1 J+**
Zinc	23,000	310,000	1,310	740		**13,300**	**1,820**	**648**	**11,100**	**2,740**	**1,720 J**	**28,000 J**	**22.1 J**	**48,800 J**	**7,950 J**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB162B ME3RM0 36648 7/25/2007 mg/kg 3 L2, L3 4-6	SB163A ME3RP3 36648 7/26/2007 mg/kg 3 L2, L3 0-2	SB163B ME3RP4 36648 7/26/2007 mg/kg 3 L2, L3 4-6	SB164A ME3RT4 36664 7/30/2007 mg/kg 2 L4 0-2	SB164B ME3RT5 36664 7/30/2007 mg/kg 2 L4 8-10	SB165A ME3SQ3 36720 8/14/2007 mg/kg 3 L1 0-2	SB165B ME3SQ4 36720 8/14/2007 mg/kg 3 L1 8-10	SB319B ME3SQ5 36720 8/14/2007 mg/kg SB165B 3 L1 8-10	SB166A ME3SE3 36697 8/8/2007 mg/kg 3 L1 0-2	SB166B ME3SE4 36697 8/8/2007 mg/kg 3 L1 8-10
Aluminum	77,000	990,000	15,400	15,847		**16,900**	**8,510**	**5,600**	**5,720**	**7,060 J**	**13,000**	**15,000**	**12,300**	**15,000**	**10,600**
Antimony	31	410	NC	1.05		**17.8**	**15.3 J+**	**15.9 J+**	7.1 U	**2.9 J**	6.8 UJ	**1.5 J-**	7.4 UJ	**1.7 J**	7.1 U
Arsenic	0.39	1.6	10.7	12.44		**65.1**	**29.5**	**39**	**29.4**	**33.4 J**	**7.3 J**	**12.7 J**	**13.3 J**	**4.9**	**1.3**
Barium	15,000	190,000	276	274		**148 J**	**144**	**73.8**	**199**	**127**	**116**	**142**	**67.7**	**69.4**	**34.7**
Beryllium	160	2,000	0.81	0.878		**1.2**	**1.4**	**1.3**	0.59 U	**0.8 J+**	**0.86**	**0.99**	**0.83 J+**	**0.96 J**	**0.64 J+**
Cadmium	70	800	7.1	4.68		**15.9 J**	**77.6 J**	**53.3 J**	**77.3**	**121**	**10.8**	**25.3**	**6.9**	**1 J+**	**0.92 J+**
Calcium	NC	NC	NC	NC		**13,900 J**	**15,200 J**	**2,880 J**	**5,320**	**3,860 J**	**50,700**	**11,500**	**13,100**	**41,500**	**147,000**
Chromium (total)[a]	280	1,400	21.2	25.2		**19.8 J**	**33.8 J**	**14.7 J**	**14**	**16.5 J**	**19.8 J**	**23.7 J**	**21.4 J**	**27.1**	**22.1**
Cobalt	23	300	12.9	13.8		**21.1**	**20.5 J**	**23 J**	**23**	**31.4**	**12.7**	**27.5**	**11.9**	**12.4**	**8.1**
Copper	3,100	41,000	31.5	35.9		**501 J**	**327**	**426**	**694**	**497**	**76.5 J**	**109 J**	**115 J**	**26.2 J**	**13.6 J**
Cyanide	1,600	20,000	NC	NC		3 U	**0.26 J**	**0.23 J**	**0.42 J**	3.2 U	2.8 UJ	3.1 UJ	3.1 UJ	3.1 U	3 U
Iron	55,000	720,000	24,691	25,035		**73,700 J**	**83,200 J**	**47,200 J**	**41,000**	**37,100**	**23,900**	**37,300**	**36,300**	**28,700**	**20,400**
Lead	400	800	103	66.1		**4,330 J**	**809 J**	**6,060 J**	**4,470**	**3,310 J**	**383 J**	**371 J**	**523 J**	**11.7**	**7.9**
Magnesium	NC	NC	NC	NC		**1,480 J**	**5,620**	**846**	**2,600**	**3,060**	**20,500**	**7,530**	**5,120**	**5,740 J**	**7,670 J**
Manganese	1,800	23,000	1,527	2,726		**193 J**	**844 J**	**240 J**	**615**	**579**	**956**	**1,320**	**413**	**642**	**1,140**
Mercury	5.6	34	1.32	1.33		**0.099 J**	**0.43**	**0.12 J**	**0.12 J-**	**0.13**	**0.17**	**0.21**	**0.19**	0.12 U	0.11 U
Nickel	1,500	20,000	19.9	45		**41.3**	**48.8**	**21.5**	**45.8**	**52.5 J**	**31.8**	**55.4**	**34**	**40.1 J**	**41.2 J**
Potassium	NC	NC	NC	NC		**1,240 J**	**1,660 J**	**386 J**	**459 J**	**1,070 J**	**3,020**	**2,450**	**3,090**	**2,770 J**	**3,720 J**
Selenium	390	5,100	NC	NC		**3.7 J**	**4.1 J**	**3.5 J**	**2.9 J**	**1.7 J**	**1.3 J-**	**1.6 J-**	**2 J-**	4.3 U	4.1 U
Silver	390	5,100	NC	NC		**15.6**	**9.2 J+**	**10.8**	**6.2**	**3.6**	**0.58 J+**	**1.3 J+**	**1.3 J+**	1.2 U	1.2 U
Sodium	NC	NC	NC	NC		**454 J-**	**1,630 J+**	**2,740 J+**	594 UJ	**216 J**	567 U	R	**148 J**	612 U	**651**
Thallium[a]	5.1	66	NC	NC		41.3 U	R	R	3 UJ	3.2 UJ	2.8 U	3.1 U	3.1 U	3.1 UJ	3 UJ
Vanadium	390	5,200	39.5	37.8		**23.4**	**38.6 J**	**21.1 J**	**17.3**	**17.4**	**24.7**	**28**	**31**	**33.5**	**19.8**
Zinc	23,000	310,000	1,310	740		**7,810 J**	**17,900 J**	**70,500 J**	**82,400 J**	**68,700**	**3,980**	**9,110**	**3,960**	**80**	**59.7**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB303B ME3SE5 36697 8/8/2007 mg/kg SB166B 3 L1 8-10	SB167A ME3SC4 36697 8/7/2007 mg/kg 3 L1 0-2	SB167B ME3SC5 36697 8/7/2007 mg/kg 3 L1 8-10	SB168A ME3RA9 36631 7/19/2007 mg/kg 3 L3 0-2	SB168B ME3RB0 36631 7/19/2007 mg/kg 3 L1 8-10	SB169A ME3RA7 36631 7/19/2007 mg/kg 3 L4 0-2	SB169B ME3RA8 36631 7/19/2007 mg/kg 3 L1 8-10	SB170A ME3SA5 36697 8/7/2007 mg/kg 3 L1 0-2	SB170B ME3SA6 36697 8/7/2007 mg/kg 3 L1 8-10	SB171A ME3SB9 36697 8/7/2007 mg/kg 3 L1 0-2
Aluminum	77,000	990,000	15,400	15,847		**11,800**	**11,300**	**10,500**	**10,800**	**16,900**	**9,340**	**407**	**11,200**	**9,610**	**9,060**
Antimony	31	410	NC	1.05		7.1 U	**2.4 J**	**4.8 J**	**14.1 J-**	**6.9 J-**	**8 J-**	7.1 UJ	**3 J+**	**1.8 J+**	**4.5 J**
Arsenic	0.39	1.6	10.7	12.44		**0.91 J**	**3.9**	**3.9**	**27.2**	**34.1**	**22.3**	**0.76 J**	**12**	**4.2 J+**	**3.7**
Barium	15,000	190,000	276	274		**35.4**	**154**	**127**	**51.7 J**	**152 J**	**198 J**	**29.9 J**	**134**	**191**	**61.6**
Beryllium	160	2,000	0.81	0.878		**0.64 J**	**0.72 J+**	**0.73 J+**	**0.52 J+**	**0.87 J+**	**0.75 J+**	0.59 U	**0.68 J+**	**0.91 J+**	**1.1**
Cadmium	70	800	7.1	4.68		**0.75**	**3.4**	**4.8**	**156**	**15.4**	**53.1**	0.59 U	**54.8**	**92.1**	**4**
Calcium	NC	NC	NC	NC		**117,000**	**52,100**	**54,000 J**	**817 J**	**1,950 J**	**19,900 J**	**7,320 J**	**7,000**	**29,400**	**23,700**
Chromium (total)[a]	280	1,400	21.2	25.2		**23.2**	**18.1**	**28.6 J**	**10.4**	**33**	**24.7**	**1.4 J**	**19.7**	**15.6**	**30.8**
Cobalt	23	300	12.9	13.8		**8.2**	**11.5 J**	**9.5 J**	**8.3**	**4.7 J**	**12.1**	5.9 U	**11.4 J**	**12.1 J**	**8.6 J**
Copper	3,100	41,000	31.5	35.9		**9.1 J**	**18.9 J**	**6.4**	**439**	**151**	**221**	**3.7**	**55.7 J**	**5.7 J**	**41.9 J**
Cyanide	1,600	20,000	NC	NC		3 U	2.9 U	3 U	3 U	3.2 U	3.1 U	3 U	3.1 U	3.2 U	2.9 U
Iron	55,000	720,000	24,691	25,035		**19,100**	**21,000**	**43,600 J**	**11,500 J**	**18,600 J**	**22,700 J**	**1,580 J**	**23,700**	**20,500**	**41,600**
Lead	400	800	103	66.1		**5.4**	**26.7**	**10.9**	**971**	**205**	**6,600 J**	**8.7**	**99.9663**	**6.3**	**14.2**
Magnesium	NC	NC	NC	NC		**7,570 J**	**10,800**	**4,770 J**	**964**	**2,330**	**11,200**	591 U	**5,060**	**6,050**	**7,660**
Manganese	1,800	23,000	1,527	2,726		**853**	**1,790 J**	**905 J**	**264**	**101**	**532**	**5.4**	**621 J**	**1,860 J**	**190 J**
Mercury	5.6	34	1.32	1.33		0.11 U	**0.038 J-**	0.12 U	**0.43 J+**	0.18 U	**5.1 J+**	0.15 U	**0.27**	**0.068 J**	0.11 U
Nickel	1,500	20,000	19.9	45		**40.3 J**	**33.6**	**30.5 J**	**41.1**	**24.4**	**34.4**	4.7 U	**20.8**	**26**	**23.4**
Potassium	NC	NC	NC	NC		**4,040 J**	**2,350 J**	**1,900 J**	**979 J**	**1,350 J**	**1,530 J**	**401 J**	**1,420 J**	**2,650 J**	**1,930 J**
Selenium	390	5,100	NC	NC		4.1 U	4.1 U	**1.2 J+**	4.2 UJ	4.4 UJ	**6.9 J-**	4.1 UJ	**1.3 J+**	4.4 U	**0.73 J+**
Silver	390	5,100	NC	NC		1.2 U	**1.2 J+**	**2.4 J+**	**7.4 J+**	**2.6 J+**	**3.7 J+**	1.2 U	**1.3 J+**	**0.93 J+**	**2.1 J+**
Sodium	NC	NC	NC	NC		**622**	**271 J-**	**306 J-**	**457 J**	**243 J**	**172 J**	591 U	**621**	**1,330**	**163 J-**
Thallium[a]	5.1	66	NC	NC		3 UJ	2.9 U	3 U	3 UJ	3.2 UJ	**0.97 J-**	3 UJ	3.1 U	3.2 U	2.9 U
Vanadium	390	5,200	39.5	37.8		**18.1**	**15.9 J-**	**36.5**	**13.7**	**53.7**	**22.3**	**1.9 J**	**24.2**	**13.8 J-**	**38.8**
Zinc	23,000	310,000	1,310	740		**59.3**	**758**	**3,950 J**	**25,400 J**	**7,370 J**	**10,600 J**	**36.4**	**10,700**	**22,300**	**1,310**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB171B ME3SC0 36697 8/7/2007 mg/kg 3 L1 8-10	SB172A ME3SB2 36697 8/7/2007 mg/kg 3 L1 0-2	SB172B ME3SB3 36697 8/7/2007 mg/kg 3 L1 8-10	SB173A ME3SB4 36697 8/7/2007 mg/kg 3 L1, L4 0-2	SB173B ME3SB5 36697 8/7/2007 mg/kg 3 L1 8-10	SB300B ME3SB6 36697 8/7/2007 mg/kg SB173B 3 L1 8-10	SB174A ME3SB0 36697 8/7/2007 mg/kg 3 L1 0-2	SB174B ME3SB1 36697 8/7/2007 mg/kg 3 L1 8-10	SB175A ME3SF6 36697 8/9/2007 mg/kg 2 L1 0-2	SB175B ME3SF7 36697 8/9/2007 mg/kg 2 L1 8-10
Aluminum	77,000	990,000	15,400	15,847		**25,200**	**9,790**	**6,990**	**20,800**	**7,050**	**8,640**	**3,190**	**10,500**	**10,200**	**11,500**
Antimony	31	410	NC	1.05		**2.9 J**	**2.5 J+**	**6.6 J+**	**2.9 J+**	**1.5 J+**	**2.8 J**	6.8 U	**3.9 J+**	**3.6 J**	**2.3 J**
Arsenic	0.39	1.6	10.7	12.44		**4.4**	**7.4**	**2.7 J+**	**8.4**	**3.5 J+**	**5**	**1.3**	**5 J+**	**7.5**	**7**
Barium	15,000	190,000	276	274		**72.2**	**109**	**30.4**	**73.7**	**353**	**117**	**40.3**	**124**	**240**	**158**
Beryllium	160	2,000	0.81	0.878		**1.2**	0.58 U	**0.73 J+**	**1.6**	**0.93 J+**	**0.76 J+**	**0.73**	**0.84 J+**	**1.2**	**0.67 J+**
Cadmium	70	800	7.1	4.68		**6.4**	**1.9**	**8.5**	**36.3**	**2.3**	**1.2 J-**	**1**	**1.3 J-**	**7**	**3.5 J-**
Calcium	NC	NC	NC	NC		**27,800**	**46,300**	**50,700**	**21,800**	**107,000**	**41,100**	**2,550**	**34,900**	**7,630 J**	**55,100 J**
Chromium (total)[a]	280	1,400	21.2	25.2		**70.9**	**18.2**	**12.1**	**14.5**	**12**	**16.6**	**6.8**	**19**	**23.9 J**	**18.2 J**
Cobalt	23	300	12.9	13.8		**8.9 J**	**10.4 J**	**18.7 J**	**29.3 J**	**8 J**	**9.4 J**	**1.2 J**	**10.3 J**	**8.8 J**	**7.2 J**
Copper	3,100	41,000	31.5	35.9		**112 J**	**18.3 J**	**3.7 J**	**96.8 J**	**7.1 J**	**4.7 J**	**5.1 J**	**5.3 J**	**47.6**	**57**
Cyanide	1,600	20,000	NC	NC		3.3 U	3 U	3.4 U	3.1 U	**0.13 J**	**0.1 J**	2.8 U	**0.11 J**	3.1 U	**0.11 J**
Iron	55,000	720,000	24,691	25,035		**22,900**	**21,000**	**61,100**	**19,300**	**17,900**	**22,000**	**5,210**	**23,600**	**28,200 J**	**20,200 J**
Lead	400	800	103	66.1		**9.4**	**17.1**	**4.5**	**75.2**	**8**	**5**	**8.9**	**6.9**	**346**	**34.7**
Magnesium	NC	NC	NC	NC		**3,850**	**24,700**	**3,780**	**6,120**	**29,400**	**5,500**	**1,690**	**6,680**	**3,650 J**	**31,700 J**
Manganese	1,800	23,000	1,527	2,726		**118 J**	**366 J**	**3,020 J**	**1,090 J**	**4,790 J**	**829 J**	**11.5 J+**	**546 J**	**316 J**	**569 J**
Mercury	5.6	34	1.32	1.33		0.13 U	**0.046 J**	**0.056 J-**	**0.099 J-**	0.12 U	0.12 U	0.11 U	0.11 U	**0.40 J-**	0.11 U
Nickel	1,500	20,000	19.9	45		**50.6**	**28.6**	**32**	**28.2**	**27.5**	**35.4**	**3.1 J**	**37.7**	**39.1 J**	**16.8 J**
Potassium	NC	NC	NC	NC		**4,640 J**	**1,940 J**	**2,630 J**	**1,060 J**	**2,780 J**	**2,930 J**	**1,080 J**	**2,920 J**	**1,790 J**	**1,310 J**
Selenium	390	5,100	NC	NC		**0.91 J+**	4.1 U	4.7 U	4.3 U	4.3 U	4.1 U	**0.52 J**	4.1 U	**1.1 J**	4.3 U
Silver	390	5,100	NC	NC		**1.2 J+**	**1.2 J+**	**3.3 J+**	**0.94 J+**	**1.2 J+**	**1.2 J+**	1.1 U	**1.2 J+**	**1.8 J+**	**1.3 J+**
Sodium	NC	NC	NC	NC		**298 J-**	**142 J-**	**1,040**	**515 J-**	**397 J-**	**209 J-**	**179 J-**	**213 J-**	**499 J-**	**380 J-**
Thallium[a]	5.1	66	NC	NC		3.3 U	2.9 U	3.4 U	3.1 U	3.1 U	2.9 U	2.8 U	2.9 U	3.1 U	3 U
Vanadium	390	5,200	39.5	37.8		**57.7**	**16.8 J-**	**11.3 J-**	**16.2 J-**	**22.7**	**19.1**	**4.2 J**	**18.6**	**34.6**	**20.8 J-**
Zinc	23,000	310,000	1,310	740		**2,040**	**961**	**13,900**	**6,820**	**147**	**41.9**	**109**	**61.1**	**3,700 J**	**2,710 J**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB176A ME3SF9 36697 8/9/2007 mg/kg 2 L1, L4 0-2	SB306A ME3SG0 36697 8/9/2007 mg/kg SB176A 2 L1, L4 0-2	SB176B ME3SG1 36697 8/9/2007 mg/kg 2 L1, L4 8-10	SB177A ME3RR5 36648 7/27/2007 mg/kg 3 L1 0-2	SB177B ME3RR6 36648 7/27/2007 mg/kg 3 L1 8-10	SB178A ME3RR7 36648 7/27/2007 mg/kg 2 0-2	SB178B ME3RR8 36648 7/27/2007 mg/kg 2 L4 8-10	SB179A ME3RS7 36664 7/30/2007 mg/kg 2 L4 0-2	SB179B ME3RS8 36664 7/30/2007 mg/kg 2 L4 8-10	SB180A ME3RS4 36648 7/27/2007 mg/kg 2 L4 0-2
Aluminum	77,000	990,000	15,400	15,847		**7,410**	**8,400**	**4,760**	**13,900**	**10,800**	**5,050**	**6,550**	**6,190**	**12,200**	**6,440**
Antimony	31	410	NC	1.05		**2.6 J**	**3 J**	**1.9 J**	**4.3 J+**	**3.3 J+**	**11.9 J+**	**7.4 J+**	**3.2 J**	7.2 U	**2.2 J-**
Arsenic	0.39	1.6	10.7	12.44		**4.2**	**6.7**	**7.7**	**8.1**	**7.3**	**30.4**	**93.7**	**43.8**	**13.4**	**50.3**
Barium	15,000	190,000	276	274		**74.6**	**79.4**	**102**	**117**	**244**	**172**	**139**	**251**	**138**	**176**
Beryllium	160	2,000	0.81	0.878		**4.9**	**0.7 J+**	0.59 U	0.6 U	**0.74 J+**	**0.62 J+**	**0.88 J+**	0.58 U	**1.3**	0.58 U
Cadmium	70	800	7.1	4.68		**26.3**	**9.5**	**0.93 J-**	**14.7 J**	**2.5 J**	**68.9 J**	**62.2 J**	**83.9**	**69.6**	**94.7 J**
Calcium	NC	NC	NC	NC		**19,400 J**	**32,000 J**	**124,000 J**	**4,540 J**	**52,800 J**	**31,100 J**	**36,300 J**	**1,780**	**28,800**	**4,550**
Chromium (total)[a]	280	1,400	21.2	25.2		**15.6 J**	**15.1 J**	**7.6 J**	**19.3 J**	**31.4 J**	**12.5 J**	**13.3 J**	**14**	**24**	**12.9**
Cobalt	23	300	12.9	13.8		**13 J**	**9.3 J**	5.9 UJ	**8.9 J**	**10.8 J**	**20.8 J**	**27.2 J**	**20.8**	**16.9**	**18.6**
Copper	3,100	41,000	31.5	35.9		**60.4**	**318**	**16.2**	**19.7**	**40.7**	**877**	**165**	**786**	**402**	**495 J**
Cyanide	1,600	20,000	NC	NC		3.1 U	3.1 U	3.0 U	3 U	2.9 U	**0.48 J**	**0.11 J**	**0.18 J**	3 U	**0.3 J**
Iron	55,000	720,000	24,691	25,035		**17,600 J**	**18,600 J**	**16,600 J**	**21,400 J**	**26,500 J**	**32,500 J**	**25,000 J**	**40,900**	**49,100**	**42,000**
Lead	400	800	103	66.1		**22.4**	**105**	**96.6**	**31.4 J**	**13.2 J**	**1,850 J**	**2,920 J**	**9,410**	**8,940**	**3,550 J**
Magnesium	NC	NC	NC	NC		**3,700 J**	**8,560 J**	**30,400 J**	**2,980**	**18,100**	**18,000**	**11,300**	**816**	**2,060**	**2,230**
Manganese	1,800	23,000	1,527	2,726		**856 J**	**462 J**	**847 J**	**765 J**	**374 J**	**411 J**	**456 J**	**248**	**303**	**487**
Mercury	5.6	34	1.32	1.33		**0.054 J-**	0.12 U	0.11 U	**0.66**	0.11 U	0.12 U	**0.095 J**	**0.42**	0.12 U	**0.54**
Nickel	1,500	20,000	19.9	45		**32.3 J**	5 UJ	**12.6 J**	**16.4**	**32.5**	**13**	**11.3**	**40.2**	**37.1**	**39.7**
Potassium	NC	NC	NC	NC		**2,030 J**	**2,070 J**	**819 J**	**1,010 J**	**2,880 J**	**700 J**	**2,030 J**	**376 J**	**2,170 J**	**583 J**
Selenium	390	5,100	NC	NC		**5**	**0.78 J**	4.2 U	4.2 U	4 U	**2.6 J**	**2.4 J**	**2.3 J**	**2.4 J**	**2.6 J**
Silver	390	5,100	NC	NC		1.2 U	1.2 U	**0.78 J+**	**1.6 J+**	**2.1 J+**	**5.6 J+**	**3.8 J+**	**6.4**	**12**	**4.9**
Sodium	NC	NC	NC	NC		**722 J-**	**4,590**	**171 J-**	**197 J**	**371 J+**	**1,620 J+**	**2,250 J+**	582 UJ	603 UJ	580 UJ
Thallium[a]	5.1	66	NC	NC		3.1 U	3.1 U	3 U	3 U	2.9 U	3 U	R	2.9 UJ	3 UJ	2.9 U
Vanadium	390	5,200	39.5	37.8		**29**	**22.6**	**9.9 J-**	**33.2 J**	**24.9 J**	**16.1 J**	**25 J**	**19**	**31.2**	**17.2**
Zinc	23,000	310,000	1,310	740		**4,250 J**	**71,900 J**	**453 J**	**1,340 J**	**111 J**	**44,400 J**	**39,500 J**	**32,800 J**	**24,900 J**	**53,500**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB180B ME3RS5 36648 7/27/2007 mg/kg 2 L4 8-10	SB181A ME3SN1 36720 8/13/2007 mg/kg 3 L4 0-2	SB181B ME3SN2 36720 8/13/2007 mg/kg 3 L1 8-10	SB182A ME3SN3 36720 8/13/2007 mg/kg 3 L2, L3 0-2	SB182B ME3SN4 36720 8/13/2007 mg/kg 3 L1 8-10	SB183A ME3SK3 36697 8/10/2007 mg/kg 3 L4 0-2	SB183B ME3SK4 36697 8/10/2007 mg/kg 3 L1 8-10	SB184A ME3SN5 36720 8/13/2007 mg/kg 3 L1, L2 0-2	SB184B ME3SN6 36720 8/13/2007 mg/kg 3 L1, L2 8-10	SB185A ME3SK0 36697 8/10/2007 mg/kg 3 L4 0-2
Aluminum	77,000	990,000	15,400	15,847		**14,900**	**6,860**	**11,100**	**3,860**	**7,490**	**3,180**	**9,550**	**5,180**	**4,110**	**12,400**
Antimony	31	410	NC	1.05		7.3 UJ	7.4 UJ	**621 J**	**660 J**	7 UJ	**26.9**	7.4 U	**577 J**	**571 J**	**22.1**
Arsenic	0.39	1.6	10.7	12.44		**22.6**	**74.4 J-**	**12.7 J-**	**37.5 J-**	**20.4 J-**	**234 J**	**4.2 J**	**99.3 J-**	**88.2 J-**	**97.3 J**
Barium	15,000	190,000	276	274		**176**	**227**	**252**	**332**	**319**	**84.1**	**86.9**	**1,050**	**705**	**4,900**
Beryllium	160	2,000	0.81	0.878		**0.8**	**0.87 J+**	**0.96 J+**	0.64 UJ	**0.94 J+**	0.55 UJ	**0.66 J+**	**1 J+**	**0.72 J+**	**2.1 J**
Cadmium	70	800	7.1	4.68		**19.2 J**	**29.4 J**	**31.4 J**	**49 J**	**15.3 J**	**29.6**	**6.3**	**82.2 J**	**93.9 J**	**141**
Calcium	NC	NC	NC	NC		**21,000**	**3,120 J**	**61,000 J**	**30,700 J**	**106,000 J**	**2,230**	**3,310**	**2,760 J**	**19,700 J**	**41,000**
Chromium (total)[a]	280	1,400	21.2	25.2		**20.2**	**30.8 J**	**19.3 J**	**18.9 J**	**18 J**	**9.1**	**20.3**	**38.2 J**	**14.8 J**	**34.1**
Cobalt	23	300	12.9	13.8		**17.7**	6.1 UJ	**10.1 J**	**24.5 J**	**13.4 J**	**190**	**5.8 J**	**44.2 J**	**30 J**	**78.2**
Copper	3,100	41,000	31.5	35.9		**93.7 J**	**221 J**	**176 J**	**568 J**	**84.1 J**	**443**	**16**	**1,160 J**	**674 J**	**591**
Cyanide	1,600	20,000	NC	NC		3 U	3.1 U	3 U	3.2 U	2.9 U	2.7 U	3.1 U	**0.29 J**	2.8 U	3.7 U
Iron	55,000	720,000	24,691	25,035		**23,400**	**76,300**	**31,300**	**35,400**	**62,700**	**96,600**	**15,100**	**84,700**	**64,700**	**48,900**
Lead	400	800	103	66.1		**6,420 J**	**8,060 J**	**5,150 J**	**9,510 J**	**1,140 J**	**9,320**	**24.2**	**324 J**	**234 J**	**1,280**
Magnesium	NC	NC	NC	NC		**2,450**	**1,450**	**3,730**	**12,000**	**3,690**	**871**	**2,200**	**2,990**	**3,500**	**4,810**
Manganese	1,800	23,000	1,527	2,726		**696**	**451**	**1,940**	**1,890**	**2,480**	**1,910**	**212**	**415**	**1,350**	**43,500**
Mercury	5.6	34	1.32	1.33		0.12 U	**1**	**0.32**	**0.32**	**0.079 J**	0.1 U	0.12 U	**0.21**	**0.058 J**	**1.3**
Nickel	1,500	20,000	19.9	45		**29.7**	**11.7 J**	**34.1 J**	**39.1 J**	**32.6 J**	**239**	**16.3**	**71.1 J**	**45.4 J**	**228**
Potassium	NC	NC	NC	NC		**2,540 J**	**1,680**	**1,720**	642 UJ	**1,420**	**355 J**	**1,190 J**	613 UJ	565 UJ	**1,910 J**
Selenium	390	5,100	NC	NC		4.3 U	**3.4 J**	4.2 U	**2.1 J**	4.1 U	**3.6 J**	4.3 U	**2.4 J**	**2.2 J**	5.2 U
Silver	390	5,100	NC	NC		**1.1 J**	**3.9 J+**	**2.9 J+**	**8.4**	1.9 U	**35.3**	**0.73 J+**	**6.7**	**17 J+**	**12.8**
Sodium	NC	NC	NC	NC		608 UJ	R	R	R	R	**1,770 J+**	**242 J**	R	R	**2,020 J+**
Thallium[a]	5.1	66	NC	NC		3 U	3.1 U	3 U	3.2 U	2.9 U	2.7 U	3.1 U	3.1 U	2.8 U	**4.5**
Vanadium	390	5,200	39.5	37.8		**35**	**23.5**	**19.7**	**15.4**	**40.8**	**10.1 J-**	**24.8**	**12.9**	**15**	**222**
Zinc	23,000	310,000	1,310	740		**48,000**	**21,100**	**46,200**	**56,200**	**21,400**	**31,000**	**2,120**	**96,500**	**59,800**	**40,700**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB185B ME3SK1 36697 8/10/2007 mg/kg 3 L2, L4 8-10	SB313B ME3SK2 36697 8/10/2007 mg/kg SB185B 3 L2, L4 8-10	SB186A ME3SN7 36720 8/13/2007 mg/kg 3 L4 0-2	SB186B ME3SN8 36720 8/13/2007 mg/kg 3 L1, L2 8-10	SB187A ME3SN9 36720 8/13/2007 mg/kg 3 L1 0-2	SB187B ME3SP0 36720 8/13/2007 mg/kg 3 L1 6-8	SB188A ME3SP1 36720 8/13/2007 mg/kg 3 L1 0-2	SB188B ME3SP2 36720 8/13/2007 mg/kg 3 L1 8-10	SB317B ME3SP3 36720 8/13/2007 mg/kg SB188B 3 L1 8-10	SB189A ME3SQ6 36720 8/14/2007 mg/kg 3 L1, L4 0-2
Aluminum	77,000	990,000	15,400	15,847		**3,450**	**4,950**	**9,820**	**15,600**	**10,100**	**10,800**	**13,500**	**1,720**	**13,700**	**10,900**
Antimony	31	410	NC	1.05		**16.4**	**17.2**	**2.3 J-**	**1.9 J-**	6.7 UJ	6.7 UJ	7.1 UJ	6.4 UJ	7.2 UJ	6.9 UJ
Arsenic	0.39	1.6	10.7	12.44		**73 J**	**77 J**	**41.4 J-**	**15.5 J-**	**15.7 J-**	1.1 UJ	**5 J-**	**1.8 J-**	**5.9 J-**	**8.1 J**
Barium	15,000	190,000	276	274		**324**	**434**	**195**	**254**	**57.1**	**40.2**	**150**	21.4 U	**106**	**116**
Beryllium	160	2,000	0.81	0.878		0.6 UJ	0.6 UJ	**1.3 J**	**1.1 J**	**0.95 J+**	**0.64 J+**	0.59 UJ	0.54 UJ	0.6 UJ	**0.75 J+**
Cadmium	70	800	7.1	4.68		**79.2**	**105**	**79.5 J**	**20.5 J**	**24.4 J**	**0.83 J+**	0.59 UJ	**0.86 J+**	0.6 UJ	**7.7**
Calcium	NC	NC	NC	NC		**3,800**	**3,130**	**21,800 J**	**12,200 J**	**106,000 J**	**81,200 J**	**66,600 J**	**165,000 J**	**56,800 J**	**90,700**
Chromium (total)[a]	280	1,400	21.2	25.2		**13.6**	**15.6**	**16.5 J**	**22.1 J**	**14.2 J**	**16.4 J**	**18.7 J**	**8.5 J**	**19.8 J**	**20 J**
Cobalt	23	300	12.9	13.8		**211**	**40.9**	**18.2 J**	**20 J**	**16.2 J**	**8.8 J**	**11 J**	5.4 UJ	**11 J**	**9.1**
Copper	3,100	41,000	31.5	35.9		**1,860**	**1,110**	**361 J**	**94.6 J**	**74.9 J**	**71.9 J**	**6.9 J**	**10.3 J**	**4.9 J**	**62 J**
Cyanide	1,600	20,000	NC	NC		**0.24 J**	**0.12 J**	3 U	3 U	2.8 U	**0.48 J**	3 U	2.7 U	3 U	2.9 UJ
Iron	55,000	720,000	24,691	25,035		**74,000**	**76,700**	**33,500**	**30,600**	**20,700**	**13,100**	**23,400**	**5,800**	**23,300**	**21,400**
Lead	400	800	103	66.1		**3,830**	**3,390**	**2,800 J**	**1,370 J**	**165 J**	**6.2 J**	**5.9 J**	**10.5 J**	**6.6 J**	**95.8 J**
Magnesium	NC	NC	NC	NC		**1,180**	**4,100**	**2,640**	**5,660**	**5,830**	**5,840**	**8,500**	**84,900**	**12,200**	**24,300**
Manganese	1,800	23,000	1,527	2,726		**6,890**	**2,770**	**1,380**	**580**	**2,590**	**1,050**	**2,270**	**338**	**1,950**	**990**
Mercury	5.6	34	1.32	1.33		0.11 U	0.11 U	**0.18**	0.12 U	**0.069 J**	**0.057 J**	0.12 U	**0.087 J**	0.12 U	**0.067 J**
Nickel	1,500	20,000	19.9	45		**85**	**42.9**	**45.2 J**	**52.7 J**	**31.5 J**	**25.7 J**	**36.8 J**	**7.3 J**	**38 J**	**28.4**
Potassium	NC	NC	NC	NC		**194 J**	**306 J**	**1,690**	**2,360**	**1,930**	**2,290**	**2,560**	**1,020**	**2,650**	**3,070**
Selenium	390	5,100	NC	NC		**2.5 J**	**2.7 J**	4.2 U	4.2 U	3.9 U	3.9 U	4.1 U	3.7 U	4.2 U	**1.3 J-**
Silver	390	5,100	NC	NC		**21.5**	**12.8**	**15.1 J+**	**10.8 J+**	**4.4 J+**	**2.1 J+**	**4.3 J+**	**1.6 J+**	**3.8 J+**	1.2 U
Sodium	NC	NC	NC	NC		**3,390 J+**	**4,000 J+**	R	R	R	**87.9 J**	**183 J**	**219 J**	**198 J**	577 U
Thallium[a]	5.1	66	NC	NC		R	3 U	3 U	3 U	2.8 U	2.8 U	3 U	2.7 U	3 U	2.9 U
Vanadium	390	5,200	39.5	37.8		**14.2 J-**	**15.8 J-**	**19.9**	**17.5**	**15.9**	**13.4**	**12.7**	**15.5**	**13.4**	**21.5**
Zinc	23,000	310,000	1,310	740		**60,800**	**71,500**	**21,200**	**8,410**	**7,540**	**174**	**49.8**	**258**	**65.1**	**2,110**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB189B ME3SQ7 36720 8/14/2007 mg/kg 3 L1, L4 8-10	SB190A ME3RM4 36648 7/25/2007 mg/kg 3 L4 0-2	SB190B ME3RM5 36648 7/25/2007 mg/kg 3 L1 8-10	SB191A ME3RM8 36648 7/26/2007 mg/kg 3 L1, L4 0-2	SB191B ME3RM9 36648 7/26/2007 mg/kg 3 L1 6-8	SB192A ME3RN4 36648 7/26/2007 mg/kg 3 L1 0-2	SB192B ME3RN5 36648 7/26/2007 mg/kg 3 L1 4-6	SB270B ME3RN6 36648 7/26/2007 mg/kg SB192B 3 L1 4-6	SB193A ME3RL3 36648 7/25/2007 mg/kg 3 L4 0-2	SB194A ME3RG9 36648 7/24/2007 mg/kg 3 L2 0-2
Aluminum	77,000	990,000	15,400	15,847		**10,900**	**4,650**	**5,090**	**8,580**	**16,500**	**6,530**	**19,200**	**17,900**	**8,460**	**7,600**
Antimony	31	410	NC	1.05		**2.7 J-**	**18.9**	**20.8**	**3.7 J-**	**1.7 J-**	**33.7**	**2.6 J+**	**2.5 J+**	**4.6 J-**	**32.8**
Arsenic	0.39	1.6	10.7	12.44		**15.7 J**	**69.7**	**76.7**	**99.6**	1.1 U	**71.4**	**2.7**	1.2 U	**34.4**	**59.5**
Barium	15,000	190,000	276	274		**147**	**226 J**	**252 J**	**1,700**	**105**	**381 J**	**142 J**	**124 J**	**246**	**190 J**
Beryllium	160	2,000	0.81	0.878		**0.91**	0.58 U	0.57 U	**0.84**	**1.1**	**0.67 J+**	**0.98**	**0.97**	**0.85**	**0.82 J**
Cadmium	70	800	7.1	4.68		**28.7**	**91.6 J**	**106 J**	**169 J**	0.56 U	**88.9 J**	**12.5 J**	**2.4 J+**	**195 J**	**70.6**
Calcium	NC	NC	NC	NC		**41,200**	**6,680 J**	**6,470 J**	**33,600**	**21,900**	**8,270 J**	**37,800 J**	**41,800 J**	**12,100**	**2,900 J**
Chromium (total)[a]	280	1,400	21.2	25.2		**16.1 J**	**15.4 J**	**17.2 J**	**92.5**	**25.1**	**19.8 J**	**30.6 J**	**28.8 J**	**27.6**	**15.7 J**
Cobalt	23	300	12.9	13.8		**9.9**	**28.5**	**30.5**	**37.7**	**10.9**	**24.2**	**15.6**	**13.1**	**15.2**	**14.5 J**
Copper	3,100	41,000	31.5	35.9		**143 J**	**563 J**	**550 J**	**311 J**	**3.5 J**	**767 J**	**14 J**	**5.5 J**	**576 J**	**459**
Cyanide	1,600	20,000	NC	NC		3 UJ	**0.18 J**	2.9 U	**0.45 J**	2.8 U	2.9 U	2.8 U	2.8 U	**2.4 J**	**2.1 J**
Iron	55,000	720,000	24,691	25,035		**23,200**	**42,700 J**	**51,700 J**	**44,500**	**23,700**	**38,200 J**	**21,500 J**	**20,500 J**	**38,400**	**40,500 J**
Lead	400	800	103	66.1		**2,470 J**	**8,350 J**	**7,370 J**	**625 J**	**6 J**	**2,040 J**	**20.1 J**	**6.3 J**	**2,540 J**	**2,980**
Magnesium	NC	NC	NC	NC		**7,070**	**2,290 J**	**2,390 J**	**2,770**	**7,900**	**1,670 J**	**7,710 J**	**7,600 J**	**4,930**	**920 J**
Manganese	1,800	23,000	1,527	2,726		**966**	**1,250 J**	**1,150 J**	**18,200**	**249**	**1,230 J**	**528 J**	**577 J**	**543**	**596 J**
Mercury	5.6	34	1.32	1.33		**1.2**	**0.67**	**0.66**	**0.43**	0.11 U	**0.27**	0.11 U	0.11 U	**2.3**	**4.1**
Nickel	1,500	20,000	19.9	45		**26.9**	**40.6**	**32.1**	**134**	**42.3**	**12.6**	**42.4**	**38**	**107**	**41.1 J**
Potassium	NC	NC	NC	NC		**2,030**	**482 J**	**526 J**	**1,980 J**	**3,400 J**	**969 J**	**5,580 J**	**5,220 J**	**941 J**	**1,060 J**
Selenium	390	5,100	NC	NC		**4.3 J-**	**3.7 J**	**4.2**	4.3 U	4 U	**2.2 J**	3.9 U	3.9 U	**3.6 J**	**5.7**
Silver	390	5,100	NC	NC		**1.8 J+**	**12.3**	**16**	**2.1**	1.1 U	**12.3**	**1.8 J+**	**1.7 J+**	**6.8**	**8.6**
Sodium	NC	NC	NC	NC		R	**2,700**	**2,950**	617 UJ	564 UJ	**1,800**	**364 J-**	**368 J-**	631 UJ	R
Thallium[a]	5.1	66	NC	NC		3 U	2.9 U	R	**4.1**	2.8 U	2.9 U	2.8 U	2.8 U	3.2 U	2.9 U
Vanadium	390	5,200	39.5	37.8		**22.3**	**17.2**	**18.1**	**109**	**17.7**	**21.4**	**17.1**	**15.5**	**22.7**	**19**
Zinc	23,000	310,000	1,310	740		**9,800**	**69,000**	**68,600 J**	**50,700**	**66.7**	**37,500 J**	**1,420 J**	**136 J**	**48,300**	**18,000**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB194B ME3RH0 36648 7/24/2007 mg/kg 3 L1 4-5_5	SB195A ME3RT5 36720 8/15/2007 mg/kg 3 L1 0-2	SB195B ME3RT6 36720 8/15/2007 mg/kg 3 L1 6-8	SB196A ME3RT7 36720 8/15/2007 mg/kg 3 L1, L2 0-2	SB196B ME3RT8 36720 8/15/2007 mg/kg 3 L1 6-8	SB197A ME3RA2 36631 7/19/2007 mg/kg 3 L2, L3 0-2	SB197B ME3RA3 36631 7/19/2007 mg/kg 3 L1 8-10	SB198A ME3RB4 36631 7/19/2007 mg/kg 3 L1, L3 0-2	SB198B ME3RB5 36631 7/19/2007 mg/kg 3 L1 4-6	SB199A ME3S13 36664 8/1/2007 mg/kg 3 L1 0-2
Aluminum	77,000	990,000	15,400	15,847		**4,410**	**11,700**	**22,200**	**8,640**	**18,900**	**8,150**	**14,500**	**9,610**	**2,440**	**7,970**
Antimony	31	410	NC	1.05		**9 J+**	**275 J**	**1.8 J**	**418 J**	**2.3 J**	**3.2 J-**	6.9 UJ	7.2 UJ	**23.9 J-**	**3.9 J+**
Arsenic	0.39	1.6	10.7	12.44		**18.6**	**80.4**	1.6 U	**12**	1.6 U	**25.1**	**5.5**	**7.9**	**97.4**	**60.2**
Barium	15,000	190,000	276	274		**73.6 J**	**143 J-**	**36.9 J-**	**198 J-**	**34.1 J-**	**133 J**	**180 J**	**197 J**	**153 J**	**202**
Beryllium	160	2,000	0.81	0.878		0.54 UJ	**0.85 J+**	**1.2**	**0.55 J+**	**0.99**	**0.87 J+**	**1.2 J+**	**0.59 J+**	**0.58 J+**	0.7 U
Cadmium	70	800	7.1	4.68		**57.2**	**252**	**2.2 J+**	**99.5309**	**10.1**	**27.4**	**0.52 J**	**11.2**	**123**	**114**
Calcium	NC	NC	NC	NC		**183,000 J**	**10,500 J**	**20,000 J**	**1,530 J**	**28,800 J**	**4,340 J**	**19,800 J**	**2,000 J**	**1,140 J**	**4,630**
Chromium (total)[a]	280	1,400	21.2	25.2		**11.1 J**	**30.3**	**33.6**	**12.5**	**28.1**	**16.9**	**25.1**	**15.1**	**8**	**14.1**
Cobalt	23	300	12.9	13.8		**11.8 J**	**14.3**	**9.5**	**33.2**	**13.5**	**8.3**	**12.7**	**3.4 J**	**7.5**	**10.6**
Copper	3,100	41,000	31.5	35.9		**95.6**	**1,250 J**	**16.4 J**	**163 J**	**30.4 J**	**258**	**9.6**	**39.8**	**1,090**	**74.1**
Cyanide	1,600	20,000	NC	NC		**0.46 J**	3.2 UJ	2.8 UJ	2.8 UJ	2.9 UJ	3.1 U	2.9 U	3 U	3.2 U	**0.17 J**
Iron	55,000	720,000	24,691	25,035		**20,800 J**	**55,600**	**26,700**	**14,300**	**19,900**	**41,200 J**	**25,100 J**	**16,400 J**	**37,600 J**	**15,600**
Lead	400	800	103	66.1		**1,630**	**4,250**	**37.4**	**400**	**41.5**	**2,320**	**13**	**77.4**	**3,050**	**408**
Magnesium	NC	NC	NC	NC		**2,300 J**	**3,610**	**10,400**	**1,350**	**8,230**	**1,550**	**8,580**	**2,470**	**445 J**	**2,930**
Manganese	1,800	23,000	1,527	2,726		**757 J**	**1,000**	**364**	**2,090**	**354**	**276**	**782**	**104**	**97.9**	**292**
Mercury	5.6	34	1.32	1.33		**5.3**	**55.9**	0.11 U	**1.8**	**0.067 J**	**3.1 J+**	0.12 U	**11 J+**	**0.4 J+**	**3.3**
Nickel	1,500	20,000	19.9	45		**21 J**	**72.2**	**40**	**14.8**	**36.1**	**20.2**	**45.7**	**11.8**	**16.9**	**10.9**
Potassium	NC	NC	NC	NC		**1,350 J**	**1,960**	**6,360**	**898**	**5,910**	**1,240 J**	**4,410 J**	**971 J**	**695 J**	**919 J**
Selenium	390	5,100	NC	NC		**2.3 J**	**20.9**	**1.8 J**	3.9 U	4 U	**10 J-**	4 UJ	4.2 UJ	**12.8 J-**	**4.7 J**
Silver	390	5,100	NC	NC		**3.6 J+**	**29.9 J**	**1.4 J**	**2.2 J+**	**1.1 J**	**3.6 J+**	1.1 U	1.2 U	**18.3**	**1.8 J+**
Sodium	NC	NC	NC	NC		541 U	R	556 U	R	575 U	**728 J**	**235 J**	598 U	**218 J**	**1,340 J+**
Thallium[a]	5.1	66	NC	NC		2.7 U	3.2 U	2.8 U	2.8 U	2.9 U	3 UJ	2.9 UJ	3 UJ	3.1 UJ	3.5 U
Vanadium	390	5,200	39.5	37.8		**16.9**	**18.2**	**23.4**	**22.1**	**18.7**	**27.8**	**28.6**	**27.3**	**8.5**	**24.4**
Zinc	23,000	310,000	1,310	740		**4,830**	**149,000**	**508**	**13,400**	**2,560**	**9,000 J**	**58.4**	**3,820 J**	**17,700 J**	**16,500 J**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB199B ME3S14 36664 8/1/2007 mg/kg 3 L1 6-8	SB200A ME3S47 36664 8/2/2007 mg/kg 3 L4 0-2	SB200B ME3S48 36664 8/2/2007 mg/kg 3 L1 8-10	SB201A ME3SK9 36720 8/13/2007 mg/kg 2 L1 0-2	SB201B ME3SL0 36720 8/13/2007 mg/kg 2 L1 6-8	SB316B ME3SN0 36720 8/13/2007 mg/kg SB201B 2 L1 6-8	SB211A ME3SR0 36720 8/14/2007 mg/kg 1 L1 0-2	SB211B ME3SR1 36720 8/14/2007 mg/kg 1 L1 8-10	SB212A ME3SR2 36720 8/14/2007 mg/kg 3 L2, L3 0-2	SB212B ME3SR3 36720 8/14/2007 mg/kg 3 L1, L2 8-10
Aluminum	77,000	990,000	15,400	15,847		**5,360**	**10,700**	**1,810**	**6,800**	**14,000**	**14,200**	**210**	**8,720**	**469**	**18,300**
Antimony	31	410	NC	1.05		7.4 U	**22.1**	8.6 U	7.3 UJ	6.8 UJ	6.9 UJ	**8.4 J**	**9.9 J-**	**4.3 J-**	7.3 UJ
Arsenic	0.39	1.6	10.7	12.44		**1.7**	**31.9**	1.9 U	**0.41 J-**	**0.75 J-**	1.1 UJ	1.3 UJ	**257 J**	**28.6 J**	R R
Barium	15,000	190,000	276	274		**137**	**125**	**84.3**	**95.4**	**68.5**	**57.6**	**363**	**126**	**98.1**	**214**
Beryllium	160	2,000	0.81	0.878		0.62 U	**2.9 J**	0.72 UJ	**0.64 J**	**1 J**	**0.93 J+**	**0.35 J**	**1.4**	**0.46 J+**	**1.2**
Cadmium	70	800	7.1	4.68		**12.1**	**102**	**2.4 J+**	0.61 UJ	0.56 UJ	0.57 UJ	**3.9**	**31.9**	**2.2 J+**	**5.6**
Calcium	NC	NC	NC	NC		**24,000**	**33,100 J**	**59,800 J**	**9,130 J**	**42,200 J**	**47,700 J**	**88.1 J**	**23,400**	**163 J**	**11,200**
Chromium (total)[a]	280	1,400	21.2	25.2		**11.7**	**20.1 J**	**2.8 J**	**13.6 J**	**18.5 J**	**19.2 J**	**3.1 J**	**24.1 J**	**4.8 J**	**28.2 J**
Cobalt	23	300	12.9	13.8		**7**	**7.8 J**	7.2 UJ	6.1 UJ	**9.2 J**	**8.8 J**	**0.31 J**	**4.4 J**	6.8 U	**13.1**
Copper	3,100	41,000	31.5	35.9		**16.3**	**258**	**3.2 J**	**12 J**	**9 J**	**8.2 J**	**69.5 J**	**138 J**	**107 J**	**9.3 J**
Cyanide	1,600	20,000	NC	NC		3.1 U	**0.16 J**	3.6 U	3.1 U	2.8 U	2.9 U	3.4 UJ	3 UJ	3.4 UJ	3 UJ
Iron	55,000	720,000	24,691	25,035		**7,980**	**41,200**	**4,310**	**10,000**	**15,000**	**14,600**	**1,240**	**63,500**	**16,900**	**26,700**
Lead	400	800	103	66.1		**20.4**	**2,660**	**60.4**	**5.2 J**	**7.7 J**	**5.3 J-**	**1,980 J**	**4,850 J**	**2,010 J**	**21 J**
Magnesium	NC	NC	NC	NC		**12,900**	**1,080**	**444 J**	**4,920**	**7,120**	**9,890**	**21.4 J**	**246 J**	**38.6 J**	**9,140**
Manganese	1,800	23,000	1,527	2,726		**143**	**838 J**	**68.7 J**	**311**	**429**	**567**	**0.99 J**	**60.5**	**3**	**509**
Mercury	5.6	34	1.32	1.33		0.12 U	**12.7**	**0.25 J-**	**0.073 J**	**0.89**	**0.17**	**1.9**	**0.42**	**0.69**	**0.14**
Nickel	1,500	20,000	19.9	45		**12.9**	**36.6 J**	**0.43 J**	**11.1 J**	**37.4 J**	**35.8 J**	**0.93 J**	**23.4**	**1.9 J**	**50.4**
Potassium	NC	NC	NC	NC		**732 J**	**1,810 J**	**1,170 J**	**1,930**	**4,920**	**5,170**	675 U	**3,570**	**1,210**	**2,880**
Selenium	390	5,100	NC	NC		4.3 U	**4.4**	5 U	4.3 U	3.9 U	4 U	**1.2 J-**	**62.5 J-**	**2.4 J-**	4.3 UJ
Silver	390	5,100	NC	NC		1.2 U	**7 J+**	1.4 U	1.2 U	1.1 U	1.1 U	**5.5**	**6.2 J+**	**4.8 J+**	**0.32 J**
Sodium	NC	NC	NC	NC		615 U	**1,500 J+**	**118 J**	**201 J**	**312 J**	**335 J**	675 U	**63.9 J**	**550 J**	609 U
Thallium[a]	5.1	66	NC	NC		3.1 U	2.7 U	3.6 U	3.1 U	2.8 U	2.9 U	3.4 U	3 U	**1.3 J**	3 U
Vanadium	390	5,200	39.5	37.8		**11.1**	**31 J**	7.2 UJ	**11.2**	**16.9**	**13.9**	**2.2 J**	**41.9**	**4.6 J-**	**16.1**
Zinc	23,000	310,000	1,310	740		**1,870 J**	**16,700 J**	**391 J**	**37.7**	**35.4**	**44.8**	**794**	**4,160**	**286**	**2,130**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB213A ME3SR4 36720 8/14/2007 mg/kg 3 L2, L3 0-2	SB213B ME3SR5 36720 8/14/2007 mg/kg 3 L2 8-10	SB214A ME3ST9 36720 8/16/2007 mg/kg 3 L1 0-2	SB214B ME3SW0 36720 8/16/2007 mg/kg 3 L2, L4 6-8	SB215A ME3SW1 36720 8/16/2007 mg/kg 3 L1, L2 0-2	SB215B ME3SW2 36720 8/16/2007 mg/kg 3 L1, L4 8-10	SB323B ME3SW5 36720 8/16/2007 mg/kg SB215B 3 L1, L4 8-10	SB322A ME3RT1 36720 8/15/2007 mg/kg SB215A 3 L1, L2 0-2	SB401A-08 ME3XS0 37920 10/9/2008 mg/kg 1 L1 0-2	SB401B-08 ME3XS1 37920 10/9/2008 mg/kg 1 L1 14-16
Aluminum	77,000	990,000	15,400	15,847		**4,380**	**4,540**	**10,300**	**3,950**	**599**	**4,650**	**9,930**	**11,000**	**9,550**	**10,700**
Antimony	31	410	NC	1.05		**7.1 J-**	**2.4 J-**	**488 J**	**374 J**	**8.5 J**	**2.3 J**	**477 J**	**652 J**	7.9 UJ	8.7 UJ
Arsenic	0.39	1.6	10.7	12.44		**39 J**	**15.6 J**	**14.2**	**35.1**	**50.2**	4.3 U	**17.3**	**156 J**	**5.4**	**1.1 J**
Barium	15,000	190,000	276	274		**235**	**105**	**202 J-**	**208 J-**	**145 J-**	**40.8 J-**	**187 J-**	**111**	**220**	**34.6**
Beryllium	160	2,000	0.81	0.878		**0.57 J+**	**0.46 J+**	**0.67 J+**	0.56 U	0.67 U	0.3 U	**0.85 J+**	**1.9**	**0.66 J+**	**1.2**
Cadmium	70	800	7.1	4.68		**8.6**	**11.3**	**123**	**49.2**	**2.3 J+**	**24.7**	**67.8**	**755**	**1.8**	0.73 U
Calcium	NC	NC	NC	NC		**4,650**	**8,160**	**2,620 J**	**1,350 J**	**1,030 J**	**125,000 J**	**42,500 J**	**1,900**	**4,770**	**20,900**
Chromium (total)[a]	280	1,400	21.2	25.2		**20 J**	**17.9 J**	**15**	**13.3**	**4.8**	**7.8**	**16.7**	**37.1 J**	**12.8**	**14.9**
Cobalt	23	300	12.9	13.8		**7.9**	**3.5 J**	**32.6**	**24.9**	6.7 U	5.7 U	**38**	**13.5**	**9.7**	**10.4**
Copper	3,100	41,000	31.5	35.9		**634 J**	**289 J**	**205 J**	**850**	**93.2 J**	**39.2 J**	**45.6 J**	**2,480 J**	**11.9**	**23.9**
Cyanide	1,600	20,000	NC	NC		3.2 UJ	2.9 UJ	3.2 UJ	2.8 UJ	3.3 UJ	2.9 UJ	3.1 UJ	3.6 UJ	3.3 UJ	3.6 UJ
Iron	55,000	720,000	24,691	25,035		**47,200**	**63,100**	**17,600**	**37,000**	**20,200**	**11,300**	**35,100**	**107,000**	**13,500**	**12,200**
Lead	400	800	103	66.1		**3,160 J**	**2,570 J**	**503**	**13,700**	**5,930**	**19.5**	**98.6**	**48,700 J**	**15.1**	**8.5**
Magnesium	NC	NC	NC	NC		**345 J**	**207 J**	**2,150**	**629**	666 U	**59,300**	**21,300**	**792**	**1,620**	**5,970**
Manganese	1,800	23,000	1,527	2,726		**51.8**	**40.4**	**1,660**	**264**	**12.9**	**1,340**	**2,100**	**838**	**987 J**	**211 J**
Mercury	5.6	34	1.32	1.33		**0.86**	**1.4**	**1.1**	**0.32**	**24.1**	0.11 U	**0.1 J**	**60.3**	0.13 U	0.15 U
Nickel	1,500	20,000	19.9	45		**13**	**8.3**	**17.5**	**34.4**	5.3 U	**17.9**	**42.1**	**82.1**	**16.1**	**49.2**
Potassium	NC	NC	NC	NC		648 U	**1,350**	**1,060**	563 U	666 U	**1,940**	**2,250**	715 U	**885**	**3,220**
Selenium	390	5,100	NC	NC		**6.2 J-**	**4.2 J-**	4.5 U	**3 J**	**9.4**	4 U	4.3 U	**81.9 J-**	4.6 UJ	5.1 U
Silver	390	5,100	NC	NC		**10.1**	**3.9 J+**	**2.8 J+**	**16.3 J**	**6.6 J+**	1.1 UJ	**2 J+**	**62.7**	1.3 U	1.5 U
Sodium	NC	NC	NC	NC		R	579 U	R	R	666 U	R	R	R	**22.9 J**	**282 J**
Thallium[a]	5.1	66	NC	NC		3.2 U	2.9 U	3.2 U	2.8 U	3.3 U	2.9 U	3.1 U	**1.9 J**	3.3 UJ	3.6 U
Vanadium	390	5,200	39.5	37.8		**13.6**	**30.5**	**27.7**	**16.5**	**26.9**	**10.7**	**26.9**	**6.6 J**	**25.1**	**11.6**
Zinc	23,000	310,000	1,310	740		**8,310**	**5,150**	**18,400**	**46,300**	**1,020**	**9,360**	**15,200**	**218,000**	**482**	**36.6**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID	SB402A-08	SB402B-08	SB403A-08	SB403B-08	SB404A-08	SB404B-08	SB405A-08	SB405B-08	SB406A-08	SB500A-08
					Sample ID	ME3XS2	ME3XS3	ME3XS4	ME3XS5	ME3XS6	ME3XS7	ME3XS8	ME3XS9	ME3XT0	ME3Y60
					Case	37920	37920	37920	37920	37920	37920	37920	37920	37920	37920
					Sampling date	10/9/2008	10/9/2008	10/9/2008	10/9/2008	10/9/2008	10/9/2008	10/9/2008	10/9/2008	10/15/2008	10/15/2008
					Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
					Duplicate info										SB406A-08
					Investigation area	1	1	1	1	1	1	1	1	1	1
					Lithology	L1, L2	L1	L1, L2	L1	L2, L3, L4	L1	L2, L3, L4	L1	L1	L1
					Depth (ft bgs)	0-2	10-12	0-2	13-15	0-2	16-18	0-2	22-24	2-4	2-4
Aluminum	77,000	990,000	15,400	15,847		**4,300**	**10,300**	**15,200**	**8,240**	**11,200**	**6,850**	**1,890**	**7,680**	**8,700**	**8,950**
Antimony	31	410	NC	1.05		6.8 UJ	6.9 UJ	8.6 UJ	6.6 UJ	7.3 UJ	6.7 UJ	**12.6 J**	**2.1 J-**	6.7 UJ	R
Arsenic	0.39	1.6	10.7	12.44		**20.7**	**5.3**	**12.2**	**1.1 J+**	**16.4**	**4.3 J+**	**14.7**	**7**	**9.5**	**8.9 J**
Barium	15,000	190,000	276	274		**136**	**56**	**193**	**31.3**	**130**	**115**	**749**	**109**	**175**	**124**
Beryllium	160	2,000	0.81	0.878		**0.64**	**0.63**	**0.93**	**0.54 J+**	**1.6**	**0.55 J+**	**0.27 J+**	**0.47 J+**	**0.54 J+**	**0.56 J+**
Cadmium	70	800	7.1	4.68		**39.9**	0.57 U	**1.1 J+**	0.55 U	**38.6**	0.56 U	**25.8**	**247**	**70.1**	**20.4**
Calcium	NC	NC	NC	NC		**37,700**	**51,000**	**5,560**	**41,900**	**10,800**	**59,000**	**968**	**73,200**	**81,400**	**79,600**
Chromium (total)[a]	280	1,400	21.2	25.2		**8.9**	**17.4**	**21.7**	**12**	**14.6**	**9.5**	**3 J-**	**11.4**	**15**	**13.1**
Cobalt	23	300	12.9	13.8		**15.5**	**10.9**	**15.8**	**7.4**	**12.5**	**22.2**	5.9 UJ	**29.2**	**14.4**	**15.2**
Copper	3,100	41,000	31.5	35.9		**282**	**17.1**	**27.7**	**19.4**	**208**	**31.2**	**43**	**4.1**	**125**	**85.3**
Cyanide	1,600	20,000	NC	NC		2.8 UJ	2.9 UJ	3.6 UJ	2.8 UJ	3 UJ	2.8 UJ	2.9 UJ	3 UJ	2.8 UJ	2.9 U
Iron	55,000	720,000	24,691	25,035		**35,800**	**18,700**	**26,500**	**10,400**	**47,700**	**8,740**	**11,900**	**14,900**	**24,600**	**23,100**
Lead	400	800	103	66.1		**1,390**	**13.4**	**20.1**	**4.6 J-**	**1,320**	**13**	**2,010**	**31.1**	**353**	**290 J**
Magnesium	NC	NC	NC	NC		**19,200**	**23,300**	**3,220**	**8,050**	**854**	**9,610**	**121 J**	**30,400**	**19,400**	**14,700**
Manganese	1,800	23,000	1,527	2,726		**682 J**	**363 J**	**1,380 J**	**1,430 J**	**385 J**	**852 J**	**15.2 J**	**670 J**	**2,470 J**	**2,820**
Mercury	5.6	34	1.32	1.33		0.11 U	0.12 U	0.14 U	0.12 U	**0.13**	0.11 U	**7**	0.12 U	**1.2**	**0.23**
Nickel	1,500	20,000	19.9	45		**29**	**30.4**	**50.2**	**25.7**	**26**	**29.6**	**1.1 J**	**47**	**31.4**	**34.7**
Potassium	NC	NC	NC	NC		**555 J**	**2,070**	**757**	**2,440**	**1,410**	**2,050**	**504 J**	**1,300**	**1,460**	**1,520**
Selenium	390	5,100	NC	NC		**0.79 J+**	4 UJ	5 UJ	3.8 UJ	**1.1 J-**	3.9 UJ	**1.4 J-**	4.3 UJ	**0.34 J-**	4.1 U
Silver	390	5,100	NC	NC		**4.4**	1.1 U	1.4 U	1.1 U	**2.5 J+**	1.1 U	**4.8**	1.2 U	**3.5 J+**	**1.7 J+**
Sodium	NC	NC	NC	NC		**97.6 J**	**159 J**	**57.4 J**	**260 J**	**532 J**	**184 J**	**207 J**	**86.1 J**	**321 J**	**289 J**
Thallium[a]	5.1	66	NC	NC		2.8 UJ	2.9 UJ	3.6 UJ	**0.34 J-**	3 UJ	2.8 UJ	2.9 UJ	3 UJ	**0.28 J-**	**0.66 J-**
Vanadium	390	5,200	39.5	37.8		**12.5**	**17.1**	**31.7**	**9.1**	**30.8**	**12.1**	**7.3**	**15.5**	**13.6**	**12.1**
Zinc	23,000	310,000	1,310	740		**14,500**	**78.2**	**296**	**31.5**	**11,900**	**27.3**	**3,360**	**49,600**	**11,300**	**7,030**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB406B-08 ME3XT1 37920 10/15/2008 mg/kg 1 L1 26-28	SB500B-08 ME3Y61 37920 10/15/2008 mg/kg SB406B-08 1 L1 26-28	SB407A-08 ME3XT2 37920 10/9/2008 mg/kg 1 L2, L3 0-2	SB407B-08 ME3XT3 37920 10/9/2008 mg/kg 1 L2, L3, L4 14-16	SB408A-08 ME3XT4 37920 10/14/2008 mg/kg 1 L2, L4 0-2	SB408B-08 ME3XT5 37920 10/14/2008 mg/kg 1 L2, L4 34-36	SB409A-08 ME3XT6 37920 10/7/2008 mg/kg 1 L2, L3, L4 0-2	SB409B-08 ME3XT7 37920 10/8/2008 mg/kg 1 L1 20-21	SB410A-08 ME3XT8 37920 10/9/2008 mg/kg 1 L2, L3, L4 0-2	SB410B-08 ME3XT9 37920 10/9/2008 mg/kg 1 L2, L4 18-20
Aluminum	77,000	990,000	15,400	15,847		**7,320**	**6,710**	**3,030**	**5,120**	**10,100**	**11,700**	**7,980**	**8,620**	**2,720**	**9,090**
Antimony	31	410	NC	1.05		7 UJ	R	6.9 UJ	7 UJ	7.4 UJ	7.7 UJ	**1.1 J-**	8.7 UJ	**3.4 J**	9.8 UJ
Arsenic	0.39	1.6	10.7	12.44		**16.7**	**18 J**	**40.7**	**6.3**	**10.5**	**9.6**	**52.6**	**12.1**	**217**	**45.8**
Barium	15,000	190,000	276	274		**65.2**	**74.1**	**236**	**144**	**166**	**189**	**432**	**190**	**252**	**267**
Beryllium	160	2,000	0.81	0.878		**0.54 J+**	**0.58 J**	**0.44 J+**	**0.58 J**	**0.9**	**0.97**	**1.2**	**1**	**0.3 J+**	**1.2**
Cadmium	70	800	7.1	4.68		0.58 U	0.6 U	**40.4**	**24.5**	**56.2**	**2.4**	**119**	**6.4**	**161**	**16**
Calcium	NC	NC	NC	NC		**184,000**	**205,000**	**4,330**	**18,100**	**28,300**	**7,180**	**25,000**	**20,000**	840 U	**48,100**
Chromium (total)[a]	280	1,400	21.2	25.2		**15.4**	**12.1**	**11.7**	**2.9**	**12.4**	**18.4**	**15.3**	**11**	**9.4**	**12.3**
Cobalt	23	300	12.9	13.8		**14.7**	**12**	**18.4**	5.9 U	**26.8**	**14.8**	**30**	7.2 U	8.4 UJ	8.2 U
Copper	3,100	41,000	31.5	35.9		**18.3**	**16.5**	**722**	**85.2**	**70.4**	**29.8**	**801**	**136**	**1,340**	**427**
Cyanide	1,600	20,000	NC	NC		2.9 UJ	3 U	2.9 UJ	2.9 UJ	3.1 UJ	3.2 UJ	3.8 UJ	3.6 UJ	4.2 UJ	4.1 UJ
Iron	55,000	720,000	24,691	25,035		**20,500**	**25,700**	**52,100**	**5,330**	**18,100**	**19,500**	**60,100**	**16,000**	**77,400**	**23,700**
Lead	400	800	103	66.1		**11.7**	**9.7 J-**	**3,290**	**682**	**144**	**29.2**	**4,750**	**13,200**	**4,780**	**2,190**
Magnesium	NC	NC	NC	NC		**11,400**	**17,900**	**1,440**	**157 J**	**5,180**	**4,720**	**4,150**	723 U	840 U	**266 J**
Manganese	1,800	23,000	1,527	2,726		**2,830 J**	**5,220**	**887 J**	**42.2 J**	**2,520 J**	**1,700 J**	**2,390 J**	**377 J**	**532 J**	**100 J**
Mercury	5.6	34	1.32	1.33		0.12 U	**0.016 J**	**2.2**	**0.14**	0.12 U	0.13 U	**0.97 J-**	0.14 U	**5.8**	0.16 U
Nickel	1,500	20,000	19.9	45		**44**	**37**	**25.2**	**6.7**	**46.1**	**44.9**	**40.7**	**7.3**	**27.6**	**14.5**
Potassium	NC	NC	NC	NC		**1,340**	**1,320**	**425 J**	**316 J**	**2,200**	**1,610**	**712 J**	**3,620**	**1,600**	**4,540**
Selenium	390	5,100	NC	NC		4.1 UJ	4.2 U	**5.2 J-**	4.1 U	4.3 UJ	4.5 UJ	**3.1 J-**	**0.8 J-**	**21 J**	**1.1 J-**
Silver	390	5,100	NC	NC		1.2 U	1.2 U	**9.8**	**1.3**	**1.4 J+**	1.3 U	**7.3**	**1.8 J+**	**29.5**	**3.7 J+**
Sodium	NC	NC	NC	NC		**446 J**	**368 J**	**70.9 J**	**335 J**	**175 J**	**355 J**	**176 J**	**424 J**	**447 J**	**363 J**
Thallium[a]	5.1	66	NC	NC		**0.36 J-**	**2.1 J-**	2.9 UJ	2.9 U	**0.95 J-**	**0.57 J-**	3.8 UJ	3.6 UJ	4.2 UJ	4.1 UJ
Vanadium	390	5,200	39.5	37.8		**11.1**	**9.7**	**15.5**	**11.4**	**16.5**	**17**	**25.3**	**37.4**	**23.5**	**24**
Zinc	23,000	310,000	1,310	740		**50**	**58.7**	**23,200**	**2,430**	**24,100**	**543**	**88,100**	**2,320**	**89,200**	**5,260**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID	SB411A-08	SB411B-08	SB412A-08	SB501A-08	SB412B-08	SB501B-08	SB413A-08	SB413B-08	SB414A-08	SB414B-08
					Sample ID	ME3XW0	ME3XW1	ME3XW2	ME3Y62	ME3XW3	ME3Y63	ME3XW4	ME3XW5	ME3XW6	ME3XW7
					Case	37920	37920	37920	37920	37920	37920	37920	37920	37920	37920
					Sampling date	10/6/2008	10/6/2008	10/14/2008	10/14/2008	10/14/2008	10/14/2008	10/6/2008	10/6/2008	10/6/2008	10/6/2008
					Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
					Duplicate info				SB412A-08		SB412B-08				
					Investigation area	3	3	3	3	3	3	2	2	2	2
					Lithology	L2, L3, L4	L2, L4	L1	L1	L1	L1	L3, L4	L3, L4	L2, L4	L2, L4
					Depth (ft bgs)	0-2	10-12	0-2	0-2	8-10	8-10	0-2	8-10	0-2	6-8
Aluminum	77,000	990,000	15,400	15,847		**7,730**	**12,400**	**3,200**	**2,230**	**7,970**	**2,350**	**4,030**	**3,940**	**9,330**	**10,300**
Antimony	31	410	NC	1.05		**0.66 J-**	6.6 UJ	R	R	R	R	6.6 UJ	7 UJ	7.2 UJ	7.8 UJ
Arsenic	0.39	1.6	10.7	12.44		**25.6**	**6.7 J+**	**17.2 J**	**16.6 J**	**20.2 J**	**16.4 J**	**9.4 J+**	**11.8**	**14.6**	**10.4 J+**
Barium	15,000	190,000	276	274		**141**	**61.2**	**21.9 J**	**16.4 J**	**76.6**	**18.5 J**	**55.1**	**41.1**	**196**	**232**
Beryllium	160	2,000	0.81	0.878		**1.1**	**1.4**	0.56 U	0.51 U	0.63 U	0.57 U	0.55 U	0.58 U	**0.86**	**0.83**
Cadmium	70	800	7.1	4.68		**85.7 J**	**17.2 J**	**6 J**	**3.5 J**	**1.2 J+**	**4.2 J**	**13.5 J**	**1.6 J+**	**52.3 J**	**13.6 J**
Calcium	NC	NC	NC	NC		**33,100 J**	**7,940 J**	**10,000**	**3,060**	**11,700**	**4,030**	**86,900 J**	**66,200 J**	**15,900 J**	**7,910 J**
Chromium (total)[a]	280	1,400	21.2	25.2		**8.9**	**7.5**	**8.8**	**6.7 J-**	**19.9**	**7.6 J-**	**6.7**	**7.6**	**13.3**	**15.7**
Cobalt	23	300	12.9	13.8		**9**	**15.8**	5.6 UJ	5.1 UJ	6.3 UJ	5.7 UJ	**9.8**	**8.1**	**10.3**	**9**
Copper	3,100	41,000	31.5	35.9		**280**	**43.7**	**32.6**	**21.8**	**71.1**	**25.9**	**28.8**	**28.4**	**73.4**	**71.1**
Cyanide	1,600	20,000	NC	NC		2.9 UJ	2.7 UJ	2.8 UJ	2.5 UJ	3.1 UJ	2.8 UJ	2.8 UJ	2.9 UJ	3 UJ	3.2 UJ
Iron	55,000	720,000	24,691	25,035		**31,800**	**41,100**	**26,900**	**28,500**	**44,300**	**28,900**	**17,300**	**19,900**	**22,200**	**21,900**
Lead	400	800	103	66.1		**2,540**	**45.5**	**111**	**128**	**179**	**141**	**66.2**	**29.4**	**287**	**146**
Magnesium	NC	NC	NC	NC		**3,980 J**	**142 J**	**913**	**481 J**	**1,780**	**479 J**	**45,900 J**	**40,000 J**	**6,740 J**	**3,350 J**
Manganese	1,800	23,000	1,527	2,726		**1,280**	**87.4**	**79.7**	**36.9**	**103**	**38.4**	**683**	**601**	**1,150**	**523**
Mercury	5.6	34	1.32	1.33		**0.95**	0.12 U	**0.22**	**0.36**	**0.22**	**0.22**	**0.12**	**0.021 J**	**0.39**	**0.044 J**
Nickel	1,500	20,000	19.9	45		**19.8**	**27.8**	**7**	**2.9 J**	**12.2**	**3.6 J**	**20**	**20.1**	**30.7**	**23.5**
Potassium	NC	NC	NC	NC		**1,520**	**3,220**	**1,570**	**2,150**	**2,340**	**2,000**	**720**	**784**	**1,180**	**1,000**
Selenium	390	5,100	NC	NC		**3 J-**	**0.7 J-**	**1.1 J-**	**0.81 J-**	**1.1 J-**	**1.1 J-**	**0.55 J-**	4.1 UJ	**0.59 J-**	4.5 UJ
Silver	390	5,100	NC	NC		**4.4**	**0.89 J**	**1.2 J+**	**0.82 J+**	**1.3 J+**	**0.78 J+**	**0.86 J**	**0.85 J**	**1.6 J+**	**1 J**
Sodium	NC	NC	NC	NC		**384 J**	**633**	**411 J**	**746**	**316 J**	**746**	**159 J**	**92.9 J**	**108 J**	**129 J**
Thallium[a]	5.1	66	NC	NC		2.9 UJ	2.7 UJ	**0.37 J-**	**3.1 J-**	3.2 UJ	**1.1 J-**	2.8 UJ	2.9 UJ	**0.25 J-**	3.2 UJ
Vanadium	390	5,200	39.5	37.8		**25.5**	**22.6**	**13.1**	**7.2**	**18.9**	**8**	**14.4**	**12.2**	**21**	**28.8**
Zinc	23,000	310,000	1,310	740		**16,400**	**1,340**	**663 J**	**385 J**	**370 J**	**407 J**	**1,740**	**1,180**	**7,640**	**2,040**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB415A-08 ME3XW8 37920 10/6/2008 mg/kg 2 L2, L4 0-2	SB415B-08 ME3XW9 37920 10/6/2008 mg/kg 2 L1 4-6	SB416A-08 ME3XX0 37920 10/6/2008 mg/kg 2 L2, L3, L4 0-2	SB416B-08 ME3XX1 37920 10/6/2008 mg/kg 2 L1 8-10	SB417A-08 ME3XX2 37920 10/6/2008 mg/kg 2 L2, L3, L4 0-2	SB417B-08 ME3XX3 37920 10/6/2008 mg/kg 2 L1 6-8	SB418A-08 ME3XX4 37920 10/6/2008 mg/kg 2 L2, L3, L4 0-2	SB418B-08 ME3XX5 37920 10/6/2008 mg/kg 2 L1 8-10	SB419A-08 ME3XX6 37920 10/14/2008 mg/kg 2 L2, L3, L4 0-2	SB419B-08 ME3XX7 37920 10/14/2008 mg/kg 2 L2, L4 8-10
Aluminum	77,000	990,000	15,400	15,847		**10,200**	**16,400**	**8,170**	**9,950**	**10,700**	**13,100**	**7,360**	**14,300**	**7,140**	**8,650**
Antimony	31	410	NC	1.05		**1 J-**	7.5 UJ	**0.59 J-**	6.9 UJ	6.7 UJ	7.6 UJ	6 UJ	9.1 UJ	**7.3 J-**	**3 J-**
Arsenic	0.39	1.6	10.7	12.44		**23.4**	**10.8 J+**	**20**	**2.2 J+**	**8.6 J+**	**14.8**	**16.1**	**14.6**	**66 J**	**24.4 J**
Barium	15,000	190,000	276	274		**202**	**149**	**213**	**84.6**	**119**	**271**	**241**	**174**	**208**	**96.5**
Beryllium	160	2,000	0.81	0.878		**0.97**	**0.79**	**1**	**0.76**	**0.64**	**0.82**	**1.1**	**0.95**	**0.7**	**0.78**
Cadmium	70	800	7.1	4.68		**94.1 J**	**0.63 J+**	**40.4 J**	**0.87 J+**	**28 J**	**1.1 J+**	**76.5 J**	**22.8 J**	**93.7 J**	**57 J**
Calcium	NC	NC	NC	NC		**24,800 J**	**3,310 J**	**26,700 J**	**36,800 J**	**3,030 J**	**4,560 J**	**18,900 J**	**52,000 J**	**7,350**	**26,000**
Chromium (total)[a]	280	1,400	21.2	25.2		**14.4**	**20.2**	**12.8**	**13.4**	**14.9**	**18**	**16.1**	**20.7**	**10.2**	**14.7**
Cobalt	23	300	12.9	13.8		**15.1**	**11**	**15.3**	**7.8**	**6.5**	**18.5**	**8.5**	**16.4**	**28.1**	**18.6**
Copper	3,100	41,000	31.5	35.9		**111**	**20.8**	**144**	**17.2**	**18.1**	**19.6**	**214**	**30.9**	**563**	**520**
Cyanide	1,600	20,000	NC	NC		3.1 UJ	3.1 UJ	3 UJ	2.9 UJ	2.8 UJ	3.2 UJ	2.5 UJ	3.8 UJ	3 UJ	2.9 UJ
Iron	55,000	720,000	24,691	25,035		**23,400**	**23,100**	**35,900**	**13,700**	**15,700**	**22,500**	**34,000**	**32,200**	**34,700**	**36,400**
Lead	400	800	103	66.1		**491**	**13.7**	**1,920**	**7.8**	**76.6**	**19.8**	**520**	**23**	**3,610**	**1,260**
Magnesium	NC	NC	NC	NC		**5,600 J**	**3,270 J**	**8,960 J**	**6,520 J**	**2,010 J**	**2,950 J**	**6,620 J**	**24,000 J**	**4,520**	**9,790**
Manganese	1,800	23,000	1,527	2,726		**1,260**	**436**	**793**	**550**	**184**	**1,250**	**1,310**	**1,040**	**980**	**632**
Mercury	5.6	34	1.32	1.33		**0.11 J**	**0.055 J**	**0.095 J**	**0.019 J**	**0.039 J**	**0.051 J**	**0.21**	**0.026 J**	**0.25**	0.12 U
Nickel	1,500	20,000	19.9	45		**33.3**	**20.3**	**26.2**	**32**	**13.5**	**29.2**	**34.3**	**35.9**	**69.7**	**50.9**
Potassium	NC	NC	NC	NC		**1,430**	**747**	**1,040**	**2,560**	**867**	**1,010**	**726**	**2,280**	**551 J**	**1,060**
Selenium	390	5,100	NC	NC		**0.95 J-**	4.4 UJ	**1.6 J-**	4.1 UJ	**0.3 J-**	4.5 UJ	**1.2 J-**	5.3 UJ	**3.2 J-**	**2.1 J-**
Silver	390	5,100	NC	NC		**9.1**	**0.55 J**	**5.6**	**0.59 J**	**0.4 J**	**0.92 J**	**2.2 J+**	**1.3 J**	**8.1**	**4.2 J+**
Sodium	NC	NC	NC	NC		**319 J**	**180 J**	**310 J**	**233 J**	**46.2 J**	**89.8 J**	**116 J**	**138 J**	**166 J**	**243 J**
Thallium[a]	5.1	66	NC	NC		3.1 UJ	3.1 UJ	3 UJ	2.9 UJ	2.8 UJ	**0.26 J-**	2.5 UJ	3.8 UJ	3 UJ	2.9 UJ
Vanadium	390	5,200	39.5	37.8		**25.8**	**34.3**	**27.2**	**8.1**	**26.4**	**32.6**	**15.4**	**27.6**	**15.8**	**22.2**
Zinc	23,000	310,000	1,310	740		**13,300**	**168**	**33,200**	**116**	**2,790**	**317**	**24,200**	**2,090**	**85,300 J**	**66,300 J**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB420A-08 ME3XX8 37920 10/6/2008 mg/kg 2 L2, L3, L4 0-2	SB420B-08 ME3XX9 37920 10/6/2008 mg/kg 2 L2, L3, L4 10-12	SB421A-08 ME3XY0 37920 10/8/2008 mg/kg 4 L2, L4 0-2	SB421B-08 ME3XY1 37920 10/8/2008 mg/kg 4 L1 6-8	SB422A-08 ME3XY2 37920 10/16/2008 mg/kg 4 L1, L2 0-2	SB422B-08 ME3XY3 37920 10/16/2008 mg/kg 4 L1 8-10	SB423A-08 ME3XY4 37920 10/16/2008 mg/kg 3 L2, L3, L4 0-2	SB502A-08 ME3Y64 37920 10/16/2008 mg/kg SB423A-08 3 L2, L3, L4 0-2	SB423B-08 ME3XY5 37920 10/16/2008 mg/kg 3 L1 8-10	SB502B-08 ME3Y65 37920 10/16/2008 mg/kg SB423B-08 3 L1 8-10
Aluminum	77,000	990,000	15,400	15,847		**5,770**	**4,770**	**8,480**	**12,400**	**7,370**	**5,920**	**6,420**	**10,400**	**5,770**	**13,600**
Antimony	31	410	NC	1.05		6.4 UJ	**2.5 J-**	R	R	7.1 UJ	6.8 UJ	7.5 UJ	R	7.1 UJ	R
Arsenic	0.39	1.6	10.7	12.44		**26.9**	**34.8**	**18.7 J**	**7.7 J**	**99.1**	**7.8 J+**	**29.1**	**31 J**	**9.4 J+**	**9.3 J**
Barium	15,000	190,000	276	274		**113**	**442**	**153**	**68.8**	**159**	**25.7**	**165**	**222 J**	**30.6**	**52.6 J**
Beryllium	160	2,000	0.81	0.878		**1.4**	**1.7**	0.62 U	**0.63**	**0.74**	**0.32 J+**	**0.62**	**1.1**	**0.31 J+**	**0.72 J**
Cadmium	70	800	7.1	4.68		**66.6 J**	**56.1 J**	**52.6**	0.21 U	**93.4 J**	**0.39 J+**	**127 J**	**87.9**	**2.6 J**	0.61 U
Calcium	NC	NC	NC	NC		**3,150 J**	**18,000 J**	**4,820**	**54,200**	**6,100**	**73,300**	**11,800**	**14,000 J**	**62,100**	**58,400 J**
Chromium (total)[a]	280	1,400	21.2	25.2		**15.7**	**8.6**	**12.2**	**19.2**	**23.9**	**12**	**10.3**	**20.2**	**12.1**	**22.1**
Cobalt	23	300	12.9	13.8		**31.1**	**20.3**	**9**	**19.2**	**15.5**	**8.5**	**18.8**	**13**	**10.4**	**10.8**
Copper	3,100	41,000	31.5	35.9		**555**	**425**	**76**	**17.4**	**480 J**	**182 J**	**642 J**	**458 J**	**17.9 J**	**20 J**
Cyanide	1,600	20,000	NC	NC		2.7 UJ	3.1 UJ	3.1 U	2.8 U	3 U	2.9 U	3.1 U	3.2 UJ	2.9 U	3.1 U
Iron	55,000	720,000	24,691	25,035		**62,200**	**26,900**	**19,800**	**22,800**	**27,300**	**16,500**	**35,900**	**42,400 J**	**18,000**	**24,600 J**
Lead	400	800	103	66.1		**601**	**3,860**	**322**	**11.5**	**555 J**	**13.4 J**	**3,190 J**	**1,240 J**	**14.6 J**	**12.8 J**
Magnesium	NC	NC	NC	NC		**603 J**	**382 J**	**3,050**	**24,400**	**1,830**	**41,400**	**3,750**	**3,650**	**35,500**	**29,000**
Manganese	1,800	23,000	1,527	2,726		**299**	**220**	**658 J**	**657 J**	**430**	**359**	**422**	**1,240 J**	**444**	**351 J**
Mercury	5.6	34	1.32	1.33		**0.048 J**	**0.038 J**	**0.032 J**	0.11 U	**0.23**	**0.024 J**	**2.9**	**0.19**	**0.027 J**	0.12 U
Nickel	1,500	20,000	19.9	45		**38.4**	**31.3**	**20.7**	**39.4**	**30.8**	**22**	**23.4**	**36.7**	**24.4**	**32.3**
Potassium	NC	NC	NC	NC		**346 J**	**507 J**	**1,050**	**2,130**	**809**	**1,310**	**851**	**1,200**	**1,130**	**2,800**
Selenium	390	5,100	NC	NC		**2.9 J**	**0.48 J-**	**0.67 J-**	R	**2.1 J-**	4 UJ	**1.6 J-**	**1.1 J**	4.1 UJ	4.3 UJ
Silver	390	5,100	NC	NC		**2.9**	**2.6 J+**	**2.1 J+**	1 U	**4.2**	**0.6 J**	**4.6**	**3.6 J+**	**0.73 J**	1.2 U
Sodium	NC	NC	NC	NC		**154 J**	**190 J**	**41.4 J**	**104 J**	**170 J**	**116 J**	**318 J**	**163 J**	**87.2 J**	**126 J**
Thallium[a]	5.1	66	NC	NC		2.7 U	3.1 UJ	0.38 UJ	2.8 UJ	3 UJ	2.8 UJ	3.1 UJ	3.1 U	3 UJ	3.1 U
Vanadium	390	5,200	39.5	37.8		**25.5**	**27.9**	**20.7**	**19.2**	**24.9**	**12.3**	**12.7**	**26.1**	**10.8**	**22.2**
Zinc	23,000	310,000	1,310	740		**17,700**	**31,300**	**7,920**	**76.3**	**31,100 J**	**156 J**	**49,100 J**	**32,700 J**	**375 J**	**95.3 J**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB424A-08 ME3XY6 37920 10/16/2008 mg/kg 4 L1, L2 0-2	SB424B-08 ME3XY7 37920 10/16/2008 mg/kg 4 L1 8-10	SB425A-08 ME3XY8 37920 10/8/2008 mg/kg 4 L1 0-2	SB425B-08 ME3XY9 37920 10/8/2008 mg/kg 4 L1 8-10	SB426A-08 ME3XZ0 37920 10/16/2008 mg/kg 4 L1, L2 0-2	SB426B-08 ME3XZ1 37920 10/16/2008 mg/kg 4 L1 8-10	SB427A-08 ME3XZ2 37920 10/16/2008 mg/kg 4 L1 0-2	SB427B-08 ME3XZ3 37920 10/16/2008 mg/kg 4 L1 8-10	SB428A-08 ME3XZ4 37920 10/16/2008 mg/kg 4 L1, L2 0-2	SB428B-08 ME3XZ5 37920 10/16/2008 mg/kg 4 L1 8-10
Aluminum	77,000	990,000	15,400	15,847		**15,400**	**5,810**	**8,530**	**9,680**	**11,900**	**4,780**	**5,880**	**7,530**	**5,060**	**8,520**
Antimony	31	410	NC	1.05		7.5 UJ	6.6 UJ	R	R	7.4 UJ	7.1 UJ	7.4 UJ	6.9 UJ	6.9 UJ	7.1 UJ
Arsenic	0.39	1.6	10.7	12.44		**13.2**	**8.2 J+**	**8.1 J**	**6 J**	**9.6 J+**	**8 J+**	**10.7**	**1.6 J+**	**9.8**	**2.6 J+**
Barium	15,000	190,000	276	274		**199**	**69.5**	**165**	**32.5**	**159**	**27.3**	**160**	**30.8**	**180**	**78.8**
Beryllium	160	2,000	0.81	0.878		**0.89**	**0.34 J+**	0.58 U	0.5 U	**0.68**	**0.28 J+**	**0.61 J**	**0.63**	**0.68**	**0.95**
Cadmium	70	800	7.1	4.68		**1.7 J**	**0.3 J+**	**7.7**	0.2 U	**1.4 J**	**0.18 J+**	**44 J**	**0.12 J+**	**34.7 J**	**0.22 J+**
Calcium	NC	NC	NC	NC		**4,410**	**68,200**	**2,380**	**70,100**	**2,550**	**103,000**	**3,660**	**1,830**	**2,480**	**2,700**
Chromium (total)[a]	280	1,400	21.2	25.2		**17.5**	**11.8**	**11.2**	**16.2**	**15.7**	**10**	**8.9**	**20.3**	**7.5**	**25.5**
Cobalt	23	300	12.9	13.8		**19.4**	**7.8**	**14.3**	**11.3**	**13**	**10**	**9.8**	**8**	**12.9**	**29**
Copper	3,100	41,000	31.5	35.9		**17.1 J**	**17.3 J**	**10**	**18.3**	**13.5 J**	**16.9 J**	**45.6 J**	**5 J**	**25.3 J**	**42.9 J**
Cyanide	1,600	20,000	NC	NC		3.1 U	2.8 U	2.9 U	2.9 U	3.1 U	2.9 U	3.1 U	2.8 U	2.9 U	3 U
Iron	55,000	720,000	24,691	25,035		**22,000**	**16,700**	**15,000**	**20,200**	**18,700**	**15,500**	**11,900**	**19,100**	**10,400**	**35,200**
Lead	400	800	103	66.1		**25.6 J**	**11.2 J**	**20.1**	**14.9**	**16.5 J**	**12 J**	**232 J**	**1.9 J-**	**137 J**	**3.3 J-**
Magnesium	NC	NC	NC	NC		**3,030**	**33,200**	**1,700**	**33,700**	**2,530**	**54,600**	**1,180**	**3,340**	**1,070**	**2,930**
Manganese	1,800	23,000	1,527	2,726		**942**	**294**	**1,370 J**	**444 J**	**882**	**400**	**1,080**	**71.9**	**1,310**	**205**
Mercury	5.6	34	1.32	1.33		**0.052 J**	**0.014 J**	0.12 U	0.11 U	**0.055 J**	**0.041 J**	**0.035 J**	**0.02 J**	**0.085 J**	0.12 U
Nickel	1,500	20,000	19.9	45		**23.1**	**19.8**	**11.3**	**30.4**	**15.5**	**20**	**13.4**	**36**	**12.6**	**79.2**
Potassium	NC	NC	NC	NC		**898**	**1,110**	**517 J**	**1,990**	**725**	**1,230**	**777**	**1,570**	**889**	**1,560**
Selenium	390	5,100	NC	NC		4.4 UJ	3.9 UJ	**0.34 J-**	R	4.3 UJ	4.1 UJ	**0.48 J-**	4 UJ	**0.37 J**	4.1 UJ
Silver	390	5,100	NC	NC		**0.59 J**	**0.52 J**	0.76 U	1 U	**0.43 J**	**0.44 J**	**1.2 J**	**0.35 J**	**0.59 J-**	**0.67 J**
Sodium	NC	NC	NC	NC		**28.4 J**	**111 J**	**25.4 J**	**105 J**	**36.6 J**	**112 J**	**55.7 J**	**112 J**	**30.5 J**	**86.7 J**
Thallium[a]	5.1	66	NC	NC		3.1 UJ	2.8 UJ	0.67 UJ	2.9 UJ	3.1 UJ	2.9 UJ	3.1 UJ	2.9 UJ	2.9 U	3 UJ
Vanadium	390	5,200	39.5	37.8		**31.5**	**12.5**	**26.9**	**16.8**	**28.9**	**9.2**	**19.4**	**19.7**	**16.3**	**48.8**
Zinc	23,000	310,000	1,310	740		**970 J**	**59.5 J**	**1,090**	**61.9**	**330 J**	**54.6 J**	**5,450 J**	**54.6 J**	**4,500 J**	**65.9 J**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB429A-08 ME3XZ6 37920 10/16/2008 mg/kg 4 L1 0-2	SB429B-08 ME3XZ7 37920 10/16/2008 mg/kg 4 L1 4-6	SB430A-08 ME3XZ8 37920 10/8/2008 mg/kg 4 L1, L2, L3, L4 0-2	SB430B-08 ME3XZ9 37920 10/8/2008 mg/kg 4 L1 6-8	SB431A-08 ME3Y00 37920 10/15/2008 mg/kg 2 L2, L3, L4 0-4	SB431B-08 ME3Y01 37920 10/15/2008 mg/kg 2 L1 8-10	SB432A-08 ME3Y02 37920 10/15/2008 mg/kg 2 L2, L3, L4 0-2	SB432B-08 ME3Y03 37920 10/15/2008 mg/kg 2 L1 12-14	SB433A-08 ME3Y04 37920 10/15/2008 mg/kg 2 L2, L3, L4 0-2	SB433B-08 ME3Y05 37920 10/15/2008 mg/kg 2 L1 10-12
Aluminum	77,000	990,000	15,400	15,847		**6,330**	**8,830**	**3,660**	**13,000**	**6,670**	**11,200**	**4,130**	**9,400**	**2,730**	**13,500**
Antimony	31	410	NC	1.05		R	R	R	R	7.3 UJ	R	6.7 UJ	7.5 UJ	6.4 UJ	7.7 UJ
Arsenic	0.39	1.6	10.7	12.44		**3.1 J+**	**3.3 J+**	**38.1 J-**	**3.5 J**	**26.9**	**4.6 J+**	**34**	**3.1 J+**	**28.2**	**6.8 J+**
Barium	15,000	190,000	276	274		**45.1**	**104**	**50.4**	22.2 U	**425**	**118 J**	**576**	**20.7 J**	**207**	**112**
Beryllium	160	2,000	0.81	0.878		**1.1**	**0.52 J**	**0.94**	**1.1**	**0.8**	**0.73**	**0.56**	**0.45 J+**	**0.33 J+**	**0.99**
Cadmium	70	800	7.1	4.68		**2.1**	**0.6 J+**	**12.3**	0.16 U	**39.6 J**	0.61 U	**30 J**	**1.2 J+**	**24.3 J**	**3.8 J**
Calcium	NC	NC	NC	NC		**4,090**	**79,200**	**35,000**	**53,500**	**30,400**	**31,600 J**	**4,810**	**100,000**	**9,350**	**1,860**
Chromium (total)[a]	280	1,400	21.2	25.2		**24.4**	**18**	**8.3 J-**	**15.9**	**12**	**16.5**	**9.8**	**15.2**	**8.7**	**15.3**
Cobalt	23	300	12.9	13.8		**4 J**	**6.1**	5.3 UJ	**10.2**	**11**	**11.7**	**21.7**	**16.7**	**15**	**20.3**
Copper	3,100	41,000	31.5	35.9		**12**	**4.4**	**557**	**3.6**	**217 J**	**17.3 J**	**809 J**	**7.5 J**	**598 J**	**26.5 J**
Cyanide	1,600	20,000	NC	NC		3 U	2.9 U	3 U	2.8 U	3 U	3.1 UJ	2.8 U	3.1 U	2.7 U	3.2 U
Iron	55,000	720,000	24,691	25,035		**18,900**	**19,700**	**24,000**	**20,500**	**38,000**	**17,600 J**	**37,900**	**15,000**	**33,200**	**17,500**
Lead	400	800	103	66.1		**18**	**9**	**105**	**4.9 J-**	**2,200 J**	**6.7 J-**	**1,820 J**	**7.7 J**	**2,790 J**	**24.5 J**
Magnesium	NC	NC	NC	NC		**1,810 J**	**15,100 J**	**17,000**	**9,250**	**10,300**	**9,150**	**1,150**	**9,860**	**3,180**	**4,730**
Manganese	1,800	23,000	1,527	2,726		**149**	**2,980**	**343 J**	**822 J**	**457**	**499 J**	**108**	**1,470**	**72.9**	**486**
Mercury	5.6	34	1.32	1.33		0.015 U	**0.031 J**	**0.046 J**	0.11 U	**0.17**	**0.06 J**	**0.1 J**	**0.039 J**	**0.044 J**	**0.063 J**
Nickel	1,500	20,000	19.9	45		**15.8**	**24.8**	**16.3**	**38.5**	**19.5**	**32.9**	**31.7**	**38.2**	**20.3**	**27.3**
Potassium	NC	NC	NC	NC		**1,470**	**2,140**	**641**	**2,420**	**1,100**	**1,610**	**328 J**	**1,900**	**218 J**	**3,650**
Selenium	390	5,100	NC	NC		4.2 UJ	4.1 UJ	**0.74 J-**	R	**1.5 J-**	4.3 UJ	**3.1 J-**	4.4 UJ	**2.4 J-**	4.5 UJ
Silver	390	5,100	NC	NC		**0.49 J-**	1.2 UJ	**1.4 J+**	0.95 U	**5.6**	**0.76 J+**	**7.4**	**0.64 J**	**4.3**	**0.44 J**
Sodium	NC	NC	NC	NC		**70.6 J**	**205 J**	**212 J**	**257 J**	**395 J**	**194 J**	**136 J**	**230 J**	**69.7 J**	**776**
Thallium[a]	5.1	66	NC	NC		3 UJ	2.9 UJ	3 UJ	2.8 UJ	3 UJ	3.1 U	2.8 UJ	3.1 UJ	2.7 UJ	3.2 UJ
Vanadium	390	5,200	39.5	37.8		**25.3**	**15.1**	**13.6**	**17.1**	**18.3**	**17.7**	**12.4**	**10.4**	**8.9**	**13**
Zinc	23,000	310,000	1,310	740		**265 J**	**54 J**	**1,600**	**42.9**	**17,900 J**	**130 J**	**56,300 J**	**2,890 J**	**28,800 J**	**1,770 J**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB434A-08 ME3Y06 37920 10/15/2008 mg/kg 2 L1, L2, L4 0-2	SB503A-08 ME3Y66 37920 10/15/2008 mg/kg SB434A-08 2 L1, L2, L4 0-2	SB434B-08 ME3Y07 37920 10/15/2008 mg/kg 2 L1 8-10	SB503B-08 ME3Y67 37920 10/15/2008 mg/kg SB434B-08 2 L1 8-10	SB435A-08 ME3Y08 37920 10/15/2008 mg/kg 2 L4 2-4	SB435B-08 ME3Y09 37920 10/15/2008 mg/kg 2 L1 8-10	SB436A-08 ME3Y10 37920 10/17/2008 mg/kg 2 L1, L4 0-2	SB436B-08 ME3Y11 37920 10/17/2008 mg/kg 2 L1 8-10	SB437B1-08 ME3Y13 37920 10/9/2008 mg/kg 2 L1 2-4	SB437B2-08 ME3Y83 37920 10/9/2008 mg/kg 2 L1 6-8
Aluminum	77,000	990,000	15,400	15,847		**10,700**	**11,000**	**9,650**	**11,000**	**3,990**	**11,400**	**5,320**	**9,790**	**10,900**	**6,470**
Antimony	31	410	NC	1.05		7.5 UJ	R	6.9 UJ	R	7 UJ	R	R	R	R	R
Arsenic	0.39	1.6	10.7	12.44		**7.7 J+**	**9.5 J**	**2.3 J+**	**4.4 J**	**5.3 J+**	**2.2 J**	**1.5**	**1.8 J+**	**1.7 J**	**2.5 J**
Barium	15,000	190,000	276	274		**219**	**260 J**	**131**	**240 J**	**18.4 J**	**80.8 J**	**60.1**	**128**	**45.2**	**57.5**
Beryllium	160	2,000	0.81	0.878		**0.67**	**0.67 J**	**0.68**	**0.76 J**	**0.21 J+**	**0.79**	**0.67**	**0.71**	**1.3**	**1**
Cadmium	70	800	7.1	4.68		**1.8 J**	**1.6**	**0.27 J+**	**0.23 J**	**0.75 J+**	0.57 U	**0.14 J**	**0.24 J+**	0.071 U	0.13 U
Calcium	NC	NC	NC	NC		**6,220**	**4,560 J**	**42,800**	**39,100 J**	**160,000**	**49,400 J**	**4,080**	**50,500**	**4,830**	**56,500**
Chromium (total)[a]	280	1,400	21.2	25.2		**17.2**	**17.3**	**13.7**	**14.2**	**9.6**	**16.1**	**13.8**	**15.8**	**13.9**	**26.6**
Cobalt	23	300	12.9	13.8		**7.1**	**9.7**	**8.9**	**13.9**	5.8 UJ	**9.9**	**1.8 J**	**7.6**	**11.8**	4.8 UJ
Copper	3,100	41,000	31.5	35.9		**33.4 J**	**38.7 J**	**69.6 J**	**75.6 J**	**13.3 J**	**16.8 J**	**8.6**	**6.7**	**167**	**57.4**
Cyanide	1,600	20,000	NC	NC		3.1 U	3.1 UJ	2.9 U	2.9 UJ	3 U	2.8 UJ	3 U	2.9 U	3 U	3 U
Iron	55,000	720,000	24,691	25,035		**18,800**	**21,000 J**	**11,000**	**13,500 J**	**9,100**	**17,200 J**	**9,880**	**12,000**	**13,800**	**31,400**
Lead	400	800	103	66.1		**62.4 J**	**28.7 J**	**8.8 J**	**9.5 J**	**13.9 J**	**4.3 J-**	**9.3**	**7.2**	**3.3 J-**	**13.6**
Magnesium	NC	NC	NC	NC		**4,230**	**4,310**	**9,250**	**8,190**	**68,900**	**12,200**	**2,290 J**	**14,100 J**	**6,870**	**4,670**
Manganese	1,800	23,000	1,527	2,726		**634**	**746 J**	**740**	**800 J**	**468**	**428 J**	**22.3**	**1,270**	**89.3 J**	**64.2 J**
Mercury	5.6	34	1.32	1.33		**0.048 J**	**0.027 J**	0.11 U	**0.052 J**	**0.017 J**	0.11 U	**0.023 J**	**0.017 J**	0.12 U	0.12 U
Nickel	1,500	20,000	19.9	45		**28.8**	**27.8**	**28.9**	**32.8**	**9.9**	**39.2**	**6.5**	**29.3**	**55.5**	**17.8**
Potassium	NC	NC	NC	NC		**942**	**982**	**2,900**	**3,430**	**847**	**2,530**	**1,760**	**3,010**	**2,450**	**1,610**
Selenium	390	5,100	NC	NC		4.4 UJ	4.4 UJ	4 UJ	4 UJ	4.1 UJ	4 UJ	4.2 U	4 UJ	R	R
Silver	390	5,100	NC	NC		**0.53 J**	1.3 U	**0.49 J**	0.73 UJ	**0.15 J**	1.1 U	**0.25 J**	1.1 UJ	0.64 U	1.1 U
Sodium	NC	NC	NC	NC		**634**	**599 J**	**370 J**	**372 J**	**161 J**	**268 J**	**351 J**	**301 J**	**319 J**	**255 J**
Thallium[a]	5.1	66	NC	NC		3.1 UJ	3.2 U	2.9 UJ	2.9 U	2.9 UJ	2.8 U	3 U	2.9 UJ	3 UJ	3 UJ
Vanadium	390	5,200	39.5	37.8		**21.2**	**27.2**	**8.1**	**14.7**	**15.1**	**12.5**	**8.6**	**9.3**	**19.6**	**44.6**
Zinc	23,000	310,000	1,310	740		**889 J**	**880 J**	**139 J**	**65 J**	**241 J**	**61.6 J**	**16.6 J**	**37.4 J**	**48.6**	**32.9**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB438A-08 ME3Y14 37920 10/17/2008 mg/kg 2 L1, L4 0-2	SB438B-08 ME3Y15 37920 10/17/2008 mg/kg 2 L1 6-8	SB439A-08 ME3Y16 37920 10/17/2008 mg/kg 2 L2, L3, L4 0-4	SB439B-08 ME3Y17 37920 10/17/2008 mg/kg 2 L1 10-12	SB440A-08 ME3Y18 37920 10/15/2008 mg/kg 2 L2, L3, L4 0-2	SB440B-08 ME3Y19 37920 10/15/2008 mg/kg 2 L2, L4 8-10	SB441A-08 ME3Y20 37920 10/17/2008 mg/kg 4 L1 0-2	SB441B-08 ME3Y21 37920 10/17/2008 mg/kg 4 L1 6-8	SB442A-08 ME3Y22 37920 10/16/2008 mg/kg 4 L1, L3 0-2	SB442B-08 ME3Y23 37920 10/16/2008 mg/kg 4 L1 8-10
Aluminum	77,000	990,000	15,400	15,847		**5,390**	**10,200**	**7,890**	**10,900**	**2,590**	**7,770**	**13,800**	**9,300**	**5,500**	**14,600**
Antimony	31	410	NC	1.05		**1.8 J-**	R	R	R	R	R	R	R	R	R
Arsenic	0.39	1.6	10.7	12.44		**8.2 J+**	**2.9 J+**	**7.9 J+**	**3 J+**	**34.3 J**	**38.5 J**	**6.5 J+**	**58.5**	**8.8**	**4 J+**
Barium	15,000	190,000	276	274		**110**	**76.4**	**175**	**149**	**324 J**	**61.4 J**	**137**	23.9 U	**92.4**	**31.1**
Beryllium	160	2,000	0.81	0.878		**0.91**	**0.91**	**0.61 J**	**0.74**	**0.43 J+**	**0.6 J**	**0.95**	**0.49 J+**	**0.65**	**0.87**
Cadmium	70	800	7.1	4.68		**35.4**	**0.37 J+**	**11.2**	**0.23 J+**	**76.7**	**81.6**	**15.3**	**0.92 J+**	**50.7**	**0.29 J+**
Calcium	NC	NC	NC	NC		**6,740**	**73,800**	**11,300**	**42,400**	**7,870 J**	**40,300 J**	**23,700**	**5,880**	**14,600**	**4,170**
Chromium (total)[a]	280	1,400	21.2	25.2		**8.4**	**19.6**	**13.6**	**18.6**	**7.3**	**9.4**	**26.6**	**22.8**	**10.8**	**37.9**
Cobalt	23	300	12.9	13.8		**1.5 J**	**8**	**7.7**	**7.4**	**24.7**	**27.2**	**14.6**	**17.1**	**8.5**	**15.8**
Copper	3,100	41,000	31.5	35.9		**163**	**2,270**	**92.2**	**13.6**	**797 J**	**189 J**	**24.3**	**52.5**	**56**	**6.6**
Cyanide	1,600	20,000	NC	NC		**2,840**	**1,230**	3.1 U	2.9 U	2.6 UJ	3.1 UJ	3 U	3 U	3.1 U	2.8 U
Iron	55,000	720,000	24,691	25,035		**19,800**	**15,900**	**15,200**	**16,200**	**44,900 J**	**29,700 J**	**25,800**	**29,200**	**12,500**	**37,100**
Lead	400	800	103	66.1		**695**	**5.7**	**432**	**5.8**	**101 J**	**10,700 J**	**56**	**47.8**	**182**	**5.1**
Magnesium	NC	NC	NC	NC		**3,340 J**	**18,200 J**	**2,990 J**	**8,800 J**	**2,380**	**6,220**	**6,510 J**	**5,720 J**	**2,320 J**	**8,350 J**
Manganese	1,800	23,000	1,527	2,726		**197**	**2,780**	**342**	**1,180**	**188 J**	**1,090 J**	**764**	**171**	**669**	**268**
Mercury	5.6	34	1.32	1.33		**0.051 J**	0.12 U	**0.068 J**	**0.018 J**	0.11 U	**0.036 J**	**0.044 J**	**0.056 J**	**0.13**	0.11 U
Nickel	1,500	20,000	19.9	45		**1.7 J**	**29.2**	**12.3**	**28**	**47.5**	**43.4**	**45.2**	**33.7**	**18.9**	**47.6**
Potassium	NC	NC	NC	NC		**12,100**	**6,080**	**1,020**	**3,650**	**261 J**	**1,670**	**2,090**	**2,960**	**1,670**	**1,540**
Selenium	390	5,100	NC	NC		**16.1**	**3.2 J-**	**0.67 J-**	4.1 UJ	**2.7 J**	**1.6 J**	4.2 UJ	4.2 UJ	**1.4 J-**	3.9 UJ
Silver	390	5,100	NC	NC		1.2 UJ	1.2 UJ	1.2 UJ	1.2 UJ	**3.6 J+**	**22.7**	1.2 UJ	1.2 UJ	1.2 UJ	1.1 UJ
Sodium	NC	NC	NC	NC		**3,080**	**1,500**	**74.7 J**	**399 J**	**97.3 J**	**253 J**	**151 J**	**1,040**	**98.9 J**	**481 J**
Thallium[a]	5.1	66	NC	NC		3.1 UJ	2.9 UJ	3.1 UJ	2.9 UJ	2.6 UJ	3.1 UJ	3 UJ	3 UJ	3.1 UJ	2.8 UJ
Vanadium	390	5,200	39.5	37.8		**10.7**	**19.2**	**27.8**	**12.6**	**6.4**	**12.6**	**26.2**	**10.4**	**13.1**	**45.2**
Zinc	23,000	310,000	1,310	740		**34,100 J**	**34.5 J**	**4,490 J**	**34.8 J**	**34,900 J**	**56,900 J**	**1,600 J**	**105 J**	**4,560 J**	**78 J**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID	SB443A-08	SB443B-08	SB444A-08	SB504A-08	SB444B-08	SB504B-08	SB445A-08	SB445B-08	SB446A-08	SB446B-08
					Sample ID	ME3Y24	ME3Y25	ME3Y26	ME3Y68	ME3Y27	ME3Y69	ME3Y28	ME3Y29	ME3Y30	ME3Y31
					Case	37920	37920	37920	37920	37920	37920	37920	37920	37920	37920
					Sampling date	10/16/2008	10/16/2008	10/16/2008	10/16/2008	10/16/2008	10/16/2008	10/16/2008	10/16/2008	10/14/2008	10/14/2008
					Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
					Duplicate info				SB444A-08		SB444B-08				
					Investigation area	4	4	4	4	4	4	4	4	4	4
					Lithology	L1	L1	L2, L4	L2, L4	L2, L4	L2, L4	L1	L1	L1	L1
					Depth (ft bgs)	0-2	4-6	0-2	0-2	8-10	8-10	0-2	6-8	0-2	8-10
Aluminum	77,000	990,000	15,400	15,847		**10,000**	**10,400**	**11,800**	**10,900**	**8,630**	**11,400**	**9,760**	**10,200**	**9,930**	**10,300**
Antimony	31	410	NC	1.05		R	R	R	R	R	R	R	R	R	R
Arsenic	0.39	1.6	10.7	12.44		**13**	**12.4**	**7.5**	**6.3**	**8.5**	**7.2**	**11.7**	**5.7**	**7.8 J+**	**6.4 J+**
Barium	15,000	190,000	276	274		**130**	**82.2**	**43.1**	**40.9**	**105**	**101**	**100**	**106**	**163**	**152**
Beryllium	160	2,000	0.81	0.878		**0.94**	**0.94**	**1.5**	**1.2**	**1.2**	**0.89**	**0.92**	**0.77**	**0.98**	**0.85**
Cadmium	70	800	7.1	4.68		**1.3 J+**	**0.75 J+**	**4.5**	**5**	**8.7**	**2.8**	**21.9**	**0.73**	**0.71 J+**	0.62 UJ
Calcium	NC	NC	NC	NC		**28,200**	**54,800**	**28,500**	**29,300**	**45,700**	**35,800**	**49,400**	**22,100**	**58,200**	**29,100**
Chromium (total)[a]	280	1,400	21.2	25.2		**24.1**	**19.5**	**16.7**	**13.8**	**15.3**	**21.1**	**17.6**	**20.6**	**12.3**	**14.1**
Cobalt	23	300	12.9	13.8		**20.7**	**15.9**	**14**	**15.6**	**13.9**	**12.7**	**17.1**	**14.6**	**19.5**	**12.8**
Copper	3,100	41,000	31.5	35.9		**95.1**	**35.9**	**65.6**	**51.7**	**62.1**	**24.4**	**54.1**	**20.6**	**36.1**	**42.5**
Cyanide	1,600	20,000	NC	NC		3.1 U	3 U	3.1 U	3.6 U	2.9 U	3 U	3.2 U	3.1 U	3.2 UJ	3.1 UJ
Iron	55,000	720,000	24,691	25,035		**23,100**	**18,800**	**22,500**	**17,500**	**23,700**	**21,900**	**18,200**	**20,300**	**15,500**	**17,100**
Lead	400	800	103	66.1		**31.3**	**25.4**	**19.7**	**19.1**	**113**	**25.5**	**103**	**9.8**	**23.1**	**14.2**
Magnesium	NC	NC	NC	NC		**5,240 J**	**8,000 J**	**4,080 J**	**4,010 J**	**6,860 J**	**7,630 J**	**7,990 J**	**5,510 J**	**5,730**	**6,000**
Manganese	1,800	23,000	1,527	2,726		**840**	**1,130**	**370 J**	**472 J**	**1,150 J**	**1,200 J**	**1,400 J**	**1,090 J**	**1,050**	**498**
Mercury	5.6	34	1.32	1.33		**0.042 J**	**0.047 J**	**0.018 J**	**0.015 J**	**0.051 J**	**0.15**	**0.074 J**	0.12 U	0.13 U	0.12 U
Nickel	1,500	20,000	19.9	45		**35.3**	**38.6**	**41**	**41.1**	**29.3**	**36.6**	**40.1**	**32.7**	**45**	**35.1**
Potassium	NC	NC	NC	NC		**2,080**	**1,810**	**2,000**	**1,940**	**1,830**	**2,160**	**2,320**	**1,960**	**1,440**	**1,870**
Selenium	390	5,100	NC	NC		4.3 UJ	**1.3 J+**	**0.59 J**	4.2 U	4.1 UJ	**1.1 J**	4.4 UJ	4.3 U	4.5 UJ	4.3 UJ
Silver	390	5,100	NC	NC		1.2 UJ	1.2 UJ	0.35 UJ	0.27 UJ	0.35 UJ	0.28 UJ	0.45 UJ	0.42 UJ	1.3 U	1.2 U
Sodium	NC	NC	NC	NC		**142 J**	**258 J**	**144 J**	**92.1 J**	**304 J**	**252 J**	**236 J**	**266 J**	**223 J**	**515 J**
Thallium[a]	5.1	66	NC	NC		3.1 UJ	3 UJ	3.1 U	3 U	2.9 U	3 U	3.2 U	3.1 U	3.2 UJ	3.1 UJ
Vanadium	390	5,200	39.5	37.8		**22.2**	**16.2**	**20.1**	**16.1**	**17.3**	**16.1**	**18.2**	**17.9**	**14.2**	**11.8**
Zinc	23,000	310,000	1,310	740		**145 J**	**124 J**	**634 J**	**727 J**	**1,350 J**	**423 J**	**2,610 J**	**95.2 J**	**443 J**	**135 J**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB447A-08 ME3Y32 37920 10/14/2008 mg/kg 4 L1 0-2	SB447B-08 ME3Y33 37920 10/14/2008 mg/kg 4 L1 6-8	SB448A-08 ME3Y34 37920 10/14/2008 mg/kg 4 L1 0-2	SB448B-08 ME3Y35 37920 10/14/2008 mg/kg 4 L1 8-10	SB449A-08 ME3Y36 37920 10/14/2008 mg/kg 4 L1 0-2	SB449B-08 ME3Y37 37920 10/14/2008 mg/kg 4 L1 8-10	SB450A-08 ME3Y38 37920 10/14/2008 mg/kg 4 L3, L4 0-2	SB450B-08 ME3Y39 37920 10/14/2008 mg/kg 4 L1 8-10	SB451A-08 ME3Y40 37920 10/7/2008 mg/kg 3 L1, L3, L4 0-2	SB451B-08 ME3Y41 37920 10/7/2008 mg/kg 3 L1 10-12
Aluminum	77,000	990,000	15,400	15,847		**8,990**	**11,800**	**7,580**	**9,060**	**9,350**	**11,900**	**8,950**	**8,110**	**6,200**	**9,030**
Antimony	31	410	NC	1.05		R	R	R	R	R	R	R	R	7.4 UJ	6.8 UJ
Arsenic	0.39	1.6	10.7	12.44		**13 J**	**2.5 J+**	**4.4 J+**	**14.7 J**	**7.2 J+**	**2.7 J+**	**129 J**	**10.8 J**	**6.2**	**6.7 J+**
Barium	15,000	190,000	276	274		**119**	**22.2 J**	**128**	**278**	**98.9**	**36.9**	**50.8**	**80.1**	**106**	**86.6**
Beryllium	160	2,000	0.81	0.878		**1**	**0.61**	**0.8**	**0.71**	**1.1**	**1.6**	**1.5**	**1**	0.61 U	0.57 U
Cadmium	70	800	7.1	4.68		0.63 UJ	0.56 UJ	0.58 UJ	**1.4 J**	**0.67 J+**	0.58 UJ	**1.9 J**	0.54 UJ	**15 J**	**2.8 J**
Calcium	NC	NC	NC	NC		**24,200**	**24,400**	**3,330**	**30,200**	**38,000**	**42,400**	**46,100**	**13,200**	**1,590**	**66,700**
Chromium (total)[a]	280	1,400	21.2	25.2		**11.1**	**17.6**	**14.5**	**14.8**	**7.4 J-**	**13.1**	**11**	**8.5 J-**	**8.9**	**16.2**
Cobalt	23	300	12.9	13.8		**23.1**	**13.3**	**10.5**	**79.5**	**14**	**8.7**	**51.1**	**14.1**	**7**	**10.5**
Copper	3,100	41,000	31.5	35.9		**29.2**	**5.3**	**108**	**29.4**	**17.4**	**17.2**	**55.2**	**47.6**	**16**	**17.4**
Cyanide	1,600	20,000	NC	NC		3.2 UJ	2.8 UJ	2.9 UJ	3 UJ	3.3 UJ	2.9 UJ	3.1 UJ	2.7 UJ	3.1 UJ	2.8 UJ
Iron	55,000	720,000	24,691	25,035		**17,200**	**21,100**	**15,600**	**21,000**	**14,600**	**13,600**	**31,100**	**15,100**	**9,810 J**	**18,900 J**
Lead	400	800	103	66.1		**36**	**2.7 J-**	**12**	**159**	**17.1**	**3.7 J-**	**122**	**19.8**	**80.6**	**12.3**
Magnesium	NC	NC	NC	NC		**4,060**	**6,800**	**2,270**	**5,430**	**3,490**	**8,560**	**4,030**	**2,660**	**1,370**	**34,400**
Manganese	1,800	23,000	1,527	2,726		**575**	**384**	**243**	**2,000**	**322**	**329**	**671**	**308**	**319**	**448**
Mercury	5.6	34	1.32	1.33		0.13 U	0.11 U	0.11 U	0.13 U	0.13 U	0.11 U	0.12 U	0.11 U	0.12 U	0.11 U
Nickel	1,500	20,000	19.9	45		**40.6**	**42.5**	**25.9**	**91.6**	**32.8**	**36.3**	**60.1**	**22.9**	**8.1**	**29.2**
Potassium	NC	NC	NC	NC		**1,230**	**1,410**	**1,370**	**1,760**	**666**	**1,870**	**1,630**	**1,300**	**592 J**	**1,790**
Selenium	390	5,100	NC	NC		4.4 UJ	3.9 UJ	4 UJ	**1.4 J-**	4.5 UJ	4.1 UJ	**1.8 J-**	3.8 UJ	**0.39 J**	4 UJ
Silver	390	5,100	NC	NC		1.3 U	**0.71 J+**	**0.49 J**	**1.3 J+**	**0.63 J**	**0.61 J**	**1.9 J+**	**0.59 J**	**0.3 J-**	**0.61 J**
Sodium	NC	NC	NC	NC		**119 J**	**198 J**	**48.4 J**	**203 J**	**59.5 J**	**763**	**502 J**	**122 J**	**50.5 J**	**145 J**
Thallium[a]	5.1	66	NC	NC		3.1 UJ	2.8 UJ	2.9 UJ	**1 J-**	3.2 UJ	2.9 UJ	3.1 UJ	2.7 UJ	3.1 U	2.8 UJ
Vanadium	390	5,200	39.5	37.8		**11.2**	**18.4**	**20.5**	**13.2**	**7.4**	**13.6**	**17.9**	**11.7**	**15.4**	**15.7**
Zinc	23,000	310,000	1,310	740		**145 J**	**66.6 J**	**69.4 J**	**462 J**	**90.7 J**	**26.3 J**	**428 J**	**48.2 J**	**1,150 J**	**108 J**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB452A-08 ME3Y42 37920 10/7/2008 mg/kg 3 L1, L3, L4 0-2	SB505A-08 ME3Y70 37920 10/7/2008 mg/kg SB452A-08 3 L1, L3, L4 0-2	SB452B-08 ME3Y43 37920 10/7/2008 mg/kg 3 L1 6-8	SB505B-08 ME3Y71 37920 10/7/2008 mg/kg SB452B-08 3 L1 6-8	SB453A-08 ME3Y44 37920 10/7/2008 mg/kg 3 L1, L2, L3, L4 0-2	SB453B-08 ME3Y45 37920 10/7/2008 mg/kg 3 L1 10-12	SB454A-08 ME3Y46 37920 10/7/2008 mg/kg 3 L2, L3, L4 0-2	SB454B-08 ME3Y47 37920 10/7/2008 mg/kg 3 L2, L3 6-8	SB455A-08 ME3Y48 37920 10/7/2008 mg/kg 3 L1, L4 0-2	SB455B-08 ME3Y49 37920 10/7/2008 mg/kg 3 L2, L3, L4 10-12
Aluminum	77,000	990,000	15,400	15,847		**11,500**	**8,640**	**10,500**	**12,000**	**10,500**	**10,600**	**5,340**	**1,650**	**11,400**	**7,380**
Antimony	31	410	NC	1.05		7.3 UJ	7 UJ	7.2 UJ	7.2 UJ	**5.9 J-**	7.2 UJ	**15.6 J**	7 UJ	7.2 UJ	**0.46 J-**
Arsenic	0.39	1.6	10.7	12.44		**9.2 J+**	**9 J+**	**8.3 J+**	**8.6 J+**	**159**	**4.9**	**176**	**36**	**10 J+**	**29.9**
Barium	15,000	190,000	276	274		**101**	**59.4**	**58.4**	**70.3**	**158**	**246**	**220**	**108**	**108**	**205**
Beryllium	160	2,000	0.81	0.878		0.61 U	0.58 UJ	0.6 U	**0.63**	**0.94**	**0.68**	**0.6**	0.58 UJ	**0.66**	**1.3**
Cadmium	70	800	7.1	4.68		0.61 UJ	0.58 UJ	0.6 UJ	0.21 UJ	**34.3 J**	0.6 UJ	**98.3 J**	**5.8 J**	**13.2 J**	**14.8**
Calcium	NC	NC	NC	NC		**53,600**	**52,600**	**57,000**	**56,200**	**2,500**	**36,600**	**19,400**	**5,210**	**21,600**	**4,800**
Chromium (total)[a]	280	1,400	21.2	25.2		**19.4**	**14.9**	**18.7**	**21.2**	**16.1**	**14.6**	**10.7 J-**	**14.8**	**14.9**	**7.8**
Cobalt	23	300	12.9	13.8		**12.1**	**11.5**	**12**	**11**	**22**	**7.9**	**27.4**	**7.8**	**11.8**	**25.8**
Copper	3,100	41,000	31.5	35.9		**19.4**	**17.8**	**18.9**	**21.2**	**1,820**	**53.5**	**1,710**	**375**	**41.8**	**259**
Cyanide	1,600	20,000	NC	NC		3 UJ	2.9 UJ	3 UJ	3 U	3.1 UJ	3 UJ	2.9 UJ	2.9 UJ	3 UJ	3.1 UJ
Iron	55,000	720,000	24,691	25,035		**22,300 J**	**19,700 J**	**21,300 J**	**22,500**	**41,200 J**	**12,700 J**	**49,200 J**	**38,900 J**	**17,200**	**15,300 J**
Lead	400	800	103	66.1		**13.9**	**13.9**	**13.1**	**13.7**	**1,650**	**46.9**	**6,330**	**5,120**	**287**	**1,800**
Magnesium	NC	NC	NC	NC		**30,100**	**33,000**	**28,800**	**28,800**	**1,240**	**5,410**	**1,390**	582 U	**4,670**	**1,030**
Manganese	1,800	23,000	1,527	2,726		**421**	**443 J+**	**469**	**327**	**1,090**	**730 J+**	**1,300 J+**	**45**	**637 J+**	**211**
Mercury	5.6	34	1.32	1.33		0.12 U	**0.12**	0.12 U	0.13 U	**2.8**	0.11 U	**10.7**	**0.18**	**0.31**	0.12 U
Nickel	1,500	20,000	19.9	45		**32.5**	**28**	**32.4**	**29.8**	**20.5**	**30**	**58**	**9.4**	**22.3**	**40.6**
Potassium	NC	NC	NC	NC		**1,460**	**1,180**	**1,570**	**1,900**	**611 J**	**3,140**	**733**	**336 J**	**1,570**	**1,440**
Selenium	390	5,100	NC	NC		4.3 UJ	4.1 UJ	4.2 U	4.2 UJ	**1.8 J-**	4.2 U	**8.4**	**2.7 J-**	4.2 U	**2.5 J-**
Silver	390	5,100	NC	NC		**0.83 J**	**0.76 J**	**0.75 J**	**0.81 J**	**18.4**	**1.2**	**32.3**	**10**	**0.86 J**	**1.7**
Sodium	NC	NC	NC	NC		**95.3 J**	**91.6 J**	**103 J**	**113 J**	**235 J**	**191 J**	**341 J**	**135 J**	**81.9 J**	**700**
Thallium[a]	5.1	66	NC	NC		3 UJ	2.9 UJ	3 UJ	3 UJ	3.1 UJ	3 U	2.9 UJ	2.9 UJ	3 U	**3 J**
Vanadium	390	5,200	39.5	37.8		**18.6**	**14.2**	**17**	**20**	**17.2**	**6.3 J**	**14.5**	**13**	**18.9**	**24.3**
Zinc	23,000	310,000	1,310	740		**1,110 J**	**260 J**	**62.9 J**	**84.1 J**	**23,000 J**	**676 J**	**50,100 J**	**3,790 J**	**4,990 J**	**17,400 J**

Table 4.2.2-1a
Detected Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Subsurface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB456A-08 ME3Y50 37920 10/6/2008 mg/kg 3 L2, L3, L4 0-2	SB456B-08 ME3Y51 37920 10/6/2008 mg/kg 3 L2, L3, L4 6-8	SB457A-08 ME3Y52 37920 10/6/2008 mg/kg 3 L2, L4 0-2	SB457B-08 ME3Y53 37920 10/6/2008 mg/kg 3 L2, L3, L4 10-12	SB458A-08 ME3Y54 37920 10/7/2008 mg/kg 3 L2, L3, L4 0-2	SB458B-08 ME3Y55 37920 10/7/2008 mg/kg 3 L1 10-12	SB459A-08 ME3Y56 37920 10/14/2008 mg/kg 3 L2, L4 0-2	SB459B-08 ME3Y57 37920 10/14/2008 mg/kg 3 L4 4-6	SB460A-08 ME3Y58 37920 10/7/2008 mg/kg 3 L2, L3, L4 0-2	SB460B-08 ME3Y59 37920 10/7/2008 mg/kg 3 L1 6-8
Aluminum	77,000	990,000	15,400	15,847		**7,970**	**5,150**	**9,410**	**6,810**	**7,000**	**11,800**	**9,950**	**2,870**	**9,060**	**14,600**
Antimony	31	410	NC	1.05		**3.8 J-**	**5 J**	6.2 UJ	**1.9 J-**	7.5 UJ	7.5 UJ	**3.5 J-**	**2.8 J-**	7.7 UJ	6.7 UJ
Arsenic	0.39	1.6	10.7	12.44		**59.8**	**48.8**	**5.4 J+**	**43.6**	**23.8**	**17.3**	**21.6 J**	**4.2 J+**	**21.9**	**3.5 J+**
Barium	15,000	190,000	276	274		**327**	**306**	**40.1**	**283**	**169**	24.9 UJ	**265**	**43.7**	**149**	**28.8**
Beryllium	160	2,000	0.81	0.878		**1.2**	**0.69**	0.52 U	**1**	**1.2**	**0.81**	**2.5**	0.51 U	**1.1**	**0.74**
Cadmium	70	800	7.1	4.68		**305 J**	**85.8 J**	**15.6 J**	**426 J**	**60.8 J**	**3.7 J**	**64.8 J**	**38.9 J**	**73.5 J**	0.56 UJ
Calcium	NC	NC	NC	NC		**39,800 J**	**5,720 J**	**46,400 J**	**20,000 J**	**6,270**	**52,400**	**92,500**	**167,000**	**26,000**	**7,810**
Chromium (total)[a]	280	1,400	21.2	25.2		**15.9**	**12.4**	**13.4**	**12.2**	**27.2 J-**	**19.9 J-**	**19.8**	**3.9 J-**	**13.3 J-**	**30.9 J-**
Cobalt	23	300	12.9	13.8		**30.4**	**25.4**	**13.4**	**43.8**	**13.9**	**15.5**	**20.7**	**6.8**	**19.8**	**13.9**
Copper	3,100	41,000	31.5	35.9		**679**	**656**	**29.1**	**382**	**314**	**22.7 J-**	**265**	**49.7**	**56.3**	**6.1 J-**
Cyanide	1,600	20,000	NC	NC		3.4 UJ	3 UJ	2.6 UJ	3.6 UJ	3.1 UJ	3.1 UJ	**2.2 J**	2.6 UJ	3.2 UJ	2.8 UJ
Iron	55,000	720,000	24,691	25,035		**52,900**	**44,400**	**13,500**	**47,400**	**87,000 J**	**20,500 J**	**32,600**	**4,660**	**36,200 J**	**34,500 J**
Lead	400	800	103	66.1		**2,410**	**3,590**	**180**	**3,720**	**2,240**	**52.6**	**1,480**	**129**	**1,210**	**5.4 J-**
Magnesium	NC	NC	NC	NC		**2,250 J**	**988 J**	**7,820 J**	**2,850 J**	**781**	**5,680**	**38,700**	**112,000**	**11,900**	**8,470**
Manganese	1,800	23,000	1,527	2,726		**5,720**	**361**	**1,090**	**661**	**233 J+**	**504**	**996**	**122**	**528 J+**	**304 J+**
Mercury	5.6	34	1.32	1.33		**2.3**	**1.5**	**0.043 J**	**1.2**	**0.16**	0.12 UJ	**1.5**	0.11 U	0.12 UJ	0.11 U
Nickel	1,500	20,000	19.9	45		**62.7**	**45.4**	**43.7**	**47.1**	**29.4**	**50.9**	**45.7**	**9.6**	**42.3**	**46.2**
Potassium	NC	NC	NC	NC		**860**	**283 J**	**1,560**	**710 J**	**1,220**	**1,970**	**1,570**	**361 J**	**1,060**	**1,620**
Selenium	390	5,100	NC	NC		**5.4**	**4.9**	3.6 UJ	**3.8 J-**	**3 J**	**0.72 J**	**0.9 J-**	3.6 UJ	**1 J-**	3.9 UJ
Silver	390	5,100	NC	NC		**9.4**	**6.5**	**0.93 J**	**11**	**3.9**	**0.91 J+**	**6.3**	**0.49 J**	**6.9**	**0.8 J+**
Sodium	NC	NC	NC	NC		**298 J**	**60.7 J**	**150 J**	**107 J**	**264 J**	**215 J**	**262 J**	**146 J**	**145 J**	**356 J**
Thallium[a]	5.1	66	NC	NC		**0.97 J-**	3 UJ	2.6 UJ	3.6 UJ	3.1 U	3.1 UJ	4.8 UJ	2.6 UJ	3.2 UJ	2.8 UJ
Vanadium	390	5,200	39.5	37.8		**20.5**	**12.6**	**9.8**	**20.5**	**47**	**13.4**	**31.4**	**10**	**18.5**	**36.4**
Zinc	23,000	310,000	1,310	740		**64,500**	**98,100**	**3,080**	**60,500**	**13,300**	**736**	**20,300 J**	**9,850 J**	**20,500**	**91.2**

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.2-1

Notes:
Bold values indicate a detection
Yellow shaded cells indicate a residential RSL exceedance
Red shaded cells indicate an industrial RSL and residential RSL exceedance
Gray shaded cells indicate an industrial or residential RSL exceedance but below the BTV

µg/L	Microgram per liter
µg/kg	Microgram per kilogram
mg/kg	Milligram per kilogram
A	Indicates surface soil sample
B	Indicates subsurface soil sample
bgs	Below ground surface
BTV	Background threshold value
CLP	Contract laboratory program
CFR	Code of Federal Regulations
ft	Feet
GWSV	Groundwater screening value
ID	Identification
info	Information
J	Estimated result
J-	Underestimated result
J+	Overestimated result
MCL	Maximum contaminant level (EPA)
NC	No criteria available
PCB	Polychlorinated biphenyls
ppm	Part per million
R	Rejected result
RL	Regulatory Level (CFR)
RSL	Regional Screening Level (EPA)
SB	Soil boring
SPLP	Synthetic precipitation leaching procedure
SV	Screening value
SVOC	Semivolatile organic compounds
Tap	Tap water screening criteria (EPA)
TCLP	Toxicity Characteristic Leaching Procedure (CFR)
U	Non-detect result
UJ	Non-detected and estimated result
VOC	Volatile organic compounds

a	Analyte is compared to the April 2009 residential and industrial RSLs
b	Sample was not analyzed at the CLP laboratory. The sample ID number is the soil boring location followed by the sample depth then "A" if the sample was a duplicate sample
--	Not applicable

Lithology Definitions:

L1	Native soils
L2	Slag
L3	Sinter
L4	Fill materials

Table 4.2.2-1b
Detected XRF-Screened Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Surface BTV (mg/kg)	poly_1_001 7/29/2008 mg/kg 3	poly_1_002 7/29/2008 mg/kg 3	poly_1_003 7/29/2008 mg/kg 3	poly_1_006 ME3X38 37722 7/29/2008 mg/kg 3	poly_1_008 7/29/2008 mg/kg 3	poly_1_010 ME3X39 37722 7/29/2008 mg/kg 3	poly_1_012 ME3X40 37722 7/29/2008 mg/kg 3	poly_1_013 ME3X41 37722 7/29/2008 mg/kg 3	poly_1_015 7/29/2008 mg/kg 3	poly_1_017 7/29/2008 mg/kg 3	poly_1_020 7/29/2008 mg/kg 3	poly_1_022 7/29/2008 mg/kg 3
Aluminum	77,000	990,000	15,400	--	--	--	**7,820**	--	**4,040**	**7,130**	**5,080**	--	--	--	--
Antimony	31	410	NC	--	--	--	**10 J**	--	7.1 UJ	7.4 UJ	**1.7 J+**	--	--	--	--
Arsenic	0.39	1.6	10.7	10 U	10 U	10 U	**64.4 J**	10 U	**2.9 J**	**4.3 J**	**17 J**	10 U	10 U	10 U	10 U
Barium	15,000	190,000	276	--	--	--	**183**	--	**51.6**	**57.7**	**123**	--	--	--	--
Beryllium	160	2,000	0.81	--	--	--	**0.74 J+**	--	**1.3**	**0.66 J+**	**0.64 J+**	--	--	--	--
Cadmium	70	800	7.1	**270.65**	**82.79**	50 U	**108**	**268.92**	**9.9**	**9.1**	**47.2**	**144.50**	**293.38**	**254.61**	**157.88**
Calcium	NC	NC	NC	--	--	--	**8,040**	--	**4,210**	**30,700**	**21,300**	--	--	--	--
Chromium (total)[a]	280	1400	21.2	--	--	--	**14**	--	**7.9**	**11.9**	**8.8**	--	--	--	--
Cobalt	23	300	12.9	--	--	--	**8.8**	--	**8.5**	**10.8**	**11.7**	--	--	--	--
Copper	3,100	41,000	31.5	--	--	--	**496**	--	**82.7**	**56.3**	**119**	--	--	--	--
Cyanide	1,600	20,000	NC	--	--	--	3.1 UJ	--	3 UJ	3.1 UJ	3 UJ	--	--	--	--
Iron	55,000	720,000	24,691	--	--	--	**27,100**	--	**5,920**	**12,100**	**13,700**	--	--	--	--
Lead	400	800	103	**1,575.67**	**369.52**	**122.05**	**25,500**	**1,390.35**	**46.8**	**128**	**259**	**1,308.71**	**1,611.19**	**729.23**	**421.64**
Magnesium	NC	NC	NC	--	--	--	**5,260**	--	**1,730**	**8,790**	**8,010**	--	--	--	--
Manganese	1,800	23,000	1,527	--	--	--	**683**	--	**68.5**	**928**	**1,320**	--	--	--	--
Mercury	5.6	34	1.32	--	--	--	**94.9 J**	--	**0.32 J**	0.13 UJ	**0.3 J**	--	--	--	--
Nickel	1,500	20,000	19.9	--	--	--	**40.5**	--	**21.2**	**31.7**	**29.9**	--	--	--	--
Potassium	NC	NC	NC	--	--	--	**995 J**	--	**1,580 J**	**1,690 J**	**665 J**	--	--	--	--
Selenium	390	5,100	NC	--	--	--	**35.2 J+**	--	4.1 U	**0.62 J+**	**1.4 J+**	--	--	--	--
Silver	390	5,100	NC	--	--	--	**11.5**	--	**0.1 J**	1.2 U	**1 J**	--	--	--	--
Sodium	NC	NC	NC	--	--	--	**271 J**	--	**55.8 J**	**132 J**	**168 J**	--	--	--	--
Thallium[a]	5.1	66	NC	--	--	--	2 U	--	3 U	3.1 U	3 U	--	--	--	--
Vanadium	390	5,200	39.5	--	--	--	**20.9**	--	**13.1**	**12.5**	**16.1**	--	--	--	--
Zinc	23,000	310,000	1,310	**34,126.21**	**9,020.13**	**3,335.70**	**42,100 J**	**37,409.94**	**985 J**	**1,150 J**	**8,650 J**	**40,617.97**	**39,369.05**	**22,185.59**	**17,767.78**

Table 4.2.2-1b
Detected XRF-Screened Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Surface BTV (mg/kg)	poly_1_024 7/29/2008 mg/kg 3	poly_1_026 7/29/2008 mg/kg 3	poly_1_028 7/29/2008 mg/kg 3	poly_1_030 7/29/2008 mg/kg 3	poly_1_032 7/29/2008 mg/kg 3	poly_1_034 7/29/2008 mg/kg 3	poly_1_035 7/28/2008 mg/kg 4	poly_1_037 7/28/2008 mg/kg 4	poly_1_039 7/28/2008 mg/kg 4	poly_1_041 7/28/2008 mg/kg 4	poly_1_043 ME3X42 37722 7/28/2008 mg/kg 4	poly_1_044 ME3X43 37722 7/28/2008 mg/kg 4
Aluminum	77,000	990,000	15,400	--	--	--	--	--	--	--	--	--	--	**7,800**	**7,680**
Antimony	31	410	NC	--	--	--	--	--	--	--	--	--	--	7.5 UJ	6.9 UJ
Arsenic	0.39	1.6	10.7	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	**28.52**	10 U	**0.64 J-**	**10.3 J**
Barium	15,000	190,000	276	--	--	--	--	--	--	--	--	--	--	**66.1**	**39.9**
Beryllium	160	2,000	0.81	--	--	--	--	--	--	--	--	--	--	**0.66 J+**	**0.83**
Cadmium	70	800	7.1	**60.46**	**123.86**	**163.65**	**247.14**	**199.06**	**205.87**	50 U	**158.22**	**112.09**	**158.08**	0.63 UJ	0.57 UJ
Calcium	NC	NC	NC	--	--	--	--	--	--	--	--	--	--	**41,200**	**59,500**
Chromium (total)[a]	280	1400	21.2	--	--	--	--	--	--	--	--	--	--	**10.7**	**12.1**
Cobalt	23	300	12.9	--	--	--	--	--	--	--	--	--	--	**8.1**	**15.9**
Copper	3,100	41,000	31.5	--	--	--	--	--	--	--	--	--	--	**5.4**	**42.6**
Cyanide	1,600	20,000	NC	--	--	--	--	--	--	--	--	--	--	3.1 UJ	2.9 UJ
Iron	55,000	720,000	24,691	--	--	--	--	--	--	--	--	--	--	**9,110**	**19,600**
Lead	400	800	103	**1,251.80**	**290.84**	**1,371.93**	**1,256.40**	**528.23**	**1,135.80**	**875.02**	**1,300.90**	**371.26**	**2,508.47**	**4.6**	**14**
Magnesium	NC	NC	NC	--	--	--	--	--	--	--	--	--	--	**7,840**	**5,770**
Manganese	1,800	23,000	1,527	--	--	--	--	--	--	--	--	--	--	**821**	**1,080**
Mercury	5.6	34	1.32	--	--	--	--	--	--	--	--	--	--	0.13 UJ	0.12 UJ
Nickel	1,500	20,000	19.9	--	--	--	--	--	--	--	--	--	--	**32.9**	**33.2**
Potassium	NC	NC	NC	--	--	--	--	--	--	--	--	--	--	**2,590 J**	**1,800 J**
Selenium	390	5,100	NC	--	--	--	--	--	--	--	--	--	--	4.4 U	4 U
Silver	390	5,100	NC	--	--	--	--	--	--	--	--	--	--	1.3 U	1.1 U
Sodium	NC	NC	NC	--	--	--	--	--	--	--	--	--	--	**190 J**	**182 J**
Thallium[a]	5.1	66	NC	--	--	--	--	--	--	--	--	--	--	3.1 U	2.9 U
Vanadium	390	5,200	39.5	--	--	--	--	--	--	--	--	--	--	**8.7**	**14.6**
Zinc	23,000	310,000	1,310	**8,148.17**	**15,601.25**	**49,354.11**	**45,367.79**	**14,410.56**	**27,020.88**	**10,489.78**	**16,661.28**	**29,305.94**	**131,279.80**	**30.4 J**	**29.5 J**

Table 4.2.2-1b
Detected XRF-Screened Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Surface BTV (mg/kg)	poly_1_045 7/28/2008 mg/kg 4	poly_1_047 7/28/2008 mg/kg 4	poly_1_049 7/28/2008 mg/kg 4	poly_1_050 7/29/2008 mg/kg 3	poly_1_051 7/28/2008 mg/kg 4	poly_1_053 7/28/2008 mg/kg 4	poly_1_054 7/28/2008 mg/kg 4	poly_1_056 7/28/2008 mg/kg 4	poly_1_058 7/28/2008 mg/kg 4	poly_1_060 7/28/2008 mg/kg 4	poly_1_062 7/28/2008 mg/kg 4	poly_1_063 7/28/2008 mg/kg 4
Aluminum	77,000	990,000	15,400	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	31	410	NC	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	0.39	1.6	10.7	10 U	10 U	10 U	10 U	10 U	**10.51**	10 U	10 U	10 U	10 U	10 U	10 U
Barium	15,000	190,000	276	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	160	2,000	0.81	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	70	800	7.1	**136.11**	**173.30**	**289.87**	50 U	**168.39**	50 U	50 U	**169.37**	**168.55**	50 U	**170.51**	**190.92**
Calcium	NC	NC	NC	--	--	--	--	--	--	--	--	--	--	--	--
Chromium (total)[a]	280	1400	21.2	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt	23	300	12.9	--	--	--	--	--	--	--	--	--	--	--	--
Copper	3,100	41,000	31.5	--	--	--	--	--	--	--	--	--	--	--	--
Cyanide	1,600	20,000	NC	--	--	--	--	--	--	--	--	--	--	--	--
Iron	55,000	720,000	24,691	--	--	--	--	--	--	--	--	--	--	--	--
Lead	400	800	103	**533.58**	**857.59**	**1,441.11**	**139.85**	**1,166.36**	**26.14**	**308.55**	**749.48**	**801.92**	**36.44**	**500.02**	**440.80**
Magnesium	NC	NC	NC	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	1,800	23,000	1,527	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	5.6	34	1.32	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	1,500	20,000	19.9	--	--	--	--	--	--	--	--	--	--	--	--
Potassium	NC	NC	NC	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	390	5,100	NC	--	--	--	--	--	--	--	--	--	--	--	--
Silver	390	5,100	NC	--	--	--	--	--	--	--	--	--	--	--	--
Sodium	NC	NC	NC	--	--	--	--	--	--	--	--	--	--	--	--
Thallium[a]	5.1	66	NC	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	390	5,200	39.5	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	23,000	310,000	1,310	**11,912.58**	**55,975.40**	**32,051.48**	**1,411.46**	**47,056.89**	**714.06**	**6,272.05**	**18,621.88**	**18,181.52**	**1,228.64**	**11,636.33**	**15,375.51**

Table 4.2.2-1b
Detected XRF-Screened Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Surface BTV (mg/kg)	poly_1_065 7/28/2008 mg/kg 4	poly_1_067 7/28/2008 mg/kg 4	poly_1_069 7/28/2008 mg/kg 4	poly_1_070 7/28/2008 mg/kg 4	poly_1_072 7/28/2008 mg/kg 4	poly_1_074 7/28/2008 mg/kg 4	poly_1_076 7/28/2008 mg/kg 4	poly_1_077 7/28/2008 mg/kg 4	poly_1_079 7/28/2008 mg/kg 4	poly_1_082 ME3X44 37722 7/28/2008 mg/kg 4	poly_1_083 7/28/2008 mg/kg 4	poly_1_084 7/28/2008 mg/kg 4
Aluminum	77,000	990,000	15,400	--	--	--	--	--	--	--	--	--	**8,130**	--	--
Antimony	31	410	NC	--	--	--	--	--	--	--	--	--	**15.8 J**	--	--
Arsenic	0.39	1.6	10.7	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	**45.2 J**	10 U	**12.20**
Barium	15,000	190,000	276	--	--	--	--	--	--	--	--	--	**114**	--	--
Beryllium	160	2,000	0.81	--	--	--	--	--	--	--	--	--	**1.2 J**	--	--
Cadmium	70	800	7.1	**61.70**	**190.36**	**163.45**	50 U	50 U	**80.85**	**208.01**	**152.12**	50 U	**127**	50 U	50 U
Calcium	NC	NC	NC	--	--	--	--	--	--	--	--	--	**34,700**	--	--
Chromium (total)[a]	280	1400	21.2	--	--	--	--	--	--	--	--	--	**17.6**	--	--
Cobalt	23	300	12.9	--	--	--	--	--	--	--	--	--	**9.3 J**	--	--
Copper	3,100	41,000	31.5	--	--	--	--	--	--	--	--	--	**345 J**	--	--
Cyanide	1,600	20,000	NC	--	--	--	--	--	--	--	--	--	6.8 U	--	--
Iron	55,000	720,000	24,691	--	--	--	--	--	--	--	--	--	**19,900**	--	--
Lead	400	800	103	**222.38**	**678.50**	**474.21**	**162.06**	**100.81**	**223.21**	**618.65**	**535.40**	**28.09**	**1,260**	**14.00**	**34.20**
Magnesium	NC	NC	NC	--	--	--	--	--	--	--	--	--	**4,180**	--	--
Manganese	1,800	23,000	1,527	--	--	--	--	--	--	--	--	--	**1,050**	--	--
Mercury	5.6	34	1.32	--	--	--	--	--	--	--	--	--	**0.85 J-**	--	--
Nickel	1,500	20,000	19.9	--	--	--	--	--	--	--	--	--	**36**	--	--
Potassium	NC	NC	NC	--	--	--	--	--	--	--	--	--	**1,710**	--	--
Selenium	390	5,100	NC	--	--	--	--	--	--	--	--	--	**7.6 J**	--	--
Silver	390	5,100	NC	--	--	--	--	--	--	--	--	--	**8.3**	--	--
Sodium	NC	NC	NC	--	--	--	--	--	--	--	--	--	**686 J**	--	--
Thallium[a]	5.1	66	NC	--	--	--	--	--	--	--	--	--	6.8 U	--	--
Vanadium	390	5,200	39.5	--	--	--	--	--	--	--	--	--	**23.8**	--	--
Zinc	23,000	310,000	1,310	**4,260.11**	**16,127.26**	**17,605.85**	**2,482.85**	**2,152.15**	**3,529.63**	**18,602.86**	**11,603.98**	**729.12**	**14,300**	**422.83**	**505.43**

Table 4.2.2-1b
Detected XRF-Screened Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Surface BTV (mg/kg)	poly_1_085 ME3X45 37722 7/28/2008 mg/kg 4	poly_1_086 ME3X46 37722 7/28/2008 mg/kg 4	poly_1_087 ME3X47 37722 7/28/2008 mg/kg 4	poly_1_088 7/28/2008 mg/kg 4	poly_1_089 7/28/2008 mg/kg 4	poly_1_090 ME3X48 37722 7/28/2008 mg/kg 4	poly_1_200 ME3X49 37722 7/28/2008 mg/kg poly_1_090 4	poly_1_091 7/28/2008 mg/kg 4	poly_2_001 7/29/2008 mg/kg 3	poly_2_002 7/29/2008 mg/kg 3	poly_2_006 7/29/2008 mg/kg 3	poly_2_007 ME3X50 37722 7/29/2008 mg/kg 3
Aluminum	77,000	990,000	15,400	**3,980**	**7,440**	**6,520**	--	--	**6,930**	**6,150**	--	--	--	--	**6,140**
Antimony	31	410	NC	6.8 UJ	7.3 UJ	7.5 UJ	--	--	7.1 UJ	7 UJ	--	--	--	--	8.5 UJ
Arsenic	0.39	1.6	10.7	**9.5 J**	**7.2 J**	**16.7 J**	10 U	10 U	**12.4 J**	**11.3 J**	10 U	10 U	**40.30**	10 U	**40.1 J**
Barium	15,000	190,000	276	**91.9**	**82.2**	**77.5**	--	--	**33.6**	**31.3**	--	--	--	--	**211**
Beryllium	160	2,000	0.81	**0.37 J+**	**0.45 J+**	**0.61 J+**	--	--	**0.54 J+**	**0.47 J+**	--	--	--	--	**1.2**
Cadmium	70	800	7.1	**5.1**	0.61 UJ	**1.5**	**123.25**	50 U	0.59 UJ	0.59 UJ	50 U	50 U	**116.91**	50 U	**155**
Calcium	NC	NC	NC	**51,200**	**61,100**	**36,600**	--	--	**107,000**	**110,000**	--	--	--	--	**14,400**
Chromium (total)[a]	280	1400	21.2	**11.3**	**15.3**	**10.9**	--	--	**12.9**	**11.1**	--	--	--	--	**10.9**
Cobalt	23	300	12.9	**9.7**	**9.3**	**26.6**	--	--	**10.4**	**8.6**	--	--	--	--	**6.9 J**
Copper	3,100	41,000	31.5	**72.9**	**15.7**	**27.7**	--	--	**27.3**	**20.2**	--	--	--	--	**142 J**
Cyanide	1,600	20,000	NC	2.8 UJ	3 UJ	3.1 UJ	--	--	3 UJ	2.9 UJ	--	--	--	--	3.5 U
Iron	55,000	720,000	24,691	**10,300**	**18,200**	**15,100**	--	--	**9,930**	**8,450**	--	--	--	--	**43,800**
Lead	400	800	103	**103**	**14.6**	**29.6**	**195.33**	**85.67**	**5.7**	**5.7**	**22.26**	**186.34**	**576.46**	**316.43**	**886**
Magnesium	NC	NC	NC	**29,300**	**29,900**	**10,000**	--	--	**6,680**	**5,380**	--	--	--	--	**1,100**
Manganese	1,800	23,000	1,527	**988**	**316**	**712**	--	--	**1,050**	**1,100**	--	--	--	--	**302**
Mercury	5.6	34	1.32	0.11 UJ	0.12 UJ	0.12 UJ	--	--	0.12 UJ	0.12 UJ	--	--	--	--	**0.55 J-**
Nickel	1,500	20,000	19.9	**467**	**24.6**	**39.8**	--	--	**30.4**	**26.1**	--	--	--	--	**18.4**
Potassium	NC	NC	NC	**713 J**	**1,550 J**	**1,550 J**	--	--	**1,600 J**	**1,550 J**	--	--	--	--	**1,580**
Selenium	390	5,100	NC	**1 J+**	**0.79 J+**	4.4 U	--	--	**0.97 J+**	**0.65 J+**	--	--	--	--	**4.4 J+**
Silver	390	5,100	NC	1.1 U	1.2 U	1.2 U	--	--	1.2 U	1.2 U	--	--	--	--	**2.6**
Sodium	NC	NC	NC	**65 J**	**283 J**	**96.9 J**	--	--	**160 J**	**170 J**	--	--	--	--	**603 J**
Thallium[a]	5.1	66	NC	2.8 U	3 U	3.1 U	--	--	3 U	2.9 U	--	--	--	--	3.6 U
Vanadium	390	5,200	39.5	**17.9**	**18.5**	**14.5**	--	--	**9.5**	**8.6**	--	--	--	--	**25.5**
Zinc	23,000	310,000	1,310	**833 J**	**80.8 J**	**178 J**	**6,867.49**	**1,521.91**	**37.2 J**	**31.6 J**	**500.47**	**3,452.40**	**23,605.55**	**5,395.58**	**18,500**

Table 4.2.2-1b
Detected XRF-Screened Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Surface BTV (mg/kg)	poly_2_008 7/29/2008 mg/kg 3	poly_2_009 ME3X51 37722 7/29/2008 mg/kg 3	poly_2_014 ME3X52 37722 7/29/2008 mg/kg 4	poly_2_015 ME3X53 37722 7/29/2008 mg/kg 4	poly_2_016 ME3X54 37722 7/29/2008 mg/kg 4	poly_2_017 ME3X55 37722 7/29/2008 mg/kg 4	poly_2_023 7/28/2008 mg/kg 4	poly_2_024 7/28/2008 mg/kg 4	poly_2_025 ME3X56 37722 7/28/2008 mg/kg 4	poly_2_026 7/28/2008 mg/kg 4	poly_2_027 7/29/2008 mg/kg 4	poly_2_035 7/28/2008 mg/kg 4
Aluminum	77,000	990,000	15,400	--	**9,590**	**5,920**	**9,940**	**10,200**	**8,320**	--	--	**8,950**	--	--	--
Antimony	31	410	NC	--	7.7 UJ	8.4 UJ	8.8 UJ	**4.4 J**	8.4 UJ	--	--	8 UJ	--	--	--
Arsenic	0.39	1.6	10.7	**24.60**	**27.3 J**	**49.9 J**	**24.1 J**	**42.2 J**	**17 J-**	**20.79**	10 U	**10.9 J**	**26.97**	**29.93**	10 U
Barium	15,000	190,000	276	--	**185**	**91.2**	**114**	**260**	**172**	--	--	**89.1**	--	--	--
Beryllium	160	2,000	0.81	--	**0.96**	**0.94**	**1.1**	**1.1**	**0.72 J+**	--	--	**1.2**	--	--	--
Cadmium	70	800	7.1	**151.44**	**54.8**	**85.3**	**53.2**	**204**	**58.3**	**199.58**	**89.15**	**56.8**	**164.12**	**201.72**	50 U
Calcium	NC	NC	NC	--	**7,860**	**28,400**	**14,000**	**23,000**	**13,400**	--	--	**9,580**	--	--	--
Chromium (total)[a]	280	1400	21.2	--	**20.3**	**9.9**	**24.8**	**31.16**	**20.1**	--	--	**9.7**	--	--	--
Cobalt	23	300	12.9	--	**3.6 J**	**12.2**	**5.8 J**	**16.8**	**10.7**	--	--	**13.7**	--	--	--
Copper	3,100	41,000	31.5	--	**116 J**	**78 J**	**107 J**	**423 J**	**126 J**	--	--	**60.8 J**	--	--	--
Cyanide	1,600	20,000	NC	--	3.2 U	3.5 U	3.6 U	**1.7 J**	3.5 U	--	--	3.4 U	--	--	--
Iron	55,000	720,000	24,691	--	**10,900**	**30,000**	**20,000**	**25,300**	**18,500**	--	--	**12,100**	--	--	--
Lead	400	800	103	**641.13**	**271**	**288**	**348**	**2,330**	**1,050**	**712.20**	**252.96**	**138**	**607.03**	**620.02**	**32.38**
Magnesium	NC	NC	NC	--	**1,870**	**5,480**	**2,000**	**4,700**	**5,740**	--	--	**213**	--	--	--
Manganese	1,800	23,000	1,527	--	**239**	**484**	**392**	**999**	**695**	--	--	**445**	--	--	--
Mercury	5.6	34	1.32	--	**0.13 J-**	**0.4 J-**	**0.5 J-**	**2.6 J-**	**2.8 J-**	--	--	0.13 UJ	--	--	--
Nickel	1,500	20,000	19.9	--	**12**	**29.8**	**25.5**	**64.9**	**26.3**	--	--	**27.4**	--	--	--
Potassium	NC	NC	NC	--	**3,020**	**1,050**	**3,180**	**142**	**983**	--	--	**127**	--	--	--
Selenium	390	5,100	NC	--	**3.3 J**	**2.6 J+**	**6.5 J+**	**4.9 J+**	**2.5 J+**	--	--	**0.63 J**	--	--	--
Silver	390	5,100	NC	--	**0.64 J**	**0.88 J**	**1.4 J**	**8.2**	**2.8**	--	--	**0.4 J**	--	--	--
Sodium	NC	NC	NC	--	**556 J**	**166 J**	**623 J**	**202 J**	**68.4 J**	--	--	**33 J**	--	--	--
Thallium[a]	5.1	66	NC	--	3.2 U	3.5 U	3.7 U	3.8 U	3.5 U	--	--	3.3 U	--	--	--
Vanadium	390	5,200	39.5	--	**51.2**	**17**	**31.3**	**24.5**	**21.9**	--	--	**19**	--	--	--
Zinc	23,000	310,000	1,310	**23,041.02**	**6,230**	**12,300**	**7,900**	**27,400**	**10,100**	**24,304.84**	**6,127.09**	**5,780**	**19,904.08**	**19,926.37**	**813.32**

Table 4.2.2-1b
Detected XRF-Screened Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Surface BTV (mg/kg)	poly_2_036 7/28/2008 mg/kg 4	poly_2_037 ME3X57 37722 7/28/2008 mg/kg 4	poly_2_200 ME3X71 37722 7/28/2008 mg/kg poly_2_037 4	poly_2_038 ME3X58 37722 7/28/2008 mg/kg 4	poly_2_039 ME3X59 37722 7/28/2008 mg/kg 4	poly_2_040 ME3X60 37722 7/28/2008 mg/kg 4	poly_2_041 ME3X61 37722 7/28/2008 mg/kg 4	poly_2_049 ME3X62 37722 7/28/2008 mg/kg 4	poly_2_050 ME3X63 37722 7/28/2008 mg/kg 4	poly_2_051 ME3X64 37722 7/28/2008 mg/kg 4	poly_2_052 7/28/2008 mg/kg 4	poly_2_053 7/28/2008 mg/kg 4
Aluminum	77,000	990,000	15,400	--	9,130	10,400	9,550	7,310	9,800	9,350	8,330	7,990	11,400	--	--
Antimony	31	410	NC	--	7.9 UJ	7.8 UJ	2.9 J+	8.8 UJ	8.2 UJ	8.4 UJ	11 UJ	3.7 J	11.8 UJ	--	--
Arsenic	0.39	1.6	10.7	31.18	28.5 J	13.7	45.5 J	13.1 J	16.4 J-	14.1 J-	14 J-	28.4 J	40.2 J	23.97	10 U
Barium	15,000	190,000	276	--	182	142	222	160	133	124	144	139	177	--	--
Beryllium	160	2,000	0.81	--	0.82	0.92	1	0.74	1.2	0.97	1.2	0.92 J	1.4	--	--
Cadmium	70	800	7.1	173.11	141	38.1	290	84.7	98.6	51.8	208	193	216	166.84	50 U
Calcium	NC	NC	NC	--	7,530	4,210	24,900	21,200	29,300	27,300	15,300	17,300	39,200	--	--
Chromium (total)[a]	280	1400	21.2	--	14.1	14.2	15.4	10.7	13.6	13.1	13.3	13.4	17	--	--
Cobalt	23	300	12.9	--	12.6	9.5	11.9	12.4	13.9	15.4	11.5	11.3	23.2	--	--
Copper	3,100	41,000	31.5	--	125 J	39	244 J	93.2 J	84.7 J	77.6 J	138 J	234 J	198 J	--	--
Cyanide	1,600	20,000	NC	--	3.3 U	3.3 UJ	3.7 U	3.7 U	3.5 U	3.5 U	4.6 U	4.9 U	5 U	--	--
Iron	55,000	720,000	24,691	--	18,800	18,800	18,700	12,400	15,500	17,400	18,400	15,100	23,000	--	--
Lead	400	800	103	898.63	461	100	808	292	272	155	405	712	656	647.11	103.84
Magnesium	NC	NC	NC	--	2,090	2,120	2,540	2,820	4,070	3,780	2,190	3,250	4,480	--	--
Manganese	1,800	23,000	1,527	--	677	504	104	1,050	846	812	647	891	1,130	--	--
Mercury	5.6	34	1.32	--	0.55 J-	0.046 J	0.37 J-	0.2 J-	0.32 J-	0.15 UJ	0.47 J-	0.7 J-	0.51 J-	--	--
Nickel	1,500	20,000	19.9	--	20	16.1	28.6	24.5	37.6	35.7	30.8	32.7	47.1	--	--
Potassium	NC	NC	NC	--	985	967	139	1,330	1,680	1,860	1,520	1,210	2,010	--	--
Selenium	390	5,100	NC	--	1.5 J+	1.6 J+	3.2 J+	1.3 J	1.7 J+	1.3 J+	1.6 J+	3.4 J	3.4 J+	--	--
Silver	390	5,100	NC	--	1.8	0.42 J-	4.1	1.7	1.3	0.77 J	1.7 J	4.3	2.7	--	--
Sodium	NC	NC	NC	--	85.2 J	34.5 J	211 J	114 J	112 J	107 J	154 J	161 J	258 J	--	--
Thallium[a]	5.1	66	NC	--	3.3 U	3.3 UJ	3.7 U	3.7 U	3.4 U	3.5 U	4.6 U	4.9 U	4.9 U	--	--
Vanadium	390	5,200	39.5	--	28.3	29	25.4	17.4	16.8	15.7	23.8	19.3	23.4	--	--
Zinc	23,000	310,000	1,310	18,161.16	18,500	3,810	35,200	9,490	10,100	6,420	26,100	22,900	26,500	19,414.06	3,605.23

Table 4.2.2-1b
Detected XRF-Screened Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Surface BTV (mg/kg)	poly_2_054 7/28/2008 mg/kg 4	poly_2_055 ME3X65 37722 7/28/2008 mg/kg 4	poly_2_201 ME3X72 37722 7/28/2008 mg/kg poly_2_055 4	poly_2_056 7/28/2008 mg/kg 4	poly_2_066 ME3X66 37722 7/28/2008 mg/kg 4	poly_2_067 ME3X67 37722 7/28/2008 mg/kg 4	poly_2_069 7/29/2008 mg/kg 4	poly_2_070 7/29/2008 mg/kg 4	poly_2_071 7/29/2008 mg/kg 4	poly_2_072 7/29/2008 mg/kg 4	poly_2_074 7/28/2008 mg/kg 4	poly_2_077 ME3X68 37722 7/28/2008 mg/kg 4
Aluminum	77,000	990,000	15,400	--	**12,400**	**9,330**	--	**6,510**	**8,130**	--	--	--	--	--	**4,850**
Antimony	31	410	NC	--	9.6 UJ	7.7 UJ	--	**2.2 J+**	8.7 UJ	--	--	--	--	--	**2.3 J+**
Arsenic	0.39	1.6	10.7	**9.56**	**10.3 J-**	**9.5**	10 U	**24.7 J**	**11.3 J**	**34.87**	**16.22**	10 U	10 U	**11.02**	**11.3 J-**
Barium	15,000	190,000	276	--	**71.3**	**55.1**	--	**98**	**78.1**	--	--	--	--	--	**94.2**
Beryllium	160	2,000	0.81	--	**1.2**	**1**	--	**0.99**	**0.93**	--	--	--	--	--	**0.88**
Cadmium	70	800	7.1	50 U	**36.5**	**32.5**	50 U	**130**	**113**	**170.24**	50 U	50 U	50 U	50 U	**45.3**
Calcium	NC	NC	NC	--	**31,100**	**13,500**	--	**17,100**	**19,000**	--	--	--	--	--	**7,550**
Chromium (total)[a]	280	1400	21.2	--	**16.6**	**11.7**	--	**10.8**	**11.5**	--	--	--	--	--	**11**
Cobalt	23	300	12.9	--	**18.7**	**15.4**	--	**9**	**10.5**	--	--	--	--	--	**5.1 J**
Copper	3,100	41,000	31.5	--	**46.9 J**	**47.2**	--	**184 J**	**100 J**	--	--	--	--	--	**133 J**
Cyanide	1,600	20,000	NC	--	4 U	**2.5 J**	--	3.2 U	3.7 U	--	--	--	--	--	3.4 U
Iron	55,000	720,000	24,691	--	**20,800**	**15,000**	--	**17,200**	**13,300**	--	--	--	--	--	**24,300**
Lead	400	800	103	**130.69**	**115**	**113**	**21.42**	**533**	**265**	**463.34**	**271.70**	**187.83**	**20.71**	**58.16**	**243**
Magnesium	NC	NC	NC	--	**6,670**	**3,910**	--	**3,060**	**3,830**	--	--	--	--	--	**913**
Manganese	1,800	23,000	1,527	--	**631**	**342**	--	**658**	**553**	--	--	--	--	--	**264**
Mercury	5.6	34	1.32	--	**0.13 J-**	**0.13 J**	--	**0.27 J-**	**0.16 J-**	--	--	--	--	--	**0.1 J-**
Nickel	1,500	20,000	19.9	--	**46.4**	**33.4**	--	**29.3**	**34.1**	--	--	--	--	--	**19.9**
Potassium	NC	NC	NC	--	**1,970**	**1,580**	--	**1,180**	**1,470**	--	--	--	--	--	**997**
Selenium	390	5,100	NC	--	**1.3 J+**	**1.2 J+**	--	**2.3 J+**	**1.4 J**	--	--	--	--	--	**2.2 J+**
Silver	390	5,100	NC	--	**0.45 J**	**0.42 J-**	--	**2.5**	**1.4 J**	--	--	--	--	--	**1.5**
Sodium	NC	NC	NC	--	**114 J**	**80.5 J**	--	**194 J**	**145 J**	--	--	--	--	--	**224 J**
Thallium[a]	5.1	66	NC	--	4 U	3.2 UJ	--	3.2 U	3.6 U	--	--	--	--	--	3.4 U
Vanadium	390	5,200	39.5	--	**21.2**	**16.1**	--	**17.3**	**15.1**	--	--	--	--	--	**19.7**
Zinc	23,000	310,000	1,310	**3,214.25**	**3,990**	**3,820**	**303.01**	**15,500**	**14,000**	**21,878.85**	**6,604.97**	**5,023.81**	**266.96**	**3,934.12**	**4,280**

Table 4.2.2-1b
Detected XRF-Screened Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Surface BTV (mg/kg)	poly_2_078 7/29/2008 mg/kg 4	poly_2_079 7/29/2008 mg/kg 4	poly_2_080 ME3X69 37722 7/28/2008 mg/kg 4	poly_2_081 7/28/2008 mg/kg 4	poly_2_084 7/28/2008 mg/kg 4	poly_2_085 ME3X70 37722 7/28/2008 mg/kg 4	poly_2_086 7/29/2008 mg/kg 4	poly_2_087 7/29/2008 mg/kg 4	poly_2_088 7/29/2008 mg/kg 4	poly_2_091 7/29/2008 mg/kg 3	poly_3_001 7/29/2008 mg/kg 3	poly_3_003 7/29/2008 mg/kg 3
Aluminum	77,000	990,000	15,400	--	--	**7,410**	--	--	**9,980**	--	--	--	--	--	--
Antimony	31	410	NC	--	--	**2.5 J+**	--	--	8.2 UJ	--	--	--	--	--	--
Arsenic	0.39	1.6	10.7	**19.15**	10 U	**46.1**	10 U	**20.13**	**6.7**	10 U	10 U	10 U	**35.92**	10 U	**14.48**
Barium	15,000	190,000	276	--	--	**116**	--	--	**161**	--	--	--	--	--	--
Beryllium	160	2,000	0.81	--	--	**1.3**	--	--	**0.91**	--	--	--	--	--	--
Cadmium	70	800	7.1	**192.45**	50 U	**139**	50 U	**66.65**	**24.6**	50 U	50 U	50 U	**128.92**	50 U	50 U
Calcium	NC	NC	NC	--	--	**19,600**	--	--	**36,800**	--	--	--	--	--	--
Chromium (total)[a]	280	1400	21.2	--	--	**13.6**	--	--	**14.7**	--	--	--	--	--	--
Cobalt	23	300	12.9	--	--	**9.5**	--	--	**15.6**	--	--	--	--	--	--
Copper	3,100	41,000	31.5	--	--	**144**	--	--	**41.1**	--	--	--	--	--	--
Cyanide	1,600	20,000	NC	--	--	4.1 UJ	--	--	3.4 UJ	--	--	--	--	--	--
Iron	55,000	720,000	24,691	--	--	**24,800**	--	--	**14,900**	--	--	--	--	--	--
Lead	400	800	103	**706.79**	**151.31**	**430**	**69.70**	**245.83**	**52.4**	**18.80**	**20.84**	**14.52**	**796.21**	**1,170.46**	**261.38**
Magnesium	NC	NC	NC	--	--	**4,810**	--	--	**4,440**	--	--	--	--	--	--
Manganese	1,800	23,000	1,527	--	--	**633**	--	--	**1,290**	--	--	--	--	--	--
Mercury	5.6	34	1.32	--	--	**0.25 J**	--	--	**0.02 J**	--	--	--	--	--	--
Nickel	1,500	20,000	19.9	--	--	**32.2**	--	--	**39**	--	--	--	--	--	--
Potassium	NC	NC	NC	--	--	**1,210**	--	--	**2,330**	--	--	--	--	--	--
Selenium	390	5,100	NC	--	--	**4.1 J+**	--	--	**1.6 J+**	--	--	--	--	--	--
Silver	390	5,100	NC	--	--	**1.7**	--	--	**0.47 J-**	--	--	--	--	--	--
Sodium	NC	NC	NC	--	--	**184 J**	--	--	**107 J**	--	--	--	--	--	--
Thallium[a]	5.1	66	NC	--	--	**0.33 J-**	--	--	3.4 UJ	--	--	--	--	--	--
Vanadium	390	5,200	39.5	--	--	**20.4**	--	--	**15.4**	--	--	--	--	--	--
Zinc	23,000	310,000	1,310	**15,507.67**	**4,104.64**	**13,400**	**2,654.28**	**8,253.42**	**2,090**	**360.00**	**454.94**	**399.70**	**20,424.50**	**9,927.98**	**5,243.98**

Table 4.2.2-1b
Detected XRF-Screened Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Surface BTV (mg/kg)	poly_3_004 7/29/2008 mg/kg 3	poly_3_005 7/29/2008 mg/kg 3	poly_3_006 ME3X73 37722 7/30/2008 mg/kg 3	poly_3_007 7/29/2008 mg/kg 3	poly_3_008 7/29/2008 mg/kg 3	poly_3_009 ME3X74 37722 7/29/2008 mg/kg 3	poly_3_200 ME3X80 37722 7/29/2008 mg/kg poly_3_009 3	poly_3_010 ME3X75 37722 7/30/2008 mg/kg 3	poly_3_011 ME3X76 37722 7/29/2008 mg/kg 3	poly_3_012 ME3X77 37722 7/30/2008 mg/kg 3	poly_3_013 ME3X78 37722 7/30/2008 mg/kg 3	poly_3_014 7/29/2008 mg/kg 3
Aluminum	77,000	990,000	15,400	--	--	**7,680**	--	--	**4,000**	**4,380**	**8,230**	**10,000**	**7,240**	**6,110**	--
Antimony	31	410	NC	--	--	**101 J**	--	--	**2.4 J+**	**2 J+**	**46.4 J**	**8.4 J**	**19.8 J**	**30.8 J**	--
Arsenic	0.39	1.6	10.7	10 U	10 U	**368 J**	**18.61**	10 U	**17.3**	**17.4**	**281 J**	**58.1**	**106 J**	**113 J**	10 U
Barium	15,000	190,000	276	--	--	**363**	--	--	**166**	**166**	**374**	**259**	**202**	**182**	--
Beryllium	160	2,000	0.81	--	--	**1.1**	--	--	**0.55 J+**	**0.65 J+**	**0.9**	**2.5**	**1.2**	**1.2**	--
Cadmium	70	800	7.1	**150.91**	**188.33**	**511**	50 U	50 U	**150**	**102**	**632**	**224**	**227**	**300**	50 U
Calcium	NC	NC	NC	--	--	**2,270**	--	--	**66,800**	**73,500**	**20,600**	**6,770**	**2,030**	**16,200**	--
Chromium (total)[a]	280	1400	21.2	--	--	**27.1**	--	--	**8.8**	**10.7**	**20.4**	**11.8**	**16.5**	**15.9**	--
Cobalt	23	300	12.9	--	--	**25.7**	--	--	**8.3**	**8.7**	**36**	**20.9**	**14**	**15.4**	--
Copper	3,100	41,000	31.5	--	--	**1,820**	--	--	**148**	**138**	**979**	**331**	**583**	**832**	--
Cyanide	1,600	20,000	NC	--	--	3.1 U	--	--	**1.3 J-**	3.3 UJ	3 U	3.1 UJ	3.5 U	2.8 U	--
Iron	55,000	720,000	24,691	--	--	**79,200**	--	--	**16,400**	**19,300**	**60,600**	**36,500**	**70,100**	**37,600**	--
Lead	400	800	103	**1,133.42**	**1,670.12**	**11,400**	**558.25**	**146.97**	**1,660**	**1,640**	**5,570**	**5,480**	**5,900**	**2,700**	**2,071.53**
Magnesium	NC	NC	NC	--	--	**1,140**	--	--	**9,400**	**7,070**	**1,770**	**731**	**941**	**1,520**	--
Manganese	1,800	23,000	1,527	--	--	**1,260**	--	--	**442**	**507**	**1,370**	**572**	**693**	**861**	--
Mercury	5.6	34	1.32	--	--	**6.9 J**	--	--	**3.6 J**	**2.8 J**	**4.6 J**	**0.63 J**	**14.2 J**	**1.4 J**	--
Nickel	1,500	20,000	19.9	--	--	**310**	--	--	**17**	**18**	**77.6**	**38.1**	**49.1**	**49.2**	--
Potassium	NC	NC	NC	--	--	623 UJ	--	--	**376 J**	**486 J**	605 UJ	**788**	**1,050 J**	561 UJ	--
Selenium	390	5,100	NC	--	--	**5 J+**	--	--	**3.3 J+**	**2.8 J+**	**5.2 J+**	**3.6 J+**	**5.7 J+**	**3.4 J+**	--
Silver	390	5,100	NC	--	--	**33.9**	--	--	**2.5**	**2.3**	**21**	**7.8**	**10.4**	**16.3**	--
Sodium	NC	NC	NC	--	--	**314 J**	--	--	**157 J**	**181 J**	**202 J**	**262 J**	**386 J**	**241 J**	--
Thallium[a]	5.1	66	NC	--	--	3.1 U	--	--	3.3 UJ	3.3 UJ	3 U	3.1 UJ	3.5 U	2.8 U	--
Vanadium	390	5,200	39.5	--	--	**26.9**	--	--	**10.9**	**11.7**	**27.1**	**38.7**	**33.1**	**21.9**	--
Zinc	23,000	310,000	1,310	**14,669.15**	**31,187.30**	**113,000 J**	**10,523.35**	**2,586.90**	**29,400**	**22,600**	**71,400 J**	**67,200**	**59,000 J**	**65,800 J**	**3,226.51**

Table 4.2.2-1b
Detected XRF-Screened Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Surface BTV (mg/kg)	poly_3_015 ME3X79 37722 7/29/2008 mg/kg 3	poly_4_001 ME3X81 37722 7/30/2008 mg/kg 3	poly_4_002 ME3X82 37722 7/30/2008 mg/kg 3	poly_4_003 ME3X83 37722 7/30/2008 mg/kg 3	poly_4_004 ME3X84 37722 7/30/2008 mg/kg 3	poly_4_005 ME3X85 37722 7/30/2008 mg/kg 3	poly_4_006 7/30/2008 mg/kg 3	poly_4_007 7/30/2008 mg/kg 3	poly_4_008 ME3X86 37722 7/30/2008 mg/kg 3	poly_4_200 ME3X89 37722 7/30/2008 mg/kg poly_4_008 3	poly_4_009 7/30/2008 mg/kg 3	poly_4_010 ME3X87 37722 7/30/2008 mg/kg 3
Aluminum	77,000	990,000	15,400	**7,750**	**10,000**	**6,200**	**8,330**	**5,750**	**6,830**	--	--	**5,630**	**5,630**	--	**6,440**
Antimony	31	410	NC	**1.2 J+**	**18.8 J**	**10.1 J**	**18.7 J**	**5.8 J**	**3.7 J**	--	--	**2.2 J+**	**2.3 J+**	--	**74.6 J**
Arsenic	0.39	1.6	10.7	**22.9**	**169 J**	**42 J**	**62.2 J**	**81.3 J**	**37.3 J**	**37.08**	10 U	**81.9**	**82.1**	10 U	**243**
Barium	15,000	190,000	276	**154**	**3,710**	**241**	243	**175**	229	--	--	**1,070**	**755**	--	**425**
Beryllium	160	2,000	0.81	**1.4**	**4.3**	**0.84**	**1.1**	**0.82**	**1.1**	--	--	**0.93**	**0.92**	--	**1.3**
Cadmium	70	800	7.1	**20.1**	**161**	**93.9**	**247**	**38.8**	**159**	**159.20**	**73.59**	**38.9**	**42.3**	50 U	**215**
Calcium	NC	NC	NC	**39,100**	**21,000**	**5,260**	**10,500**	**2,770**	**8,660**	--	--	**17,300**	**20,400**	--	**6,270**
Chromium (total)[a]	280	1400	21.2	**11.9**	**63.7**	**10.7**	**18.2**	**10.4**	**13.5**	--	--	**25.9**	**26.1**	--	**14.3**
Cobalt	23	300	12.9	**11.2**	**20**	**21.9**	**28.3**	**27.6**	**15.7**	--	--	**31.5**	**29**	--	**27.9**
Copper	3,100	41,000	31.5	**88.4**	**558**	**942**	**893**	**1,190**	**298**	--	--	**433**	**489**	--	**1,470**
Cyanide	1,600	20,000	NC	3 UJ	3.7 U	3.1 U	3.1 U	3.2 U	2.6 U	--	--	**1.2 J-**	**1.1 J-**	--	**5**
Iron	55,000	720,000	24,691	**28,100**	**117,000**	**31,600**	**66,000**	**46,300**	**27,800**	--	--	**31,700**	**30,000**	--	**38,000**
Lead	400	800	103	**851**	**802**	**496**	**1,040**	**983**	**2,310**	**385.45**	**1,697.67**	**3,980**	**1,880**	**117.97**	**2,770**
Magnesium	NC	NC	NC	**4,990**	**1,480**	**1,260**	**4,320**	**1,650**	**3,070**	--	--	**5,330**	**6,550**	--	**1,370**
Manganese	1,800	23,000	1,527	**856**	**9,400**	**539**	**1,470**	**255**	**536**	--	--	**31,100**	**21,700**	--	**1,610**
Mercury	5.6	34	1.32	**0.36 J**	**5.4 J**	**0.2 J**	**0.46 J**	0.13 UJ	**0.32 J**	--	--	**0.54 J**	**0.61 J**	--	**0.5 J**
Nickel	1,500	20,000	19.9	**26.4**	**91.4**	**40**	**69.3**	**34.5**	**35.5**	--	--	**58.6**	**52.7**	--	**50.7**
Potassium	NC	NC	NC	**1,030**	**3,200 J**	617 UJ	617 UJ	634 UJ	515 UJ	--	--	**1,490**	**1,430**	--	**562 J**
Selenium	390	5,100	NC	**3 J+**	**3.3 J+**	**3.3 J+**	**3.3 J+**	**3.9 J+**	**2.3 J+**	--	--	**2.7 J+**	**1.9 J+**	--	**4.7 J+**
Silver	390	5,100	NC	**2.1**	**8.4**	**3.1**	**6.2**	**5.1**	**3.9**	--	--	**15.3**	**11.7**	--	**27.7**
Sodium	NC	NC	NC	**161 J**	**349 J**	**119 J**	**224 J**	**124 J**	**213 J**	--	--	**139 J**	**123 J**	--	**418 J**
Thallium[a]	5.1	66	NC	3 UJ	3.7 U	3.1 U	3.1 U	3.2 U	2.6 U	--	--	**3.1**	**1.6 J-**	--	**1.2 J-**
Vanadium	390	5,200	39.5	**22.1**	**170**	**21.1**	**33.1**	**20.9**	**22.6**	--	--	**52.7**	**42**	--	**21.7**
Zinc	23,000	310,000	1,310	**4,770**	**23,400 J**	**81,600 J**	**81,900 J**	**54,500 J**	**34,000 J**	**100,063.67**	**12,139.10**	**15,300**	**17,300**	**4,437.89**	**60,900**

Table 4.2.2-1b
Detected XRF-Screened Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Surface BTV (mg/kg)	poly_4_011 ME3X88 37722 7/30/2008 mg/kg 3	poly_4_012 7/30/2008 mg/kg 3	poly_4_013 7/30/2008 mg/kg 3	poly_5_001 ME3X90 37722 7/29/2008 mg/kg 3	poly_5_002 7/29/2008 mg/kg 3	poly_5_003 7/29/2008 mg/kg 3	poly_5_004 7/29/2008 mg/kg 3	poly_5_005 7/29/2008 mg/kg 1	poly_5_006 7/29/2008 mg/kg 1	poly_5_007 7/29/2008 mg/kg 1	poly_5_008 ME3X91 37722 7/29/2008 mg/kg 1	poly_5_009 7/29/2008 mg/kg 1
Aluminum	77,000	990,000	15,400	**4,130**	--	--	**104**	--	--	--	--	--	--	**7,350**	--
Antimony	31	410	NC	**1.8 J+**	--	--	6.3 UJ	--	--	--	--	--	--	**10.5 J**	--
Arsenic	0.39	1.6	10.7	**13**	10 U	10 U	1 U	10 U	10 U	10 U	10 U	10 U	10 U	**131**	10 U
Barium	15,000	190,000	276	**118**	--	--	21 U	--	--	--	--	--	--	**177**	--
Beryllium	160	2,000	0.81	**0.43 J+**	--	--	0.52 U	--	--	--	--	--	--	**1**	--
Cadmium	70	800	7.1	**22.8**	**231.13**	**167.30**	**0.1 J**	**72.56**	50 U	**78.87**	50 U	**73.15**	50 U	**204**	50 U
Calcium	NC	NC	NC	**63,000**	--	--	**212 J**	--	--	--	--	--	--	**6,730**	--
Chromium (total)[a]	280	1400	21.2	**8.5**	--	--	1 U	--	--	--	--	--	--	**16.9**	--
Cobalt	23	300	12.9	**8.1**	--	--	5.2 U	--	--	--	--	--	--	**12.6**	--
Copper	3,100	41,000	31.5	**102**	--	--	**0.8 J**	--	--	--	--	--	--	**530**	--
Cyanide	1,600	20,000	NC	2.9 U	--	--	2.6 UJ	--	--	--	--	--	--	3.4 UJ	--
Iron	55,000	720,000	24,691	**13,000**	--	--	**320**	--	--	--	--	--	--	**48,200**	--
Lead	400	800	103	**459**	**2,736.40**	**2,738.10**	**3.4**	**514.65**	**187.37**	**511.56**	**344.01**	**474.08**	**33.32**	**6,610**	**851.44**
Magnesium	NC	NC	NC	**33,300**	--	--	**85.5 J**	--	--	--	--	--	--	**1,960**	--
Manganese	1,800	23,000	1,527	**808**	--	--	**7.2**	--	--	--	--	--	--	**969**	--
Mercury	5.6	34	1.32	**1.2 J**	--	--	0.1 UJ	--	--	--	--	--	--	**9.7 J**	--
Nickel	1,500	20,000	19.9	**25**	--	--	4.2 U	--	--	--	--	--	--	**43.4**	--
Potassium	NC	NC	NC	**606**	--	--	525 U	--	--	--	--	--	--	**1,890**	--
Selenium	390	5,100	NC	**2.3 J+**	--	--	3.7 U	--	--	--	--	--	--	**17.1 J+**	--
Silver	390	5,100	NC	**1.9**	--	--	1 U	--	--	--	--	--	--	**12.5**	--
Sodium	NC	NC	NC	**133 J**	--	--	525 U	--	--	--	--	--	--	**370 J**	--
Thallium[a]	5.1	66	NC	2.9 UJ	--	--	2.6 U	--	--	--	--	--	--	**0.37 J-**	--
Vanadium	390	5,200	39.5	**13**	--	--	**0.23 J**	--	--	--	--	--	--	**25.5**	--
Zinc	23,000	310,000	1,310	**6,400**	**82,651.57**	**67,814.92**	**21.2**	**8,593.67**	**3,158.07**	**10,828.30**	**2,806.58**	**16,475.77**	**577.95**	**35,900**	**7,624.82**

Table 4.2.2-1b
Detected XRF-Screened Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Surface BTV (mg/kg)	poly_5_010 7/29/2008 mg/kg 1	poly_5_011 7/29/2008 mg/kg 1	poly_5_012 7/29/2008 mg/kg 1	poly_5_013 7/30/2008 mg/kg 1	poly_5_014 7/29/2008 mg/kg 1	poly_5_015 7/29/2008 mg/kg 3	poly_5_016 7/29/2008 mg/kg 3	poly_5_017 7/30/2008 mg/kg 3	poly_5_018 7/30/2008 mg/kg 1	poly_5_019 ME3X92 37722 7/29/2008 mg/kg 1	poly_5_020 7/29/2008 mg/kg 3	poly_5_021 7/30/2008 mg/kg 3
Aluminum	77,000	990,000	15,400	--	--	--	--	--	--	--	--	--	**6,760**	--	--
Antimony	31	410	NC	--	--	--	--	--	--	--	--	--	**2.5 J+**	--	--
Arsenic	0.39	1.6	10.7	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	**24.9**	10 U	10 U
Barium	15,000	190,000	276	--	--	--	--	--	--	--	--	--	**175**	--	--
Beryllium	160	2,000	0.81	--	--	--	--	--	--	--	--	--	**0.93**	--	--
Cadmium	70	800	7.1	50 U	50 U	**161.63**	50 U	**83.88**	50 U	**188.38**	**69.36**	50 U	**109**	50 U	50 U
Calcium	NC	NC	NC	--	--	--	--	--	--	--	--	--	**13,300**	--	--
Chromium (total)[a]	280	1400	21.2	--	--	--	--	--	--	--	--	--	**11.9**	--	--
Cobalt	23	300	12.9	--	--	--	--	--	--	--	--	--	**10.1**	--	--
Copper	3,100	41,000	31.5	--	--	--	--	--	--	--	--	--	**229**	--	--
Cyanide	1,600	20,000	NC	--	--	--	--	--	--	--	--	--	3.7 UJ	--	--
Iron	55,000	720,000	24,691	--	--	--	--	--	--	--	--	--	**18,700**	--	--
Lead	400	800	103	**118.47**	**54.18**	**788.65**	**72.34**	**283.11**	**60.18**	**4,286.16**	**362.87**	**207.54**	**765**	**273.50**	**143.40**
Magnesium	NC	NC	NC	--	--	--	--	--	--	--	--	--	**3,050**	--	--
Manganese	1,800	23,000	1,527	--	--	--	--	--	--	--	--	--	**885**	--	--
Mercury	5.6	34	1.32	--	--	--	--	--	--	--	--	--	**0.72 J**	--	--
Nickel	1,500	20,000	19.9	--	--	--	--	--	--	--	--	--	**29.7**	--	--
Potassium	NC	NC	NC	--	--	--	--	--	--	--	--	--	**1,380**	--	--
Selenium	390	5,100	NC	--	--	--	--	--	--	--	--	--	**2.9 J+**	--	--
Silver	390	5,100	NC	--	--	--	--	--	--	--	--	--	**3.8**	--	--
Sodium	NC	NC	NC	--	--	--	--	--	--	--	--	--	**135 J**	--	--
Thallium[a]	5.1	66	NC	--	--	--	--	--	--	--	--	--	3.7 UJ	--	--
Vanadium	390	5,200	39.5	--	--	--	--	--	--	--	--	--	**18.5**	--	--
Zinc	23,000	310,000	1,310	**1,826.48**	**1,669.88**	**19,197.41**	**1,962.37**	**8,363.22**	**716.47**	**30,539.72**	**6,339.69**	**3,673.08**	**16,900**	**6,856.54**	**2,800.08**

Table 4.2.2-1b
Detected XRF-Screened Soil Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Surface BTV (mg/kg)	poly_5_022 7/30/2008 mg/kg 3	poly_5_023 7/30/2008 mg/kg 3	poly_6_002 7/30/2008 mg/kg 2	poly_6_003 7/30/2008 mg/kg 2	poly_6_004 7/30/2008 mg/kg 2	poly_6_005 7/30/2008 mg/kg 2	poly_6_006 7/30/2008 mg/kg 2	poly_6_007 7/30/2008 mg/kg 2	poly_6_008 7/30/2008 mg/kg 2	poly_6_009 7/30/2008 mg/kg 2
Aluminum	77,000	990,000	15,400	--	--	--	--	--	--	--	--	--	--
Antimony	31	410	NC	--	--	--	--	--	--	--	--	--	--
Arsenic	0.39	1.6	10.7	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	**27.16**	10 U
Barium	15,000	190,000	276	--	--	--	--	--	--	--	--	--	--
Beryllium	160	2,000	0.81	--	--	--	--	--	--	--	--	--	--
Cadmium	70	800	7.1	50 U	**120.60**	50 U	50 U	50 U	50 U	50 U	**133.63**	**174.35**	**134.86**
Calcium	NC	NC	NC	--	--	--	--	--	--	--	--	--	--
Chromium (total)[a]	280	1400	21.2	--	--	--	--	--	--	--	--	--	--
Cobalt	23	300	12.9	--	--	--	--	--	--	--	--	--	--
Copper	3,100	41,000	31.5	--	--	--	--	--	--	--	--	--	--
Cyanide	1,600	20,000	NC	--	--	--	--	--	--	--	--	--	--
Iron	55,000	720,000	24,691	--	--	--	--	--	--	--	--	--	--
Lead	400	800	103	**174.71**	**2,205.51**	**55.64**	**75.46**	**52.09**	**156.66**	**125.66**	**755.98**	**552.75**	**485.65**
Magnesium	NC	NC	NC	--	--	--	--	--	--	--	--	--	--
Manganese	1,800	23,000	1,527	--	--	--	--	--	--	--	--	--	--
Mercury	5.6	34	1.32	--	--	--	--	--	--	--	--	--	--
Nickel	1,500	20,000	19.9	--	--	--	--	--	--	--	--	--	--
Potassium	NC	NC	NC	--	--	--	--	--	--	--	--	--	--
Selenium	390	5,100	NC	--	--	--	--	--	--	--	--	--	--
Silver	390	5,100	NC	--	--	--	--	--	--	--	--	--	--
Sodium	NC	NC	NC	--	--	--	--	--	--	--	--	--	--
Thallium[a]	5.1	66	NC	--	--	--	--	--	--	--	--	--	--
Vanadium	390	5,200	39.5	--	--	--	--	--	--	--	--	--	--
Zinc	23,000	310,000	1,310	**3,185.31**	**13,562.45**	**2,209.19**	**2,225.00**	**2,749.12**	**8,680.72**	**6,623.71**	**82,739.47**	**15,118.66**	**12,850.05**

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.2-1

Notes:
Bold values indicate a detection
Yellow shaded cells indicate a residential RSL exceedance
Red shaded cells indicate an industrial RSL and residential RSL exceedance
Gray shaded cells indicate an industrial or residential RSL exceedance but below the BTV

µg/L	Microgram per liter
µg/kg	Microgram per kilogram
mg/kg	Milligram per kilogram
A	Indicates surface soil sample
B	Indicates subsurface soil sample
bgs	Below ground surface
BTV	Background threshold value
CLP	Contract laboratory program
CFR	Code of Federal Regulations
ft	Feet
GWSV	Groundwater screening value
ID	Identification
info	Information
J	Estimated result
J-	Underestimated result
J+	Overestimated result
MCL	Maximum contaminant level (EPA)
NC	No criteria available
PCB	Polychlorinated biphenyls
ppm	Part per million
R	Rejected result
RL	Regulatory Level (CFR)
RSL	Regional Screening Level (EPA)
SB	Soil boring
SPLP	Synthetic precipitation leaching procedure
SV	Screening value
SVOC	Semivolatile organic compounds
Tap	Tap water screening criteria (EPA)
TCLP	Toxicity Characteristic Leaching Procedure (CFR)
U	Non-detect result
UJ	Non-detected and estimated result
VOC	Volatile organic compounds

a	Analyte is compared to the April 2009 residential and industrial RSLs
b	Sample was not analyzed at the CLP laboratory. The sample ID number is the soil boring location followed by the sample depth then "A" if the sample was a duplicate sample
--	Not applicable

Lithology Definitions:

L1	Native soils
L2	Slag
L3	Sinter
L4	Fill materials

Table 4.2.2-2
Detected Soil VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	SB001A E3Q75 36631 7/16/2007 µg/kg 1 L1 0-2	SB001B E3Q78 36631 7/16/2007 µg/kg 1 L3 8-10	SB002A E3Q81 36631 7/16/2007 µg/kg 1 L3, L4 0-2	SB002B E3Q84 36631 7/16/2007 µg/kg 1 L3, L4 8-10	SB003A E3Q87 36631 7/16/2007 µg/kg 1 L2, L3, L4 0-2	SB250A E3R12 36631 7/16/2007 µg/kg SB003A 1 L2, L3, L4 0-2	SB003B E3Q90 36631 7/16/2007 µg/kg 1 L1 8-10	SB004A E3R15 36631 7/17/2007 µg/kg 1 L1, L2, L3 0-2	SB004B E3R20 36631 7/17/2007 µg/kg 1 L2, L3 8-10	SB005A E3Q93 36631 7/16/2007 µg/kg 1 L1 0-2	SB005B E3Q96 36631 7/16/2007 µg/kg 1 L2 6-8	SB006A E3R58RE 36631 7/17/2007 µg/kg 1 L3 0-2	SB006B E3R61 36631 7/17/2007 µg/kg 1 L4 4-6	SB007B E3S08 36664 8/1/2007 µg/kg 1 L1 8-10	SB291B E3S09 36664 8/1/2007 µg/kg SB007B 1 L1 8-10
1,2,3-Trichlorobenzene	49,000	490,000	6.4 U	4.6 UJ	7.1 U	9.5 U	7.3 U	**58**	4.1 U	5.3 UJ	6 UJ	7 U	6.1 U	6.2 UJ	4.7 UJ	4.9 UJ	**3.6 J**
1,2,4-Trichlorobenzene	22,000	99,000	6.4 U	4.6 U	6.2 U	9.5 U	7.3 U	6.5 U	4.1 U	5.3 U	6 U	7 U	6.1 U	6.2 UJ	4.7 U	4.9 UJ	**8.2**
1,4-Dichlorobenzene	2,400	12,000	6.4 U	4.6 U	6.2 U	9.5 U	7.3 U	6.5 U	4.1 U	5.3 U	6 U	7 U	6.1 U	6.2 UJ	4.7 U	4.9 UJ	5.9 U
2-Butanone	28,000,000	200,000,000	13 U	9.2 U	12 U	**33**	**11 J**	**13**	8.1 U	11 U	12 U	14 U	12 U	12 UJ	9.4 U	9.8 UJ	12 U
2-Hexanone	210,000	1,400,000	13 U	9.2 U	12 U	19 U	15 U	13 U	8.1 U	11 U	12 U	14 U	12 U	12 UJ	9.4 U	9.8 UJ	12 U
4-Methyl-2-Pentanone	5,300,000	53,000,000	13 U	9.2 U	12 U	19 U	15 U	13 U	8.1 U	11 U	12 U	14 U	12 U	12 UJ	9.4 U	9.8 UJ	12 U
Acetone	61,000,000	630,000,000	**18**	9.2 U	**12 J**	**63**	**120**	**49**	**97**	**24**	12 U	**33**	**55**	12 UJ	**63**	**5.9 J**	12 U
Benzene	1,100	5,400	6.4 U	4.6 U	6.2 U	9.5 U	7.3 U	6.5 U	4.1 U	5.3 U	6 U	7 U	6.1 U	6.2 UJ	4.7 U	4.9 UJ	5.9 UJ
Carbon disulfide	820,000	3,700,000	6.4 U	4.6 U	6.2 U	9.5 U	7.3 U	6.5 U	4.1 U	5.3 U	6 U	7 U	6.1 U	6.2 UJ	4.7 U	4.9 UJ	5.9 U
Chlorobenzene	290,000	1,400,000	6.4 U	4.6 U	6.2 U	9.5 U	7.3 U	6.5 U	4.1 U	5.3 U	6 U	7 U	6.1 U	6.2 UJ	4.7 U	4.9 UJ	5.9 U
Chloroform	290	1,500	6.4 U	4.6 U	6.2 U	9.5 U	7.3 U	6.5 U	4.1 U	5.3 U	6 U	7 U	6.1 U	6.2 UJ	4.7 U	4.9 UJ	5.9 U
Chloromethane	120,000	500,000	6.4 U	4.6 U	6.2 U	9.5 U	7.3 U	6.5 U	4.1 U	5.3 U	6 U	7 U	6.1 U	6.2 UJ	4.7 U	4.9 UJ	5.9 U
cis-1,2-Dichloroethene	780,000	10,000,000	6.4 U	4.6 U	6.2 U	9.5 U	7.3 U	6.5 U	4.1 U	5.3 U	6 U	7 U	6.1 U	6.2 UJ	4.7 U	4.9 UJ	5.9 U
cis-1,3-Dichloropropene	1,700	8,100	6.4 U	4.6 U	6.2 U	9.5 U	7.3 U	6.5 U	4.1 U	5.3 U	6 U	7 U	6.1 U	6.2 UJ	4.7 U	4.9 UJ	5.9 U
Cyclohexane	7,000,000	29,000,000	6.4 U	**2 J**	6.2 U	9.5 U	7.3 U	**2.6 J**	**1.2 J**	5.3 U	**2.5 J**	7 U	**25 J**	**41 J**	**21**	**6.6 J**	5.9 U
Dichlorodifluoromethane	180,000	780,000	6.4 U	4.6 U	6.2 U	9.5 U	7.3 U	6.5 U	4.1 U	5.3 U	6 U	7 U	6.1 U	6.2 UJ	4.7 U	4.9 UJ	5.9 U
Ethylbenzene	5,400	27,000	6.4 U	4.6 U	6.2 U	9.5 U	7.3 U	6.5 U	4.1 U	5.3 U	6 U	7 U	6.1 U	**1.8 J**	**10**	**4.4 J**	5.9 U
Isopropylbenzene	2,100,000	11,000,000	6.4 U	4.6 U	6.2 U	9.5 U	7.3 U	6.5 U	4.1 U	5.3 U	6 U	7 U	6.1 U	6.2 UJ	**11**	**4.5 J**	5.9 U
m,p-Xylene	3,400,000	17,000,000	6.4 U	4.6 U	6.2 U	9.5 U	7.3 U	6.5 U	4.1 U	**1.6 J**	6 U	7 U	6.1 U	**4.5 J**	**18**	4.9 UJ	5.9 U
Methyl acetate	78,000,000	1,000,000,000	6.4 U	4.6 U	6.2 U	9.5 U	7.3 U	6.5 U	4.1 U	5.3 U	6 U	7 U	6.1 U	6.2 UJ	4.7 U	4.9 UJ	5.9 U
Methylcyclohexane	7,000,000	29,000,000	6.4 U	4.6 U	6.2 U	9.5 U	7.3 U	6.5 U	4.1 U	5.3 U	6 U	7 U	6.1 U	6.2 UJ	4.7 U	4.9 UJ	5.9 U
Methylene chloride	11,000	53,000	6.4 U	5.6 U	6.2 U	9.5 U	7.3 U	6.5 U	4.1 U	**12**	7 U	7 U	6.1 U	11 UJ	4.8 U	4.9 UJ	5.9 U
o-Xylene	3,800,000	19,000,000	6.4 U	4.6 U	6.2 U	9.5 U	7.3 U	6.5 U	4.1 U	5.3 U	6 U	7 U	6.1 U	**1.5 J**	**17**	4.9 UJ	5.9 U
Tetrachloroethene	550	2,600	6.4 U	**6**	**9.8**	**8.9 J**	7.3 U	6.5 U	4.1 U	5.3 U	6 U	7 U	6.1 U	6.2 UJ	4.7 U	4.9 UJ	5.9 U
Toluene	5,000,000	45,000,000	6.4 U	4.6 U	6.2 U	9.5 U	7.3 U	6.5 U	4.1 U	5.3 U	6 U	7 U	6.1 U	**1.6 J**	4.7 U	4.9 UJ	5.9 U
trans-1,3-Dichloropropene	1,700	8,100	6.4 U	4.6 U	6.2 U	9.5 U	7.3 U	6.5 U	4.1 U	5.3 U	6 U	7 U	6.1 U	6.2 UJ	4.7 U	4.9 UJ	5.9 U
Trichloroethene	2,800	14,000	6.4 U	4.6 U	6.2 U	9.5 U	7.3 U	6.5 U	4.1 U	5.3 U	6 U	7 U	6.1 U	6.2 UJ	4.7 U	4.9 UJ	5.9 UJ
Trichlorofluoromethane	790,000	3,400,000	6.4 U	4.6 U	6.2 U	9.5 U	7.3 U	6.5 U	4.1 U	5.3 U	6 U	7 U	6.1 U	6.2 UJ	4.7 U	4.9 UJ	5.9 U

Table 4.2.2-2
Detected Soil VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB008A	SB008B	SB009A	SB009B	SB010A	SB010B	SB011A	SB256A	SB011B	SB012B	SB013A	SB013B	SB014B	SB015A	SB015B
			Sample ID	E3R37RE	E3R40	E3R52	E3R55	E3R84	E3R85	E3R86	E3RB6	E3R87	E3R89	E3Q99	E3R03	E3R28	E3R43	E3R46RE
			Case	36631	36631	36631	36631	36631	36631	36631	36631	36631	36631	36631	36631	36631	36631	36631
			Sampling date	7/17/2007	7/17/2007	7/17/2007	7/17/2007	7/20/2007	7/20/2007	7/20/2007	7/20/2007	7/20/2007	7/20/2007	7/16/2007	7/16/2007	7/17/2007	7/17/2007	7/17/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info								SB011A							
			Investigation area	1	1	1	1	3	3	3	3	3	1	1	1	1	1	1
			Lithology	L2, L3	L1	L1, L3	L1	L1	L1	L1	L1	L1	L1	L1	L1	L2, L3, L4	L2, L3	L3
			Depth (ft bgs)	0-2	4-6	0-2	2-4	0-2	8-10	0-2	0-2	8-10	8-10	0-2	8-10	8-10	0-2	8-10
1,2,3-Trichlorobenzene	49,000	490,000		6.6 UJ	4.2 UJ	7.4 UJ	4.7 UJ	6.5 UJ	4.9 UJ	6 UJ	6.1 UJ	4.2 UJ	**1.6 J**	4.7 U	3.7 U	5.3 UJ	5.6 UJ	6.8 UJ
1,2,4-Trichlorobenzene	22,000	99,000		6.6 UJ	4.2 U	7.4 UJ	4.7 U	6.5 UJ	4.9 UJ	6 UJ	6.1 UJ	4.2 UJ	**1.1 J**	4.7 U	3.7 U	5.3 U	5.6 U	6.8 UJ
1,4-Dichlorobenzene	2,400	12,000		6.6 UJ	4.2 U	7.4 UJ	4.7 U	6.5 UJ	4.9 UJ	6 UJ	6.1 UJ	4.2 UJ	4.4 UJ	4.7 U	3.7 U	5.3 U	5.6 U	6.8 UJ
2-Butanone	28,000,000	200,000,000		13 U	8.4 U	15 U	9.3 U	13 UJ	9.8 UJ	12 UJ	12 UJ	8.4 UJ	8.7 UJ	9.4 U	7.4 U	11 U	11 U	14 UJ
2-Hexanone	210,000	1,400,000		13 U	8.4 U	15 U	9.3 U	13 UJ	9.8 UJ	12 UJ	12 UJ	8.4 UJ	8.7 UJ	9.4 U	7.4 U	11 U	11 U	14 UJ
4-Methyl-2-Pentanone	5,300,000	53,000,000		13 U	8.4 U	15 U	9.3 U	13 UJ	9.8 UJ	12 UJ	12 UJ	8.4 UJ	8.7 UJ	9.4 U	7.4 U	11 U	11 U	14 UJ
Acetone	61,000,000	630,000,000		13 U	**26**	15 U	**14**	13 UJ	**14 J**	**35 J**	**20 J**	**16 J**	**34 J**	**55**	**38**	11 U	**13**	14 UJ
Benzene	1,100	5,400		6.6 U	4.2 U	7.4 U	4.7 U	6.5 UJ	4.9 UJ	6 UJ	6.1 UJ	4.2 UJ	4.4 UJ	4.7 U	3.7 U	5.3 U	5.6 U	6.8 UJ
Carbon disulfide	820,000	3,700,000		6.6 U	4.2 U	7.4 U	4.7 U	6.5 UJ	4.9 UJ	6 UJ	6.1 UJ	4.2 UJ	4.4 UJ	4.7 U	3.7 U	5.3 U	5.6 U	6.8 UJ
Chlorobenzene	290,000	1,400,000		6.6 U	4.2 U	7.4 U	4.7 U	6.5 UJ	4.9 UJ	6 UJ	6.1 UJ	4.2 UJ	4.4 UJ	4.7 U	3.7 U	5.3 U	5.6 U	6.8 UJ
Chloroform	290	1,500		6.6 U	4.2 U	7.4 U	4.7 U	6.5 UJ	4.9 UJ	6 UJ	6.1 UJ	4.2 UJ	4.4 UJ	4.7 U	3.7 U	5.3 U	5.6 U	6.8 UJ
Chloromethane	120,000	500,000		6.6 U	4.2 U	7.4 U	4.7 U	6.5 UJ	4.9 UJ	6 UJ	6.1 UJ	4.2 UJ	4.4 UJ	4.7 U	3.7 U	5.3 U	5.6 U	6.8 UJ
cis-1,2-Dichloroethene	780,000	10,000,000		6.6 U	4.2 U	7.4 U	4.7 U	6.5 UJ	4.9 UJ	6 UJ	6.1 UJ	4.2 UJ	4.4 UJ	4.7 U	3.7 U	5.3 U	5.6 U	6.8 UJ
cis-1,3-Dichloropropene	1,700	8,100		6.6 U	4.2 U	7.4 U	4.7 U	6.5 UJ	4.9 UJ	6 UJ	6.1 UJ	4.2 UJ	4.4 UJ	4.7 U	3.7 U	5.3 U	5.6 U	6.8 UJ
Cyclohexane	7,000,000	29,000,000		**6 J**	**15**	**20 J**	**13**	**1.5 J**	**2.2 J**	**11 J**	**5.6 J**	**5.5 J**	**6.7 J**	**3 J**	3.7 U	**14**	**3.1 J**	**44 J**
Dichlorodifluoromethane	180,000	780,000		6.6 U	4.2 U	7.4 U	4.7 U	6.5 UJ	4.9 UJ	6 UJ	6.1 UJ	4.2 UJ	4.4 UJ	4.7 U	3.7 U	5.3 U	5.6 U	6.8 UJ
Ethylbenzene	5,400	27,000		6.6 U	4.2 U	7.4 U	4.7 U	6.5 UJ	4.9 UJ	6 UJ	6.1 UJ	4.2 UJ	4.4 UJ	4.7 U	3.7 U	5.3 U	5.6 U	6.8 UJ
Isopropylbenzene	2,100,000	11,000,000		6.6 U	4.2 U	7.4 U	4.7 U	6.5 UJ	4.9 UJ	6 UJ	6.1 UJ	4.2 UJ	4.4 UJ	4.7 U	3.7 U	5.3 U	5.6 U	6.8 UJ
m,p-Xylene	3,400,000	17,000,000		**1.5 J**	4.2 U	7.4 U	**2.6 J**	6.5 UJ	4.9 UJ	**1.9 J**	**3.4 J**	4.2 UJ	**1.4 J**	**1.6 J**	3.7 U	**1.4 J**	5.6 U	**1.5 J**
Methyl acetate	78,000,000	1,000,000,000		6.6 U	4.2 U	7.4 U	4.7 U	6.5 UJ	4.9 UJ	6 UJ	6.1 UJ	4.2 UJ	4.4 UJ	4.7 U	3.7 U	5.3 U	5.6 U	6.8 UJ
Methylcyclohexane	7,000,000	29,000,000		6.6 U	4.2 U	7.4 U	4.7 U	6.5 UJ	4.9 UJ	6 UJ	6.1 UJ	4.2 UJ	4.4 UJ	4.7 U	3.7 U	5.3 U	5.6 U	6.8 UJ
Methylene chloride	11,000	53,000		6.6 U	6 U	7.4 U	6.8 U	7.3 UJ	7.3 UJ	**24 J**	**25 J**	8.3 UJ	**15 J**	4.7 U	3.7 U	5.3 U	5.6 U	7.4 UJ
o-Xylene	3,800,000	19,000,000		6.6 U	4.2 U	7.4 U	4.7 U	6.5 UJ	4.9 UJ	6 UJ	6.1 UJ	4.2 UJ	4.4 UJ	4.7 U	3.7 U	5.3 U	5.6 U	6.8 UJ
Tetrachloroethene	550	2,600		6.6 U	4.2 U	7.4 U	4.7 U	6.5 UJ	4.9 UJ	6 UJ	6.1 UJ	4.2 UJ	4.4 UJ	4.7 U	3.7 U	5.3 U	5.6 U	6.8 UJ
Toluene	5,000,000	45,000,000		6.6 U	4.2 U	7.4 U	4.7 U	6.5 UJ	4.9 UJ	6 UJ	6.1 UJ	4.2 UJ	4.4 UJ	**1 J**	3.7 U	5.3 U	5.6 U	6.8 UJ
trans-1,3-Dichloropropene	1,700	8,100		6.6 U	4.2 U	7.4 U	4.7 U	6.5 UJ	4.9 UJ	6 UJ	6.1 UJ	4.2 UJ	4.4 UJ	4.7 U	3.7 U	5.3 U	5.6 U	6.8 UJ
Trichloroethene	2,800	14,000		6.6 U	4.2 U	7.4 U	4.7 U	6.5 UJ	4.9 UJ	6 UJ	6.1 UJ	4.2 UJ	4.4 UJ	4.7 U	3.7 U	5.3 U	5.6 U	6.8 UJ
Trichlorofluoromethane	790,000	3,400,000		6.6 U	4.2 U	7.4 U	4.7 U	6.5 UJ	4.9 UJ	6 UJ	6.1 UJ	4.2 UJ	4.4 UJ	4.7 U	3.7 U	5.3 U	5.6 U	6.8 UJ

Table 4.2.2-2
Detected Soil VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	SB016A E3RZ5 36664 7/31/2007 µg/kg 1 L2, L4 0-2	SB016B E3RZ6 36664 7/31/2007 µg/kg 1 L2, L3, L4 4-6	SB018A E3R31 36631 7/17/2007 µg/kg 1 L2, L3 0-2	SB018B E3R34 36631 7/17/2007 µg/kg 1 L1, L2, L3 8-10	SB019A E3R06 36631 7/16/2007 µg/kg 1 L2, L3 0-2	SB019B E3R09 36631 7/16/2007 µg/kg 1 L2, L3 5-7	SB020A E3RX4 36664 7/31/2007 µg/kg 3 L1 0-2	SB020B E3RX5 36664 7/31/2007 µg/kg 3 L1 5-7	SB021A E3RX6 36664 7/31/2007 µg/kg 3 L1 0-2	SB021B E3RX7 36664 7/31/2007 µg/kg 3 L1 4-6	SB022A E3RX8RE 36664 7/31/2007 µg/kg 3 L3 0-2	SB022B E3RX9 36664 7/31/2007 µg/kg 3 L1 4-6	SB023B E3RA1 36631 7/19/2007 µg/kg 3 L4 8-10	SB024A E3RB1 36631 7/19/2007 µg/kg 3 L1, L4 0-2	SB024B E3RB2 36631 7/19/2007 µg/kg 3 L1, L4 8-10
1,2,3-Trichlorobenzene	49,000	490,000	7.5 UJ	6.9 UJ	R	6 UJ	4.9 U	5.9 U	6.5 UJ	6.7 U	7.3 U	7.2 U	5.7 UJ	6.1 U	4 UJ	5.3 UJ	5.1 UJ
1,2,4-Trichlorobenzene	22,000	99,000	7.5 UJ	6.9 UJ	R	6 U	4.9 U	5.9 U	6.5 UJ	6.7 U	7.3 U	7.2 U	5.7 UJ	6.1 U	4 U	5.3 U	5.1 U
1,4-Dichlorobenzene	2,400	12,000	7.5 UJ	6.9 UJ	R	6 U	4.9 U	5.9 U	6.5 UJ	6.7 U	7.3 U	7.2 U	5.7 UJ	6.1 U	4 U	5.3 U	5.1 U
2-Butanone	28,000,000	200,000,000	15 UJ	14 UJ	R	12 U	**7.2 J**	**9.4 J**	13 U	13 U	15 U	14 U	11 U	12 U	8.1 U	11 U	10 U
2-Hexanone	210,000	1,400,000	15 UJ	14 UJ	R	12 U	9.9 U	12 U	13 UJ	13 U	15 U	14 U	11 U	12 U	9 U	13 U	10 U
4-Methyl-2-Pentanone	5,300,000	53,000,000	15 UJ	14 UJ	R	12 U	9.9 U	12 U	13 UJ	13 U	15 U	14 U	11 U	12 U	8.1 U	11 U	10 U
Acetone	61,000,000	630,000,000	15 UJ	14 UJ	R	12 U	**41**	**52**	13 U	13 U	23 U	14 U	11 U	12 U	8.1 U	11 U	10 U
Benzene	1,100	5,400	7.5 UJ	6.9 UJ	R	6 U	4.9 U	5.9 U	6.5 UJ	6.7 U	7.3 U	7.2 U	5.7 U	6.1 U	4 U	5.3 U	5.1 U
Carbon disulfide	820,000	3,700,000	7.5 UJ	6.9 UJ	R	6 U	4.9 U	5.9 U	6.5 U	6.7 U	7.3 U	7.2 U	5.7 U	6.1 U	4 U	5.3 U	5.1 U
Chlorobenzene	290,000	1,400,000	7.5 UJ	6.9 UJ	R	6 U	4.9 U	5.9 U	6.5 UJ	6.7 U	7.3 U	7.2 U	5.7 UJ	6.1 U	4 U	5.3 U	5.1 U
Chloroform	290	1,500	7.5 UJ	6.9 UJ	R	6 U	4.9 U	5.9 U	6.5 U	6.7 U	7.3 U	7.2 U	5.7 U	6.1 U	4 U	5.3 U	5.1 U
Chloromethane	120,000	500,000	7.5 UJ	6.9 UJ	R	6 U	4.9 U	5.9 U	6.5 U	6.7 U	7.3 U	7.2 U	5.7 U	6.1 U	4 U	5.3 U	5.1 U
cis-1,2-Dichloroethene	780,000	10,000,000	7.5 UJ	6.9 UJ	R	6 U	4.9 U	5.9 U	6.5 U	6.7 U	7.3 U	7.2 U	5.7 U	6.1 U	4 U	5.3 U	5.1 U
cis-1,3-Dichloropropene	1,700	8,100	7.5 UJ	6.9 UJ	R	6 U	4.9 U	5.9 U	6.5 UJ	6.7 U	7.3 U	7.2 UJ	5.7 UJ	6.1 U	4 U	5.3 U	5.1 U
Cyclohexane	7,000,000	29,000,000	7.5 UJ	**8.1 J**	**35 J**	**18**	**1.4 J**	**9.2**	6.5 UJ	**4.7 J**	**4.7 J**	7.2 U	5.7 U	6.1 U	**8.9**	**19 J**	**9.6**
Dichlorodifluoromethane	180,000	780,000	7.5 UJ	6.9 UJ	R	6 U	4.9 U	5.9 U	6.5 U	6.7 U	7.3 U	7.2 U	5.7 U	6.1 U	4 U	5.3 U	5.1 U
Ethylbenzene	5,400	27,000	7.5 UJ	6.9 UJ	R	6 U	4.9 U	5.9 U	6.5 UJ	6.7 U	7.3 U	7.2 U	5.7 U	6.1 U	4 U	5.3 U	5.1 U
Isopropylbenzene	2,100,000	11,000,000	7.5 UJ	6.9 UJ	R	6 U	4.9 U	5.9 U	6.5 UJ	6.7 U	7.3 U	7.2 U	5.7 U	6.1 U	4 U	5.3 U	5.1 U
m,p-Xylene	3,400,000	17,000,000	7.5 UJ	6.9 UJ	**2.3 J**	6 U	4.9 U	**1.3 J**	6.5 UJ	6.7 U	7.3 U	7.2 U	5.7 U	6.1 U	4 U	**0.74 J**	5.1 U
Methyl acetate	78,000,000	1,000,000,000	7.5 UJ	6.9 UJ	R	6 U	4.9 U	5.9 U	6.5 U	6.7 U	7.3 U	7.2 U	5.7 U	6.1 U	4 U	5.3 U	5.1 U
Methylcyclohexane	7,000,000	29,000,000	7.5 UJ	6.9 UJ	R	6 U	4.9 U	5.9 U	6.5 UJ	6.7 U	7.3 U	7.2 U	5.7 U	6.1 U	4 U	5.3 U	5.1 U
Methylene chloride	11,000	53,000	**4.4 J**	**5.4 J**	R	7.1 U	4.9 U	5.9 U	**4.2 J**	**3.8 J**	**5.1 J**	**4.4 J**	**3.2 J**	**3.5 J**	4 UJ	5.3 UJ	5.1 UJ
o-Xylene	3,800,000	19,000,000	7.5 UJ	6.9 UJ	R	6 U	4.9 U	5.9 U	6.5 UJ	6.7 U	7.3 U	7.2 U	5.7 U	6.1 U	4 U	5.3 U	5.1 U
Tetrachloroethene	550	2,600	7.5 UJ	6.9 UJ	R	6 U	4.9 U	5.9 U	6.5 UJ	6.7 U	7.3 U	7.2 U	5.7 U	6.1 U	4 U	5.3 U	5.1 U
Toluene	5,000,000	45,000,000	7.5 UJ	6.9 UJ	R	6 U	4.9 U	5.9 U	6.5 UJ	6.7 U	**1.4 J**	7.2 U	5.7 U	6.1 U	4 U	5.3 U	5.1 U
trans-1,3-Dichloropropene	1,700	8,100	7.5 UJ	6.9 UJ	R	6 U	4.9 U	5.9 U	6.5 UJ	6.7 U	7.3 U	7.2 UJ	5.7 UJ	6.1 U	4 U	5.3 U	5.1 U
Trichloroethene	2,800	14,000	7.5 UJ	6.9 UJ	R	6 U	4.9 U	5.9 U	6.5 UJ	6.7 U	7.3 U	7.2 U	5.7 U	6.1 U	4 U	5.3 U	5.1 U
Trichlorofluoromethane	790,000	3,400,000	7.5 UJ	6.9 UJ	R	6 U	4.9 U	5.9 U	6.5 U	6.7 U	7.3 U	7.2 U	5.7 U	6.1 U	4 U	5.3 U	5.1 U

Table 4.2.2-2
Detected Soil VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB255B	SB025A	SB025B	SB027A	SB027B	SB028A	SB297A	SB028B	SB029A	SB029B	SB030B	SB031A	SB032A	SB033A	SB034A
			Sample ID	E3RB3	E3SH8	E3SH9	E3S63	E3S64	E3S65	E3S66	E3S67	E3S70	E3S72	E3S69	E3RY2RE	E3S75RE	E3S73RE	E3RY0RE
			Case	36631	36697	36697	36664	36664	36664	36664	36664	36664	36664	36664	36664	36664	36664	36664
			Sampling date	7/19/2007	8/10/2007	8/10/2007	8/3/2007	8/3/2007	8/3/2007	8/3/2007	8/3/2007	8/3/2007	8/3/2007	8/3/2007	7/31/2007	8/3/2007	8/3/2007	7/31/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info	SB024B						SB028A								
			Investigation area	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
			Lithology	L1, L4	L1	L1	L1	L1	L1, L2, L3	L1, L2, L3	L1	L1	L1	L1	L4	L2, L3, L4	L1, L4	L2, L3
			Depth (ft bgs)	8-10	0-2	8-10	0-2	6-8	0-2	0-2	6-8	0-2	6-8	5-7	0-2	0-2	0-2	0-2
1,2,3-Trichlorobenzene	49,000	490,000		4.8 UJ	6.1 U	5.5 U	5.7 UJ	6.5 U	5.9 UJ	5.8 UJ	7.4 U	5.7 UJ	6.1 U	5.4 U	7.3 UJ	9.4 UJ	8.7 UJ	8.9 UJ
1,2,4-Trichlorobenzene	22,000	99,000		4.8 U	6.1 U	5.5 U	5.7 UJ	6.5 U	5.9 UJ	5.8 UJ	7.4 U	5.7 UJ	6.1 U	5.4 U	7.3 UJ	9.4 UJ	8.7 UJ	8.9 UJ
1,4-Dichlorobenzene	2,400	12,000		4.8 U	6.1 U	5.5 U	5.7 UJ	6.5 U	5.9 UJ	5.8 UJ	7.4 U	5.7 UJ	6.1 U	5.4 U	7.3 UJ	9.4 UJ	8.7 UJ	8.9 UJ
2-Butanone	28,000,000	200,000,000		9.6 U	12 U	11 U	R	13 U	12 U	12 U	15 U	11 U	12 U	11 U	15 U	19 U	17 UJ	18 U
2-Hexanone	210,000	1,400,000		9.6 U	12 U	11 U	11 U	13 U	12 U	12 U	15 U	11 U	12 U	11 U	15 U	19 U	17 UJ	18 U
4-Methyl-2-Pentanone	5,300,000	53,000,000		9.6 U	12 U	11 U	11 U	13 U	12 U	12 U	15 U	11 U	12 U	11 U	15 U	19 U	17 UJ	18 U
Acetone	61,000,000	630,000,000		9.6 U	**11 J**	**18**	R	52 U	12 U	12 U	62 U	11 U	**11 J**	**140**	15 U	19 U	**93 J**	18 U
Benzene	1,100	5,400		4.8 U	6.1 U	5.5 U	5.7 U	6.5 U	5.9 U	5.8 U	7.4 U	5.7 U	6.1 U	5.4 U	7.3 U	9.4 U	8.7 UJ	8.9 U
Carbon disulfide	820,000	3,700,000		4.8 U	6.1 U	5.5 U	5.7 U	6.5 U	5.9 U	5.8 U	7.4 U	5.7 U	6.1 U	5.4 U	7.3 U	9.4 U	8.7 UJ	8.9 U
Chlorobenzene	290,000	1,400,000		4.8 U	6.1 U	5.5 U	5.7 UJ	6.5 U	5.9 UJ	5.8 UJ	7.4 U	5.7 UJ	6.1 U	5.4 U	7.3 UJ	9.4 U	8.7 UJ	8.9 UJ
Chloroform	290	1,500		4.8 U	6.1 U	5.5 U	5.7 U	6.5 U	5.9 U	5.8 U	7.4 U	5.7 U	6.1 U	5.4 U	7.3 U	9.4 U	8.7 UJ	8.9 U
Chloromethane	120,000	500,000		4.8 U	6.1 U	5.5 U	5.7 U	6.5 U	5.9 U	5.8 U	7.4 U	5.7 U	6.1 U	5.4 U	7.3 U	9.4 U	8.7 UJ	8.9 U
cis-1,2-Dichloroethene	780,000	10,000,000		4.8 U	6.1 U	5.5 U	5.7 U	6.5 U	5.9 U	5.8 U	7.4 U	5.7 U	6.1 U	5.4 U	7.3 U	9.4 U	8.7 UJ	8.9 U
cis-1,3-Dichloropropene	1,700	8,100		4.8 U	6.1 U	5.5 U	5.7 UJ	6.5 UJ	5.9 UJ	5.8 UJ	7.4 UJ	5.7 UJ	6.1 U	5.4 UJ	7.3 UJ	9.4 U	8.7 UJ	8.9 U
Cyclohexane	7,000,000	29,000,000		**18**	**2.6 J**	**4.1 J**	**1.3 J**	**3.8 J**	**2.1 J**	**3.3 J**	**5.6 J**	**7.3**	6.1 U	**13**	7.3 U	**7.1 J**	8.7 UJ	8.9 U
Dichlorodifluoromethane	180,000	780,000		4.8 U	6.1 U	5.5 U	**2.4 J**	6.5 U	**1 J**	**1.7 J**	7.4 U	5.7 U	6.1 U	**2.7 J**	7.3 U	**9.4**	8.7 UJ	8.9 U
Ethylbenzene	5,400	27,000		4.8 U	**0.48 J**	**0.38 J**	5.7 UJ	6.5 U	5.9 U	5.8 UJ	7.4 U	5.7 UJ	6.1 U	5.4 U	7.3 U	9.4 U	8.7 UJ	8.9 U
Isopropylbenzene	2,100,000	11,000,000		4.8 U	6.1 U	5.5 U	5.7 UJ	6.5 U	5.9 U	5.8 UJ	7.4 U	5.7 UJ	6.1 U	5.4 U	7.3 U	9.4 U	8.7 UJ	8.9 U
m,p-Xylene	3,400,000	17,000,000		**1.1 J**	**1.3 J**	**1 J**	5.7 UJ	6.5 U	5.9 U	5.8 UJ	7.4 U	5.7 UJ	6.1 U	5.4 U	7.3 U	9.4 U	8.7 UJ	8.9 U
Methyl acetate	78,000,000	1,000,000,000		4.8 U	6.1 U	5.5 U	5.7 U	6.5 U	5.9 U	5.8 U	7.4 U	5.7 U	6.1 U	5.4 U	7.3 U	9.4 U	8.7 UJ	8.9 U
Methylcyclohexane	7,000,000	29,000,000		4.8 U	6.1 U	5.5 U	5.7 U	6.5 U	5.9 U	5.8 U	7.4 U	5.7 U	6.1 U	5.4 U	7.3 U	9.4 U	8.7 UJ	8.9 U
Methylene chloride	11,000	53,000		4.8 UJ	**2.1 J**	**1.1 J**	5.7 U	**7.2**	5.9 U	5.8 U	**13**	**2.4 J**	6.1 U	5.4 U	**3.7 J**	**7.3 J**	8.7 UJ	**3.5 J**
o-Xylene	3,800,000	19,000,000		4.8 U	**0.35 J**	**0.15 J**	5.7 UJ	6.5 U	5.9 U	5.8 UJ	7.4 U	5.7 UJ	6.1 U	5.4 U	7.3 U	9.4 U	8.7 UJ	8.9 U
Tetrachloroethene	550	2,600		4.8 U	6.1 U	5.5 U	5.7 UJ	6.5 U	5.9 U	5.8 UJ	7.4 U	5.7 UJ	6.1 U	5.4 U	7.3 U	9.4 U	8.7 UJ	8.9 U
Toluene	5,000,000	45,000,000		4.8 U	1.1 U	**26**	**0.6 J**	6.5 U	5.9 U	5.8 UJ	**4.2 J**	5.7 UJ	6.1 U	5.4 U	7.3 U	9.4 U	8.7 UJ	8.9 U
trans-1,3-Dichloropropene	1,700	8,100		4.8 U	6.1 U	5.5 U	5.7 UJ	6.5 UJ	5.9 UJ	5.8 UJ	7.4 UJ	5.7 UJ	6.1 U	5.4 UJ	7.3 UJ	9.4 U	8.7 UJ	8.9 U
Trichloroethene	2,800	14,000		4.8 U	6.1 U	5.5 U	5.7 UJ	6.5 U	5.9 U	5.8 UJ	7.4 U	5.7 UJ	6.1 U	5.4 U	7.3 U	9.4 U	8.7 UJ	8.9 U
Trichlorofluoromethane	790,000	3,400,000		4.8 U	6.1 U	5.5 U	5.7 U	6.5 U	5.9 U	5.8 U	7.4 U	5.7 U	6.1 U	5.4 U	7.3 U	9.4 U	8.7 UJ	8.9 U

Table 4.2.2-2
Detected Soil VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB034B E3RY1 36664 7/31/2007 µg/kg 3 L2, L3, L4 8-10	SB035A E3SH3 36697 8/9/2007 µg/kg 3 L4 0-2	SB036A E3RC4 36648 7/23/2007 µg/kg 3 L4 0-2	SB036B E3RC5 36648 7/23/2007 µg/kg 3 L1 8-10	SB037A E3RC2 36631 7/20/2007 µg/kg 3 L1 0-2	SB037B E3RC3 36631 7/20/2007 µg/kg 3 L1 8-10	SB038A E3RC0 36631 7/20/2007 µg/kg 3 L1 0-2	SB038B E3RC1 36631 7/20/2007 µg/kg 3 L2, L3 2-4	SB039A E3RB8 36631 7/20/2007 µg/kg 3 L2, L3 0-2	SB039B E3RB9 36631 7/20/2007 µg/kg 3 L1 8-10	SB040A E3S15 36664 8/1/2007 µg/kg 3 L3, L4 0-2	SB040B E3S16 36664 8/1/2007 µg/kg 3 L1 6-8	SB041A E3RD8 36631 7/20/2007 µg/kg 3 L1 0-2	SB041B E3RD9 36631 7/20/2007 µg/kg 3 L1 9-11	SB042A E3RD4 36631 7/20/2007 µg/kg 3 L4 0-2
1,2,3-Trichlorobenzene	49,000	490,000		6 UJ	5.4 U	4.6 U	5 U	5.4 UJ	360 UJ	9.5 UJ	7.8 UJ	5.7 UJ	4.4 UJ	7.9 U	5.4 U	6.4 UJ	4.1 UJ	4.6 UJ
1,2,4-Trichlorobenzene	22,000	99,000		6 UJ	5.4 U	4.6 U	5 U	5.4 UJ	360 UJ	9.5 UJ	7.8 UJ	5.7 UJ	4.4 UJ	7.9 U	5.4 U	6.4 UJ	4.1 U	4.6 UJ
1,4-Dichlorobenzene	2,400	12,000		6 UJ	5.4 U	4.6 U	5 U	5.4 UJ	360 UJ	9.5 UJ	7.8 UJ	5.7 UJ	4.4 UJ	7.9 U	5.4 U	6.4 UJ	4.1 U	4.6 UJ
2-Butanone	28,000,000	200,000,000		12 U	11 U	9.3 U	9.9 U	11 UJ	710 UJ	19 UJ	16 UJ	11 UJ	8.7 UJ	16 U	11 U	13 UJ	8.1 U	9.3 UJ
2-Hexanone	210,000	1,400,000		12 U	11 U	9.3 U	9.9 U	11 UJ	710 UJ	19 UJ	16 UJ	11 UJ	8.7 UJ	16 U	11 U	13 UJ	8.1 U	9.3 UJ
4-Methyl-2-Pentanone	5,300,000	53,000,000		12 U	11 U	9.3 U	9.9 U	11 UJ	710 UJ	19 UJ	16 UJ	11 UJ	8.7 UJ	16 U	11 U	13 UJ	8.1 U	9.3 UJ
Acetone	61,000,000	630,000,000		17 U	11 U	9.3 U	9.9 U	11 UJ	**1,900 J**	**63 J**	**24 J**	11 UJ	**15 J**	**160**	**51**	**30 J**	8.1 U	**64 J**
Benzene	1,100	5,400		6 U	5.4 U	4.6 U	5 U	5.4 UJ	360 UJ	9.5 UJ	7.8 UJ	5.7 UJ	4.4 UJ	7.9 U	5.4 U	6.4 UJ	4.1 U	4.6 UJ
Carbon disulfide	820,000	3,700,000		6 U	5.4 U	**1.5 J**	5 U	5.4 UJ	360 UJ	9.5 UJ	7.8 UJ	5.7 UJ	4.4 UJ	7.9 U	5.4 U	6.4 UJ	4.1 U	4.6 UJ
Chlorobenzene	290,000	1,400,000		6 UJ	5.4 U	4.6 U	5 U	5.4 UJ	360 UJ	9.5 UJ	7.8 UJ	5.7 UJ	4.4 UJ	7.9 U	5.4 U	6.4 UJ	4.1 U	4.6 UJ
Chloroform	290	1,500		6 U	5.4 U	4.6 U	5 U	5.4 UJ	360 UJ	9.5 UJ	7.8 UJ	5.7 UJ	4.4 UJ	7.9 U	5.4 U	6.4 UJ	4.1 U	4.6 UJ
Chloromethane	120,000	500,000		6 U	5.4 U	4.6 U	5 U	5.4 UJ	360 UJ	9.5 UJ	7.8 UJ	5.7 UJ	4.4 UJ	7.9 U	5.4 U	6.4 UJ	4.1 U	4.6 UJ
cis-1,2-Dichloroethene	780,000	10,000,000		6 U	5.4 U	4.6 U	5 U	5.4 UJ	360 UJ	9.5 UJ	7.8 UJ	5.7 UJ	4.4 UJ	7.9 U	5.4 U	6.4 UJ	4.1 U	4.6 UJ
cis-1,3-Dichloropropene	1,700	8,100		6 UJ	5.4 U	4.6 U	5 U	5.4 UJ	360 UJ	9.5 UJ	7.8 UJ	5.7 UJ	4.4 UJ	7.9 U	5.4 U	6.4 UJ	4.1 U	4.6 UJ
Cyclohexane	7,000,000	29,000,000		6 U	**5.4**	**2.7 J**	**2.6 J**	**12 J**	**300 J**	**8.6 J**	**7 J**	**1.7 J**	4.4 UJ	7.9 U	**4.1 J**	6.4 UJ	**1.5 J**	**4.8 J**
Dichlorodifluoromethane	180,000	780,000		6 U	5.4 U	4.6 U	5 U	5.4 UJ	360 UJ	9.5 UJ	7.8 UJ	5.7 UJ	4.4 UJ	7.9 U	5.4 U	6.4 UJ	4.1 U	4.6 UJ
Ethylbenzene	5,400	27,000		6 U	5.4 U	4.6 U	5 U	5.4 UJ	360 UJ	9.5 UJ	7.8 UJ	5.7 UJ	4.4 UJ	7.9 U	5.4 U	6.4 UJ	4.1 U	4.6 UJ
Isopropylbenzene	2,100,000	11,000,000		6 U	5.4 U	4.6 U	5 U	5.4 UJ	360 UJ	9.5 UJ	7.8 UJ	5.7 UJ	4.4 UJ	7.9 U	5.4 U	6.4 UJ	4.1 U	4.6 UJ
m,p-Xylene	3,400,000	17,000,000		6 U	**0.23 J**	4.6 U	5 U	5.4 UJ	**77 J**	**3.5 J**	7.8 UJ	5.7 UJ	4.4 UJ	7.9 U	5.4 U	6.4 UJ	4.1 U	**1.7 J**
Methyl acetate	78,000,000	1,000,000,000		6 U	5.4 U	4.6 U	5 U	5.4 UJ	360 UJ	9.5 UJ	7.8 UJ	5.7 UJ	4.4 UJ	7.9 U	5.4 U	6.4 UJ	4.1 U	4.6 UJ
Methylcyclohexane	7,000,000	29,000,000		6 U	5.4 U	4.6 U	5 U	5.4 UJ	360 UJ	9.5 UJ	7.8 UJ	5.7 UJ	4.4 UJ	7.9 U	5.4 U	6.4 UJ	4.1 U	4.6 UJ
Methylene chloride	11,000	53,000		**4.3 J**	**1.9 J**	4.6 U	**0.91 J**	16 UJ	**1,200 J**	**42 J**	16 UJ	8.8 UJ	9.6 UJ	7.9 U	5.4 U	10 UJ	5.6 U	**19 J**
o-Xylene	3,800,000	19,000,000		6 U	5.4 U	4.6 U	5 U	5.4 UJ	360 UJ	9.5 UJ	7.8 UJ	5.7 UJ	4.4 UJ	7.9 U	5.4 U	6.4 UJ	4.1 U	4.6 UJ
Tetrachloroethene	550	2,600		6 U	5.4 U	4.6 U	5 U	5.4 UJ	360 UJ	9.5 UJ	7.8 UJ	5.7 UJ	4.4 UJ	7.9 U	5.4 U	6.4 UJ	4.1 U	4.6 UJ
Toluene	5,000,000	45,000,000		**0.98 J**	5.4 U	4.6 U	5 U	5.4 UJ	360 UJ	9.5 UJ	7.8 UJ	5.7 UJ	4.4 UJ	**5 J**	**9.1**	6.4 UJ	4.1 U	4.6 UJ
trans-1,3-Dichloropropene	1,700	8,100		6 UJ	5.4 U	4.6 U	5 U	5.4 UJ	360 UJ	9.5 UJ	7.8 UJ	5.7 UJ	4.4 UJ	7.9 U	5.4 U	6.4 UJ	4.1 U	4.6 UJ
Trichloroethene	2,800	14,000		6 U	5.4 U	4.6 U	5 U	5.4 UJ	360 UJ	9.5 UJ	7.8 UJ	5.7 UJ	4.4 UJ	7.9 U	5.4 U	6.4 UJ	4.1 U	4.6 UJ
Trichlorofluoromethane	790,000	3,400,000		6 U	5.4 U	4.6 U	5 U	5.4 UJ	360 UJ	9.5 UJ	7.8 UJ	5.7 UJ	4.4 UJ	7.9 U	5.4 U	6.4 UJ	4.1 U	4.6 UJ

Table 4.2.2-2
Detected Soil VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	SB042B E3RD5 36631 7/20/2007 µg/kg 3 L1 8-10	SB043A E3RF0 36648 7/23/2007 µg/kg 3 L4 0-2	SB043B E3RF1 36648 7/23/2007 µg/kg 3 L2, L3 4-5	SB044A E3RE8 36648 7/23/2007 µg/kg 3 L4 0-2	SB044B E3RE9 36648 7/23/2007 µg/kg 3 L2, L3, L4 8-10	SB261B E3RF3 36648 7/23/2007 µg/kg SB044B 3 L2, L3, L4 8-10	SB045A E3RE6RE 36648 7/23/2007 µg/kg 3 L4 0-2	SB045B E3RE7 36648 7/23/2007 µg/kg 3 L1 8-10	SB046A E3RE4 36648 7/23/2007 µg/kg 3 L3, L4 0-2	SB046B E3RE5 36648 7/23/2007 µg/kg 3 L1 8-10	SB047A E3RD6 36631 7/20/2007 µg/kg 3 L2, L3 0-2	SB047B E3RD7 36631 7/20/2007 µg/kg 3 L1 9-11	SB048A E3RE1RE 36631 7/20/2007 µg/kg 3 L1, L2, L3 0-2	SB048B E3RE2 36631 7/20/2007 µg/kg 3 L1 9-11	SB049A E3S17 36664 8/1/2007 µg/kg 3 L1, L3 0-2
1,2,3-Trichlorobenzene	49,000	490,000	6.8 UJ	6.3 U	4.9 U	5.2 U	6.8 UJ	6.5 UJ	13 UJ	4.2 U	5.9 UJ	4.6 U	5.9 UJ	5.1 UJ	6.1 UJ	4.6 UJ	7 U
1,2,4-Trichlorobenzene	22,000	99,000	6.8 UJ	6.3 U	4.9 U	5.2 U	6.8 UJ	6.5 UJ	13 UJ	4.2 U	5.9 UJ	4.6 U	5.9 UJ	5.1 UJ	6.1 UJ	4.6 U	7 U
1,4-Dichlorobenzene	2,400	12,000	6.8 UJ	6.3 U	4.9 U	5.2 U	6.8 UJ	6.5 UJ	13 UJ	4.2 U	5.9 UJ	4.6 U	5.9 UJ	5.1 UJ	6.1 UJ	4.6 U	7 U
2-Butanone	28,000,000	200,000,000	14 UJ	13 U	9.9 U	10 U	14 U	13 U	26 U	8.4 U	12 U	9.1 U	**7.2 J**	10 UJ	12 U	9.3 U	**20**
2-Hexanone	210,000	1,400,000	14 UJ	13 U	9.9 U	10 U	14 U	13 UJ	26 U	8.4 U	12 U	9.1 U	12 UJ	10 UJ	12 UJ	9.3 U	14 U
4-Methyl-2-Pentanone	5,300,000	53,000,000	14 UJ	13 U	9.9 U	10 U	14 U	13 UJ	26 U	8.4 U	12 U	9.1 U	12 UJ	10 UJ	12 UJ	9.3 U	14 U
Acetone	61,000,000	630,000,000	**33 J**	13 U	9.9 U	10 U	14 U	**6.7 J**	26 U	8.4 U	12 U	9.1 U	**16 J**	**24 J**	12 U	9.3 U	**120**
Benzene	1,100	5,400	6.8 UJ	6.3 U	4.9 U	5.2 U	6.8 U	6.5 UJ	13 U	4.2 U	5.9 U	4.6 U	5.9 UJ	5.1 UJ	6.1 UJ	4.6 U	7 U
Carbon disulfide	820,000	3,700,000	6.8 UJ	6.3 U	4.9 U	5.2 U	6.8 U	6.5 U	13 U	**20**	**1.5 J**	4.6 U	5.9 UJ	5.1 UJ	6.1 U	4.6 U	7 U
Chlorobenzene	290,000	1,400,000	6.8 UJ	6.3 U	4.9 U	5.2 U	6.8 U	6.5 UJ	13 U	4.2 U	5.9 U	4.6 U	5.9 UJ	5.1 UJ	6.1 UJ	4.6 U	7 U
Chloroform	290	1,500	6.8 UJ	6.3 U	4.9 U	5.2 U	6.8 U	6.5 U	13 U	4.2 U	5.9 U	4.6 U	5.9 UJ	5.1 UJ	6.1 U	4.6 U	7 U
Chloromethane	120,000	500,000	6.8 UJ	6.3 U	4.9 U	5.2 U	6.8 U	6.5 U	13 U	4.2 U	5.9 U	4.6 U	5.9 UJ	5.1 UJ	6.1 U	4.6 U	7 U
cis-1,2-Dichloroethene	780,000	10,000,000	6.8 UJ	6.3 U	4.9 U	5.2 U	6.8 U	6.5 U	13 U	4.2 U	5.9 U	4.6 U	5.9 UJ	5.1 UJ	6.1 U	4.6 U	7 U
cis-1,3-Dichloropropene	1,700	8,100	6.8 UJ	6.3 U	4.9 U	5.2 U	6.8 U	6.5 UJ	13 U	4.2 U	5.9 U	4.6 U	5.9 UJ	5.1 UJ	6.1 UJ	4.6 U	7 UJ
Cyclohexane	7,000,000	29,000,000	**15 J**	**5.8 J**	**3.8 J**	**1.2 J**	6.8 U	**22 J**	**2.2 J**	**1.2 J**	**1.6 J**	**1.2 J**	**4.1 J**	5.1 UJ	**4.6 J**	**4.3 J**	**21**
Dichlorodifluoromethane	180,000	780,000	6.8 UJ	6.3 U	4.9 U	5.2 U	6.8 U	6.5 U	13 U	4.2 U	5.9 U	4.6 U	5.9 UJ	5.1 UJ	6.1 U	4.6 U	7 U
Ethylbenzene	5,400	27,000	6.8 UJ	6.3 U	**0.37 J**	5.2 U	6.8 U	**1.3 J**	13 U	4.2 U	5.9 U	4.6 U	5.9 UJ	5.1 UJ	6.1 UJ	4.6 U	7 U
Isopropylbenzene	2,100,000	11,000,000	6.8 UJ	6.3 U	4.9 U	5.2 U	6.8 U	6.5 UJ	13 U	4.2 U	5.9 U	4.6 U	5.9 UJ	5.1 UJ	6.1 UJ	4.6 U	7 U
m,p-Xylene	3,400,000	17,000,000	**2.1 J**	6.3 U	**1 J**	5.2 U	**0.35 J**	**2.9 J**	13 U	4.2 U	5.9 U	4.6 U	5.9 UJ	5.1 UJ	6.1 UJ	4.6 U	7 U
Methyl acetate	78,000,000	1,000,000,000	6.8 UJ	6.3 U	4.9 U	5.2 U	6.8 U	6.5 U	13 U	4.2 U	5.9 U	4.6 U	5.9 UJ	5.1 UJ	6.1 U	4.6 U	7 U
Methylcyclohexane	7,000,000	29,000,000	6.8 UJ	6.3 U	4.9 U	5.2 U	**3.9 J**	**5.4 J**	13 U	4.2 U	5.9 U	4.6 U	5.9 UJ	5.1 UJ	6.1 UJ	4.6 U	7 U
Methylene chloride	11,000	53,000	**23 J**	**1.6 J**	**1.5 J**	5.2 U	6.8 U	**7.7**	13 U	4.2 U	5.9 U	**0.37 J**	14 UJ	11 UJ	7.2 U	4.8 U	7 U
o-Xylene	3,800,000	19,000,000	6.8 UJ	6.3 U	**0.14 J**	5.2 U	**0.24 J**	**1.4 J**	13 U	4.2 U	5.9 U	4.6 U	5.9 UJ	5.1 UJ	6.1 UJ	4.6 U	7 U
Tetrachloroethene	550	2,600	6.8 UJ	6.3 U	4.9 U	5.2 U	6.8 U	6.5 UJ	13 U	4.2 U	5.9 U	4.6 U	5.9 UJ	5.1 UJ	6.1 UJ	4.6 U	7 U
Toluene	5,000,000	45,000,000	6.8 UJ	6.3 U	4.9 U	5.2 U	6.8 U	6.5 UJ	13 U	4.2 U	5.9 U	4.6 U	5.9 UJ	5.1 UJ	6.1 UJ	4.6 U	**36**
trans-1,3-Dichloropropene	1,700	8,100	6.8 UJ	6.3 U	4.9 U	5.2 U	6.8 U	6.5 UJ	13 U	4.2 U	5.9 U	4.6 U	5.9 UJ	5.1 UJ	6.1 UJ	4.6 U	7 UJ
Trichloroethene	2,800	14,000	6.8 UJ	6.3 U	4.9 U	5.2 U	6.8 U	6.5 UJ	13 U	4.2 U	5.9 U	4.6 U	5.9 UJ	5.1 UJ	6.1 UJ	4.6 U	7 U
Trichlorofluoromethane	790,000	3,400,000	6.8 UJ	**2.4 J**	**2.4 J**	5.2 U	6.8 U	**4.6 J**	13 U	4.2 U	5.9 U	4.6 U	5.9 UJ	5.1 UJ	6.1 U	4.6 U	7 U

Table 4.2.2-2
Detected Soil VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB049B	SB050A	SB050B	SB051A	SB052A	SB052B	SB053A	SB054A	SB054B	SB055A	SB055B	SB056A	SB056B	SB290B	SB057B
			Sample ID	E3S18	E3S19	E3S20	E3S21	E3S40	E3S41	E3RZ7	E3RZ9	E3S01	E3S02	E3S03	E3S04	E3S05	E3S06	E3S43
			Case	36664	36664	36664	36664	36664	36664	36664	36664	36664	36664	36664	36664	36664	36664	36664
			Sampling date	8/1/2007	8/1/2007	8/1/2007	8/1/2007	8/2/2007	8/2/2007	8/1/2007	8/1/2007	8/1/2007	8/1/2007	8/1/2007	8/1/2007	8/1/2007	8/1/2007	8/2/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg SB056B	µg/kg
			Duplicate info															
			Investigation area	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
			Lithology	L1	L1, L2	L1	L1	L1	L1	L4	L4	L1	L4	L1, L2, L4	L2, L3	L1, L2, L3	L1, L2, L3	L4
			Depth (ft bgs)	5-7	0-2	8-10	0-2	0-2	8-10	0-2	0-2	4-6	0-2	4-6	0-2	8-10	8-10	4-6
1,2,3-Trichlorobenzene	49,000	490,000		5.6 U	6 U	4.6 U	5 U	5.6 U	4.8 U	7.8 U	9 UJ	5.7 U	R	5.1 UJ	18 UJ	5.4 UJ	4.4 UJ	4.6 U
1,2,4-Trichlorobenzene	22,000	99,000		5.6 U	6 U	4.6 U	5 U	5.6 UJ	4.8 U	7.8 U	9 UJ	5.7 U	R	5.1 UJ	18 UJ	5.4 UJ	4.4 UJ	4.6 UJ
1,4-Dichlorobenzene	2,400	12,000		5.6 U	6 U	4.6 U	5 U	5.6 U	4.8 U	7.8 U	9 UJ	5.7 U	R	5.1 UJ	18 UJ	5.4 UJ	4.4 UJ	4.6 U
2-Butanone	28,000,000	200,000,000		11 U	12 U	9.2 U	9.9 U	11 U	9.5 U	16 U	18 U	11 U	15 UJ	10 UJ	36 UJ	11 UJ	8.7 UJ	9.3 U
2-Hexanone	210,000	1,400,000		11 U	12 U	9.2 U	9.9 U	11 U	9.5 U	16 U	18 U	11 U	15 UJ	10 UJ	36 UJ	11 UJ	8.7 UJ	9.3 U
4-Methyl-2-Pentanone	5,300,000	53,000,000		11 U	12 U	9.2 U	9.9 U	11 U	9.5 U	16 U	18 U	11 U	15 UJ	10 UJ	36 UJ	11 UJ	8.7 UJ	9.3 U
Acetone	61,000,000	630,000,000		**27**	**40**	**13**	**7.4 J**	12 U	13 U	**45**	18 U	**8.3 J**	15 UJ	10 UJ	36 UJ	**26 J**	**16 J**	9.3 U
Benzene	1,100	5,400		5.6 U	6 U	4.6 U	5 U	5.6 U	4.8 U	7.8 U	9 U	5.7 U	7.4 UJ	5.1 UJ	18 UJ	5.4 UJ	4.4 UJ	4.6 U
Carbon disulfide	820,000	3,700,000		5.6 U	6 U	4.6 U	5 U	5.6 U	4.8 U	7.8 U	9 U	5.7 U	7.4 UJ	5.1 UJ	18 UJ	5.4 UJ	4.4 UJ	4.6 U
Chlorobenzene	290,000	1,400,000		5.6 U	6 U	4.6 U	5 U	5.6 U	4.8 U	7.8 U	9 U	5.7 U	7.4 UJ	5.1 UJ	18 UJ	5.4 UJ	4.4 UJ	4.6 U
Chloroform	290	1,500		5.6 U	6 U	4.6 U	5 U	5.6 U	4.8 U	7.8 U	9 U	5.7 U	7.4 UJ	5.1 UJ	18 UJ	5.4 UJ	4.4 UJ	4.6 U
Chloromethane	120,000	500,000		5.6 U	6 U	4.6 U	5 U	5.6 U	4.8 U	7.8 U	9 U	5.7 U	7.4 UJ	5.1 UJ	18 UJ	5.4 UJ	4.4 UJ	4.6 U
cis-1,2-Dichloroethene	780,000	10,000,000		5.6 U	6 U	4.6 U	5 U	5.6 U	4.8 U	7.8 U	9 U	5.7 U	7.4 UJ	5.1 UJ	18 UJ	5.4 UJ	4.4 UJ	4.6 U
cis-1,3-Dichloropropene	1,700	8,100		5.6 U	6 UJ	4.6 U	5 U	5.6 UJ	4.8 UJ	7.8 U	9 U	5.7 U	7.4 UJ	5.1 UJ	18 UJ	5.4 UJ	4.4 UJ	4.6 UJ
Cyclohexane	7,000,000	29,000,000		**7.4**	**6.6**	4.6 U	**9**	**0.91 J**	4.8 U	7.8 U	9 U	5.7 U	**11 J**	5.1 UJ	**66 J**	5.4 UJ	4.4 UJ	**0.86 J**
Dichlorodifluoromethane	180,000	780,000		5.6 U	6 U	4.6 U	5 U	5.6 U	**1.8 J**	7.8 U	9 U	5.7 U	7.4 UJ	5.1 UJ	18 UJ	5.4 UJ	4.4 UJ	4.6 U
Ethylbenzene	5,400	27,000		5.6 U	6 U	4.6 U	5 U	5.6 U	4.8 U	7.8 U	9 U	5.7 U	7.4 UJ	5.1 UJ	18 UJ	5.4 UJ	4.4 UJ	4.6 U
Isopropylbenzene	2,100,000	11,000,000		5.6 U	6 U	4.6 U	5 U	5.6 U	4.8 U	7.8 U	9 U	5.7 U	7.4 UJ	5.1 UJ	18 UJ	5.4 UJ	4.4 UJ	4.6 U
m,p-Xylene	3,400,000	17,000,000		5.6 U	6 U	4.6 U	5 U	5.6 U	4.8 U	7.8 U	9 U	5.7 U	**9.9 J**	5.1 UJ	18 UJ	5.4 UJ	4.4 UJ	4.6 U
Methyl acetate	78,000,000	1,000,000,000		5.6 U	6 U	4.6 U	5 U	5.6 U	4.8 U	7.8 U	9 U	5.7 U	7.4 UJ	5.1 UJ	18 UJ	5.4 UJ	4.4 UJ	4.6 U
Methylcyclohexane	7,000,000	29,000,000		5.6 U	6 U	4.6 U	5 U	5.6 U	4.8 U	7.8 U	9 U	5.7 U	7.4 UJ	5.1 UJ	18 UJ	5.4 UJ	4.4 UJ	4.6 U
Methylene chloride	11,000	53,000		5.6 U	6 U	4.6 U	5 U	5.6 U	**3.9 J**	7.8 U	**5.2 J**	5.7 U	**44 J**	4.2 UJ	18 UJ	3.6 UJ	4.4 UJ	4.6 U
o-Xylene	3,800,000	19,000,000		5.6 U	6 U	4.6 U	5 U	5.6 U	4.8 U	7.8 U	9 U	5.7 U	7.4 UJ	5.1 UJ	18 UJ	5.4 UJ	4.4 UJ	4.6 U
Tetrachloroethene	550	2,600		5.6 U	6 U	4.6 U	5 U	5.6 U	4.8 U	7.8 U	9 U	5.7 U	7.4 UJ	5.1 UJ	18 UJ	5.4 UJ	4.4 UJ	4.6 U
Toluene	5,000,000	45,000,000		**9.4**	**12**	4.6 U	5 U	5.6 U	4.8 U	7.8 U	**25**	5.7 U	**120 J**	**3.6 J**	18 UJ	**3.5 J**	4.4 UJ	4.6 U
trans-1,3-Dichloropropene	1,700	8,100		5.6 U	6 UJ	4.6 U	5 U	5.6 UJ	4.8 UJ	7.8 U	9 U	5.7 U	7.4 UJ	5.1 UJ	18 UJ	5.4 UJ	4.4 UJ	4.6 UJ
Trichloroethene	2,800	14,000		5.6 U	6 U	4.6 U	5 U	5.6 U	4.8 U	7.8 U	9 U	5.7 U	7.4 UJ	5.1 UJ	18 UJ	5.4 UJ	4.4 UJ	4.6 U
Trichlorofluoromethane	790,000	3,400,000		5.6 U	6 U	4.6 U	5 U	5.6 U	4.8 U	7.8 U	9 U	5.7 U	7.4 UJ	5.1 UJ	18 UJ	5.4 UJ	4.4 UJ	4.6 U

Table 4.2.2-2
Detected Soil VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID: SB058A Sample ID: E3S44 Case: 36664 Sampling date: 8/2/2007 Unit: µg/kg Duplicate info: Investigation area: 3 Lithology: L1 Depth (ft bgs): 0-2	SB058B E3S45 36664 8/2/2007 µg/kg 3 L1 4-6	SB293B E3S46 36664 8/2/2007 µg/kg SB058B 3 L1 4-6	SB059A E3S25 36664 8/1/2007 µg/kg 3 L1, L4 0-2	SB060A E3S23 36664 8/1/2007 µg/kg 3 L1 0-2	SB061A E3SC1 36697 8/7/2007 µg/kg 3 L1, L2 0-2	SB061B E3SC2 36697 8/7/2007 µg/kg 3 L1 8-10	SB062A E3SC6 36697 8/7/2007 µg/kg 3 L4 0-2	SB063A E3SB7 36697 8/7/2007 µg/kg 3 L1 0-2	SB063B E3SB8 36697 8/7/2007 µg/kg 3 L1 4-6	SB064A E3SC7 36697 8/7/2007 µg/kg 3 L1, L4 0-2	SB064B E3SC8 36697 8/7/2007 µg/kg 3 L1 8-10	SB065A E3SC9 36697 8/7/2007 µg/kg 3 L1, L4 0-2	SB065B E3SD0 36697 8/7/2007 µg/kg 3 L1, L4 8-10	SB066A E3SA7 36697 8/7/2007 µg/kg 3 L1 0-2
1,2,3-Trichlorobenzene	49,000	490,000	6 U	4.7 U	4.3 U	4.5 U	5.6 U	4.7 U	4.5 U	5.3 U	4.9 U	4.8 U	4.2 UJ	4 U	5.6 U	4 U	4.7 U
1,2,4-Trichlorobenzene	22,000	99,000	6 U	4.7 U	4.3 U	4.5 U	5.6 U	4.7 U	4.5 U	5.3 U	4.9 U	4.8 U	4.2 UJ	4 U	5.6 U	4 U	4.7 U
1,4-Dichlorobenzene	2,400	12,000	6 U	4.7 U	4.3 U	4.5 U	5.6 U	4.7 U	4.5 U	5.3 U	4.9 U	4.8 U	4.2 UJ	4 U	5.6 U	4 U	4.7 U
2-Butanone	28,000,000	200,000,000	12 U	9.5 U	8.6 U	9.1 U	11 U	9.5 U	9 U	11 U	9.8 U	9.5 U	8.5 U	7.9 U	11 U	8.1 U	9.4 U
2-Hexanone	210,000	1,400,000	12 U	9.5 U	8.6 U	9.1 U	11 U	9.5 U	9 U	11 U	9.8 U	9.5 U	8.5 U	7.9 U	11 U	8.1 U	9.4 U
4-Methyl-2-Pentanone	5,300,000	53,000,000	12 U	9.5 U	8.6 U	9.1 U	11 U	9.5 U	9 U	11 U	9.8 U	9.5 U	8.5 U	7.9 U	11 U	8.1 U	9.4 U
Acetone	61,000,000	630,000,000	14 U	13 U	12 U	9.1 U	11 U	9.5 U	9 U	**7.5 J**	9.8 U	9.5 U	8.5 U	7.9 U	**13**	**14**	9.4 U
Benzene	1,100	5,400	6 U	4.7 U	4.3 U	4.5 U	5.6 U	4.7 U	4.5 U	5.3 U	4.9 U	4.8 U	4.2 U	4 U	**2 J**	4 U	4.7 U
Carbon disulfide	820,000	3,700,000	6 U	4.7 U	4.3 U	4.5 U	5.6 U	4.7 U	4.5 U	5.3 U	4.9 U	4.8 U	4.2 U	4 U	5.6 U	4 U	4.7 U
Chlorobenzene	290,000	1,400,000	6 U	4.7 U	4.3 U	4.5 U	5.6 U	4.7 U	4.5 U	5.3 U	4.9 U	4.8 U	4.2 U	4 U	5.6 U	4 U	4.7 U
Chloroform	290	1,500	6 U	4.7 U	4.3 U	4.5 U	5.6 U	4.7 U	4.5 U	5.3 U	4.9 U	4.8 U	4.2 U	4 U	5.6 U	4 U	4.7 U
Chloromethane	120,000	500,000	6 U	4.7 U	4.3 U	4.5 U	5.6 U	4.7 U	4.5 U	5.3 U	4.9 U	4.8 U	4.2 U	4 U	5.6 U	4 U	4.7 U
cis-1,2-Dichloroethene	780,000	10,000,000	6 U	4.7 U	4.3 U	4.5 U	5.6 U	4.7 U	4.5 U	5.3 U	4.9 U	4.8 U	4.2 U	4 U	5.6 U	4 U	4.7 U
cis-1,3-Dichloropropene	1,700	8,100	6 UJ	4.7 UJ	4.3 UJ	4.5 U	5.6 U	4.7 U	4.5 U	5.3 U	4.9 U	4.8 U	4.2 U	4 U	5.6 U	4 U	4.7 U
Cyclohexane	7,000,000	29,000,000	**1.6 J**	**0.49 J**	4.3 U	**3.9 J**	**19**	**4.4 J**	**1.7 J**	**2.2 J**	**2.3 J**	**2.4 J**	**7.3 J**	**1 J**	**7.3**	**1.3 J**	**3.2 J**
Dichlorodifluoromethane	180,000	780,000	6 U	4.7 U	4.3 U	4.5 U	5.6 U	4.7 U	4.5 U	5.3 U	4.9 U	4.8 U	4.2 U	4 U	5.6 U	4 U	4.7 U
Ethylbenzene	5,400	27,000	6 U	4.7 U	4.3 U	4.5 U	5.6 U	**0.45 J**	4.5 U	**0.58 J**	**0.36 J**	4.8 U	4.2 U	4 U	**16**	**0.71 J**	**0.38 J**
Isopropylbenzene	2,100,000	11,000,000	6 U	4.7 U	4.3 U	4.5 U	5.6 U	4.7 U	4.5 U	5.3 U	4.9 U	4.8 U	4.2 U	4 U	**3.8 J**	4 U	4.7 U
m,p-Xylene	3,400,000	17,000,000	6 U	4.7 U	4.3 U	4.5 U	5.6 U	**1.1 J**	**0.21 J**	**1.7 J**	**0.84 J**	4.8 U	**0.37 J**	**0.17 J**	**13**	**1.1 J**	**1.2 J**
Methyl acetate	78,000,000	1,000,000,000	6 U	4.7 U	4.3 U	4.5 U	5.6 U	4.7 U	4.5 U	5.3 U	4.9 U	4.8 U	4.2 U	4 U	5.6 U	4 U	4.7 U
Methylcyclohexane	7,000,000	29,000,000	6 U	4.7 U	4.3 U	4.5 U	5.6 U	4.7 U	4.5 U	5.3 U	4.9 U	4.8 U	4.2 U	4 U	5.6 U	4 U	4.7 U
Methylene chloride	11,000	53,000	**3.9 J**	**3.5 J**	**3.5 J**	4.5 U	5.6 U	4.7 U	4.5 U	6 U	4.9 U	4.8 U	4.2 U	4 U	5.6 U	4 U	4.7 U
o-Xylene	3,800,000	19,000,000	6 U	4.7 U	4.3 U	4.5 U	5.6 U	**0.19 J**	4.5 U	**0.27 J**	4.9 U	4.8 U	4.2 U	4 U	**7.5**	**0.39 J**	**0.28 J**
Tetrachloroethene	550	2,600	6 U	4.7 U	4.3 U	4.5 U	5.6 U	4.7 U	4.5 U	5.3 U	4.9 U	4.8 U	4.2 U	4 U	5.6 U	4 U	4.7 U
Toluene	5,000,000	45,000,000	6 U	4.7 U	4.3 U	4.5 U	5.6 U	4.7 U	4.5 U	5.3 U	4.9 U	4.8 U	4.2 U	4 U	**15**	4 U	4.7 U
trans-1,3-Dichloropropene	1,700	8,100	6 UJ	4.7 UJ	4.3 UJ	4.5 U	5.6 U	4.7 U	4.5 U	5.3 U	4.9 U	4.8 U	4.2 U	4 U	5.6 U	4 U	4.7 U
Trichloroethene	2,800	14,000	6 U	4.7 U	4.3 U	4.5 U	5.6 U	4.7 U	4.5 U	5.3 U	4.9 U	4.8 U	4.2 U	4 U	5.6 U	4 U	4.7 U
Trichlorofluoromethane	790,000	3,400,000	6 U	4.7 U	4.3 U	4.5 U	5.6 U	4.7 U	4.5 U	**0.79 J**	4.9 U	4.8 U	4.2 U	4 U	5.6 U	**0.79 J**	4.7 U

Table 4.2.2-2
Detected Soil VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB299A	SB066B	SB067A	SB067B	SB068A	SB068B	SB283B	SB069A	SB069B	SB070A	SB071A	SB071B	SB072B	SB073A	SB075A
			Sample ID	E3SA9	E3SA8	E3RY6	E3RY7	E3RY8	E3RY9	E3RZ0	E3RY4	E3RY5	E3RY3	E3S54	E3S55	E3S53	E3S56RE	E3S50
			Case	36697	36697	36664	36664	36664	36664	36664	36664	36664	36664	36664	36664	36664	36664	36664
			Sampling date	8/7/2007	8/7/2007	7/31/2007	7/31/2007	7/31/2007	7/31/2007	7/31/2007	7/31/2007	7/31/2007	7/31/2007	8/2/2007	8/2/2007	8/2/2007	8/2/2007	8/2/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info	SB066A						SB068B								
			Investigation area	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
			Lithology	L1	L1	L1, L4	L1	L1	L1	L1	L1	L1	L1, L4	L2, L3	L1	L1	L2	L2
			Depth (ft bgs)	0-2	8-10	0-2	4-6	0-2	10-12	10-12	0-2	8-10	0-2	0-2	6-8	6-8	0-2	0-2
1,2,3-Trichlorobenzene	49,000	490,000		6.5 U	4.7 U	8 U	5.5 U	5.3 U	5.5 U	6.5 U	8.5 UJ	5.4 UJ	5 U	5.5 UJ	5.5 U	5.5 UJ	7.2 UJ	5 UJ
1,2,4-Trichlorobenzene	22,000	99,000		6.5 U	4.7 U	8 U	5.5 U	5.3 U	5.5 U	6.5 U	8.5 UJ	5.4 UJ	5 U	5.5 UJ	5.5 U	5.5 UJ	7.2 UJ	5 UJ
1,4-Dichlorobenzene	2,400	12,000		6.5 U	4.7 U	8 U	5.5 U	5.3 U	5.5 U	6.5 U	8.5 UJ	5.4 UJ	5 U	5.5 UJ	5.5 U	5.5 UJ	7.2 UJ	5 UJ
2-Butanone	28,000,000	200,000,000		13 U	9.5 U	16 U	11 U	11 U	11 U	13 U	17 U	**26**	10 U	11 U	**15**	11 U	14 U	10 U
2-Hexanone	210,000	1,400,000		13 U	9.5 U	16 U	11 U	11 U	11 U	13 U	17 U	11 U	10 U	11 UJ	11 U	11 U	14 U	10 U
4-Methyl-2-Pentanone	5,300,000	53,000,000		13 U	9.5 U	16 U	11 U	11 U	11 U	13 U	17 U	**8.8 J**	10 U	11 UJ	11 U	11 U	14 U	10 U
Acetone	61,000,000	630,000,000		**15**	9.5 U	67 U	47 U	**96**	62 U	43 U	**97**	**140**	22 U	11 U	69 U	**95**	14 U	10 U
Benzene	1,100	5,400		6.5 U	4.7 U	8 U	5.5 U	5.3 U	5.5 U	6.5 U	8.5 U	5.4 U	5 U	5.5 UJ	5.5 U	5.5 U	7.2 U	5 U
Carbon disulfide	820,000	3,700,000		6.5 U	4.7 U	8 U	5.5 U	5.3 U	5.5 U	6.5 U	8.5 U	5.4 U	5 U	5.5 U	5.5 U	5.5 U	7.2 U	5 U
Chlorobenzene	290,000	1,400,000		6.5 U	4.7 U	8 U	5.5 U	5.3 U	5.5 U	6.5 U	8.5 UJ	5.4 UJ	5 U	5.5 UJ	5.5 U	5.5 UJ	7.2 UJ	5 UJ
Chloroform	290	1,500		6.5 U	4.7 U	8 U	5.5 U	5.3 U	5.5 U	6.5 U	8.5 U	5.4 U	5 U	5.5 U	5.5 U	5.5 U	7.2 U	5 U
Chloromethane	120,000	500,000		6.5 U	4.7 U	8 U	5.5 U	5.3 U	5.5 U	6.5 U	8.5 U	5.4 U	5 U	5.5 U	5.5 U	5.5 U	7.2 U	5 U
cis-1,2-Dichloroethene	780,000	10,000,000		6.5 U	4.7 U	8 U	5.5 U	5.3 U	5.5 U	6.5 U	8.5 U	5.4 U	5 U	5.5 U	5.5 U	5.5 U	7.2 U	5 U
cis-1,3-Dichloropropene	1,700	8,100		6.5 U	4.7 U	8 U	5.5 U	5.3 U	5.5 U	6.5 U	8.5 UJ	5.4 UJ	5 U	5.5 UJ	5.5 UJ	5.5 UJ	7.2 UJ	5 UJ
Cyclohexane	7,000,000	29,000,000		**3.9 J**	**5.5**	8 U	**3.8 J**	5.3 U	**7.9**	6.5 U	8.5 U	5.4 U	5 U	**7.3 J**	5.5 U	5.5 U	7.2 U	5 U
Dichlorodifluoromethane	180,000	780,000		6.5 U	4.7 U	8 U	5.5 U	5.3 U	5.5 U	6.5 U	**8.4 J**	5.4 U	5 U	**7.7 J**	**11**	**3.2 J**	**2.3 J**	**3 J**
Ethylbenzene	5,400	27,000		**0.49 J**	**0.31 J**	8 U	5.5 U	5.3 U	5.5 U	6.5 U	8.5 U	5.4 U	5 U	5.5 UJ	5.5 U	5.5 U	7.2 UJ	5 U
Isopropylbenzene	2,100,000	11,000,000		6.5 U	4.7 U	8 U	5.5 U	5.3 U	5.5 U	6.5 U	8.5 U	5.4 U	5 U	5.5 UJ	5.5 U	5.5 U	7.2 UJ	5 U
m,p-Xylene	3,400,000	17,000,000		**1.3 J**	**0.78 J**	8 U	5.5 U	5.3 U	5.5 U	6.5 U	8.5 U	5.4 U	5 U	5.5 UJ	5.5 U	5.5 U	7.2 UJ	5 U
Methyl acetate	78,000,000	1,000,000,000		6.5 U	4.7 U	8 U	5.5 U	5.3 U	5.5 U	6.5 U	8.5 U	5.4 U	5 U	5.5 UJ	5.5 U	5.5 U	7.2 U	5 U
Methylcyclohexane	7,000,000	29,000,000		6.5 U	4.7 U	8 U	5.5 U	5.3 U	5.5 U	6.5 U	8.5 U	5.4 U	5 U	5.5 UJ	5.5 U	5.5 U	7.2 U	5 U
Methylene chloride	11,000	53,000		6.5 U	4.7 U	**4.5 J**	**3.2 J**	**2.8 J**	**2.8 J**	**3.1 J**	8.5 U	**3.5 J**	**2.9 J**	5.5 UJ	**2.6 J**	5.5 U	7.2 U	5 U
o-Xylene	3,800,000	19,000,000		**0.24 J**	**0.18 J**	8 U	5.5 U	5.3 U	5.5 U	6.5 U	8.5 U	5.4 U	5 U	5.5 UJ	5.5 U	5.5 U	7.2 UJ	5 U
Tetrachloroethene	550	2,600		6.5 U	4.7 U	8 U	5.5 U	5.3 U	5.5 U	6.5 U	8.5 U	5.4 U	5 U	5.5 UJ	5.5 U	5.5 U	7.2 UJ	5 U
Toluene	5,000,000	45,000,000		6.5 U	4.7 U	**50**	**40**	**13**	**43**	**51**	**41**	**29**	**27**	5.5 UJ	5.5 U	5.5 U	7.2 UJ	5 U
trans-1,3-Dichloropropene	1,700	8,100		6.5 U	4.7 U	8 U	5.5 U	5.3 U	5.5 U	6.5 U	8.5 UJ	5.4 UJ	5 U	5.5 UJ	5.5 UJ	5.5 UJ	7.2 UJ	5 UJ
Trichloroethene	2,800	14,000		6.5 U	4.7 U	8 U	5.5 U	5.3 U	5.5 U	6.5 U	8.5 U	5.4 U	5 U	5.5 UJ	5.5 U	5.5 U	7.2 UJ	5 U
Trichlorofluoromethane	790,000	3,400,000		6.5 U	4.7 U	8 U	5.5 U	5.3 U	5.5 U	6.5 U	8.5 U	5.4 U	5 U	5.5 UJ	5.5 U	5.5 U	7.2 U	5 U

Table 4.2.2-2
Detected Soil VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB075B	SB295A	SB076B	SB077A	SB078A	SB078B	SB079B	SB080A	SB080B	SB265B	SB081A	SB081B	SB082A	SB082B	SB083A
			Sample ID	E3S51	E3S60	E3S61	E3RH1	E3RJ0RE	E3RJ1	E3RJ5	E3RJ6	E3RJ7	E3RJ8	E3RH7	E3RH8	E3RH5	E3RH6	E3RJ2RE
			Case	36664	36664	36664	36648	36648	36648	36648	36648	36648	36648	36648	36648	36648	36648	36648
			Sampling date	8/2/2007	8/2/2007	8/2/2007	7/24/2007	7/24/2007	7/24/2007	7/24/2007	7/24/2007	7/24/2007	7/24/2007	7/24/2007	7/24/2007	7/24/2007	7/24/2007	7/24/2007	7/24/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info		SB075B								SB080B						
			Investigation area	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
			Lithology	L1	L2, L3	L2, L3		L2, L3	L1	L2	L1	L1	L1	L2, L3	L4	L1, L2	L4	L2, L3
			Depth (ft bgs)	8-10	0-2	4-6	0-2	0-2	8-10	6-8	0-2	8-10	8-10	0-2	4-5	0-2	10-12	0-2
1,2,3-Trichlorobenzene	49,000	490,000		4.4 U	5.7 UJ	6.4 UJ	6 UJ	6.5 UJ	4.8 U	7.3 UJ	4.8 UJ	4 U	3.6 U	5.5 UJ	5.4 U	5.5 U	6.3 U	6.7 UJ
1,2,4-Trichlorobenzene	22,000	99,000		4.4 U	5.7 UJ	6.4 UJ	6 UJ	6.5 UJ	4.8 U	7.3 UJ	4.8 UJ	4 U	3.6 U	5.5 UJ	5.4 U	5.5 U	6.3 U	6.7 UJ
1,4-Dichlorobenzene	2,400	12,000		4.4 U	5.7 UJ	6.4 UJ	6 UJ	6.5 UJ	4.8 U	7.3 UJ	4.8 UJ	4 U	3.6 U	5.5 UJ	5.4 U	5.5 U	6.3 U	6.7 UJ
2-Butanone	28,000,000	200,000,000		8.8 U	11 UJ	13 U	12 U	13 U	9.6 U	15 U	9.6 U	8.1 U	7.2 U	11 U	11 U	11 U	13 U	13 U
2-Hexanone	210,000	1,400,000		8.8 U	11 UJ	13 U	12 UJ	13 U	9.6 U	15 U	9.6 UJ	8.1 U	7.2 U	11 U	11 U	11 U	13 U	13 UJ
4-Methyl-2-Pentanone	5,300,000	53,000,000		8.8 U	11 UJ	13 U	12 UJ	13 U	9.6 U	15 U	9.6 UJ	8.1 U	7.2 U	11 U	11 U	11 U	13 U	13 UJ
Acetone	61,000,000	630,000,000		8.8 U	11 UJ	13 U	12 U	13 U	9.6 U	15 U	9.6 U	8.1 U	7.2 U	11 U	11 U	11 U	13 U	13 U
Benzene	1,100	5,400		4.4 U	5.7 UJ	6.4 U	6 UJ	6.5 U	4.8 U	7.3 U	4.8 UJ	4 U	3.6 U	5.5 U	5.4 U	5.5 U	6.3 U	6.7 UJ
Carbon disulfide	820,000	3,700,000		4.4 U	5.7 UJ	**2.1 J**	6 U	6.5 U	4.8 U	**4.1 J**	4.8 U	4 U	3.6 U	5.5 U	5.4 U	5.5 U	6.3 U	6.7 U
Chlorobenzene	290,000	1,400,000		4.4 U	5.7 UJ	6.4 UJ	6 UJ	6.5 U	4.8 U	7.3 U	4.8 UJ	4 U	3.6 U	5.5 U	5.4 U	5.5 U	6.3 U	6.7 UJ
Chloroform	290	1,500		4.4 U	5.7 UJ	6.4 U	6 U	6.5 U	4.8 U	7.3 U	4.8 U	4 U	3.6 U	5.5 U	5.4 U	5.5 U	6.3 U	6.7 U
Chloromethane	120,000	500,000		4.4 U	5.7 UJ	6.4 U	6 U	6.5 U	4.8 U	7.3 U	4.8 U	4 U	3.6 U	5.5 U	5.4 U	5.5 U	6.3 U	6.7 U
cis-1,2-Dichloroethene	780,000	10,000,000		4.4 U	5.7 UJ	6.4 U	6 U	6.5 U	4.8 U	7.3 U	4.8 U	4 U	3.6 U	5.5 U	5.4 U	5.5 U	6.3 U	6.7 U
cis-1,3-Dichloropropene	1,700	8,100		4.4 U	5.7 UJ	6.4 UJ	6 UJ	6.5 U	4.8 U	7.3 U	4.8 UJ	4 U	3.6 U	5.5 U	5.4 U	5.5 U	6.3 U	6.7 UJ
Cyclohexane	7,000,000	29,000,000		4.4 U	**3.1 J**	6.4 U	**12 J**	**5.2 J**	**0.6 J**	**1.9 J**	**3.1 J**	**0.54 J**	**0.36 J**	**4.2 J**	**3.1 J**	**3.7 J**	**1.2 J**	**6.5 J**
Dichlorodifluoromethane	180,000	780,000		**1.7 J**	5.7 UJ	**4.9 J**	6 U	6.5 U	4.8 U	7.3 U	4.8 U	4 U	3.6 U	5.5 U	5.4 U	5.5 U	6.3 U	6.7 U
Ethylbenzene	5,400	27,000		4.4 U	5.7 UJ	6.4 U	6 UJ	6.5 U	4.8 U	7.3 U	4.8 UJ	4 U	3.6 U	5.5 U	5.4 U	5.5 U	6.3 U	6.7 UJ
Isopropylbenzene	2,100,000	11,000,000		4.4 U	5.7 UJ	6.4 U	6 UJ	6.5 U	4.8 U	7.3 U	4.8 UJ	4 U	3.6 U	5.5 U	5.4 U	5.5 U	6.3 U	6.7 UJ
m,p-Xylene	3,400,000	17,000,000		4.4 U	5.7 UJ	6.4 U	6 UJ	**0.2 J**	4.8 U	7.3 U	4.8 UJ	4 U	3.6 U	5.5 U	5.4 U	5.5 U	6.3 U	6.7 UJ
Methyl acetate	78,000,000	1,000,000,000		4.4 U	5.7 UJ	6.4 U	6 U	6.5 U	4.8 U	7.3 U	4.8 U	4 U	3.6 U	5.5 U	5.4 U	5.5 U	6.3 U	6.7 U
Methylcyclohexane	7,000,000	29,000,000		4.4 U	5.7 UJ	6.4 U	6 UJ	6.5 U	4.8 U	7.3 U	**3.4 J**	4 U	3.6 U	5.5 U	5.4 U	5.5 U	6.3 U	6.7 UJ
Methylene chloride	11,000	53,000		4.4 U	5.7 UJ	6.4 U	**1.4 J**	6.5 U	**1.1 J**	**17**	**0.6 J**	**1.8 J**	**1.1 J**	**1.5 J**	**0.38 J**	**1.1 J**	**3.8 J**	7.9 U
o-Xylene	3,800,000	19,000,000		4.4 U	5.7 UJ	6.4 U	6 UJ	6.5 U	4.8 U	7.3 U	4.8 UJ	4 U	3.6 U	5.5 U	5.4 U	5.5 U	6.3 U	6.7 UJ
Tetrachloroethene	550	2,600		4.4 U	5.7 UJ	6.4 U	6 UJ	6.5 U	4.8 U	7.3 U	4.8 UJ	4 U	3.6 U	5.5 U	5.4 U	5.5 U	6.3 U	6.7 UJ
Toluene	5,000,000	45,000,000		4.4 U	5.7 UJ	6.4 U	6 UJ	6.5 U	4.8 U	7.3 U	4.8 UJ	4 U	3.6 U	5.5 U	5.4 U	5.5 U	6.3 U	6.7 UJ
trans-1,3-Dichloropropene	1,700	8,100		4.4 U	5.7 UJ	6.4 UJ	6 UJ	6.5 U	4.8 U	7.3 U	4.8 UJ	4 U	3.6 U	5.5 U	5.4 U	5.5 U	6.3 U	6.7 UJ
Trichloroethene	2,800	14,000		4.4 U	5.7 UJ	6.4 U	6 UJ	6.5 U	4.8 U	7.3 U	4.8 UJ	4 U	3.6 U	5.5 U	5.4 U	5.5 U	6.3 U	6.7 UJ
Trichlorofluoromethane	790,000	3,400,000		4.4 U	5.7 UJ	6.4 U	**2 J**	**3.2 J**	4.8 U	**2 J**	4.8 U	4 U	**0.42 J**	**1.1 J**	5.4 U	**1.2 J**	**2.4 J**	**4.6 J**

Table 4.2.2-2
Detected Soil VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB083B	SB084A	SB084B	SB085A	SB085B	SB086A	SB086B	SB087A	SB088A	SB089A	SB090A	SB091A	SB266A	SB092A	SB092B
			Sample ID	E3RJ3	E3RJ9	E3RK0	E3RK4	E3RK5	E3RK7	E3RK8	E3RK9	E3RL0	E3RL1	E3RL2	E3RL4	E3RL5	E3RM1	E3RM2
			Case	36648	36648	36648	36648	36648	36648	36648	36648	36648	36648	36648	36648	36648	36648	36648
			Sampling date	7/24/2007	7/24/2007	7/24/2007	7/25/2007	7/25/2007	7/25/2007	7/25/2007	7/25/2007	7/25/2007	7/25/2007	7/25/2007	7/25/2007	7/25/2007	7/25/2007	7/25/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg SB091A	µg/kg	µg/kg
			Duplicate info															
			Investigation area	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
			Lithology	L4	L1	L1	L4	L1	L4	L1	L1, L2	L1	L1, L2	L4	L1, L4	L1, L4	L2, L3	L1
			Depth (ft bgs)	8-10	0-2	8-10	0-2	8-10	0-2	8-10	0-2	0-2	0-2	0-2	0-2	0-2	0-2	4-6
1,2,3-Trichlorobenzene	49,000	490,000		5.5 U	5 UJ	3.8 U	4.5 U	4.6 U	4.7 U	6.5 U	7.3 UJ	6.9 UJ	5.4 UJ	3.8 UJ	4.8 UJ	5.1 U	5.2 U	5.1 U
1,2,4-Trichlorobenzene	22,000	99,000		5.5 U	5 UJ	3.8 U	4.5 U	4.6 U	4.7 U	6.5 U	7.3 UJ	6.9 UJ	5.4 UJ	3.8 UJ	4.8 UJ	5.1 U	5.2 U	5.1 U
1,4-Dichlorobenzene	2,400	12,000		5.5 U	5 UJ	3.8 U	4.5 U	4.6 U	4.7 U	6.5 U	7.3 UJ	6.9 UJ	5.4 UJ	3.8 UJ	4.8 UJ	5.1 U	5.2 U	5.1 U
2-Butanone	28,000,000	200,000,000		11 U	10 U	7.6 U	9 U	9.1 U	9.5 U	**4.9 J**	15 U	14 U	11 U	7.6 U	9.5 U	10 U	10 U	10 U
2-Hexanone	210,000	1,400,000		11 U	10 UJ	7.6 U	9 U	9.1 U	9.5 U	13 U	15 U	14 U	11 U	7.6 U	9.5 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	5,300,000	53,000,000		11 U	10 UJ	7.6 U	9 U	9.1 U	9.5 U	13 U	15 U	14 U	11 U	7.6 U	9.5 U	10 U	10 U	10 U
Acetone	61,000,000	630,000,000		11 U	10 U	7.6 U	9 U	9.1 U	9.5 U	**14**	15 U	**5.2 J**	11 U	7.6 U	9.5 U	10 U	**4.4 J**	**4 J**
Benzene	1,100	5,400		5.5 U	5 UJ	3.8 U	4.5 U	4.6 U	4.7 U	6.5 U	7.3 U	6.9 U	5.4 U	3.8 U	4.8 U	5.1 U	5.2 U	5.1 U
Carbon disulfide	820,000	3,700,000		5.5 U	5 U	3.8 U	4.5 U	4.6 U	4.7 U	**1.6 J**	7.3 U	6.9 U	5.4 U	3.8 U	4.8 U	5.1 U	5.2 U	5.1 U
Chlorobenzene	290,000	1,400,000		5.5 U	5 UJ	3.8 U	4.5 U	4.6 U	4.7 U	6.5 U	7.3 U	6.9 U	5.4 U	3.8 U	4.8 U	5.1 U	5.2 U	5.1 U
Chloroform	290	1,500		5.5 U	5 U	3.8 U	4.5 U	4.6 U	4.7 U	6.5 U	7.3 U	6.9 U	5.4 U	3.8 U	4.8 U	5.1 U	5.2 U	5.1 U
Chloromethane	120,000	500,000		5.5 U	5 U	3.8 U	4.5 U	4.6 U	4.7 U	6.5 U	7.3 U	6.9 U	5.4 U	3.8 U	4.8 U	5.1 U	5.2 U	5.1 U
cis-1,2-Dichloroethene	780,000	10,000,000		5.5 U	5 U	3.8 U	4.5 U	4.6 U	4.7 U	6.5 U	7.3 U	6.9 U	5.4 U	3.8 U	4.8 U	5.1 U	5.2 U	5.1 U
cis-1,3-Dichloropropene	1,700	8,100		5.5 U	5 UJ	3.8 U	4.5 U	4.6 U	4.7 U	6.5 U	7.3 U	6.9 U	5.4 U	3.8 U	4.8 U	5.1 U	5.2 U	5.1 U
Cyclohexane	7,000,000	29,000,000		**1.5 J**	**4.9 J**	3.8 U	**4.9**	**0.74 J**	**1.2 J**	**2.6 J**	**4.8 J**	**22**	**20 J**	**2.3 J**	**8.3 J**	**3 J**	**2.3 J**	**2 J**
Dichlorodifluoromethane	180,000	780,000		5.5 U	5 U	3.8 U	4.5 U	4.6 U	4.7 U	6.5 U	7.3 U	6.9 U	5.4 U	3.8 U	4.8 U	5.1 U	5.2 U	5.1 U
Ethylbenzene	5,400	27,000		5.5 U	5 UJ	3.8 U	4.5 U	4.6 U	4.7 U	6.5 U	7.3 U	**0.74 J**	5.4 U	3.8 U	4.8 U	5.1 U	5.2 U	5.1 U
Isopropylbenzene	2,100,000	11,000,000		5.5 U	5 UJ	3.8 U	4.5 U	4.6 U	4.7 U	6.5 U	7.3 U	6.9 U	5.4 U	3.8 U	4.8 U	5.1 U	5.2 U	5.1 U
m,p-Xylene	3,400,000	17,000,000		5.5 U	5 UJ	3.8 U	4.5 U	4.6 U	4.7 U	6.5 U	7.3 U	**1.5 J**	5.4 U	3.8 U	**0.24 J**	5.1 U	**0.39 J**	**0.39 J**
Methyl acetate	78,000,000	1,000,000,000		5.5 U	5 U	3.8 U	4.5 U	4.6 U	4.7 U	6.5 U	7.3 U	6.9 U	5.4 U	3.8 U	4.8 U	5.1 U	5.2 U	5.1 U
Methylcyclohexane	7,000,000	29,000,000		5.5 U	5 UJ	3.8 U	4.5 U	4.6 U	4.7 U	6.5 U	7.3 U	6.9 U	5.4 U	3.8 U	4.8 U	5.1 U	5.2 U	5.1 U
Methylene chloride	11,000	53,000		**6.2**	**3.6 J**	**0.85 J**	**3.9 J**	**1.6 J**	**2.6 J**	**3.2 J**	**3 J**	**14**	**7.4**	**3.6 J**	**12**	**6.8**	**16**	**5.9**
o-Xylene	3,800,000	19,000,000		5.5 U	5 UJ	3.8 U	4.5 U	4.6 U	4.7 U	6.5 U	7.3 U	**0.26 J**	5.4 U	3.8 U	4.8 U	5.1 U	5.2 U	5.1 U
Tetrachloroethene	550	2,600		5.5 U	5 UJ	3.8 U	4.5 U	4.6 U	4.7 U	6.5 U	7.3 U	**1.2 J**	**0.23 J**	3.8 U	**1.4 J**	**0.47 J**	5.2 U	5.1 U
Toluene	5,000,000	45,000,000		5.5 U	5 UJ	3.8 U	4.5 U	4.6 U	4.7 U	6.5 U	7.3 U	6.9 U	5.4 U	3.8 U	4.8 U	5.1 U	5.2 U	5.1 U
trans-1,3-Dichloropropene	1,700	8,100		5.5 U	5 UJ	3.8 U	4.5 U	4.6 U	4.7 U	6.5 U	7.3 U	6.9 U	5.4 U	3.8 U	4.8 U	5.1 U	5.2 U	5.1 U
Trichloroethene	2,800	14,000		5.5 U	5 UJ	3.8 U	4.5 U	4.6 U	4.7 U	6.5 U	7.3 U	6.9 U	5.4 U	3.8 U	**0.66 J**	**0.17 J**	5.2 U	5.1 U
Trichlorofluoromethane	790,000	3,400,000		**1.2 J**	5 U	**0.58 J**	4.5 U	4.6 U	4.7 U	6.5 U	7.3 U	6.9 U	5.4 U	3.8 U	4.8 U	**0.55 J**	5.2 U	5.1 U

Table 4.2.2-2
Detected Soil VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB093A	SB094A	SB094B	SB095A	SB095B	SB096A	SB096B	SB097A	SB097B	SB098A	SB099A	SB099B	SB100A	SB262	SB100B
			Sample ID	E3RM3	E3RM6	E3RM7	E3RN0	E3RN1	E3RN2	E3RN3RE	E3RN7	E3RN8	E3RN9	E3RP5	E3RP6	E3RF8	E3RG0	E3RF9
			Case	36648	36648	36648	36648	36648	36648	36648	36648	36648	36648	36648	36648	36648	36648	36648
			Sampling date	7/25/2007	7/25/2007	7/25/2007	7/26/2006	7/26/2007	7/26/2007	7/26/2007	7/26/2007	7/26/2007	7/26/2007	7/26/2007	7/26/2007	7/23/2007	7/23/2007	7/23/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg SB100A	µg/kg
			Duplicate info															
			Investigation area	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
			Lithology	L4	L4	L1	L2, L4	L4	L4	L4	L1, L4	L1, L4	L4	L4	L1	L2, L3	L2, L3	L1
			Depth (ft bgs)	0-2	0-2	6-8	0-2	8-10	0-2	8-10	0-2	8-10	0-2	0-2	4-6	0-2	0-2	6-8
1,2,3-Trichlorobenzene	49,000	490,000		4.2 UJ	5.4 U	4.5 U	5.6 U	5.4 U	5.7 UJ	6 UJ	5.3 UJ	7.4 UJ	8.3 U	6.3 U	6.2 U	4.2 U	5 U	6.2 U
1,2,4-Trichlorobenzene	22,000	99,000		4.2 UJ	5.4 U	4.5 U	5.6 U	5.4 U	5.7 UJ	6 UJ	5.3 UJ	7.4 UJ	8.3 U	6.3 U	6.2 U	4.2 U	5 U	6.2 U
1,4-Dichlorobenzene	2,400	12,000		4.2 UJ	5.4 U	4.5 U	5.6 U	5.4 U	5.7 UJ	6 UJ	5.3 UJ	7.4 UJ	8.3 U	6.3 U	6.2 U	4.2 U	5 U	6.2 U
2-Butanone	28,000,000	200,000,000		8.4 U	11 U	9 U	11 U	11 U	11 U	12 U	11 U	15 U	17 U	13 U	12 U	8.3 U	10 U	12 U
2-Hexanone	210,000	1,400,000		8.4 U	11 U	9 U	11 U	11 U	11 U	12 U	11 U	15 U	17 U	13 U	12 U	8.3 U	10 U	12 U
4-Methyl-2-Pentanone	5,300,000	53,000,000		8.4 U	11 U	9 U	11 U	11 U	11 U	12 U	11 U	15 U	17 U	13 U	12 U	8.3 U	10 U	12 U
Acetone	61,000,000	630,000,000		8.4 U	11 U	9 U	11 U	11 U	11 U	12 U	11 U	15 U	17 U	13 U	12 U	8.3 U	10 U	12 U
Benzene	1,100	5,400		4.2 U	5.4 U	4.5 U	5.6 U	5.4 U	5.7 U	6 U	5.3 U	7.4 U	8.3 U	6.3 U	6.2 U	4.2 U	5 U	6.2 U
Carbon disulfide	820,000	3,700,000		4.2 U	5.4 U	4.5 U	5.6 U	5.4 U	5.7 U	6 U	5.3 U	**2 J**	8.3 U	6.3 U	6.2 U	4.2 U	5 U	6.2 U
Chlorobenzene	290,000	1,400,000		4.2 U	5.4 U	4.5 U	5.6 U	5.4 U	5.7 U	6 U	5.3 U	7.4 U	8.3 U	6.3 U	6.2 U	4.2 U	5 U	6.2 U
Chloroform	290	1,500		4.2 U	5.4 U	4.5 U	5.6 U	**3.9 J**	5.7 U	6 U	5.3 U	7.4 U	8.3 U	6.3 U	6.2 U	4.2 U	5 U	6.2 U
Chloromethane	120,000	500,000		4.2 U	5.4 U	4.5 U	5.6 U	5.4 U	5.7 U	6 U	5.3 U	7.4 U	8.3 U	6.3 U	6.2 U	4.2 U	5 U	6.2 U
cis-1,2-Dichloroethene	780,000	10,000,000		4.2 U	5.4 U	4.5 U	5.6 U	5.4 U	5.7 U	6 U	5.3 U	7.4 U	8.3 U	6.3 U	6.2 U	4.2 U	5 U	6.2 U
cis-1,3-Dichloropropene	1,700	8,100		4.2 U	5.4 U	4.5 U	5.6 U	5.4 U	5.7 U	6 U	5.3 U	7.4 U	8.3 U	6.3 U	6.2 U	4.2 U	5 U	6.2 U
Cyclohexane	7,000,000	29,000,000		**3.7 J**	**0.77 J**	**1.3 J**	**2.5 J**	**1.1 J**	**3.3 J**	**5 J**	**6.4 J**	**5.4 J**	**2.9 J**	**2.2 J**	**1.1 J**	**3.1 J**	**1.7 J**	**1 J**
Dichlorodifluoromethane	180,000	780,000		4.2 U	5.4 U	4.5 U	5.6 U	5.4 U	5.7 U	6 U	5.3 U	7.4 U	8.3 U	6.3 U	6.2 U	4.2 U	5 U	6.2 U
Ethylbenzene	5,400	27,000		4.2 U	5.4 U	4.5 U	5.6 U	5.4 U	5.7 U	6 U	5.3 U	7.4 U	8.3 U	6.3 U	6.2 U	4.2 U	5 U	6.2 U
Isopropylbenzene	2,100,000	11,000,000		4.2 U	5.4 U	4.5 U	5.6 U	5.4 U	5.7 U	6 U	5.3 U	7.4 U	8.3 U	6.3 U	6.2 U	4.2 U	5 U	6.2 U
m,p-Xylene	3,400,000	17,000,000		4.2 U	5.4 U	4.5 U	5.6 U	5.4 U	5.7 U	6 U	5.3 U	7.4 U	**0.52 J**	6.3 U	6.2 U	4.2 U	5 U	6.2 U
Methyl acetate	78,000,000	1,000,000,000		4.2 U	5.4 U	4.5 U	5.6 U	5.4 U	5.7 U	6 U	5.3 U	7.4 U	8.3 U	6.3 U	6.2 U	4.2 U	5 U	6.2 U
Methylcyclohexane	7,000,000	29,000,000		4.2 U	5.4 U	4.5 U	5.6 U	5.4 U	5.7 U	6 U	5.3 U	7.4 U	8.3 U	6.3 U	6.2 U	4.2 U	5 U	6.2 U
Methylene chloride	11,000	53,000		**2.5 J**	**2.2 J**	**1.2 J**	**5.3 J**	**7.6**	**8.4**	**5.7 J**	**12**	**23**	**4.4 J**	6.3 U	6.2 U	**0.42 J**	5 U	6.2 U
o-Xylene	3,800,000	19,000,000		4.2 U	5.4 U	4.5 U	5.6 U	5.4 U	5.7 U	6 U	5.3 U	7.4 U	8.3 U	6.3 U	6.2 U	4.2 U	5 U	6.2 U
Tetrachloroethene	550	2,600		4.2 U	5.4 U	4.5 U	5.6 U	5.4 U	5.7 U	6 U	5.3 U	7.4 U	8.3 U	6.3 U	6.2 U	4.2 U	5 U	6.2 U
Toluene	5,000,000	45,000,000		4.2 U	5.4 U	4.5 U	5.6 U	5.4 U	5.7 U	6 U	5.3 U	7.4 U	8.3 U	6.3 U	6.2 U	4.2 U	5 U	6.2 U
trans-1,3-Dichloropropene	1,700	8,100		4.2 U	5.4 U	4.5 U	5.6 U	5.4 U	5.7 U	6 U	5.3 U	7.4 U	8.3 U	6.3 U	6.2 U	4.2 U	5 U	6.2 U
Trichloroethene	2,800	14,000		4.2 U	5.4 U	4.5 U	5.6 U	**0.65 J**	5.7 U	6 U	5.3 U	7.4 U	8.3 U	6.3 U	6.2 U	4.2 U	5 U	6.2 U
Trichlorofluoromethane	790,000	3,400,000		4.2 U	5.4 U	4.5 U	5.6 U	**1.5 J**	5.7 U	6 U	5.3 U	7.4 U	8.3 U	6.3 U	6.2 U	**0.93 J**	**1.6 J**	**2.2 J**

Table 4.2.2-2
Detected Soil VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB101A	SB101B	SB102A	SB102B	SB103B	SB104A	SB104B	SB105A	SB105B	SB106A	SB106B	SB107A	SB107B	SB108A	SB302A
			Sample ID	E3RK2RE	E3RK3	E3RF6	E3RF7	E3RG2	E3RG3RE	E3RG4	E3RG5RE	E3RG6	E3RG7	E3RG8	E3SD1	E3SD2	E3SD3	E3SD4
			Case	36648	36648	36648	36648	36648	36648	36648	36648	36648	36648	36648	36697	36697	36697	36697
			Sampling date	7/25/2007	7/25/2007	7/23/2007	7/23/2007	7/23/2007	7/24/2007	7/24/2007	7/24/2007	7/24/2007	7/24/2007	7/24/2007	8/8/2007	8/8/2007	8/8/2007	8/8/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info															SB108A
			Investigation area	3	3	3	3	3	4	4	4	4	4	4	3	3	3	3
			Lithology	L4	L1	L1	L1	L1	L1	L1	L1, L2	L4	L2, L3	L1	L4	L3	L4	L4
			Depth (ft bgs)	0-2	8-10	0-2	4-6	6-8	0-2	8-10	0-2	4-6	0-2	8-10	0-2	8-10	0-2	0-2
1,2,3-Trichlorobenzene	49,000	490,000		4 UJ	3.8 U	5.5 UJ	4.8 U	4.2 U	5.4 UJ	4 U	4.5 UJ	4.7 U	5 UJ	4.2 U	5.8 U	7 UJ	6.9 U	5 U
1,2,4-Trichlorobenzene	22,000	99,000		4 UJ	3.8 U	5.5 UJ	4.8 U	4.2 U	5.4 UJ	4 U	4.5 UJ	4.7 U	5 UJ	4.2 U	5.8 U	7 UJ	6.9 U	5 U
1,4-Dichlorobenzene	2,400	12,000		4 UJ	3.8 U	5.5 UJ	4.8 U	4.2 U	5.4 UJ	4 U	4.5 UJ	4.7 U	5 UJ	4.2 U	5.8 U	7 UJ	6.9 U	5 U
2-Butanone	28,000,000	200,000,000		8.1 U	7.6 U	11 U	9.6 U	8.3 U	11 U	8 U	8.9 U	9.3 U	10 U	8.4 U	12 U	14 U	14 U	10 U
2-Hexanone	210,000	1,400,000		8.1 U	7.6 U	11 U	9.6 U	8.3 U	11 U	8 U	8.9 U	9.3 U	10 U	8.4 U	12 U	14 U	14 U	10 U
4-Methyl-2-Pentanone	5,300,000	53,000,000		8.1 U	7.6 U	11 U	9.6 U	8.3 U	11 U	8 U	8.9 U	9.3 U	10 U	8.4 U	12 U	14 U	14 U	10 U
Acetone	61,000,000	630,000,000		8.1 U	7.6 U	11 U	9.6 U	8.3 U	11 U	8 U	8.9 U	9.3 U	10 U	8.4 U	**14**	14 U	14 U	10 U
Benzene	1,100	5,400		4 U	3.8 U	5.5 U	4.8 U	4.2 U	5.4 U	4 U	4.5 U	4.7 U	5 U	4.2 U	5.8 U	7 U	6.9 U	5 U
Carbon disulfide	820,000	3,700,000		4 U	3.8 U	**0.69 J**	4.8 U	4.2 U	**4.8 J**	4 U	**0.94 J**	**0.55 J**	**4.6 J**	4.2 U	5.8 U	7 U	**2.1 J**	5 U
Chlorobenzene	290,000	1,400,000		4 U	3.8 U	5.5 U	4.8 U	4.2 U	5.4 U	4 U	4.5 U	4.7 U	5 U	4.2 U	5.8 U	7 U	6.9 U	5 U
Chloroform	290	1,500		4 U	3.8 U	5.5 U	4.8 U	4.2 U	5.4 U	4 U	4.5 U	4.7 U	5 U	4.2 U	5.8 U	7 U	6.9 U	5 U
Chloromethane	120,000	500,000		4 U	3.8 U	5.5 U	4.8 U	4.2 U	5.4 U	4 U	4.5 U	4.7 U	5 U	4.2 U	5.8 U	7 U	6.9 U	5 U
cis-1,2-Dichloroethene	780,000	10,000,000		4 U	3.8 U	5.5 U	4.8 U	4.2 U	5.4 U	4 U	4.5 U	4.7 U	5 U	4.2 U	5.8 U	7 U	6.9 U	5 U
cis-1,3-Dichloropropene	1,700	8,100		4 U	3.8 U	5.5 U	4.8 U	4.2 U	5.4 U	4 U	4.5 U	4.7 U	5 U	4.2 U	5.8 U	7 U	6.9 U	5 U
Cyclohexane	7,000,000	29,000,000		**1.6 J**	**0.54 J**	**1.7 J**	**0.55 J**	**4.1 J**	**1.6 J**	**3.5 J**	**5.5 J**	**3.3 J**	**2.9 J**	4.2 U	**1 J**	**9 J**	**3.1 J**	**4.1 J**
Dichlorodifluoromethane	180,000	780,000		4 U	3.8 U	5.5 U	4.8 U	4.2 U	5.4 U	4 U	4.5 U	4.7 U	5 U	4.2 U	5.8 U	7 U	6.9 U	5 U
Ethylbenzene	5,400	27,000		4 U	3.8 U	5.5 U	4.8 U	4.2 U	5.4 U	4 U	4.5 U	4.7 U	5 U	4.2 U	5.8 U	7 U	**0.59 J**	**0.59 J**
Isopropylbenzene	2,100,000	11,000,000		4 U	3.8 U	5.5 U	4.8 U	4.2 U	5.4 U	4 U	4.5 U	4.7 U	5 U	4.2 U	5.8 U	7 U	6.9 U	5 U
m,p-Xylene	3,400,000	17,000,000		4 U	3.8 U	5.5 U	4.8 U	4.2 U	5.4 U	4 U	4.5 U	4.7 U	5 U	**0.26 J**	**0.66 J**	7 U	**1.4 J**	**1.4 J**
Methyl acetate	78,000,000	1,000,000,000		4 U	3.8 U	5.5 U	4.8 U	4.2 U	5.4 U	4 U	4.5 U	4.7 U	5 U	4.2 U	5.8 U	7 U	6.9 U	5 U
Methylcyclohexane	7,000,000	29,000,000		4 U	3.8 U	5.5 U	4.8 U	4.2 U	5.4 U	4 U	4.5 U	4.7 U	5 U	4.2 U	5.8 U	7 U	6.9 U	5 U
Methylene chloride	11,000	53,000		**5.8**	**1.4 J**	5.5 U	4.8 U	4.2 U	**1.4 J**	**2 J**	**7.2**	**0.77 J**	**0.53 J**	**0.78 J**	5.8 U	7 U	6.9 U	5 U
o-Xylene	3,800,000	19,000,000		4 U	3.8 U	5.5 U	4.8 U	4.2 U	5.4 U	4 U	4.5 U	4.7 U	5 U	4.2 U	5.8 U	7 U	**0.51 J**	**0.5 J**
Tetrachloroethene	550	2,600		4 U	3.8 U	5.5 U	4.8 U	4.2 U	5.4 U	4 U	4.5 U	4.7 U	5 U	4.2 U	5.8 U	7 U	6.9 U	5 U
Toluene	5,000,000	45,000,000		4 U	3.8 U	5.5 U	4.8 U	4.2 U	5.4 U	4 U	4.5 U	4.7 U	5 U	4.2 U	5.8 U	7 U	6.9 U	5.3 U
trans-1,3-Dichloropropene	1,700	8,100		4 U	3.8 U	5.5 U	4.8 U	4.2 U	5.4 U	4 U	4.5 U	4.7 U	5 U	4.2 U	5.8 U	7 U	6.9 U	5 U
Trichloroethene	2,800	14,000		4 U	3.8 U	5.5 U	4.8 U	4.2 U	5.4 U	4 U	4.5 U	4.7 U	5 U	4.2 U	5.8 U	7 U	6.9 U	5 U
Trichlorofluoromethane	790,000	3,400,000		**0.85 J**	3.8 U	5.5 U	4.8 U	**0.48 J**	5.4 U	**1.5 J**	**2.5 J**	**0.98 J**	5 U	**1.4 J**	5.8 U	7 U	6.9 U	5 U

Table 4.2.2-2
Detected Soil VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB108B	SB109A	SB109B	SB110A	SB110B	SB111A	SB111B	SB112A	SB113A	SB114A	SB114B	SB115A	SB115B	SB116A	SB116B
			Sample ID	E3SD5	E3SD6	E3SD7	E3SE0	E3SE1	E3SD8	E3SD9	E3RZ2	E3RZ4	E3SE8	E3SE9	E3SE6	E3SE7	E3RL7	E3RL8RE
			Case	36697	36697	36697	36697	36697	36697	36697	36664	36664	36697	36697	36697	36697	36648	36648
			Sampling date	8/8/2007	8/8/2007	8/8/2007	8/8/2007	8/8/2007	8/8/2007	8/8/2007	7/31/2007	7/31/2007	8/8/2007	8/8/2007	8/8/2007	8/8/2007	7/25/2007	7/25/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info															
			Investigation area	3	3	3	3	3	3	3	4	4	4	4	4	4	3	3
			Lithology	L1	L1	L1	L1	L1	L4	L1	L1	L1	L1	L1, L4	L1	L1	L1, L4	L2
			Depth (ft bgs)	8-10	0-2	8-10	0-2	8-10	0-2	8-10	0-2	0-2	0-2	8-10	0-2	8-10	0-2	8-10
1,2,3-Trichlorobenzene	49,000	490,000		4.8 U	6.4 U	5.3 U	4.7 U	5.2 UJ	4.4 U	5.1 U	290 U	4.2 U	5.1 UJ	3.8 UJ	4.9 UJ	3.9 UJ	5.4 UJ	5.9 UJ
1,2,4-Trichlorobenzene	22,000	99,000		4.8 U	6.4 U	5.3 U	4.7 U	5.2 UJ	4.4 U	5.1 U	290 U	4.2 U	5.1 UJ	3.8 UJ	4.9 UJ	3.9 UJ	5.4 UJ	5.9 UJ
1,4-Dichlorobenzene	2,400	12,000		4.8 U	6.4 U	5.3 U	4.7 U	5.2 U	4.4 U	5.1 U	290 U	4.2 U	5.1 U	3.8 U	4.9 U	3.9 U	5.4 UJ	5.9 UJ
2-Butanone	28,000,000	200,000,000		9.6 U	13 U	11 U	9.4 U	10 U	8.8 U	10 U	580 U	8.4 U	10 U	7.6 U	9.9 U	7.8 U	11 U	12 U
2-Hexanone	210,000	1,400,000		9.6 U	13 U	11 U	9.4 U	10 U	8.8 U	10 U	580 U	8.4 U	10 U	7.6 U	9.9 U	7.8 U	11 U	12 U
4-Methyl-2-Pentanone	5,300,000	53,000,000		9.6 U	13 U	11 U	9.4 U	10 U	8.8 U	10 U	580 U	8.4 U	10 U	7.6 U	9.9 U	7.8 U	11 U	12 U
Acetone	61,000,000	630,000,000		9.6 U	13 U	**22**	9.4 U	10 U	8.8 U	**7.5 J**	580 U	8.9 U	**4.5 J**	7.6 U	9.9 U	7.8 U	11 U	12 U
Benzene	1,100	5,400		4.8 U	6.4 U	5.3 U	4.7 U	5.2 U	4.4 U	5.1 U	290 UJ	4.2 U	5.1 U	3.8 U	4.9 U	3.9 U	5.4 U	5.9 U
Carbon disulfide	820,000	3,700,000		4.8 U	6.4 U	5.3 U	4.7 U	5.2 U	4.4 U	5.1 U	290 U	4.2 U	5.1 U	3.8 U	4.9 U	3.9 U	5.4 U	5.9 U
Chlorobenzene	290,000	1,400,000		4.8 U	6.4 U	5.3 U	4.7 U	5.2 U	4.4 U	5.1 U	290 U	4.2 U	5.1 U	3.8 U	4.9 U	3.9 U	5.4 U	5.9 U
Chloroform	290	1,500		4.8 U	6.4 U	5.3 U	4.7 U	5.2 U	4.4 U	5.1 U	290 U	4.2 U	5.1 U	3.8 U	4.9 U	3.9 U	5.4 U	5.9 U
Chloromethane	120,000	500,000		4.8 U	6.4 U	5.3 U	4.7 U	5.2 U	4.4 U	5.1 U	290 U	**6**	5.1 U	3.8 U	4.9 U	3.9 U	5.4 U	5.9 U
cis-1,2-Dichloroethene	780,000	10,000,000		4.8 U	6.4 U	5.3 U	4.7 U	5.2 U	4.4 U	5.1 U	290 U	4.2 U	5.1 U	3.8 U	4.9 U	3.9 U	5.4 U	5.9 U
cis-1,3-Dichloropropene	1,700	8,100		4.8 U	6.4 U	5.3 U	4.7 U	5.2 U	4.4 U	5.1 U	290 U	4.2 UJ	5.1 U	3.8 U	4.9 U	3.9 U	5.4 U	5.9 U
Cyclohexane	7,000,000	29,000,000		**7.8**	**4.9 J**	**3.1 J**	**0.9 J**	**1.4 J**	**4.1 J**	**3.6 J**	290 U	4.2 U	**1.4 J**	**1.3 J**	**1.2 J**	**2.7 J**	**13 J**	**8.7 J**
Dichlorodifluoromethane	180,000	780,000		4.8 U	6.4 U	5.3 U	4.7 U	5.2 U	4.4 U	5.1 U	290 U	**1.7 J**	5.1 U	3.8 U	4.9 U	3.9 U	5.4 U	5.9 U
Ethylbenzene	5,400	27,000		**0.44 J**	**0.53 J**	5.3 U	**1.2 J**	5.2 U	4.4 U	**0.3 J**	290 U	4.2 U	5.1 U	3.8 U	4.9 U	3.9 U	5.4 U	5.9 U
Isopropylbenzene	2,100,000	11,000,000		4.8 U	6.4 U	5.3 U	4.7 U	5.2 U	4.4 U	5.1 U	290 U	4.2 U	5.1 U	3.8 U	4.9 U	3.9 U	5.4 U	5.9 U
m,p-Xylene	3,400,000	17,000,000		**0.41 J**	**0.51 J**	**0.81 J**	**3.9 J**	5.2 U	4.4 U	**0.94 J**	290 U	4.2 U	5.1 U	**0.42 J**	**0.54 J**	3.9 U	5.4 U	5.9 U
Methyl acetate	78,000,000	1,000,000,000		4.8 U	6.4 U	5.3 U	4.7 U	5.2 U	4.4 U	5.1 U	290 U	4.2 U	5.1 U	3.8 U	4.9 U	3.9 U	5.4 U	5.9 U
Methylcyclohexane	7,000,000	29,000,000		4.8 U	6.4 U	5.3 U	4.7 U	5.2 U	4.4 U	5.1 U	290 U	4.2 U	5.1 U	3.8 U	4.9 U	3.9 U	5.4 U	5.9 U
Methylene chloride	11,000	53,000		4.8 U	6.4 U	5.3 U	4.7 U	**0.52 J**	4.4 UJ	5.1 UJ	290 U	**1 J**	**0.71 J**	**0.58 J**	**0.8 J**	**0.51 J**	**13**	**10**
o-Xylene	3,800,000	19,000,000		4.8 U	6.4 U	5.3 U	**1.2 J**	5.2 U	4.4 U	**0.25 J**	290 U	4.2 U	5.1 U	3.8 U	4.9 U	3.9 U	5.4 U	5.9 U
Tetrachloroethene	550	2,600		4.8 U	6.4 U	5.3 U	4.7 U	5.2 U	4.4 U	5.1 U	290 U	4.2 U	5.1 U	3.8 U	4.9 U	3.9 U	5.4 U	5.9 U
Toluene	5,000,000	45,000,000		**18**	6.4 U	5.3 U	4.7 U	5.2 U	4.4 U	14 U	**620 J**	4.2 U	5.1 U	3.8 U	4.9 U	3.9 U	5.4 U	5.9 U
trans-1,3-Dichloropropene	1,700	8,100		4.8 U	6.4 U	5.3 U	4.7 U	5.2 U	4.4 U	5.1 U	290 U	4.2 UJ	5.1 U	3.8 U	4.9 U	3.9 U	5.4 U	5.9 U
Trichloroethene	2,800	14,000		4.8 U	6.4 U	5.3 U	4.7 U	5.2 U	4.4 U	5.1 U	290 UJ	4.2 U	5.1 U	3.8 U	4.9 U	3.9 U	5.4 U	5.9 U
Trichlorofluoromethane	790,000	3,400,000		4.8 U	6.4 U	5.3 U	4.7 U	5.2 U	4.4 U	5.1 U	290 U	4.2 U	**0.64 J**	**1.1 J**	**1.1 J**	3.9 U	5.4 U	**1 J**

Table 4.2.2-2
Detected Soil VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB117A	SB322A	SB119A	SB120A	SB121A	SB122A	SB308A	SB123A	SB123B	SB124A	SB124B	SB125A	SB125B	SB126A	SB126B
			Sample ID	E3RT0	E3RT1	E3RT4RE	E3SH2	E3SH0	E3SG9	E3SH1	E3SG5	E3SG6	E3SG2	E3SG3	E3SJ8	E3SJ9	E3SJ6	E3SJ7
			Case	36720	36720	36720	36697	36697	36697	36697	36697	36697	36697	36697	36697	36697	36697	36697
			Sampling date	8/15/2007	8/15/2007	8/15/2007	8/9/2007	8/9/2007	8/9/2007	8/9/2007	8/9/2007	8/9/2007	8/9/2007	8/9/2007	8/10/2007	8/10/2007	8/10/2007	8/10/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info		SB117A					SB122A								
			Investigation area	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
			Lithology	L1, L2	L1, L2	L2, L3	L4	L1	L1, L4	L1, L4	L1, L4	L1	L1, L4	L1	L4	L1	L4	L4
			Depth (ft bgs)	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	8-10	0-2	4-6	0-2	6-8	0-2	4-6
1,2,3-Trichlorobenzene	49,000	490,000		8.1 U	10 UJ	6.2 UJ	6.5 U	6 UJ	4 U	4.8 U	6.8 U	4.1 U	4.8 UJ	5.1 U	6.2 U	7.7 UJ	7.1 U	7.6 UJ
1,2,4-Trichlorobenzene	22,000	99,000		8.1 UJ	10 UJ	6.2 UJ	6.5 U	6 UJ	4 U	4.8 U	6.8 U	4.1 U	4.8 UJ	5.1 U	6.2 U	7.7 UJ	7.1 U	7.6 UJ
1,4-Dichlorobenzene	2,400	12,000		8.1 U	10 UJ	6.2 UJ	6.5 U	6 UJ	4 U	4.8 U	6.8 U	4.1 U	4.8 UJ	5.1 U	6.2 U	7.7 UJ	7.1 U	7.6 UJ
2-Butanone	28,000,000	200,000,000		16 U	21 U	12 U	13 U	12 U	8 U	9.6 U	14 U	8.1 U	**38**	10 U	12 U	15 UJ	14 U	15 U
2-Hexanone	210,000	1,400,000		16 U	21 U	12 U	13 U	12 U	8 U	9.6 U	14 U	8.1 U	**9.5 J**	10 U	12 U	15 UJ	14 U	15 U
4-Methyl-2-Pentanone	5,300,000	53,000,000		16 U	21 U	12 U	13 U	12 U	8 U	9.6 U	14 U	8.1 U	9.5 U	10 U	12 U	15 UJ	14 U	15 U
Acetone	61,000,000	630,000,000		16 U	21 U	12 U	**11 J**	**12**	8 U	9.6 U	**16**	8.1 U	**190**	**16**	12 U	15 UJ	14 U	**26**
Benzene	1,100	5,400		8.1 U	10 U	6.2 UJ	6.5 U	6 U	4 U	4.8 U	6.8 U	4.1 U	**1.5 J**	5.1 U	6.2 U	7.7 UJ	7.1 U	7.6 U
Carbon disulfide	820,000	3,700,000		8.1 U	10 U	6.2 U	6.5 U	6 U	4 U	4.8 U	**4.7 J**	4.1 U	**0.64 J**	**0.63 J**	6.2 U	**1.9 J**	7.1 U	7.6 U
Chlorobenzene	290,000	1,400,000		8.1 U	10 UJ	6.2 UJ	6.5 U	6 U	4 U	4.8 U	6.8 U	4.1 U	4.8 U	5.1 U	6.2 U	7.7 UJ	7.1 U	7.6 U
Chloroform	290	1,500		8.1 U	10 U	6.2 U	6.5 U	6 U	4 U	4.8 U	6.8 U	4.1 U	4.8 U	5.1 U	6.2 U	7.7 UJ	7.1 U	7.6 U
Chloromethane	120,000	500,000		8.1 U	10 U	6.2 U	6.5 U	6 U	4 U	4.8 U	6.8 U	4.1 U	4.8 U	5.1 U	6.2 U	7.7 UJ	7.1 U	7.6 U
cis-1,2-Dichloroethene	780,000	10,000,000		8.1 U	10 U	6.2 U	6.5 U	6 U	4 U	4.8 U	6.8 U	4.1 U	4.8 U	5.1 U	6.2 U	7.7 UJ	7.1 U	7.6 U
cis-1,3-Dichloropropene	1,700	8,100		8.1 U	10 U	6.2 UJ	6.5 U	6 U	4 U	4.8 U	6.8 U	4.1 U	4.8 U	5.1 U	6.2 U	7.7 UJ	7.1 U	7.6 U
Cyclohexane	7,000,000	29,000,000		**18**	**30**	**13**	**2 J**	**2.3 J**	**2.4 J**	**1.9 J**	**3 J**	**4 J**	**17 J**	**2.3 J**	**3.4 J**	**36 J**	**6.9 J**	**6.5 J**
Dichlorodifluoromethane	180,000	780,000		8.1 U	10 U	6.2 U	6.5 U	6 U	4 U	4.8 U	6.8 U	4.1 U	4.8 U	5.1 U	6.2 U	7.7 UJ	7.1 U	7.6 U
Ethylbenzene	5,400	27,000		8.1 U	10 UJ	6.2 UJ	6.5 U	**0.5 J**	4 U	4.8 U	6.8 U	4.1 U	**1 J**	**0.37 J**	**3 J**	7.7 UJ	7.1 U	**3.5 J**
Isopropylbenzene	2,100,000	11,000,000		8.1 U	10 UJ	6.2 UJ	6.5 U	6 U	4 U	4.8 U	6.8 U	4.1 U	4.8 U	5.1 U	6.2 U	7.7 UJ	7.1 U	7.6 U
m,p-Xylene	3,400,000	17,000,000		8.1 U	**1.2 J**	6.2 UJ	**0.65 J**	**1.3 J**	**0.43 J**	4.8 U	**0.44 J**	4.1 U	**0.73 J**	**0.81 J**	**1.6 J**	7.7 UJ	**0.39 J**	**10**
Methyl acetate	78,000,000	1,000,000,000		8.1 U	10 U	6.2 UJ	6.5 U	6 U	4 U	4.8 U	6.8 U	4.1 U	4.8 U	5.1 U	6.2 U	7.7 UJ	7.1 U	7.6 U
Methylcyclohexane	7,000,000	29,000,000		8.1 U	10 U	6.2 U	6.5 U	6 U	4 U	4.8 U	6.8 U	4.1 U	**1.7 J**	5.1 U	6.2 U	7.7 UJ	7.1 U	7.6 U
Methylene chloride	11,000	53,000		8.1 U	10 U	6.2 UJ	**1.1 J**	**5.3 J**	4 U	**1.3 J**	6.8 U	1.2 U	3.9 U	3.1 U	**7.1**	**8.6 J**	**5.6 J**	**25**
o-Xylene	3,800,000	19,000,000		8.1 U	10 UJ	6.2 UJ	6.5 U	**0.22 J**	4 U	4.8 U	6.8 U	4.1 U	4.8 U	5.1 U	**0.31 J**	7.7 UJ	7.1 U	**2.6 J**
Tetrachloroethene	550	2,600		8.1 U	10 UJ	6.2 UJ	6.5 U	6 U	4 U	4.8 U	6.8 U	4.1 U	4.8 U	5.1 U	6.2 U	7.7 UJ	7.1 U	7.6 U
Toluene	5,000,000	45,000,000		8.1 U	10 UJ	6.2 UJ	6.5 U	6 U	4.6 U	4.8 U	6.8 U	2.3 U	2.4 U	5.1 U	6.2 U	7.7 UJ	7.1 U	7.6 U
trans-1,3-Dichloropropene	1,700	8,100		8.1 U	10 U	6.2 UJ	6.5 U	6 U	4 U	4.8 U	6.8 U	4.1 U	4.8 U	5.1 U	6.2 U	7.7 UJ	7.1 U	7.6 U
Trichloroethene	2,800	14,000		8.1 U	10 UJ	6.2 UJ	6.5 U	6 U	4 U	4.8 U	6.8 U	4.1 U	4.8 U	5.1 U	6.2 U	7.7 UJ	7.1 U	7.6 U
Trichlorofluoromethane	790,000	3,400,000		8.1 U	10 U	6.2 UJ	6.5 U	**1.6 J**	4 U	4.8 U	6.8 U	4.1 U	4.8 U	5.1 U	**1.7 J**	**1.4 J**	7.1 U	7.6 U

Table 4.2.2-2
Detected Soil VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	SB127A E3RX2 36664 7/30/2007 µg/kg 3 L4 0-2	SB127B E3RX3 36664 7/30/2007 µg/kg 3 L1, L4 8-10	SB128A E3RW2 36664 7/30/2007 µg/kg 3 L4 0-2	SB128B E3RW3 36664 7/30/2007 µg/kg 3 L4 8-10	SB130A E3RW7 36664 7/30/2007 µg/kg 2 L1 0-2	SB130B E3RW8 36664 7/30/2007 µg/kg 2 L4 8-10	SB282B E3RW9 36664 7/30/2007 µg/kg SB130B 2 L4 8-10	SB131A E3RS9 36664 7/30/2007 µg/kg 2 L4 0-2	SB131B E3RT0 36664 7/30/2007 µg/kg 2 L4 4-6	SB132B E3RT2 36664 7/30/2007 µg/kg 2 L4 8-10	SB133A E3RR2 36648 7/27/2007 µg/kg 2 L1, L4 0-2	SB133B E3RR3 36648 7/27/2007 µg/kg 2 L1 8-10	SB134A E3RQ7 36648 7/26/2007 µg/kg 2 L1 0-2	SB269A E3RQ9 36648 7/26/2007 µg/kg SB134A 2 L1 0-2	SB134B E3RQ8 36648 7/26/2007 µg/kg 2 L2, L3 4-6
1,2,3-Trichlorobenzene	49,000	490,000	6.5 U	6.1 U	7.6 U	5.9 U	4.7 U	9.8 UJ	7 UJ	5.2 UJ	R	4.3 U	4.8 UJ	5.2 U	3.8 U	220 U	5,100 U
1,2,4-Trichlorobenzene	22,000	99,000	6.5 U	6.1 U	7.6 U	5.9 U	4.7 U	9.8 UJ	7 UJ	5.2 UJ	R	4.3 U	4.8 UJ	5.2 U	3.8 U	220 U	5,100 U
1,4-Dichlorobenzene	2,400	12,000	6.5 U	6.1 U	7.6 U	5.9 U	4.7 U	9.8 UJ	**4.7 J**	5.2 UJ	R	4.3 U	4.8 UJ	5.2 U	3.8 U	220 U	5,100 U
2-Butanone	28,000,000	200,000,000	13 U	12 U	15 U	12 U	9.3 U	20 U	14 U	10 U	R	8.6 U	9.7 U	10 U	7.6 U	430 U	10,000 U
2-Hexanone	210,000	1,400,000	13 U	12 U	15 U	12 U	9.3 U	20 U	14 U	10 U	R	8.6 U	9.7 U	10 U	7.6 U	430 U	10,000 U
4-Methyl-2-Pentanone	5,300,000	53,000,000	13 U	12 U	15 U	12 U	9.3 U	20 U	14 U	10 U	R	8.6 U	9.7 U	10 U	7.6 U	430 U	10,000 U
Acetone	61,000,000	630,000,000	13 U	12 U	15 U	12 U	9.3 U	20 U	**32**	10 U	R	8.6 U	9.7 U	10 U	7.6 U	430 U	10,000 U
Benzene	1,100	5,400	6.5 U	6.1 U	7.6 U	5.9 U	4.7 UJ	9.8 U	7 U	5.2 U	R	4.3 U	4.8 U	5.2 U	3.8 U	220 U	5,100 U
Carbon disulfide	820,000	3,700,000	6.5 U	6.1 U	7.6 U	5.9 U	4.7 U	9.8 U	7 U	5.2 U	R	4.3 U	4.8 U	5.2 U	3.8 U	220 U	5,100 U
Chlorobenzene	290,000	1,400,000	6.5 U	6.1 U	7.6 U	5.9 U	4.7 U	9.8 U	7 U	5.2 U	R	4.3 U	4.8 U	5.2 U	3.8 U	220 U	5,100 U
Chloroform	290	1,500	6.5 U	6.1 U	7.6 U	5.9 U	4.7 U	9.8 U	7 U	5.2 U	R	4.3 U	4.8 U	5.2 U	3.8 U	220 U	5,100 U
Chloromethane	120,000	500,000	6.5 U	6.1 U	7.6 U	5.9 U	4.7 U	9.8 U	7 U	5.2 U	R	4.3 U	4.8 U	5.2 U	3.8 U	220 U	5,100 U
cis-1,2-Dichloroethene	780,000	10,000,000	6.5 U	6.1 U	7.6 U	5.9 U	4.7 U	9.8 U	7 U	5.2 U	R	4.3 U	4.8 U	5.2 U	**0.97 J**	**460**	**4,700 J**
cis-1,3-Dichloropropene	1,700	8,100	6.5 U	6.1 U	7.6 U	5.9 U	4.7 U	9.8 U	7 U	5.2 U	R	4.3 U	4.8 U	5.2 U	3.8 U	220 U	5,100 U
Cyclohexane	7,000,000	29,000,000	6.5 U	**4.2 J**	**3.5 J**	**6.6**	**4.9**	9.8 U	7 U	5.2 U	R	**2.1 J**	**5.9**	**0.84 J**	**5.6**	220 U	5,100 U
Dichlorodifluoromethane	180,000	780,000	6.5 U	6.1 U	7.6 U	5.9 U	4.7 U	9.8 U	7 U	5.2 U	R	4.3 U	4.8 U	5.2 U	3.8 U	220 U	5,100 U
Ethylbenzene	5,400	27,000	6.5 U	6.1 U	7.6 U	5.9 U	4.7 U	9.8 U	7 U	5.2 U	R	4.3 U	4.8 U	5.2 U	3.8 U	220 U	5,100 U
Isopropylbenzene	2,100,000	11,000,000	6.5 U	6.1 U	7.6 U	5.9 U	4.7 U	9.8 U	7 U	5.2 U	R	4.3 U	4.8 U	5.2 U	3.8 U	220 U	5,100 U
m,p-Xylene	3,400,000	17,000,000	6.5 U	6.1 U	7.6 U	5.9 U	4.7 U	9.8 U	7 U	5.2 U	R	4.3 U	4.8 U	5.2 U	**0.34 J**	**5.4 J**	5,100 U
Methyl acetate	78,000,000	1,000,000,000	6.5 U	6.1 U	7.6 U	5.9 U	4.7 U	9.8 U	7 U	5.2 U	R	4.3 U	4.8 U	5.2 U	3.8 U	220 U	5,100 U
Methylcyclohexane	7,000,000	29,000,000	6.5 U	6.1 U	7.6 U	5.9 U	4.7 U	9.8 U	7 U	5.2 U	R	4.3 U	4.8 U	5.2 U	3.8 U	220 U	5,100 U
Methylene chloride	11,000	53,000	**6.4 J**	6.1 U	7.6 U	**3.8 J**	**2 J**	**7 J**	**18**	5.2 U	**8.4 J**	**3.5 J**	4.8 U	**1.4 J**	**3.6 J**	220 U	5,100 U
o-Xylene	3,800,000	19,000,000	6.5 U	6.1 U	7.6 U	5.9 U	4.7 U	9.8 U	7 U	5.2 U	R	4.3 U	4.8 U	5.2 U	3.8 U	220 U	5,100 U
Tetrachloroethene	550	2,600	6.5 U	6.1 U	7.6 U	5.9 U	4.7 U	9.8 U	7 U	5.2 U	R	4.3 U	4.8 U	5.2 U	**0.75 J**	**8.1 J**	**1,000 J**
Toluene	5,000,000	45,000,000	6.5 U	6.1 U	7.6 U	5.9 U	4.7 U	9.8 U	7 U	5.2 U	R	4.3 U	4.8 U	5.2 U	3.8 U	220 U	5,100 U
trans-1,3-Dichloropropene	1,700	8,100	6.5 U	6.1 U	7.6 U	5.9 U	4.7 U	9.8 U	7 U	5.2 U	R	4.3 U	4.8 U	5.2 U	3.8 U	220 U	5,100 U
Trichloroethene	2,800	14,000	6.5 U	6.1 U	7.6 U	5.9 U	4.7 UJ	**4.3 J**	7 U	**2.7 J**	**62 J**	4.3 U	**2.2 J**	**1.8 J**	**2.8 J**	**210 J**	**120,000**
Trichlorofluoromethane	790,000	3,400,000	6.5 U	6.1 U	7.6 U	5.9 U	4.7 U	9.8 U	7 U	5.2 U	R	4.3 U	4.8 U	**1.4 J**	**1.6 J**	220 U	5,100 U

Table 4.2.2-2
Detected Soil VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	SB135A E3RW0 36664 7/30/2007 µg/kg 3 L4 0-2	SB135B E3RW1 36664 7/30/2007 µg/kg 3 L4 8-10	SB136A E3RT8 36664 7/30/2007 µg/kg 3 L4 0-2	SB136B E3RT9RE 36664 7/30/2007 µg/kg 3 L4 4-6	SB137A E3RT6 36664 7/30/2007 µg/kg 3 L4 0-2	SB137B E3RT7 36664 7/30/2007 µg/kg 3 L4 4-6	SB138A E3RW4 36664 7/30/2007 µg/kg 3 L4 0-2	SB139A E3SQ1RE 36720 8/14/2007 µg/kg 3 L2 0-2	SB139B E3SQ2RE 36720 8/14/2007 µg/kg 3 L2 8-10	SB140A E3RP0 36648 7/26/2007 µg/kg 2 L1, L2, L3 0-2	SB140B E3RQ3 36648 7/19/2007 µg/kg 2 L1 8-10	SB141A E3SP9 36720 8/14/2007 µg/kg 2 L1 0-2	SB141B E3SQ0RE 36720 8/14/2007 µg/kg 2 L1 8-10	SB142A E3SP4RE 36720 8/14/2007 µg/kg 2 L1 0-2	SB318A E3SP5RE 36720 8/14/2007 µg/kg SB142A 2 L1 0-2
1,2,3-Trichlorobenzene	49,000	490,000	5.3 U	6.7 U	7.2 UJ	6.2 UJ	6 U	3.8 U	7.2 U	7.4 U	8.7 U	6.6 U	4 U	4.2 UJ	5.8 U	4.8 U	5.4 UJ
1,2,4-Trichlorobenzene	22,000	99,000	5.3 U	6.7 U	7.2 UJ	6.2 UJ	6 U	3.8 U	7.2 U	7.4 UJ	8.7 UJ	6.6 U	4 U	4.2 UJ	5.8 UJ	4.8 UJ	5.4 UJ
1,4-Dichlorobenzene	2,400	12,000	5.3 U	6.7 U	7.2 UJ	6.2 UJ	6 U	3.8 U	7.2 U	7.4 U	8.7 U	6.6 U	4 U	4.2 UJ	5.8 U	4.8 U	5.4 UJ
2-Butanone	28,000,000	200,000,000	11 U	13 U	14 U	12 UJ	12 U	7.6 U	14 U	15 U	17 U	13 U	7.9 U	26 U	12 U	**13**	**4.8 J**
2-Hexanone	210,000	1,400,000	11 U	13 U	14 U	12 UJ	12 U	7.6 U	14 U	15 U	17 U	13 U	7.9 U	14 U	12 U	9.6 U	11 U
4-Methyl-2-Pentanone	5,300,000	53,000,000	11 U	13 U	14 U	12 UJ	12 U	7.6 U	14 U	15 U	17 U	13 U	7.9 U	8.4 U	12 U	9.6 U	11 U
Acetone	61,000,000	630,000,000	11 U	13 U	14 U	12 UJ	12 U	7.6 U	14 U	15 U	**9.6 J**	13 U	7.9 U	8.4 U	**2.9 J**	**39**	**15**
Benzene	1,100	5,400	5.3 U	6.7 U	7.2 U	6.2 UJ	6 U	3.8 U	7.2 U	7.4 U	8.7 U	6.6 U	4 U	4.2 U	5.8 U	4.8 U	5.4 U
Carbon disulfide	820,000	3,700,000	5.3 U	6.7 U	7.2 U	6.2 UJ	6 U	3.8 U	7.2 U	7.4 U	8.7 U	6.6 U	4 U	4.2 U	5.8 U	4.8 U	5.4 U
Chlorobenzene	290,000	1,400,000	5.3 U	6.7 U	7.2 U	6.2 UJ	6 U	3.8 U	7.2 U	7.4 U	8.7 U	6.6 U	4 U	4.2 UJ	5.8 U	4.8 U	5.4 UJ
Chloroform	290	1,500	5.3 U	6.7 U	7.2 U	6.2 UJ	6 U	3.8 U	7.2 U	7.4 U	8.7 U	6.6 U	4 U	4.2 U	5.8 U	4.8 U	5.4 U
Chloromethane	120,000	500,000	5.3 U	6.7 U	7.2 U	6.2 UJ	6 U	3.8 U	7.2 U	7.4 U	8.7 U	6.6 U	4 U	4.2 U	5.8 U	4.8 U	5.4 U
cis-1,2-Dichloroethene	780,000	10,000,000	5.3 U	6.7 U	7.2 U	6.2 UJ	6 U	3.8 U	7.2 U	7.4 U	8.7 U	6.6 U	4 U	4.2 U	5.8 U	4.8 U	5.4 U
cis-1,3-Dichloropropene	1,700	8,100	5.3 U	6.7 U	7.2 U	6.2 UJ	6 U	3.8 U	7.2 U	7.4 U	8.7 U	6.6 U	4 U	4.2 U	5.8 U	4.8 U	5.4 U
Cyclohexane	7,000,000	29,000,000	**3 J**	**5.3 J**	**8.5**	6.2 UJ	**4 J**	3.8 U	**11**	**7.9**	**7.4 J**	**4 J**	**1.3 J**	**16**	**5 J**	**3.8 J**	**4.2 J**
Dichlorodifluoromethane	180,000	780,000	5.3 U	6.7 U	7.2 U	6.2 UJ	6 U	3.8 U	7.2 U	7.4 U	8.7 U	6.6 U	4 U	4.2 U	5.8 U	4.8 U	5.4 U
Ethylbenzene	5,400	27,000	5.3 U	6.7 U	7.2 U	6.2 UJ	6 U	3.8 U	7.2 U	7.4 U	8.7 U	**0.49 J**	4 U	4.2 U	5.8 U	4.8 U	5.4 U
Isopropylbenzene	2,100,000	11,000,000	5.3 U	6.7 U	7.2 U	6.2 UJ	6 U	3.8 U	7.2 U	7.4 U	8.7 U	6.6 U	4 U	4.2 U	5.8 U	4.8 U	5.4 U
m,p-Xylene	3,400,000	17,000,000	5.3 U	6.7 U	7.2 U	6.2 UJ	6 U	3.8 U	7.2 U	7.4 U	8.7 U	**1.4 J**	4 U	4.2 U	5.8 U	4.8 U	5.4 U
Methyl acetate	78,000,000	1,000,000,000	5.3 U	6.7 U	7.2 U	6.2 UJ	6 U	3.8 U	7.2 U	7.4 U	8.7 U	6.6 U	4 U	4.2 U	5.8 U	4.8 U	5.4 U
Methylcyclohexane	7,000,000	29,000,000	5.3 U	6.7 U	7.2 U	6.2 UJ	6 U	3.8 U	7.2 U	7.4 U	8.7 U	6.6 U	4 U	4.2 U	5.8 U	4.8 U	5.4 U
Methylene chloride	11,000	53,000	**2.3 J**	**4.1 J**	**5.1 J**	**5.7 J**	6 U	**3.9**	**5.4 J**	7.4 U	8.7 U	**24**	4 U	4.2 U	5.8 U	4.8 U	5.4 U
o-Xylene	3,800,000	19,000,000	5.3 U	6.7 U	7.2 U	6.2 UJ	6 U	3.8 U	7.2 U	7.4 U	8.7 U	**0.53 J**	4 U	4.2 U	5.8 U	4.8 U	5.4 U
Tetrachloroethene	550	2,600	5.3 U	6.7 U	7.2 U	6.2 UJ	6 U	3.8 U	7.2 U	7.4 U	8.7 U	**63**	**0.2 J**	4.2 U	5.8 U	4.8 U	5.4 U
Toluene	5,000,000	45,000,000	5.3 U	6.7 U	7.2 U	6.2 UJ	6 U	3.8 U	7.2 U	7.4 U	8.7 U	6.6 U	4 U	4.2 U	5.8 U	4.8 U	5.4 U
trans-1,3-Dichloropropene	1,700	8,100	5.3 U	6.7 U	7.2 U	6.2 UJ	6 U	3.8 U	7.2 U	7.4 U	8.7 U	6.6 U	4 U	4.2 U	5.8 U	4.8 U	5.4 U
Trichloroethene	2,800	14,000	5.3 U	6.7 U	7.2 U	6.2 UJ	6 U	3.8 U	**3.9 J**	7.4 U	**1.2 J**	**0.44 J**	4 U	4.2 U	5.8 U	4.8 U	5.4 U
Trichlorofluoromethane	790,000	3,400,000	5.3 U	6.7 U	7.2 U	6.2 UJ	6 U	3.8 U	7.2 U	7.4 U	8.7 U	6.6 U	4 U	4.2 U	5.8 U	4.8 U	5.4 U

Table 4.2.2-2
Detected Soil VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB142B	SB143A	SB143B	SB272	SB144A	SB144B	SB145A	SB145B	SB153A	SB154A	SB154B	SB155A	SB155B	SB156A	SB156B
			Sample ID	E3SP6	E3RS1	E3RS2	E3RS3	E3RR9	E3RS0	E3SP7RE	E3SP8RE	E3S76RE	E3SF0	E3SF1	E3SQ8	E3SQ9	E3SJ0	E3SJ1
			Case	36720	36648	36648	36648	36648	36648	36720	36720	36664	36697	36697	36720	36720	36697	36697
			Sampling date	8/14/2007	7/27/2007	7/27/2007	7/27/2007	7/20/2007	7/27/2007	8/14/2007	8/14/2007	8/3/2007	8/8/2007	8/8/2007	8/14/2007	8/14/2007	8/10/2007	8/10/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info				SB143B											
			Investigation area	2	2	2	2	2	2	2	2	3	4	4	3	3	3	3
			Lithology	L1	L1	L1	L1	L1, L4	L1	L1	L1	L1	L1	L1	L1, L4	L4	L1, L4	L1
			Depth (ft bgs)	6-8	0-2	8-10	8-10	0-2	8-10	0-2	6-8	0-2	0-2	6-8	0-2	8-10	0-2	8-10
1,2,3-Trichlorobenzene	49,000	490,000		4.2 UJ	4.9 U	4.5 U	5.3 U	4 UJ	4.9 U	4 U	4.7 U	6.1 UJ	5.1 UJ	4.2 UJ	4.9 UJ	8.6 UJ	8.9 UJ	4.9 U
1,2,4-Trichlorobenzene	22,000	99,000		4.2 UJ	4.9 U	4.5 U	5.3 U	4 UJ	4.9 U	4 UJ	4.7 UJ	6.1 UJ	5.1 UJ	4.2 UJ	4.9 UJ	8.6 UJ	8.9 UJ	4.9 U
1,4-Dichlorobenzene	2,400	12,000		4.2 UJ	4.9 U	4.5 U	5.3 U	4 UJ	4.9 U	4 U	4.7 U	6.1 UJ	5.1 U	4.2 U	4.9 UJ	8.6 UJ	8.9 UJ	4.9 U
2-Butanone	28,000,000	200,000,000		**11**	9.8 U	9 U	11 U	8 UJ	9.8 U	8 U	**4.4 J**	12 U	10 U	8.4 U	9.9 U	17 UJ	18 U	9.9 U
2-Hexanone	210,000	1,400,000		8.5 U	9.8 U	9 U	11 U	8 UJ	9.8 U	8 U	9.4 U	12 U	10 U	8.4 U	13 U	17 UJ	18 U	9.9 U
4-Methyl-2-Pentanone	5,300,000	53,000,000		8.5 U	9.8 U	9 U	11 U	8 UJ	9.8 U	8 U	9.4 U	12 U	10 U	8.4 U	9.9 U	17 UJ	18 U	9.9 U
Acetone	61,000,000	630,000,000		**36**	**6 J**	**8.5 J**	**7.7 J**	8 UJ	9.8 U	**5.5 J**	**13**	12 U	10 U	8.4 U	9.9 U	17 UJ	18 U	**19**
Benzene	1,100	5,400		4.2 U	4.9 U	4.5 U	5.3 U	4 UJ	4.9 U	4 U	4.7 U	6.1 U	5.1 U	4.2 U	4.9 U	8.6 UJ	8.9 U	4.9 U
Carbon disulfide	820,000	3,700,000		4.2 U	4.9 U	4.5 U	5.3 U	4 UJ	4.9 U	4 U	4.7 U	6.1 U	5.1 U	4.2 U	4.9 U	8.6 UJ	8.9 U	4.9 U
Chlorobenzene	290,000	1,400,000		4.2 UJ	4.9 U	4.5 U	5.3 U	4 UJ	4.9 U	4 U	4.7 U	6.1 U	5.1 U	4.2 U	4.9 UJ	8.6 UJ	8.9 U	4.9 U
Chloroform	290	1,500		4.2 U	4.9 U	4.5 U	5.3 U	4 UJ	4.9 U	4 U	4.7 U	6.1 U	5.1 U	4.2 U	4.9 U	8.6 UJ	8.9 U	4.9 U
Chloromethane	120,000	500,000		4.2 U	4.9 U	4.5 U	5.3 U	4 UJ	4.9 U	4 U	4.7 U	6.1 U	5.1 U	4.2 U	4.9 U	8.6 UJ	8.9 U	4.9 U
cis-1,2-Dichloroethene	780,000	10,000,000		4.2 U	4.9 U	4.5 U	5.3 U	4 UJ	4.9 U	4 U	4.7 U	6.1 U	5.1 U	4.2 U	4.9 U	8.6 UJ	8.9 U	4.9 U
cis-1,3-Dichloropropene	1,700	8,100		4.2 U	4.9 U	4.5 U	5.3 U	4 UJ	4.9 U	4 U	4.7 U	6.1 U	5.1 U	4.2 U	4.9 UJ	8.6 UJ	8.9 U	4.9 U
Cyclohexane	7,000,000	29,000,000		**2.9 J**	**1.5 J**	**2.2 J**	**3.1 J**	**3.9 J**	**1.5 J**	**6.4**	**7.9**	6.1 U	5.1 U	**0.87 J**	**4.6 J**	**51 J**	**23 J**	**2.3 J**
Dichlorodifluoromethane	180,000	780,000		4.2 U	4.9 U	4.5 U	5.3 U	4 UJ	4.9 U	4 U	4.7 U	6.1 U	5.1 U	4.2 U	4.9 U	8.6 UJ	8.9 U	4.9 U
Ethylbenzene	5,400	27,000		4.2 UJ	4.9 U	**2.4 J**	**4.1 J**	4 UJ	4.9 U	4 U	4.7 U	6.1 U	5.1 U	4.2 U	4.9 UJ	**1.2 J**	8.9 U	**0.38 J**
Isopropylbenzene	2,100,000	11,000,000		4.2 UJ	4.9 U	**0.42 J**	**0.9 J**	4 UJ	4.9 U	4 U	4.7 U	6.1 U	5.1 U	4.2 U	4.9 UJ	8.6 UJ	8.9 U	4.9 U
m,p-Xylene	3,400,000	17,000,000		4.2 UJ	**0.54 J**	**10**	**17**	4 UJ	4.9 U	4 U	4.7 U	6.1 U	5.1 U	**0.47 J**	4.9 UJ	**1.5 J**	8.9 U	**0.92 J**
Methyl acetate	78,000,000	1,000,000,000		4.2 UJ	4.9 U	4.5 U	5.3 U	4 UJ	4.9 U	4 U	4.7 U	6.1 U	5.1 U	4.2 U	4.9 UJ	8.6 UJ	8.9 U	4.9 U
Methylcyclohexane	7,000,000	29,000,000		4.2 U	4.9 U	4.5 U	**1.9 J**	4 UJ	4.9 U	4 U	4.7 U	6.1 U	5.1 U	4.2 U	4.9 U	8.6 UJ	8.9 U	4.9 U
Methylene chloride	11,000	53,000		4.2 UJ	**1.4 J**	**1.7 J**	**2.1 J**	**4.4 J**	**1 J**	4 U	4.7 U	**4.4 J**	**0.89 J**	**0.65 J**	4.9 UJ	**1.3 J**	**4.1 J**	**2.7 J**
o-Xylene	3,800,000	19,000,000		4.2 UJ	4.9 U	**4.2 J**	**7.1**	4 UJ	4.9 U	4 U	4.7 U	6.1 U	5.1 U	4.2 U	4.9 UJ	8.6 UJ	8.9 U	**0.12 J**
Tetrachloroethene	550	2,600		4.2 UJ	**0.28 J**	4.5 U	5.3 U	**2.7 J**	4.9 U	4 U	4.7 U	6.1 U	5.1 U	4.2 U	4.9 UJ	8.6 UJ	8.9 U	4.9 U
Toluene	5,000,000	45,000,000		4.2 UJ	4.9 U	4.5 U	5.3 U	4 UJ	4.9 U	4 U	4.7 U	6.1 U	5.1 U	4.2 U	4.9 UJ	**2.3 J**	6.1 U	4.9 U
trans-1,3-Dichloropropene	1,700	8,100		4.2 U	4.9 U	4.5 U	5.3 U	4 UJ	4.9 U	4 U	4.7 U	6.1 U	5.1 U	4.2 U	4.9 UJ	8.6 UJ	8.9 U	4.9 U
Trichloroethene	2,800	14,000		4.2 UJ	4.9 U	4.5 U	5.3 U	**0.49 J**	**0.12 J**	4 U	4.7 U	6.1 U	5.1 U	4.2 U	**1.5 J**	**1.4 J**	8.9 U	4.9 U
Trichlorofluoromethane	790,000	3,400,000		4.2 UJ	**2.5 J**	**1.4 J**	5.3 U	**1.8 J**	4.9 U	4 U	4.7 U	6.1 U	5.1 U	**1.3 J**	4.9 UJ	8.6 UJ	8.9 U	4.9 U

Table 4.2.2-2
Detected Soil VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	SB157A E3SJ2 36697 8/10/2007 µg/kg 3 L1 0-2	SB157B E3SJ3 36697 8/10/2007 µg/kg 3 L1 8-10	SB312B E3SJ4 36697 8/10/2007 µg/kg SB157B 3 L1 8-10	SB158A E3SW3 36720 8/16/2007 µg/kg 3 L1, L2 0-2	SB158B E3SW4RE 36720 8/16/2007 µg/kg 3 L2 8-10	SB160A E3RP7 36648 7/26/2007 µg/kg 3 L4 0-2	SB160B E3RP8 36648 7/26/2007 µg/kg 3 L1, L4 8-10	SB161A E3RP1 36648 7/26/2007 µg/kg 3 L2, L3 0-2	SB161B E3RP2RE 36648 7/26/2007 µg/kg 3 L2, L3, L4 4-6	SB162A E3RL9 36648 7/25/2007 µg/kg 3 L2, L3 0-2	SB162B E3RM0 36648 7/25/2007 µg/kg 3 L2, L3 4-6	SB163A E3RP3 36648 7/26/2007 µg/kg 3 L2, L3 0-2	SB163B E3RP4 36648 7/26/2007 µg/kg 3 L2, L3 4-6	SB164A E3RT4 36664 7/30/2007 µg/kg 2 L4 0-2	SB164B E3RT5 36664 7/30/2007 µg/kg 2 L4 8-10
1,2,3-Trichlorobenzene	49,000	490,000	6.6 U	6.1 U	6.2 U	6.3 U	12 UJ	R	6.3 UJ	6.1 UJ	R	5.1 U	6.7 UJ	6.6 UJ	6.6 U	5.3 U	5.2 U
1,2,4-Trichlorobenzene	22,000	99,000	6.6 U	6.1 U	6.2 U	6.3 U	12 UJ	R	6.3 UJ	6.1 UJ	R	5.1 U	6.7 UJ	6.6 UJ	6.6 U	5.3 U	5.2 U
1,4-Dichlorobenzene	2,400	12,000	6.6 U	6.1 U	6.2 U	6.3 U	12 UJ	R	6.3 UJ	6.1 UJ	R	5.1 U	6.7 UJ	6.6 UJ	6.6 U	5.3 U	5.2 U
2-Butanone	28,000,000	200,000,000	13 U	**21**	**30**	13 U	24 UJ	9.1 UJ	13 UJ	12 U	11 U	10 U	13 U	13 U	13 U	11 U	10 U
2-Hexanone	210,000	1,400,000	13 U	12 U	12 U	13 U	24 UJ	R	13 U	12 U	11 UJ	10 U	13 U	13 UJ	13 U	11 U	10 U
4-Methyl-2-Pentanone	5,300,000	53,000,000	13 U	12 U	12 U	13 U	24 UJ	R	13 U	12 U	11 UJ	10 U	13 U	13 UJ	13 U	11 U	10 U
Acetone	61,000,000	630,000,000	13 U	**55**	**84**	**8.5 J**	**65 J**	9.1 UJ	13 UJ	12 U	11 U	10 U	13 U	13 U	13 U	11 U	10 U
Benzene	1,100	5,400	6.6 U	6.1 U	6.2 U	6.3 U	**2.5 J**	R	6.3 U	6.1 U	5.3 UJ	5.1 U	6.7 U	6.6 UJ	6.6 U	5.3 U	5.2 U
Carbon disulfide	820,000	3,700,000	6.6 U	**1.3 J**	**1.8 J**	6.3 U	**6.7 J**	4.6 UJ	**10 J**	6.1 U	**2 J**	5.1 U	6.7 U	6.6 U	**2.8 J**	5.3 U	5.2 U
Chlorobenzene	290,000	1,400,000	6.6 U	6.1 U	6.2 U	6.3 U	12 UJ	R	6.3 U	6.1 U	5.3 UJ	5.1 U	6.7 U	6.6 UJ	6.6 U	5.3 U	5.2 U
Chloroform	290	1,500	6.6 U	6.1 U	6.2 U	6.3 U	12 UJ	4.6 UJ	6.3 UJ	6.1 U	5.3 U	5.1 U	6.7 U	6.6 U	6.6 U	5.3 U	5.2 U
Chloromethane	120,000	500,000	6.6 U	6.1 U	6.2 U	6.3 U	12 UJ	4.6 UJ	6.3 UJ	6.1 U	5.3 U	5.1 U	6.7 U	6.6 U	6.6 U	5.3 U	5.2 U
cis-1,2-Dichloroethene	780,000	10,000,000	6.6 U	6.1 U	6.2 U	6.3 U	12 UJ	4.6 UJ	6.3 UJ	6.1 U	5.3 U	5.1 U	6.7 U	6.6 U	6.6 U	5.3 U	5.2 U
cis-1,3-Dichloropropene	1,700	8,100	6.6 U	6.1 U	6.2 U	6.3 U	12 UJ	R	6.3 U	6.1 U	5.3 UJ	5.1 U	6.7 U	6.6 UJ	6.6 U	5.3 U	5.2 U
Cyclohexane	7,000,000	29,000,000	**6.6 J**	**2.5 J**	**1.9 J**	6.3 U	**18 J**	**93 J**	**8.3 J**	**0.82 J**	**5.5 J**	**2.8 J**	**3.5 J**	**28 J**	**1.7 J**	**5.2 J**	**4.2 J**
Dichlorodifluoromethane	180,000	780,000	6.6 U	6.1 U	6.2 U	6.3 U	12 UJ	4.6 UJ	6.3 UJ	6.1 U	5.3 U	5.1 U	6.7 U	6.6 U	6.6 U	5.3 U	5.2 U
Ethylbenzene	5,400	27,000	**0.64 J**	6.1 U	6.2 U	6.3 U	**2.1 J**	R	6.3 U	6.1 U	5.3 UJ	5.1 U	6.7 U	6.6 UJ	6.6 U	5.3 U	5.2 U
Isopropylbenzene	2,100,000	11,000,000	6.6 U	6.1 U	6.2 U	6.3 U	12 UJ	R	6.3 U	6.1 U	5.3 UJ	5.1 U	6.7 U	6.6 UJ	6.6 U	5.3 U	5.2 U
m,p-Xylene	3,400,000	17,000,000	**1.6 J**	**0.39 J**	**0.62 J**	**0.85 J**	**4.8 J**	R	6.3 U	6.1 U	5.3 UJ	5.1 U	**0.23 J**	6.6 UJ	6.6 U	5.3 U	5.2 U
Methyl acetate	78,000,000	1,000,000,000	6.6 U	6.1 U	6.2 U	6.3 U	12 UJ	4.6 UJ	6.3 UJ	6.1 U	5.3 U	5.1 U	6.7 U	6.6 U	6.6 U	5.3 U	5.2 U
Methylcyclohexane	7,000,000	29,000,000	6.6 U	6.1 U	6.2 U	6.3 U	12 UJ	R	6.3 U	6.1 U	5.3 UJ	5.1 U	6.7 U	6.6 UJ	6.6 U	5.3 U	5.2 U
Methylene chloride	11,000	53,000	**8.5**	**0.96 J**	**1.8 J**	6.3 U	7.9 UJ	8.7 UJ	**17 J**	6.1 U	**6.3**	**1.7 J**	**28**	**12**	**12**	5.3 U	**3.9 J**
o-Xylene	3,800,000	19,000,000	**0.29 J**	6.1 U	6.2 U	6.3 U	**1.5 J**	R	6.3 U	6.1 U	5.3 UJ	5.1 U	6.7 U	6.6 UJ	6.6 U	5.3 U	5.2 U
Tetrachloroethene	550	2,600	6.6 U	6.1 U	6.2 U	6.3 U	12 UJ	**3.4 J**	6.3 U	6.1 U	5.3 UJ	5.1 U	6.7 U	6.6 UJ	6.6 U	5.3 U	5.2 U
Toluene	5,000,000	45,000,000	6.6 U	6.1 U	6.2 U	**1.1 J**	**7.8 J**	R	6.3 U	6.1 U	5.3 UJ	5.1 U	6.7 U	6.6 UJ	6.6 U	5.3 U	5.2 U
trans-1,3-Dichloropropene	1,700	8,100	6.6 U	6.1 U	6.2 U	6.3 U	12 UJ	R	6.3 U	6.1 U	5.3 UJ	5.1 U	6.7 U	6.6 UJ	6.6 U	5.3 U	5.2 U
Trichloroethene	2,800	14,000	6.6 U	6.1 U	6.2 U	6.3 U	12 UJ	R	**1.3 J**	6.1 U	5.3 UJ	5.1 U	6.7 U	6.6 UJ	**0.47 J**	5.3 U	**13**
Trichlorofluoromethane	790,000	3,400,000	6.6 U	6.1 U	6.2 U	6.3 U	12 UJ	4.6 UJ	6.3 UJ	6.1 U	**1.5 J**	5.1 U	6.7 U	6.6 U	6.6 U	5.3 U	5.2 U

Table 4.2.2-2
Detected Soil VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB165A	SB165B	SB166A	SB166B	SB303B	SB167A	SB167B	SB168A	SB168B	SB169B	SB170A	SB170B	SB171A	SB171B	SB172A
			Sample ID	E3SQ3RE	E3SQ4	E3SE3	E3SE4	E3SE5	E3SC4	E3SC5	E3RA9RE	E3RB0RE2	E3RA8RE	E3SA5	E3SA6	E3SB9	E3SC0	E3SB2
			Case	36720	36720	36697	36697	36697	36697	36697	36631	36631	36631	36697	36697	36697	36697	36697
			Sampling date	8/14/2007	8/14/2007	8/8/2007	8/8/2007	8/8/2007	8/7/2007	8/7/2007	7/19/2007	7/19/2007	7/19/2007	8/7/2007	8/7/2007	8/7/2007	8/7/2007	8/7/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info					SB166B										
			Investigation area	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
			Lithology	L1	L1	L1	L1	L1	L1	L1	L3	L1	L1	L1	L1	L1	L1	L1
			Depth (ft bgs)	0-2	8-10	0-2	8-10	8-10	0-2	8-10	0-2	8-10	8-10	0-2	8-10	0-2	8-10	0-2
1,2,3-Trichlorobenzene	49,000	490,000		5.7 UJ	6.5 UJ	4.4 UJ	4.8 UJ	6.1 UJ	4.3 U	4.5 U	5.2 UJ	6.3 UJ	4.7 UJ	4.5 U	4.8 U	4.4 U	5.8 U	4.1 U
1,2,4-Trichlorobenzene	22,000	99,000		5.7 UJ	6.5 UJ	4.4 UJ	4.8 UJ	6.1 UJ	4.3 U	4.5 U	5.2 U	6.3 U	4.7 UJ	4.5 U	4.8 U	4.4 U	5.8 U	4.1 U
1,4-Dichlorobenzene	2,400	12,000		5.7 UJ	6.5 UJ	4.4 U	4.8 U	6.1 U	4.3 U	4.5 U	5.2 U	6.3 U	4.7 U	4.5 U	4.8 U	4.4 U	5.8 U	4.1 U
2-Butanone	28,000,000	200,000,000		11 U	13 U	8.9 U	9.7 U	12 U	8.5 U	9.1 U	13 U	13 U	9.4 U	9 U	9.5 U	8.8 U	12 U	8.1 U
2-Hexanone	210,000	1,400,000		11 U	13 U	8.9 U	9.7 U	12 U	8.5 U	9.1 U	10 U	13 U	9.4 U	9 U	9.5 U	8.8 U	12 U	8.1 U
4-Methyl-2-Pentanone	5,300,000	53,000,000		11 U	13 U	8.9 U	9.7 U	12 U	8.5 U	9.1 U	10 U	13 U	9.4 U	9 U	9.5 U	8.8 U	12 U	8.1 U
Acetone	61,000,000	630,000,000		**2.7 J**	13 U	8.9 U	9.7 U	**6.7 J**	8.5 U	9.1 U	**23**	13 U	9.4 U	9 U	9.5 U	8.8 U	12 U	8.1 U
Benzene	1,100	5,400		5.7 U	6.5 U	4.4 U	4.8 U	6.1 U	4.3 U	4.5 U	5.2 U	6.3 U	4.7 U	4.5 U	4.8 U	4.4 U	5.8 U	4.1 U
Carbon disulfide	820,000	3,700,000		5.7 U	6.5 U	4.4 U	4.8 U	6.1 U	4.3 U	4.5 U	5.2 U	6.3 U	4.7 U	4.5 U	4.8 U	4.4 U	5.8 U	4.1 U
Chlorobenzene	290,000	1,400,000		5.7 UJ	6.5 UJ	4.4 U	4.8 U	6.1 U	4.3 U	4.5 U	5.2 U	6.3 U	4.7 UJ	4.5 U	4.8 U	4.4 U	5.8 U	4.1 U
Chloroform	290	1,500		5.7 U	6.5 U	4.4 U	4.8 U	6.1 U	4.3 U	4.5 U	5.2 U	6.3 U	4.7 U	4.5 U	4.8 U	4.4 U	5.8 U	4.1 U
Chloromethane	120,000	500,000		5.7 U	6.5 U	4.4 U	4.8 U	6.1 U	4.3 U	4.5 U	5.2 U	6.3 U	4.7 U	4.5 U	4.8 U	4.4 U	5.8 U	4.1 U
cis-1,2-Dichloroethene	780,000	10,000,000		5.7 U	6.5 U	4.4 U	4.8 U	6.1 U	4.3 U	4.5 U	5.2 U	6.3 U	4.7 U	4.5 U	4.8 U	4.4 U	5.8 U	4.1 U
cis-1,3-Dichloropropene	1,700	8,100		5.7 U	6.5 U	4.4 U	4.8 U	6.1 U	4.3 U	4.5 U	5.2 U	6.3 U	4.7 U	4.5 U	4.8 U	4.4 U	5.8 U	4.1 U
Cyclohexane	7,000,000	29,000,000		**6.6**	**13**	**1.2 J**	**0.79 J**	6.1 U	**2.3 J**	**1.1 J**	5.2 U	**2.3 J**	**2.5 J**	**1.1 J**	**2.5 J**	**1.8 J**	**1.7 J**	**4.3**
Dichlorodifluoromethane	180,000	780,000		5.7 U	6.5 U	4.4 U	4.8 U	6.1 U	4.3 U	4.5 U	5.2 U	6.3 U	4.7 U	4.5 U	4.8 U	4.4 U	5.8 U	4.1 U
Ethylbenzene	5,400	27,000		5.7 U	6.5 UJ	4.4 U	4.8 U	6.1 U	4.3 U	4.5 U	5.2 U	6.3 U	4.7 U	**0.36 J**	4.8 U	4.4 U	5.8 U	**0.37 J**
Isopropylbenzene	2,100,000	11,000,000		5.7 U	6.5 UJ	4.4 U	4.8 U	6.1 U	4.3 U	4.5 U	5.2 U	6.3 U	4.7 U	4.5 U	4.8 U	4.4 U	5.8 U	4.1 U
m,p-Xylene	3,400,000	17,000,000		5.7 U	6.5 UJ	4.4 U	4.8 U	6.1 U	4.3 U	**0.11 J**	5.2 U	6.3 U	4.7 U	**1 J**	**0.24 J**	4.4 U	**0.21 J**	**0.98 J**
Methyl acetate	78,000,000	1,000,000,000		5.7 U	6.5 U	4.4 U	4.8 U	6.1 U	4.3 U	4.5 U	**11**	6.3 U	4.7 U	4.5 U	4.8 U	4.4 U	5.8 U	4.1 U
Methylcyclohexane	7,000,000	29,000,000		5.7 U	6.5 U	4.4 U	4.8 U	6.1 U	4.3 U	4.5 U	5.2 U	6.3 U	4.7 U	4.5 U	4.8 U	4.4 U	5.8 U	4.1 U
Methylene chloride	11,000	53,000		5.7 U	6.5 U	4.4 U	**0.86 J**	**0.64 J**	4.3 U	4.5 U	5.2 U	6.3 U	4.7 U	4.5 U	4.8 U	4.4 U	5.8 U	4.1 U
o-Xylene	3,800,000	19,000,000		5.7 U	6.5 UJ	4.4 U	4.8 U	6.1 U	4.3 U	4.5 U	5.2 U	6.3 U	4.7 U	**0.23 J**	4.8 U	4.4 U	5.8 U	**0.16 J**
Tetrachloroethene	550	2,600		5.7 U	6.5 UJ	4.4 U	4.8 U	6.1 U	4.3 U	4.5 U	5.2 U	6.3 U	4.7 U	4.5 U	4.8 U	4.4 U	5.8 U	4.1 U
Toluene	5,000,000	45,000,000		5.7 U	6.5 UJ	4.4 U	4.8 U	6.1 U	4.3 U	4.5 U	5.2 U	6.3 U	4.7 U	4.5 U	4.8 U	4.4 U	5.8 U	4.1 U
trans-1,3-Dichloropropene	1,700	8,100		5.7 U	6.5 U	4.4 U	4.8 U	6.1 U	4.3 U	4.5 U	5.2 U	6.3 U	4.7 U	4.5 U	4.8 U	4.4 U	5.8 U	4.1 U
Trichloroethene	2,800	14,000		5.7 U	6.5 UJ	4.4 U	4.8 U	6.1 U	4.3 U	4.5 U	5.2 U	6.3 U	4.7 U	4.5 U	4.8 U	4.4 U	5.8 U	4.1 U
Trichlorofluoromethane	790,000	3,400,000		5.7 U	6.5 U	4.4 U	4.8 U	**0.85 J**	4.3 U	4.5 U	5.2 U	6.3 U	4.7 U	4.5 U	4.8 U	4.4 U	5.8 U	4.1 U

Table 4.2.2-2
Detected Soil VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB172B E3SB3 36697 8/7/2007 µg/kg 3 L1 8-10	SB173A E3SB4 36697 8/7/2007 µg/kg 3 L1, L4 0-2	SB173B E3SB5 36697 8/7/2007 µg/kg 3 L1 8-10	SB300B E3SB6 36697 8/7/2007 µg/kg SB173B 3 L1 8-10	SB174A E3SB0 36697 8/7/2007 µg/kg 3 L1 0-2	SB174B E3SB1 36697 8/7/2007 µg/kg 3 L1 8-10	SB175A E3SF6 36697 8/9/2007 µg/kg 2 L1 0-2	SB175B E3SF7 36697 8/9/2007 µg/kg 2 L1 8-10	SB176A E3SF9 36697 8/9/2007 µg/kg 2 L1, L4 0-2	SB306A E3SG0 36697 8/9/2007 µg/kg SB176A 2 L1, L4 0-2	SB176B E3SG1 36697 8/9/2007 µg/kg 2 L1, L4 8-10	SB177A E3RR5 36648 7/27/2007 µg/kg 3 L1 0-2	SB177B E3RR6 36648 7/27/2007 µg/kg 3 L1 8-10	SB178A E3RR7RE 36648 7/27/2007 µg/kg 2 0-2	SB178B E3RR8 36648 7/27/2007 µg/kg 2 L4 8-10
1,2,3-Trichlorobenzene	49,000	490,000		5.3 U	4.3 U	4.5 U	5.9 U	6.5 U	4.1 U	4.9 U	5.6 U	4.8 U	5.3 U	4.8 U	4.7 UJ	4.3 U	5 UJ	4.8 U
1,2,4-Trichlorobenzene	22,000	99,000		5.3 U	4.3 U	4.5 U	5.9 U	6.5 U	4.1 U	4.9 U	5.6 U	4.8 U	5.3 U	4.8 U	4.7 UJ	4.3 U	5 UJ	4.8 U
1,4-Dichlorobenzene	2,400	12,000		5.3 U	4.3 U	4.5 U	5.9 U	6.5 U	4.1 U	4.9 U	5.6 U	4.8 U	5.3 U	4.8 U	4.7 UJ	4.3 U	5 UJ	4.8 U
2-Butanone	28,000,000	200,000,000		11 U	8.7 U	9.1 U	12 U	13 U	8.1 U	**8.4 J**	**12**	**15**	**15**	9.6 U	9.4 U	8.7 U	9.9 U	9.5 U
2-Hexanone	210,000	1,400,000		11 U	8.7 U	9.1 U	12 U	13 U	8.1 U	9.8 U	11 U	9.7 U	11 U	9.6 U	9.4 U	8.7 U	9.9 UJ	9.5 U
4-Methyl-2-Pentanone	5,300,000	53,000,000		11 U	8.7 U	9.1 U	12 U	13 U	8.1 U	9.8 U	11 U	9.7 U	11 U	9.6 U	9.4 U	8.7 U	9.9 UJ	9.5 U
Acetone	61,000,000	630,000,000		**11**	8.7 U	9.1 U	12 U	13 U	8.1 U	**20**	**36**	**44**	**55**	**21**	9.4 U	8.7 U	9.9 UJ	9.5 U
Benzene	1,100	5,400		5.3 U	4.3 U	4.5 U	5.9 U	6.5 U	4.1 U	4.9 U	5.6 U	4.8 U	5.3 U	4.8 U	4.7 U	4.3 U	5 UJ	4.8 U
Carbon disulfide	820,000	3,700,000		5.3 U	4.3 U	4.5 U	5.9 U	6.5 U	4.1 U	**0.8 J**	5.6 U	**0.71 J**	**1 J**	4.8 U	4.7 U	4.3 U	5 U	4.8 U
Chlorobenzene	290,000	1,400,000		5.3 U	4.3 U	4.5 U	5.9 U	6.5 U	4.1 U	4.9 U	5.6 U	4.8 U	5.3 U	4.8 U	4.7 U	4.3 U	5 UJ	4.8 U
Chloroform	290	1,500		5.3 U	4.3 U	4.5 U	5.9 U	6.5 U	4.1 U	4.9 U	**0.64 J**	4.8 U	**1.1 J**	4.8 U	4.7 U	4.3 U	5 U	4.8 U
Chloromethane	120,000	500,000		5.3 U	4.3 U	4.5 U	5.9 U	6.5 U	4.1 U	4.9 U	5.6 U	4.8 U	5.3 U	4.8 U	4.7 U	4.3 U	5 U	4.8 U
cis-1,2-Dichloroethene	780,000	10,000,000		5.3 U	4.3 U	4.5 U	5.9 U	6.5 U	4.1 U	4.9 U	5.6 U	4.8 U	5.3 U	4.8 U	4.7 U	4.3 U	5 U	4.8 U
cis-1,3-Dichloropropene	1,700	8,100		5.3 U	4.3 U	4.5 U	5.9 U	6.5 U	4.1 U	4.9 U	5.6 U	4.8 U	5.3 U	4.8 U	4.7 U	4.3 U	5 UJ	4.8 U
Cyclohexane	7,000,000	29,000,000		**3.9 J**	**3.8 J**	**2.5 J**	**2.8 J**	**11**	**4.2**	**4 J**	**4.7 J**	**7.1**	**6.9**	**1.6 J**	**4.9**	**2 J**	**1.5 J**	**0.88 J**
Dichlorodifluoromethane	180,000	780,000		5.3 U	4.3 U	4.5 U	5.9 U	6.5 U	4.1 U	4.9 U	5.6 U	4.8 U	5.3 U	4.8 U	4.7 U	4.3 U	5 U	4.8 U
Ethylbenzene	5,400	27,000		5.3 U	4.3 U	4.5 U	5.9 U	6.5 U	4.1 U	**0.25 J**	**0.28 J**	4.8 U	5.3 U	**0.28 J**	4.7 U	4.3 U	5 UJ	4.8 U
Isopropylbenzene	2,100,000	11,000,000		5.3 U	4.3 U	4.5 U	5.9 U	6.5 U	4.1 U	4.9 U	5.6 U	4.8 U	5.3 U	4.8 U	4.7 U	4.3 U	5 UJ	4.8 U
m,p-Xylene	3,400,000	17,000,000		5.3 U	**0.15 J**	4.5 U	5.9 U	**0.27 J**	**0.16 J**	**0.58 J**	**0.68 J**	**0.49 J**	**0.42 J**	**0.78 J**	4.7 U	4.3 U	5 UJ	4.8 U
Methyl acetate	78,000,000	1,000,000,000		5.3 U	4.3 U	4.5 U	5.9 U	6.5 U	4.1 U	4.9 U	5.6 U	4.8 U	5.3 U	4.8 U	4.7 U	4.3 U	5 U	4.8 U
Methylcyclohexane	7,000,000	29,000,000		5.3 U	4.3 U	4.5 U	5.9 U	6.5 U	4.1 U	4.9 U	5.6 U	4.8 U	5.3 U	4.8 U	4.7 U	4.3 U	5 UJ	4.8 U
Methylene chloride	11,000	53,000		5.3 U	4.3 U	4.5 U	5.9 U	6.5 U	4.1 U	2.1 U	1.7 U	2.1 U	1.5 U	1.9 U	**6.8**	**0.33 J**	**1.4 J**	**1.9 J**
o-Xylene	3,800,000	19,000,000		5.3 U	4.3 U	4.5 U	5.9 U	6.5 U	4.1 U	4.9 U	5.6 U	4.8 U	5.3 U	**0.13 J**	4.7 U	4.3 U	5 UJ	4.8 U
Tetrachloroethene	550	2,600		5.3 U	4.3 U	4.5 U	5.9 U	6.5 U	4.1 U	4.9 U	5.6 U	**0.27 J**	5.3 U	4.8 U	4.7 U	4.3 U	5 UJ	4.8 U
Toluene	5,000,000	45,000,000		5.3 U	4.3 U	4.5 U	5.9 U	6.5 U	4.1 U	0.9 U	5.6 U	1.1 U	5.3 U	4.8 U	4.7 U	4.3 U	5 UJ	4.8 U
trans-1,3-Dichloropropene	1,700	8,100		5.3 U	4.3 U	4.5 U	5.9 U	6.5 U	4.1 U	4.9 U	5.6 U	4.8 U	5.3 U	4.8 U	4.7 U	4.3 U	5 UJ	4.8 U
Trichloroethene	2,800	14,000		5.3 U	4.3 U	4.5 U	5.9 U	6.5 U	4.1 U	4.9 U	5.6 U	4.8 U	5.3 U	4.8 U	**1.5 J**	4.3 U	**5 J**	**2.1 J**
Trichlorofluoromethane	790,000	3,400,000		5.3 U	4.3 U	4.5 U	5.9 U	6.5 U	4.1 U	4.9 U	5.6 U	4.8 U	5.3 U	4.8 U	**0.98 J**	4.3 U	5 U	**1.8 J**

Table 4.2.2-2
Detected Soil VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB179A	SB179B	SB180A	SB180B	SB181A	SB182A	SB182B	SB183A	SB183B	SB184A	SB184B	SB185A	SB185B	SB313B	SB186A
			Sample ID	E3RS7	E3RS8RE	E3RS4RE	E3RS5	E3SN1	E3SN3	E3SN4	E3SK3	E3SK4	E3SN5	E3SN6	E3SK0	E3SK1	E3SK2	E3SN7
			Case	36664	36664	36648	36648	36720	36720	36720	36697	36697	36720	36720	36697	36697	36697	36720
			Sampling date	7/30/2007	7/30/2007	7/27/2007	7/27/2007	8/13/2007	8/13/2007	8/13/2007	8/10/2007	8/10/2007	8/13/2007	8/13/2007	8/10/2007	8/10/2007	8/10/2007	8/13/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info														SB185B	
			Investigation area	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3
			Lithology	L4	L4	L4	L4	L4	L2, L3	L1	L4	L1	L1, L2	L1, L2	L4	L2, L4	L2, L4	L4
			Depth (ft bgs)	0-2	8-10	0-2	8-10	0-2	0-2	8-10	0-2	8-10	0-2	8-10	0-2	8-10	8-10	0-2
1,2,3-Trichlorobenzene	49,000	490,000		5.5 UJ	5.1 UJ	5.3 UJ	6.5 U	6.2 UJ	7.6 UJ	4.7 U	6 UJ	4.8 U	9.1 UJ	7.5 UJ	6.6 UJ	5.5 UJ	8 UJ	8.1 UJ
1,2,4-Trichlorobenzene	22,000	99,000		5.5 UJ	5.1 UJ	5.3 UJ	6.5 U	6.2 UJ	7.6 UJ	4.7 U	6 UJ	4.8 U	9.1 UJ	7.5 UJ	6.6 UJ	5.5 UJ	8 UJ	8.1 UJ
1,4-Dichlorobenzene	2,400	12,000		5.5 UJ	5.1 UJ	5.3 UJ	6.5 U	6.2 UJ	7.6 UJ	4.7 U	6 UJ	4.8 U	9.1 UJ	7.5 UJ	6.6 UJ	5.5 UJ	8 UJ	8.1 UJ
2-Butanone	28,000,000	200,000,000		11 U	10 U	11 U	13 U	12 U	15 U	9.3 U	12 U	9.5 U	19 U	15 U	13 U	11 U	16 U	16 U
2-Hexanone	210,000	1,400,000		11 U	10 U	11 UJ	13 U	**22 J**	19 U	9.3 U	12 U	9.5 U	18 U	15 UJ	13 U	11 U	16 U	25 UJ
4-Methyl-2-Pentanone	5,300,000	53,000,000		11 U	10 U	11 UJ	13 U	12 UJ	15 U	9.3 U	12 U	9.5 U	18 U	15 UJ	13 U	11 U	16 U	16 UJ
Acetone	61,000,000	630,000,000		11 U	10 U	11 UJ	13 UJ	13 U	15 U	9.3 U	12 U	**8.9 J**	18 U	15 U	13 U	11 U	**19**	16 U
Benzene	1,100	5,400		5.5 U	5.1 U	5.3 UJ	6.5 U	6.2 UJ	**1.7 J**	4.7 U	6 U	4.8 U	9.1 U	**1.4 J**	6.6 U	5.5 U	8 U	8.1 UJ
Carbon disulfide	820,000	3,700,000		5.5 U	5.1 U	5.3 U	6.5 U	6.2 U	**7.4 J**	4.7 U	6 U	4.8 U	9.1 U	7.5 U	6.6 U	**1.4 J**	8 U	8.1 U
Chlorobenzene	290,000	1,400,000		5.5 U	5.1 U	5.3 UJ	6.5 U	6.2 UJ	**1.5 J**	4.7 U	6 U	4.8 U	9.1 UJ	7.5 UJ	6.6 U	5.5 U	8 U	8.1 UJ
Chloroform	290	1,500		5.5 U	5.1 U	5.3 U	6.5 U	6.2 U	7.6 U	4.7 U	6 U	4.8 U	**1.1 J**	7.5 U	6.6 U	5.5 U	8 U	8.1 U
Chloromethane	120,000	500,000		5.5 U	5.1 U	5.3 U	6.5 U	6.2 U	7.6 U	4.7 U	6 U	4.8 U	9.1 U	7.5 U	6.6 U	5.5 U	8 U	8.1 U
cis-1,2-Dichloroethene	780,000	10,000,000		5.5 U	5.1 U	5.3 U	6.5 U	6.2 U	7.6 U	4.7 U	6 U	4.8 U	9.1 U	7.5 U	6.6 U	5.5 U	8 U	8.1 U
cis-1,3-Dichloropropene	1,700	8,100		5.5 U	5.1 U	5.3 UJ	6.5 U	**1.9 J**	7.6 U	4.7 U	6 U	4.8 U	9.1 UJ	7.5 UJ	6.6 U	5.5 U	8 U	8.1 UJ
Cyclohexane	7,000,000	29,000,000		**8.8**	**6.1 J**	**6.7 J**	**2 J**	**210 J**	**30**	**28**	**2.5 J**	**0.5 J**	**65**	**120 J**	**19 J**	**6.4**	**1.5 J**	**60 J**
Dichlorodifluoromethane	180,000	780,000		5.5 U	5.1 U	5.3 U	6.5 U	6.2 U	7.6 U	4.7 U	6 U	4.8 U	9.1 U	7.5 U	6.6 U	5.5 U	8 U	8.1 U
Ethylbenzene	5,400	27,000		5.5 U	5.1 U	5.3 UJ	6.5 U	**1.2 J**	7.6 U	4.7 U	6 U	4.8 U	**0.93 J**	7.5 UJ	**0.48 J**	5.5 U	**0.88 J**	8.1 UJ
Isopropylbenzene	2,100,000	11,000,000		5.5 U	5.1 U	5.3 UJ	6.5 U	6.2 UJ	7.6 U	4.7 U	6 U	4.8 U	9.1 U	7.5 UJ	6.6 U	5.5 U	8 U	8.1 UJ
m,p-Xylene	3,400,000	17,000,000		5.5 U	5.1 U	5.3 UJ	6.5 U	**3.6 J**	**1.1 J**	**0.98 J**	6 U	4.8 U	**2.7 J**	**1.5 J**	**1.3 J**	**0.15 J**	**2.4 J**	**0.95 J**
Methyl acetate	78,000,000	1,000,000,000		5.5 U	5.1 U	5.3 U	6.5 U	6.2 U	7.6 U	4.7 U	6 U	4.8 U	9.1 U	7.5 U	6.6 U	5.5 U	8 U	8.1 U
Methylcyclohexane	7,000,000	29,000,000		5.5 U	5.1 U	5.3 UJ	6.5 U	6.2 UJ	7.6 U	4.7 U	6 U	4.8 U	9.1 U	7.5 UJ	6.6 U	5.5 U	8 U	8.1 UJ
Methylene chloride	11,000	53,000		**4.3 J**	**3.5 J**	**7.6**	**0.9 J**	6.2 U	7.6 U	4.7 U	6 U	**0.42 J**	9.1 U	7.5 U	**8.8**	**2.7 J**	**3.8 J**	8.1 U
o-Xylene	3,800,000	19,000,000		5.5 U	5.1 U	5.3 UJ	6.5 U	**1.4 J**	7.6 U	4.7 U	6 U	4.8 U	9.1 U	7.5 UJ	6.6 U	5.5 U	**0.31 J**	8.1 UJ
Tetrachloroethene	550	2,600		5.5 U	5.1 U	5.3 UJ	6.5 U	6.2 UJ	7.6 U	4.7 U	6 U	4.8 U	9.1 U	7.5 UJ	6.6 U	5.5 U	8 U	8.1 UJ
Toluene	5,000,000	45,000,000		5.5 U	5.1 U	5.3 UJ	6.5 U	**3.5 J**	**1.8 J**	**0.54 J**	6 U	4.8 U	**1.6 J**	**1.8 J**	6.6 U	5.5 U	8 U	8.1 UJ
trans-1,3-Dichloropropene	1,700	8,100		5.5 U	5.1 U	5.3 UJ	6.5 U	6.2 UJ	7.6 U	4.7 U	6 U	4.8 U	9.1 UJ	7.5 UJ	6.6 U	5.5 U	8 U	8.1 UJ
Trichloroethene	2,800	14,000		5.5 U	**31**	**4.4 J**	6.5 U	6.2 UJ	7.6 U	4.7 U	6 U	4.8 U	9.1 U	7.5 UJ	6.6 U	5.5 U	8 U	8.1 UJ
Trichlorofluoromethane	790,000	3,400,000		5.5 U	5.1 U	**0.84 J**	6.5 U	6.2 U	7.6 U	4.7 U	6 U	**1 J**	9.1 U	7.5 U	**2.1 J**	5.5 U	**2 J**	8.1 U

Table 4.2.2-2
Detected Soil VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	SB186B E3SN8 36720 8/13/2007 µg/kg 3 L1, L2 8-10	SB187A E3SN9 36720 8/13/2007 µg/kg 3 L1 0-2	SB187B E3SP0RE 36720 8/13/2007 µg/kg 3 L1 6-8	SB188A E3SP1 36720 8/13/2007 µg/kg 3 L1 0-2	SB188B E3SP2 36720 8/13/2007 µg/kg 3 L1 8-10	SB317B E3SP3 36720 8/13/2007 µg/kg SB188B 3 L1 8-10	SB189A E3SQ6 36720 8/14/2007 µg/kg 3 L1, L4 0-2	SB190A E3RM4 36648 7/25/2007 µg/kg 3 L4 0-2	SB190B E3RM5 36648 7/25/2007 µg/kg 3 L1 8-10	SB191A E3RM8 36648 7/26/2007 µg/kg 3 L1, L4 0-2	SB191B E3RM9 36648 7/26/2007 µg/kg 3 L1 6-8	SB192A E3RN4 36648 7/26/2007 µg/kg 3 L1 0-2	SB192B E3RN5 36648 7/26/2007 µg/kg 3 L1 4-6	SB270B E3RN6 36648 7/26/2007 µg/kg SB192B 3 L1 4-6	SB193A E3RL3 36648 7/25/2007 µg/kg 3 L4 0-2
1,2,3-Trichlorobenzene	49,000	490,000	4.6 U	4.6 UJ	5.4 U	4.6 UJ	6 UJ	4.4 UJ	9.1 U	6.4 U	6 UJ	5.5 U	4.1 U	6.2 UJ	4.6 U	4.8 U	5.3 UJ
1,2,4-Trichlorobenzene	22,000	99,000	4.6 U	4.6 UJ	5.4 UJ	4.6 UJ	6 UJ	4.4 UJ	9.1 UJ	6.4 U	6 UJ	5.5 U	4.1 U	6.2 UJ	4.6 U	4.8 U	5.3 UJ
1,4-Dichlorobenzene	2,400	12,000	4.6 U	4.6 UJ	5.4 U	4.6 UJ	6 UJ	4.4 UJ	9.1 UJ	6.4 U	6 UJ	5.5 U	4.1 U	6.2 UJ	4.6 U	4.8 U	5.3 UJ
2-Butanone	28,000,000	200,000,000	9.1 U	9.3 U	11 U	9.2 U	12 U	8.8 U	18 U	13 U	12 U	11 U	8.3 U	12 U	9.2 U	9.6 U	11 U
2-Hexanone	210,000	1,400,000	9.1 U	9.3 UJ	11 U	9.2 U	12 U	8.8 U	18 U	13 U	12 U	11 U	8.3 U	12 U	9.2 U	9.6 U	11 U
4-Methyl-2-Pentanone	5,300,000	53,000,000	9.1 U	9.3 UJ	11 U	9.2 U	12 U	8.8 U	18 U	13 U	12 U	11 U	8.3 U	12 U	9.2 U	9.6 U	11 U
Acetone	61,000,000	630,000,000	9.1 U	9.3 U	11 U	9.2 U	12 U	8.8 U	18 U	13 U	12 U	11 U	8.3 U	12 U	9.2 U	9.6 U	11 U
Benzene	1,100	5,400	4.6 U	4.6 UJ	5.4 U	4.6 U	6 U	4.4 U	9.1 UJ	6.4 U	6 U	5.5 U	4.1 U	6.2 U	4.6 U	4.8 U	5.3 U
Carbon disulfide	820,000	3,700,000	4.6 U	4.6 U	5.4 U	4.6 U	6 U	4.4 U	9.1 U	6.4 U	6 U	5.5 U	4.1 U	6.2 U	4.6 U	4.8 U	5.3 U
Chlorobenzene	290,000	1,400,000	4.6 U	4.6 UJ	5.4 U	4.6 UJ	6 UJ	4.4 UJ	9.1 UJ	6.4 U	6 U	5.5 U	4.1 U	6.2 U	4.6 U	4.8 U	5.3 U
Chloroform	290	1,500	4.6 U	4.6 U	5.4 U	4.6 U	**0.87 J**	4.4 U	9.1 U	6.4 U	6 U	5.5 U	4.1 U	6.2 U	**1.3 J**	4.8 U	5.3 U
Chloromethane	120,000	500,000	4.6 U	4.6 U	5.4 U	4.6 U	6 U	4.4 U	9.1 U	6.4 U	6 U	5.5 U	4.1 U	6.2 U	4.6 U	4.8 U	5.3 U
cis-1,2-Dichloroethene	780,000	10,000,000	4.6 U	4.6 U	5.4 U	4.6 U	6 U	4.4 U	9.1 U	6.4 U	6 U	5.5 U	4.1 U	6.2 U	4.6 U	4.8 U	5.3 U
cis-1,3-Dichloropropene	1,700	8,100	4.6 U	4.6 UJ	5.4 U	4.6 UJ	6 U	4.4 U	9.1 UJ	6.4 U	6 U	5.5 U	4.1 U	6.2 U	4.6 U	4.8 U	5.3 U
Cyclohexane	7,000,000	29,000,000	**20**	**34 J**	**3.5 J**	**31**	**29**	**26**	**11**	**1.2 J**	**2.9 J**	**1.5 J**	**0.59 J**	**7.4 J**	4.6 U	**0.6 J**	**15 J**
Dichlorodifluoromethane	180,000	780,000	4.6 U	4.6 U	5.4 U	4.6 U	6 U	4.4 U	9.1 U	6.4 U	6 U	5.5 U	4.1 U	6.2 U	4.6 U	4.8 U	5.3 U
Ethylbenzene	5,400	27,000	4.6 U	4.6 UJ	5.4 U	4.6 UJ	6 U	4.4 U	9.1 UJ	6.4 U	6 U	5.5 U	4.1 U	6.2 U	4.6 U	4.8 U	5.3 U
Isopropylbenzene	2,100,000	11,000,000	4.6 U	4.6 UJ	5.4 U	4.6 UJ	6 U	4.4 U	9.1 UJ	6.4 U	6 U	5.5 U	4.1 U	6.2 U	4.6 U	4.8 U	5.3 U
m,p-Xylene	3,400,000	17,000,000	4.6 U	**1.1 J**	5.4 U	**0.62 J**	**0.78 J**	4.4 U	9.1 UJ	6.4 U	6 U	5.5 U	**0.12 J**	6.2 U	**0.63 J**	4.8 U	**0.52 J**
Methyl acetate	78,000,000	1,000,000,000	4.6 U	4.6 U	5.4 U	4.6 U	6 U	4.4 U	9.1 U	6.4 U	6 U	5.5 U	4.1 U	6.2 U	4.6 U	4.8 U	5.3 U
Methylcyclohexane	7,000,000	29,000,000	4.6 U	4.6 UJ	5.4 U	4.6 U	6 U	4.4 U	9.1 U	6.4 U	6 U	5.5 U	4.1 U	6.2 U	4.6 U	4.8 U	5.3 U
Methylene chloride	11,000	53,000	4.6 U	4.6 U	5.4 U	4.6 U	6 U	4.4 U	9.1 U	**7.6**	**4 J**	**4.2 J**	**2.5 J**	**14**	**1.7 J**	**3.7 J**	**14**
o-Xylene	3,800,000	19,000,000	4.6 U	4.6 UJ	5.4 U	4.6 UJ	6 U	4.4 U	9.1 UJ	6.4 U	6 U	5.5 U	4.1 U	6.2 U	4.6 U	4.8 U	5.3 U
Tetrachloroethene	550	2,600	4.6 U	4.6 UJ	5.4 U	4.6 UJ	6 U	4.4 U	9.1 UJ	6.4 U	6 U	5.5 U	4.1 U	6.2 U	4.6 U	4.8 U	5.3 U
Toluene	5,000,000	45,000,000	4.6 U	**0.64 J**	5.4 U	4.6 UJ	**0.61 J**	4.4 U	9.1 UJ	6.4 U	6 U	5.5 U	4.1 U	6.2 U	4.6 U	4.8 U	5.3 U
trans-1,3-Dichloropropene	1,700	8,100	4.6 U	4.6 UJ	5.4 U	4.6 UJ	6 U	4.4 U	9.1 UJ	6.4 U	6 U	5.5 U	4.1 U	6.2 U	4.6 U	4.8 U	5.3 U
Trichloroethene	2,800	14,000	4.6 U	4.6 UJ	5.4 U	4.6 UJ	6 U	4.4 U	9.1 UJ	**0.5 J**	**5.6 J**	5.5 U	4.1 U	6.2 U	4.6 U	4.8 U	5.3 U
Trichlorofluoromethane	790,000	3,400,000	4.6 U	4.6 U	5.4 U	4.6 U	6 U	4.4 U	9.1 U	6.4 U	6 U	5.5 U	4.1 U	6.2 U	**1.4 J**	4.8 U	5.3 U

Table 4.2.2-2
Detected Soil VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB194A	SB194B	SB195A	SB195B	SB196A	SB196B	SB197A	SB197B	SB198B	SB199B	SB200A	SB200B	SB201B	SB316B	SB211B
			Sample ID	E3RG9	E3RH0	E3RT5	E3RT6	E3RT7RE	E3RT8	E3RA2	E3RA3	E3RB5	E3S14	E3S47	E3S48	E3SL0	E3SN0	E3SR1RE
			Case	36648	36648	36720	36720	36720	36720	36631	36631	36631	36664	36664	36664	36720	36720	36720
			Sampling date	7/24/2007	7/24/2007	8/15/2007	8/15/2007	8/15/2007	8/15/2007	7/19/2007	7/19/2007	7/19/2007	8/1/2007	8/2/2007	8/2/2007	8/13/2007	8/13/2007	8/14/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info														SB201B	
			Investigation area	3	3	3	3	3	3	3	3	3	3	3	3	2	2	1
			Lithology	L2	L1	L1	L1	L1, L2	L1	L2, L3	L1	L1	L1	L4	L1	L1	L1	L1
			Depth (ft bgs)	0-2	4-5_5	0-2	6-8	0-2	6-8	0-2	8-10	4-6	6-8	0-2	8-10	6-8	6-8	8-10
1,2,3-Trichlorobenzene	49,000	490,000		6.6 U	5.2 UJ	4.4 UJ	4.2 UJ	8.1 UJ	5.3 UJ	4.9 UJ	5.3 UJ	4.8 UJ	4.5 U	10 UJ	6.8 UJ	7.2 U	5.3 U	4.1 UJ
1,2,4-Trichlorobenzene	22,000	99,000		6.6 U	5.2 UJ	4.4 UJ	4.2 UJ	8.1 UJ	5.3 UJ	4.9 U	5.3 U	4.8 UJ	4.5 U	10 UJ	6.8 UJ	7.2 U	5.3 U	4.1 UJ
1,4-Dichlorobenzene	2,400	12,000		6.6 U	5.2 UJ	4.4 UJ	4.2 UJ	8.1 UJ	5.3 UJ	4.9 U	5.3 U	4.8 UJ	4.5 U	10 UJ	6.8 UJ	7.2 U	5.3 U	4.1 UJ
2-Butanone	28,000,000	200,000,000		13 U	10 U	8.9 U	8.3 U	16 U	11 U	10 U	11 U	9.5 U	8.9 U	20 U	14 U	14 U	11 U	8.2 U
2-Hexanone	210,000	1,400,000		13 U	10 U	8.9 U	8.3 U	16 U	11 U	14 U	13 U	9.5 U	8.9 U	20 U	14 U	14 U	11 U	8.2 U
4-Methyl-2-Pentanone	5,300,000	53,000,000		13 U	10 U	8.9 U	8.3 U	16 U	11 U	9.8 U	11 U	9.5 U	8.9 U	20 U	14 U	14 U	11 U	8.2 U
Acetone	61,000,000	630,000,000		13 U	10 U	8.9 U	8.3 U	16 U	11 U	9.8 U	11 U	9.5 U	**10**	28 U	18 U	14 U	11 U	**7.3 J**
Benzene	1,100	5,400		6.6 U	5.2 U	4.4 UJ	4.2 UJ	8.1 U	5.3 UJ	4.9 U	5.3 U	4.8 U	4.5 U	10 U	6.8 U	7.2 U	5.3 U	4.1 U
Carbon disulfide	820,000	3,700,000		6.6 U	5.2 U	4.4 U	4.2 U	8.1 U	5.3 U	4.9 U	5.3 U	4.8 U	4.5 U	10 U	6.8 U	7.2 U	5.3 U	4.1 U
Chlorobenzene	290,000	1,400,000		6.6 U	5.2 U	4.4 UJ	4.2 UJ	8.1 U	5.3 UJ	4.9 U	5.3 U	4.8 UJ	4.5 U	10 UJ	6.8 UJ	7.2 U	5.3 U	4.1 UJ
Chloroform	290	1,500		6.6 U	5.2 U	4.4 U	4.2 U	8.1 U	5.3 U	4.9 U	5.3 U	4.8 U	4.5 U	10 U	6.8 U	7.2 U	5.3 U	4.1 U
Chloromethane	120,000	500,000		6.6 U	5.2 U	4.4 U	4.2 U	8.1 U	5.3 U	4.9 U	5.3 U	4.8 U	4.5 U	10 U	6.8 U	7.2 U	5.3 U	4.1 U
cis-1,2-Dichloroethene	780,000	10,000,000		6.6 U	5.2 U	4.4 U	4.2 U	8.1 U	5.3 U	4.9 U	5.3 U	4.8 U	4.5 U	10 U	6.8 U	7.2 U	5.3 U	4.1 U
cis-1,3-Dichloropropene	1,700	8,100		6.6 U	5.2 U	4.4 UJ	4.2 UJ	8.1 U	5.3 UJ	4.9 U	5.3 U	4.8 U	4.5 U	10 UJ	6.8 UJ	7.2 U	5.3 U	4.1 U
Cyclohexane	7,000,000	29,000,000		**2.4 J**	**5.3 J**	**15 J**	**9**	**12**	**4.6 J**	**5.7 J**	**9 J**	**4 J**	**5**	10 U	**1.3 J**	**50**	**25**	**1.1 J**
Dichlorodifluoromethane	180,000	780,000		6.6 U	5.2 U	4.4 U	4.2 U	8.1 U	5.3 U	4.9 U	5.3 U	4.8 U	4.5 U	**5.8 J**	**2 J**	7.2 U	5.3 U	4.1 U
Ethylbenzene	5,400	27,000		**0.35 J**	5.2 U	4.4 UJ	4.2 UJ	8.1 U	5.3 UJ	4.9 U	5.3 U	4.8 U	4.5 U	10 UJ	6.8 U	7.2 U	5.3 U	4.1 UJ
Isopropylbenzene	2,100,000	11,000,000		6.6 U	5.2 U	4.4 UJ	4.2 UJ	8.1 U	5.3 UJ	4.9 U	5.3 U	4.8 U	4.5 U	10 UJ	6.8 U	7.2 U	5.3 U	4.1 UJ
m,p-Xylene	3,400,000	17,000,000		**0.71 J**	5.2 U	4.4 UJ	4.2 UJ	8.1 U	5.3 UJ	**0.68 J**	5.3 U	4.8 U	4.5 U	10 UJ	6.8 U	**1.4 J**	**0.58 J**	4.1 UJ
Methyl acetate	78,000,000	1,000,000,000		6.6 U	5.2 U	4.4 UJ	4.2 U	8.1 U	5.3 U	4.9 U	5.3 U	4.8 U	4.5 U	10 U	6.8 U	7.2 U	5.3 U	4.1 U
Methylcyclohexane	7,000,000	29,000,000		6.6 U	5.2 U	4.4 UJ	4.2 U	8.1 U	5.3 UJ	4.9 U	5.3 U	4.8 U	4.5 U	10 U	6.8 U	7.2 U	5.3 U	4.1 U
Methylene chloride	11,000	53,000		**6.5 J**	**2 J**	**0.52 J**	4.2 U	8.1 U	5.3 U	4.9 UJ	5.3 UJ	4.8 U	4.5 U	**10 J**	**5.6 J**	7.2 U	5.3 U	4.1 U
o-Xylene	3,800,000	19,000,000		6.6 U	5.2 U	4.4 UJ	4.2 UJ	8.1 U	5.3 UJ	4.9 U	5.3 U	4.8 U	4.5 U	10 UJ	6.8 U	7.2 U	5.3 U	4.1 UJ
Tetrachloroethene	550	2,600		6.6 U	5.2 U	4.4 UJ	4.2 UJ	8.1 U	5.3 UJ	4.9 U	5.3 U	4.8 U	4.5 U	10 UJ	6.8 U	7.2 U	5.3 U	4.1 UJ
Toluene	5,000,000	45,000,000		6.6 U	5.2 U	4.4 UJ	4.2 UJ	8.1 U	5.3 UJ	4.9 U	5.3 U	4.8 U	**3.3 J**	10 UJ	6.8 U	7.2 U	5.3 U	4.1 UJ
trans-1,3-Dichloropropene	1,700	8,100		6.6 U	5.2 U	4.4 UJ	4.2 UJ	8.1 U	5.3 UJ	4.9 U	5.3 U	4.8 U	4.5 U	10 UJ	6.8 UJ	7.2 U	5.3 U	4.1 U
Trichloroethene	2,800	14,000		6.6 U	5.2 U	4.4 UJ	4.2 UJ	8.1 U	5.3 UJ	4.9 U	5.3 U	4.8 U	4.5 U	10 UJ	6.8 U	7.2 U	5.3 U	4.1 UJ
Trichlorofluoromethane	790,000	3,400,000		**3.3 J**	**2 J**	4.4 UJ	4.2 U	8.1 U	5.3 U	4.9 U	5.3 U	4.8 U	4.5 U	10 U	6.8 U	7.2 U	5.3 U	4.1 U

Table 4.2.2-2
Detected Soil VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB212A	SB212B	SB213A	SB213B	SB214A	SB214B	SB215A	SB215B	SB323B	SB411A-08	SB412A-08	SB412B-08	SB413A-08	SB413B-08	SB414A-08
			Sample ID	E3SR2RE	E3SR3RE	E3SR4RE	E3SR5	E3ST9	E3SW0RE	E3SW1	E3SW2	E3SW5RE	E3XW0	E3XW2	E3XW3	E3XW4RE	E3XW5	E3XW6
			Case	36720	36720	36720	36720	36720	36720	36720	36720	36720	37920	37920	37920	37920	37920	37920
			Sampling date	8/14/2007	8/14/2007	8/14/2007	8/14/2007	8/16/2007	8/16/2007	8/16/2007	8/16/2007	8/16/2007	10/6/2008	10/14/2008	10/14/2008	10/6/2008	10/6/2008	10/6/2008
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info									SB215B						
			Investigation area	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2
			Lithology	L2, L3	L1, L2	L2, L3	L2	L1	L2, L4	L1, L2	L1, L4	L1, L4	L2, L3, L4	L1	L1	L3, L4	L3, L4	L2, L4
			Depth (ft bgs)	0-2	8-10	0-2	8-10	0-2	6-8	0-2	8-10	8-10	0-2	0-2	8-10	0-2	8-10	0-2
1,2,3-Trichlorobenzene	49,000	490,000		11 UJ	5.5 U	6.7 UJ	R	5.2 U	8.9 UJ	R	6.9 UJ	4.6 U	R	4.4 U	4.8 U	R	4.7 U	4.2 U
1,2,4-Trichlorobenzene	22,000	99,000		11 UJ	5.5 UJ	6.7 UJ	R	5.2 U	8.9 UJ	R	6.9 UJ	4.6 U	R	4.4 U	4.8 U	R	4.7 U	4.2 U
1,4-Dichlorobenzene	2,400	12,000		11 UJ	5.5 U	6.7 UJ	R	5.2 U	8.9 UJ	R	6.9 UJ	4.6 U	R	4.4 U	4.8 U	R	4.7 U	4.2 U
2-Butanone	28,000,000	200,000,000		21 U	11 U	13 U	19 U	10 U	18 U	18 U	14 U	9.2 U	9.9 U	8.8 U	9.6 U	8.6 U	9.5 U	8.4 U
2-Hexanone	210,000	1,400,000		21 U	11 U	13 U	19 U	10 U	18 U	18 U	14 U	9.2 U	9.9 U	8.8 U	9.6 U	8.6 U	9.5 U	8.4 U
4-Methyl-2-Pentanone	5,300,000	53,000,000		21 U	11 U	13 U	19 U	10 U	18 U	18 U	14 U	9.2 U	9.9 U	8.8 U	9.6 U	8.6 U	9.5 U	8.4 U
Acetone	61,000,000	630,000,000		21 U	**5.4 J**	**8.9 J**	17 U	**4.2 J**	18 U	**7.9 J**	**20**	**18**	9.9 U	8.8 U	9.6 U	8.6 U	9.5 U	8.4 U
Benzene	1,100	5,400		11 UJ	5.5 U	6.7 UJ	9.7 UJ	5.2 U	8.9 U	8.8 UJ	6.9 U	4.6 U	4.9 U	4.4 U	4.8 U	4.3 U	4.7 U	4.2 U
Carbon disulfide	820,000	3,700,000		11 U	5.5 U	6.7 U	9.7 U	5.2 U	8.9 U	8.8 U	6.9 U	4.6 U	4.9 U	4.4 U	4.8 U	4.3 U	4.7 U	4.2 U
Chlorobenzene	290,000	1,400,000		11 UJ	5.5 U	6.7 UJ	R	5.2 U	8.9 U	R	6.9 UJ	4.6 U	4.9 U	4.4 U	4.8 U	4.3 U	4.7 U	4.2 U
Chloroform	290	1,500		11 U	5.5 U	6.7 U	9.7 UJ	5.2 U	8.9 U	8.8 UJ	6.9 U	4.6 U	4.9 U	4.4 U	4.8 U	4.3 U	4.7 U	4.2 U
Chloromethane	120,000	500,000		11 U	5.5 U	6.7 U	9.7 U	5.2 U	8.9 U	8.8 U	6.9 U	4.6 U	4.9 U	4.4 U	4.8 U	4.3 U	4.7 U	4.2 U
cis-1,2-Dichloroethene	780,000	10,000,000		11 U	5.5 U	6.7 U	9.7 U	5.2 U	8.9 U	8.8 U	6.9 U	4.6 U	4.9 U	4.4 U	4.8 U	4.3 U	4.7 U	4.2 U
cis-1,3-Dichloropropene	1,700	8,100		11 UJ	5.5 U	6.7 UJ	9.7 UJ	5.2 U	8.9 U	8.8 UJ	6.9 U	4.6 U	4.9 U	4.4 U	4.8 U	4.3 U	4.7 U	4.2 U
Cyclohexane	7,000,000	29,000,000		**14**	**3.9 J**	**2.5 J**	**8.6 J**	5.2 U	**17 J**	**21 J**	**4.8 J**	**2.5 J**	**4.9 J**	4.4 U	**1.8 J**	**3.7 J**	**1.4 J**	**0.82 J**
Dichlorodifluoromethane	180,000	780,000		11 U	5.5 U	6.7 U	9.7 U	5.2 U	8.9 U	8.8 U	6.9 U	4.6 U	4.9 U	4.4 U	4.8 U	4.3 U	4.7 U	4.2 U
Ethylbenzene	5,400	27,000		11 UJ	5.5 U	6.7 UJ	9.7 UJ	5.2 U	8.9 U	8.8 UJ	6.9 UJ	4.6 U	4.9 U	4.4 U	4.8 U	4.3 U	4.7 U	4.2 U
Isopropylbenzene	2,100,000	11,000,000		11 UJ	5.5 U	6.7 UJ	9.7 UJ	5.2 U	8.9 U	8.8 UJ	6.9 UJ	4.6 U	4.9 U	4.4 U	4.8 U	4.3 U	4.7 U	4.2 U
m,p-Xylene	3,400,000	17,000,000		11 UJ	5.5 U	6.7 UJ	9.7 UJ	**0.78 J**	8.9 U	8.8 UJ	6.9 UJ	**0.79 J**	4.9 U	4.4 U	4.8 U	4.3 U	4.7 U	4.2 U
Methyl acetate	78,000,000	1,000,000,000		11 U	5.5 U	6.7 UJ	9.7 UJ	5.2 U	8.9 U	8.8 UJ	6.9 U	4.6 U	4.9 U	4.4 U	4.8 U	4.3 U	4.7 U	4.2 U
Methylcyclohexane	7,000,000	29,000,000		11 U	5.5 U	6.7 U	9.7 UJ	5.2 U	8.9 U	8.8 UJ	6.9 U	4.6 U	4.9 U	4.4 U	4.8 U	4.3 U	4.7 U	4.2 U
Methylene chloride	11,000	53,000		11 U	5.5 U	6.7 UJ	**2.8 J**	5.2 U	8.9 U	8.8 UJ	1.9 U	4.6 U	**3.4 J**	**9.1**	**2.2 J**	4.3 U	**2.3 J**	**1.9 J**
o-Xylene	3,800,000	19,000,000		11 UJ	5.5 U	6.7 UJ	9.7 UJ	5.2 U	8.9 U	8.8 UJ	6.9 UJ	4.6 U	4.9 U	4.4 U	4.8 U	4.3 U	4.7 U	4.2 U
Tetrachloroethene	550	2,600		11 UJ	5.5 U	6.7 UJ	9.7 UJ	5.2 U	8.9 U	8.8 UJ	6.9 UJ	4.6 U	4.9 U	4.4 U	4.8 U	4.3 U	4.7 U	4.2 U
Toluene	5,000,000	45,000,000		11 UJ	**0.77 J**	6.7 UJ	9.7 UJ	**0.53 J**	**1.1 J**	8.8 UJ	6.9 UJ	**0.75 J**	4.9 U	4.4 U	4.8 U	4.3 U	4.7 U	4.2 U
trans-1,3-Dichloropropene	1,700	8,100		11 UJ	5.5 U	6.7 UJ	9.7 UJ	5.2 U	8.9 U	8.8 UJ	6.9 U	4.6 U	4.9 U	4.4 U	4.8 U	4.3 U	4.7 U	4.2 U
Trichloroethene	2,800	14,000		11 UJ	5.5 U	6.7 UJ	9.7 UJ	5.2 U	8.9 U	8.8 UJ	6.9 UJ	4.6 U	4.9 U	4.4 U	4.8 U	4.3 U	4.7 U	4.2 U
Trichlorofluoromethane	790,000	3,400,000		11 U	5.5 U	6.7 UJ	9.7 UJ	5.2 U	8.9 U	8.8 UJ	6.9 U	4.6 U	4.9 U	4.4 U	4.8 U	4.3 U	4.7 U	4.2 U

Table 4.2.2-2
Detected Soil VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB414B-08 E3XW7 37920 10/6/2008 µg/kg 2 L2, L4 6-8	SB415A-08 E3XW8 37920 10/6/2008 µg/kg 2 L2, L4 0-2	SB415B-08 E3XW9 37920 10/6/2008 µg/kg 2 L1 4-6	SB416A-08 E3XX0 37920 10/6/2008 µg/kg 2 L2, L3, L4 0-2	SB416B-08 E3XX1 37920 10/6/2008 µg/kg 2 L1 8-10	SB417A-08 E3XX2 37920 10/6/2008 µg/kg 2 L2, L3, L4 0-2	SB417B-08 E3XX3 37920 10/6/2008 µg/kg 2 L1 6-8	SB418A-08 E3XX4 37920 10/6/2008 µg/kg 2 L2, L3, L4 0-2	SB418B-08 E3XX5 37920 10/6/2008 µg/kg 2 L1 8-10	SB419A-08 E3XX6 37920 10/14/2008 µg/kg 2 L2, L3, L4 0-2	SB419B-08 E3XX7 37920 10/14/2008 µg/kg 2 L2, L4 8-10	SB420A-08 E3XX8 37920 10/6/2008 µg/kg 2 L2, L3, L4 0-2	SB420B-08 E3XX9 37920 10/6/2008 µg/kg 2 L2, L3, L4 10-12	SB438A-08 E3Y14 37920 10/17/2008 µg/kg 2 L1, L4 0-2	SB438B-08 E3Y15 37920 10/17/2008 µg/kg 2 L1 6-8
1,2,3-Trichlorobenzene	49,000	490,000		4.9 U	4.9 U	5.3 U	5.5 U	4.4 U	4.7 U	4.4 U	R	5.1 U	4.8 U	5 U	R	4.9 U	4.3 U	5.5 U
1,2,4-Trichlorobenzene	22,000	99,000		4.9 U	4.9 U	5.3 U	5.5 U	4.4 U	4.7 U	4.4 U	R	5.1 U	4.8 U	5 U	R	4.9 U	4.3 U	5.5 U
1,4-Dichlorobenzene	2,400	12,000		4.9 U	4.9 U	5.3 U	5.5 U	4.4 U	4.7 U	4.4 U	R	5.1 U	4.8 U	5 U	R	4.9 U	4.3 U	5.5 U
2-Butanone	28,000,000	200,000,000		9.8 U	9.7 U	11 U	11 U	8.7 U	9.3 U	8.7 U	14 U	10 U	9.6 U	10 U	10 U	9.9 U	8.5 U	11 U
2-Hexanone	210,000	1,400,000		9.8 U	9.7 U	11 U	11 U	8.7 U	9.3 U	8.7 U	14 U	10 U	9.6 U	10 U	R	9.9 U	8.5 U	11 U
4-Methyl-2-Pentanone	5,300,000	53,000,000		9.8 U	9.7 U	11 U	11 U	8.7 U	9.3 U	8.7 U	14 U	10 U	9.6 U	10 U	R	9.9 U	8.5 U	11 U
Acetone	61,000,000	630,000,000		9.8 U	9.7 U	11 U	11 U	8.7 U	9.3 U	8.7 U	14 U	10 U	9.6 U	10 U	10 U	9.9 U	**1,900**	**580 J**
Benzene	1,100	5,400		4.9 U	4.9 U	5.3 U	5.5 U	4.4 U	4.7 U	4.4 U	7 U	5.1 U	4.8 U	5 U	R	4.9 U	4.3 U	5.5 U
Carbon disulfide	820,000	3,700,000		4.9 U	4.9 U	5.3 U	5.5 U	4.4 U	4.7 U	4.4 U	**16 J**	5.1 U	4.8 U	**4.3 J**	5.1 U	4.9 U	4.3 U	5.5 U
Chlorobenzene	290,000	1,400,000		4.9 U	4.9 U	5.3 U	5.5 U	4.4 U	4.7 U	4.4 U	7 U	5.1 U	4.8 U	5 U	R	4.9 U	4.3 U	5.5 U
Chloroform	290	1,500		4.9 U	4.9 U	5.3 U	5.5 U	4.4 U	4.7 U	4.4 U	7 U	5.1 U	4.8 U	5 U	5.1 U	4.9 U	4.3 U	5.5 U
Chloromethane	120,000	500,000		4.9 U	4.9 U	5.3 U	5.5 U	4.4 U	4.7 U	4.4 U	7 U	5.1 U	4.8 U	5 U	5.1 U	4.9 U	4.3 U	5.5 U
cis-1,2-Dichloroethene	780,000	10,000,000		4.9 U	4.9 U	5.3 U	5.5 U	4.4 U	4.7 U	4.4 U	7 U	5.1 U	4.8 U	5 U	5.1 U	4.9 U	4.3 U	5.5 U
cis-1,3-Dichloropropene	1,700	8,100		4.9 U	4.9 U	5.3 U	5.5 U	4.4 U	4.7 U	4.4 U	7 U	5.1 U	4.8 U	5 U	R	4.9 U	4.3 U	5.5 U
Cyclohexane	7,000,000	29,000,000		**1.2 J**	**4.2 J**	**1.2 J**	**2.7 J**	**1.9 J**	**4 J**	**2.7 J**	**4.2 J**	5.1 U	4.8 U	**4.2 J**	**3.8 J**	**2.7 J**	4.3 U	5.5 U
Dichlorodifluoromethane	180,000	780,000		4.9 U	4.9 U	5.3 U	5.5 U	4.4 U	4.7 U	4.4 U	7 U	5.1 U	4.8 U	5 U	5.1 U	4.9 U	4.3 U	5.5 U
Ethylbenzene	5,400	27,000		4.9 U	4.9 U	5.3 U	5.5 U	4.4 U	4.7 U	4.4 U	7 U	5.1 U	4.8 U	5 U	R	4.9 U	4.3 U	5.5 U
Isopropylbenzene	2,100,000	11,000,000		4.9 U	4.9 U	5.3 U	5.5 U	4.4 U	4.7 U	4.4 U	7 U	5.1 U	4.8 U	5 U	R	4.9 U	4.3 U	5.5 U
m,p-Xylene	3,400,000	17,000,000		4.9 U	4.9 U	5.3 U	5.5 U	4.4 U	4.7 U	4.4 U	7 U	5.1 U	4.8 U	5 U	R	4.9 U	4.3 U	5.5 U
Methyl acetate	78,000,000	1,000,000,000		4.9 U	4.9 U	5.3 U	5.5 U	4.4 U	4.7 U	4.4 U	7 U	5.1 U	4.8 U	5 U	5.1 U	4.9 U	4.3 U	5.5 U
Methylcyclohexane	7,000,000	29,000,000		4.9 U	4.9 U	5.3 U	5.5 U	4.4 U	4.7 U	4.4 U	7 U	5.1 U	4.8 U	5 U	R	4.9 U	4.3 U	5.5 U
Methylene chloride	11,000	53,000		**2.8 J**	**4.4 J**	**2.1 J**	**2.2 J**	4.4 U	4.7 U	4.4 U	7 U	5.1 U	**2.1 J**	5 U	5.1 U	**1.3 J**	4.3 U	5.5 U
o-Xylene	3,800,000	19,000,000		4.9 U	4.9 U	5.3 U	5.5 U	4.4 U	4.7 U	4.4 U	7 U	5.1 U	4.8 U	5 U	R	4.9 U	4.3 U	5.5 U
Tetrachloroethene	550	2,600		4.9 U	4.9 U	5.3 U	5.5 U	4.4 U	4.7 U	4.4 U	7 U	5.1 U	4.8 U	5 U	R	4.9 U	4.3 U	5.5 U
Toluene	5,000,000	45,000,000		4.9 U	4.9 U	5.3 U	5.5 U	4.4 U	4.7 U	4.4 U	7 U	5.1 U	4.8 U	5 U	R	4.9 U	4.3 U	5.5 U
trans-1,3-Dichloropropene	1,700	8,100		4.9 U	4.9 U	5.3 U	5.5 U	4.4 U	4.7 U	4.4 U	7 U	5.1 U	4.8 U	5 U	R	4.9 U	4.3 U	5.5 U
Trichloroethene	2,800	14,000		4.9 U	4.9 U	5.3 U	5.5 U	4.4 U	4.7 U	4.4 U	**5.9 J**	**15**	**22**	**35**	R	4.9 U	4.3 U	5.5 U
Trichlorofluoromethane	790,000	3,400,000		4.9 U	4.9 U	5.3 U	5.5 U	4.4 U	4.7 U	4.4 U	7 U	5.1 U	4.8 U	5 U	5.1 U	4.9 U	4.3 U	5.5 U

Table 4.2.2-2
Detected Soil VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB439A-08	SB440A-08	SB440B-08	SB441B-08	SB445B-08	SB446A-08	SB446B-08	SB447A-08	SB447B-08
			Sample ID	E3Y16	E3Y18	E3Y19	E3Y21	E3Y29	E3Y30	E3Y31	E3Y32	E3Y33
			Case	37920	37920	37920	37920	37920	37920	37920	37920	37920
			Sampling date	10/17/2008	10/15/2008	10/15/2008	10/17/2008	10/16/2008	10/14/2008	10/14/2008	10/14/2008	10/14/2008
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info									
			Investigation area	2	2	2	4	4	4	4	4	4
			Lithology	L2, L3, L4	L2, L3, L4	L2, L4	L1	L1	L1	L1	L1	L1
			Depth (ft bgs)	0-4	0-2	8-10	6-8	6-8	0-2	8-10	0-2	6-8
1,2,3-Trichlorobenzene	49,000	490,000		4.9 U	6 U	4.4 U	4.6 U	4.6 U	4.8 U	4.8 U	4.8 U	4.3 U
1,2,4-Trichlorobenzene	22,000	99,000		4.9 U	6 U	4.4 U	4.6 U	4.6 U	4.8 U	4.8 U	4.8 U	4.3 U
1,4-Dichlorobenzene	2,400	12,000		4.9 U	6 U	4.4 U	4.6 U	4.6 U	4.8 U	4.8 U	4.8 U	4.3 U
2-Butanone	28,000,000	200,000,000		9.8 U	12 U	8.8 U	9.1 U	**13**	9.6 U	9.5 U	9.6 U	8.5 U
2-Hexanone	210,000	1,400,000		9.8 U	12 U	8.8 U	9.1 U	9.1 U	9.6 U	9.5 U	9.6 U	8.5 U
4-Methyl-2-Pentanone	5,300,000	53,000,000		9.8 U	12 U	8.8 U	9.1 U	9.1 U	9.6 U	9.5 U	9.6 U	8.5 U
Acetone	61,000,000	630,000,000		**140 J**	12 U	8.8 U	9.1 U	**66**	9.6 U	9.5 U	9.6 U	8.5 U
Benzene	1,100	5,400		4.9 U	6 U	4.4 U	4.6 U	4.6 U	4.8 U	4.8 U	4.8 U	4.3 U
Carbon disulfide	820,000	3,700,000		4.9 U	6 U	4.4 U	4.6 U	4.6 U	4.8 U	4.8 U	4.8 U	4.3 U
Chlorobenzene	290,000	1,400,000		4.9 U	6 U	4.4 U	4.6 U	4.6 U	4.8 U	4.8 U	4.8 U	4.3 U
Chloroform	290	1,500		4.9 U	6 U	4.4 U	4.6 U	4.6 U	4.8 U	4.8 U	4.8 U	4.3 U
Chloromethane	120,000	500,000		4.9 U	6 U	4.4 U	4.6 U	4.6 U	4.8 U	4.8 U	4.8 U	4.3 U
cis-1,2-Dichloroethene	780,000	10,000,000		4.9 U	6 U	4.4 U	4.6 U	4.6 U	4.8 U	4.8 U	4.8 U	4.3 U
cis-1,3-Dichloropropene	1,700	8,100		4.9 U	6 U	4.4 U	4.6 U	4.6 U	4.8 U	4.8 U	4.8 U	4.3 U
Cyclohexane	7,000,000	29,000,000		4.9 U	6 U	4.4 U	4.6 U	4.6 U	4.8 U	4.8 U	4.8 U	4.3 U
Dichlorodifluoromethane	180,000	780,000		4.9 U	6 U	4.4 U	4.6 U	4.6 U	4.8 U	4.8 U	4.8 U	4.3 U
Ethylbenzene	5,400	27,000		4.9 U	6 U	4.4 U	4.6 U	4.6 U	4.8 U	4.8 U	4.8 U	4.3 U
Isopropylbenzene	2,100,000	11,000,000		4.9 U	6 U	4.4 U	4.6 U	4.6 U	4.8 U	4.8 U	4.8 U	4.3 U
m,p-Xylene	3,400,000	17,000,000		4.9 U	6 U	4.4 U	4.6 U	4.6 U	4.8 U	4.8 U	4.8 U	4.3 U
Methyl acetate	78,000,000	1,000,000,000		4.9 U	6 U	4.4 U	4.6 U	4.6 U	4.8 U	4.8 U	4.8 U	4.3 U
Methylcyclohexane	7,000,000	29,000,000		4.9 U	6 U	4.4 U	4.6 U	4.6 U	4.8 U	4.8 U	4.8 U	4.3 U
Methylene chloride	11,000	53,000		4.9 U	6 U	8.8 U	4.6 U	4.6 U	**4.1 J**	**3.2 J**	**3.9 J**	**3 J**
o-Xylene	3,800,000	19,000,000		4.9 U	6 U	4.4 U	4.6 U	4.6 U	4.8 U	4.8 U	4.8 U	4.3 U
Tetrachloroethene	550	2,600		4.9 U	6 U	4.4 U	4.6 U	4.6 U	4.8 U	4.8 U	4.8 U	4.3 U
Toluene	5,000,000	45,000,000		4.9 U	6 U	4.4 U	4.6 U	4.6 U	4.8 U	4.8 U	4.8 U	4.3 U
trans-1,3-Dichloropropene	1,700	8,100		4.9 U	6 U	4.4 U	**1.8 J**	4.6 U	4.8 U	4.8 U	4.8 U	4.3 U
Trichloroethene	2,800	14,000		4.9 U	**11**	**12**	4.6 U	4.6 U	4.8 U	4.8 U	4.8 U	4.3 U
Trichlorofluoromethane	790,000	3,400,000		4.9 U	6 U	4.4 U	4.6 U	4.6 U	4.8 U	4.8 U	4.8 U	4.3 U

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.2-2

Notes:
Bold values indicate a detection
Yellow shaded cells indicate a residential RSL exceedance
Red shaded cells indicate an industrial RSL and residential RSL exceedance
Gray shaded cells indicate an industrial or residential RSL exceedance but below the BTV

µg/L	Microgram per liter
µg/kg	Microgram per kilogram
mg/kg	Milligram per kilogram
A	Indicates surface soil sample
B	Indicates subsurface soil sample
bgs	Below ground surface
BTV	Background threshold value
CLP	Contract laboratory program
CFR	Code of Federal Regulations
ft	Feet
GWSV	Groundwater screening value
ID	Identification
info	Information
J	Estimated result
J-	Underestimated result
J+	Overestimated result
MCL	Maximum contaminant level (EPA)
NC	No criteria available
PCB	Polychlorinated biphenyls
ppm	Part per million
R	Rejected result
RL	Regulatory Level (CFR)
RSL	Regional Screening Level (EPA)
SB	Soil boring
SPLP	Synthetic precipitation leaching procedure
SV	Screening value
SVOC	Semivolatile organic compounds
Tap	Tap water screening criteria (EPA)
TCLP	Toxicity Characteristic Leaching Procedure (CFR)
U	Non-detect result
UJ	Non-detected and estimated result
VOC	Volatile organic compounds

a	Analyte is compared to the April 2009 residential and industrial RSLs
b	Sample was not analyzed at the CLP laboratory. The sample ID number is the soil boring location followed by the sample depth then "A" if the sample was a duplicate sample
--	Not applicable

Lithology Definitions:

L1	Native soils
L2	Slag
L3	Sinter
L4	Fill materials

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB001A E3Q74 36631 7/16/2007 µg/kg 1 L1 0-2	SB002A E3Q80 36631 7/16/2007 µg/kg 1 L3, L4 0-2	SB002B E3Q83 36631 7/16/2007 µg/kg 1 L3, L4 8-10	SB003A E3Q86 36631 7/16/2007 µg/kg 1 L2, L3, L4 0-2	SB250A E3R11 36631 7/16/2007 µg/kg SB003A 1 L2, L3, L4 0-2	SB003B E3Q89 36631 7/16/2007 µg/kg 1 L1 8-10	SB004A E3R18 36631 7/17/2007 µg/kg 1 L1, L2, L3 0-2	SB004B E3R22 36631 7/17/2007 µg/kg 1 L2, L3 8-10	SB007A E3S07 36664 8/1/2007 µg/kg 1 L1, L2 0-2	SB007B E3S08 36664 8/1/2007 µg/kg 1 L1 8-10
1,1'-Biphenyl	3,900,000	51,000,000		190 UJ	200 UJ	200 UJ	190 UJ	190 U	200 U	220 UJ	200 U	230 U	210 U
1,2,4,5-Tetrachlorobenzene	18,000	180,000		190 U	**160 J**	**150 J**	**910**	**1,000**	**19 J**	220 U	200 U	**270**	210 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		**56 J**	200 U	200 U	190 U	190 U	200 U	220 U	200 U	230 U	210 U
2,4-Dimethylphenol	1,200,000	12,000,000		190 U	200 U	200 U	190 U	190 U	200 U	220 U	200 U	230 U	210 U
2-Chlorophenol	390,000	5,100,000		190 U	200 U	200 U	190 U	190 U	200 U	220 U	200 U	230 U	210 U
2-Methylnaphthalene	310,000	4,100,000		**43 J**	200 U	200 U	190 U	190 U	200 U	220 U	200 U	**47 J**	210 U
2-Methylphenol	3,100,000	31,000,000		**120 J**	200 U	200 U	190 U	190 U	200 U	220 U	200 U	230 U	210 U
3,3'-Dichlorobenzidine	1,100	3,800		190 U	200 U	200 U	190 U	190 U	200 U	220 U	200 U	230 U	210 U
3-Nitroaniline	24,000	86,000		380 U	380 U	380 U	370 U	360 U	390 U	430 U	380 U	460 U	410 U
4-Chloro-3-methylphenol	6,100,000	62,000,000		190 U	200 U	200 U	190 U	190 U	200 U	220 U	200 U	230 U	210 U
4-Methylphenol	310,000	3,100,000		190 U	200 U	200 U	190 U	190 U	200 U	220 U	200 U	230 U	210 U
Acenaphthene	3,400,000	33,000,000		190 UJ	200 U	200 U	190 U	190 U	200 U	220 U	200 U	230 U	210 U
Acenaphthylene	3,400,000	33,000,000		190 U	200 U	200 U	190 U	190 U	200 U	220 U	200 U	230 U	210 U
Acetophenone	7,800,000	100,000,000		190 U	200 U	200 U	190 U	190 U	200 U	220 U	200 U	230 U	210 U
Anthracene	17,000,000	170,000,000		190 U	**74 J**	200 U	190 U	**42 J**	200 U	220 U	200 U	230 U	210 U
Atrazine	2,100	7,500		190 U	200 U	200 U	190 U	190 U	200 U	220 U	200 U	230 U	210 U
Benzaldehyde	7,800,000	100,000,000		190 U	200 U	200 U	190 U	190 U	200 U	220 U	200 U	230 U	210 U
Benzo(a)anthracene	150	2,100		**150 J**	**460 J**	**49 J**	190 UJ	**210**	200 U	**93 J**	200 U	230 U	210 U
Benzo(a)pyrene	15	210		**150 J**	**490 J**	200 UJ	190 UJ	**210**	**8.3 J**	**130 J**	**42 J**	230 U	210 U
Benzo(b)fluoranthene	150	2,100		190 UJ	200 UJ	200 UJ	190 UJ	**310**	200 U	**170 J**	**62 J**	230 U	210 U
Benzo(g,h,i)perylene	150	2,100		**120 J**	**430 J**	**46 J**	190 UJ	**170 J**	200 U	**100 J**	200 U	230 U	210 U
Benzo(k)fluoranthene	1,500	21,000		**350**	**960 J**	**120 J**	190 UJ	**220**	200 U	**120 J**	**36 J**	230 U	210 U
Bis(2-ethylhexyl)phthalate	35,000	120,000		190 UJ	200 UJ	200 UJ	190 UJ	190 U	200 U	220 UJ	200 U	230 U	210 U
Butylbenzylphthalate	260,000	910,000		190 UJ	200 UJ	200 UJ	190 UJ	190 U	200 U	220 UJ	200 U	230 U	210 U
Caprolactam	31,000,000	310,000,000		190 UJ	200 UJ	200 UJ	190 UJ	190 U	200 U	220 UJ	200 U	230 U	210 U
Carbazole	17,000,000	170,000,000		190 U	200 UJ	200 UJ	190 UJ	190 U	200 U	220 U	200 U	230 U	210 U
Chrysene	15,000	210,000		**170 J**	**430 J**	**72 J**	190 UJ	**280**	200 U	**120 J**	200 U	230 U	210 U
Dibenzo(a,h)anthracene	15	210		190 U	**130 J**	200 UJ	190 UJ	**46 J**	200 UJ	220 U	200 U	230 U	210 U
Dibenzofuran	78,000	1,000,000		190 U	200 UJ	200 UJ	190 UJ	190 U	200 U	220 U	200 U	230 U	210 U
Diethylphthalate	49,000,000	490,000,000		190 UJ	200 UJ	200 UJ	190 UJ	190 U	200 U	220 UJ	200 U	230 U	210 U
Dimethylphthalate	49,000,000	490,000,000		190 UJ	200 UJ	200 UJ	190 UJ	190 U	200 U	220 UJ	200 U	230 U	210 U
Di-n-butylphthalate	6,100,000	62,000,000		190 UJ	200 UJ	200 UJ	190 UJ	190 U	200 U	220 UJ	200 U	230 U	**33 J**
Di-n-octylphthalate	35,000	120,000		190 UJ	200 UJ	200 UJ	190 UJ	190 U	200 U	220 UJ	200 U	230 U	210 U
Fluoranthene	2,300,000	22,000,000		**310**	**700 J**	**97 J**	190 UJ	**410**	200 U	**170 J**	**44 J**	230 U	210 U

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB001A E3Q74 36631 7/16/2007 µg/kg 1 L1 0-2	SB002A E3Q80 36631 7/16/2007 µg/kg 1 L3, L4 0-2	SB002B E3Q83 36631 7/16/2007 µg/kg 1 L3, L4 8-10	SB003A E3Q86 36631 7/16/2007 µg/kg 1 L2, L3, L4 0-2	SB250A E3R11 36631 7/16/2007 µg/kg SB003A 1 L2, L3, L4 0-2	SB003B E3Q89 36631 7/16/2007 µg/kg 1 L1 8-10	SB004A E3R18 36631 7/17/2007 µg/kg 1 L1, L2, L3 0-2	SB004B E3R22 36631 7/17/2007 µg/kg 1 L2, L3 8-10	SB007A E3S07 36664 8/1/2007 µg/kg 1 L1, L2 0-2	SB007B E3S08 36664 8/1/2007 µg/kg 1 L1 8-10
Fluorene	2,300,000	22,000,000		190 U	200 UJ	200 UJ	190 UJ	190 U	200 U	220 U	200 U	230 U	210 U
Hexachlorobenzene	300	1,100		190 U	200 U	200 U	190 U	190 U	200 U	220 U	200 U	230 U	210 U
Indeno(1,2,3-cd)pyrene	150	2,100		**110 J**	**350 J**	**41 J**	190 UJ	**210**	200 UJ	**140 J**	**41 J**	230 U	210 U
Naphthalene	3,600	18,000		190 U	200 U	200 U	190 U	190 U	200 U	220 U	200 U	230 U	210 U
N-Nitrosodiphenylamine	99,000	350,000		190 U	200 U	200 U	190 U	190 U	200 U	220 U	200 U	230 U	210 U
Pentachlorophenol	3,000	9,000		380 U	380 U	380 U	370 U	360 U	390 UJ	430 U	380 U	460 UJ	410 UJ
Phenanthrene	17,000,000	170,000,000		**140 J**	**360**	**86 J**	190 U	**260**	200 U	**46 J**	200 U	230 U	210 U
Phenol	18,000,000	180,000,000		190 U	200 U	200 U	190 U	190 U	200 U	220 U	200 U	230 UJ	210 U
Pyrene	1,700,000	17,000,000		**260 J**	**660 J**	**98 J**	190 UJ	**390**	200 U	**150 J**	**44 J**	230 U	210 U

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB291B E3S09 36664 8/1/2007 µg/kg SB007B 1 L1 8-10	SB008A E3R39 36631 7/17/2007 µg/kg 1 L2, L3 0-2	SB252A E3R51 36631 7/17/2007 µg/kg SB008A 1 L2, L3 0-2	SB009A E3R54 36631 7/17/2007 µg/kg 1 L1, L3 0-2	SB010A E3R84 36631 7/20/2007 µg/kg 3 L1 0-2	SB010B E3R85 36631 7/20/2007 µg/kg 3 L1 8-10	SB011A E3R86 36631 7/20/2007 µg/kg 3 L1 0-2	SB256A E3RB6 36631 7/20/2007 µg/kg SB011A 3 L1 0-2	SB012A E3R88 36631 7/20/2007 µg/kg 1 L1 0-2	SB012B E3R89 36631 7/20/2007 µg/kg 1 L1 8-10
1,1'-Biphenyl	3,900,000	51,000,000		210 U	200 U	200 U	200 U	220 U	180 U	220 U	210 U	210 U	190 U
1,2,4,5-Tetrachlorobenzene	18,000	180,000		**530**	200 U	200 U	200 U	220 U	180 U	220 U	210 U	210 U	190 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		210 U	200 U	200 U	200 U	220 U	180 U	220 U	210 U	210 U	190 U
2,4-Dimethylphenol	1,200,000	12,000,000		210 UJ	200 U	200 U	200 U	220 U	180 U	220 U	210 U	210 U	190 U
2-Chlorophenol	390,000	5,100,000		210 UJ	200 U	200 U	200 U	220 U	180 U	220 U	210 U	210 U	190 U
2-Methylnaphthalene	310,000	4,100,000		**140 J**	**89 J**	**42 J**	**77 J**	220 U	180 U	220 U	210 U	210 U	190 U
2-Methylphenol	3,100,000	31,000,000		210 UJ	200 U	200 U	200 U	220 U	180 U	220 U	210 U	210 U	190 U
3,3'-Dichlorobenzidine	1,100	3,800		210 U	200 U	200 U	200 U	220 U	180 U	220 U	210 U	210 U	190 U
3-Nitroaniline	24,000	86,000		410 U	400 U	380 U	400 U	420 U	360 U	420 U	410 U	410 U	370 U
4-Chloro-3-methylphenol	6,100,000	62,000,000		210 UJ	200 U	200 U	200 U	220 U	180 U	220 U	210 U	210 U	190 U
4-Methylphenol	310,000	3,100,000		210 UJ	200 U	200 U	200 U	220 U	180 U	220 U	210 U	210 U	190 U
Acenaphthene	3,400,000	33,000,000		210 U	200 U	200 U	200 U	220 U	180 U	220 U	210 U	210 U	190 U
Acenaphthylene	3,400,000	33,000,000		**150 J**	200 U	200 U	200 U	220 U	180 U	220 U	210 U	210 U	190 U
Acetophenone	7,800,000	100,000,000		210 UJ	200 U	200 U	200 U	220 U	180 U	220 U	210 U	210 U	190 U
Anthracene	17,000,000	170,000,000		**55 J**	200 U	200 U	200 U	220 U	180 U	220 U	210 U	210 U	190 U
Atrazine	2,100	7,500		210 U	200 U	200 U	200 U	220 U	180 U	220 U	210 U	210 U	190 U
Benzaldehyde	7,800,000	100,000,000		210 UJ	200 U	200 U	200 U	220 U	180 U	220 U	210 U	210 U	190 U
Benzo(a)anthracene	150	2,100		210 U	**100 J**	**86 J**	**53 J**	220 U	180 U	220 U	210 U	**43 J**	190 U
Benzo(a)pyrene	15	210		210 UJ	**140 J**	**120 J**	**62 J**	220 U	180 U	220 U	210 U	**47 J**	190 U
Benzo(b)fluoranthene	150	2,100		**290 J**	**160 J**	**160 J**	**81 J**	220 U	180 U	220 U	210 U	**81 J**	190 U
Benzo(g,h,i)perylene	150	2,100		210 UJ	**110 J**	**93 J**	**55 J**	220 U	180 U	220 U	210 U	210 U	190 U
Benzo(k)fluoranthene	1,500	21,000		**260 J**	**97 J**	**100 J**	**80 J**	220 U	180 U	220 U	210 U	**25 J**	190 U
Bis(2-ethylhexyl)phthalate	35,000	120,000		210 U	200 U	200 U	200 U	**30 J**	**29 J**	**25 J**	**45 J**	**45 J**	**34 J**
Butylbenzylphthalate	260,000	910,000		210 U	200 U	200 U	200 U	220 U	180 U	220 U	210 U	210 U	190 U
Caprolactam	31,000,000	310,000,000		210 UJ	200 U	200 U	200 U	220 U	180 U	220 U	210 U	210 U	190 U
Carbazole	17,000,000	170,000,000		210 U	200 U	200 U	200 U	220 U	180 U	220 U	210 U	210 U	190 U
Chrysene	15,000	210,000		210 U	**120 J**	**110 J**	**85 J**	220 U	180 U	220 U	210 U	**59 J**	190 U
Dibenzo(a,h)anthracene	15	210		210 UJ	200 U	200 U	200 U	220 U	180 U	220 U	210 U	210 U	190 U
Dibenzofuran	78,000	1,000,000		**61 J**	200 U	200 U	200 U	220 U	180 U	220 U	210 U	210 U	190 U
Diethylphthalate	49,000,000	490,000,000		210 U	200 U	200 U	200 U	220 U	180 U	220 U	210 U	210 U	190 U
Dimethylphthalate	49,000,000	490,000,000		210 U	200 U	200 U	200 U	220 U	180 U	220 U	210 U	210 U	190 U
Di-n-butylphthalate	6,100,000	62,000,000		210 U	200 U	200 U	200 U	220 U	180 U	220 U	210 U	210 U	190 U
Di-n-octylphthalate	35,000	120,000		210 U	200 U	200 U	200 U	220 U	180 U	220 U	210 U	210 U	190 U
Fluoranthene	2,300,000	22,000,000		**160 J**	**170 J**	**170 J**	**100 J**	**22 J**	180 U	220 U	210 U	**94 J**	190 U

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB291B E3S09 36664 8/1/2007 µg/kg SB007B 1 L1 8-10	SB008A E3R39 36631 7/17/2007 µg/kg 1 L2, L3 0-2	SB252A E3R51 36631 7/17/2007 µg/kg SB008A 1 L2, L3 0-2	SB009A E3R54 36631 7/17/2007 µg/kg 1 L1, L3 0-2	SB010A E3R84 36631 7/20/2007 µg/kg 3 L1 0-2	SB010B E3R85 36631 7/20/2007 µg/kg 3 L1 8-10	SB011A E3R86 36631 7/20/2007 µg/kg 3 L1 0-2	SB256A E3RB6 36631 7/20/2007 µg/kg SB011A 3 L1 0-2	SB012A E3R88 36631 7/20/2007 µg/kg 1 L1 0-2	SB012B E3R89 36631 7/20/2007 µg/kg 1 L1 8-10
Fluorene	2,300,000	22,000,000		210 U	200 U	200 U	200 U	220 U	180 U	220 U	210 U	210 U	190 U
Hexachlorobenzene	300	1,100		210 U	200 U	200 U	200 U	220 U	180 U	220 U	210 U	210 U	190 U
Indeno(1,2,3-cd)pyrene	150	2,100		210 UJ	**150 J**	**130 J**	**51 J**	220 U	180 U	220 U	210 U	**29 J**	190 U
Naphthalene	3,600	18,000		**68 J**	**43 J**	200 U	200 U	220 U	180 U	220 U	210 U	210 U	190 U
N-Nitrosodiphenylamine	99,000	350,000		210 U	200 U	200 U	200 U	220 U	180 U	220 U	210 U	210 U	190 U
Pentachlorophenol	3,000	9,000		410 UJ	400 U	380 U	400 U	420 U	360 U	420 U	410 U	410 U	370 U
Phenanthrene	17,000,000	170,000,000		**110 J**	**110 J**	**87 J**	**130 J**	220 U	180 U	220 U	210 U	**46 J**	190 U
Phenol	18,000,000	180,000,000		210 UJ	200 U	200 U	200 U	220 U	180 U	220 U	210 U	210 U	190 U
Pyrene	1,700,000	17,000,000		**310**	**160 J**	**140 J**	**87 J**	**24 J**	180 U	220 U	210 U	**89 J**	190 U

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB014A	SB015A	SB015B	SB016A	SB016B	SB017A	SB017B	SB018A	SB018B	SB019A
			Sample ID	E3R26	E3R45	E3R48	E3RZ5	E3RZ6	E3S10	E3S11	E3R33	E3R36	E3R05
			Case	36631	36631	36631	36664	36664	36664	36664	36631	36631	36631
			Sampling date	7/17/2007	7/17/2007	7/17/2007	7/31/2007	7/31/2007	8/1/2007	8/1/2007	7/17/2007	7/17/2007	7/16/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info										
			Investigation area	1	1	1	1	1	1	1	1	1	1
			Lithology	L2, L3	L2, L3	L3	L2, L4	L2, L3, L4	L2, L3	L1	L2, L3	L1, L2, L3	L2, L3
			Depth (ft bgs)	0-2	0-2	8-10	0-2	4-6	0-2	8-10	0-2	8-10	0-2
1,1'-Biphenyl	3,900,000	51,000,000		200 U	210 U	**190 J**	240 U	210 U	210 U	240 U	200 U	190 U	190 U
1,2,4,5-Tetrachlorobenzene	18,000	180,000		200 U	210 U	190 U	240 U	210 U	210 U	240 U	200 U	190 U	190 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		200 U	210 U	190 U	240 U	210 U	210 U	240 U	200 U	190 U	190 U
2,4-Dimethylphenol	1,200,000	12,000,000		200 U	210 U	190 U	240 U	210 U	210 U	240 U	200 U	190 U	190 U
2-Chlorophenol	390,000	5,100,000		200 U	210 U	190 U	240 U	210 U	210 U	240 U	200 U	190 U	190 U
2-Methylnaphthalene	310,000	4,100,000		200 U	**52 J**	190 U	240 U	**39 J**	**56 J**	240 U	**58 J**	190 U	190 U
2-Methylphenol	3,100,000	31,000,000		200 U	210 U	190 U	240 U	210 U	210 U	240 U	200 U	190 U	190 U
3,3'-Dichlorobenzidine	1,100	3,800		200 U	210 U	190 U	240 U	210 U	210 U	240 U	200 U	190 U	190 U
3-Nitroaniline	24,000	86,000		**240 J**	420 U	370 U	480 U	410 U	400 U	460 U	**220 J**	380 U	370 U
4-Chloro-3-methylphenol	6,100,000	62,000,000		200 U	210 U	190 U	240 U	210 U	210 U	240 U	200 U	190 U	190 U
4-Methylphenol	310,000	3,100,000		200 U	210 U	190 U	240 U	210 U	210 U	240 U	200 U	190 U	190 U
Acenaphthene	3,400,000	33,000,000		200 U	210 U	190 U	240 U	210 U	210 U	240 U	200 U	190 U	190 U
Acenaphthylene	3,400,000	33,000,000		**84 J**	210 U	190 U	240 U	**50 J**	**92 J**	240 U	**66 J**	190 U	190 U
Acetophenone	7,800,000	100,000,000		200 U	210 U	190 U	240 U	210 U	210 U	240 U	200 U	190 U	190 U
Anthracene	17,000,000	170,000,000		**59 J**	210 U	190 U	**64 J**	**81 J**	**130 J**	**38 J**	**52 J**	190 U	**48 J**
Atrazine	2,100	7,500		200 U	210 U	190 U	240 U	210 U	210 U	240 U	200 U	190 U	190 U
Benzaldehyde	7,800,000	100,000,000		200 U	210 U	190 U	240 U	210 U	210 U	240 U	200 U	190 U	190 U
Benzo(a)anthracene	150	2,100		**530**	**160 J**	**45 J**	**140 J**	**560**	**290**	**130 J**	**260**	190 U	**250**
Benzo(a)pyrene	15	210		**720 J**	**200 J**	**62 J**	**130 J**	**460**	**310**	**120 J**	**530 J**	190 U	**350**
Benzo(b)fluoranthene	150	2,100		**830**	**260**	**65 J**	**130 J**	**390**	**280 J**	**140 J**	**1,100 J**	**54 J**	**560**
Benzo(g,h,i)perylene	150	2,100		**490**	**150 J**	**41 J**	**100 J**	**240**	**270**	**150 J**	**530**	190 U	**310**
Benzo(k)fluoranthene	1,500	21,000		**540 J**	**160 J**	**69 J**	**120 J**	**410**	**360**	**150 J**	**460 J**	**25 J**	**360**
Bis(2-ethylhexyl)phthalate	35,000	120,000		200 U	210 U	190 U	240 U	210 U	210 U	240 U	200 U	190 U	190 U
Butylbenzylphthalate	260,000	910,000		200 U	210 U	190 U	240 U	210 U	210 U	240 U	200 U	190 U	190 U
Caprolactam	31,000,000	310,000,000		200 U	210 U	190 U	240 U	210 U	210 U	240 U	200 U	190 U	190 U
Carbazole	17,000,000	170,000,000		200 U	210 U	190 U	240 U	210 U	**33 J**	240 U	200 U	190 U	190 U
Chrysene	15,000	210,000		**580**	**190 J**	**63 J**	**220 J**	**540**	**360**	**160 J**	**380**	**38 J**	**300**
Dibenzo(a,h)anthracene	15	210		**120 J**	210 U	190 U	240 U	210 U	210 U	240 U	**180 J**	190 U	**57 J**
Dibenzofuran	78,000	1,000,000		200 U	210 U	**610**	240 U	210 U	**95 J**	240 U	200 U	190 U	190 U
Diethylphthalate	49,000,000	490,000,000		200 U	210 U	190 U	**47 J**	210 U	210 U	240 U	200 U	190 U	190 U
Dimethylphthalate	49,000,000	490,000,000		200 U	210 U	190 U	240 U	210 U	210 U	240 U	200 U	190 U	190 U
Di-n-butylphthalate	6,100,000	62,000,000		200 U	210 U	190 U	240 U	210 U	210 U	240 U	200 U	190 U	190 U
Di-n-octylphthalate	35,000	120,000		200 U	210 U	190 U	240 U	210 U	210 U	240 U	200 U	190 U	190 U
Fluoranthene	2,300,000	22,000,000		**810**	**280**	**130 J**	**220 J**	**870**	**830**	**220 J**	**370**	**48 J**	**430**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB014A	SB015A	SB015B	SB016A	SB016B	SB017A	SB017B	SB018A	SB018B	SB019A
			Sample ID	E3R26	E3R45	E3R48	E3RZ5	E3RZ6	E3S10	E3S11	E3R33	E3R36	E3R05
			Case	36631	36631	36631	36664	36664	36664	36664	36631	36631	36631
			Sampling date	7/17/2007	7/17/2007	7/17/2007	7/31/2007	7/31/2007	8/1/2007	8/1/2007	7/17/2007	7/17/2007	7/16/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info										
			Investigation area	1	1	1	1	1	1	1	1	1	1
			Lithology	L2, L3	L2, L3	L3	L2, L4	L2, L3, L4	L2, L3	L1	L2, L3	L1, L2, L3	L2, L3
			Depth (ft bgs)	0-2	0-2	8-10	0-2	4-6	0-2	8-10	0-2	8-10	0-2
Fluorene	2,300,000	22,000,000		200 U	210 U	190 U	240 U	210 U	210 U	240 U	200 U	190 U	190 U
Hexachlorobenzene	300	1,100		200 U	210 U	190 U	240 U	210 U	210 U	240 U	200 U	190 U	190 U
Indeno(1,2,3-cd)pyrene	150	2,100		**650**	**170 J**	**45 J**	**93 J**	**250**	**260**	**140 J**	**690**	190 U	**350**
Naphthalene	3,600	18,000		200 U	210 U	**120 J**	240 U	**47 J**	**45 J**	240 U	**42 J**	190 U	190 U
N-Nitrosodiphenylamine	99,000	350,000		200 U	210 U	190 U	240 U	210 U	210 U	240 U	200 U	190 U	190 U
Pentachlorophenol	3,000	9,000		390 U	420 U	370 U	480 UJ	410 UJ	400 UJ	460 UJ	390 U	380 U	370 U
Phenanthrene	17,000,000	170,000,000		**330**	**150 J**	**77 J**	**72 J**	**210**	**460**	**120 J**	**200 J**	190 U	**240**
Phenol	18,000,000	180,000,000		200 U	210 U	190 U	240 UJ	210 UJ	210 U	240 U	200 U	190 U	190 U
Pyrene	1,700,000	17,000,000		**750**	**240**	**89 J**	**230 J**	**740**	**570**	**200 J**	**330**	**44 J**	**390**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB019B	SB020A	SB020B	SB021A	SB022A	SB023A	SB023B	SB024A	SB025A	SB025B
			Sample ID	E3R08	E3RX4	E3RX5	E3RX6	E3RX8	E3RA0	E3RA1	E3RB1	E3SH8	E3SH9
			Case	36631	36664	36664	36664	36664	36631	36631	36631	36697	36697
			Sampling date	7/16/2007	7/31/2007	7/31/2007	7/31/2007	7/31/2007	7/19/2007	7/19/2007	7/19/2007	8/10/2007	8/10/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info										
			Investigation area	1	3	3	3	3	3	3	3	3	3
			Lithology	L2, L3	L1	L1	L1	L3	L4	L4	L1, L4	L1	L1
			Depth (ft bgs)	5-7	0-2	5-7	0-2	0-2	0-2	8-10	0-2	0-2	8-10
1,1'-Biphenyl	3,900,000	51,000,000		**39 J**	250 U	240 U	240 U	230 U	**200 J**	200 U	220 U	210 U	230 U
1,2,4,5-Tetrachlorobenzene	18,000	180,000		**47 J**	250 U	240 U	240 U	230 U	220 U	200 U	220 U	210 U	230 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		190 U	250 U	240 U	240 U	230 U	220 U	200 U	220 U	210 U	230 U
2,4-Dimethylphenol	1,200,000	12,000,000		190 U	250 U	240 U	240 U	230 U	220 U	200 U	220 U	210 U	230 U
2-Chlorophenol	390,000	5,100,000		190 U	250 U	240 U	240 U	230 U	220 U	200 U	220 U	210 U	230 U
2-Methylnaphthalene	310,000	4,100,000		**160 J**	250 U	240 U	240 U	230 U	**39 J**	**27 J**	220 U	**11 J**	230 U
2-Methylphenol	3,100,000	31,000,000		190 U	250 U	240 U	240 U	230 U	220 U	200 U	220 U	210 U	230 U
3,3'-Dichlorobenzidine	1,100	3,800		190 U	250 UJ	240 U	240 U	230 U	220 U	200 U	220 U	210 U	230 U
3-Nitroaniline	24,000	86,000		370 U	480 U	460 U	470 U	440 U	430 U	390 U	420 U	410 U	440 U
4-Chloro-3-methylphenol	6,100,000	62,000,000		190 U	250 U	240 U	240 U	230 U	220 U	200 U	220 U	210 U	230 U
4-Methylphenol	310,000	3,100,000		190 U	250 U	240 U	240 U	230 U	220 U	200 U	220 U	210 U	230 U
Acenaphthene	3,400,000	33,000,000		**38 J**	250 U	240 U	240 U	230 U	220 U	200 U	220 U	**8 J**	230 U
Acenaphthylene	3,400,000	33,000,000		**120 J**	250 U	240 U	240 U	230 U	220 U	200 U	220 U	210 U	**9.1 J**
Acetophenone	7,800,000	100,000,000		190 U	250 U	240 U	240 U	230 U	220 U	200 U	220 U	**15 J**	**25 J**
Anthracene	17,000,000	170,000,000		**140 J**	250 U	240 U	240 U	230 U	220 UJ	**100 J**	220 U	**28 J**	**16 J**
Atrazine	2,100	7,500		190 U	250 U	240 U	240 U	230 U	220 UJ	200 U	220 U	210 U	230 U
Benzaldehyde	7,800,000	100,000,000		190 U	250 U	240 U	240 U	230 U	220 U	200 U	220 U	210 U	**29 J**
Benzo(a)anthracene	150	2,100		**750**	**200 J**	240 U	240 U	**80 J**	220 UJ	**170 J**	**79 J**	**120 J**	**66 J**
Benzo(a)pyrene	15	210		**850**	**170 J**	240 U	240 U	230 U	220 UJ	**110 J**	**66 J**	**43 J**	**57 J**
Benzo(b)fluoranthene	150	2,100		**1,600**	**350**	240 U	240 U	**140 J**	220 UJ	**150 J**	**170 J**	**180 J**	**110 J**
Benzo(g,h,i)perylene	150	2,100		**750**	250 U	240 U	240 U	230 U	220 UJ	**46 J**	**50 J**	**46 J**	**50 J**
Benzo(k)fluoranthene	1,500	21,000		**790**	**350**	240 U	240 U	**140 J**	220 UJ	**70 J**	**66 J**	**56 J**	**28 J**
Bis(2-ethylhexyl)phthalate	35,000	120,000		190 U	250 U	**500**	240 U	230 U	220 U	200 U	220 U	210 U	230 U
Butylbenzylphthalate	260,000	910,000		190 U	250 U	240 U	240 U	230 U	220 U	200 U	220 U	210 U	230 U
Caprolactam	31,000,000	310,000,000		190 U	250 U	240 U	240 U	230 U	220 U	200 U	220 U	210 U	230 U
Carbazole	17,000,000	170,000,000		**91 J**	250 U	240 U	240 U	230 U	220 UJ	**49 J**	220 U	**17 J**	**8.4 J**
Chrysene	15,000	210,000		**980**	**360**	240 U	240 U	**140 J**	220 UJ	**160 J**	**120 J**	**180 J**	**95 J**
Dibenzo(a,h)anthracene	15	210		**290**	250 U	240 U	240 U	230 U	220 UJ	200 U	220 U	**31 J**	230 U
Dibenzofuran	78,000	1,000,000		**130 J**	250 U	240 U	240 U	230 U	**200 J**	**36 J**	220 U	**32 J**	230 U
Diethylphthalate	49,000,000	490,000,000		190 U	250 U	240 U	240 U	230 U	220 U	200 U	220 U	210 U	230 U
Dimethylphthalate	49,000,000	490,000,000		190 U	250 U	240 U	240 U	230 U	220 U	200 U	220 U	210 U	230 U
Di-n-butylphthalate	6,100,000	62,000,000		190 U	250 U	240 U	240 U	230 U	220 U	200 U	220 U	210 U	**9.6 J**
Di-n-octylphthalate	35,000	120,000		190 U	250 U	240 U	240 U	230 U	220 U	200 U	220 U	210 U	230 U
Fluoranthene	2,300,000	22,000,000		**1,300**	**530**	240 U	240 U	**130 J**	**67 J**	**310**	**150 J**	**360**	**120 J**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB019B E3R08 36631 7/16/2007 µg/kg 1 L2, L3 5-7	SB020A E3RX4 36664 7/31/2007 µg/kg 3 L1 0-2	SB020B E3RX5 36664 7/31/2007 µg/kg 3 L1 5-7	SB021A E3RX6 36664 7/31/2007 µg/kg 3 L1 0-2	SB022A E3RX8 36664 7/31/2007 µg/kg 3 L3 0-2	SB023A E3RA0 36631 7/19/2007 µg/kg 3 L4 0-2	SB023B E3RA1 36631 7/19/2007 µg/kg 3 L4 8-10	SB024A E3RB1 36631 7/19/2007 µg/kg 3 L1, L4 0-2	SB025A E3SH8 36697 8/10/2007 µg/kg 3 L1 0-2	SB025B E3SH9 36697 8/10/2007 µg/kg 3 L1 8-10
Fluorene	2,300,000	22,000,000		**38 J**	250 U	240 U	240 U	230 U	220 UJ	200 U	220 U	**13 J**	230 U
Hexachlorobenzene	300	1,100		190 U	250 U	240 U	240 U	230 U	220 UJ	200 U	220 U	210 U	230 U
Indeno(1,2,3-cd)pyrene	150	2,100		**810**	**90 J**	240 U	240 U	230 U	220 UJ	200 U	**65 J**	**78 J**	**61 J**
Naphthalene	3,600	18,000		**110 J**	250 U	240 U	240 U	230 U	**78 J**	**47 J**	220 U	**16 J**	230 U
N-Nitrosodiphenylamine	99,000	350,000		**53 J**	250 U	240 U	240 U	230 U	220 U	200 U	220 U	210 U	230 U
Pentachlorophenol	3,000	9,000		370 U	480 U	460 U	470 U	440 U	430 U	390 U	420 U	410 U	440 U
Phenanthrene	17,000,000	170,000,000		**900**	**410**	240 U	**160 J**	**180 J**	**140 J**	**360**	**74 J**	**360**	**93 J**
Phenol	18,000,000	180,000,000		190 U	250 U	240 U	240 U	230 U	220 U	200 U	220 U	210 U	230 U
Pyrene	1,700,000	17,000,000		**1,300**	**480**	240 U	240 U	**120 J**	**51 J**	**240**	**120 J**	**170 J**	**110 J**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB026A E3RA5 36631 7/19/2007 µg/kg 3 L4 0-2	SB027A E3S63 36664 8/3/2007 µg/kg 3 L1 0-2	SB027B E3S64 36664 8/3/2007 µg/kg 3 L1 6-8	SB029A E3S70 36664 8/3/2007 µg/kg 3 L1 0-2	SB030A E3S68 36664 8/3/2007 µg/kg 3 L1, L2 0-2	SB031A E3RY2 36664 7/31/2007 µg/kg 3 L4 0-2	SB032A E3S75 36664 8/3/2007 µg/kg 3 L2, L3, L4 0-2	SB033A E3S73 36664 8/3/2007 µg/kg 3 L1, L4 0-2	SB034A E3RY0 36664 7/31/2007 µg/kg 3 L2, L3 0-2	SB034B E3RY1 36664 7/31/2007 µg/kg 3 L2, L3, L4 8-10
1,1'-Biphenyl	3,900,000	51,000,000		170 U	840 U	250 U	220 U	240 U	210 U	430 U	210 U	200 UJ	200 U
1,2,4,5-Tetrachlorobenzene	18,000	180,000		170 U	840 U	250 U	220 U	240 U	210 U	430 U	210 U	200 UJ	200 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		170 U	840 U	250 U	220 U	240 U	210 U	430 U	210 U	200 UJ	200 U
2,4-Dimethylphenol	1,200,000	12,000,000		170 U	840 U	250 U	220 U	240 U	210 U	430 U	210 U	200 UJ	200 U
2-Chlorophenol	390,000	5,100,000		170 U	840 U	250 U	220 U	240 U	210 U	430 U	210 U	200 UJ	200 U
2-Methylnaphthalene	310,000	4,100,000		**58 J**	840 U	250 U	**170 J**	**110 J**	**91 J**	430 U	210 U	**30 J**	200 U
2-Methylphenol	3,100,000	31,000,000		170 U	840 U	250 U	220 U	240 U	210 U	430 U	210 U	200 UJ	200 U
3,3'-Dichlorobenzidine	1,100	3,800		170 U	840 U	250 UJ	220 U	240 U	210 U	430 U	210 U	200 UJ	200 U
3-Nitroaniline	24,000	86,000		330 U	1,600 U	490 U	430 U	460 U	400 U	840 U	400 U	390 UJ	390 U
4-Chloro-3-methylphenol	6,100,000	62,000,000		170 U	840 U	250 U	220 U	240 U	210 U	430 U	210 U	200 UJ	200 U
4-Methylphenol	310,000	3,100,000		170 U	840 U	250 U	220 U	240 U	210 U	430 U	210 U	200 UJ	200 U
Acenaphthene	3,400,000	33,000,000		**33 J**	840 U	250 U	**110 J**	**77 J**	210 U	430 U	210 U	200 UJ	200 U
Acenaphthylene	3,400,000	33,000,000		170 U	**520 J**	250 U	220 U	240 U	210 U	**200 J**	210 U	200 UJ	200 U
Acetophenone	7,800,000	100,000,000		170 U	840 U	250 U	220 U	240 U	210 U	430 U	210 U	200 UJ	200 U
Anthracene	17,000,000	170,000,000		**88 J**	**390 J**	250 U	**290**	**180 J**	**83 J**	**570**	210 U	200 UJ	200 U
Atrazine	2,100	7,500		170 U	840 U	250 U	220 U	240 U	210 U	430 U	210 U	200 UJ	200 U
Benzaldehyde	7,800,000	100,000,000		170 U	840 U	250 U	220 U	240 U	210 U	430 U	210 U	200 UJ	200 U
Benzo(a)anthracene	150	2,100		**150 J**	**2,900**	250 U	**670**	**410**	**300**	**2,000**	**69 J**	**44 J**	200 U
Benzo(a)pyrene	15	210		**86 J**	**2,700**	250 U	**550**	**320**	210 U	**2,800**	210 UJ	**37 J**	200 UJ
Benzo(b)fluoranthene	150	2,100		**140 J**	**4,400**	250 U	**600**	**370**	**720**	**4,900**	210 UJ	200 UJ	**75 J**
Benzo(g,h,i)perylene	150	2,100		**33 J**	**1,700**	250 UJ	**210 J**	**120 J**	**120 J**	**1,700**	210 UJ	200 UJ	200 UJ
Benzo(k)fluoranthene	1,500	21,000		**62 J**	**4,000**	250 U	**730**	**340**	**720**	**3,000**	**58 J**	200 UJ	**78 J**
Bis(2-ethylhexyl)phthalate	35,000	120,000		170 U	840 U	**920**	220 U	240 U	210 U	430 U	210 U	200 UJ	200 U
Butylbenzylphthalate	260,000	910,000		170 U	840 U	250 U	220 U	240 U	210 U	430 U	210 U	200 UJ	200 U
Caprolactam	31,000,000	310,000,000		170 U	840 U	250 U	220 U	240 U	210 U	430 U	210 U	200 UJ	200 U
Carbazole	17,000,000	170,000,000		**26 J**	**370 J**	250 UJ	**260**	**160 J**	210 U	**790 J**	210 U	200 UJ	200 U
Chrysene	15,000	210,000		**170**	**3,900**	250 U	**760**	**460**	**470**	**3,100**	**76 J**	**49 J**	**70 J**
Dibenzo(a,h)anthracene	15	210		170 UJ	**590 J**	250 U	**90 J**	240 U	**130 J**	**730**	210 UJ	200 UJ	200 UJ
Dibenzofuran	78,000	1,000,000		**36 J**	840 U	250 U	**130 J**	**100 J**	210 U	430 U	210 U	200 UJ	200 U
Diethylphthalate	49,000,000	490,000,000		170 U	840 U	250 U	220 U	240 U	210 U	430 U	210 U	200 UJ	200 U
Dimethylphthalate	49,000,000	490,000,000		170 U	840 U	250 U	220 U	240 U	210 U	430 U	210 U	200 UJ	200 U
Di-n-butylphthalate	6,100,000	62,000,000		170 U	840 U	250 U	220 U	240 U	210 U	430 U	210 U	200 UJ	200 U
Di-n-octylphthalate	35,000	120,000		170 U	840 U	250 U	220 U	240 U	210 U	430 U	210 U	200 UJ	200 U
Fluoranthene	2,300,000	22,000,000		**420**	**6,100**	250 U	**1,500**	**1,200**	**610**	**3,900**	**150 J**	**120 J**	**150 J**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB026A E3RA5 36631 7/19/2007 µg/kg 3 L4 0-2	SB027A E3S63 36664 8/3/2007 µg/kg 3 L1 0-2	SB027B E3S64 36664 8/3/2007 µg/kg 3 L1 6-8	SB029A E3S70 36664 8/3/2007 µg/kg 3 L1 0-2	SB030A E3S68 36664 8/3/2007 µg/kg 3 L1, L2 0-2	SB031A E3RY2 36664 7/31/2007 µg/kg 3 L4 0-2	SB032A E3S75 36664 8/3/2007 µg/kg 3 L2, L3, L4 0-2	SB033A E3S73 36664 8/3/2007 µg/kg 3 L1, L4 0-2	SB034A E3RY0 36664 7/31/2007 µg/kg 3 L2, L3 0-2	SB034B E3RY1 36664 7/31/2007 µg/kg 3 L2, L3, L4 8-10
Fluorene	2,300,000	22,000,000		170 U	840 U	250 U	**130 J**	**95 J**	210 U	430 U	210 U	200 UJ	200 U
Hexachlorobenzene	300	1,100		170 U	840 U	250 U	220 U	240 U	210 U	430 U	210 U	200 UJ	200 U
Indeno(1,2,3-cd)pyrene	150	2,100		**41 J**	**2,300**	250 U	**330**	**190 J**	**260**	**2,500**	210 UJ	200 UJ	200 UJ
Naphthalene	3,600	18,000		**29 J**	840 U	250 U	**130 J**	**76 J**	210 U	430 U	210 U	200 UJ	200 U
N-Nitrosodiphenylamine	99,000	350,000		170 U	840 U	250 U	220 U	240 U	210 U	430 U	210 U	200 UJ	200 U
Pentachlorophenol	3,000	9,000		330 U	1,600 U	490 U	430 U	460 U	400 U	840 U	400 U	390 UJ	390 U
Phenanthrene	17,000,000	170,000,000		**430**	**2,200**	250 U	**1,400**	**1,000**	**440**	**1,600**	**140 J**	**140 J**	**170 J**
Phenol	18,000,000	180,000,000		170 U	840 U	250 U	220 U	240 U	210 U	430 U	210 U	**31 J**	200 U
Pyrene	1,700,000	17,000,000		**320**	**4,200**	250 U	**1,300**	**1,000**	**550**	**3,200**	**120 J**	**99 J**	**130 J**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	SB035A E3SH3 36697 8/9/2007 µg/kg 3 L4 0-2	SB035B E3SH4 36697 8/9/2007 µg/kg 3 L1 8-10	SB036A E3RC4 36648 7/23/2007 µg/kg 3 L4 0-2	SB036B E3RC5 36648 7/23/2007 µg/kg 3 L1 8-10	SB037A E3RC2 36631 7/20/2007 µg/kg 3 L1 0-2	SB037B E3RC3 36631 7/20/2007 µg/kg 3 L1 8-10	SB038A E3RC0 36631 7/20/2007 µg/kg 3 L1 0-2	SB038B E3RC1 36631 7/20/2007 µg/kg 3 L2, L3 2-4	SB039A E3RB8 36631 7/20/2007 µg/kg 3 L2, L3 0-2	SB039B E3RB9 36631 7/20/2007 µg/kg 3 L1 8-10
1,1'-Biphenyl	3,900,000	51,000,000	610 U	200 U	**33 J**	210 U	210 U	210 U	230 U	**110 J**	210 U	220 U
1,2,4,5-Tetrachlorobenzene	18,000	180,000	610 U	200 U	240 U	210 U	210 U	210 U	230 U	200 U	210 U	220 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000	610 U	200 U	240 U	210 U	210 U	210 U	230 U	200 U	210 U	220 U
2,4-Dimethylphenol	1,200,000	12,000,000	610 U	200 U	240 U	210 U	210 U	210 U	230 U	**140 J**	210 U	220 U
2-Chlorophenol	390,000	5,100,000	610 U	200 U	240 U	210 U	210 U	210 U	230 U	200 U	210 U	220 U
2-Methylnaphthalene	310,000	4,100,000	**52 J**	200 U	**170 J**	210 U	210 U	210 U	230 U	**840**	210 U	220 U
2-Methylphenol	3,100,000	31,000,000	610 U	200 U	240 U	210 U	210 U	210 U	230 U	**76 J**	210 U	220 U
3,3'-Dichlorobenzidine	1,100	3,800	610 U	200 U	240 U	210 U	210 U	210 U	230 U	200 U	210 U	220 U
3-Nitroaniline	24,000	86,000	1,200 U	390 U	470 U	410 U	420 U	420 U	440 U	390 U	410 U	420 U
4-Chloro-3-methylphenol	6,100,000	62,000,000	610 U	200 U	240 U	210 U	210 U	210 U	230 U	200 U	210 U	220 U
4-Methylphenol	310,000	3,100,000	610 U	200 U	**23 J**	210 U	210 U	210 U	230 U	**220**	210 U	220 U
Acenaphthene	3,400,000	33,000,000	**170 J**	200 U	**150 J**	210 U	210 U	**62 J**	230 U	**790**	210 U	220 U
Acenaphthylene	3,400,000	33,000,000	**97 J**	200 U	**130 J**	210 U	210 U	**31 J**	230 U	**470**	210 U	220 U
Acetophenone	7,800,000	100,000,000	**62 J**	**21 J**	**64 J**	**22 J**	210 U	210 U	230 U	200 U	210 U	220 U
Anthracene	17,000,000	170,000,000	**670**	200 U	**490**	210 U	**24 J**	**200 J**	230 U	**2,500**	210 U	220 U
Atrazine	2,100	7,500	610 U	200 U	240 U	210 U	210 U	210 U	230 U	200 U	210 U	220 U
Benzaldehyde	7,800,000	100,000,000	610 U	200 U	**67 J**	**31 J**	210 U	210 U	230 U	200 U	210 U	220 U
Benzo(a)anthracene	150	2,100	**3,100**	200 U	**1,800**	210 U	**55 J**	**650**	**32 J**	**5,800**	210 U	220 U
Benzo(a)pyrene	15	210	**2,500**	200 U	**1,700**	210 U	**37 J**	**530**	230 U	**4,200**	210 U	220 U
Benzo(b)fluoranthene	150	2,100	**3,600**	200 U	**2,300**	210 U	**67 J**	**670**	230 U	**8,200**	210 U	220 U
Benzo(g,h,i)perylene	150	2,100	**1,300**	200 U	**690**	210 U	210 UJ	**160 J**	230 UJ	**730 J**	210 U	220 U
Benzo(k)fluoranthene	1,500	21,000	**1,200**	200 U	**850**	210 U	**26 J**	**250**	230 U	**2,800**	210 U	220 U
Bis(2-ethylhexyl)phthalate	35,000	120,000	610 U	**24 J**	240 U	210 U	**24 J**	**41 J**	**27 J**	200 U	210 U	**38 J**
Butylbenzylphthalate	260,000	910,000	610 U	200 U	240 U	210 U	210 U	210 U	230 U	200 U	210 U	220 U
Caprolactam	31,000,000	310,000,000	610 U	200 U	240 U	210 U	210 U	210 U	230 U	200 U	210 U	220 U
Carbazole	17,000,000	170,000,000	**330 J**	200 U	**260**	210 U	210 U	**78 J**	230 U	**1,300**	210 U	220 U
Chrysene	15,000	210,000	**2,900**	200 U	**1,800**	210 U	**68 J**	**620**	**30 J**	**6,900**	210 U	220 U
Dibenzo(a,h)anthracene	15	210	**340 J**	200 U	**270**	210 U	210 U	210 U	230 U	200 UJ	210 U	220 U
Dibenzofuran	78,000	1,000,000	**120 J**	200 U	**200 J**	210 U	210 U	210 U	230 U	**810**	210 U	220 U
Diethylphthalate	49,000,000	490,000,000	610 U	200 U	240 U	210 U	210 U	210 U	230 U	200 U	210 U	220 U
Dimethylphthalate	49,000,000	490,000,000	610 U	200 U	240 U	210 U	210 U	210 U	230 U	200 U	210 U	220 U
Di-n-butylphthalate	6,100,000	62,000,000	610 U	200 U	240 U	210 U	210 U	200 U	230 U	200 U	210 U	220 U
Di-n-octylphthalate	35,000	120,000	610 U	200 U	240 U	210 U	210 U	210 U	230 U	200 U	210 U	220 U
Fluoranthene	2,300,000	22,000,000	**7,100**	200 U	**4,600**	210 U	**130 J**	**1,300**	**54 J**	**15,000**	**39 J**	220 U

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB035A E3SH3 36697 8/9/2007 µg/kg 3 L4 0-2	SB035B E3SH4 36697 8/9/2007 µg/kg 3 L1 8-10	SB036A E3RC4 36648 7/23/2007 µg/kg 3 L4 0-2	SB036B E3RC5 36648 7/23/2007 µg/kg 3 L1 8-10	SB037A E3RC2 36631 7/20/2007 µg/kg 3 L1 0-2	SB037B E3RC3 36631 7/20/2007 µg/kg 3 L1 8-10	SB038A E3RC0 36631 7/20/2007 µg/kg 3 L1 0-2	SB038B E3RC1 36631 7/20/2007 µg/kg 3 L2, L3 2-4	SB039A E3RB8 36631 7/20/2007 µg/kg 3 L2, L3 0-2	SB039B E3RB9 36631 7/20/2007 µg/kg 3 L1 8-10
Fluorene	2,300,000	22,000,000		**230 J**	200 U	**210 J**	210 U	210 U	210 U	230 U	**1,500**	210 U	220 U
Hexachlorobenzene	300	1,100		610 U	200 U	240 U	210 U	210 U	210 U	230 U	200 U	210 U	220 U
Indeno(1,2,3-cd)pyrene	150	2,100		**1,700**	200 U	**1,200**	210 U	210 UJ	**190 J**	230 UJ	**2,300**	210 U	220 U
Naphthalene	3,600	18,000		**86 J**	200 U	**240 J**	210 U	210 U	210 U	230 U	**630**	210 U	220 U
N-Nitrosodiphenylamine	99,000	350,000		610 U	200 U	240 U	210 U	210 U	210 U	230 U	200 U	210 U	220 U
Pentachlorophenol	3,000	9,000		1,200 U	390 U	470 U	410 U	420 U	420 U	440 U	390 U	410 U	420 U
Phenanthrene	17,000,000	170,000,000		**3,400**	200 U	**2,900**	210 U	**100 J**	**820**	**45 J**	**11,000**	210 U	220 U
Phenol	18,000,000	180,000,000		610 UJ	200 UJ	**46 J**	**16 J**	210 U	210 U	230 U	200 U	210 U	220 U
Pyrene	1,700,000	17,000,000		**5,200**	200 U	**3,100**	210 U	**100 J**	**1,100**	**52 J**	**11,000**	**32 J**	220 U

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB040A E3S15 36664 8/1/2007 µg/kg 3 L3, L4 0-2	SB041A E3RD8 36631 7/20/2007 µg/kg 3 L1 0-2	SB041B E3RD9 36631 7/20/2007 µg/kg 3 L1 9-11	SB042A E3RD4 36631 7/20/2007 µg/kg 3 L4 0-2	SB042B E3RD5 36631 7/20/2007 µg/kg 3 L1 8-10	SB043A E3RF0 36648 7/23/2007 µg/kg 3 L4 0-2	SB043B E3RF1 36648 7/23/2007 µg/kg 3 L2, L3 4-5	SB044A E3RE8 36648 7/23/2007 µg/kg 3 L4 0-2	SB044B E3RE9 36648 7/23/2007 µg/kg 3 L2, L3, L4 8-10	SB261B E3RF3 36648 7/23/2007 µg/kg SB044B 3 L2, L3, L4 8-10
1,1'-Biphenyl	3,900,000	51,000,000		250 U	230 U	200 U	200 U	200 U	**250 J**	**1,000 J**	**57 J**	**17 J**	230 U
1,2,4,5-Tetrachlorobenzene	18,000	180,000		250 U	230 U	200 U	200 U	200 U	1,000 U	1,100 U	**12 J**	200 U	230 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		250 U	230 U	200 U	200 U	200 U	1,000 U	1,100 U	200 U	200 U	230 U
2,4-Dimethylphenol	1,200,000	12,000,000		250 U	230 U	200 U	200 U	200 U	**130 J**	**360 J**	200 U	200 U	230 U
2-Chlorophenol	390,000	5,100,000		250 U	230 U	200 U	200 U	200 U	1,000 U	1,100 U	200 U	200 U	230 U
2-Methylnaphthalene	310,000	4,100,000		250 U	**55 J**	200 U	**34 J**	200 U	**910 J**	**3,300**	**930**	**640**	**10 J**
2-Methylphenol	3,100,000	31,000,000		250 U	230 U	200 U	200 U	200 U	**73 J**	**210 J**	**14 J**	200 U	230 U
3,3'-Dichlorobenzidine	1,100	3,800		250 U	230 U	200 U	200 U	200 U	1,000 U	1,100 U	200 U	200 U	230 U
3-Nitroaniline	24,000	86,000		490 U	440 U	380 U	400 U	400 U	1,900 U	2,000 U	390 U	390 U	440 U
4-Chloro-3-methylphenol	6,100,000	62,000,000		250 U	230 U	200 U	200 U	200 U	1,000 U	1,100 U	200 U	200 U	230 U
4-Methylphenol	310,000	3,100,000		250 U	230 U	200 U	200 U	200 U	**210 J**	**570 J**	**28 J**	200 U	230 U
Acenaphthene	3,400,000	33,000,000		250 U	230 U	200 U	200 U	200 U	**1,800**	**5,500**	**36 J**	200 U	230 U
Acenaphthylene	3,400,000	33,000,000		250 U	230 U	200 U	200 U	200 U	**1,100**	**1,400**	**18 J**	200 U	230 U
Acetophenone	7,800,000	100,000,000		250 U	230 U	200 U	200 U	200 U	**39 J**	1,100 U	200 U	200 U	**30 J**
Anthracene	17,000,000	170,000,000		250 U	**24 J**	200 U	200 U	200 U	**7,600**	**14,000**	**83 J**	**37 J**	230 U
Atrazine	2,100	7,500		250 U	230 U	200 U	200 U	200 U	1,000 U	1,100 U	200 U	200 U	230 U
Benzaldehyde	7,800,000	100,000,000		250 U	230 U	200 U	200 U	200 U	**50 J**	**100 J**	**320**	**190 J**	**44 J**
Benzo(a)anthracene	150	2,100		250 U	**120 J**	200 U	**69 J**	200 U	**23,000**	**29,000**	**120 J**	**38 J**	230 U
Benzo(a)pyrene	15	210		250 U	**53 J**	200 U	**55 J**	200 U	**20,000**	**26,000**	**28 J**	**20 J**	230 U
Benzo(b)fluoranthene	150	2,100		250 U	**230**	200 U	**78 J**	200 U	**27,000**	**33,000**	**72 J**	**20 J**	230 U
Benzo(g,h,i)perylene	150	2,100		250 U	**59 J**	200 U	**20 J**	200 U	**10,000**	**14,000**	200 U	200 U	230 U
Benzo(k)fluoranthene	1,500	21,000		250 U	**52 J**	200 U	**33 J**	200 U	**9,200**	**11,000**	**13 J**	**8.6 J**	230 U
Bis(2-ethylhexyl)phthalate	35,000	120,000		250 U	**62 J**	**26 J**	**60 J**	**29 J**	1,000 U	1,100 U	**65 J**	200 U	230 U
Butylbenzylphthalate	260,000	910,000		250 U	230 U	200 U	200 U	200 U	1,000 U	1,100 U	200 U	200 U	230 U
Caprolactam	31,000,000	310,000,000		250 U	230 U	200 U	200 U	200 U	1,000 U	1,100 U	200 U	200 U	230 U
Carbazole	17,000,000	170,000,000		250 U	230 U	200 U	200 U	200 U	**2,800**	**6,400**	200 U	**17 J**	230 U
Chrysene	15,000	210,000		250 U	**270**	200 U	**87 J**	200 U	**17,000**	**26,000**	**140 J**	**34 J**	230 U
Dibenzo(a,h)anthracene	15	210		250 U	230 U	200 U	200 U	200 U	**3,300**	**4,200**	200 U	200 U	230 U
Dibenzofuran	78,000	1,000,000		250 U	**28 J**	200 U	200 U	200 U	**1,700**	**5,700**	**430**	**190 J**	230 U
Diethylphthalate	49,000,000	490,000,000		250 U	230 U	200 U	200 U	200 U	1,000 U	1,100 U	200 U	200 U	230 U
Dimethylphthalate	49,000,000	490,000,000		250 U	230 U	200 U	200 U	200 U	1,000 U	1,100 U	200 U	200 U	230 U
Di-n-butylphthalate	6,100,000	62,000,000		250 U	230 U	200 U	200 U	200 U	1,000 U	1,100 U	200 U	200 U	230 U
Di-n-octylphthalate	35,000	120,000		250 U	230 U	200 U	200 U	200 U	1,000 U	1,100 U	200 U	200 U	230 U
Fluoranthene	2,300,000	22,000,000		**91 J**	**280**	200 U	**190 J**	200 U	**47,000**	**59,000**	**210**	**50 J**	230 U

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB040A E3S15 36664 8/1/2007 µg/kg 3 L3, L4 0-2	SB041A E3RD8 36631 7/20/2007 µg/kg 3 L1 0-2	SB041B E3RD9 36631 7/20/2007 µg/kg 3 L1 9-11	SB042A E3RD4 36631 7/20/2007 µg/kg 3 L4 0-2	SB042B E3RD5 36631 7/20/2007 µg/kg 3 L1 8-10	SB043A E3RF0 36648 7/23/2007 µg/kg 3 L4 0-2	SB043B E3RF1 36648 7/23/2007 µg/kg 3 L2, L3 4-5	SB044A E3RE8 36648 7/23/2007 µg/kg 3 L4 0-2	SB044B E3RE9 36648 7/23/2007 µg/kg 3 L2, L3, L4 8-10	SB261B E3RF3 36648 7/23/2007 µg/kg SB044B 3 L2, L3, L4 8-10
Fluorene	2,300,000	22,000,000		250 U	230 U	200 U	200 U	200 U	**2,900**	**7,400**	**23 J**	**9.4 J**	230 U
Hexachlorobenzene	300	1,100		250 U	230 U	200 U	200 U	200 U	1,000 U	1,100 U	**22 J**	200 U	230 U
Indeno(1,2,3-cd)pyrene	150	2,100		250 U	**56 J**	200 U	**25 J**	200 U	**14,000**	**20,000**	200 U	200 U	230 U
Naphthalene	3,600	18,000		250 U	**31 J**	200 U	200 U	200 U	**1,400**	**6,800**	**400**	**180 J**	**8.8 J**
N-Nitrosodiphenylamine	99,000	350,000		250 U	230 U	200 U	200 U	200 U	1,000 U	1,100 U	200 U	200 U	230 U
Pentachlorophenol	3,000	9,000		490 UJ	440 U	380 U	400 U	400 U	1,900 U	2,000 U	390 U	390 U	440 U
Phenanthrene	17,000,000	170,000,000		**94 J**	**180 J**	200 U	**170 J**	200 U	**31,000**	**56,000**	**740**	**210**	**13 J**
Phenol	18,000,000	180,000,000		250 U	230 U	200 U	200 U	200 U	**110 J**	**270 J**	**49 J**	**33 J**	230 U
Pyrene	1,700,000	17,000,000		**73 J**	**280**	200 U	**150 J**	200 U	**38,000**	**60,000**	**260**	**73 J**	230 U

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB045A E3RE6 36648 7/23/2007 µg/kg 3 L4 0-2	SB045B E3RE7 36648 7/23/2007 µg/kg 3 L1 8-10	SB046A E3RE4 36648 7/23/2007 µg/kg 3 L3, L4 0-2	SB046B E3RE5 36648 7/23/2007 µg/kg 3 L1 8-10	SB047A E3RD6 36631 7/20/2007 µg/kg 3 L2, L3 0-2	SB258A E3RE0RX 36631 7/20/2007 µg/kg SB047A 3 L2, L3 0-2	SB047B E3RD7 36631 7/20/2007 µg/kg 3 L1 9-11	SB048A E3RE1 36631 7/20/2007 µg/kg 3 L1, L2, L3 0-2	SB048B E3RE2 36631 7/20/2007 µg/kg 3 L1 9-11	SB050A E3S19 36664 8/1/2007 µg/kg 3 L1, L2 0-2
1,1'-Biphenyl	3,900,000	51,000,000		**120 J**	210 U	**40 J**	200 U	210 U	**86 J**	200 U	1,100 U	220 U	260 U
1,2,4,5-Tetrachlorobenzene	18,000	180,000		1,000 U	210 U	220 U	200 U	210 U	490 U	200 U	1,100 U	220 U	260 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		1,000 U	210 U	220 U	200 U	210 U	490 U	200 U	1,100 U	220 U	260 U
2,4-Dimethylphenol	1,200,000	12,000,000		1,000 U	210 U	220 U	200 U	210 U	490 U	200 U	1,100 U	220 U	260 U
2-Chlorophenol	390,000	5,100,000		1,000 U	210 U	220 U	200 U	210 U	490 U	200 U	1,100 U	220 U	260 U
2-Methylnaphthalene	310,000	4,100,000		**800 J**	**10 J**	**370**	**8.2 J**	**36 J**	**550**	**44 J**	**250 J**	220 U	260 U
2-Methylphenol	3,100,000	31,000,000		**65 J**	210 U	220 U	200 U	210 U	490 U	200 U	1,100 U	220 U	260 U
3,3'-Dichlorobenzidine	1,100	3,800		1,000 U	210 U	220 U	200 U	210 U	490 U	200 U	1,100 U	220 U	260 U
3-Nitroaniline	24,000	86,000		2,000 U	400 U	420 U	380 U	410 U	960 U	380 U	2,100 U	420 U	500 U
4-Chloro-3-methylphenol	6,100,000	62,000,000		1,000 U	210 U	220 U	200 U	210 U	490 U	200 U	1,100 U	220 U	260 U
4-Methylphenol	310,000	3,100,000		**140 J**	210 U	**11 J**	200 U	210 U	490 U	200 U	1,100 U	220 U	260 U
Acenaphthene	3,400,000	33,000,000		**110 J**	**21 J**	**160 J**	200 U	210 U	490 U	200 U	1,100 U	220 U	260 U
Acenaphthylene	3,400,000	33,000,000		**150 J**	210 U	**80 J**	200 U	210 U	490 U	200 U	1,100 U	220 U	260 U
Acetophenone	7,800,000	100,000,000		**250 J**	**44 J**	**97 J**	**22 J**	210 U	490 U	200 U	1,100 U	220 U	260 U
Anthracene	17,000,000	170,000,000		**1,300**	**46 J**	**430**	200 U	**37 J**	**64 J**	200 U	1,100 U	220 U	260 U
Atrazine	2,100	7,500		1,000 U	210 U	220 U	200 U	210 U	490 U	200 U	1,100 U	220 U	260 U
Benzaldehyde	7,800,000	100,000,000		**290 J**	**36 J**	**100 J**	**31 J**	210 U	490 U	200 U	1,100 U	220 U	260 U
Benzo(a)anthracene	150	2,100		**4,300**	**84 J**	**1,200**	200 U	**130 J**	**140 J**	200 U	**190 J**	220 U	260 U
Benzo(a)pyrene	15	210		**2,000**	**74 J**	**1,000**	200 U	**100 J**	**86 J**	200 U	**110 J**	220 U	**50 J**
Benzo(b)fluoranthene	150	2,100		**4,000**	**85 J**	**1,400**	200 U	**160 J**	**120 J**	200 U	**150 J**	220 U	**45 J**
Benzo(g,h,i)perylene	150	2,100		**1,100**	**75 J**	**540**	200 U	**31 J**	490 U	200 UJ	1,100 U	220 U	260 U
Benzo(k)fluoranthene	1,500	21,000		**800 J**	**32 J**	**510**	200 U	**53 J**	490 U	200 U	1,100 U	220 U	**43 J**
Bis(2-ethylhexyl)phthalate	35,000	120,000		1,000 U	210 U	220 U	200 U	**69 J**	490 U	**59 J**	1,100 U	220 U	260 U
Butylbenzylphthalate	260,000	910,000		1,000 U	210 U	220 U	200 U	210 U	490 U	**77 J**	1,100 U	220 U	260 U
Caprolactam	31,000,000	310,000,000		1,000 U	210 U	220 U	200 U	210 U	490 U	200 U	1,100 U	220 U	260 U
Carbazole	17,000,000	170,000,000		**530 J**	**12 J**	**140 J**	200 U	210 U	490 U	200 U	1,100 U	220 U	260 U
Chrysene	15,000	210,000		**3,700**	**85 J**	**1,200**	200 U	**150 J**	**180 J**	200 U	**160 J**	220 U	**44 J**
Dibenzo(a,h)anthracene	15	210		**660 J**	210 U	**140 J**	200 U	210 U	490 U	200 U	1,100 U	220 U	260 U
Dibenzofuran	78,000	1,000,000		**650 J**	**16 J**	**220**	200 U	**23 J**	**190 J**	200 U	1,100 U	220 U	260 U
Diethylphthalate	49,000,000	490,000,000		1,000 U	210 U	220 U	200 U	210 U	490 U	200 U	1,100 U	220 U	260 U
Dimethylphthalate	49,000,000	490,000,000		1,000 U	210 U	220 U	200 U	210 U	490 U	200 U	1,100 U	220 U	260 U
Di-n-butylphthalate	6,100,000	62,000,000		1,000 U	210 U	220 U	200 U	210 U	490 U	290 U	1,100 U	220 U	260 U
Di-n-octylphthalate	35,000	120,000		1,000 U	210 U	220 U	200 U	210 U	490 U	200 U	1,100 U	220 U	260 U
Fluoranthene	2,300,000	22,000,000		**6,500**	**220**	**2,800**	**18 J**	**330**	**280 J**	**37 J**	**330 J**	**33 J**	**95 J**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB045A E3RE6 36648 7/23/2007 µg/kg 3 L4 0-2	SB045B E3RE7 36648 7/23/2007 µg/kg 3 L1 8-10	SB046A E3RE4 36648 7/23/2007 µg/kg 3 L3, L4 0-2	SB046B E3RE5 36648 7/23/2007 µg/kg 3 L1 8-10	SB047A E3RD6 36631 7/20/2007 µg/kg 3 L2, L3 0-2	SB258A E3RE0RX 36631 7/20/2007 µg/kg SB047A 3 L2, L3 0-2	SB047B E3RD7 36631 7/20/2007 µg/kg 3 L1 9-11	SB048A E3RE1 36631 7/20/2007 µg/kg 3 L1, L2, L3 0-2	SB048B E3RE2 36631 7/20/2007 µg/kg 3 L1 9-11	SB050A E3S19 36664 8/1/2007 µg/kg 3 L1, L2 0-2
Fluorene	2,300,000	22,000,000		**180 J**	**19 J**	**170 J**	200 U	210 U	490 U	200 U	1,100 U	220 U	260 U
Hexachlorobenzene	300	1,100		1,000 U	210 U	220 U	200 U	210 U	490 U	200 U	1,100 U	220 U	260 U
Indeno(1,2,3-cd)pyrene	150	2,100		**1,400**	**51 J**	**660**	200 U	**42 J**	490 U	200 UJ	1,100 U	220 U	260 U
Naphthalene	3,600	18,000		**380 J**	**16 J**	**220**	200 U	**22 J**	**210 J**	**75 J**	1,100 U	220 U	260 U
N-Nitrosodiphenylamine	99,000	350,000		1,000 U	210 U	220 U	200 U	210 U	490 U	200 U	1,100 U	220 U	260 U
Pentachlorophenol	3,000	9,000		2,000 U	400 U	420 U	380 U	410 U	960 U	380 U	2,100 U	420 U	500 UJ
Phenanthrene	17,000,000	170,000,000		**8,500**	**230**	**2,500**	**18 J**	**250**	**700**	**77 J**	**530 J**	**22 J**	**54 J**
Phenol	18,000,000	180,000,000		**160 J**	210 U	**35 J**	200 U	210 U	490 U	200 U	1,100 U	220 U	260 U
Pyrene	1,700,000	17,000,000		**5,400**	**200 J**	**2,400**	**18 J**	**230**	**300 J**	**34 J**	**340 J**	**26 J**	**71 J**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB051A E3S21 36664 8/1/2007 µg/kg 3 L1 0-2	SB051B E3S22 36664 8/1/2007 µg/kg 3 L1 4-6	SB052A E3S40 36664 8/2/2007 µg/kg 3 L1 0-2	SB052B E3S41 36664 8/2/2007 µg/kg 3 L1 8-10	SB053A E3RZ7 36664 8/1/2007 µg/kg 3 L4 0-2	SB053B E3RZ8 36664 8/1/2007 µg/kg 3 L1 6-8	SB054A E3RZ9 36664 8/1/2007 µg/kg 3 L4 0-2	SB054B E3S01 36664 8/1/2007 µg/kg 3 L1 4-6	SB055A E3S02 36664 8/1/2007 µg/kg 3 L4 0-2	SB055B E3S03 36664 8/1/2007 µg/kg 3 L1, L2, L4 4-6
1,1'-Biphenyl	3,900,000	51,000,000		230 U	230 UJ	240 U	200 U	210 U	220 U	**1,000**	210 U	200 U	210 U
1,2,4,5-Tetrachlorobenzene	18,000	180,000		230 U	230 UJ	240 U	200 U	210 U	220 U	240 U	210 U	200 U	210 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		230 U	230 UJ	240 U	200 U	210 U	220 U	240 U	210 U	200 U	210 U
2,4-Dimethylphenol	1,200,000	12,000,000		230 U	230 UJ	240 U	200 U	210 U	220 U	**260 J**	210 U	200 U	210 U
2-Chlorophenol	390,000	5,100,000		230 U	230 UJ	240 U	200 U	210 U	220 U	240 UJ	210 U	200 U	210 U
2-Methylnaphthalene	310,000	4,100,000		230 U	230 UJ	240 U	200 U	210 U	220 U	**3,400 J**	210 U	200 U	210 U
2-Methylphenol	3,100,000	31,000,000		230 U	230 UJ	240 U	200 U	210 U	220 U	240 UJ	210 U	200 U	210 U
3,3'-Dichlorobenzidine	1,100	3,800		230 U	230 U	240 U	200 U	210 U	220 U	240 UJ	210 U	200 U	210 U
3-Nitroaniline	24,000	86,000		450 U	450 UJ	460 U	390 U	400 U	430 U	460 U	410 U	400 U	410 U
4-Chloro-3-methylphenol	6,100,000	62,000,000		230 U	230 UJ	240 U	200 U	210 U	220 U	240 UJ	210 U	200 U	210 U
4-Methylphenol	310,000	3,100,000		230 U	230 UJ	240 U	200 U	210 U	220 U	**420 J**	210 U	200 U	210 U
Acenaphthene	3,400,000	33,000,000		230 U	230 UJ	**150 J**	200 U	210 U	220 U	**14,000**	210 U	200 U	210 U
Acenaphthylene	3,400,000	33,000,000		230 U	230 UJ	240 U	200 U	**83 J**	220 U	**15,000**	210 U	200 U	210 U
Acetophenone	7,800,000	100,000,000		230 U	230 UJ	240 U	**51 J**	210 U	220 U	240 UJ	210 U	200 U	210 U
Anthracene	17,000,000	170,000,000		**100 J**	230 U	**390**	200 U	**69 J**	220 U	**36,000**	210 U	**39 J**	210 U
Atrazine	2,100	7,500		230 U	230 U	240 U	200 U	210 U	220 U	240 U	210 U	200 U	210 U
Benzaldehyde	7,800,000	100,000,000		230 U	230 UJ	240 U	200 U	210 U	220 U	240 UJ	210 U	200 U	210 U
Benzo(a)anthracene	150	2,100		**350**	230 U	**990**	200 U	**370**	220 U	**45,000**	210 U	**340**	**97 J**
Benzo(a)pyrene	15	210		**310**	**59 J**	**1,100**	200 U	**570**	220 U	**34,000**	210 U	**230**	**150 J**
Benzo(b)fluoranthene	150	2,100		**260**	**39 J**	**1,000**	200 U	**900**	220 U	**17,000 J**	210 U	**250**	**150 J**
Benzo(g,h,i)perylene	150	2,100		**220 J**	230 U	**400**	200 U	**850**	220 U	**36,000**	210 U	**110 J**	**53 J**
Benzo(k)fluoranthene	1,500	21,000		**310**	230 U	**970**	200 U	**670**	220 U	**32,000**	210 U	**260**	**150 J**
Bis(2-ethylhexyl)phthalate	35,000	120,000		230 U	230 U	240 U	200 U	210 U	**39 J**	240 UJ	210 U	200 U	210 U
Butylbenzylphthalate	260,000	910,000		230 U	230 U	240 U	200 U	210 U	220 U	240 UJ	210 U	200 U	210 U
Caprolactam	31,000,000	310,000,000		230 U	230 UJ	240 U	200 U	210 U	**230**	240 UJ	210 U	200 U	210 U
Carbazole	17,000,000	170,000,000		**47 J**	230 U	**170 J**	200 U	**39 J**	220 U	**11,000**	210 U	200 U	210 U
Chrysene	15,000	210,000		**390**	230 U	**1,100**	200 U	**530**	220 U	**46,000**	210 U	**380**	**120 J**
Dibenzo(a,h)anthracene	15	210		230 U	230 U	**170 J**	200 U	210 U	220 U	240 UJ	210 U	200 U	210 U
Dibenzofuran	78,000	1,000,000		230 U	230 UJ	**110 J**	200 U	210 U	220 U	**19,000**	210 U	200 U	210 U
Diethylphthalate	49,000,000	490,000,000		230 U	230 UJ	240 U	200 U	210 U	**38 J**	240 U	210 U	200 U	210 U
Dimethylphthalate	49,000,000	490,000,000		230 U	230 UJ	240 U	200 U	210 U	220 U	240 U	210 U	200 U	210 U
Di-n-butylphthalate	6,100,000	62,000,000		230 U	**42 J**	240 U	200 U	210 U	220 U	240 U	210 U	200 U	210 U
Di-n-octylphthalate	35,000	120,000		230 U	230 U	240 U	200 U	210 U	220 U	240 U	210 U	200 U	210 U
Fluoranthene	2,300,000	22,000,000		**830**	230 U	**2,300**	200 U	**570**	220 U	**130,000**	**48 J**	**190 J**	**53 J**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB051A E3S21 36664 8/1/2007 µg/kg 3 L1 0-2	SB051B E3S22 36664 8/1/2007 µg/kg 3 L1 4-6	SB052A E3S40 36664 8/2/2007 µg/kg 3 L1 0-2	SB052B E3S41 36664 8/2/2007 µg/kg 3 L1 8-10	SB053A E3RZ7 36664 8/1/2007 µg/kg 3 L4 0-2	SB053B E3RZ8 36664 8/1/2007 µg/kg 3 L1 6-8	SB054A E3RZ9 36664 8/1/2007 µg/kg 3 L4 0-2	SB054B E3S01 36664 8/1/2007 µg/kg 3 L1 4-6	SB055A E3S02 36664 8/1/2007 µg/kg 3 L4 0-2	SB055B E3S03 36664 8/1/2007 µg/kg 3 L1, L2, L4 4-6
Fluorene	2,300,000	22,000,000		230 U	230 UJ	**100 J**	200 U	210 U	220 U	**21,000**	210 U	200 U	210 U
Hexachlorobenzene	300	1,100		230 U	230 U	240 U	200 U	210 U	220 U	240 U	210 U	200 U	210 U
Indeno(1,2,3-cd)pyrene	150	2,100		**220 J**	230 U	**730**	200 U	**710**	220 U	**750 J**	210 U	**110 J**	**52 J**
Naphthalene	3,600	18,000		230 U	230 UJ	240 U	200 U	210 U	220 U	**8,500 J**	210 U	200 U	210 U
N-Nitrosodiphenylamine	99,000	350,000		230 U	230 U	240 U	200 U	210 U	220 U	240 U	210 U	200 U	210 U
Pentachlorophenol	3,000	9,000		450 UJ	450 UJ	460 U	390 U	400 UJ	430 UJ	460 UJ	410 UJ	400 UJ	410 UJ
Phenanthrene	17,000,000	170,000,000		**480**	230 U	**1,800**	200 U	**240**	220 U	**120,000**	**41 J**	**86 J**	210 U
Phenol	18,000,000	180,000,000		230 U	230 UJ	240 U	200 U	210 UJ	220 U	240 UJ	210 U	200 UJ	210 UJ
Pyrene	1,700,000	17,000,000		**680**	230 U	**2,200**	200 U	**570**	220 U	**86,000**	210 U	**180 J**	**60 J**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID: SB056A Sample ID: E3S04 Case: 36664 Sampling date: 8/1/2007 Unit: µg/kg Duplicate info: Investigation area: 3 Lithology: L2, L3 Depth (ft bgs): 0-2	Location ID: SB056B Sample ID: E3S05 Case: 36664 Sampling date: 8/1/2007 Unit: µg/kg Duplicate info: Investigation area: 3 Lithology: L1, L2, L3 Depth (ft bgs): 8-10	Location ID: SB290B Sample ID: E3S06 Case: 36664 Sampling date: 8/1/2007 Unit: µg/kg Duplicate info: SB056B Investigation area: 3 Lithology: L1, L2, L3 Depth (ft bgs): 8-10	Location ID: SB057A Sample ID: E3S42 Case: 36664 Sampling date: 8/2/2007 Unit: µg/kg Duplicate info: Investigation area: 3 Lithology: L4 Depth (ft bgs): 0-2	Location ID: SB058A Sample ID: E3S44 Case: 36664 Sampling date: 8/2/2007 Unit: µg/kg Duplicate info: Investigation area: 3 Lithology: L1 Depth (ft bgs): 0-2	Location ID: SB059A Sample ID: E3S25 Case: 36664 Sampling date: 8/1/2007 Unit: µg/kg Duplicate info: Investigation area: 3 Lithology: L1, L4 Depth (ft bgs): 0-2	Location ID: SB059B Sample ID: E3S26 Case: 36664 Sampling date: 8/1/2007 Unit: µg/kg Duplicate info: Investigation area: 3 Lithology: L1 Depth (ft bgs): 8-10	Location ID: SB060A Sample ID: E3S23 Case: 36664 Sampling date: 8/1/2007 Unit: µg/kg Duplicate info: Investigation area: 3 Lithology: L1 Depth (ft bgs): 0-2	Location ID: SB061A Sample ID: E3SC1 Case: 36697 Sampling date: 8/7/2007 Unit: µg/kg Duplicate info: Investigation area: 3 Lithology: L1, L2 Depth (ft bgs): 0-2	Location ID: SB061B Sample ID: E3SC2RX Case: 36697 Sampling date: 8/7/2007 Unit: µg/kg Duplicate info: Investigation area: 3 Lithology: L1 Depth (ft bgs): 8-10
1,1'-Biphenyl	3,900,000	51,000,000	330 U	230 U	190 U	210 U	230 U	200 U	220 U	230 U	200 U	200 U
1,2,4,5-Tetrachlorobenzene	18,000	180,000	330 U	230 U	190 U	210 U	230 U	200 U	220 U	230 U	200 U	200 UJ
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000	330 U	230 U	190 U	210 U	230 U	200 U	220 U	230 U	200 U	200 UJ
2,4-Dimethylphenol	1,200,000	12,000,000	330 U	230 U	190 U	210 U	230 U	**37 J**	220 U	230 U	200 U	200 U
2-Chlorophenol	390,000	5,100,000	330 UJ	230 U	190 U	210 U	230 U	200 U	220 U	230 U	200 U	**40 J**
2-Methylnaphthalene	310,000	4,100,000	**140 J**	**36 J**	190 U	**58 J**	**140 J**	**50 J**	**34 J**	230 U	200 U	200 UJ
2-Methylphenol	3,100,000	31,000,000	330 UJ	230 U	190 U	210 U	230 U	200 U	220 U	230 U	200 U	200 U
3,3'-Dichlorobenzidine	1,100	3,800	330 U	230 U	190 U	210 U	230 U	200 U	220 U	230 U	200 U	200 U
3-Nitroaniline	24,000	86,000	630 U	440 U	370 U	410 U	450 U	380 U	430 U	450 U	390 U	390 U
4-Chloro-3-methylphenol	6,100,000	62,000,000	330 U	230 U	190 U	210 U	230 U	200 U	220 U	230 U	200 U	**15 J**
4-Methylphenol	310,000	3,100,000	330 UJ	230 U	190 U	210 U	230 U	200 U	220 U	230 U	200 U	200 U
Acenaphthene	3,400,000	33,000,000	330 U	230 U	190 U	**140 J**	**170 J**	**63 J**	**61 J**	230 U	200 UJ	**24 J**
Acenaphthylene	3,400,000	33,000,000	**310 J**	**43 J**	190 U	**63 J**	**260**	**340**	**130 J**	230 U	200 U	200 UJ
Acetophenone	7,800,000	100,000,000	330 UJ	230 U	190 U	210 U	230 U	200 U	220 U	230 U	**10 J**	**8.6 J**
Anthracene	17,000,000	170,000,000	**180 J**	**73 J**	190 U	**380**	**960**	**780**	**300**	**65 J**	200 U	200 UJ
Atrazine	2,100	7,500	330 U	230 U	190 U	210 U	230 U	200 U	220 U	230 U	200 U	200 UJ
Benzaldehyde	7,800,000	100,000,000	330 UJ	230 U	190 U	210 U	230 U	200 U	220 U	230 U	200 U	**9.5 J**
Benzo(a)anthracene	150	2,100	**990**	**230**	190 U	**950**	**3,000**	**1,600**	**890**	**220 J**	**25 J**	200 UJ
Benzo(a)pyrene	15	210	**1,300**	**270**	190 U	**800 J**	**2,500**	**5,200**	**1,700**	**240**	**7.8 J**	200 UJ
Benzo(b)fluoranthene	150	2,100	**940 J**	**250 J**	190 U	**840 J**	**3,600**	**2,500 J**	**840**	**160 J**	**26 J**	200 UJ
Benzo(g,h,i)perylene	150	2,100	**780**	**140 J**	**35 J**	**280 J**	**720**	**2,900**	**1,400**	**210 J**	200 UJ	200 UJ
Benzo(k)fluoranthene	1,500	21,000	**1,200**	**200 J**	190 U	**750 J**	**1,900**	**4,800**	**1,400**	**210 J**	**10 J**	200 UJ
Bis(2-ethylhexyl)phthalate	35,000	120,000	330 U	230 U	190 U	210 U	230 U	200 U	220 U	230 U	**61 J**	**17 J**
Butylbenzylphthalate	260,000	910,000	330 U	230 U	190 U	210 U	230 U	200 U	220 U	230 U	200 U	200 U
Caprolactam	31,000,000	310,000,000	330 U	230 U	190 U	210 U	230 U	200 U	220 U	230 U	200 U	200 U
Carbazole	17,000,000	170,000,000	**110 J**	230 U	190 U	**200 J**	**350**	**270**	**98 J**	230 U	200 U	200 U
Chrysene	15,000	210,000	**1,400**	**260**	190 U	**1,000**	**3,100**	**2,300**	**1,200**	**230**	**26 J**	200 UJ
Dibenzo(a,h)anthracene	15	210	330 U	230 U	190 U	**120 J**	**540**	200 U	**280**	230 U	200 UJ	200 UJ
Dibenzofuran	78,000	1,000,000	**60 J**	230 U	190 U	**110 J**	**250**	**64 J**	**39 J**	230 U	200 U	200 U
Diethylphthalate	49,000,000	490,000,000	**99 J**	230 U	190 U	210 U	230 U	200 U	220 U	230 U	**23 J**	200 U
Dimethylphthalate	49,000,000	490,000,000	330 U	230 U	190 U	210 U	230 U	200 U	220 U	230 U	200 U	200 U
Di-n-butylphthalate	6,100,000	62,000,000	330 U	230 U	190 U	210 U	230 U	200 U	220 U	230 U	**19 J**	200 U
Di-n-octylphthalate	35,000	120,000	330 U	230 U	190 U	210 U	230 U	200 U	220 U	230 U	200 U	200 U
Fluoranthene	2,300,000	22,000,000	**2,300**	**530**	190 U	**2,500**	**9,400**	**2,100**	**1,700**	**450**	**40 J**	**9.2 J**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB056A E3S04 36664 8/1/2007 µg/kg 3 L2, L3 0-2	SB056B E3S05 36664 8/1/2007 µg/kg 3 L1, L2, L3 8-10	SB290B E3S06 36664 8/1/2007 µg/kg SB056B 3 L1, L2, L3 8-10	SB057A E3S42 36664 8/2/2007 µg/kg 3 L4 0-2	SB058A E3S44 36664 8/2/2007 µg/kg 3 L1 0-2	SB059A E3S25 36664 8/1/2007 µg/kg 3 L1, L4 0-2	SB059B E3S26 36664 8/1/2007 µg/kg 3 L1 8-10	SB060A E3S23 36664 8/1/2007 µg/kg 3 L1 0-2	SB061A E3SC1 36697 8/7/2007 µg/kg 3 L1, L2 0-2	SB061B E3SC2RX 36697 8/7/2007 µg/kg 3 L1 8-10
Fluorene	2,300,000	22,000,000		330 U	230 U	190 U	**130 J**	**190 J**	**120 J**	**53 J**	230 U	200 U	200 U
Hexachlorobenzene	300	1,100		330 U	230 U	190 U	210 U	230 U	200 U	220 U	230 U	200 U	200 UJ
Indeno(1,2,3-cd)pyrene	150	2,100		**780**	**140 J**	190 U	**460 J**	**1,600**	**2,700**	**1,200**	**190 J**	200 UJ	200 UJ
Naphthalene	3,600	18,000		**82 J**	230 U	190 U	**99 J**	**140 J**	**77 J**	**43 J**	230 U	200 U	200 UJ
N-Nitrosodiphenylamine	99,000	350,000		330 U	230 U	190 U	210 U	230 U	200 U	220 U	230 U	200 U	200 U
Pentachlorophenol	3,000	9,000		630 UJ	440 UJ	370 UJ	410 U	450 U	380 UJ	430 UJ	450 UJ	390 UJ	**12 J**
Phenanthrene	17,000,000	170,000,000		**1,000**	**400**	190 U	**2,400**	**6,000**	**1,300**	**1,200**	**220 J**	**19 J**	200 UJ
Phenol	18,000,000	180,000,000		330 UJ	230 UJ	190 U	210 U	230 U	200 U	220 U	230 U	200 U	**23 J**
Pyrene	1,700,000	17,000,000		**1,900**	**450**	190 U	**2,400**	**5,900 J**	**2,400**	**1,700**	**340**	**28 J**	**8.8 J**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB062A E3SC6RX 36697 8/7/2007 µg/kg 3 L4 0-2	SB063A E3SB7 36697 8/7/2007 µg/kg 3 L1 0-2	SB063B E3SB8 36697 8/7/2007 µg/kg 3 L1 4-6	SB064A E3SC7 36697 8/7/2007 µg/kg 3 L1, L4 0-2	SB064B E3SC8 36697 8/7/2007 µg/kg 3 L1 8-10	SB065A E3SC9RX 36697 8/7/2007 µg/kg 3 L1, L4 0-2	SB065B E3SD0 36697 8/7/2007 µg/kg 3 L1, L4 8-10	SB066A E3SA7 36697 8/7/2007 µg/kg 3 L1 0-2	SB299A E3SA9 36697 8/7/2007 µg/kg SB066A 3 L1 0-2	SB066B E3SA8 36697 8/7/2007 µg/kg 3 L1 8-10
1,1'-Biphenyl	3,900,000	51,000,000		**8.7 J**	**8.4 J**	200 U	200 U	200 U	**1,100**	**42 J**	**7.9 J**	**25 J**	210 U
1,2,4,5-Tetrachlorobenzene	18,000	180,000		210 UJ	190 U	200 U	200 UJ	200 UJ	200 UJ	190 UJ	190 U	190 U	210 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		210 UJ	190 U	200 U	200 UJ	200 UJ	200 UJ	190 UJ	190 U	190 U	210 U
2,4-Dimethylphenol	1,200,000	12,000,000		210 U	190 U	200 U	200 U	200 U	**460**	190 U	190 U	190 U	210 U
2-Chlorophenol	390,000	5,100,000		210 U	190 U	200 U	200 UJ	200 UJ	200 UJ	190 UJ	190 U	190 U	210 U
2-Methylnaphthalene	310,000	4,100,000		210 UJ	**25 J**	**16 J**	200 UJ	200 UJ	**910 J**	**50 J**	**21 J**	**76 J**	**6.9 J**
2-Methylphenol	3,100,000	31,000,000		210 U	190 U	200 U	200 U	200 U	**110 J**	190 U	190 U	190 U	210 U
3,3'-Dichlorobenzidine	1,100	3,800		210 UJ	190 U	200 U	200 U	200 U	200 UJ	190 U	190 U	190 U	210 U
3-Nitroaniline	24,000	86,000		400 U	380 U	390 U	380 U	380 U	390 UJ	370 U	380 U	380 U	400 U
4-Chloro-3-methylphenol	6,100,000	62,000,000		210 UJ	190 U	200 U	200 UJ	200 UJ	200 UJ	190 UJ	190 U	190 U	210 U
4-Methylphenol	310,000	3,100,000		210 U	190 U	200 U	200 U	200 U	**650**	**8.8 J**	**19 J**	**10 J**	210 U
Acenaphthene	3,400,000	33,000,000		210 UJ	**88 J**	**20 J**	200 UJ	200 UJ	**720 J**	**39 J**	**100 J**	**230**	**11 J**
Acenaphthylene	3,400,000	33,000,000		**94 J**	**47 J**	**48 J**	200 UJ	200 UJ	**560 J**	190 UJ	**210**	**200**	210 U
Acetophenone	7,800,000	100,000,000		**21 J**	**18 J**	**19 J**	**14 J**	**12 J**	200 U	190 U	**46 J**	**37 J**	**12 J**
Anthracene	17,000,000	170,000,000		**55 J**	**180 J**	**64 J**	200 UJ	200 UJ	**1,600 J**	**72 J**	**340**	**750**	**29 J**
Atrazine	2,100	7,500		210 UJ	190 U	200 U	200 UJ	200 UJ	200 UJ	190 UJ	190 U	190 U	210 U
Benzaldehyde	7,800,000	100,000,000		**21 J**	190 U	200 U	200 UJ	**8.1 J**	200 U	190 UJ	**35 J**	**36 J**	**11 J**
Benzo(a)anthracene	150	2,100		**100 J**	**740 J**	**260 J**	**21 J**	200 UJ	**2,800 J**	**130 J**	**2,500**	**2,900**	**140 J**
Benzo(a)pyrene	15	210		210 UJ	**83 J**	**67 J**	200 UJ	200 UJ	200 UJ	**15 J**	**3,000**	**2,400**	**160 J**
Benzo(b)fluoranthene	150	2,100		**56 J**	**580 J**	**290 J**	200 UJ	200 UJ	**1,400 J**	**67 J**	**2,900**	**3,100**	**230**
Benzo(g,h,i)perylene	150	2,100		210 UJ	190 UJ	200 UJ	200 UJ	200 UJ	200 UJ	190 UJ	**1,600**	**1,200**	**120 J**
Benzo(k)fluoranthene	1,500	21,000		**33 J**	**250 J**	**110 J**	200 UJ	200 UJ	**780 J**	**35 J**	**1,100**	**770**	**75 J**
Bis(2-ethylhexyl)phthalate	35,000	120,000		**17 J**	190 U	200 U	**13 J**	**20 J**	200 U	**12 J**	190 U	190 U	**11 J**
Butylbenzylphthalate	260,000	910,000		210 U	190 U	200 U	200 U	200 U	200 U	190 U	190 U	**9.7 J**	210 U
Caprolactam	31,000,000	310,000,000		210 U	190 U	200 U	200 U	200 U	200 U	190 U	190 U	190 U	210 U
Carbazole	17,000,000	170,000,000		**16 J**	**18 J**	**7.8 J**	200 UJ	200 UJ	**460 J**	**13 J**	**70 J**	**110 J**	**28 J**
Chrysene	15,000	210,000		**49 J**	**590 J**	**250 J**	**11 J**	200 UJ	**1,500 J**	**89 J**	**2,500**	**2,200**	**180 J**
Dibenzo(a,h)anthracene	15	210		210 UJ	**120 J**	**56 J**	200 UJ	200 UJ	200 UJ	**22 J**	**350**	**270**	**33 J**
Dibenzofuran	78,000	1,000,000		**9.5 J**	**30 J**	**12 J**	200 UJ	200 UJ	**1,300 J**	**69 J**	**36 J**	**140 J**	**9.9 J**
Diethylphthalate	49,000,000	490,000,000		210 U	190 U	200 U	200 U	200 U	200 U	190 U	190 U	190 U	210 U
Dimethylphthalate	49,000,000	490,000,000		210 U	190 U	200 U	200 U	200 U	200 U	190 U	190 U	190 U	210 U
Di-n-butylphthalate	6,100,000	62,000,000		210 U	190 U	**17 J**	**16 J**	**20 J**	200 UJ	**19 J**	**20 J**	**25 J**	**16 J**
Di-n-octylphthalate	35,000	120,000		210 U	190 U	200 U	200 U	200 U	200 UJ	190 U	190 U	190 U	210 U
Fluoranthene	2,300,000	22,000,000		**120 J**	**1,700 J**	**450 J**	**25 J**	200 UJ	**5,400 J**	**230 J**	**5,500**	**6,100**	**270**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID: SB062A Sample ID: E3SC6RX Case: 36697 Sampling date: 8/7/2007 Unit: µg/kg Duplicate info: Investigation area: 3 Lithology: L4 Depth (ft bgs): 0-2	SB063A E3SB7 36697 8/7/2007 µg/kg 3 L1 0-2	SB063B E3SB8 36697 8/7/2007 µg/kg 3 L1 4-6	SB064A E3SC7 36697 8/7/2007 µg/kg 3 L1, L4 0-2	SB064B E3SC8 36697 8/7/2007 µg/kg 3 L1 8-10	SB065A E3SC9RX 36697 8/7/2007 µg/kg 3 L1, L4 0-2	SB065B E3SD0 36697 8/7/2007 µg/kg 3 L1, L4 8-10	SB066A E3SA7 36697 8/7/2007 µg/kg 3 L1 0-2	SB299A E3SA9 36697 8/7/2007 µg/kg SB066A 3 L1 0-2	SB066B E3SA8 36697 8/7/2007 µg/kg 3 L1 8-10
Fluorene	2,300,000	22,000,000	**12 J**	**69 J**	**28 J**	200 UJ	200 UJ	**3,200 J**	**230 J**	**84 J**	**200**	**13 J**
Hexachlorobenzene	300	1,100	210 UJ	190 U	200 U	200 UJ	200 UJ	200 UJ	190 UJ	190 U	190 U	210 U
Indeno(1,2,3-cd)pyrene	150	2,100	210 UJ	**150 J**	**100 J**	200 UJ	200 UJ	200 UJ	**26 J**	**1,700**	**1,300**	**130 J**
Naphthalene	3,600	18,000	210 UJ	**32 J**	**20 J**	200 UJ	200 UJ	**790 J**	**37 J**	**49 J**	**72 J**	**17 J**
N-Nitrosodiphenylamine	99,000	350,000	210 U	190 U	200 U	200 U	200 U	200 UJ	190 U	**15 J**	190 U	210 U
Pentachlorophenol	3,000	9,000	400 UJ	380 U	390 U	380 UJ	380 UJ	390 UJ	370 UJ	380 U	380 U	400 U
Phenanthrene	17,000,000	170,000,000	**65 J**	**1,400**	**370**	**12 J**	200 UJ	**4,300 J**	**300 J**	**1,600**	**4,300**	**190 J**
Phenol	18,000,000	180,000,000	210 U	190 U	200 U	200 UJ	200 UJ	**110 J**	190 UJ	**24 J**	**14 J**	**6.1 J**
Pyrene	1,700,000	17,000,000	**31 J**	**390 J**	**270 J**	**6.3 J**	200 UJ	200 UJ	**48 J**	**6,200**	**6,300**	**290**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB067A E3RY6 36664 7/31/2007 µg/kg 3 L1, L4 0-2	SB068A E3RY8 36664 7/31/2007 µg/kg 3 L1 0-2	SB283B E3RZ0 36664 7/31/2007 µg/kg SB068B 3 L1 10-12	SB069A E3RY4 36664 7/31/2007 µg/kg 3 L1 0-2	SB069B E3RY5 36664 7/31/2007 µg/kg 3 L1 8-10	SB070A E3RY3 36664 7/31/2007 µg/kg 3 L1, L4 0-2	SB071A E3S54 36664 8/2/2007 µg/kg 3 L2, L3 0-2	SB071B E3S55 36664 8/2/2007 µg/kg 3 L1 6-8	SB072A E3S52 36664 8/2/2007 µg/kg 3 L4 0-2	SB072B E3S53 36664 8/2/2007 µg/kg 3 L1 6-8
1,1'-Biphenyl	3,900,000	51,000,000		290 U	220 U	220 U	220 U	220 U	210 U	200 U	220 U	210 U	220 U
1,2,4,5-Tetrachlorobenzene	18,000	180,000		290 U	220 U	220 U	220 U	220 U	210 U	200 U	220 U	210 U	220 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		290 U	220 U	220 U	220 U	220 U	210 U	200 U	220 U	210 U	220 U
2,4-Dimethylphenol	1,200,000	12,000,000		290 U	220 U	220 U	220 U	220 U	210 U	200 U	220 U	210 U	220 U
2-Chlorophenol	390,000	5,100,000		290 U	220 U	220 U	220 U	220 U	210 U	200 U	220 U	210 U	220 U
2-Methylnaphthalene	310,000	4,100,000		290 U	220 U	220 U	220 U	220 U	**43 J**	**56 J**	220 U	**140 J**	220 U
2-Methylphenol	3,100,000	31,000,000		290 U	220 U	220 U	220 U	220 U	210 U	200 U	220 U	210 U	220 U
3,3'-Dichlorobenzidine	1,100	3,800		290 UJ	220 U	220 U	220 U	220 U	210 U	200 U	220 U	210 U	220 UJ
3-Nitroaniline	24,000	86,000		560 U	430 U	420 U	430 U	420 U	400 U	390 U	420 U	410 U	430 U
4-Chloro-3-methylphenol	6,100,000	62,000,000		290 U	220 U	220 U	220 U	220 U	210 U	200 U	220 U	210 U	220 U
4-Methylphenol	310,000	3,100,000		290 U	220 U	220 U	220 U	220 U	210 U	200 U	220 U	210 U	220 U
Acenaphthene	3,400,000	33,000,000		290 U	220 U	220 U	220 U	220 U	**85 J**	**42 J**	220 U	210 U	220 U
Acenaphthylene	3,400,000	33,000,000		**81 J**	220 U	220 U	220 U	220 U	**68 J**	**210**	220 U	**40 J**	220 U
Acetophenone	7,800,000	100,000,000		290 U	220 U	220 U	220 U	220 U	210 U	200 U	**49 J**	**65 J**	**73 J**
Anthracene	17,000,000	170,000,000		**180 J**	220 U	220 U	220 U	220 U	**370**	**390**	220 U	**97 J**	220 U
Atrazine	2,100	7,500		290 U	220 U	220 U	220 U	220 U	210 U	200 U	220 U	210 U	220 U
Benzaldehyde	7,800,000	100,000,000		290 U	220 U	220 U	220 U	220 U	210 U	**60 J**	220 U	210 U	220 U
Benzo(a)anthracene	150	2,100		**720**	**72 J**	220 U	**87 J**	**52 J**	**930 J**	**2,200**	220 U	**420**	220 U
Benzo(a)pyrene	15	210		**730**	**72 J**	220 U	**110 J**	**83 J**	**620 J**	**2,200**	220 U	**410**	220 U
Benzo(b)fluoranthene	150	2,100		**710**	**76 J**	220 U	**160 J**	**120 J**	**830 J**	**2,800**	220 U	**470**	220 U
Benzo(g,h,i)perylene	150	2,100		**320**	220 U	220 U	220 U	220 U	**190 J**	**750**	220 U	210 U	220 U
Benzo(k)fluoranthene	1,500	21,000		**700**	**87 J**	220 U	**170 J**	**110 J**	**480 J**	**1,500**	220 U	**360**	220 U
Bis(2-ethylhexyl)phthalate	35,000	120,000		290 U	220 U	220 U	220 U	**110 J**	210 U	200 U	220 U	210 U	220 U
Butylbenzylphthalate	260,000	910,000		290 U	220 U	220 U	220 U	220 U	210 U	200 U	220 U	210 U	220 U
Caprolactam	31,000,000	310,000,000		290 U	220 U	220 U	220 U	220 U	210 U	200 U	220 U	210 U	220 U
Carbazole	17,000,000	170,000,000		**110 J**	220 U	220 U	220 U	220 U	**270**	**210**	220 U	**62 J**	220 U
Chrysene	15,000	210,000		**860**	**100 J**	220 U	**200 J**	**130 J**	**960 J**	**2,400**	220 U	**490**	220 U
Dibenzo(a,h)anthracene	15	210		**120 J**	220 U	220 U	220 U	220 U	**140 J**	**280**	220 U	**68 J**	220 U
Dibenzofuran	78,000	1,000,000		290 U	220 U	220 U	220 U	220 U	**72 J**	**78 J**	220 U	**44 J**	220 U
Diethylphthalate	49,000,000	490,000,000		290 U	220 U	220 U	220 U	220 U	210 U	200 U	220 U	210 U	220 U
Dimethylphthalate	49,000,000	490,000,000		290 U	220 U	220 U	220 U	220 U	210 U	200 U	220 U	210 U	220 U
Di-n-butylphthalate	6,100,000	62,000,000		290 U	220 U	220 U	220 U	220 U	210 U	200 U	220 U	210 U	220 U
Di-n-octylphthalate	35,000	120,000		290 U	220 U	220 U	220 U	220 U	210 U	200 U	220 U	210 U	220 U
Fluoranthene	2,300,000	22,000,000		**1,700**	**210 J**	**61 J**	**410**	**300**	**1,900 J**	**4,700**	220 U	**930**	220 U

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID: SB067A	SB068A	SB283B	SB069A	SB069B	SB070A	SB071A	SB071B	SB072A	SB072B
			Sample ID: E3RY6	E3RY8	E3RZ0	E3RY4	E3RY5	E3RY3	E3S54	E3S55	E3S52	E3S53
			Case: 36664	36664	36664	36664	36664	36664	36664	36664	36664	36664
			Sampling date: 7/31/2007	7/31/2007	7/31/2007	7/31/2007	7/31/2007	7/31/2007	8/2/2007	8/2/2007	8/2/2007	8/2/2007
			Unit: µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info:		SB068B							
			Investigation area: 3	3	3	3	3	3	3	3	3	3
			Lithology: L1, L4	L1	L1	L1	L1	L1, L4	L2, L3	L1	L4	L1
			Depth (ft bgs): 0-2	0-2	10-12	0-2	8-10	0-2	0-2	6-8	0-2	6-8
Fluorene	2,300,000	22,000,000	290 U	220 U	220 U	220 U	220 U	**120 J**	**61 J**	220 U	210 U	220 U
Hexachlorobenzene	300	1,100	290 U	220 U	220 U	220 U	220 U	210 U	200 U	220 U	210 U	220 U
Indeno(1,2,3-cd)pyrene	150	2,100	**500**	**55 J**	220 U	**110 J**	**77 J**	**360 J**	**1,000**	220 U	**260**	220 U
Naphthalene	3,600	18,000	290 U	220 U	220 U	220 U	220 U	**46 J**	**62 J**	220 U	**87 J**	220 U
N-Nitrosodiphenylamine	99,000	350,000	290 U	220 U	220 U	220 U	220 U	210 U	200 U	220 U	210 U	220 U
Pentachlorophenol	3,000	9,000	560 U	430 U	420 UJ	430 U	420 U	400 U	390 U	420 U	410 U	430 U
Phenanthrene	17,000,000	170,000,000	**710**	**120 J**	**33 J**	**240**	**200 J**	**1,600**	**1,800**	220 U	**610**	220 U
Phenol	18,000,000	180,000,000	290 U	220 U	220 U	220 U	220 U	210 U	**27 J**	220 U	**37 J**	220 U
Pyrene	1,700,000	17,000,000	**1,700**	**190 J**	**54 J**	**360**	**250**	**1,700 J**	**5,400**	220 U	**870**	220 U

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB073A E3S56 36664 8/2/2007 µg/kg 3 L2 0-2	SB074A E3S57 36664 8/2/2007 µg/kg 3 L2, L3 0-2	SB074B E3S58 36664 8/2/2007 µg/kg 3 L1, L2, L3 4-6	SB075A E3S50 36664 8/2/2007 µg/kg 3 L2 0-2	SB075B E3S51 36664 8/2/2007 µg/kg 3 L1 8-10	SB076A E3S59 36664 8/2/2007 µg/kg 3 L2, L3 0-2	SB295A E3S60RE 36664 8/2/2007 µg/kg SB076A 3 L2, L3 0-2	SB076B E3S61 36664 8/2/2007 µg/kg 3 L2, L3 4-6	SB077A E3RH1 36648 7/24/2007 µg/kg 3 0-2	SB077B E3RH2 36648 7/24/2007 µg/kg 3 L1 4-6
1,1'-Biphenyl	3,900,000	51,000,000		230 U	200 U	220 U	**4,000**	210 U	220 U	210 U	210 U	190 UJ	210 UJ
1,2,4,5-Tetrachlorobenzene	18,000	180,000		230 U	200 U	220 U	1,600 U	210 U	220 U	210 U	210 U	190 UJ	210 UJ
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		230 U	200 U	220 U	1,600 U	210 U	220 U	210 U	210 U	190 UJ	210 UJ
2,4-Dimethylphenol	1,200,000	12,000,000		230 U	200 U	220 U	1,600 U	210 UJ	220 U	210 U	210 U	190 UJ	210 UJ
2-Chlorophenol	390,000	5,100,000		230 U	200 U	220 U	1,600 U	210 U	220 U	210 U	210 U	190 UJ	210 UJ
2-Methylnaphthalene	310,000	4,100,000		**67 J**	200 U	220 U	**7,700**	210 U	**32 J**	210 U	210 U	**99 J**	210 UJ
2-Methylphenol	3,100,000	31,000,000		230 U	200 U	220 U	1,600 U	210 UJ	220 U	210 U	210 U	190 UJ	210 UJ
3,3'-Dichlorobenzidine	1,100	3,800		230 U	200 U	220 U	1,600 U	210 UJ	220 U	210 U	210 U	190 UJ	210 UJ
3-Nitroaniline	24,000	86,000		450 U	390 U	430 U	3,100 U	410 U	420 U	410 U	410 U	370 UJ	400 UJ
4-Chloro-3-methylphenol	6,100,000	62,000,000		230 U	200 U	220 U	1,600 U	210 U	220 U	210 U	210 U	190 UJ	210 UJ
4-Methylphenol	310,000	3,100,000		230 U	200 U	220 U	1,600 U	210 UJ	220 U	210 U	210 U	190 UJ	210 UJ
Acenaphthene	3,400,000	33,000,000		230 U	200 U	220 U	**2,600**	210 U	**42 J**	**33 J**	210 U	190 UJ	210 UJ
Acenaphthylene	3,400,000	33,000,000		**40 J**	200 U	220 U	**7,800**	210 U	**93 J**	**60 J**	210 U	190 UJ	210 UJ
Acetophenone	7,800,000	100,000,000		**69 J**	**50 J**	**54 J**	1,600 U	**43 J**	220 U	210 U	210 U	**52 J**	**31 J**
Anthracene	17,000,000	170,000,000		**38 J**	200 U	220 U	**14,000**	**58 J**	**250**	**190 J**	210 U	**9.4 J**	210 UJ
Atrazine	2,100	7,500		230 U	200 U	220 U	1,600 U	210 U	220 U	210 U	210 U	190 UJ	210 UJ
Benzaldehyde	7,800,000	100,000,000		**89 J**	200 U	220 U	1,600 U	210 U	**55 J**	210 U	210 U	190 UJ	210 UJ
Benzo(a)anthracene	150	2,100		**250**	200 U	**51 J**	**20,000**	**65 J**	**880**	**790 J**	**86 J**	**52 J**	210 UJ
Benzo(a)pyrene	15	210		**300 J**	200 UJ	**48 J**	**16,000**	**46 J**	**830**	**730 J**	**69 J**	**44 J**	210 UJ
Benzo(b)fluoranthene	150	2,100		**420 J**	200 UJ	**47 J**	**19,000**	**47 J**	**920**	**880 J**	**85 J**	**50 J**	210 UJ
Benzo(g,h,i)perylene	150	2,100		230 UJ	200 UJ	220 U	**5,000**	210 U	410 U	290 UJ	210 UJ	**32 J**	210 UJ
Benzo(k)fluoranthene	1,500	21,000		**330 J**	200 UJ	220 U	**9,900**	**67 J**	**740**	**680 J**	**74 J**	**19 J**	210 UJ
Bis(2-ethylhexyl)phthalate	35,000	120,000		230 U	200 U	220 U	1,600 U	210 U	220 U	210 U	210 U	21 UJ	210 UJ
Butylbenzylphthalate	260,000	910,000		230 U	200 U	220 U	1,600 U	210 U	220 U	210 U	210 U	190 UJ	210 UJ
Caprolactam	31,000,000	310,000,000		230 U	200 U	220 U	1,600 U	210 U	220 U	210 U	210 U	190 UJ	210 UJ
Carbazole	17,000,000	170,000,000		230 U	200 U	220 U	**5,600**	210 U	**110 J**	**91 J**	210 U	190 UJ	210 UJ
Chrysene	15,000	210,000		**390**	200 U	**63 J**	**20,000**	**77 J**	**980**	**850 J**	**110 J**	**46 J**	210 UJ
Dibenzo(a,h)anthracene	15	210		**49 J**	200 UJ	220 U	**2,100**	210 U	**150 J**	**110 J**	210 UJ	190 UJ	210 UJ
Dibenzofuran	78,000	1,000,000		230 U	200 U	220 U	**12,000**	**58 J**	**55 J**	**35 J**	210 U	**18 J**	210 UJ
Diethylphthalate	49,000,000	490,000,000		230 U	200 U	220 U	1,600 U	210 U	220 U	210 U	210 U	190 UJ	210 UJ
Dimethylphthalate	49,000,000	490,000,000		230 U	200 U	220 U	1,600 U	210 U	220 U	210 U	210 U	190 UJ	210 UJ
Di-n-butylphthalate	6,100,000	62,000,000		230 U	200 U	220 U	1,600 U	210 U	220 U	210 U	210 U	190 UJ	210 UJ
Di-n-octylphthalate	35,000	120,000		230 U	200 U	220 U	1,600 U	210 U	220 U	210 UJ	210 U	190 UJ	210 UJ
Fluoranthene	2,300,000	22,000,000		**460**	**63 J**	**120 J**	**68,000**	**240**	**1,900**	**1,500 J**	**210 J**	**77 J**	210 UJ

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB073A E3S56 36664 8/2/2007 µg/kg 3 L2 0-2	SB074A E3S57 36664 8/2/2007 µg/kg 3 L2, L3 0-2	SB074B E3S58 36664 8/2/2007 µg/kg 3 L1, L2, L3 4-6	SB075A E3S50 36664 8/2/2007 µg/kg 3 L2 0-2	SB075B E3S51 36664 8/2/2007 µg/kg 3 L1 8-10	SB076A E3S59 36664 8/2/2007 µg/kg 3 L2, L3 0-2	SB295A E3S60RE 36664 8/2/2007 µg/kg SB076A 3 L2, L3 0-2	SB076B E3S61 36664 8/2/2007 µg/kg 3 L2, L3 4-6	SB077A E3RH1 36648 7/24/2007 µg/kg 3 0-2	SB077B E3RH2 36648 7/24/2007 µg/kg 3 L1 4-6
Fluorene	2,300,000	22,000,000		230 U	200 U	220 U	**5,600**	210 U	**50 J**	210 U	210 U	190 UJ	210 UJ
Hexachlorobenzene	300	1,100		230 U	200 U	220 U	1,600 U	210 U	220 U	210 U	210 U	190 UJ	210 UJ
Indeno(1,2,3-cd)pyrene	150	2,100		**200 J**	200 UJ	220 U	**7,900**	**34 J**	**530**	**360 J**	**45 J**	**35 J**	210 UJ
Naphthalene	3,600	18,000		**40 J**	200 U	220 U	**6,200**	**40 J**	**42 J**	210 U	210 U	**43 J**	210 UJ
N-Nitrosodiphenylamine	99,000	350,000		230 U	200 U	220 U	1,600 U	210 U	220 U	210 U	210 U	190 UJ	210 UJ
Pentachlorophenol	3,000	9,000		450 U	390 U	430 U	3,100 U	410 U	420 U	410 UJ	410 UJ	370 UJ	400 UJ
Phenanthrene	17,000,000	170,000,000		**220 J**	**34 J**	**69 J**	**77,000**	**330**	**1,200**	**860**	**98 J**	**74 J**	210 UJ
Phenol	18,000,000	180,000,000		230 U	200 U	220 U	1,600 U	**31 J**	220 U	210 U	210 U	190 UJ	210 UJ
Pyrene	1,700,000	17,000,000		**420**	**60 J**	**110 J**	**59,000**	**180 J**	**1,900**	**1,500 J**	**210 J**	**75 J**	210 UJ

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB264B E3RH3 36648 7/24/2007 µg/kg SB077B 3 L1 4-6	SB078A E3RJ0 36648 7/24/2007 µg/kg 3 L2, L3 0-2	SB078B E3RJ1 36648 7/24/2007 µg/kg 3 L1 8-10	SB079A E3RJ4 36648 7/24/2007 µg/kg 3 L3 0-2	SB079B E3RJ5 36648 7/24/2007 µg/kg 3 L2 6-8	SB080A E3RJ6 36648 7/24/2007 µg/kg 3 L1 0-2	SB080B E3RJ7 36648 7/24/2007 µg/kg 3 L1 8-10	SB265B E3RJ8 36648 7/24/2007 µg/kg SB080B 3 L1 8-10	SB081A E3RH7 36648 7/24/2007 µg/kg 3 L2, L3 0-2	SB081B E3RH8 36648 7/24/2007 µg/kg 3 L4 4-5
1,1'-Biphenyl	3,900,000	51,000,000		210 UJ	210 UJ	210 UJ	**59 J**	**41 J**	200 U	190 U	190 U	200 UJ	190 UJ
1,2,4,5-Tetrachlorobenzene	18,000	180,000		210 UJ	210 UJ	210 UJ	1,100 U	220 U	200 U	190 U	190 U	200 UJ	190 UJ
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		210 UJ	210 UJ	210 UJ	1,100 U	220 U	200 U	190 U	190 U	200 UJ	190 UJ
2,4-Dimethylphenol	1,200,000	12,000,000		210 UJ	210 UJ	210 UJ	1,100 U	220 U	200 U	190 U	190 U	200 UJ	190 UJ
2-Chlorophenol	390,000	5,100,000		210 UJ	210 UJ	210 UJ	1,100 U	220 U	200 U	190 U	190 U	200 UJ	190 UJ
2-Methylnaphthalene	310,000	4,100,000		210 UJ	**7.6 J**	210 UJ	**440 J**	**1,400**	**8.8 J**	190 U	190 U	**33 J**	190 UJ
2-Methylphenol	3,100,000	31,000,000		210 UJ	210 UJ	210 UJ	1,100 U	220 U	200 U	190 U	190 U	200 UJ	190 UJ
3,3'-Dichlorobenzidine	1,100	3,800		210 UJ	210 UJ	210 UJ	1,100 U	220 U	200 U	190 U	190 U	200 UJ	190 UJ
3-Nitroaniline	24,000	86,000		400 UJ	410 UJ	410 UJ	2,100 U	420 U	380 U	370 U	370 U	380 UJ	380 UJ
4-Chloro-3-methylphenol	6,100,000	62,000,000		210 UJ	210 UJ	210 UJ	1,100 U	220 U	200 U	190 U	190 U	200 UJ	190 UJ
4-Methylphenol	310,000	3,100,000		210 UJ	210 UJ	210 UJ	1,100 U	**16 J**	200 U	190 U	190 U	200 UJ	190 UJ
Acenaphthene	3,400,000	33,000,000		210 UJ	**10 J**	210 UJ	**180 J**	**18 J**	200 U	190 U	190 U	200 UJ	190 UJ
Acenaphthylene	3,400,000	33,000,000		210 UJ	**20 J**	210 UJ	**130 J**	**20 J**	200 U	190 U	190 U	**11 J**	**8.5 J**
Acetophenone	7,800,000	100,000,000		**24 J**	**56 J**	**18 J**	**37 J**	220 U	**18 J**	**19 J**	**17 J**	**58 J**	**33 J**
Anthracene	17,000,000	170,000,000		210 UJ	**76 J**	210 UJ	**750 J**	**34 J**	**7.6 J**	**8.6 J**	190 U	**23 J**	**13 J**
Atrazine	2,100	7,500		210 UJ	210 UJ	210 UJ	1,100 U	220 U	200 U	190 U	190 U	200 UJ	190 UJ
Benzaldehyde	7,800,000	100,000,000		210 UJ	**22 J**	210 UJ	1,100 U	**280**	200 U	190 U	190 U	**29 J**	190 UJ
Benzo(a)anthracene	150	2,100		210 UJ	**270 J**	210 UJ	**3,300**	**90 J**	**45 J**	**36 J**	190 U	**150 J**	**94 J**
Benzo(a)pyrene	15	210		210 UJ	**220 J**	210 UJ	**3,000**	**50 J**	**39 J**	**29 J**	190 U	**120 J**	**91 J**
Benzo(b)fluoranthene	150	2,100		210 UJ	**250 J**	210 UJ	**4,500**	**44 J**	**58 J**	**34 J**	190 U	**140 J**	**120 J**
Benzo(g,h,i)perylene	150	2,100		210 UJ	**97 J**	210 UJ	**1,800**	**46 J**	200 U	190 U	190 U	**74 J**	**110 J**
Benzo(k)fluoranthene	1,500	21,000		210 UJ	**110 J**	210 UJ	**1,700**	**27 J**	**17 J**	**14 J**	190 U	**65 J**	**36 J**
Bis(2-ethylhexyl)phthalate	35,000	120,000		210 UJ	19 UJ	210 UJ	**90 J**	220 U	**24 J**	**20 J**	190 U	16 UJ	20 UJ
Butylbenzylphthalate	260,000	910,000		210 UJ	210 UJ	210 UJ	1,100 U	220 U	200 U	190 U	190 U	200 UJ	190 UJ
Caprolactam	31,000,000	310,000,000		210 UJ	210 UJ	210 UJ	1,100 U	220 U	200 U	190 U	190 U	200 UJ	190 UJ
Carbazole	17,000,000	170,000,000		210 UJ	**20 J**	210 UJ	**510 J**	**20 J**	200 U	190 U	190 U	**8 J**	190 UJ
Chrysene	15,000	210,000		210 UJ	**290 J**	210 UJ	**3,600**	**100 J**	**45 J**	**32 J**	190 U	**150 J**	**110 J**
Dibenzo(a,h)anthracene	15	210		210 UJ	**42 J**	210 UJ	**560 J**	220 UJ	200 U	190 U	190 U	**29 J**	190 UJ
Dibenzofuran	78,000	1,000,000		210 UJ	**14 J**	210 UJ	**270 J**	**200 J**	200 U	190 U	190 U	**13 J**	190 UJ
Diethylphthalate	49,000,000	490,000,000		210 UJ	210 UJ	210 UJ	1,100 U	220 U	200 U	190 U	190 U	200 UJ	190 UJ
Dimethylphthalate	49,000,000	490,000,000		210 UJ	210 UJ	210 UJ	1,100 U	220 U	200 U	190 U	190 U	200 UJ	190 UJ
Di-n-butylphthalate	6,100,000	62,000,000		210 UJ	210 UJ	210 UJ	1,100 U	220 U	200 U	190 U	190 U	200 UJ	190 UJ
Di-n-octylphthalate	35,000	120,000		210 UJ	210 UJ	210 UJ	1,100 U	220 U	200 U	190 U	190 U	200 UJ	190 UJ
Fluoranthene	2,300,000	22,000,000		210 UJ	**560 J**	**8.7 J**	**7,600**	**170 J**	**80 J**	**52 J**	190 U	**250 J**	**200 J**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB264B	SB078A	SB078B	SB079A	SB079B	SB080A	SB080B	SB265B	SB081A	SB081B
			Sample ID	E3RH3	E3RJ0	E3RJ1	E3RJ4	E3RJ5	E3RJ6	E3RJ7	E3RJ8	E3RH7	E3RH8
			Case	36648	36648	36648	36648	36648	36648	36648	36648	36648	36648
			Sampling date	7/24/2007	7/24/2007	7/24/2007	7/24/2007	7/24/2007	7/24/2007	7/24/2007	7/24/2007	7/24/2007	7/24/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info	SB077B							SB080B		
			Investigation area	3	3	3	3	3	3	3	3	3	3
			Lithology	L1	L2, L3	L1	L3	L2	L1	L1	L1	L2, L3	L4
			Depth (ft bgs)	4-6	0-2	8-10	0-2	6-8	0-2	8-10	8-10	0-2	4-5
Fluorene	2,300,000	22,000,000		210 UJ	**18 J**	210 UJ	**220 J**	**20 J**	200 U	190 U	190 U	200 UJ	190 UJ
Hexachlorobenzene	300	1,100		210 UJ	210 UJ	210 UJ	1,100 U	220 U	200 U	190 U	190 U	200 UJ	190 UJ
Indeno(1,2,3-cd)pyrene	150	2,100		210 UJ	**160 J**	210 UJ	**1,900**	**40 J**	200 U	190 U	190 U	**110 J**	**120 J**
Naphthalene	3,600	18,000		210 UJ	**9.7 J**	210 UJ	**410 J**	**730**	**7.8 J**	190 U	190 U	**17 J**	190 UJ
N-Nitrosodiphenylamine	99,000	350,000		210 UJ	210 UJ	210 UJ	1,100 U	220 U	200 U	190 U	190 U	200 UJ	190 UJ
Pentachlorophenol	3,000	9,000		400 UJ	410 UJ	410 UJ	2,100 U	420 U	380 U	370 U	370 U	380 UJ	380 UJ
Phenanthrene	17,000,000	170,000,000		210 UJ	**320 J**	210 UJ	**4,500**	**730**	**60 J**	**45 J**	190 U	**170 J**	**130 J**
Phenol	18,000,000	180,000,000		210 UJ	210 UJ	210 UJ	1,100 U	220 U	200 U	190 U	190 U	200 UJ	190 UJ
Pyrene	1,700,000	17,000,000		210 UJ	**540 J**	**9.9 J**	**7,700**	**170 J**	**88 J**	**80 J**	190 U	**250 J**	**240 J**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB082A E3RH5 36648 7/24/2007 µg/kg 3 L1, L2 0-2	SB082B E3RH6 36648 7/24/2007 µg/kg 3 L4 10-12	SB083A E3RJ2 36648 7/24/2007 µg/kg 3 L2, L3 0-2	SB083B E3RJ3 36648 7/24/2007 µg/kg 3 L4 8-10	SB084A E3RJ9 36648 7/24/2007 µg/kg 3 L1 0-2	SB084B E3RK0 36648 7/24/2007 µg/kg 3 L1 8-10	SB085A E3RK4 36648 7/25/2007 µg/kg 3 L4 0-2	SB085B E3RK5 36648 7/25/2007 µg/kg 3 L1 8-10	SB086A E3RK7 36648 7/25/2007 µg/kg 3 L4 0-2	SB086B E3RK8 36648 7/25/2007 µg/kg 3 L1 8-10
1,1'-Biphenyl	3,900,000	51,000,000		200 UJ	200 UJ	**12 J**	1,100 U	210 U	200 U	**110 J**	190 U	**11 J**	**8.6 J**
1,2,4,5-Tetrachlorobenzene	18,000	180,000		200 UJ	200 UJ	210 UJ	1,100 U	210 U	200 U	910 U	190 U	210 U	220 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		200 UJ	200 UJ	210 UJ	1,100 U	210 U	200 U	910 U	190 U	210 U	220 U
2,4-Dimethylphenol	1,200,000	12,000,000		200 UJ	200 UJ	210 UJ	1,100 U	210 U	200 U	910 U	190 U	210 U	220 U
2-Chlorophenol	390,000	5,100,000		200 UJ	200 UJ	210 UJ	1,100 U	210 U	200 U	910 U	190 U	210 U	220 U
2-Methylnaphthalene	310,000	4,100,000		200 UJ	200 UJ	**29 J**	**220 J**	210 U	200 U	**690 J**	190 U	**140 J**	**120 J**
2-Methylphenol	3,100,000	31,000,000		200 UJ	200 UJ	210 UJ	1,100 U	210 U	200 U	910 U	190 U	210 U	220 U
3,3'-Dichlorobenzidine	1,100	3,800		200 UJ	200 UJ	210 UJ	1,100 U	210 U	200 U	910 U	190 U	210 U	220 U
3-Nitroaniline	24,000	86,000		390 UJ	380 UJ	410 UJ	2,100 U	420 U	380 U	1,800 U	360 U	420 U	430 U
4-Chloro-3-methylphenol	6,100,000	62,000,000		200 UJ	200 UJ	210 UJ	1,100 U	210 U	200 U	910 U	190 U	210 U	220 U
4-Methylphenol	310,000	3,100,000		200 UJ	200 UJ	**8.9 J**	1,100 U	210 U	200 U	910 U	190 U	210 U	**13 J**
Acenaphthene	3,400,000	33,000,000		200 UJ	200 UJ	**37 J**	**160 J**	210 U	200 U	**290 J**	190 U	210 U	**16 J**
Acenaphthylene	3,400,000	33,000,000		200 UJ	200 UJ	**170 J**	**51 J**	210 U	200 U	**210 J**	190 U	210 U	220 U
Acetophenone	7,800,000	100,000,000		**29 J**	**30 J**	**160 J**	**59 J**	**21 J**	**18 J**	910 U	190 U	**39 J**	220 U
Anthracene	17,000,000	170,000,000		200 UJ	200 UJ	**300 J**	**480 J**	210 U	200 U	**870 J**	190 U	**61 J**	**23 J**
Atrazine	2,100	7,500		200 UJ	200 UJ	210 UJ	1,100 U	210 U	200 U	910 U	190 U	210 U	220 U
Benzaldehyde	7,800,000	100,000,000		200 UJ	200 UJ	**37 J**	1,100 U	210 U	200 U	910 U	190 U	**32 J**	**40 J**
Benzo(a)anthracene	150	2,100		200 UJ	200 UJ	**1,200 J**	**1,200**	**23 J**	200 U	**2,600**	190 U	**130 J**	**32 J**
Benzo(a)pyrene	15	210		200 UJ	200 UJ	**1,300 J**	**830 J**	**21 J**	200 U	**1,700**	190 U	**120 J**	**23 J**
Benzo(b)fluoranthene	150	2,100		200 UJ	200 UJ	**1,600 J**	**1,100 J**	**27 J**	200 U	**2,900**	190 U	**170 J**	**28 J**
Benzo(g,h,i)perylene	150	2,100		200 UJ	200 UJ	**460 J**	**480 J**	**36 J**	200 U	**830 J**	190 U	**74 J**	220 U
Benzo(k)fluoranthene	1,500	21,000		200 UJ	200 UJ	**540 J**	**330 J**	**11 J**	200 U	**790 J**	190 U	**54 J**	220 U
Bis(2-ethylhexyl)phthalate	35,000	120,000		29 UJ	200 UJ	210 UJ	**58 J**	210 U	**17 J**	910 U	190 U	210 U	220 U
Butylbenzylphthalate	260,000	910,000		200 UJ	200 UJ	210 UJ	1,100 U	210 U	200 U	910 U	190 U	210 U	220 U
Caprolactam	31,000,000	310,000,000		200 UJ	200 UJ	210 UJ	1,100 U	210 U	200 U	910 U	190 U	210 U	220 U
Carbazole	17,000,000	170,000,000		200 UJ	200 UJ	**88 J**	**320 J**	210 U	200 U	**370 J**	190 U	**23 J**	220 U
Chrysene	15,000	210,000		200 UJ	200 UJ	**1,200 J**	**1,000 J**	**21 J**	200 U	**2,300**	190 U	**140 J**	**32 J**
Dibenzo(a,h)anthracene	15	210		200 UJ	200 UJ	**180 J**	**180 J**	210 U	200 U	**250 J**	190 U	210 U	220 U
Dibenzofuran	78,000	1,000,000		200 UJ	200 UJ	**57 J**	**210 J**	210 U	200 U	**470 J**	190 U	**64 J**	**31 J**
Diethylphthalate	49,000,000	490,000,000		200 UJ	200 UJ	210 UJ	1,100 U	210 U	200 U	910 U	190 U	210 U	220 U
Dimethylphthalate	49,000,000	490,000,000		200 UJ	200 UJ	210 UJ	1,100 U	210 U	200 U	910 U	190 U	210 U	220 U
Di-n-butylphthalate	6,100,000	62,000,000		200 UJ	200 UJ	210 UJ	1,100 U	210 U	200 U	910 U	190 U	210 U	220 U
Di-n-octylphthalate	35,000	120,000		200 UJ	200 UJ	210 UJ	1,100 U	210 U	200 U	910 U	190 U	210 U	220 U
Fluoranthene	2,300,000	22,000,000		200 UJ	200 UJ	**3,000 J**	**2,200**	**31 J**	200 U	**7,300**	**34 J**	**280**	**67 J**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB082A E3RH5 36648 7/24/2007 µg/kg 3 L1, L2 0-2	SB082B E3RH6 36648 7/24/2007 µg/kg 3 L4 10-12	SB083A E3RJ2 36648 7/24/2007 µg/kg 3 L2, L3 0-2	SB083B E3RJ3 36648 7/24/2007 µg/kg 3 L4 8-10	SB084A E3RJ9 36648 7/24/2007 µg/kg 3 L1 0-2	SB084B E3RK0 36648 7/24/2007 µg/kg 3 L1 8-10	SB085A E3RK4 36648 7/25/2007 µg/kg 3 L4 0-2	SB085B E3RK5 36648 7/25/2007 µg/kg 3 L1 8-10	SB086A E3RK7 36648 7/25/2007 µg/kg 3 L4 0-2	SB086B E3RK8 36648 7/25/2007 µg/kg 3 L1 8-10
Fluorene	2,300,000	22,000,000		200 UJ	200 UJ	**65 J**	**200 J**	210 U	200 U	**390 J**	190 U	**11 J**	**20 J**
Hexachlorobenzene	300	1,100		200 UJ	200 UJ	210 UJ	1,100 U	210 U	200 U	910 U	190 U	210 U	220 U
Indeno(1,2,3-cd)pyrene	150	2,100		200 UJ	200 UJ	**680 J**	**530 J**	**20 J**	200 U	**930**	190 U	**79 J**	220 U
Naphthalene	3,600	18,000		200 UJ	200 UJ	**42 J**	**140 J**	210 U	200 U	**650 J**	190 U	**63 J**	**100 J**
N-Nitrosodiphenylamine	99,000	350,000		200 UJ	200 UJ	210 UJ	1,100 U	210 U	200 U	910 U	190 U	210 U	220 U
Pentachlorophenol	3,000	9,000		390 UJ	380 UJ	410 UJ	2,100 U	420 U	380 U	1,800 U	360 U	420 U	430 U
Phenanthrene	17,000,000	170,000,000		**9.7 J**	200 UJ	**1,700 J**	**2,600**	**17 J**	200 U	**6,900**	**18 J**	**390**	**150 J**
Phenol	18,000,000	180,000,000		200 UJ	200 UJ	**28 J**	1,100 U	210 U	200 U	910 U	190 U	210 U	220 U
Pyrene	1,700,000	17,000,000		200 UJ	200 UJ	**2,700 J**	**2,100**	**37 J**	200 U	**7,100**	**29 J**	**240**	**65 J**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB087A E3RK9 36648 7/25/2007 µg/kg 3 L1, L2 0-2	SB088A E3RL0 36648 7/25/2007 µg/kg 3 L1 0-2	SB089A E3RL1 36648 7/25/2007 µg/kg 3 L1, L2 0-2	SB090A E3RL2 36648 7/25/2007 µg/kg 3 L4 0-2	SB091A E3RL4 36648 7/25/2007 µg/kg 3 L1, L4 0-2	SB266A E3RL5 36648 7/25/2007 µg/kg SB091A 3 L1, L4 0-2	SB092A E3RM1 36648 7/25/2007 µg/kg 3 L2, L3 0-2	SB092B E3RM2 36648 7/25/2007 µg/kg 3 L1 4-6	SB093A E3RM3 36648 7/25/2007 µg/kg 3 L4 0-2	SB094A E3RM6 36648 7/25/2007 µg/kg 3 L4 0-2
1,1'-Biphenyl	3,900,000	51,000,000		**35 J**	**110 J**	**46 J**	**10 J**	**14 J**	**15 J**	**26 J**	1,100 U	190 U	190 U
1,2,4,5-Tetrachlorobenzene	18,000	180,000		230 U	440 U	210 U	210 U	190 U	190 U	400 U	1,100 U	190 U	190 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		230 U	440 U	210 U	210 U	190 U	190 U	400 U	1,100 U	190 U	190 U
2,4-Dimethylphenol	1,200,000	12,000,000		230 U	440 U	210 U	210 U	190 U	190 U	400 U	1,100 U	190 U	190 UJ
2-Chlorophenol	390,000	5,100,000		230 U	440 U	210 U	210 U	190 U	190 U	400 U	1,100 U	190 U	190 U
2-Methylnaphthalene	310,000	4,100,000		**500**	**1,300**	**630**	**97 J**	**110 J**	**150 J**	**170 J**	**110 J**	**26 J**	**10 J**
2-Methylphenol	3,100,000	31,000,000		230 U	440 U	210 U	210 U	190 U	190 U	400 U	1,100 U	190 U	190 UJ
3,3'-Dichlorobenzidine	1,100	3,800		230 U	440 U	210 U	210 U	190 U	190 U	400 U	1,100 U	190 U	190 U
3-Nitroaniline	24,000	86,000		440 U	850 U	410 U	400 U	370 U	380 U	770 U	2,100 U	370 U	370 U
4-Chloro-3-methylphenol	6,100,000	62,000,000		230 U	440 U	210 U	210 U	190 U	190 U	400 U	1,100 U	190 U	190 U
4-Methylphenol	310,000	3,100,000		**22 J**	**27 J**	210 U	210 U	190 U	190 U	400 U	1,100 U	190 U	190 UJ
Acenaphthene	3,400,000	33,000,000		**47 J**	**150 J**	**49 J**	**15 J**	**68 J**	**34 J**	**55 J**	**340 J**	**100 J**	190 U
Acenaphthylene	3,400,000	33,000,000		**43 J**	**110 J**	**50 J**	**16 J**	**18 J**	**30 J**	**41 J**	**63 J**	**17 J**	190 U
Acetophenone	7,800,000	100,000,000		**98 J**	440 U	210 U	**35 J**	**57 J**	**70 J**	**35 J**	1,100 U	**12 J**	**42 J**
Anthracene	17,000,000	170,000,000		**130 J**	**440 J**	**150 J**	**51 J**	**140 J**	**130 J**	**140 J**	**720 J**	**290**	**11 J**
Atrazine	2,100	7,500		230 U	440 U	210 U	210 U	190 U	190 U	400 U	1,100 U	190 U	190 U
Benzaldehyde	7,800,000	100,000,000		**94 J**	440 U	210 U	**83 J**	**54 J**	**76 J**	**46 J**	1,100 U	190 U	**44 J**
Benzo(a)anthracene	150	2,100		**520**	**1,300**	**800**	**280**	**390**	**410**	**540**	**2,500**	**2,300**	**99 J**
Benzo(a)pyrene	15	210		**480**	**1,100**	**490**	**260**	**320**	**340**	**460**	**2,200**	**1,400**	**89 J**
Benzo(b)fluoranthene	150	2,100		**710**	**1,600**	**1,000**	**430**	**480**	**510**	**700**	**3,700**	**2,700**	**170 J**
Benzo(g,h,i)perylene	150	2,100		**400**	**660**	**280**	**200 J**	**240**	**210**	**370 J**	**1,800 J**	**580 J**	190 U
Benzo(k)fluoranthene	1,500	21,000		**230**	**510**	**220**	**130 J**	**130 J**	**150 J**	**200 J**	**1,200**	**770**	**47 J**
Bis(2-ethylhexyl)phthalate	35,000	120,000		**61 J**	**1,100**	**140 J**	**180 J**	**54 J**	**66 J**	400 U	**110 J**	190 U	190 U
Butylbenzylphthalate	260,000	910,000		230 U	440 U	210 U	**53 J**	190 U	**59 J**	400 U	1,100 U	190 U	190 U
Caprolactam	31,000,000	310,000,000		230 U	440 U	210 U	210 U	190 U	190 U	400 U	1,100 U	190 U	190 U
Carbazole	17,000,000	170,000,000		**44 J**	**170 J**	**73 J**	**29 J**	**43 J**	**41 J**	**77 J**	**350 J**	**250**	190 U
Chrysene	15,000	210,000		**560**	**1,100**	**710**	**280**	**360**	**360**	**580**	**2,700**	**2,600**	**110 J**
Dibenzo(a,h)anthracene	15	210		**110 J**	**210 J**	**62 J**	**54 J**	**62 J**	**63 J**	**120 J**	**550 J**	**180 J**	190 U
Dibenzofuran	78,000	1,000,000		**150 J**	**390 J**	**170 J**	**29 J**	**65 J**	**50 J**	**97 J**	**260 J**	**42 J**	190 U
Diethylphthalate	49,000,000	490,000,000		230 U	440 U	210 U	210 U	**13 J**	190 U	400 U	1,100 U	190 U	190 U
Dimethylphthalate	49,000,000	490,000,000		230 U	440 U	210 U	210 U	190 U	190 U	400 U	**43 J**	190 U	190 U
Di-n-butylphthalate	6,100,000	62,000,000		230 U	440 U	210 U	210 U	190 U	190 U	400 U	1,100 U	190 U	190 U
Di-n-octylphthalate	35,000	120,000		230 U	440 U	210 U	210 U	190 U	190 U	400 U	1,100 U	190 U	190 U
Fluoranthene	2,300,000	22,000,000		**1,000**	**2,700**	**1,400**	**540**	**910**	**750**	**1,100**	**5,300**	**5,700**	**150 J**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB087A E3RK9 36648 7/25/2007 µg/kg 3 L1, L2 0-2	SB088A E3RL0 36648 7/25/2007 µg/kg 3 L1 0-2	SB089A E3RL1 36648 7/25/2007 µg/kg 3 L1, L2 0-2	SB090A E3RL2 36648 7/25/2007 µg/kg 3 L4 0-2	SB091A E3RL4 36648 7/25/2007 µg/kg 3 L1, L4 0-2	SB266A E3RL5 36648 7/25/2007 µg/kg SB091A 3 L1, L4 0-2	SB092A E3RM1 36648 7/25/2007 µg/kg 3 L2, L3 0-2	SB092B E3RM2 36648 7/25/2007 µg/kg 3 L1 4-6	SB093A E3RM3 36648 7/25/2007 µg/kg 3 L4 0-2	SB094A E3RM6 36648 7/25/2007 µg/kg 3 L4 0-2
Fluorene	2,300,000	22,000,000		**45 J**	**230 J**	**66 J**	**17 J**	**54 J**	**41 J**	**52 J**	**230 J**	**45 J**	190 U
Hexachlorobenzene	300	1,100		230 U	440 U	210 U	210 U	190 U	190 U	400 U	1,100 U	**330**	190 U
Indeno(1,2,3-cd)pyrene	150	2,100		**450**	**800**	**310**	**220**	**250**	**230**	**380 J**	**2,000 J**	**640 J**	**86 J**
Naphthalene	3,600	18,000		**370**	**570**	**380**	**68 J**	**69 J**	**84 J**	**110 J**	**150 J**	**22 J**	**10 J**
N-Nitrosodiphenylamine	99,000	350,000		230 U	440 U	210 U	210 U	190 U	190 U	400 U	1,100 U	190 U	190 U
Pentachlorophenol	3,000	9,000		440 U	850 U	410 U	400 U	370 U	380 U	770 U	2,100 U	370 U	370 U
Phenanthrene	17,000,000	170,000,000		**870**	**3,000**	**1,300**	**340**	**770**	**710**	**1,200**	**4,800**	**2,800**	**65 J**
Phenol	18,000,000	180,000,000		**17 J**	440 U	210 U	**46 J**	190 U	190 U	400 U	1,100 U	190 U	**18 J**
Pyrene	1,700,000	17,000,000		**850**	**2,700**	**1,600**	**560**	**900**	**880**	**980**	**4,900**	**5,500**	**150 J**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB094B E3RM7 36648 7/25/2007 µg/kg 3 L1 6-8	SB095A E3RN0 36648 7/26/2006 µg/kg 3 L2, L4 0-2	SB095B E3RN1 36648 7/26/2007 µg/kg 3 L4 8-10	SB096A E3RN2 36648 7/26/2007 µg/kg 3 L4 0-2	SB096B E3RN3 36648 7/26/2007 µg/kg 3 L4 8-10	SB097A E3RN7 36648 7/26/2007 µg/kg 3 L1, L4 0-2	SB097B E3RN8 36648 7/26/2007 µg/kg 3 L1, L4 8-10	SB098A E3RN9 36648 7/26/2007 µg/kg 3 L4 0-2	SB099A E3RP5 36648 7/26/2007 µg/kg 3 L4 0-2	SB100A E3RF8 36648 7/23/2007 µg/kg 3 L2, L3 0-2
1,1'-Biphenyl	3,900,000	51,000,000		190 U	**12 J**	210 U	**11 J**	210 U	**28 J**	200 U	**2,600 J**	**17 J**	**62 J**
1,2,4,5-Tetrachlorobenzene	18,000	180,000		190 U	200 UJ	210 U	190 U	210 U	190 U	200 U	15,000 U	200 U	400 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		190 U	200 UJ	210 U	190 U	210 U	190 U	200 U	15,000 U	200 U	400 U
2,4-Dimethylphenol	1,200,000	12,000,000		190 U	200 UJ	210 U	190 U	210 U	190 U	200 U	**750 J**	200 U	400 U
2-Chlorophenol	390,000	5,100,000		190 U	200 UJ	210 U	190 U	210 U	190 U	200 U	15,000 U	200 U	400 U
2-Methylnaphthalene	310,000	4,100,000		190 U	**48 J**	210 U	**41 J**	**65 J**	**150 J**	**15 J**	**12,000 J**	**87 J**	**390 J**
2-Methylphenol	3,100,000	31,000,000		190 U	200 UJ	210 U	190 U	210 UJ	190 U	200 U	**560 J**	200 U	400 U
3,3'-Dichlorobenzidine	1,100	3,800		190 U	200 UJ	210 U	190 U	210 U	190 U	200 U	15,000 U	200 U	400 U
3-Nitroaniline	24,000	86,000		370 U	390 U	400 U	370 U	400 UJ	380 U	390 U	30,000 U	380 U	770 U
4-Chloro-3-methylphenol	6,100,000	62,000,000		190 U	200 UJ	210 U	190 U	210 U	190 U	200 U	15,000 U	200 U	400 U
4-Methylphenol	310,000	3,100,000		190 U	200 UJ	210 U	190 U	210 U	**12 J**	200 U	**1,700 J**	**9.7 J**	400 U
Acenaphthene	3,400,000	33,000,000		190 U	**9 J**	210 U	**42 J**	**14 J**	**84 J**	200 U	**15,000 J**	**130 J**	**70 J**
Acenaphthylene	3,400,000	33,000,000		190 U	**16 J**	210 U	**18 J**	210 U	**33 J**	200 U	15,000 U	200 U	**780**
Acetophenone	7,800,000	100,000,000		**25 J**	**94 J**	**32 J**	**76 J**	**46 J**	**50 J**	**24 J**	15,000 U	**24 J**	**98 J**
Anthracene	17,000,000	170,000,000		190 U	**41 J**	**10 J**	**84 J**	**10 J**	**210**	200 U	**36,000**	**300**	**900**
Atrazine	2,100	7,500		190 U	200 U	210 U	190 U	210 U	190 U	200 U	15,000 U	200 U	400 U
Benzaldehyde	7,800,000	100,000,000		190 U	**320**	**74 J**	**60 J**	**100 J**	**53 J**	**64 J**	15,000 U	200 U	**140 J**
Benzo(a)anthracene	150	2,100		190 U	**590**	210 U	**450**	210 UJ	**370**	**24 J**	**71,000**	**590**	**5,000 J**
Benzo(a)pyrene	15	210		190 U	**250**	210 UJ	**250**	210 UJ	**130 J**	200 U	**46,000**	**450**	**1,000 J**
Benzo(b)fluoranthene	150	2,100		190 U	**1,300**	210 UJ	**570**	210 UJ	**280**	200 U	**80,000**	**640**	**4,700 J**
Benzo(g,h,i)perylene	150	2,100		190 U	**59 J**	210 UJ	190 U	210 UJ	190 U	200 U	**7,100 J**	**220**	400 UJ
Benzo(k)fluoranthene	1,500	21,000		190 U	**240**	210 UJ	**170 J**	210 UJ	**85 J**	200 U	**18,000**	**240**	**1,800 J**
Bis(2-ethylhexyl)phthalate	35,000	120,000		**38 J**	**38 J**	210 U	**30 J**	**39 J**	190 U	**32 J**	15,000 U	200 U	400 U
Butylbenzylphthalate	260,000	910,000		190 U	200 U	210 U	190 U	210 U	190 U	200 U	15,000 U	200 U	400 U
Caprolactam	31,000,000	310,000,000		190 U	200 U	210 U	190 U	210 U	190 U	200 U	15,000 U	200 U	400 U
Carbazole	17,000,000	170,000,000		190 U	**22 J**	210 U	**48 J**	210 U	**68 J**	200 U	**19,000**	**160 J**	**52 J**
Chrysene	15,000	210,000		190 U	**710**	210 U	**430**	210 UJ	**380**	**30 J**	**63,000**	**530**	**3,900 J**
Dibenzo(a,h)anthracene	15	210		190 U	**120 J**	210 UJ	**59 J**	210 UJ	**35 J**	200 U	**7,700 J**	**88 J**	**420 J**
Dibenzofuran	78,000	1,000,000		190 U	**26 J**	**10 J**	**51 J**	**13 J**	**130 J**	**9.5 J**	**15,000 J**	**110 J**	**170 J**
Diethylphthalate	49,000,000	490,000,000		190 U	200 U	210 U	190 U	210 U	190 U	200 U	15,000 U	200 U	400 U
Dimethylphthalate	49,000,000	490,000,000		190 U	200 U	210 U	190 U	210 U	190 U	200 U	15,000 U	200 U	400 U
Di-n-butylphthalate	6,100,000	62,000,000		190 U	200 U	210 U	**29 J**	210 U	190 U	200 U	15,000 U	200 U	400 U
Di-n-octylphthalate	35,000	120,000		190 U	200 U	210 U	190 U	210 U	190 U	200 U	15,000 U	200 U	400 U
Fluoranthene	2,300,000	22,000,000		190 U	**1,200**	**37 J**	**870**	**65 J**	**930**	**52 J**	**150,000**	**1,200**	**13,000**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB094B E3RM7 36648 7/25/2007 µg/kg 3 L1 6-8	SB095A E3RN0 36648 7/26/2006 µg/kg 3 L2, L4 0-2	SB095B E3RN1 36648 7/26/2007 µg/kg 3 L4 8-10	SB096A E3RN2 36648 7/26/2007 µg/kg 3 L4 0-2	SB096B E3RN3 36648 7/26/2007 µg/kg 3 L4 8-10	SB097A E3RN7 36648 7/26/2007 µg/kg 3 L1, L4 0-2	SB097B E3RN8 36648 7/26/2007 µg/kg 3 L1, L4 8-10	SB098A E3RN9 36648 7/26/2007 µg/kg 3 L4 0-2	SB099A E3RP5 36648 7/26/2007 µg/kg 3 L4 0-2	SB100A E3RF8 36648 7/23/2007 µg/kg 3 L2, L3 0-2
Fluorene	2,300,000	22,000,000		190 U	**13 J**	210 U	**33 J**	210 U	**130 J**	200 U	**23,000**	**200**	**180 J**
Hexachlorobenzene	300	1,100		190 U	200 U	210 U	190 U	210 U	190 U	200 U	15,000 U	200 U	400 U
Indeno(1,2,3-cd)pyrene	150	2,100		190 U	**440**	210 UJ	**220**	210 UJ	**85 J**	200 U	**26,000**	**260**	**1,000 J**
Naphthalene	3,600	18,000		190 U	**49 J**	**39 J**	**60 J**	**63 J**	**220**	**32 J**	**20,000**	**130 J**	**280 J**
N-Nitrosodiphenylamine	99,000	350,000		190 U	200 U	210 U	190 U	210 U	190 U	200 U	15,000 U	200 U	400 U
Pentachlorophenol	3,000	9,000		370 U	390 UJ	400 U	370 U	400 U	380 U	390 U	30,000 U	380 U	770 U
Phenanthrene	17,000,000	170,000,000		190 U	**550**	**55 J**	**700**	**90 J**	**1,100**	**46 J**	**190,000**	**1,300**	**4,800**
Phenol	18,000,000	180,000,000		190 U	**26 J**	**34 J**	**32 J**	**34 J**	**34 J**	**22 J**	15,000 U	200 U	**47 J**
Pyrene	1,700,000	17,000,000		190 U	**1,300**	**35 J**	**960**	**63 J**	**720**	**45 J**	**130,000**	**1,000**	**5,500 J**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB262 E3RG0 36648 7/23/2007 µg/kg SB100A 3 L2, L3 0-2	SB100B E3RF9 36648 7/23/2007 µg/kg 3 L1 6-8	SB101A E3RK2 36648 7/25/2007 µg/kg 3 L4 0-2	SB102A E3RF6 36648 7/23/2007 µg/kg 3 L1 0-2	SB102B E3RF7 36648 7/23/2007 µg/kg 3 L1 4-6	SB103A E3RG1 36648 7/23/2007 µg/kg 3 L4 0-2	SB103B E3RG2 36648 7/23/2007 µg/kg 3 L1 6-8	SB104A E3RG3 36648 7/24/2007 µg/kg 4 L1 0-2	SB104B E3RG4 36648 7/24/2007 µg/kg 4 L1 8-10	SB105A E3RG5 36648 7/24/2007 µg/kg 4 L1, L2 0-2
1,1'-Biphenyl	3,900,000	51,000,000		**24 J**	190 U	**11 J**	**15 J**	210 U	**27 J**	190 U	190 UJ	190 UJ	190 UJ
1,2,4,5-Tetrachlorobenzene	18,000	180,000		430 U	190 U	190 U	200 U	210 U	190 U	190 U	190 UJ	190 UJ	190 UJ
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		430 U	190 U	190 U	200 U	210 U	190 U	190 U	190 UJ	190 UJ	190 UJ
2,4-Dimethylphenol	1,200,000	12,000,000		430 U	190 U	190 U	200 U	210 U	190 U	190 U	190 UJ	190 UJ	190 UJ
2-Chlorophenol	390,000	5,100,000		430 U	190 U	190 U	200 U	210 U	190 U	190 U	190 UJ	190 UJ	190 UJ
2-Methylnaphthalene	310,000	4,100,000		**350 J**	190 U	**140 J**	**140 J**	**19 J**	**470**	**9.1 J**	**190 J**	190 UJ	190 UJ
2-Methylphenol	3,100,000	31,000,000		430 U	190 U	190 U	200 U	210 U	190 U	190 U	190 UJ	190 UJ	190 UJ
3,3'-Dichlorobenzidine	1,100	3,800		430 U	190 U	190 U	200 U	210 U	190 U	190 U	190 UJ	190 UJ	190 UJ
3-Nitroaniline	24,000	86,000		830 U	370 U	380 U	390 U	410 U	370 U	370 U	370 UJ	360 UJ	370 UJ
4-Chloro-3-methylphenol	6,100,000	62,000,000		430 U	190 U	190 U	200 U	210 U	190 U	190 U	190 UJ	190 UJ	190 UJ
4-Methylphenol	310,000	3,100,000		430 U	190 U	190 U	200 U	210 U	190 U	190 U	190 UJ	190 UJ	190 UJ
Acenaphthene	3,400,000	33,000,000		**50 J**	190 U	190 U	**9.6 J**	210 U	**22 J**	190 U	190 UJ	190 UJ	190 UJ
Acenaphthylene	3,400,000	33,000,000		**130 J**	190 U	190 U	**13 J**	210 U	**19 J**	190 U	**12 J**	190 UJ	190 UJ
Acetophenone	7,800,000	100,000,000		**110 J**	**21 J**	**43 J**	**83 J**	**51 J**	**130 J**	**25 J**	**70 J**	**16 J**	**16 J**
Anthracene	17,000,000	170,000,000		**300 J**	190 U	**38 J**	**34 J**	210 U	**68 J**	190 U	**18 J**	190 UJ	190 UJ
Atrazine	2,100	7,500		430 U	190 U	190 U	200 U	210 U	190 U	190 U	190 UJ	190 UJ	190 UJ
Benzaldehyde	7,800,000	100,000,000		**130 J**	**30 J**	**31 J**	**92 J**	**64 J**	**170 J**	**32 J**	190 UJ	190 UJ	190 UJ
Benzo(a)anthracene	150	2,100		**1,700**	190 U	**220**	**110 J**	**33 J**	**120 J**	190 U	**58 J**	190 UJ	190 UJ
Benzo(a)pyrene	15	210		**1,300**	190 U	**160 J**	**53 J**	**29 J**	**84 J**	190 U	**44 J**	**20 J**	190 UJ
Benzo(b)fluoranthene	150	2,100		**1,700**	190 U	**240**	**120 J**	**56 J**	**130 J**	190 U	**82 J**	**32 J**	190 UJ
Benzo(g,h,i)perylene	150	2,100		**500**	**140 J**	**77 J**	200 U	210 U	**50 J**	190 U	**43 J**	**40 J**	190 UJ
Benzo(k)fluoranthene	1,500	21,000		**630**	190 U	**88 J**	**36 J**	**17 J**	**34 J**	190 U	**21 J**	**8.7 J**	190 UJ
Bis(2-ethylhexyl)phthalate	35,000	120,000		430 U	190 U	190 U	**38 J**	210 U	**57 J**	190 U	190 UJ	30 UJ	190 UJ
Butylbenzylphthalate	260,000	910,000		430 U	190 U	190 U	200 U	210 U	190 U	190 U	190 UJ	190 UJ	190 UJ
Caprolactam	31,000,000	310,000,000		430 U	190 U	190 U	200 U	210 U	190 U	190 U	190 UJ	190 UJ	190 UJ
Carbazole	17,000,000	170,000,000		**87 J**	190 U	**20 J**	**14 J**	210 U	**25 J**	190 U	190 UJ	190 UJ	190 UJ
Chrysene	15,000	210,000		**1,600**	190 U	**200**	**140 J**	**37 J**	**130 J**	190 U	**81 J**	190 UJ	190 UJ
Dibenzo(a,h)anthracene	15	210		**230 J**	190 U	190 U	200 U	210 U	190 U	190 U	190 UJ	190 UJ	190 UJ
Dibenzofuran	78,000	1,000,000		**130 J**	190 U	**47 J**	**78 J**	210 U	**170 J**	190 U	**53 J**	190 UJ	190 UJ
Diethylphthalate	49,000,000	490,000,000		430 U	190 U	190 U	200 U	210 U	190 U	190 U	190 UJ	190 UJ	190 UJ
Dimethylphthalate	49,000,000	490,000,000		430 U	190 U	190 U	200 U	210 U	190 U	190 U	190 UJ	190 UJ	190 UJ
Di-n-butylphthalate	6,100,000	62,000,000		430 U	190 U	190 U	200 U	210 U	190 U	190 U	190 UJ	190 UJ	190 UJ
Di-n-octylphthalate	35,000	120,000		430 U	190 U	190 U	200 U	210 U	190 U	190 U	190 UJ	190 UJ	190 UJ
Fluoranthene	2,300,000	22,000,000		**3,100**	190 U	**470**	**240**	**57 J**	**220**	**14 J**	**140 J**	**13 J**	190 UJ

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB262 E3RG0 36648 7/23/2007 µg/kg SB100A 3 L2, L3 0-2	SB100B E3RF9 36648 7/23/2007 µg/kg 3 L1 6-8	SB101A E3RK2 36648 7/25/2007 µg/kg 3 L4 0-2	SB102A E3RF6 36648 7/23/2007 µg/kg 3 L1 0-2	SB102B E3RF7 36648 7/23/2007 µg/kg 3 L1 4-6	SB103A E3RG1 36648 7/23/2007 µg/kg 3 L4 0-2	SB103B E3RG2 36648 7/23/2007 µg/kg 3 L1 6-8	SB104A E3RG3 36648 7/24/2007 µg/kg 4 L1 0-2	SB104B E3RG4 36648 7/24/2007 µg/kg 4 L1 8-10	SB105A E3RG5 36648 7/24/2007 µg/kg 4 L1, L2 0-2
Fluorene	2,300,000	22,000,000		**64 J**	190 U	**11 J**	200 U	210 U	**15 J**	190 U	190 UJ	190 UJ	190 UJ
Hexachlorobenzene	300	1,100		430 U	190 U	190 U	200 U	210 U	190 U	190 U	190 UJ	190 UJ	190 UJ
Indeno(1,2,3-cd)pyrene	150	2,100		**840**	190 U	**84 J**	200 U	210 U	**53 J**	190 U	**42 J**	**40 J**	190 UJ
Naphthalene	3,600	18,000		**180 J**	190 U	**79 J**	**75 J**	**15 J**	**230**	**8.3 J**	**73 J**	190 UJ	190 UJ
N-Nitrosodiphenylamine	99,000	350,000		430 U	190 U	190 U	200 U	210 U	190 U	190 U	190 UJ	190 UJ	190 UJ
Pentachlorophenol	3,000	9,000		830 U	370 U	380 U	390 U	410 U	370 U	370 U	370 UJ	360 UJ	370 UJ
Phenanthrene	17,000,000	170,000,000		**1,500**	190 U	**330**	**330**	**49 J**	**550**	**14 J**	**260 J**	**13 J**	190 UJ
Phenol	18,000,000	180,000,000		430 U	190 U	**13 J**	**18 J**	**31 J**	**20 J**	**24 J**	190 UJ	190 UJ	190 UJ
Pyrene	1,700,000	17,000,000		**3,400**	190 U	**400**	**180 J**	**59 J**	**210**	**17 J**	**110 J**	**18 J**	190 UJ

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	SB105B E3RG6 36648 7/24/2007 µg/kg 4 L4 4-6	SB106A E3RG7 36648 7/24/2007 µg/kg 4 L2, L3 0-2	SB106B E3RG8 36648 7/24/2007 µg/kg 4 L1 8-10	SB107A E3SD1 36697 8/8/2007 µg/kg 3 L4 0-2	SB107B E3SD2 36697 8/8/2007 µg/kg 3 L3 8-10	SB108A E3SD3 36697 8/8/2007 µg/kg 3 L4 0-2	SB302A E3SD4 36697 8/8/2007 µg/kg SB108A 3 L4 0-2	SB108B E3SD5 36697 8/8/2007 µg/kg 3 L1 8-10	SB109A E3SD6 36697 8/8/2007 µg/kg 3 L1 0-2	SB109B E3SD7 36697 8/8/2007 µg/kg 3 L1 8-10
1,1'-Biphenyl	3,900,000	51,000,000	190 UJ	**9.9 J**	200 UJ	210 U	210 U	210 U	210 U	210 U	230 U	220 U
1,2,4,5-Tetrachlorobenzene	18,000	180,000	190 UJ	180 UJ	200 UJ	210 U	210 U	210 U	210 U	210 U	230 U	220 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000	190 UJ	180 UJ	200 UJ	210 U	210 U	210 U	210 U	210 U	230 U	220 U
2,4-Dimethylphenol	1,200,000	12,000,000	190 UJ	180 UJ	200 UJ	210 U	210 U	210 U	210 U	210 U	230 U	220 U
2-Chlorophenol	390,000	5,100,000	190 UJ	180 UJ	200 UJ	210 U	210 U	210 U	210 U	210 U	230 U	220 U
2-Methylnaphthalene	310,000	4,100,000	**8.3 J**	**71 J**	200 UJ	210 U	210 U	**35 J**	**15 J**	210 U	**83 J**	**61 J**
2-Methylphenol	3,100,000	31,000,000	190 UJ	180 UJ	200 UJ	210 U	210 U	210 U	210 U	210 U	230 U	220 U
3,3'-Dichlorobenzidine	1,100	3,800	190 UJ	180 UJ	200 UJ	210 U	210 U	210 U	210 U	210 U	230 U	220 U
3-Nitroaniline	24,000	86,000	360 UJ	350 UJ	380 UJ	420 U	400 U	410 U	400 U	400 U	440 U	430 U
4-Chloro-3-methylphenol	6,100,000	62,000,000	190 UJ	180 UJ	200 UJ	210 U	210 U	210 U	210 U	210 U	230 U	220 U
4-Methylphenol	310,000	3,100,000	190 UJ	180 UJ	200 UJ	210 U	210 U	210 U	210 U	210 U	230 U	220 U
Acenaphthene	3,400,000	33,000,000	190 UJ	180 UJ	200 UJ	210 U	210 U	210 U	210 U	210 U	230 U	**11 J**
Acenaphthylene	3,400,000	33,000,000	190 UJ	**38 J**	200 UJ	210 U	210 U	210 U	210 U	210 U	**12 J**	220 U
Acetophenone	7,800,000	100,000,000	**19 J**	**62 J**	**18 J**	210 U	**30 J**	210 U	210 U	210 U	**35 J**	**36 J**
Anthracene	17,000,000	170,000,000	190 UJ	**49 J**	200 UJ	210 U	210 U	210 U	**18 J**	210 U	**24 J**	**29 J**
Atrazine	2,100	7,500	190 UJ	180 UJ	200 UJ	210 U	210 U	210 U	210 U	210 U	230 U	220 U
Benzaldehyde	7,800,000	100,000,000	190 UJ	180 UJ	200 UJ	210 U	**38 J**	210 U	210 U	210 U	**31 J**	**49 J**
Benzo(a)anthracene	150	2,100	190 UJ	**180 J**	200 UJ	210 U	210 U	**27 J**	**48 J**	210 U	**130 J**	**100 J**
Benzo(a)pyrene	15	210	190 UJ	**200 J**	200 UJ	210 U	210 U	**20 J**	**37 J**	210 U	**100 J**	**69 J**
Benzo(b)fluoranthene	150	2,100	190 UJ	**510 J**	200 UJ	210 U	210 U	**35 J**	**47 J**	210 U	**130 J**	**95 J**
Benzo(g,h,i)perylene	150	2,100	190 UJ	**200 J**	200 UJ	210 U	210 U	210 U	**23 J**	210 U	**58 J**	**40 J**
Benzo(k)fluoranthene	1,500	21,000	190 UJ	**170 J**	200 UJ	210 U	210 U	**8.2 J**	**12 J**	210 U	**44 J**	**32 J**
Bis(2-ethylhexyl)phthalate	35,000	120,000	18 UJ	17 UJ	200 UJ	**86 J**	**67 J**	**64 J**	**45 J**	**160 J**	**130 J**	**70 J**
Butylbenzylphthalate	260,000	910,000	190 UJ	180 UJ	200 UJ	210 U	210 U	210 U	210 U	210 U	230 U	220 U
Caprolactam	31,000,000	310,000,000	190 UJ	180 UJ	200 UJ	210 U	210 U	210 U	210 U	210 U	230 U	220 U
Carbazole	17,000,000	170,000,000	190 UJ	**19 J**	200 UJ	210 U	210 U	210 U	210 U	210 U	**15 J**	**13 J**
Chrysene	15,000	210,000	190 UJ	**270 J**	200 UJ	210 U	210 U	**32 J**	**52 J**	210 U	**140 J**	**110 J**
Dibenzo(a,h)anthracene	15	210	190 UJ	**76 J**	200 UJ	210 U	210 U	210 U	210 U	210 U	230 U	220 U
Dibenzofuran	78,000	1,000,000	190 UJ	**47 J**	200 UJ	210 U	210 U	**12 J**	**10 J**	210 U	**32 J**	**22 J**
Diethylphthalate	49,000,000	490,000,000	190 UJ	180 UJ	200 UJ	210 U	210 U	210 U	210 U	210 U	230 U	220 U
Dimethylphthalate	49,000,000	490,000,000	190 UJ	180 UJ	200 UJ	210 U	210 U	210 U	210 U	210 U	230 U	220 U
Di-n-butylphthalate	6,100,000	62,000,000	190 UJ	180 UJ	200 UJ	210 U	210 U	210 U	210 U	210 U	230 U	220 U
Di-n-octylphthalate	35,000	120,000	190 UJ	180 UJ	200 UJ	210 U	210 U	210 U	210 U	210 U	230 U	220 U
Fluoranthene	2,300,000	22,000,000	190 UJ	**350 J**	200 UJ	**13 J**	210 U	**55 J**	**110 J**	**15 J**	**250**	**210 J**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB105B E3RG6 36648 7/24/2007 µg/kg 4 L4 4-6	SB106A E3RG7 36648 7/24/2007 µg/kg 4 L2, L3 0-2	SB106B E3RG8 36648 7/24/2007 µg/kg 4 L1 8-10	SB107A E3SD1 36697 8/8/2007 µg/kg 3 L4 0-2	SB107B E3SD2 36697 8/8/2007 µg/kg 3 L3 8-10	SB108A E3SD3 36697 8/8/2007 µg/kg 3 L4 0-2	SB302A E3SD4 36697 8/8/2007 µg/kg SB108A 3 L4 0-2	SB108B E3SD5 36697 8/8/2007 µg/kg 3 L1 8-10	SB109A E3SD6 36697 8/8/2007 µg/kg 3 L1 0-2	SB109B E3SD7 36697 8/8/2007 µg/kg 3 L1 8-10
Fluorene	2,300,000	22,000,000		190 UJ	180 UJ	200 UJ	210 U	210 U	210 U	**8 J**	210 U	**11 J**	**13 J**
Hexachlorobenzene	300	1,100		190 UJ	180 UJ	200 UJ	210 U	210 U	210 U	210 U	210 U	230 U	220 U
Indeno(1,2,3-cd)pyrene	150	2,100		190 UJ	**270 J**	200 UJ	210 U	210 U	210 U	**26 J**	210 U	**60 J**	**44 J**
Naphthalene	3,600	18,000		190 UJ	**43 J**	200 UJ	210 U	210 U	**23 J**	**12 J**	210 U	**37 J**	**40 J**
N-Nitrosodiphenylamine	99,000	350,000		190 UJ	180 UJ	200 UJ	210 U	210 U	210 U	210 U	210 U	230 U	220 U
Pentachlorophenol	3,000	9,000		360 UJ	350 UJ	380 UJ	420 U	400 U	410 U	400 U	400 U	440 U	430 U
Phenanthrene	17,000,000	170,000,000		**12 J**	**180 J**	200 UJ	**15 J**	210 U	**67 J**	**110 J**	**16 J**	**240**	**200 J**
Phenol	18,000,000	180,000,000		190 UJ	180 UJ	200 UJ	210 U	210 U	210 U	210 U	210 U	230 U	220 U
Pyrene	1,700,000	17,000,000		190 UJ	**340 J**	200 UJ	**14 J**	210 U	**50 J**	**100 J**	**13 J**	**270**	**190 J**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB110A E3SE0 36697 8/8/2007 µg/kg 3 L1 0-2	SB110B E3SE1 36697 8/8/2007 µg/kg 3 L1 8-10	SB111A E3SD8 36697 8/8/2007 µg/kg 3 L4 0-2	SB111B E3SD9 36697 8/8/2007 µg/kg 3 L1 8-10	SB112A E3RZ2 36664 7/31/2007 µg/kg 4 L1 0-2	SB112B E3RZ3 36664 7/31/2007 µg/kg 4 L1 8-10	SB114A E3SE8 36697 8/8/2007 µg/kg 4 L1 0-2	SB114B E3SE9 36697 8/8/2007 µg/kg 4 L1, L4 8-10	SB115A E3SE6 36697 8/8/2007 µg/kg 4 L1 0-2	SB115B E3SE7 36697 8/8/2007 µg/kg 4 L1 8-10
1,1'-Biphenyl	3,900,000	51,000,000		220 U	220 U	200 U	200 U	200 U	200 U	210 U	200 U	200 U	180 U
1,2,4,5-Tetrachlorobenzene	18,000	180,000		220 U	220 U	200 U	200 U	200 U	200 U	210 U	200 U	200 U	180 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		220 U	220 U	200 U	200 U	200 U	200 U	210 U	200 U	200 U	180 U
2,4-Dimethylphenol	1,200,000	12,000,000		220 U	220 U	200 U	200 U	200 U	200 U	210 U	200 U	200 U	180 U
2-Chlorophenol	390,000	5,100,000		220 U	220 U	200 U	200 U	200 U	200 U	210 U	200 U	200 U	180 U
2-Methylnaphthalene	310,000	4,100,000		220 U	220 U	**28 J**	200 U	200 U	200 U	210 U	200 U	200 U	180 U
2-Methylphenol	3,100,000	31,000,000		220 U	220 U	200 U	200 U	200 U	200 U	210 U	200 U	200 U	180 U
3,3'-Dichlorobenzidine	1,100	3,800		220 U	220 U	200 U	200 U	200 U	200 U	210 U	200 U	200 U	180 U
3-Nitroaniline	24,000	86,000		420 U	420 U	380 U	390 U	390 U	390 U	410 U	390 U	390 U	350 U
4-Chloro-3-methylphenol	6,100,000	62,000,000		220 U	220 U	200 U	200 U	200 U	200 U	210 U	200 U	200 U	180 U
4-Methylphenol	310,000	3,100,000		220 U	220 U	200 U	200 U	200 U	200 U	210 U	200 U	200 U	180 U
Acenaphthene	3,400,000	33,000,000		220 U	220 U	200 U	200 U	200 U	200 U	210 U	200 U	200 U	180 U
Acenaphthylene	3,400,000	33,000,000		220 U	220 U	200 U	200 U	200 U	200 U	210 U	200 U	200 U	180 U
Acetophenone	7,800,000	100,000,000		**17 J**	**21 J**	**25 J**	200 U	**39 J**	**40 J**	**20 J**	200 U	**18 J**	**18 J**
Anthracene	17,000,000	170,000,000		220 U	220 U	**15 J**	200 U	200 U	200 U	210 U	200 U	200 U	180 U
Atrazine	2,100	7,500		220 U	220 U	200 U	200 U	200 U	200 U	210 U	200 U	200 U	180 U
Benzaldehyde	7,800,000	100,000,000		220 U	220 U	**28 J**	200 U	200 U	200 U	210 U	200 U	200 U	180 U
Benzo(a)anthracene	150	2,100		220 U	220 U	**76 J**	200 U	200 U	200 U	210 U	200 U	200 U	180 UJ
Benzo(a)pyrene	15	210		220 U	220 U	**59 J**	200 U	200 U	200 U	210 U	200 U	200 U	180 UJ
Benzo(b)fluoranthene	150	2,100		220 U	220 U	**87 J**	200 U	200 U	200 U	210 U	200 U	200 U	180 UJ
Benzo(g,h,i)perylene	150	2,100		220 U	220 U	**33 J**	200 U	200 U	200 U	210 U	200 U	200 U	180 UJ
Benzo(k)fluoranthene	1,500	21,000		220 U	220 U	**21 J**	200 U	200 U	200 U	210 U	200 U	200 U	180 UJ
Bis(2-ethylhexyl)phthalate	35,000	120,000		**74 J**	**88 J**	**50 J**	**170 J**	**87 J**	**88 J**	**97 J**	**65 J**	**82 J**	**220**
Butylbenzylphthalate	260,000	910,000		220 U	220 U	200 U	200 U	200 U	200 U	210 U	200 U	200 U	180 U
Caprolactam	31,000,000	310,000,000		220 U	220 U	200 U	200 U	200 U	200 U	210 U	200 U	200 U	180 U
Carbazole	17,000,000	170,000,000		220 U	220 U	200 U	200 U	200 U	200 U	210 U	200 U	200 U	180 U
Chrysene	15,000	210,000		220 U	220 U	**82 J**	200 U	200 U	200 U	210 U	200 U	200 U	180 UJ
Dibenzo(a,h)anthracene	15	210		220 U	220 U	200 U	200 U	200 U	200 U	210 U	200 U	200 U	180 UJ
Dibenzofuran	78,000	1,000,000		220 U	220 U	**14 J**	200 U	200 U	200 U	210 U	200 U	200 U	180 U
Diethylphthalate	49,000,000	490,000,000		220 U	220 U	200 U	200 U	200 U	200 U	210 U	200 U	200 U	180 U
Dimethylphthalate	49,000,000	490,000,000		220 U	220 U	200 U	200 U	200 U	200 U	210 U	200 U	200 U	180 U
Di-n-butylphthalate	6,100,000	62,000,000		220 U	220 U	200 U	200 U	200 U	200 U	210 U	200 U	200 U	180 U
Di-n-octylphthalate	35,000	120,000		220 U	220 U	200 U	200 U	200 U	200 U	210 U	200 U	200 U	180 U
Fluoranthene	2,300,000	22,000,000		220 U	220 U	**140 J**	200 U	200 U	200 U	210 U	200 U	200 U	180 UJ

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB110A E3SE0 36697 8/8/2007 µg/kg 3 L1 0-2	SB110B E3SE1 36697 8/8/2007 µg/kg 3 L1 8-10	SB111A E3SD8 36697 8/8/2007 µg/kg 3 L4 0-2	SB111B E3SD9 36697 8/8/2007 µg/kg 3 L1 8-10	SB112A E3RZ2 36664 7/31/2007 µg/kg 4 L1 0-2	SB112B E3RZ3 36664 7/31/2007 µg/kg 4 L1 8-10	SB114A E3SE8 36697 8/8/2007 µg/kg 4 L1 0-2	SB114B E3SE9 36697 8/8/2007 µg/kg 4 L1, L4 8-10	SB115A E3SE6 36697 8/8/2007 µg/kg 4 L1 0-2	SB115B E3SE7 36697 8/8/2007 µg/kg 4 L1 8-10
Fluorene	2,300,000	22,000,000		220 U	220 U	200 U	200 U	200 U	200 U	210 U	200 U	200 U	180 U
Hexachlorobenzene	300	1,100		220 U	220 U	200 U	200 U	200 U	200 U	210 U	200 U	200 U	180 U
Indeno(1,2,3-cd)pyrene	150	2,100		220 U	220 U	**34 J**	200 U	200 U	200 U	210 U	200 U	200 U	180 UJ
Naphthalene	3,600	18,000		220 U	220 U	**20 J**	200 U	200 U	200 U	210 U	200 U	200 U	180 U
N-Nitrosodiphenylamine	99,000	350,000		220 U	220 U	200 U	200 U	200 U	200 U	210 U	200 U	200 U	180 U
Pentachlorophenol	3,000	9,000		420 U	420 U	380 U	390 U	390 UJ	390 UJ	410 U	390 U	390 U	350 U
Phenanthrene	17,000,000	170,000,000		220 U	220 U	**110 J**	200 U	200 U	200 U	210 U	200 U	200 U	180 U
Phenol	18,000,000	180,000,000		220 U	220 U	200 U	200 U	200 U	200 U	210 U	200 U	200 U	180 U
Pyrene	1,700,000	17,000,000		220 U	220 U	**140 J**	200 U	200 U	200 U	210 U	200 U	200 U	180 UJ

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB116A E3RL7 36648 7/25/2007 µg/kg 3 L1, L4 0-2	SB116B E3RL8 36648 7/25/2007 µg/kg 3 L2 8-10	SB117A E3RT0 36720 8/15/2007 µg/kg 3 L1, L2 0-2	SB322A E3RT1 36720 8/15/2007 µg/kg SB117A 3 L1, L2 0-2	SB118A E3RT3 36720 8/15/2007 µg/kg 3 L2 0-2	SB119A E3RT4 36720 8/15/2007 µg/kg 3 L2, L3 0-2	SB120A E3SH2 36697 8/9/2007 µg/kg 3 L4 0-2	SB121A E3SH0 36697 8/9/2007 µg/kg 3 L1 0-2	SB122A E3SG9 36697 8/9/2007 µg/kg 3 L1, L4 0-2	SB308A E3SH1 36697 8/9/2007 µg/kg SB122A 3 L1, L4 0-2
1,1'-Biphenyl	3,900,000	51,000,000		1,100 U	210 U	220 U	240 U	220 U	250 U	190 U	190 U	190 U	200 U
1,2,4,5-Tetrachlorobenzene	18,000	180,000		1,100 U	210 U	220 U	240 U	220 U	250 U	190 U	190 U	190 U	200 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		1,100 U	210 U	220 U	240 U	220 U	250 U	190 U	190 U	190 U	200 U
2,4-Dimethylphenol	1,200,000	12,000,000		1,100 U	210 U	220 U	240 U	220 U	250 U	190 U	190 U	190 U	200 U
2-Chlorophenol	390,000	5,100,000		1,100 U	210 U	220 U	240 U	220 U	250 U	190 U	190 U	190 U	200 U
2-Methylnaphthalene	310,000	4,100,000		**150 J**	**24 J**	**66 J**	**120 J**	**27 J**	**120 J**	190 U	190 U	190 U	200 U
2-Methylphenol	3,100,000	31,000,000		1,100 U	210 U	220 U	240 U	220 U	250 U	190 U	190 U	190 U	200 U
3,3'-Dichlorobenzidine	1,100	3,800		1,100 U	210 U	220 U	240 U	220 U	250 U	190 U	190 U	190 U	200 U
3-Nitroaniline	24,000	86,000		2,100 U	400 UJ	430 U	460 U	420 U	490 U	370 U	380 U	360 U	380 U
4-Chloro-3-methylphenol	6,100,000	62,000,000		1,100 U	210 U	220 U	240 U	220 U	250 U	190 U	190 U	190 U	200 U
4-Methylphenol	310,000	3,100,000		1,100 U	210 U	220 U	240 U	220 U	250 U	190 U	190 U	190 U	200 U
Acenaphthene	3,400,000	33,000,000		1,100 U	210 U	**36 J**	240 U	220 U	**31 J**	190 U	190 U	190 U	200 U
Acenaphthylene	3,400,000	33,000,000		1,100 U	210 U	220 U	240 U	220 U	250 U	190 U	190 U	190 U	200 U
Acetophenone	7,800,000	100,000,000		**80 J**	**20 J**	220 U	240 U	220 U	250 U	**20 J**	**17 J**	**15 J**	**19 J**
Anthracene	17,000,000	170,000,000		**90 J**	210 U	**57 J**	240 U	220 U	**110 J**	190 U	190 U	190 U	200 U
Atrazine	2,100	7,500		1,100 U	210 U	220 U	240 U	220 U	250 U	190 U	190 U	190 U	200 U
Benzaldehyde	7,800,000	100,000,000		1,100 U	**36 J**	220 U	240 U	220 U	250 U	190 U	190 U	190 U	200 U
Benzo(a)anthracene	150	2,100		**490 J**	**22 J**	**610**	**150 J**	**380 J**	**570 J**	**27 J**	190 U	190 U	200 U
Benzo(a)pyrene	15	210		**530 J**	210 UJ	**420**	**120 J**	**400 J**	**430 J**	**28 J**	190 U	190 U	200 U
Benzo(b)fluoranthene	150	2,100		**940 J**	210 UJ	**820**	**210 J**	**600 J**	**880 J**	**42 J**	190 U	190 U	200 U
Benzo(g,h,i)perylene	150	2,100		**450 J**	210 UJ	**180 J**	**72 J**	**190 J**	**180 J**	190 U	190 U	190 U	200 U
Benzo(k)fluoranthene	1,500	21,000		**230 J**	210 UJ	**300**	**73 J**	**160 J**	**280 J**	**11 J**	190 U	190 U	200 U
Bis(2-ethylhexyl)phthalate	35,000	120,000		1,100 U	**110 J**	28 U	35 U	550 U	250 U	**19 J**	**20 J**	**20 J**	**23 J**
Butylbenzylphthalate	260,000	910,000		1,100 U	210 U	220 U	240 U	220 U	250 U	190 U	190 U	190 U	200 U
Caprolactam	31,000,000	310,000,000		1,100 U	210 U	220 U	240 U	220 U	250 U	190 U	190 U	190 U	200 U
Carbazole	17,000,000	170,000,000		**39 J**	210 U	**100 J**	240 U	220 U	**66 J**	190 U	190 U	190 U	200 U
Chrysene	15,000	210,000		**950 J**	**34 J**	**840**	**200 J**	**510 J**	**660 J**	**30 J**	190 U	190 U	200 U
Dibenzo(a,h)anthracene	15	210		**190 J**	210 UJ	220 U	240 U	220 UJ	250 UJ	190 U	190 U	190 U	200 U
Dibenzofuran	78,000	1,000,000		**50 J**	**9.5 J**	**44 J**	**38 J**	220 U	**58 J**	190 U	190 U	190 U	200 U
Diethylphthalate	49,000,000	490,000,000		1,100 U	210 U	220 U	240 U	220 U	250 U	190 U	190 U	190 U	200 U
Dimethylphthalate	49,000,000	490,000,000		1,100 U	210 U	220 U	240 U	220 U	250 U	190 U	190 U	190 U	200 U
Di-n-butylphthalate	6,100,000	62,000,000		1,100 U	210 U	46 U	61 U	58 U	69 U	190 U	190 U	190 U	200 U
Di-n-octylphthalate	35,000	120,000		1,100 U	210 U	220 UJ	240 UJ	220 UJ	250 UJ	190 U	190 U	190 U	200 U
Fluoranthene	2,300,000	22,000,000		**710 J**	**67 J**	**2,500**	**280**	**620 J**	**1,300 J**	**45 J**	**9.9 J**	190 U	200 U

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB116A E3RL7 36648 7/25/2007 µg/kg 3 L1, L4 0-2	SB116B E3RL8 36648 7/25/2007 µg/kg 3 L2 8-10	SB117A E3RT0 36720 8/15/2007 µg/kg 3 L1, L2 0-2	SB322A E3RT1 36720 8/15/2007 µg/kg SB117A 3 L1, L2 0-2	SB118A E3RT3 36720 8/15/2007 µg/kg 3 L2 0-2	SB119A E3RT4 36720 8/15/2007 µg/kg 3 L2, L3 0-2	SB120A E3SH2 36697 8/9/2007 µg/kg 3 L4 0-2	SB121A E3SH0 36697 8/9/2007 µg/kg 3 L1 0-2	SB122A E3SG9 36697 8/9/2007 µg/kg 3 L1, L4 0-2	SB308A E3SH1 36697 8/9/2007 µg/kg SB122A 3 L1, L4 0-2
Fluorene	2,300,000	22,000,000		1,100 U	210 U	**30 J**	240 U	220 U	**32 J**	190 U	190 U	190 U	200 U
Hexachlorobenzene	300	1,100		1,100 U	210 U	220 U	240 U	220 U	250 U	190 U	190 U	190 U	200 U
Indeno(1,2,3-cd)pyrene	150	2,100		**410 J**	210 UJ	**200 J**	**64 J**	**200 J**	**210 J**	190 U	190 U	190 U	200 U
Naphthalene	3,600	18,000		**63 J**	**42 J**	**24 J**	**37 J**	220 U	**49 J**	190 U	190 U	190 U	200 U
N-Nitrosodiphenylamine	99,000	350,000		1,100 U	210 U	220 U	240 U	220 U	250 U	190 U	190 U	190 U	200 U
Pentachlorophenol	3,000	9,000		2,100 U	400 U	430 U	460 U	420 U	490 U	370 U	380 U	360 U	380 U
Phenanthrene	17,000,000	170,000,000		**560 J**	**64 J**	**1,200**	**240**	**250**	**780**	**22 J**	190 U	190 U	200 U
Phenol	18,000,000	180,000,000		1,100 U	210 U	220 U	240 U	220 U	250 U	190 UJ	190 UJ	190 UJ	200 UJ
Pyrene	1,700,000	17,000,000		**940 J**	**67 J**	**1,700**	**290**	**600 J**	**1,200 J**	**51 J**	**12 J**	190 U	200 U

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB123A E3SG5 36697 8/9/2007 µg/kg 3 L1, L4 0-2	SB123B E3SG6 36697 8/9/2007 µg/kg 3 L1 8-10	SB124A E3SG2 36697 8/9/2007 µg/kg 3 L1, L4 0-2	SB124B E3SG3 36697 8/9/2007 µg/kg 3 L1 4-6	SB125A E3SJ8 36697 8/10/2007 µg/kg 3 L4 0-2	SB125B E3SJ9 36697 8/10/2007 µg/kg 3 L1 6-8	SB126A E3SJ6 36697 8/10/2007 µg/kg 3 L4 0-2	SB126B E3SJ7 36697 8/10/2007 µg/kg 3 L4 4-6	SB127B E3RX3 36664 7/30/2007 µg/kg 3 L1, L4 8-10	SB128A E3RW2 36664 7/30/2007 µg/kg SB281A 3 L4 0-2
1,1'-Biphenyl	3,900,000	51,000,000		220 U	180 U	1,900 UJ	210 UJ	**29 J**	**20 J**	200 U	**8 J**	220 U	200 U
1,2,4,5-Tetrachlorobenzene	18,000	180,000		220 U	180 U	1,900 UJ	210 U	390 U	220 U	200 U	190 U	220 U	200 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		220 U	180 U	1,900 UJ	210 U	390 U	220 U	200 U	190 U	220 U	200 U
2,4-Dimethylphenol	1,200,000	12,000,000		220 U	180 U	1,900 U	210 U	390 U	220 U	200 U	190 U	220 U	200 U
2-Chlorophenol	390,000	5,100,000		220 U	180 U	1,900 U	210 U	390 U	220 U	200 U	190 U	220 U	200 U
2-Methylnaphthalene	310,000	4,100,000		220 U	180 U	1,900 U	210 U	**130 J**	**350**	**7.2 J**	**100 J**	**41 J**	**56 J**
2-Methylphenol	3,100,000	31,000,000		220 U	180 U	1,900 U	210 U	390 U	220 U	200 U	190 U	220 U	200 U
3,3'-Dichlorobenzidine	1,100	3,800		220 U	180 U	1,900 UJ	210 U	390 U	220 U	200 U	190 U	220 U	200 U
3-Nitroaniline	24,000	86,000		430 U	360 U	3,800 UJ	400 U	760 U	440 U	390 U	380 U	420 U	380 U
4-Chloro-3-methylphenol	6,100,000	62,000,000		220 U	180 U	1,900 U	210 U	390 U	220 U	200 U	190 U	220 U	200 U
4-Methylphenol	310,000	3,100,000		220 U	180 U	1,900 U	210 U	390 U	220 U	200 U	190 U	220 U	200 U
Acenaphthene	3,400,000	33,000,000		220 U	180 U	1,900 UJ	210 U	390 U	220 U	200 U	**9.3 J**	220 U	200 U
Acenaphthylene	3,400,000	33,000,000		220 U	180 U	1,900 UJ	210 U	**69 J**	220 U	200 U	**26 J**	**110 J**	200 U
Acetophenone	7,800,000	100,000,000		**20 J**	**14 J**	1,900 U	**8.1 J**	390 U	220 U	**17 J**	**53 J**	220 U	200 U
Anthracene	17,000,000	170,000,000		220 U	180 U	1,900 UJ	210 U	**240 J**	**12 J**	200 U	**27 J**	**160 J**	200 U
Atrazine	2,100	7,500		220 U	180 U	1,900 UJ	210 U	390 U	220 U	200 U	190 U	220 U	200 U
Benzaldehyde	7,800,000	100,000,000		220 U	180 U	1,900 U	210 U	390 U	220 U	200 U	190 U	220 U	200 U
Benzo(a)anthracene	150	2,100		220 U	180 U	1,900 UJ	210 UJ	**2,800 J**	**58 J**	200 U	**210**	**380**	200 UJ
Benzo(a)pyrene	15	210		220 U	180 U	1,900 UJ	210 U	**1,100 J**	**130 J**	200 U	**190**	**340**	**140 J**
Benzo(b)fluoranthene	150	2,100		220 U	180 U	1,900 UJ	210 U	**4,100 J**	**97 J**	200 U	**290**	**220 J**	**140 J**
Benzo(g,h,i)perylene	150	2,100		220 U	180 U	1,900 UJ	210 U	**170 J**	220 UJ	200 U	**130 J**	**230**	**120 J**
Benzo(k)fluoranthene	1,500	21,000		220 U	180 U	1,900 UJ	210 U	**1,400 J**	**35 J**	200 U	**99 J**	**260**	**140 J**
Bis(2-ethylhexyl)phthalate	35,000	120,000		**27 J**	**24 J**	1,900 UJ	210 UJ	390 U	220 U	200 U	190 U	220 U	200 U
Butylbenzylphthalate	260,000	910,000		220 U	180 U	1,900 UJ	210 UJ	390 U	220 U	200 U	190 U	220 U	200 U
Caprolactam	31,000,000	310,000,000		220 U	180 U	1,900 U	210 UJ	390 U	220 U	200 U	190 U	220 U	200 U
Carbazole	17,000,000	170,000,000		220 U	180 U	1,900 UJ	210 U	**19 J**	220 U	200 U	**15 J**	**50 J**	200 U
Chrysene	15,000	210,000		220 U	180 U	**710 J**	210 UJ	**2,500 J**	**94 J**	200 U	**260**	**410**	**170 J**
Dibenzo(a,h)anthracene	15	210		220 U	180 U	1,900 UJ	210 U	**530 J**	220 UJ	200 U	**41 J**	220 U	**63 J**
Dibenzofuran	78,000	1,000,000		220 U	180 U	1,900 UJ	210 U	**41 J**	**42 J**	200 U	**27 J**	**49 J**	200 U
Diethylphthalate	49,000,000	490,000,000		220 U	180 U	1,900 UJ	210 UJ	390 U	220 U	200 U	190 U	220 U	200 U
Dimethylphthalate	49,000,000	490,000,000		220 U	180 U	1,900 UJ	210 UJ	390 U	220 U	200 U	190 U	220 U	200 U
Di-n-butylphthalate	6,100,000	62,000,000		220 U	180 U	1,900 UJ	210 UJ	390 U	220 U	200 U	190 U	220 U	200 U
Di-n-octylphthalate	35,000	120,000		220 U	180 U	1,900 UJ	210 UJ	390 U	220 U	200 U	190 U	220 U	200 U
Fluoranthene	2,300,000	22,000,000		220 U	180 U	1,900 UJ	210 UJ	**3,100 J**	**97 J**	**9.2 J**	**370**	**1,000**	**270**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB123A E3SG5 36697 8/9/2007 µg/kg 3 L1, L4 0-2	SB123B E3SG6 36697 8/9/2007 µg/kg 3 L1 8-10	SB124A E3SG2 36697 8/9/2007 µg/kg 3 L1, L4 0-2	SB124B E3SG3 36697 8/9/2007 µg/kg 3 L1 4-6	SB125A E3SJ8 36697 8/10/2007 µg/kg 3 L4 0-2	SB125B E3SJ9 36697 8/10/2007 µg/kg 3 L1 6-8	SB126A E3SJ6 36697 8/10/2007 µg/kg 3 L4 0-2	SB126B E3SJ7 36697 8/10/2007 µg/kg 3 L4 4-6	SB127B E3RX3 36664 7/30/2007 µg/kg 3 L1, L4 8-10	SB128A E3RW2 36664 7/30/2007 µg/kg SB281A 3 L4 0-2
Fluorene	2,300,000	22,000,000		220 U	180 U	1,900 UJ	210 U	**16 J**	220 U	200 U	190 U	**55 J**	200 U
Hexachlorobenzene	300	1,100		220 U	180 U	1,900 UJ	210 U	390 U	220 U	200 U	190 U	220 U	200 U
Indeno(1,2,3-cd)pyrene	150	2,100		220 U	180 U	1,900 UJ	210 U	**1,300 J**	**140 J**	200 U	**140 J**	**240**	**120 J**
Naphthalene	3,600	18,000		220 U	180 U	1,900 U	210 U	**78 J**	**130 J**	**40 J**	**56 J**	**83 J**	200 U
N-Nitrosodiphenylamine	99,000	350,000		220 U	180 U	1,900 UJ	210 U	390 U	220 U	200 U	190 U	220 U	200 U
Pentachlorophenol	3,000	9,000		430 U	360 U	3,800 UJ	400 U	760 U	440 U	390 U	380 U	420 UJ	380 UJ
Phenanthrene	17,000,000	170,000,000		220 U	180 U	1,900 UJ	210 U	**1,200**	**340**	**14 J**	**270**	**1,100**	**160 J**
Phenol	18,000,000	180,000,000		220 U	180 U	1,900 U	210 U	390 U	220 U	200 U	190 U	220 U	200 U
Pyrene	1,700,000	17,000,000		220 U	180 U	**340 J**	210 UJ	**1,900 J**	**210 J**	**8 J**	**350**	**1,100**	**270**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB281A	SB128B	SB129A	SB130A	SB130B	SB282B	SB131A	SB131B	SB132A	SB133A
			Sample ID	E3RW6	E3RW3	E3RX0	E3RW7	E3RW8	E3RW9	E3RS9	E3RT0	E3RT1	E3RR2
			Case	36664	36664	36664	36664	36664	36664	36664	36664	36664	36648
			Sampling date	7/30/2007	7/30/2007	7/30/2007	7/30/2007	7/30/2007	7/30/2007	7/30/2007	7/30/2007	7/30/2007	7/27/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info	dupe					SB130B				
			Investigation area	3	3	2	2	2	2	2	2	2	2
			Lithology	L4	L4	L4	L1	L4	L4	L4	L4	L4	L1, L4
			Depth (ft bgs)	0-2	8-10	0-2	0-2	8-10	8-10	0-2	4-6	0-2	0-2
1,1'-Biphenyl	3,900,000	51,000,000		190 U	190 U	200 U	210 U	200 U	220 U	200 U	210 U	220 U	220 U
1,2,4,5-Tetrachlorobenzene	18,000	180,000		190 U	190 U	200 U	210 U	200 U	220 U	200 U	210 U	220 U	220 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		190 U	190 U	200 U	210 U	200 U	220 U	200 U	210 U	220 U	220 U
2,4-Dimethylphenol	1,200,000	12,000,000		190 U	190 U	200 U	210 U	200 U	220 U	200 U	210 U	220 U	220 U
2-Chlorophenol	390,000	5,100,000		190 U	190 U	200 U	210 U	200 U	220 U	200 U	210 U	220 U	220 U
2-Methylnaphthalene	310,000	4,100,000		**45 J**	190 U	200 U	210 U	200 U	220 U	200 U	210 U	**34 J**	**18 J**
2-Methylphenol	3,100,000	31,000,000		190 U	190 U	200 U	210 U	200 U	220 U	200 U	210 U	220 U	220 U
3,3'-Dichlorobenzidine	1,100	3,800		190 U	190 U	200 U	210 U	200 U	220 U	200 U	210 U	220 U	220 U
3-Nitroaniline	24,000	86,000		380 U	370 U	390 U	410 U	380 U	420 U	380 U	410 U	420 U	420 U
4-Chloro-3-methylphenol	6,100,000	62,000,000		190 U	190 U	200 U	210 U	200 U	220 U	200 U	210 U	220 U	220 U
4-Methylphenol	310,000	3,100,000		190 U	190 U	200 U	210 U	200 U	220 U	200 U	210 U	220 U	220 U
Acenaphthene	3,400,000	33,000,000		190 U	190 U	200 U	210 UJ	200 U	220 U	200 U	210 U	220 U	**11 J**
Acenaphthylene	3,400,000	33,000,000		**120 J**	190 U	200 U	210 U	200 U	220 U	200 U	210 U	220 U	220 U
Acetophenone	7,800,000	100,000,000		190 U	190 U	200 U	210 U	200 U	220 U	200 U	210 U	220 U	**55 J**
Anthracene	17,000,000	170,000,000		**150 J**	190 U	**54 J**	210 U	200 U	220 U	200 U	210 U	220 U	**17 J**
Atrazine	2,100	7,500		190 U	190 U	200 U	210 U	200 U	220 U	200 U	210 U	220 U	220 U
Benzaldehyde	7,800,000	100,000,000		190 U	190 U	200 U	210 U	200 U	220 U	200 U	210 U	220 U	**40 J**
Benzo(a)anthracene	150	2,100		**620 J**	190 U	**190 J**	210 U	200 U	220 U	200 UJ	210 UJ	220 U	**45 J**
Benzo(a)pyrene	15	210		**650**	**44 J**	**190 J**	210 U	200 UJ	220 U	**42 J**	**43 J**	**43 J**	220 U
Benzo(b)fluoranthene	150	2,100		**400 J**	190 U	**120 J**	210 U	200 UJ	220 U	**38 J**	210 U	**54 J**	220 U
Benzo(g,h,i)perylene	150	2,100		**540**	190 U	**120 J**	210 U	200 UJ	**37 J**	**55 J**	210 U	**37 J**	220 U
Benzo(k)fluoranthene	1,500	21,000		**460**	190 UJ	**140 J**	210 UJ	200 UJ	220 U	**35 J**	**38 J**	**48 J**	220 U
Bis(2-ethylhexyl)phthalate	35,000	120,000		190 U	190 U	200 U	210 U	200 U	220 U	200 U	210 U	220 U	220 U
Butylbenzylphthalate	260,000	910,000		190 U	190 U	200 U	210 U	200 U	220 U	200 U	210 U	220 U	220 U
Caprolactam	31,000,000	310,000,000		190 U	190 U	200 U	210 U	200 U	220 U	200 U	210 U	220 U	220 U
Carbazole	17,000,000	170,000,000		**41 J**	190 U	200 U	210 U	200 U	220 U	200 U	210 U	220 U	220 U
Chrysene	15,000	210,000		**730 J**	190 U	**220**	210 U	200 U	220 U	**39 J**	**34 J**	**40 J**	**38 J**
Dibenzo(a,h)anthracene	15	210		190 U	190 U	**45 J**	210 U	200 UJ	220 U	**43 J**	210 U	220 U	220 U
Dibenzofuran	78,000	1,000,000		**35 J**	190 U	200 U	210 U	200 U	220 U	200 U	210 U	220 U	**17 J**
Diethylphthalate	49,000,000	490,000,000		190 U	190 U	200 U	210 U	**53 J**	220 U	200 U	210 U	220 U	220 U
Dimethylphthalate	49,000,000	490,000,000		190 U	190 U	200 U	210 U	200 U	220 U	200 U	210 U	220 U	220 U
Di-n-butylphthalate	6,100,000	62,000,000		190 U	190 U	200 U	210 U	200 U	220 U	200 U	210 U	220 U	220 U
Di-n-octylphthalate	35,000	120,000		190 U	190 U	200 U	210 U	200 U	220 U	200 U	210 U	220 U	220 U
Fluoranthene	2,300,000	22,000,000		**1,500**	190 U	**390**	210 U	200 U	**39 J**	**51 J**	**61 J**	**82 J**	**170 J**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB281A	SB128B	SB129A	SB130A	SB130B	SB282B	SB131A	SB131B	SB132A	SB133A
			Sample ID	E3RW6	E3RW3	E3RX0	E3RW7	E3RW8	E3RW9	E3RS9	E3RT0	E3RT1	E3RR2
			Case	36664	36664	36664	36664	36664	36664	36664	36664	36664	36648
			Sampling date	7/30/2007	7/30/2007	7/30/2007	7/30/2007	7/30/2007	7/30/2007	7/30/2007	7/30/2007	7/30/2007	7/27/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info	dupe					SB130B				
			Investigation area	3	3	2	2	2	2	2	2	2	2
			Lithology	L4	L4	L4	L1	L4	L4	L4	L4	L4	L1, L4
			Depth (ft bgs)	0-2	8-10	0-2	0-2	8-10	8-10	0-2	4-6	0-2	0-2
Fluorene	2,300,000	22,000,000		**41 J**	190 U	200 U	210 U	200 U	220 U	200 U	210 U	220 U	220 U
Hexachlorobenzene	300	1,100		190 U	190 U	200 U	210 U	200 U	220 U	200 U	210 U	220 U	220 U
Indeno(1,2,3-cd)pyrene	150	2,100		**460**	190 U	**110 J**	**34 J**	200 UJ	**36 J**	**57 J**	210 U	**37 J**	220 U
Naphthalene	3,600	18,000		**34 J**	190 U	200 U	210 U	200 U	220 U	200 U	210 U	220 U	**30 J**
N-Nitrosodiphenylamine	99,000	350,000		190 U	190 U	200 U	210 U	200 U	220 U	200 U	210 U	220 U	220 U
Pentachlorophenol	3,000	9,000		380 UJ	370 UJ	390 UJ	410 UJ	380 UJ	420 UJ	380 UJ	410 UJ	420 UJ	420 U
Phenanthrene	17,000,000	170,000,000		**780**	190 U	**240**	210 U	200 U	220 U	200 U	**45 J**	**60 J**	**130 J**
Phenol	18,000,000	180,000,000		190 U	190 U	200 U	210 UJ	200 U	220 U	200 U	210 U	220 U	220 U
Pyrene	1,700,000	17,000,000		**1,400**	190 U	**370**	210 U	200 U	220 U	**53 J**	**49 J**	**67 J**	**140 J**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB133B E3RR3 36648 7/27/2007 µg/kg 2 L1 8-10	SB134A E3RQ7 36648 7/26/2007 µg/kg 2 L1 0-2	SB269A E3RQ9 36648 7/26/2007 µg/kg SB134A 2 L1 0-2	SB134B E3RQ8 36648 7/26/2007 µg/kg 2 L2, L3 4-6	SB135A E3RW0 36664 7/30/2007 µg/kg 3 L4 0-2	SB135B E3RW1 36664 7/30/2007 µg/kg 3 L4 8-10	SB136A E3RT8 36664 7/30/2007 µg/kg 3 L4 0-2	SB136B E3RT9 36664 7/30/2007 µg/kg 3 L4 4-6	SB137B E3RT7 36664 7/30/2007 µg/kg 3 L4 4-6	SB138A E3RW4 36664 7/30/2007 µg/kg 3 L4 0-2
1,1'-Biphenyl	3,900,000	51,000,000		210 U	1,900 U	1,900 U	200 U	200 U	190 U	200 U	200 U	190 U	220 U
1,2,4,5-Tetrachlorobenzene	18,000	180,000		210 U	1,900 U	1,900 U	200 U	200 U	190 U	200 U	200 U	190 U	220 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		210 U	1,900 U	1,900 U	200 U	200 U	190 U	200 U	200 U	190 U	220 U
2,4-Dimethylphenol	1,200,000	12,000,000		210 U	1,900 U	1,900 U	200 U	200 U	190 U	200 U	200 U	190 U	220 U
2-Chlorophenol	390,000	5,100,000		210 U	1,900 U	1,900 U	200 U	200 U	190 U	200 U	200 U	190 U	220 U
2-Methylnaphthalene	310,000	4,100,000		210 U	1,900 U	1,900 U	**30 J**	200 U	190 U	200 U	200 U	190 U	220 U
2-Methylphenol	3,100,000	31,000,000		210 U	1,900 U	1,900 U	200 U	200 U	190 U	200 U	200 U	190 U	220 U
3,3'-Dichlorobenzidine	1,100	3,800		210 U	1,900 U	1,900 U	200 U	200 U	190 U	200 U	200 U	190 U	220 U
3-Nitroaniline	24,000	86,000		400 U	3,600 U	3,600 U	390 U	380 U	370 U	390 U	380 U	360 U	430 U
4-Chloro-3-methylphenol	6,100,000	62,000,000		210 U	1,900 U	1,900 U	200 U	200 U	190 U	200 U	200 U	190 U	220 U
4-Methylphenol	310,000	3,100,000		210 U	1,900 U	1,900 U	200 U	200 U	190 U	200 U	200 U	190 U	220 U
Acenaphthene	3,400,000	33,000,000		210 U	1,900 U	1,900 U	200 U	200 U	190 U	200 U	200 U	190 U	220 U
Acenaphthylene	3,400,000	33,000,000		210 U	1,900 U	**310 J**	**12 J**	200 U	190 U	200 U	200 U	190 U	220 U
Acetophenone	7,800,000	100,000,000		**31 J**	1,900 U	1,900 U	**78 J**	200 U	190 U	200 U	200 U	190 U	220 U
Anthracene	17,000,000	170,000,000		210 U	1,900 U	1,900 U	**15 J**	200 U	190 U	200 U	200 U	190 U	220 U
Atrazine	2,100	7,500		210 U	1,900 U	1,900 U	200 U	200 U	190 U	200 U	200 U	190 U	220 U
Benzaldehyde	7,800,000	100,000,000		210 U	1,900 U	1,900 U	**30 J**	200 U	190 U	200 U	200 U	190 U	220 U
Benzo(a)anthracene	150	2,100		**29 J**	**350 J**	**830 J**	**76 J**	200 UJ	190 UJ	87 UJ	200 UJ	190 U	220 UJ
Benzo(a)pyrene	15	210		**27 J**	**450 J**	**1,200 J**	**70 J**	200 U	190 U	**110 J**	200 UJ	190 U	**66 J**
Benzo(b)fluoranthene	150	2,100		**32 J**	**910 J**	**2,100**	**160 J**	200 U	**35 J**	**180 J**	200 UJ	**34 J**	**110 J**
Benzo(g,h,i)perylene	150	2,100		210 U	**360 J**	**780 J**	**72 J**	200 U	190 U	**120 J**	**32 J**	190 U	**85 J**
Benzo(k)fluoranthene	1,500	21,000		**17 J**	**220 J**	**610 J**	**47 J**	200 U	**54 J**	**130 J**	200 UJ	**34 J**	**85 J**
Bis(2-ethylhexyl)phthalate	35,000	120,000		210 U	1,900 U	1,900 U	200 U	**690**	190 U	200 U	200 U	190 U	220 U
Butylbenzylphthalate	260,000	910,000		210 U	1,900 U	1,900 U	200 U	200 U	190 U	200 U	200 U	190 U	220 U
Caprolactam	31,000,000	310,000,000		210 U	1,900 U	1,900 U	200 U	200 U	190 U	200 U	200 U	190 U	220 U
Carbazole	17,000,000	170,000,000		210 U	1,900 U	1,900 U	200 U	200 U	190 U	200 U	200 U	190 U	220 U
Chrysene	15,000	210,000		**26 J**	**360 J**	**1,200 J**	**110 J**	200 UJ	190 UJ	**150 J**	200 UJ	190 U	**110 J**
Dibenzo(a,h)anthracene	15	210		210 U	1,900 U	**380 J**	200 U	200 U	190 U	**62 J**	200 UJ	190 U	**48 J**
Dibenzofuran	78,000	1,000,000		210 U	1,900 U	1,900 U	**27 J**	200 U	190 U	200 U	200 U	190 U	220 U
Diethylphthalate	49,000,000	490,000,000		210 U	1,900 U	1,900 U	200 U	200 U	190 U	200 U	200 U	190 U	220 U
Dimethylphthalate	49,000,000	490,000,000		210 U	1,900 U	1,900 U	200 U	200 U	190 U	200 U	200 U	190 U	220 U
Di-n-butylphthalate	6,100,000	62,000,000		210 U	1,900 U	1,900 U	200 U	200 U	190 U	200 U	200 U	190 U	220 U
Di-n-octylphthalate	35,000	120,000		210 U	1,900 U	1,900 U	200 U	200 U	**34 J**	200 U	200 U	190 U	220 U
Fluoranthene	2,300,000	22,000,000		**38 J**	**380 J**	**1,500 J**	**160 J**	**47 J**	190 UJ	**140 J**	200 UJ	190 U	**120 J**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB133B E3RR3 36648 7/27/2007 µg/kg 2 L1 8-10	SB134A E3RQ7 36648 7/26/2007 µg/kg 2 L1 0-2	SB269A E3RQ9 36648 7/26/2007 µg/kg SB134A 2 L1 0-2	SB134B E3RQ8 36648 7/26/2007 µg/kg 2 L2, L3 4-6	SB135A E3RW0 36664 7/30/2007 µg/kg 3 L4 0-2	SB135B E3RW1 36664 7/30/2007 µg/kg 3 L4 8-10	SB136A E3RT8 36664 7/30/2007 µg/kg 3 L4 0-2	SB136B E3RT9 36664 7/30/2007 µg/kg 3 L4 4-6	SB137B E3RT7 36664 7/30/2007 µg/kg 3 L4 4-6	SB138A E3RW4 36664 7/30/2007 µg/kg 3 L4 0-2
Fluorene	2,300,000	22,000,000		210 U	1,900 U	1,900 U	200 U	200 U	190 U	200 U	200 U	190 U	220 U
Hexachlorobenzene	300	1,100		210 U	1,900 U	1,900 U	200 U	200 U	190 U	200 U	200 U	190 U	220 U
Indeno(1,2,3-cd)pyrene	150	2,100		210 U	**610 J**	**1,200 J**	**68 J**	200 U	190 U	**110 J**	200 UJ	190 U	**79 J**
Naphthalene	3,600	18,000		210 U	1,900 U	1,900 U	**25 J**	200 U	190 U	200 U	200 U	190 U	220 U
N-Nitrosodiphenylamine	99,000	350,000		210 U	1,900 U	1,900 U	200 U	200 U	190 U	200 U	200 U	190 U	220 U
Pentachlorophenol	3,000	9,000		400 U	3,600 U	3,600 U	390 U	380 UJ	370 UJ	390 UJ	380 UJ	360 UJ	430 UJ
Phenanthrene	17,000,000	170,000,000		**30 J**	**230 J**	**620 J**	**140 J**	200 U	190 U	**83 J**	200 U	190 U	**53 J**
Phenol	18,000,000	180,000,000		210 U	1,900 U	1,900 U	200 U	200 U	190 U	200 U	200 U	190 U	220 U
Pyrene	1,700,000	17,000,000		**49 J**	**730 J**	**1,500 J**	**150 J**	200 UJ	190 UJ	**140 J**	200 UJ	190 U	**130 J**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB138B E3RW5 36664 7/30/2007 µg/kg 3 L4 8-10	SB139A E3SQ1 36720 8/14/2007 µg/kg 3 L2 0-2	SB139B E3SQ2 36720 8/14/2007 µg/kg 3 L2 8-10	SB140A E3RP0 36648 7/26/2007 µg/kg 2 L1, L2, L3 0-2	SB140B E3RQ3 36648 7/19/2007 µg/kg 2 L1 8-10	SB141A E3SP9 36720 8/14/2007 µg/kg 2 L1 0-2	SB141B E3SQ0 36720 8/14/2007 µg/kg 2 L1 8-10	SB142A E3SP4RE 36720 8/14/2007 µg/kg 2 L1 0-2	SB318A E3SP5 36720 8/14/2007 µg/kg SB142A 2 L1 0-2	SB143A E3RS1 36648 7/27/2007 µg/kg 2 L1 0-2
1,1'-Biphenyl	3,900,000	51,000,000		200 U	210 U	230 U	**2,500 J**	**12 J**	200 U	200 U	200 U	1,000 U	2,100 U
1,2,4,5-Tetrachlorobenzene	18,000	180,000		200 U	210 U	230 U	10,000 U	190 U	200 U	200 U	200 U	1,000 U	2,100 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		200 U	210 U	230 U	10,000 U	190 U	200 U	200 U	200 U	1,000 U	2,100 U
2,4-Dimethylphenol	1,200,000	12,000,000		200 U	210 U	230 U	**770 J**	190 U	200 U	200 U	200 U	1,000 U	2,100 U
2-Chlorophenol	390,000	5,100,000		200 U	210 U	230 U	**1,000 J**	190 U	200 U	200 U	200 U	1,000 U	2,100 U
2-Methylnaphthalene	310,000	4,100,000		200 U	210 U	230 U	**12,000**	**460**	200 U	**20 J**	200 U	1,000 U	2,100 U
2-Methylphenol	3,100,000	31,000,000		200 U	210 U	230 U	**480 J**	190 U	200 U	200 U	200 U	1,000 U	2,100 U
3,3'-Dichlorobenzidine	1,100	3,800		200 U	210 U	230 U	10,000 U	190 U	200 U	200 U	200 U	1,000 U	2,100 U
3-Nitroaniline	24,000	86,000		400 U	410 U	440 U	20,000 U	370 U	390 U	390 U	390 U	2,000 U	4,100 U
4-Chloro-3-methylphenol	6,100,000	62,000,000		200 U	210 U	230 U	10,000 U	190 U	200 U	200 U	200 U	1,000 U	2,100 U
4-Methylphenol	310,000	3,100,000		200 U	210 U	230 U	**1,600 J**	190 U	200 U	200 U	200 U	1,000 U	2,100 U
Acenaphthene	3,400,000	33,000,000		200 U	210 U	230 U	**15,000 J**	**9.7 J**	200 U	**35 J**	200 U	1,000 U	2,100 U
Acenaphthylene	3,400,000	33,000,000		200 U	210 U	230 U	**450 J**	**25 J**	200 U	200 U	200 U	1,000 U	2,100 U
Acetophenone	7,800,000	100,000,000		200 U	210 U	230 U	10,000 U	190 U	200 U	200 U	200 U	1,000 U	2,100 U
Anthracene	17,000,000	170,000,000		200 U	210 U	230 U	**38,000**	**26 J**	200 U	**85 J**	200 U	1,000 U	2,100 U
Atrazine	2,100	7,500		200 U	210 U	230 U	10,000 U	190 U	200 U	200 U	200 U	1,000 U	2,100 U
Benzaldehyde	7,800,000	100,000,000		200 U	210 U	230 U	10,000 U	**110 J**	200 U	200 U	200 U	1,000 U	2,100 U
Benzo(a)anthracene	150	2,100		**52 J**	**49 J**	**29 J**	**71,000**	**190**	**51 J**	**320**	**34 J**	1,000 U	**210 J**
Benzo(a)pyrene	15	210		**50 J**	**64 J**	**47 J**	**49,000**	**180 J**	**40 J**	**250**	**31 J**	1,000 U	2,100 U
Benzo(b)fluoranthene	150	2,100		200 U	**110 J**	**90 J**	**72,000**	**270**	**63 J**	**440**	**54 J**	1,000 U	2,100 U
Benzo(g,h,i)perylene	150	2,100		**40 J**	210 U	230 U	**7,900 J**	**120 J**	200 U	**41 J**	200 UJ	1,000 U	2,100 U
Benzo(k)fluoranthene	1,500	21,000		**46 J**	**42 J**	**32 J**	**25,000**	**72 J**	**23 J**	**140 J**	**22 J**	1,000 U	2,100 U
Bis(2-ethylhexyl)phthalate	35,000	120,000		200 U	210 U	230 U	10,000 U	**32 J**	200 U	200 U	200 U	1,000 U	2,100 U
Butylbenzylphthalate	260,000	910,000		200 U	210 U	230 U	10,000 U	190 U	200 U	200 U	200 U	1,000 U	2,100 U
Caprolactam	31,000,000	310,000,000		200 U	210 U	230 U	10,000 U	190 U	200 U	200 U	200 U	1,000 U	2,100 U
Carbazole	17,000,000	170,000,000		200 U	210 U	230 U	**19,000**	**15 J**	200 U	**52 J**	200 U	1,000 U	2,100 U
Chrysene	15,000	210,000		**61 J**	**45 J**	**26 J**	**62,000**	**200**	**51 J**	**320**	**38 J**	1,000 U	**120 J**
Dibenzo(a,h)anthracene	15	210		200 U	210 U	230 U	**7,300 J**	190 U	200 U	200 U	200 UJ	1,000 U	2,100 U
Dibenzofuran	78,000	1,000,000		200 U	210 U	230 U	**14,000**	**86 J**	200 U	**27 J**	200 U	1,000 U	2,100 U
Diethylphthalate	49,000,000	490,000,000		200 U	210 U	230 U	10,000 U	190 U	200 U	200 U	200 U	1,000 U	2,100 U
Dimethylphthalate	49,000,000	490,000,000		200 U	210 U	230 U	10,000 U	190 U	200 U	200 U	200 U	1,000 U	2,100 U
Di-n-butylphthalate	6,100,000	62,000,000		200 U	210 U	230 U	10,000 U	190 U	200 U	200 U	200 U	1,000 U	2,100 U
Di-n-octylphthalate	35,000	120,000		200 U	210 UJ	230 UJ	10,000 U	190 U	200 UJ	**40 J**	200 UJ	1,000 UJ	2,100 U
Fluoranthene	2,300,000	22,000,000		**110 J**	**80 J**	**28 J**	**160,000**	**300**	**100 J**	**680**	**73 J**	**120 J**	**200 J**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB138B E3RW5 36664 7/30/2007 µg/kg 3 L4 8-10	SB139A E3SQ1 36720 8/14/2007 µg/kg 3 L2 0-2	SB139B E3SQ2 36720 8/14/2007 µg/kg 3 L2 8-10	SB140A E3RP0 36648 7/26/2007 µg/kg 2 L1, L2, L3 0-2	SB140B E3RQ3 36648 7/19/2007 µg/kg 2 L1 8-10	SB141A E3SP9 36720 8/14/2007 µg/kg 2 L1 0-2	SB141B E3SQ0 36720 8/14/2007 µg/kg 2 L1 8-10	SB142A E3SP4RE 36720 8/14/2007 µg/kg 2 L1 0-2	SB318A E3SP5 36720 8/14/2007 µg/kg SB142A 2 L1 0-2	SB143A E3RS1 36648 7/27/2007 µg/kg 2 L1 0-2
Fluorene	2,300,000	22,000,000		200 U	210 U	230 U	**22,000**	**11 J**	200 U	**54 J**	200 U	1,000 U	2,100 U
Hexachlorobenzene	300	1,100		200 U	210 U	230 U	10,000 U	190 U	200 U	200 U	200 U	1,000 U	2,100 U
Indeno(1,2,3-cd)pyrene	150	2,100		**41 J**	**50 J**	**39 J**	**25,000**	**130 J**	**23 J**	**150 J**	200 UJ	1,000 U	2,100 U
Naphthalene	3,600	18,000		200 U	210 U	230 U	**21,000**	**120 J**	200 U	**20 J**	200 U	1,000 U	2,100 U
N-Nitrosodiphenylamine	99,000	350,000		200 U	210 U	230 U	10,000 U	190 U	200 U	200 U	200 U	1,000 U	2,100 U
Pentachlorophenol	3,000	9,000		400 UJ	410 U	440 U	20,000 UJ	370 U	390 U	390 U	390 U	2,000 U	4,100 U
Phenanthrene	17,000,000	170,000,000		**67 J**	**37 J**	230 U	**180,000**	**460**	**60 J**	**430**	**45 J**	1,000 U	**200 J**
Phenol	18,000,000	180,000,000		200 U	210 U	230 U	**1,800 J**	190 U	200 U	200 U	200 U	1,000 U	2,100 U
Pyrene	1,700,000	17,000,000		**96 J**	**68 J**	**35 J**	**130,000 J**	**350**	**74 J**	**480**	**62 J**	**120 J**	**250 J**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB143B E3RS2 36648 7/27/2007 µg/kg 2 L1 8-10	SB272 E3RS3 36648 7/27/2007 µg/kg SB143B 2 L1 8-10	SB144A E3RR9 36648 7/20/2007 µg/kg 2 L1, L4 0-2	SB144B E3RS0 36648 7/27/2007 µg/kg 2 L1 8-10	SB145A E3SP7 36720 8/14/2007 µg/kg 2 L1 0-2	SB153A E3S76 36664 8/3/2007 µg/kg 3 L1 0-2	SB154A E3SF0 36697 8/8/2007 µg/kg 4 L1 0-2	SB154B E3SF1 36697 8/8/2007 µg/kg 4 L1 6-8	SB155A E3SQ8 36720 8/14/2007 µg/kg 3 L1, L4 0-2	SB155B E3SQ9 36720 8/14/2007 µg/kg 3 L4 8-10
1,1'-Biphenyl	3,900,000	51,000,000		210 U	210 U	2,200 U	210 U	190 U	190 U	200 U	190 U	190 U	180 U
1,2,4,5-Tetrachlorobenzene	18,000	180,000		210 U	210 U	2,200 U	210 U	190 U	190 U	200 U	190 U	190 U	180 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		210 U	210 U	2,200 U	210 U	190 U	190 U	200 U	190 U	190 U	180 U
2,4-Dimethylphenol	1,200,000	12,000,000		210 U	210 U	2,200 U	210 U	190 U	190 U	200 U	190 U	190 U	180 U
2-Chlorophenol	390,000	5,100,000		210 U	210 U	2,200 U	210 U	190 U	190 U	200 U	190 U	190 U	180 U
2-Methylnaphthalene	310,000	4,100,000		210 U	210 U	**91 J**	210 U	190 U	190 U	200 U	190 U	190 U	180 U
2-Methylphenol	3,100,000	31,000,000		210 U	210 U	2,200 U	210 U	190 U	190 U	200 U	190 U	190 U	180 U
3,3'-Dichlorobenzidine	1,100	3,800		210 U	210 U	2,200 U	210 U	190 U	190 U	200 U	190 U	190 U	180 U
3-Nitroaniline	24,000	86,000		410 U	410 U	4,300 U	410 U	370 U	380 U	380 U	370 U	370 U	350 U
4-Chloro-3-methylphenol	6,100,000	62,000,000		210 U	210 U	2,200 U	210 U	190 U	190 U	200 U	190 U	190 U	180 U
4-Methylphenol	310,000	3,100,000		210 U	210 U	2,200 U	210 U	190 U	190 U	200 U	190 U	190 U	180 U
Acenaphthene	3,400,000	33,000,000		210 U	210 U	**120 J**	210 U	190 U	190 U	200 U	190 U	190 U	180 U
Acenaphthylene	3,400,000	33,000,000		210 U	210 U	2,200 U	210 U	190 U	**120 J**	200 U	190 U	190 U	180 U
Acetophenone	7,800,000	100,000,000		**26 J**	**27 J**	2,200 U	**36 J**	190 U	190 U	**21 J**	190 U	190 U	180 U
Anthracene	17,000,000	170,000,000		210 U	210 U	**310 J**	210 U	190 U	**120 J**	200 U	190 U	190 U	180 U
Atrazine	2,100	7,500		210 U	210 U	2,200 U	210 U	190 U	190 U	200 U	190 U	190 U	180 U
Benzaldehyde	7,800,000	100,000,000		210 U	210 U	2,200 U	210 U	190 U	190 U	200 U	**24 J**	190 U	180 U
Benzo(a)anthracene	150	2,100		210 U	210 U	**1,100 J**	210 U	**21 J**	**680**	200 U	190 U	**64 J**	180 U
Benzo(a)pyrene	15	210		210 U	210 U	**890 J**	210 U	**21 J**	**710**	200 U	190 U	**76 J**	180 U
Benzo(b)fluoranthene	150	2,100		210 U	210 U	**1,100 J**	210 U	**41 J**	**980**	200 U	190 U	**100 J**	180 U
Benzo(g,h,i)perylene	150	2,100		210 U	210 U	**220 J**	210 U	190 UJ	**280**	200 U	190 U	190 U	180 U
Benzo(k)fluoranthene	1,500	21,000		210 U	210 U	**410 J**	210 U	190 UJ	**1,200**	200 U	190 U	**41 J**	180 U
Bis(2-ethylhexyl)phthalate	35,000	120,000		210 U	210 U	2,200 U	210 U	190 U	**89 J**	**160 J**	**110 J**	190 U	180 U
Butylbenzylphthalate	260,000	910,000		210 U	210 U	2,200 U	210 U	190 U	190 U	200 U	190 U	190 U	180 U
Caprolactam	31,000,000	310,000,000		210 U	210 U	2,200 U	210 U	190 U	190 U	200 U	190 U	190 U	180 U
Carbazole	17,000,000	170,000,000		210 U	210 U	**330 J**	210 U	190 U	**130 J**	200 U	190 U	190 U	180 U
Chrysene	15,000	210,000		210 U	210 U	**1,100 J**	210 U	**26 J**	**990**	200 U	190 U	**64 J**	180 U
Dibenzo(a,h)anthracene	15	210		210 U	210 U	2,200 U	210 U	190 UJ	**130 J**	200 U	190 U	190 U	180 U
Dibenzofuran	78,000	1,000,000		210 U	210 U	**91 J**	210 U	190 U	190 U	200 U	190 U	190 U	180 U
Diethylphthalate	49,000,000	490,000,000		210 U	210 U	2,200 U	210 U	190 U	190 U	200 U	190 U	190 U	180 U
Dimethylphthalate	49,000,000	490,000,000		210 U	210 U	2,200 U	210 U	190 U	190 U	200 U	190 U	190 U	180 U
Di-n-butylphthalate	6,100,000	62,000,000		210 U	210 U	2,200 U	210 U	190 U	190 U	200 U	190 U	190 U	180 U
Di-n-octylphthalate	35,000	120,000		210 U	210 U	2,200 U	210 U	190 UJ	190 U	200 U	190 U	**19 J**	**24 J**
Fluoranthene	2,300,000	22,000,000		210 U	210 U	**1,900 J**	**9.5 J**	**44 J**	**1,200**	200 U	190 U	**100 J**	180 U

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB143B E3RS2 36648 7/27/2007 µg/kg 2 L1 8-10	SB272 E3RS3 36648 7/27/2007 µg/kg SB143B 2 L1 8-10	SB144A E3RR9 36648 7/20/2007 µg/kg 2 L1, L4 0-2	SB144B E3RS0 36648 7/27/2007 µg/kg 2 L1 8-10	SB145A E3SP7 36720 8/14/2007 µg/kg 2 L1 0-2	SB153A E3S76 36664 8/3/2007 µg/kg 3 L1 0-2	SB154A E3SF0 36697 8/8/2007 µg/kg 4 L1 0-2	SB154B E3SF1 36697 8/8/2007 µg/kg 4 L1 6-8	SB155A E3SQ8 36720 8/14/2007 µg/kg 3 L1, L4 0-2	SB155B E3SQ9 36720 8/14/2007 µg/kg 3 L4 8-10
Fluorene	2,300,000	22,000,000		210 U	210 U	**210 J**	210 U	190 U	190 U	200 U	190 U	190 U	180 U
Hexachlorobenzene	300	1,100		210 U	210 U	2,200 U	210 U	190 U	190 U	200 U	190 U	190 U	180 U
Indeno(1,2,3-cd)pyrene	150	2,100		210 U	210 U	**510 J**	210 U	**23 J**	**510**	200 U	190 U	**42 J**	180 U
Naphthalene	3,600	18,000		210 U	210 U	**150 J**	210 U	190 U	190 U	200 U	190 U	190 U	180 U
N-Nitrosodiphenylamine	99,000	350,000		210 U	210 U	2,200 U	210 U	190 U	190 U	200 U	190 U	190 U	180 U
Pentachlorophenol	3,000	9,000		410 U	410 U	4,300 U	410 U	370 U	380 U	380 U	370 U	370 U	350 U
Phenanthrene	17,000,000	170,000,000		210 U	210 U	**1,300 J**	210 U	190 U	**260**	200 U	190 U	**37 J**	180 U
Phenol	18,000,000	180,000,000		210 U	210 U	2,200 U	210 U	190 U	190 U	200 U	190 U	190 U	180 U
Pyrene	1,700,000	17,000,000		210 UJ	210 UJ	**1,900 J**	**14 J**	**43 J**	**1,100**	200 U	190 U	**88 J**	180 U

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB156A E3SJ0 36697 8/10/2007 µg/kg 3 L1, L4 0-2	SB156B E3SJ1 36697 8/10/2007 µg/kg 3 L1 8-10	SB157A E3SJ2 36697 8/10/2007 µg/kg 3 L1 0-2	SB157B E3SJ3 36697 8/10/2007 µg/kg 3 L1 8-10	SB312B E3SJ4 36697 8/10/2007 µg/kg SB157B 3 L1 8-10	SB158A E3SW3 36720 8/16/2007 µg/kg 3 L1, L2 0-2	SB160A E3RP7 36648 7/26/2007 µg/kg 3 L4 0-2	SB160B E3RP8 36648 7/26/2007 µg/kg 3 L1, L4 8-10	SB161A E3RP1 36648 7/26/2007 µg/kg 3 L2, L3 0-2	SB161B E3RP2 36648 7/26/2007 µg/kg 3 L2, L3, L4 4-6
1,1'-Biphenyl	3,900,000	51,000,000		210 U	200 U	200 U	220 U	240 U	**27 J**	200 U	200 U	200 U	**12 J**
1,2,4,5-Tetrachlorobenzene	18,000	180,000		210 U	200 U	200 U	220 U	240 U	210 U	200 U	200 U	200 U	190 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		210 U	200 U	200 U	220 U	240 U	210 U	200 U	200 U	200 U	190 U
2,4-Dimethylphenol	1,200,000	12,000,000		210 U	200 U	200 U	220 U	240 U	210 U	200 U	200 U	200 U	190 U
2-Chlorophenol	390,000	5,100,000		210 U	200 U	200 U	220 U	240 U	210 U	200 U	200 U	200 U	190 U
2-Methylnaphthalene	310,000	4,100,000		210 U	200 U	200 U	220 U	240 U	**160 J**	**32 J**	**82 J**	**33 J**	**330**
2-Methylphenol	3,100,000	31,000,000		210 U	200 U	200 U	220 U	240 U	210 U	200 U	200 U	200 U	190 U
3,3'-Dichlorobenzidine	1,100	3,800		210 U	200 U	200 U	220 U	240 U	210 U	200 U	200 U	200 U	190 U
3-Nitroaniline	24,000	86,000		400 U	400 U	390 U	420 U	460 U	410 U	400 U	390 U	390 UJ	370 U
4-Chloro-3-methylphenol	6,100,000	62,000,000		210 U	200 U	200 U	220 U	240 U	210 U	200 U	200 U	200 U	190 U
4-Methylphenol	310,000	3,100,000		210 U	200 U	200 U	220 U	240 U	210 U	200 U	200 U	200 U	190 U
Acenaphthene	3,400,000	33,000,000		210 U	200 U	200 U	220 U	240 U	210 U	200 U	200 U	**7.4 J**	**11 J**
Acenaphthylene	3,400,000	33,000,000		210 U	200 U	200 U	220 U	240 U	210 U	200 U	200 U	200 U	190 U
Acetophenone	7,800,000	100,000,000		**13 J**	**13 J**	**14 J**	**14 J**	**16 J**	210 U	**25 J**	**35 J**	**25 J**	**59 J**
Anthracene	17,000,000	170,000,000		**19 J**	200 U	200 U	220 U	240 U	**24 J**	200 U	**11 J**	**23 J**	**22 J**
Atrazine	2,100	7,500		210 U	200 U	200 U	220 U	240 U	210 U	200 U	200 U	200 U	190 U
Benzaldehyde	7,800,000	100,000,000		210 U	200 U	200 U	220 U	240 U	210 U	**25 J**	**29 J**	**51 J**	**57 J**
Benzo(a)anthracene	150	2,100		**76 J**	200 U	200 U	220 U	240 U	**110 J**	200 U	**29 J**	**76 J**	**56 J**
Benzo(a)pyrene	15	210		**62 J**	200 U	200 U	220 U	240 U	**92 J**	200 UJ	**15 J**	**32 J**	**19 J**
Benzo(b)fluoranthene	150	2,100		**69 J**	200 U	200 U	220 U	240 U	**200 J**	200 UJ	**29 J**	**59 J**	**38 J**
Benzo(g,h,i)perylene	150	2,100		**46 J**	200 U	200 U	220 U	240 U	210 U	200 UJ	200 UJ	200 U	190 U
Benzo(k)fluoranthene	1,500	21,000		**32 J**	200 U	200 U	220 U	240 U	**71 J**	200 UJ	**9.4 J**	**26 J**	**16 J**
Bis(2-ethylhexyl)phthalate	35,000	120,000		210 U	200 U	200 U	200 U	240 U	49 U	200 U	200 U	200 U	190 U
Butylbenzylphthalate	260,000	910,000		210 U	200 U	200 U	220 U	**9.6 J**	210 U	200 U	200 U	200 U	190 U
Caprolactam	31,000,000	310,000,000		210 U	200 U	200 U	220 U	240 U	210 U	200 U	200 U	200 U	190 U
Carbazole	17,000,000	170,000,000		**7.5 J**	200 U	200 U	220 U	240 U	210 U	200 U	200 U	200 U	190 U
Chrysene	15,000	210,000		**74 J**	200 U	200 U	220 U	240 U	**170 J**	200 U	**31 J**	**76 J**	**58 J**
Dibenzo(a,h)anthracene	15	210		**15 J**	200 U	200 U	220 U	240 U	210 U	200 UJ	200 UJ	200 U	190 U
Dibenzofuran	78,000	1,000,000		210 U	200 U	200 U	220 U	240 U	**76 J**	200 U	**19 J**	**23 J**	**69 J**
Diethylphthalate	49,000,000	490,000,000		210 U	200 U	200 U	220 U	240 U	210 U	200 U	200 U	200 U	190 U
Dimethylphthalate	49,000,000	490,000,000		210 U	200 U	200 U	220 U	240 U	210 U	200 U	200 U	200 U	190 U
Di-n-butylphthalate	6,100,000	62,000,000		210 U	200 U	200 U	220 U	240 U	120 U	200 U	200 U	200 U	190 U
Di-n-octylphthalate	35,000	120,000		210 U	200 U	200 U	220 U	240 U	210 U	200 U	200 U	200 U	190 U
Fluoranthene	2,300,000	22,000,000		**110 J**	200 U	200 U	220 U	**9.2 J**	**220**	**19 J**	**73 J**	**160 J**	**110 J**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB156A E3SJ0 36697 8/10/2007 µg/kg 3 L1, L4 0-2	SB156B E3SJ1 36697 8/10/2007 µg/kg 3 L1 8-10	SB157A E3SJ2 36697 8/10/2007 µg/kg 3 L1 0-2	SB157B E3SJ3 36697 8/10/2007 µg/kg 3 L1 8-10	SB312B E3SJ4 36697 8/10/2007 µg/kg SB157B 3 L1 8-10	SB158A E3SW3 36720 8/16/2007 µg/kg 3 L1, L2 0-2	SB160A E3RP7 36648 7/26/2007 µg/kg 3 L4 0-2	SB160B E3RP8 36648 7/26/2007 µg/kg 3 L1, L4 8-10	SB161A E3RP1 36648 7/26/2007 µg/kg 3 L2, L3 0-2	SB161B E3RP2 36648 7/26/2007 µg/kg 3 L2, L3, L4 4-6
Fluorene	2,300,000	22,000,000		210 U	200 U	200 U	220 U	240 U	210 U	200 U	200 U	**12 J**	**8.8 J**
Hexachlorobenzene	300	1,100		210 U	200 U	200 U	220 U	240 U	210 U	200 U	200 U	200 U	190 U
Indeno(1,2,3-cd)pyrene	150	2,100		**58 J**	200 U	200 U	220 U	240 U	**69 J**	200 UJ	200 UJ	200 U	190 U
Naphthalene	3,600	18,000		**9.8 J**	200 U	200 U	220 U	240 U	**42 J**	**45 J**	**51 J**	**38 J**	**250**
N-Nitrosodiphenylamine	99,000	350,000		210 U	200 U	200 U	220 U	240 U	210 U	200 U	200 U	200 U	190 U
Pentachlorophenol	3,000	9,000		400 U	400 U	390 U	420 U	460 U	410 U	400 U	390 U	390 U	370 U
Phenanthrene	17,000,000	170,000,000		**89 J**	200 U	200 U	220 U	240 U	**280**	**24 J**	**100 J**	**150 J**	**200**
Phenol	18,000,000	180,000,000		210 U	200 U	200 U	220 U	240 U	210 U	200 U	200 U	**25 J**	**28 J**
Pyrene	1,700,000	17,000,000		**130 J**	200 U	200 U	220 U	**9.4 J**	**180 J**	**18 J**	**62 J**	**140 J**	**110 J**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB162A	SB162B	SB163A	SB163B	SB164A	SB164B	SB165A	SB165B	SB319B	SB166A
			Sample ID	E3RL9	E3RM0	E3RP3	E3RP4	E3RT4	E3RT5	E3SQ3	E3SQ4	E3SQ5	E3SE3
			Case	36648	36648	36648	36648	36664	36664	36720	36720	36720	36697
			Sampling date	7/25/2007	7/25/2007	7/26/2007	7/26/2007	7/30/2007	7/30/2007	8/14/2007	8/14/2007	8/14/2007	8/8/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info									SB165B	
			Investigation area	3	3	3	3	2	2	3	3	3	3
			Lithology	L2, L3	L2, L3	L2, L3	L2, L3	L4	L4	L1	L1	L1	L1
			Depth (ft bgs)	0-2	4-6	0-2	4-6	0-2	8-10	0-2	8-10	8-10	0-2
1,1'-Biphenyl	3,900,000	51,000,000		**16 J**	**12 J**	230 U	200 U	190 U	210 U	190 U	210 U	210 U	200 U
1,2,4,5-Tetrachlorobenzene	18,000	180,000		210 U	200 U	230 U	200 U	190 U	210 U	190 U	210 U	210 U	200 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		210 U	200 U	230 U	200 U	190 U	210 U	190 UJ	210 U	210 U	200 U
2,4-Dimethylphenol	1,200,000	12,000,000		210 U	200 U	230 U	200 U	190 U	210 U	190 U	210 U	210 U	200 U
2-Chlorophenol	390,000	5,100,000		210 U	200 U	230 U	200 U	190 U	210 U	190 U	210 U	210 U	200 U
2-Methylnaphthalene	310,000	4,100,000		**290**	**140 J**	**54 J**	200 U	190 U	210 U	190 U	**34 J**	**74 J**	200 U
2-Methylphenol	3,100,000	31,000,000		210 U	200 U	230 U	200 U	190 U	210 U	190 U	210 U	210 U	200 U
3,3'-Dichlorobenzidine	1,100	3,800		210 U	200 U	230 U	200 U	190 U	210 U	**190 J**	210 U	210 U	200 U
3-Nitroaniline	24,000	86,000		400 U	390 U	450 U	390 U	360 U	400 U	370 U	400 U	400 U	390 U
4-Chloro-3-methylphenol	6,100,000	62,000,000		210 U	200 U	230 U	200 U	190 U	210 U	190 U	210 U	210 U	200 U
4-Methylphenol	310,000	3,100,000		**9.8 J**	200 U	230 U	200 U	190 U	210 U	190 U	210 U	210 U	200 U
Acenaphthene	3,400,000	33,000,000		**18 J**	200 U	230 U	200 U	190 U	210 U	190 U	210 U	210 U	200 U
Acenaphthylene	3,400,000	33,000,000		**100 J**	200 U	230 U	200 U	190 U	210 U	190 U	210 U	210 U	200 U
Acetophenone	7,800,000	100,000,000		210 U	**26 J**	**42 J**	**26 J**	190 U	210 U	190 U	210 U	210 U	**14 J**
Anthracene	17,000,000	170,000,000		**160 J**	200 U	230 U	200 U	190 U	210 U	190 U	**29 J**	**28 J**	200 U
Atrazine	2,100	7,500		210 U	200 U	230 U	200 U	190 U	210 U	190 U	210 U	210 U	200 U
Benzaldehyde	7,800,000	100,000,000		210 U	200 U	**78 J**	**76 J**	190 U	210 U	190 U	210 U	210 U	200 U
Benzo(a)anthracene	150	2,100		**910**	**19 J**	**34 J**	200 U	190 UJ	210 UJ	**42 J**	**130 J**	**120 J**	200 U
Benzo(a)pyrene	15	210		**780**	200 U	230 UJ	200 U	**130 J**	210 U	**44 J**	**130 J**	**100 J**	200 U
Benzo(b)fluoranthene	150	2,100		**1,000**	200 U	**35 J**	200 U	**100 J**	210 U	**69 J**	**200 J**	**180 J**	200 U
Benzo(g,h,i)perylene	150	2,100		**470 J**	200 U	230 UJ	200 U	**120 J**	210 U	190 UJ	**49 J**	210 U	200 U
Benzo(k)fluoranthene	1,500	21,000		**350**	200 U	**13 J**	200 U	**120 J**	210 U	**21 J**	**58 J**	**83 J**	200 U
Bis(2-ethylhexyl)phthalate	35,000	120,000		**21 J**	**14 J**	230 U	200 U	190 U	210 U	190 UJ	210 U	210 U	**170 J**
Butylbenzylphthalate	260,000	910,000		210 U	200 U	230 U	200 U	190 U	210 U	190 U	210 U	210 U	200 U
Caprolactam	31,000,000	310,000,000		210 U	200 U	230 U	200 U	190 U	210 U	190 U	210 U	210 U	200 U
Carbazole	17,000,000	170,000,000		**71 J**	200 U	230 U	200 U	190 U	210 UJ	190 U	210 U	210 U	200 U
Chrysene	15,000	210,000		**900**	**24 J**	**45 J**	200 U	**130 J**	**39 J**	47 U	**170 J**	**160 J**	200 U
Dibenzo(a,h)anthracene	15	210		**140 J**	200 U	230 UJ	200 U	**62 J**	210 U	190 UJ	210 U	210 U	200 U
Dibenzofuran	78,000	1,000,000		**83 J**	**41 J**	**13 J**	200 U	190 U	210 UJ	190 U	210 U	**28 J**	200 U
Diethylphthalate	49,000,000	490,000,000		210 U	200 U	230 U	200 U	190 U	210 U	190 U	210 U	210 U	200 U
Dimethylphthalate	49,000,000	490,000,000		210 U	200 U	230 U	200 U	190 U	210 U	190 U	210 U	210 U	200 U
Di-n-butylphthalate	6,100,000	62,000,000		210 U	200 U	230 U	200 U	190 U	210 U	190 U	210 U	210 U	200 U
Di-n-octylphthalate	35,000	120,000		210 U	200 U	230 U	200 U	190 U	210 U	**190 J**	**21 J**	210 UJ	200 U
Fluoranthene	2,300,000	22,000,000		**2,200**	**35 J**	**69 J**	200 U	**230**	**48 J**	**81 J**	**370**	**300**	200 U

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB162A	SB162B	SB163A	SB163B	SB164A	SB164B	SB165A	SB165B	SB319B	SB166A
			Sample ID	E3RL9	E3RM0	E3RP3	E3RP4	E3RT4	E3RT5	E3SQ3	E3SQ4	E3SQ5	E3SE3
			Case	36648	36648	36648	36648	36664	36664	36720	36720	36720	36697
			Sampling date	7/25/2007	7/25/2007	7/26/2007	7/26/2007	7/30/2007	7/30/2007	8/14/2007	8/14/2007	8/14/2007	8/8/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info									SB165B	
			Investigation area	3	3	3	3	2	2	3	3	3	3
			Lithology	L2, L3	L2, L3	L2, L3	L2, L3	L4	L4	L1	L1	L1	L1
			Depth (ft bgs)	0-2	4-6	0-2	4-6	0-2	8-10	0-2	8-10	8-10	0-2
Fluorene	2,300,000	22,000,000		**24 J**	200 U	230 U	200 U	190 U	210 UJ	190 U	210 U	210 U	200 U
Hexachlorobenzene	300	1,100		210 U	200 U	230 U	200 U	190 U	210 U	190 U	210 U	210 U	200 U
Indeno(1,2,3-cd)pyrene	150	2,100		**490 J**	200 U	230 UJ	200 U	**110 J**	210 U	**28 J**	**88 J**	**58 J**	200 U
Naphthalene	3,600	18,000		**140 J**	**75 J**	**46 J**	200 U	190 U	210 U	190 U	210 U	**28 J**	200 U
N-Nitrosodiphenylamine	99,000	350,000		210 U	200 U	230 U	200 U	190 U	210 U	190 U	210 U	210 U	200 U
Pentachlorophenol	3,000	9,000		400 U	390 U	450 U	390 U	360 UJ	400 UJ	370 U	400 U	400 U	390 U
Phenanthrene	17,000,000	170,000,000		**1,100**	**130 J**	**75 J**	200 U	**120 J**	**33 J**	**51 J**	**220**	**180 J**	200 U
Phenol	18,000,000	180,000,000		210 U	200 U	**31 J**	**46 J**	190 U	210 UJ	190 U	210 U	210 U	200 U
Pyrene	1,700,000	17,000,000		**1,800**	**43 J**	**55 J**	200 U	**250**	**52 J**	85 U	**280**	**220**	200 U

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB166B E3SE4 36697 8/8/2007 µg/kg 3 L1 8-10	SB303B E3SE5 36697 8/8/2007 µg/kg SB166B 3 L1 8-10	SB167A E3SC4 36697 8/7/2007 µg/kg 3 L1 0-2	SB167B E3SC5 36697 8/7/2007 µg/kg 3 L1 8-10	SB168A E3RA9 36631 7/19/2007 µg/kg 3 L3 0-2	SB169A E3RA7 36631 7/19/2007 µg/kg 3 L4 0-2	SB170A E3SA5 36697 8/7/2007 µg/kg 3 L1 0-2	SB170B E3SA6 36697 8/7/2007 µg/kg 3 L1 8-10	SB171A E3SB9 36697 8/7/2007 µg/kg 3 L1 0-2	SB171B E3SC0 36697 8/7/2007 µg/kg 3 L1 8-10
1,1'-Biphenyl	3,900,000	51,000,000		200 U	200 U	200 U	200 U	210 UJ	850 U	200 U	210 U	**14 J**	220 U
1,2,4,5-Tetrachlorobenzene	18,000	180,000		200 U	200 U	200 U	200 U	210 U	850 U	200 U	210 U	190 U	220 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		200 U	200 U	200 U	200 U	210 U	850 U	200 U	210 U	190 U	220 U
2,4-Dimethylphenol	1,200,000	12,000,000		200 U	200 U	200 U	200 U	210 U	850 U	200 U	210 U	190 U	220 U
2-Chlorophenol	390,000	5,100,000		200 U	200 U	200 U	200 U	210 U	850 U	200 U	210 U	190 U	220 U
2-Methylnaphthalene	310,000	4,100,000		200 U	200 U	200 UJ	200 U	210 U	850 U	200 U	210 U	**27 J**	220 U
2-Methylphenol	3,100,000	31,000,000		200 U	200 U	200 U	200 U	210 U	850 U	200 U	210 U	190 U	220 U
3,3'-Dichlorobenzidine	1,100	3,800		200 U	200 U	200 U	200 U	210 U	850 U	200 U	210 U	190 UJ	220 U
3-Nitroaniline	24,000	86,000		390 U	380 U	380 U	390 U	400 U	1,700 U	380 U	400 U	380 U	430 U
4-Chloro-3-methylphenol	6,100,000	62,000,000		200 U	200 U	200 U	200 U	210 U	850 U	200 U	210 U	190 U	220 U
4-Methylphenol	310,000	3,100,000		200 U	200 U	200 U	200 U	210 U	850 U	200 U	210 U	190 U	220 U
Acenaphthene	3,400,000	33,000,000		200 U	200 U	200 UJ	200 U	210 U	850 U	200 U	210 U	**21 J**	220 U
Acenaphthylene	3,400,000	33,000,000		200 U	200 U	200 UJ	200 U	210 U	850 U	200 U	210 U	**190 J**	**9 J**
Acetophenone	7,800,000	100,000,000		**16 J**	**20 J**	**13 J**	**13 J**	210 U	850 U	**15 J**	**20 J**	**34 J**	**13 J**
Anthracene	17,000,000	170,000,000		200 U	200 U	200 UJ	200 U	210 U	**100 J**	200 U	210 U	**200**	**24 J**
Atrazine	2,100	7,500		200 U	200 U	200 UJ	200 U	210 U	850 U	200 U	210 U	190 U	220 U
Benzaldehyde	7,800,000	100,000,000		200 U	**26 J**	**18 J**	200 U	210 U	850 U	**17 J**	**16 J**	**21 J**	220 U
Benzo(a)anthracene	150	2,100		200 U	200 U	200 UJ	200 UJ	210 U	**460 J**	200 U	**12 J**	**990 J**	**210 J**
Benzo(a)pyrene	15	210		200 U	200 U	200 UJ	200 UJ	210 U	**650 J**	200 U	**12 J**	**100 J**	**270 J**
Benzo(b)fluoranthene	150	2,100		200 U	200 U	200 UJ	200 UJ	210 U	**950**	**12 J**	**13 J**	**740 J**	**390 J**
Benzo(g,h,i)perylene	150	2,100		200 U	200 U	200 UJ	200 UJ	210 U	**390 J**	200 U	210 U	190 UJ	**35 J**
Benzo(k)fluoranthene	1,500	21,000		200 U	200 U	200 UJ	200 UJ	210 U	**400 J**	**2.1 J**	**5.1 J**	**320 J**	**81 J**
Bis(2-ethylhexyl)phthalate	35,000	120,000		**27 J**	**160 J**	**19 J**	200 U	210 UJ	850 U	**13 J**	**12 J**	190 U	**20 J**
Butylbenzylphthalate	260,000	910,000		200 U	200 U	200 U	200 U	**28 J**	850 U	200 U	210 U	190 U	220 U
Caprolactam	31,000,000	310,000,000		200 U	200 U	200 U	200 U	210 UJ	850 U	200 U	210 U	190 U	220 U
Carbazole	17,000,000	170,000,000		200 U	200 U	200 U	200 U	210 UJ	850 U	200 U	210 U	**48 J**	**13 J**
Chrysene	15,000	210,000		200 U	200 U	200 UJ	200 UJ	210 U	**580 J**	200 U	**11 J**	**590 J**	**280 J**
Dibenzo(a,h)anthracene	15	210		200 U	200 U	200 UJ	200 UJ	210 U	850 U	200 U	210 U	**150 J**	**49 J**
Dibenzofuran	78,000	1,000,000		200 U	200 U	200 U	200 U	210 UJ	850 U	200 U	210 U	**50 J**	220 U
Diethylphthalate	49,000,000	490,000,000		200 U	200 U	**14 J**	200 U	210 UJ	850 U	200 U	210 U	190 U	220 U
Dimethylphthalate	49,000,000	490,000,000		200 U	200 U	200 U	200 U	210 UJ	850 U	200 U	210 U	190 U	220 U
Di-n-butylphthalate	6,100,000	62,000,000		200 U	200 U	**23 J**	200 U	210 UJ	850 U	**18 J**	**20 J**	190 U	**22 J**
Di-n-octylphthalate	35,000	120,000		200 U	200 U	200 U	200 U	210 UJ	850 U	200 U	210 U	190 U	220 U
Fluoranthene	2,300,000	22,000,000		200 U	**26 J**	**9.3 J**	200 UJ	**23 J**	**770 J**	200 U	**14 J**	**1,600 J**	**330 J**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB166B E3SE4 36697 8/8/2007 µg/kg 3 L1 8-10	SB303B E3SE5 36697 8/8/2007 µg/kg SB166B 3 L1 8-10	SB167A E3SC4 36697 8/7/2007 µg/kg 3 L1 0-2	SB167B E3SC5 36697 8/7/2007 µg/kg 3 L1 8-10	SB168A E3RA9 36631 7/19/2007 µg/kg 3 L3 0-2	SB169A E3RA7 36631 7/19/2007 µg/kg 3 L4 0-2	SB170A E3SA5 36697 8/7/2007 µg/kg 3 L1 0-2	SB170B E3SA6 36697 8/7/2007 µg/kg 3 L1 8-10	SB171A E3SB9 36697 8/7/2007 µg/kg 3 L1 0-2	SB171B E3SC0 36697 8/7/2007 µg/kg 3 L1 8-10
Fluorene	2,300,000	22,000,000		200 U	200 U	200 U	200 U	210 UJ	850 U	200 U	210 U	**96 J**	220 U
Hexachlorobenzene	300	1,100		200 U	200 U	200 UJ	200 U	210 U	850 U	200 U	210 U	190 U	220 U
Indeno(1,2,3-cd)pyrene	150	2,100		200 U	200 U	200 UJ	200 UJ	210 U	**440 J**	200 U	210 U	**140 J**	**270 J**
Naphthalene	3,600	18,000		200 U	200 U	200 UJ	200 U	210 U	850 U	200 U	210 U	**25 J**	220 U
N-Nitrosodiphenylamine	99,000	350,000		200 U	200 U	200 U	200 U	210 U	850 U	200 U	210 U	190 U	220 U
Pentachlorophenol	3,000	9,000		390 U	380 U	380 U	390 U	400 U	1,700 U	380 U	400 U	380 U	430 U
Phenanthrene	17,000,000	170,000,000		200 U	**22 J**	200 UJ	200 U	210 U	**400 J**	200 U	**7.3 J**	**590**	**63 J**
Phenol	18,000,000	180,000,000		200 U	200 U	200 U	200 U	210 U	850 U	**6.2 J**	**7.5 J**	190 U	220 U
Pyrene	1,700,000	17,000,000		200 U	**21 J**	200 UJ	200 UJ	**22 J**	**750 J**	**6.8 J**	**21 J**	**280 J**	**710 J**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB172A E3SB2 36697 8/7/2007 µg/kg 3 L1 0-2	SB172B E3SB3 36697 8/7/2007 µg/kg 3 L1 8-10	SB173A E3SB4 36697 8/7/2007 µg/kg 3 L1, L4 0-2	SB173B E3SB5 36697 8/7/2007 µg/kg 3 L1 8-10	SB300B E3SB6 36697 8/7/2007 µg/kg SB173B 3 L1 8-10	SB174A E3SB0 36697 8/7/2007 µg/kg 3 L1 0-2	SB174B E3SB1 36697 8/7/2007 µg/kg 3 L1 8-10	SB175A E3SF6 36697 8/9/2007 µg/kg 2 L1 0-2	SB175B E3SF7 36697 8/9/2007 µg/kg 2 L1 8-10	SB176A E3SF9 36697 8/9/2007 µg/kg 2 L1, L4 0-2
1,1'-Biphenyl	3,900,000	51,000,000		190 U	220 U	210 U	200 U	210 U	240 U	200 U	**8.4 J**	210 U	200 U
1,2,4,5-Tetrachlorobenzene	18,000	180,000		190 U	220 U	210 U	200 U	210 U	240 U	200 U	190 U	210 U	200 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		190 U	220 U	210 U	200 U	210 U	240 U	200 U	190 U	210 U	200 U
2,4-Dimethylphenol	1,200,000	12,000,000		190 U	220 U	210 U	200 U	210 U	240 U	200 U	190 U	210 U	200 U
2-Chlorophenol	390,000	5,100,000		190 U	220 U	210 U	200 U	210 U	240 U	200 U	190 U	210 U	200 U
2-Methylnaphthalene	310,000	4,100,000		190 U	220 U	210 U	200 U	210 U	240 U	200 U	**15 J**	210 U	200 U
2-Methylphenol	3,100,000	31,000,000		190 U	220 U	210 U	200 U	210 U	240 U	200 U	190 U	210 U	200 U
3,3'-Dichlorobenzidine	1,100	3,800		190 U	220 U	210 U	200 U	210 U	240 U	200 U	190 U	210 U	200 U
3-Nitroaniline	24,000	86,000		370 U	430 U	400 U	400 U	400 U	460 U	380 U	360 U	420 U	390 U
4-Chloro-3-methylphenol	6,100,000	62,000,000		190 U	220 U	210 U	200 U	210 U	240 U	200 U	190 U	210 U	200 U
4-Methylphenol	310,000	3,100,000		190 U	220 U	210 U	200 U	210 U	240 U	200 U	190 U	210 U	200 U
Acenaphthene	3,400,000	33,000,000		190 U	220 U	**18 J**	200 U	210 U	240 U	200 U	190 U	210 U	**15 J**
Acenaphthylene	3,400,000	33,000,000		**6.5 J**	220 U	210 U	200 U	210 U	240 U	200 U	190 U	210 U	**34 J**
Acetophenone	7,800,000	100,000,000		**25 J**	**21 J**	**26 J**	**11 J**	**15 J**	**14 J**	**17 J**	**51 J**	**26 J**	**33 J**
Anthracene	17,000,000	170,000,000		**7 J**	220 U	**41 J**	200 U	210 U	240 U	200 U	190 U	210 U	**51 J**
Atrazine	2,100	7,500		190 U	220 U	210 U	200 U	210 U	240 U	200 U	190 U	210 U	200 U
Benzaldehyde	7,800,000	100,000,000		**19 J**	**20 J**	**18 J**	200 U	210 U	240 U	**17 J**	190 U	210 U	200 U
Benzo(a)anthracene	150	2,100		**73 J**	**19 J**	**170 J**	200 UJ	210 UJ	**11 J**	200 U	190 U	210 U	**240**
Benzo(a)pyrene	15	210		**75 J**	**23 J**	**140 J**	200 UJ	210 UJ	**9.8 J**	200 U	190 U	210 U	**230**
Benzo(b)fluoranthene	150	2,100		**110 J**	**27 J**	**160 J**	200 UJ	210 UJ	**10 J**	200 U	190 U	210 U	**300**
Benzo(g,h,i)perylene	150	2,100		**28 J**	220 U	**80 J**	200 UJ	210 UJ	240 U	200 U	190 U	210 U	**130 J**
Benzo(k)fluoranthene	1,500	21,000		**32 J**	**10 J**	**54 J**	200 UJ	210 UJ	**3.9 J**	200 U	190 U	210 U	**96 J**
Bis(2-ethylhexyl)phthalate	35,000	120,000		**11 J**	**15 J**	**14 J**	200 U	**16 J**	**14 J**	**9.8 J**	**96 J**	210 U	**26 J**
Butylbenzylphthalate	260,000	910,000		190 U	220 U	210 U	200 U	210 U	240 U	200 U	190 U	210 U	200 U
Caprolactam	31,000,000	310,000,000		190 U	220 U	210 U	200 U	210 U	240 U	200 U	190 U	210 U	200 U
Carbazole	17,000,000	170,000,000		190 U	220 U	210 U	200 U	210 U	240 U	200 U	190 U	210 U	**41 J**
Chrysene	15,000	210,000		**78 J**	**19 J**	**180 J**	200 UJ	210 UJ	**10 J**	200 U	190 U	210 U	**240**
Dibenzo(a,h)anthracene	15	210		190 U	220 U	**20 J**	200 UJ	210 UJ	240 U	200 U	190 U	210 U	**46 J**
Dibenzofuran	78,000	1,000,000		190 U	220 U	210 U	200 U	210 U	240 U	200 U	190 U	210 U	**19 J**
Diethylphthalate	49,000,000	490,000,000		190 U	220 U	210 U	200 U	210 U	240 U	200 U	190 U	210 U	200 U
Dimethylphthalate	49,000,000	490,000,000		190 U	220 U	210 U	200 U	210 U	240 U	200 U	190 U	210 U	200 U
Di-n-butylphthalate	6,100,000	62,000,000		**13 J**	**14 J**	**16 J**	**15 J**	210 U	**18 J**	**9.8 J**	190 U	210 U	200 U
Di-n-octylphthalate	35,000	120,000		190 U	220 U	210 U	200 U	210 U	240 U	200 U	190 U	210 U	200 U
Fluoranthene	2,300,000	22,000,000		**99 J**	**22 J**	**300**	200 UJ	210 UJ	**14 J**	200 U	**35 J**	210 U	**520**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB172A	SB172B	SB173A	SB173B	SB300B	SB174A	SB174B	SB175A	SB175B	SB176A
			Sample ID	E3SB2	E3SB3	E3SB4	E3SB5	E3SB6	E3SB0	E3SB1	E3SF6	E3SF7	E3SF9
			Case	36697	36697	36697	36697	36697	36697	36697	36697	36697	36697
			Sampling date	8/7/2007	8/7/2007	8/7/2007	8/7/2007	8/7/2007	8/7/2007	8/7/2007	8/9/2007	8/9/2007	8/9/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info					SB173B					
			Investigation area	3	3	3	3	3	3	3	2	2	2
			Lithology	L1	L1	L1, L4	L1	L1	L1	L1	L1	L1	L1, L4
			Depth (ft bgs)	0-2	8-10	0-2	8-10	8-10	0-2	8-10	0-2	8-10	0-2
Fluorene	2,300,000	22,000,000		190 U	220 U	**14 J**	200 U	210 U	240 U	200 U	190 U	210 U	**24 J**
Hexachlorobenzene	300	1,100		190 U	220 U	210 U	200 U	210 U	240 U	200 U	190 U	210 U	200 U
Indeno(1,2,3-cd)pyrene	150	2,100		**59 J**	**12 J**	**87 J**	200 UJ	210 UJ	240 U	200 U	190 U	210 U	**190 J**
Naphthalene	3,600	18,000		190 U	220 U	210 U	200 U	210 U	240 U	200 U	**12 J**	210 U	**11 J**
N-Nitrosodiphenylamine	99,000	350,000		190 U	220 U	210 U	200 U	210 U	240 U	200 U	190 U	210 U	200 U
Pentachlorophenol	3,000	9,000		370 U	430 U	400 U	400 U	400 U	460 U	380 U	360 U	420 U	390 U
Phenanthrene	17,000,000	170,000,000		**33 J**	220 U	**210**	200 U	210 U	**9.8 J**	200 U	**57 J**	210 U	**310**
Phenol	18,000,000	180,000,000		**12 J**	**11 J**	**11 J**	200 U	210 U	**7.2 J**	**11 J**	190 U	210 U	200 U
Pyrene	1,700,000	17,000,000		**120 J**	**36 J**	**380**	200 UJ	210 UJ	**23 J**	**6.4 J**	**52 J**	210 U	**470**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB306A E3SG0 36697 8/9/2007 µg/kg SB176A 2 L1, L4 0-2	SB176B E3SG1 36697 8/9/2007 µg/kg 2 L1, L4 8-10	SB177A E3RR5 36648 7/27/2007 µg/kg 3 L1 0-2	SB177B E3RR6 36648 7/27/2007 µg/kg 3 L1 8-10	SB178A E3RR7 36648 7/27/2007 µg/kg 2 0-2	SB178B E3RR8 36648 7/27/2007 µg/kg 2 L4 8-10	SB179A E3RS7 36664 7/30/2007 µg/kg 2 L4 0-2	SB179B E3RS8 36664 7/30/2007 µg/kg 2 L4 8-10	SB180A E3RS4 36648 7/27/2007 µg/kg 2 L4 0-2	SB180B E3RS5 36648 7/27/2007 µg/kg 2 L4 8-10
1,1'-Biphenyl	3,900,000	51,000,000		**9.3 J**	200 U	210 U	200 U	**13 J**	210 U	200 U	200 U	**12 J**	210 U
1,2,4,5-Tetrachlorobenzene	18,000	180,000		210 U	200 U	210 U	200 U	210 U	210 U	200 U	200 U	190 U	210 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		210 U	200 U	210 U	200 U	210 U	210 U	200 U	200 U	190 U	210 U
2,4-Dimethylphenol	1,200,000	12,000,000		210 U	200 U	210 U	200 U	210 U	210 U	200 U	200 U	190 U	210 U
2-Chlorophenol	390,000	5,100,000		210 U	200 U	210 U	200 U	210 U	210 U	200 U	200 U	190 U	210 U
2-Methylnaphthalene	310,000	4,100,000		**130 J**	200 U	**22 J**	200 U	**130 J**	210 U	200 U	200 U	**98 J**	210 U
2-Methylphenol	3,100,000	31,000,000		210 U	200 U	210 U	200 U	210 U	210 U	200 U	200 U	190 U	210 U
3,3'-Dichlorobenzidine	1,100	3,800		210 UJ	200 U	210 U	200 U	210 U	210 U	200 U	200 U	190 U	210 U
3-Nitroaniline	24,000	86,000		400 U	390 U	400 U	390 U	410 U	420 U	380 U	390 U	370 U	400 U
4-Chloro-3-methylphenol	6,100,000	62,000,000		210 U	200 U	210 U	200 U	210 U	210 U	200 U	200 U	190 U	210 U
4-Methylphenol	310,000	3,100,000		210 U	200 U	210 U	200 U	210 U	210 U	200 U	200 U	190 U	210 U
Acenaphthene	3,400,000	33,000,000		**30 J**	200 U	**18 J**	200 U	**27 J**	210 U	200 U	200 U	**25 J**	210 U
Acenaphthylene	3,400,000	33,000,000		210 U	200 U	**32 J**	200 U	**30 J**	210 U	200 U	200 U	**75 J**	210 U
Acetophenone	7,800,000	100,000,000		**58 J**	**18 J**	**40 J**	**27 J**	**51 J**	**29 J**	200 U	200 U	**44 J**	**22 J**
Anthracene	17,000,000	170,000,000		**52 J**	200 U	**60 J**	200 U	**66 J**	210 U	200 U	200 U	**96 J**	210 U
Atrazine	2,100	7,500		210 U	200 U	210 U	200 U	210 U	210 U	200 U	200 U	190 U	210 U
Benzaldehyde	7,800,000	100,000,000		**42 J**	200 U	**50 J**	200 U	210 U	210 U	200 U	200 U	**42 J**	210 U
Benzo(a)anthracene	150	2,100		**140 J**	200 U	**420**	200 U	**430**	210 U	200 U	200 U	**380**	210 U
Benzo(a)pyrene	15	210		**99 J**	200 U	**350**	200 U	**280**	210 U	**61 J**	200 U	**310**	210 U
Benzo(b)fluoranthene	150	2,100		**160 J**	200 U	**510**	200 U	**590**	210 U	**45 J**	**47 J**	**610**	210 U
Benzo(g,h,i)perylene	150	2,100		**57 J**	200 U	**190 J**	200 U	**140 J**	210 U	**46 J**	200 U	**150 J**	210 U
Benzo(k)fluoranthene	1,500	21,000		**48 J**	200 U	**200 J**	200 U	**160 J**	210 U	**64 J**	**49 J**	**180 J**	210 U
Bis(2-ethylhexyl)phthalate	35,000	120,000		210 U	**26 J**	210 U	200 U	210 U	210 U	200 U	200 U	190 U	210 U
Butylbenzylphthalate	260,000	910,000		210 U	200 U	210 U	200 U	210 U	210 U	200 U	200 U	190 U	210 U
Caprolactam	31,000,000	310,000,000		210 U	200 U	210 U	200 U	210 U	210 U	200 U	200 U	190 U	210 U
Carbazole	17,000,000	170,000,000		**22 J**	200 U	**41 J**	200 U	**51 J**	210 U	200 U	200 U	**46 J**	210 U
Chrysene	15,000	210,000		**97 J**	200 U	**390**	200 U	**510**	210 U	**65 J**	**34 J**	**470**	210 U
Dibenzo(a,h)anthracene	15	210		210 U	200 U	**68 J**	200 U	**60 J**	210 U	200 U	200 U	**71 J**	210 U
Dibenzofuran	78,000	1,000,000		**39 J**	200 U	**18 J**	200 U	**55 J**	210 U	200 U	200 U	**52 J**	210 U
Diethylphthalate	49,000,000	490,000,000		210 U	200 U	210 U	200 U	210 U	210 U	200 U	200 U	190 U	210 U
Dimethylphthalate	49,000,000	490,000,000		210 U	200 U	210 U	200 U	210 U	210 U	200 U	200 U	190 U	210 U
Di-n-butylphthalate	6,100,000	62,000,000		210 U	200 U	210 U	200 U	210 U	210 U	200 U	200 U	190 U	210 U
Di-n-octylphthalate	35,000	120,000		210 U	200 U	210 U	200 U	210 U	210 U	200 U	200 U	190 U	210 U
Fluoranthene	2,300,000	22,000,000		**180 J**	200 U	**630**	200 U	**750**	**17 J**	**67 J**	**36 J**	**840**	210 U

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB306A	SB176B	SB177A	SB177B	SB178A	SB178B	SB179A	SB179B	SB180A	SB180B
			Sample ID	E3SG0	E3SG1	E3RR5	E3RR6	E3RR7	E3RR8	E3RS7	E3RS8	E3RS4	E3RS5
			Case	36697	36697	36648	36648	36648	36648	36664	36664	36648	36648
			Sampling date	8/9/2007	8/9/2007	7/27/2007	7/27/2007	7/27/2007	7/27/2007	7/30/2007	7/30/2007	7/27/2007	7/27/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info	SB176A									
			Investigation area	2	2	3	3	2	2	2	2	2	2
			Lithology	L1, L4	L1, L4	L1	L1		L4	L4	L4	L4	L4
			Depth (ft bgs)	0-2	8-10	0-2	8-10	0-2	8-10	0-2	8-10	0-2	8-10
Fluorene	2,300,000	22,000,000		**49 J**	200 U	**26 J**	200 U	**42 J**	210 U	200 U	200 U	**49 J**	210 U
Hexachlorobenzene	300	1,100		210 U	200 U	210 U	200 U	210 U	210 U	200 U	200 U	190 U	210 U
Indeno(1,2,3-cd)pyrene	150	2,100		**81 J**	200 U	**310**	200 U	**230**	210 U	**45 J**	200 U	**250**	210 U
Naphthalene	3,600	18,000		**75 J**	200 U	**24 J**	200 U	**100 J**	210 U	200 U	200 U	**75 J**	210 U
N-Nitrosodiphenylamine	99,000	350,000		210 U	200 U	210 U	200 U	210 U	210 U	200 U	200 U	190 U	210 U
Pentachlorophenol	3,000	9,000		400 U	390 U	400 U	390 U	410 U	420 U	380 UJ	390 UJ	370 U	400 U
Phenanthrene	17,000,000	170,000,000		**250**	200 U	**350**	200 U	**550**	**20 J**	200 U	200 U	**680**	210 U
Phenol	18,000,000	180,000,000		210 U	200 U	210 U	200 U	210 U	210 U	200 U	200 U	190 U	210 U
Pyrene	1,700,000	17,000,000		**210**	200 U	**730**	200 UJ	**810**	**14 J**	**84 J**	200 U	**870**	210 UJ

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB181A E3SN1 36720 8/13/2007 µg/kg 3 L4 0-2	SB181B E3SN2RE 36720 8/13/2007 µg/kg 3 L1 8-10	SB182A E3SN3RE 36720 8/13/2007 µg/kg 3 L2, L3 0-2	SB183A E3SK3 36697 8/10/2007 µg/kg 3 L4 0-2	SB183B E3SK4 36697 8/10/2007 µg/kg 3 L1 8-10	SB184A E3SN5RE 36720 8/13/2007 µg/kg 3 L1, L2 0-2	SB184B E3SN6RE 36720 8/13/2007 µg/kg 3 L1, L2 8-10	SB185A E3SK0 36697 8/10/2007 µg/kg 3 L4 0-2	SB185B E3SK1 36697 8/10/2007 µg/kg 3 L2, L4 8-10	SB313B E3SK2 36697 8/10/2007 µg/kg SB185B 3 L2, L4 8-10
1,1'-Biphenyl	3,900,000	51,000,000		190 UJ	200 U	190 U	200 U	210 U	200 U	200 U	**10 J**	200 U	210 UJ
1,2,4,5-Tetrachlorobenzene	18,000	180,000		190 U	200 U	190 U	200 U	210 U	200 U	200 U	250 U	200 U	210 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		190 U	200 U	190 U	200 U	210 U	200 U	200 U	250 U	200 U	210 U
2,4-Dimethylphenol	1,200,000	12,000,000		190 U	200 U	190 U	200 U	210 U	200 U	200 U	250 U	200 U	210 U
2-Chlorophenol	390,000	5,100,000		190 U	200 U	190 U	200 U	210 U	200 U	200 U	250 U	200 U	210 U
2-Methylnaphthalene	310,000	4,100,000		**530 J**	**22 J**	**84 J**	200 UJ	210 UJ	200 U	200 U	**140 J**	**19 J**	210 UJ
2-Methylphenol	3,100,000	31,000,000		190 U	200 U	190 U	200 U	210 U	200 U	200 U	250 U	200 U	210 U
3,3'-Dichlorobenzidine	1,100	3,800		190 U	200 U	190 U	200 U	210 U	200 U	200 U	250 UJ	200 U	210 U
3-Nitroaniline	24,000	86,000		380 U	390 U	380 U	390 U	400 U	380 U	380 U	480 U	390 U	410 U
4-Chloro-3-methylphenol	6,100,000	62,000,000		190 U	200 U	190 U	200 U	210 U	200 U	200 U	250 U	200 U	210 U
4-Methylphenol	310,000	3,100,000		190 U	200 U	190 U	200 U	210 U	200 U	200 U	250 U	200 U	210 U
Acenaphthene	3,400,000	33,000,000		190 U	200 U	190 U	200 U	210 U	200 U	200 U	**18 J**	200 U	210 U
Acenaphthylene	3,400,000	33,000,000		190 U	200 U	190 U	200 U	210 U	200 U	200 U	**24 J**	200 U	210 U
Acetophenone	7,800,000	100,000,000		190 U	200 U	190 U	**21 J**	**18 J**	200 U	200 U	250 U	**34 J**	**20 J**
Anthracene	17,000,000	170,000,000		190 U	200 U	190 U	200 U	210 U	200 U	200 U	**43 J**	**6.8 J**	210 U
Atrazine	2,100	7,500		190 U	200 U	190 U	200 U	210 U	200 U	200 U	250 U	**53 J**	**21 J**
Benzaldehyde	7,800,000	100,000,000		190 U	200 U	190 U	200 U	210 U	200 U	200 U	**380**	**56 J**	210 U
Benzo(a)anthracene	150	2,100		190 UJ	200 U	**74 J**	200 U	210 U	200 U	200 U	**220 J**	**71 J**	210 U
Benzo(a)pyrene	15	210		190 UJ	200 U	**69 J**	**13 J**	210 U	200 UJ	200 U	250 UJ	**71 J**	210 U
Benzo(b)fluoranthene	150	2,100		190 UJ	200 U	**120 J**	**14 J**	210 U	200 UJ	200 U	**250 J**	**78 J**	210 U
Benzo(g,h,i)perylene	150	2,100		190 UJ	200 U	190 UJ	200 U	210 U	200 UJ	200 U	250 UJ	**51 J**	210 U
Benzo(k)fluoranthene	1,500	21,000		190 UJ	200 U	**48 J**	**5.8 J**	210 U	200 UJ	200 U	**73 J**	**24 J**	210 U
Bis(2-ethylhexyl)phthalate	35,000	120,000		190 U	200 UJ	190 UJ	200 U	**13 J**	200 UJ	200 UJ	250 UJ	**12 J**	210 UJ
Butylbenzylphthalate	260,000	910,000		190 U	200 UJ	190 UJ	200 U	210 U	200 UJ	200 UJ	250 UJ	200 U	210 UJ
Caprolactam	31,000,000	310,000,000		190 U	200 U	190 U	200 U	210 U	200 U	200 U	250 U	200 U	210 UJ
Carbazole	17,000,000	170,000,000		190 U	200 U	190 U	200 U	210 U	200 U	200 U	**14 J**	200 U	210 U
Chrysene	15,000	210,000		**22 J**	200 U	**110 J**	200 U	210 U	200 U	200 U	**210 J**	**74 J**	210 U
Dibenzo(a,h)anthracene	15	210		190 UJ	200 U	190 UJ	200 U	210 U	200 UJ	200 U	250 UJ	200 U	210 U
Dibenzofuran	78,000	1,000,000		190 U	200 U	190 U	200 U	210 U	200 U	200 U	**31 J**	200 U	210 U
Diethylphthalate	49,000,000	490,000,000		190 U	200 U	190 U	200 U	210 U	200 U	200 U	250 U	200 U	210 UJ
Dimethylphthalate	49,000,000	490,000,000		190 U	200 U	190 U	200 U	210 U	200 U	200 U	250 U	200 U	210 UJ
Di-n-butylphthalate	6,100,000	62,000,000		190 U	200 U	190 U	200 U	210 U	200 U	200 U	250 U	200 U	210 UJ
Di-n-octylphthalate	35,000	120,000		190 U	200 UJ	190 UJ	200 U	210 U	200 UJ	200 UJ	250 UJ	200 U	210 UJ
Fluoranthene	2,300,000	22,000,000		**61 J**	**22 J**	**180 J**	200 U	210 U	**21 J**	**21 J**	**280 J**	**110 J**	210 U

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB181A E3SN1 36720 8/13/2007 µg/kg 3 L4 0-2	SB181B E3SN2RE 36720 8/13/2007 µg/kg 3 L1 8-10	SB182A E3SN3RE 36720 8/13/2007 µg/kg 3 L2, L3 0-2	SB183A E3SK3 36697 8/10/2007 µg/kg 3 L4 0-2	SB183B E3SK4 36697 8/10/2007 µg/kg 3 L1 8-10	SB184A E3SN5RE 36720 8/13/2007 µg/kg 3 L1, L2 0-2	SB184B E3SN6RE 36720 8/13/2007 µg/kg 3 L1, L2 8-10	SB185A E3SK0 36697 8/10/2007 µg/kg 3 L4 0-2	SB185B E3SK1 36697 8/10/2007 µg/kg 3 L2, L4 8-10	SB313B E3SK2 36697 8/10/2007 µg/kg SB185B 3 L2, L4 8-10
Fluorene	2,300,000	22,000,000		190 U	200 U	190 U	200 UJ	210 UJ	200 U	200 U	**10 J**	200 UJ	210 UJ
Hexachlorobenzene	300	1,100		190 U	200 U	190 U	200 U	210 U	200 U	200 U	250 U	200 U	210 U
Indeno(1,2,3-cd)pyrene	150	2,100		190 UJ	200 U	**34 J**	200 U	210 U	200 UJ	200 U	250 UJ	**53 J**	210 U
Naphthalene	3,600	18,000		190 UJ	200 U	**25 J**	200 U	210 U	200 U	200 U	**52 J**	**12 J**	210 U
N-Nitrosodiphenylamine	99,000	350,000		190 U	200 U	**20 J**	200 U	210 U	200 U	200 U	250 U	200 U	210 U
Pentachlorophenol	3,000	9,000		380 U	390 UJ	380 U	390 U	400 U	380 U	380 U	480 U	390 U	410 U
Phenanthrene	17,000,000	170,000,000		**81 J**	200 U	**160 J**	200 U	210 U	200 U	200 U	**290**	**71 J**	210 U
Phenol	18,000,000	180,000,000		190 U	200 U	190 U	200 U	210 U	200 U	200 U	250 U	200 U	210 U
Pyrene	1,700,000	17,000,000		**42 J**	200 U	**200 J**	200 U	210 U	200 U	200 U	**110 J**	**150 J**	210 U

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	SB186A E3SN7RE 36720 8/13/2007 µg/kg 3 L4 0-2	SB186B E3SN8RE 36720 8/13/2007 µg/kg 3 L1, L2 8-10	SB187A E3SN9RE 36720 8/13/2007 µg/kg 3 L1 0-2	SB187B E3SP0RE 36720 8/13/2007 µg/kg 3 L1 6-8	SB188A E3SP1RE 36720 8/13/2007 µg/kg 3 L1 0-2	SB188B E3SP2RE 36720 8/13/2007 µg/kg 3 L1 8-10	SB317B E3SP3RE 36720 8/13/2007 µg/kg SB188B 3 L1 8-10	SB189A E3SQ6 36720 8/14/2007 µg/kg 3 L1, L4 0-2	SB189B E3SQ7 36720 8/14/2007 µg/kg 3 L1, L4 8-10	SB190A E3RM4 36648 7/25/2007 µg/kg 3 L4 0-2
1,1'-Biphenyl	3,900,000	51,000,000	210 U	210 U	990 U	190 U	200 U	180 U	200 U	200 U	210 U	**15 J**
1,2,4,5-Tetrachlorobenzene	18,000	180,000	210 U	210 U	990 U	190 U	200 U	180 U	200 U	200 U	210 U	200 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000	210 U	210 U	990 U	190 U	200 U	180 U	200 U	200 U	210 U	200 U
2,4-Dimethylphenol	1,200,000	12,000,000	210 U	210 U	990 U	190 U	200 U	180 U	200 U	200 U	210 U	200 U
2-Chlorophenol	390,000	5,100,000	210 U	210 U	990 U	190 U	200 U	180 U	200 U	200 U	210 U	200 U
2-Methylnaphthalene	310,000	4,100,000	**56 J**	**50 J**	990 U	190 U	200 U	180 U	200 U	200 U	**66 J**	**160 J**
2-Methylphenol	3,100,000	31,000,000	210 U	210 U	990 U	190 U	200 U	180 U	200 U	200 U	210 U	200 U
3,3'-Dichlorobenzidine	1,100	3,800	210 U	210 U	990 U	190 U	200 U	180 U	200 U	200 U	210 U	200 U
3-Nitroaniline	24,000	86,000	400 U	400 U	1,900 U	370 U	390 U	350 U	400 U	390 U	420 U	380 U
4-Chloro-3-methylphenol	6,100,000	62,000,000	210 U	210 U	990 U	190 U	200 U	180 U	200 U	200 U	210 U	200 U
4-Methylphenol	310,000	3,100,000	210 U	210 U	990 U	190 U	200 U	180 U	200 U	200 U	210 U	200 U
Acenaphthene	3,400,000	33,000,000	210 U	210 U	990 U	190 U	200 U	180 U	200 U	200 U	210 U	**8.8 J**
Acenaphthylene	3,400,000	33,000,000	210 U	210 U	990 U	190 U	200 U	180 U	200 U	200 U	210 U	**23 J**
Acetophenone	7,800,000	100,000,000	210 U	210 U	990 U	190 U	200 U	180 U	200 U	200 U	210 U	**52 J**
Anthracene	17,000,000	170,000,000	210 U	210 U	**350 J**	**7.1 J**	**2.8 J**	180 U	200 U	200 U	210 U	**29 J**
Atrazine	2,100	7,500	210 U	210 U	990 U	190 U	200 U	180 U	200 U	200 U	210 U	200 U
Benzaldehyde	7,800,000	100,000,000	210 U	210 U	990 U	190 U	200 U	180 U	200 U	200 U	210 U	**47 J**
Benzo(a)anthracene	150	2,100	**57 J**	**38 J**	**2,300 J**	**46 J**	**35 J**	**64 J**	200 U	**120 J**	**57 J**	**210**
Benzo(a)pyrene	15	210	**47 J**	**37 J**	**2,300 J**	**57 J**	**39 J**	**69 J**	200 UJ	**140 J**	**55 J**	**200**
Benzo(b)fluoranthene	150	2,100	**87 J**	**52 J**	**2,900 J**	**80 J**	**88 J**	**140 J**	200 UJ	**200 J**	**92 J**	**310**
Benzo(g,h,i)perylene	150	2,100	210 UJ	210 UJ	**1,300 J**	190 UJ	200 UJ	180 UJ	200 UJ	**76 J**	**210 J**	**130 J**
Benzo(k)fluoranthene	1,500	21,000	**24 J**	**22 J**	**1,200 J**	**31 J**	**26 J**	**59 J**	200 UJ	**77 J**	**30 J**	**90 J**
Bis(2-ethylhexyl)phthalate	35,000	120,000	210 UJ	210 UJ	990 UJ	190 UJ	200 UJ	180 UJ	200 UJ	200 U	210 U	**26 J**
Butylbenzylphthalate	260,000	910,000	210 UJ	210 UJ	990 UJ	190 UJ	200 UJ	180 UJ	200 UJ	200 U	210 U	200 U
Caprolactam	31,000,000	310,000,000	210 U	210 U	990 U	190 U	200 U	180 U	200 U	200 U	210 U	200 U
Carbazole	17,000,000	170,000,000	210 U	210 U	990 U	190 U	200 U	180 U	200 U	200 U	210 U	**16 J**
Chrysene	15,000	210,000	**70 J**	**45 J**	**2,200 J**	**49 J**	**46 J**	**86 J**	200 U	**120 J**	**65 J**	**270**
Dibenzo(a,h)anthracene	15	210	210 UJ	210 UJ	**520 J**	190 UJ	200 UJ	180 UJ	200 UJ	200 UJ	210 UJ	**56 J**
Dibenzofuran	78,000	1,000,000	**40 J**	**26 J**	990 U	190 U	200 U	180 U	200 U	200 U	**25 J**	**54 J**
Diethylphthalate	49,000,000	490,000,000	210 U	210 U	990 U	190 U	200 U	180 U	200 U	200 U	210 U	200 U
Dimethylphthalate	49,000,000	490,000,000	210 U	210 U	990 U	190 U	200 U	180 U	200 U	200 U	210 U	200 U
Di-n-butylphthalate	6,100,000	62,000,000	210 U	210 U	990 U	190 U	200 U	180 U	200 U	200 U	210 U	200 U
Di-n-octylphthalate	35,000	120,000	**22 J**	210 UJ	990 UJ	190 UJ	**26 J**	**27 J**	**510 J**	**26 J**	**29 J**	200 U
Fluoranthene	2,300,000	22,000,000	**150 J**	**64 J**	**5,400 J**	**110 J**	**55 J**	**120 J**	200 U	**230**	**110 J**	**330**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB186A E3SN7RE 36720 8/13/2007 µg/kg 3 L4 0-2	SB186B E3SN8RE 36720 8/13/2007 µg/kg 3 L1, L2 8-10	SB187A E3SN9RE 36720 8/13/2007 µg/kg 3 L1 0-2	SB187B E3SP0RE 36720 8/13/2007 µg/kg 3 L1 6-8	SB188A E3SP1RE 36720 8/13/2007 µg/kg 3 L1 0-2	SB188B E3SP2RE 36720 8/13/2007 µg/kg 3 L1 8-10	SB317B E3SP3RE 36720 8/13/2007 µg/kg SB188B 3 L1 8-10	SB189A E3SQ6 36720 8/14/2007 µg/kg 3 L1, L4 0-2	SB189B E3SQ7 36720 8/14/2007 µg/kg 3 L1, L4 8-10	SB190A E3RM4 36648 7/25/2007 µg/kg 3 L4 0-2
Fluorene	2,300,000	22,000,000		210 U	210 U	990 U	190 U	200 U	180 U	200 U	200 U	210 U	**8.1 J**
Hexachlorobenzene	300	1,100		210 U	210 U	990 U	190 U	200 U	180 U	200 U	200 U	210 U	200 U
Indeno(1,2,3-cd)pyrene	150	2,100		**22 J**	210 UJ	**1,200 J**	**31 J**	**26 J**	**53 J**	200 UJ	**81 J**	**33 J**	**160 J**
Naphthalene	3,600	18,000		210 U	210 U	990 U	190 U	200 U	180 U	200 U	200 U	210 U	**79 J**
N-Nitrosodiphenylamine	99,000	350,000		210 U	210 U	990 U	190 U	200 U	180 U	200 U	200 U	210 U	200 U
Pentachlorophenol	3,000	9,000		400 U	400 U	1,900 U	370 U	390 U	350 U	400 U	390 U	420 U	380 U
Phenanthrene	17,000,000	170,000,000		**190 J**	**110 J**	**2,000**	**43 J**	**22 J**	**49 J**	200 U	**110 J**	**110 J**	**290**
Phenol	18,000,000	180,000,000		210 U	210 U	990 U	190 U	200 U	180 U	200 U	200 U	210 U	**16 J**
Pyrene	1,700,000	17,000,000		**160 J**	**110 J**	**7,800 J**	**140 J**	**69 J**	**150 J**	200 U	**200**	**96 J**	**320**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	SB190B E3RM5 36648 7/25/2007 µg/kg 3 L1 8-10	SB191A E3RM8 36648 7/26/2007 µg/kg 3 L1, L4 0-2	SB191B E3RM9 36648 7/26/2007 µg/kg 3 L1 6-8	SB192A E3RN4 36648 7/26/2007 µg/kg 3 L1 0-2	SB192B E3RN5 36648 7/26/2007 µg/kg 3 L1 4-6	SB270B E3RN6 36648 7/26/2007 µg/kg SB192B 3 L1 4-6	SB193A E3RL3 36648 7/25/2007 µg/kg 3 L4 0-2	SB194A E3RG9 36648 7/24/2007 µg/kg 3 L2 0-2	SB194B E3RH0 36648 7/24/2007 µg/kg 3 L1 4-5_5	SB195A E3RT5 36720 8/15/2007 µg/kg 3 L1 0-2
1,1'-Biphenyl	3,900,000	51,000,000	200 U	390 U	190 U	**17 J**	180 U	**18 J**	**12 J**	**41 J**	190 UJ	220 UJ
1,2,4,5-Tetrachlorobenzene	18,000	180,000	200 U	390 UJ	190 U	200 U	180 U	190 U	210 U	190 UJ	190 UJ	220 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000	200 U	390 UJ	190 U	200 U	180 U	190 U	210 U	190 UJ	190 UJ	220 U
2,4-Dimethylphenol	1,200,000	12,000,000	200 U	390 UJ	190 U	200 U	180 U	190 UJ	210 U	190 UJ	190 UJ	220 U
2-Chlorophenol	390,000	5,100,000	200 U	390 U	190 U	200 U	180 U	190 U	210 U	190 UJ	190 UJ	220 U
2-Methylnaphthalene	310,000	4,100,000	**35 J**	**24 J**	190 U	**130 J**	180 U	**84 J**	**130 J**	**140 J**	**22 J**	220 U
2-Methylphenol	3,100,000	31,000,000	200 U	390 UJ	190 UJ	200 U	180 U	190 UJ	210 U	190 UJ	190 UJ	220 U
3,3'-Dichlorobenzidine	1,100	3,800	200 U	390 U	190 U	200 U	180 U	190 U	210 U	190 UJ	190 UJ	220 U
3-Nitroaniline	24,000	86,000	390 U	750 U	370 U	380 U	360 U	360 U	410 U	370 UJ	380 UJ	420 U
4-Chloro-3-methylphenol	6,100,000	62,000,000	200 U	390 UJ	190 U	200 U	180 U	190 U	210 U	190 UJ	190 UJ	220 U
4-Methylphenol	310,000	3,100,000	200 U	390 UJ	190 U	200 U	180 U	190 UJ	210 U	190 UJ	190 UJ	220 U
Acenaphthene	3,400,000	33,000,000	200 U	390 U	190 U	**13 J**	180 U	**30 J**	**23 J**	**210 J**	**34 J**	220 U
Acenaphthylene	3,400,000	33,000,000	200 U	390 U	190 U	**44 J**	180 U	**36 J**	**18 J**	**64 J**	**13 J**	220 U
Acetophenone	7,800,000	100,000,000	**18 J**	**49 J**	**20 J**	**89 J**	**29 J**	**91 J**	**66 J**	**54 J**	**49 J**	220 U
Anthracene	17,000,000	170,000,000	**9.8 J**	**98 J**	190 U	**55 J**	180 U	**87 J**	**72 J**	**600 J**	**88 J**	220 U
Atrazine	2,100	7,500	200 U	390 U	190 U	200 U	180 U	190 U	210 U	190 UJ	190 UJ	220 U
Benzaldehyde	7,800,000	100,000,000	200 U	**83 J**	190 U	**85 J**	**64 J**	**120 J**	**59 J**	**28 J**	190 UJ	220 U
Benzo(a)anthracene	150	2,100	**54 J**	**850**	190 U	**530**	180 U	**400 J**	**250**	**1,500 J**	**190 J**	**49 J**
Benzo(a)pyrene	15	210	**44 J**	**1,000**	190 U	**420**	180 U	190 UJ	**220**	**1,000 J**	**140 J**	**40 J**
Benzo(b)fluoranthene	150	2,100	**88 J**	**2,300**	190 U	**740**	180 U	**250 J**	**380**	**1,700 J**	**190 J**	**75 J**
Benzo(g,h,i)perylene	150	2,100	**41 J**	**140 J**	190 U	**49 J**	180 U	190 UJ	**160 J**	**150 J**	**59 J**	220 UJ
Benzo(k)fluoranthene	1,500	21,000	**26 J**	**630**	190 U	**270**	180 U	**130 J**	**110 J**	**550 J**	**61 J**	220 UJ
Bis(2-ethylhexyl)phthalate	35,000	120,000	**57 J**	**66 J**	**26 J**	200 U	180 U	**62 J**	**150 J**	190 UJ	36 UJ	220 UJ
Butylbenzylphthalate	260,000	910,000	200 U	390 U	190 U	200 U	180 U	190 U	**53 J**	190 UJ	190 UJ	220 UJ
Caprolactam	31,000,000	310,000,000	200 U	390 U	190 U	200 U	180 U	190 U	210 U	190 UJ	190 UJ	220 UJ
Carbazole	17,000,000	170,000,000	200 U	**54 J**	190 U	**23 J**	180 U	**10 J**	**36 J**	**230 J**	**46 J**	220 UJ
Chrysene	15,000	210,000	**70 J**	**950**	190 U	**490**	180 U	**280 J**	**300**	**1,700 J**	**180 J**	**65 J**
Dibenzo(a,h)anthracene	15	210	200 U	**240 J**	190 U	**94 J**	180 U	**53 J**	**44 J**	**220 J**	**32 J**	220 UJ
Dibenzofuran	78,000	1,000,000	**13 J**	390 U	190 U	**51 J**	180 U	**64 J**	**45 J**	**180 J**	**40 J**	220 UJ
Diethylphthalate	49,000,000	490,000,000	200 U	390 U	190 U	**8.6 J**	180 U	190 U	210 U	190 UJ	190 UJ	220 UJ
Dimethylphthalate	49,000,000	490,000,000	200 U	390 U	190 U	200 U	180 U	190 U	210 U	190 UJ	190 UJ	220 UJ
Di-n-butylphthalate	6,100,000	62,000,000	200 U	390 U	190 U	**18 J**	180 U	190 U	210 U	190 UJ	190 UJ	220 UJ
Di-n-octylphthalate	35,000	120,000	200 U	390 U	190 U	200 U	180 U	190 U	210 U	190 UJ	190 UJ	220 UJ
Fluoranthene	2,300,000	22,000,000	**88 J**	**1,200**	190 U	**910**	180 U	**690 J**	**600**	**3,100 J**	**350 J**	**120 J**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB190B E3RM5 36648 7/25/2007 µg/kg 3 L1 8-10	SB191A E3RM8 36648 7/26/2007 µg/kg 3 L1, L4 0-2	SB191B E3RM9 36648 7/26/2007 µg/kg 3 L1 6-8	SB192A E3RN4 36648 7/26/2007 µg/kg 3 L1 0-2	SB192B E3RN5 36648 7/26/2007 µg/kg 3 L1 4-6	SB270B E3RN6 36648 7/26/2007 µg/kg SB192B 3 L1 4-6	SB193A E3RL3 36648 7/25/2007 µg/kg 3 L4 0-2	SB194A E3RG9 36648 7/24/2007 µg/kg 3 L2 0-2	SB194B E3RH0 36648 7/24/2007 µg/kg 3 L1 4-5_5	SB195A E3RT5 36720 8/15/2007 µg/kg 3 L1 0-2
Fluorene	2,300,000	22,000,000		200 U	390 U	190 U	**18 J**	180 U	**44 J**	**28 J**	**130 J**	**36 J**	220 UJ
Hexachlorobenzene	300	1,100		200 U	390 U	190 U	200 U	180 U	190 U	210 U	190 UJ	190 UJ	220 U
Indeno(1,2,3-cd)pyrene	150	2,100		**45 J**	**1,100**	190 U	**340**	180 U	190 UJ	**170 J**	**740 J**	**91 J**	220 UJ
Naphthalene	3,600	18,000		**20 J**	**27 J**	190 U	**110 J**	180 U	**67 J**	**80 J**	**160 J**	**27 J**	220 U
N-Nitrosodiphenylamine	99,000	350,000		200 U	390 U	190 U	200 U	180 U	190 U	210 U	190 UJ	190 UJ	220 U
Pentachlorophenol	3,000	9,000		390 U	750 UJ	370 U	380 U	360 U	360 U	410 U	370 UJ	380 UJ	420 U
Phenanthrene	17,000,000	170,000,000		**85 J**	**680**	190 U	**500**	180 U	**520**	**490**	**3,700 J**	**420 J**	**39 J**
Phenol	18,000,000	180,000,000		200 U	**36 J**	190 U	**45 J**	**40 J**	**41 J**	210 U	190 UJ	190 UJ	220 U
Pyrene	1,700,000	17,000,000		**130 J**	**2,400**	190 U	**910**	180 U	**82 J**	**540**	**3,200 J**	**330 J**	**110 J**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB196A E3RT7 36720 8/15/2007 µg/kg 3 L1, L2 0-2	SB196B E3RT8 36720 8/15/2007 µg/kg 3 L1 6-8	SB197A E3RA2 36631 7/19/2007 µg/kg 3 L2, L3 0-2	SB198A E3RB4 36631 7/19/2007 µg/kg 3 L1, L3 0-2	SB199A E3S13 36664 8/1/2007 µg/kg 3 L1 0-2	SB200A E3S47 36664 8/2/2007 µg/kg 3 L4 0-2	SB200B E3S48 36664 8/2/2007 µg/kg 3 L1 8-10	SB201A E3SK9 36720 8/13/2007 µg/kg 2 L1 0-2	SB201B E3SL0 36720 8/13/2007 µg/kg 2 L1 6-8	SB316B E3SN0 36720 8/13/2007 µg/kg SB201B 2 L1 6-8
1,1'-Biphenyl	3,900,000	51,000,000		220 UJ	200 UJ	**29 J**	210 U	240 U	190 U	250 U	210 U	190 U	**34 J**
1,2,4,5-Tetrachlorobenzene	18,000	180,000		220 U	200 U	210 U	210 U	240 U	190 U	250 U	210 U	190 U	190 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		220 U	200 U	210 U	210 U	240 U	190 U	250 U	210 U	190 U	190 U
2,4-Dimethylphenol	1,200,000	12,000,000		220 U	200 U	210 U	210 U	240 U	190 U	250 U	210 U	190 U	190 U
2-Chlorophenol	390,000	5,100,000		220 U	200 U	210 U	210 U	240 U	190 U	250 U	210 U	190 U	190 U
2-Methylnaphthalene	310,000	4,100,000		**32 J**	**41 J**	**210 J**	**41 J**	240 U	**410**	250 U	**26 J**	**39 J**	**140 J**
2-Methylphenol	3,100,000	31,000,000		220 U	200 U	210 U	210 U	240 U	190 U	250 U	210 U	190 U	190 U
3,3'-Dichlorobenzidine	1,100	3,800		220 U	200 U	210 U	210 U	240 U	190 U	250 UJ	210 U	190 U	190 U
3-Nitroaniline	24,000	86,000		440 U	390 U	410 U	400 U	470 U	380 U	490 U	400 U	370 U	370 U
4-Chloro-3-methylphenol	6,100,000	62,000,000		220 U	200 U	210 U	210 U	240 U	190 U	250 U	210 U	190 U	190 U
4-Methylphenol	310,000	3,100,000		220 U	200 U	210 U	210 U	240 U	190 U	250 U	210 U	190 U	190 U
Acenaphthene	3,400,000	33,000,000		220 U	200 U	**170 J**	210 U	240 U	190 U	250 U	210 U	**29 J**	**73 J**
Acenaphthylene	3,400,000	33,000,000		220 U	200 U	**53 J**	210 U	240 U	190 U	250 U	210 U	190 U	**27 J**
Acetophenone	7,800,000	100,000,000		220 U	200 U	210 U	210 U	240 U	**51 J**	250 U	210 U	190 U	190 U
Anthracene	17,000,000	170,000,000		**29 J**	200 U	**430**	**22 J**	240 U	**87 J**	250 U	210 U	**48 J**	**120 J**
Atrazine	2,100	7,500		220 U	200 U	210 U	210 U	240 U	190 U	250 U	210 U	190 U	190 U
Benzaldehyde	7,800,000	100,000,000		220 U	200 U	**46 J**	210 U	240 U	190 U	250 U	210 U	190 U	190 U
Benzo(a)anthracene	150	2,100		**100 J**	200 UJ	**1,300**	**120 J**	240 U	**290**	250 U	**34 J**	**150 J**	**380**
Benzo(a)pyrene	15	210		**68 J**	200 UJ	**840 J**	**82 J**	240 U	**240**	250 UJ	210 U	**64 J**	**160 J**
Benzo(b)fluoranthene	150	2,100		**150 J**	200 UJ	**1,300 J**	**150 J**	240 U	**260**	250 UJ	**35 J**	**150 J**	**380**
Benzo(g,h,i)perylene	150	2,100		220 UJ	200 UJ	**320 J**	**36 J**	240 U	190 U	250 UJ	210 U	190 U	190 U
Benzo(k)fluoranthene	1,500	21,000		**41 J**	200 UJ	**530 J**	**52 J**	240 U	**330**	250 UJ	210 U	**61 J**	**160 J**
Bis(2-ethylhexyl)phthalate	35,000	120,000		26 UJ	26 UJ	210 U	210 U	240 U	190 U	250 U	210 U	190 U	190 U
Butylbenzylphthalate	260,000	910,000		220 UJ	200 UJ	**45 J**	210 U	240 U	190 U	250 U	210 U	190 U	**57 J**
Caprolactam	31,000,000	310,000,000		220 UJ	200 UJ	210 U	210 U	240 U	190 U	250 U	210 U	190 U	190 U
Carbazole	17,000,000	170,000,000		**23 J**	200 UJ	**360**	210 U	240 U	**49 J**	250 U	210 U	**34 J**	**77 J**
Chrysene	15,000	210,000		**130 J**	200 UJ	**1,300**	**150 J**	240 U	**370**	250 U	**37 J**	**150 J**	**370**
Dibenzo(a,h)anthracene	15	210		220 UJ	200 UJ	210 UJ	210 U	240 U	**35 J**	250 UJ	210 U	190 U	190 U
Dibenzofuran	78,000	1,000,000		**23 J**	200 UJ	**220**	**23 J**	240 U	**110 J**	250 U	**22 J**	**71 J**	**190 J**
Diethylphthalate	49,000,000	490,000,000		220 UJ	200 UJ	210 U	210 U	240 U	190 U	250 U	210 U	190 U	190 U
Dimethylphthalate	49,000,000	490,000,000		220 UJ	200 UJ	210 U	210 U	240 U	190 U	250 U	210 U	190 U	190 U
Di-n-butylphthalate	6,100,000	62,000,000		55 UJ	200 UJ	210 U	210 U	240 U	190 U	250 U	210 U	190 U	190 U
Di-n-octylphthalate	35,000	120,000		220 UJ	200 UJ	210 U	210 U	240 U	190 U	250 U	210 U	190 U	**22 J**
Fluoranthene	2,300,000	22,000,000		**360 J**	**22 J**	**5,700**	**250**	**39 J**	**560**	**42 J**	**140 J**	**570**	**1,400**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB196A E3RT7 36720 8/15/2007 µg/kg 3 L1, L2 0-2	SB196B E3RT8 36720 8/15/2007 µg/kg 3 L1 6-8	SB197A E3RA2 36631 7/19/2007 µg/kg 3 L2, L3 0-2	SB198A E3RB4 36631 7/19/2007 µg/kg 3 L1, L3 0-2	SB199A E3S13 36664 8/1/2007 µg/kg 3 L1 0-2	SB200A E3S47 36664 8/2/2007 µg/kg 3 L4 0-2	SB200B E3S48 36664 8/2/2007 µg/kg 3 L1 8-10	SB201A E3SK9 36720 8/13/2007 µg/kg 2 L1 0-2	SB201B E3SL0 36720 8/13/2007 µg/kg 2 L1 6-8	SB316B E3SN0 36720 8/13/2007 µg/kg SB201B 2 L1 6-8
Fluorene	2,300,000	22,000,000		220 U	200 UJ	**240**	210 U	240 U	190 U	250 U	210 U	**28 J**	**69 J**
Hexachlorobenzene	300	1,100		220 U	200 U	210 U	210 U	240 U	190 U	250 U	210 U	190 U	190 U
Indeno(1,2,3-cd)pyrene	150	2,100		**33 J**	200 UJ	**460 J**	**43 J**	240 U	**120 J**	250 UJ	210 U	**36 J**	**76 J**
Naphthalene	3,600	18,000		**22 J**	200 U	**330**	**31 J**	240 U	**170 J**	250 U	210 U	190 U	**34 J**
N-Nitrosodiphenylamine	99,000	350,000		220 U	200 U	210 U	210 U	240 U	190 U	250 U	210 U	190 U	190 U
Pentachlorophenol	3,000	9,000		440 U	390 U	410 U	400 U	470 UJ	380 U	490 U	400 U	370 U	370 U
Phenanthrene	17,000,000	170,000,000		**230**	**27 J**	**3,200**	**190 J**	240 U	**610**	250 U	**200 J**	**820**	**2,100**
Phenol	18,000,000	180,000,000		220 U	200 U	210 U	210 U	240 U	**33 J**	250 U	210 U	190 U	190 U
Pyrene	1,700,000	17,000,000		**260 J**	**21 J**	**2,500**	**210**	240 U	**520**	250 U	**98 J**	**360**	**990**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB211A E3SR0 36720 8/14/2007 µg/kg 1 L1 0-2	SB211B E3SR1 36720 8/14/2007 µg/kg 1 L1 8-10	SB212A E3SR2 36720 8/14/2007 µg/kg 3 L2, L3 0-2	SB213A E3SR4 36720 8/14/2007 µg/kg 3 L2, L3 0-2	SB213B E3SR5 36720 8/14/2007 µg/kg 3 L2 8-10	SB214B E3SW0 36720 8/16/2007 µg/kg 3 L2, L4 6-8	SB215A E3SW1 36720 8/16/2007 µg/kg 3 L1, L2 0-2	SB215B E3SW2 36720 8/16/2007 µg/kg 3 L1, L4 8-10	SB423A-08 E3XY4 37920 10/16/2008 µg/kg 3 L2, L3, L4 0-2	SB502A-08 E3Y64 37920 10/16/2008 µg/kg SB423A-08 3 L2, L3, L4 0-2
1,1'-Biphenyl	3,900,000	51,000,000		230 UJ	200 U	220 U	**100 J**	200 U	180 U	210 U	210 U	200 U	200 U
1,2,4,5-Tetrachlorobenzene	18,000	180,000		230 U	200 U	220 U	210 U	200 U	180 U	210 U	210 U	200 U	200 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		230 U	200 U	220 U	210 U	200 U	180 U	210 U	210 U	200 U	200 U
2,4-Dimethylphenol	1,200,000	12,000,000		230 U	200 U	220 U	210 U	200 U	180 U	210 U	210 U	200 U	200 U
2-Chlorophenol	390,000	5,100,000		230 U	200 U	220 U	210 U	200 U	180 U	210 U	210 U	200 U	200 U
2-Methylnaphthalene	310,000	4,100,000		**43 J**	**71 J**	220 U	**100 J**	200 U	180 U	**39 J**	210 U	**54 J**	**43 J**
2-Methylphenol	3,100,000	31,000,000		230 U	200 U	220 U	210 U	200 U	180 U	210 U	210 U	200 U	200 U
3,3'-Dichlorobenzidine	1,100	3,800		230 UJ	200 U	220 U	210 U	200 U	180 U	210 U	210 U	200 U	200 U
3-Nitroaniline	24,000	86,000		440 U	400 U	430 U	400 U	380 U	340 U	420 U	410 U	390 U	390 U
4-Chloro-3-methylphenol	6,100,000	62,000,000		230 U	200 U	220 U	210 U	200 U	180 U	210 U	210 U	200 U	200 U
4-Methylphenol	310,000	3,100,000		230 U	200 U	220 U	210 U	200 U	180 U	210 U	210 U	200 U	200 U
Acenaphthene	3,400,000	33,000,000		230 U	200 U	220 U	210 U	200 U	180 U	210 U	210 U	**140 J**	**100 J**
Acenaphthylene	3,400,000	33,000,000		230 U	200 U	220 U	210 U	200 U	180 U	210 U	210 U	200 U	**120 J**
Acetophenone	7,800,000	100,000,000		230 U	200 U	220 U	210 U	200 U	180 U	210 U	210 U	200 U	200 U
Anthracene	17,000,000	170,000,000		230 U	200 U	220 U	210 U	200 U	180 U	210 U	210 U	**460**	**270**
Atrazine	2,100	7,500		230 U	200 U	220 U	210 U	200 U	180 U	210 U	210 U	200 U	200 U
Benzaldehyde	7,800,000	100,000,000		230 U	200 U	220 U	210 U	200 U	180 U	210 U	210 U	200 U	200 U
Benzo(a)anthracene	150	2,100		**92 J**	**48 J**	**23 J**	210 U	200 UJ	180 U	210 U	210 U	**870**	**1,100**
Benzo(a)pyrene	15	210		**54 J**	**43 J**	220 UJ	210 UJ	200 UJ	180 U	210 UJ	210 U	**750 J**	**1,100**
Benzo(b)fluoranthene	150	2,100		**130 J**	**110 J**	**38 J**	**26 J**	200 UJ	180 U	210 UJ	210 U	**760**	**1,300**
Benzo(g,h,i)perylene	150	2,100		230 UJ	200 UJ	220 UJ	210 UJ	200 UJ	180 U	210 UJ	210 U	**340**	**690**
Benzo(k)fluoranthene	1,500	21,000		**52 J**	**36 J**	220 UJ	210 UJ	200 UJ	180 U	210 UJ	210 U	**390**	**590**
Bis(2-ethylhexyl)phthalate	35,000	120,000		230 UJ	200 U	54 U	210 U	200 U	180 U	210 U	210 U	200 U	200 U
Butylbenzylphthalate	260,000	910,000		230 UJ	200 U	220 U	210 U	200 U	180 U	210 U	210 U	200 U	200 U
Caprolactam	31,000,000	310,000,000		230 UJ	200 U	220 U	210 U	200 U	180 U	210 U	210 U	200 U	200 U
Carbazole	17,000,000	170,000,000		230 UJ	200 U	220 U	210 U	200 U	180 U	210 U	210 U	**140 J**	**130 J**
Chrysene	15,000	210,000		**160 J**	**150 J**	**88 J**	**27 J**	200 UJ	180 U	210 U	210 U	**830**	**1,300**
Dibenzo(a,h)anthracene	15	210		230 UJ	200 UJ	220 UJ	210 UJ	200 UJ	180 U	210 UJ	210 U	**85 J**	**190 J**
Dibenzofuran	78,000	1,000,000		**32 J**	**58 J**	**22 J**	**280**	200 U	180 U	210 U	210 U	**120 J**	**86 J**
Diethylphthalate	49,000,000	490,000,000		230 UJ	200 U	220 U	210 U	200 U	180 U	210 U	210 U	200 U	200 U
Dimethylphthalate	49,000,000	490,000,000		230 UJ	200 U	220 U	210 U	200 U	180 U	210 U	210 U	200 U	200 U
Di-n-butylphthalate	6,100,000	62,000,000		230 UJ	200 U	79 U	210 U	200 U	180 U	100 U	210 U	200 U	200 U
Di-n-octylphthalate	35,000	120,000		230 UJ	200 UJ	**31 J**	210 U	200 U	180 U	210 U	210 U	200 U	200 U
Fluoranthene	2,300,000	22,000,000		**440 J**	**460**	**190 J**	**82 J**	**53 J**	180 U	210 U	210 U	**2,100**	**2,900**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB211A E3SR0 36720 8/14/2007 µg/kg 1 L1 0-2	SB211B E3SR1 36720 8/14/2007 µg/kg 1 L1 8-10	SB212A E3SR2 36720 8/14/2007 µg/kg 3 L2, L3 0-2	SB213A E3SR4 36720 8/14/2007 µg/kg 3 L2, L3 0-2	SB213B E3SR5 36720 8/14/2007 µg/kg 3 L2 8-10	SB214B E3SW0 36720 8/16/2007 µg/kg 3 L2, L4 6-8	SB215A E3SW1 36720 8/16/2007 µg/kg 3 L1, L2 0-2	SB215B E3SW2 36720 8/16/2007 µg/kg 3 L1, L4 8-10	SB423A-08 E3XY4 37920 10/16/2008 µg/kg 3 L2, L3, L4 0-2	SB502A-08 E3Y64 37920 10/16/2008 µg/kg SB423A-08 3 L2, L3, L4 0-2
Fluorene	2,300,000	22,000,000		230 UJ	200 U	220 U	210 U	200 U	180 U	210 U	210 U	**110 J**	**96 J**
Hexachlorobenzene	300	1,100		230 U	200 U	220 U	210 U	200 U	180 U	210 U	210 U	200 U	200 U
Indeno(1,2,3-cd)pyrene	150	2,100		**35 J**	200 UJ	220 UJ	210 UJ	200 UJ	180 U	210 UJ	210 U	**410**	**810 J**
Naphthalene	3,600	18,000		230 U	**23 J**	220 U	**25 J**	200 U	180 U	210 U	210 U	**120 J**	**75 J**
N-Nitrosodiphenylamine	99,000	350,000		230 U	200 U	220 U	210 U	200 U	180 U	210 U	210 U	200 U	200 U
Pentachlorophenol	3,000	9,000		440 U	400 U	430 U	400 U	380 U	340 U	420 U	410 U	390 UJ	390 UJ
Phenanthrene	17,000,000	170,000,000		**270**	**350**	**270**	**340**	**67 J**	180 U	**52 J**	**30 J**	**1,800**	**1,800**
Phenol	18,000,000	180,000,000		230 U	200 U	220 U	210 U	200 U	180 U	210 U	210 U	200 U	200 U
Pyrene	1,700,000	17,000,000		**200 J**	**110 J**	**120 J**	**37 J**	**26 J**	**18 J**	**42 J**	210 U	**1,700**	**2,500**

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB424A-08	SB425B-08	SB428A-08	SB430A-08	SB430B-08	SB431A-08	SB431B-08	SB432A-08	SB432B-08	SB433A-08
			Sample ID	E3XY6	E3XY9	E3XZ4	E3XZ8	E3XZ9	E3Y00	E3Y01	E3Y02	E3Y03	E3Y04
			Case	37920	37920	37920	37920	37920	37920	37920	37920	37920	37920
			Sampling date	10/16/2008	10/8/2008	10/16/2008	10/8/2008	10/8/2008	10/15/2008	10/15/2008	10/15/2008	10/15/2008	10/15/2008
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info										
			Investigation area	4	4	4	4	4	2	2	2	2	2
			Lithology	L1, L2	L1	L1, L2	L1, L2, L3, L4	L1	L2, L3, L4	L1	L2, L3, L4	L1	L2, L3, L4
			Depth (ft bgs)	0-2	8-10	0-2	0-2	6-8	0-4	8-10	0-2	12-14	0-2
1,1'-Biphenyl	3,900,000	51,000,000		210 U	200 U	200 U	**35 J**	190 U	200 U	210 U	190 U	210 U	180 U
1,2,4,5-Tetrachlorobenzene	18,000	180,000		210 U	200 U	200 U	200 U	190 U	200 U	210 U	190 U	210 U	180 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		210 U	200 U	200 U	200 U	190 U	200 U	210 U	190 U	210 U	180 U
2,4-Dimethylphenol	1,200,000	12,000,000		210 U	200 U	200 U	200 U	190 U	200 U	210 U	190 U	210 U	180 U
2-Chlorophenol	390,000	5,100,000		210 U	200 U	200 U	200 U	190 U	200 U	210 U	190 U	210 U	180 U
2-Methylnaphthalene	310,000	4,100,000		210 U	200 U	200 U	**900**	190 U	**33 J**	210 U	**18 J**	210 U	180 U
2-Methylphenol	3,100,000	31,000,000		210 U	200 U	200 U	200 U	190 U	200 U	210 U	190 U	210 U	180 U
3,3'-Dichlorobenzidine	1,100	3,800		210 U	200 U	200 U	200 U	190 U	200 U	210 U	190 U	210 U	180 U
3-Nitroaniline	24,000	86,000		400 U	380 U	390 U	400 U	370 U	400 U	400 U	380 UJ	400 U	360 U
4-Chloro-3-methylphenol	6,100,000	62,000,000		210 U	200 U	200 U	200 U	190 U	200 U	210 U	190 U	210 U	180 U
4-Methylphenol	310,000	3,100,000		210 U	200 U	200 U	200 U	190 U	200 U	210 U	190 U	210 U	180 U
Acenaphthene	3,400,000	33,000,000		210 U	200 U	200 U	200 U	190 U	**87 J**	210 U	190 U	210 U	180 U
Acenaphthylene	3,400,000	33,000,000		210 U	200 U	200 U	200 U	190 U	**48 J**	210 U	190 U	210 U	180 U
Acetophenone	7,800,000	100,000,000		210 U	200 U	200 U	**120 J**	190 U	200 U	210 U	190 U	210 U	180 U
Anthracene	17,000,000	170,000,000		210 U	200 U	200 U	**56 J**	190 U	**220**	210 U	190 U	210 U	180 U
Atrazine	2,100	7,500		210 U	200 U	200 U	200 U	190 U	200 U	210 U	190 U	210 U	180 U
Benzaldehyde	7,800,000	100,000,000		210 U	200 U	200 U	200 U	190 U	200 U	210 U	190 U	210 U	180 U
Benzo(a)anthracene	150	2,100		**16 J**	200 U	200 U	**130 J**	190 U	**610**	210 U	**66 J**	210 U	180 UJ
Benzo(a)pyrene	15	210		210 U	200 U	200 U	**80 J**	190 U	**540**	210 U	**43 J**	210 U	180 UJ
Benzo(b)fluoranthene	150	2,100		**23 J**	200 U	200 U	**160 J**	190 U	**680 J**	210 UJ	**74 J**	210 U	180 UJ
Benzo(g,h,i)perylene	150	2,100		**13 J**	200 U	200 U	**51 J**	190 U	**380**	210 U	190 UJ	210 U	180 UJ
Benzo(k)fluoranthene	1,500	21,000		210 U	200 U	200 U	200 U	190 U	**340**	210 U	**31 J**	210 U	180 UJ
Bis(2-ethylhexyl)phthalate	35,000	120,000		**12 J**	200 U	**16 J**	**40 J**	**16 J**	**140 J**	210 U	**16 J**	**15 J**	**26 J**
Butylbenzylphthalate	260,000	910,000		210 U	200 U	200 U	200 U	190 U	200 U	210 U	190 U	210 U	180 U
Caprolactam	31,000,000	310,000,000		210 U	200 U	200 U	200 U	190 U	200 U	210 U	190 U	210 U	180 U
Carbazole	17,000,000	170,000,000		210 U	200 U	200 U	200 U	190 U	**130 J**	210 U	190 U	210 U	180 U
Chrysene	15,000	210,000		**20 J**	200 U	200 U	**130 J**	190 U	**550**	210 U	**86 J**	210 U	180 UJ
Dibenzo(a,h)anthracene	15	210		210 U	200 U	200 U	200 U	190 U	**96 J**	210 U	190 UJ	210 U	180 UJ
Dibenzofuran	78,000	1,000,000		210 U	200 U	200 U	**220**	190 U	**63 J**	210 U	**14 J**	210 U	180 U
Diethylphthalate	49,000,000	490,000,000		210 U	200 U	200 U	200 U	190 U	200 U	210 U	190 U	210 U	180 U
Dimethylphthalate	49,000,000	490,000,000		210 U	200 U	200 U	200 U	190 U	200 U	210 U	190 U	210 U	180 U
Di-n-butylphthalate	6,100,000	62,000,000		210 U	**18 J**	200 U	**32 J**	**24 J**	**39 J**	**27 J**	**28 J**	**33 J**	**42 J**
Di-n-octylphthalate	35,000	120,000		210 U	200 U	200 U	200 U	190 U	**29 J**	210 U	190 U	210 U	180 U
Fluoranthene	2,300,000	22,000,000		**26 J**	200 U	200 U	**210**	190 U	**1,400**	210 U	**250**	210 U	180 UJ

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB424A-08	SB425B-08	SB428A-08	SB430A-08	SB430B-08	SB431A-08	SB431B-08	SB432A-08	SB432B-08	SB433A-08
			Sample ID	E3XY6	E3XY9	E3XZ4	E3XZ8	E3XZ9	E3Y00	E3Y01	E3Y02	E3Y03	E3Y04
			Case	37920	37920	37920	37920	37920	37920	37920	37920	37920	37920
			Sampling date	10/16/2008	10/8/2008	10/16/2008	10/8/2008	10/8/2008	10/15/2008	10/15/2008	10/15/2008	10/15/2008	10/15/2008
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info										
			Investigation area	4	4	4	4	4	2	2	2	2	2
			Lithology	L1, L2	L1	L1, L2	L1, L2, L3, L4	L1	L2, L3, L4	L1	L2, L3, L4	L1	L2, L3, L4
			Depth (ft bgs)	0-2	8-10	0-2	0-2	6-8	0-4	8-10	0-2	12-14	0-2
Fluorene	2,300,000	22,000,000		210 U	200 U	200 U	200 U	190 U	**90 J**	210 U	190 U	210 U	180 U
Hexachlorobenzene	300	1,100		210 U	200 U	200 U	200 U	190 U	200 U	210 U	190 U	210 U	180 U
Indeno(1,2,3-cd)pyrene	150	2,100		210 U	200 U	200 U	**75 J**	190 U	**400**	210 U	**24 J**	210 U	180 UJ
Naphthalene	3,600	18,000		210 U	200 U	200 U	**380**	190 U	**72 J**	210 U	**120 J**	210 U	**89 J**
N-Nitrosodiphenylamine	99,000	350,000		210 U	200 U	200 U	200 U	190 U	200 U	210 U	190 U	210 U	180 U
Pentachlorophenol	3,000	9,000		400 UJ	380 U	390 UJ	400 U	370 U	400 UJ	400 UJ	380 UJ	400 UJ	360 UJ
Phenanthrene	17,000,000	170,000,000		210 U	200 U	200 U	**640**	190 U	**990**	210 U	**120 J**	210 U	180 U
Phenol	18,000,000	180,000,000		210 U	200 U	200 U	200 U	190 U	200 U	210 U	190 U	210 U	180 U
Pyrene	1,700,000	17,000,000		210 U	200 U	200 U	**180 J**	190 U	**1,100**	210 U	**220**	210 U	180 UJ

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB433B-08 E3Y05 37920 10/15/2008 µg/kg 2 L1 10-12	SB434A-08 E3Y06 37920 10/15/2008 µg/kg 2 L1, L2, L4 0-2	SB503A-08 E3Y66 37920 10/15/2008 µg/kg SB434A-08 2 L1, L2, L4 0-2	SB434B-08 E3Y07 37920 10/15/2008 µg/kg 2 L1 8-10	SB503B-08 E3Y67 37920 10/15/2008 µg/kg SB434B-08 2 L1 8-10	SB435A-08 E3Y08 37920 10/15/2008 µg/kg 2 L4 2-4	SB436A-08 E3Y10 37920 10/17/2008 µg/kg 2 L1, L4 0-2	SB436B-08 E3Y11 37920 10/17/2008 µg/kg 2 L1 8-10	SB437A-08 E3Y12 37920 10/9/2008 µg/kg 2 L1, L4 0-2	SB437B1-08 E3Y13 37920 10/9/2008 µg/kg 2 L1 2-4
1,1'-Biphenyl	3,900,000	51,000,000		210 U	210 U	210 U	190 U	200 U	180 U	200 U	190 U	200 U	200 U
1,2,4,5-Tetrachlorobenzene	18,000	180,000		210 U	210 U	210 U	190 U	200 U	180 U	200 U	190 U	200 U	200 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		210 U	210 U	210 U	190 U	200 U	180 U	200 U	190 U	200 U	200 U
2,4-Dimethylphenol	1,200,000	12,000,000		210 U	210 U	210 U	190 U	200 U	180 U	200 U	190 U	200 U	200 U
2-Chlorophenol	390,000	5,100,000		210 U	210 U	210 U	190 U	200 U	180 U	200 U	190 U	200 U	200 U
2-Methylnaphthalene	310,000	4,100,000		210 U	210 U	210 U	190 U	200 U	180 U	200 U	190 U	200 U	200 U
2-Methylphenol	3,100,000	31,000,000		210 U	210 U	210 U	190 U	200 U	180 U	200 U	190 U	200 U	200 U
3,3'-Dichlorobenzidine	1,100	3,800		210 U	210 U	210 U	190 U	200 U	180 U	200 U	190 U	200 U	200 U
3-Nitroaniline	24,000	86,000		410 U	410 U	410 U	380 U	380 U	360 U	390 U	380 U	400 U	390 U
4-Chloro-3-methylphenol	6,100,000	62,000,000		210 U	210 U	210 U	190 U	200 U	180 U	200 U	190 U	200 U	200 U
4-Methylphenol	310,000	3,100,000		210 U	210 U	210 U	190 U	200 U	180 U	200 U	190 U	200 U	200 U
Acenaphthene	3,400,000	33,000,000		210 U	210 U	210 U	190 U	200 U	180 U	200 U	190 U	200 U	200 U
Acenaphthylene	3,400,000	33,000,000		210 U	210 U	210 U	190 U	200 U	180 U	200 U	190 U	200 U	200 U
Acetophenone	7,800,000	100,000,000		210 U	210 U	210 U	190 U	200 U	180 U	200 U	190 U	200 U	200 U
Anthracene	17,000,000	170,000,000		210 U	210 U	210 U	190 U	200 U	**28 J**	200 U	190 U	200 U	200 U
Atrazine	2,100	7,500		210 U	210 U	210 U	190 U	200 U	180 U	200 U	190 U	200 U	200 U
Benzaldehyde	7,800,000	100,000,000		210 U	210 U	210 U	190 U	200 U	180 U	200 U	190 U	200 U	200 U
Benzo(a)anthracene	150	2,100		210 U	210 U	**36 J**	**85 J**	**65 J**	**71 J**	200 U	**57 J**	200 U	200 U
Benzo(a)pyrene	15	210		210 U	210 U	**26 J**	**27 J**	**25 J**	**61 J**	200 U	**28 J**	200 U	200 U
Benzo(b)fluoranthene	150	2,100		210 U	210 U	**33 J**	**67 J**	**53 J**	**78 J**	200 U	**72 J**	200 U	200 U
Benzo(g,h,i)perylene	150	2,100		210 U	210 U	210 U	**22 J**	200 U	**36 J**	200 U	**18 J**	200 U	200 U
Benzo(k)fluoranthene	1,500	21,000		210 U	210 U	210 U	**27 J**	**25 J**	**27 J**	200 U	**28 J**	200 U	200 U
Bis(2-ethylhexyl)phthalate	35,000	120,000		210 U	210 U	210 U	190 U	200 U	180 U	**39 J**	190 U	**28 J**	**19 J**
Butylbenzylphthalate	260,000	910,000		210 U	210 U	210 U	190 U	200 U	180 U	200 U	190 U	200 U	200 U
Caprolactam	31,000,000	310,000,000		210 U	210 U	210 U	190 U	200 U	180 U	200 U	190 U	200 U	200 U
Carbazole	17,000,000	170,000,000		210 U	210 U	210 U	190 U	200 U	180 U	200 U	190 U	200 U	200 U
Chrysene	15,000	210,000		210 U	210 U	**38 J**	**78 J**	**59 J**	**78 J**	200 U	**62 J**	200 U	200 U
Dibenzo(a,h)anthracene	15	210		210 U	210 U	210 U	190 U	200 U	180 U	200 U	190 U	200 U	200 U
Dibenzofuran	78,000	1,000,000		210 U	210 U	210 U	**26 J**	200 U	**16 J**	200 U	190 U	200 U	200 U
Diethylphthalate	49,000,000	490,000,000		210 U	210 U	210 U	190 U	200 U	**3.8 J**	200 U	190 U	200 U	200 U
Dimethylphthalate	49,000,000	490,000,000		210 U	210 U	210 U	190 U	200 U	180 U	200 U	190 U	200 U	200 U
Di-n-butylphthalate	6,100,000	62,000,000		**36 J**	210 U	210 U	190 U	200 U	180 U	200 U	190 U	200 U	**24 J**
Di-n-octylphthalate	35,000	120,000		210 U	210 U	210 U	190 U	200 U	180 U	200 U	190 U	200 U	200 U
Fluoranthene	2,300,000	22,000,000		210 U	**33 J**	**110 J**	**520**	**360**	**200**	**19 J**	**160 J**	200 U	200 U

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB433B-08 E3Y05 37920 10/15/2008 µg/kg 2 L1 10-12	SB434A-08 E3Y06 37920 10/15/2008 µg/kg 2 L1, L2, L4 0-2	SB503A-08 E3Y66 37920 10/15/2008 µg/kg SB434A-08 2 L1, L2, L4 0-2	SB434B-08 E3Y07 37920 10/15/2008 µg/kg 2 L1 8-10	SB503B-08 E3Y67 37920 10/15/2008 µg/kg SB434B-08 2 L1 8-10	SB435A-08 E3Y08 37920 10/15/2008 µg/kg 2 L4 2-4	SB436A-08 E3Y10 37920 10/17/2008 µg/kg 2 L1, L4 0-2	SB436B-08 E3Y11 37920 10/17/2008 µg/kg 2 L1 8-10	SB437A-08 E3Y12 37920 10/9/2008 µg/kg 2 L1, L4 0-2	SB437B1-08 E3Y13 37920 10/9/2008 µg/kg 2 L1 2-4
Fluorene	2,300,000	22,000,000		210 U	210 U	210 U	190 U	200 U	180 U	200 U	190 U	200 U	200 U
Hexachlorobenzene	300	1,100		210 U	210 U	210 U	190 U	200 U	180 U	200 U	190 U	200 U	200 U
Indeno(1,2,3-cd)pyrene	150	2,100		210 U	210 U	210 U	**22 J**	200 U	**36 J**	200 U	**25 J**	200 U	200 U
Naphthalene	3,600	18,000		210 U	210 U	210 U	190 U	200 U	180 U	200 U	190 U	200 U	200 U
N-Nitrosodiphenylamine	99,000	350,000		210 U	210 U	210 U	190 U	200 U	180 U	200 U	190 U	200 U	200 U
Pentachlorophenol	3,000	9,000		410 UJ	410 UJ	410 UJ	380 UJ	380 UJ	360 UJ	390 UJ	380 UJ	400 U	390 U
Phenanthrene	17,000,000	170,000,000		210 U	**31 J**	**85 J**	**500**	**330**	**190**	200 U	**54 J**	200 U	200 U
Phenol	18,000,000	180,000,000		210 U	210 U	210 U	190 U	200 U	180 U	200 U	190 U	200 U	200 U
Pyrene	1,700,000	17,000,000		210 U	210 U	**79 J**	**360**	**240**	**170 J**	200 U	**170 J**	200 U	200 U

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB437B2-08	SB438A-08	SB438B-08	SB439A-08	SB439B-08	SB504A-08	SB444B-08	SB504B-08	SB449A-08	SB450A-08
			Sample ID	E3Y83	E3Y14	E3Y15	E3Y16	E3Y17	E3Y68	E3Y27	E3Y69	E3Y36	E3Y38
			Case	37920	37920	37920	37920	37920	37920	37920	37920	37920	37920
			Sampling date	10/9/2008	10/17/2008	10/17/2008	10/17/2008	10/17/2008	10/16/2008	10/16/2008	10/16/2008	10/14/2008	10/14/2008
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info						SB444A-08		SB444B-08		
			Investigation area	2	2	2	2	2	4	4	4	4	4
			Lithology	L1	L1, L4	L1	L2, L3, L4	L1	L2, L4	L2, L4	L2, L4	L1	L3, L4
			Depth (ft bgs)	6-8	0-2	6-8	0-4	10-12	0-2	8-10	8-10	0-2	0-2
1,1'-Biphenyl	3,900,000	51,000,000		190 U	**130 J**	190 U	220 U	210 U	200 U	200 U	200 U	220 U	200 U
1,2,4,5-Tetrachlorobenzene	18,000	180,000		190 U	200 U	190 U	220 U	210 U	200 U	200 U	200 U	220 U	200 U
2,3,4,6-Tetrachlorophenol	1,800,000	18,000,000		190 U	200 U	190 U	220 U	210 U	200 U	200 U	200 U	220 U	200 U
2,4-Dimethylphenol	1,200,000	12,000,000		190 U	200 U	190 U	220 U	210 U	200 U	200 U	200 U	220 U	200 U
2-Chlorophenol	390,000	5,100,000		190 U	200 U	190 U	220 U	210 U	200 U	200 U	200 U	220 U	200 U
2-Methylnaphthalene	310,000	4,100,000		190 U	**380**	190 U	**75 J**	**140 J**	200 U	**130 J**	**80 J**	220 U	200 U
2-Methylphenol	3,100,000	31,000,000		190 U	200 U	190 U	220 U	210 U	200 U	200 U	200 U	220 U	200 U
3,3'-Dichlorobenzidine	1,100	3,800		190 U	200 U	190 U	220 U	210 U	200 U	200 U	200 U	220 U	200 U
3-Nitroaniline	24,000	86,000		370 U	380 UJ	370 U	430 U	420 U	380 U	380 U	390 U	430 U	380 U
4-Chloro-3-methylphenol	6,100,000	62,000,000		190 U	200 U	190 U	220 U	210 U	200 UJ	200 U	200 U	220 U	200 U
4-Methylphenol	310,000	3,100,000		190 U	200 U	190 U	220 U	210 U	200 U	200 U	200 U	220 U	200 U
Acenaphthene	3,400,000	33,000,000		190 U	**520 J**	190 U	**320**	**200 J**	200 UJ	200 U	200 U	220 U	200 U
Acenaphthylene	3,400,000	33,000,000		190 U	**2,300**	190 U	220 U	**140 J**	200 UJ	200 U	200 U	220 U	200 U
Acetophenone	7,800,000	100,000,000		190 U	**97 J**	190 U	220 U	210 U	200 U	200 U	200 U	220 U	200 U
Anthracene	17,000,000	170,000,000		190 U	**2,800**	190 U	**400**	**430**	200 U	200 U	200 U	220 U	200 U
Atrazine	2,100	7,500		190 U	200 U	190 U	220 U	210 U	200 U	200 U	200 U	220 U	200 U
Benzaldehyde	7,800,000	100,000,000		190 U	200 U	190 U	220 U	210 U	200 U	200 U	200 U	220 U	200 U
Benzo(a)anthracene	150	2,100		190 U	**13,000**	**43 J**	**1,100**	**820**	200 U	**41 J**	200 U	220 U	200 U
Benzo(a)pyrene	15	210		190 U	**15,000**	190 U	**520**	**510**	200 U	200 U	200 U	220 U	200 U
Benzo(b)fluoranthene	150	2,100		190 U	**18,000**	190 U	**800**	**770**	200 U	200 U	200 U	220 U	200 U
Benzo(g,h,i)perylene	150	2,100		190 U	**7,100**	190 U	**280**	**260**	200 U	200 U	200 U	220 U	200 U
Benzo(k)fluoranthene	1,500	21,000		190 U	**2,900**	190 U	**440**	**270**	200 U	200 U	200 U	220 U	200 U
Bis(2-ethylhexyl)phthalate	35,000	120,000		**15 J**	200 U	190 U	220 U	210 U	**22 J**	200 U	**52 J**	**30 J**	**12 J**
Butylbenzylphthalate	260,000	910,000		190 U	200 U	190 U	220 U	210 U	200 U	200 U	200 U	220 U	200 U
Caprolactam	31,000,000	310,000,000		190 U	200 U	190 U	220 U	210 U	200 U	200 U	200 U	220 U	200 U
Carbazole	17,000,000	170,000,000		190 U	**1,900**	190 U	220 U	**300**	200 U	200 U	200 U	220 U	200 U
Chrysene	15,000	210,000		190 U	**15,000**	**45 J**	**820**	**750**	200 U	**41 J**	200 U	220 U	200 U
Dibenzo(a,h)anthracene	15	210		190 U	**2,200 J**	190 U	220 U	**100 J**	200 U	200 U	200 U	220 U	200 U
Dibenzofuran	78,000	1,000,000		190 U	**740**	190 U	**180 J**	**210 J**	200 U	200 U	**11 J**	220 U	200 U
Diethylphthalate	49,000,000	490,000,000		190 U	200 U	190 U	220 U	210 U	200 U	200 U	200 U	220 U	200 U
Dimethylphthalate	49,000,000	490,000,000		190 U	200 U	190 U	220 U	210 U	200 U	200 U	200 U	220 U	200 U
Di-n-butylphthalate	6,100,000	62,000,000		190 U	200 U	190 U	220 U	210 U	200 U	200 U	200 U	220 U	200 U
Di-n-octylphthalate	35,000	120,000		190 U	200 U	190 U	220 U	210 U	200 U	200 U	200 U	220 U	200 U
Fluoranthene	2,300,000	22,000,000		190 U	**29,000 J**	**60 J**	**2,600**	**2,200**	200 U	200 U	200 U	220 U	200 U

Table 4.2.2-3
Detected Soil SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB437B2-08	SB438A-08	SB438B-08	SB439A-08	SB439B-08	SB504A-08	SB444B-08	SB504B-08	SB449A-08	SB450A-08
			Sample ID	E3Y83	E3Y14	E3Y15	E3Y16	E3Y17	E3Y68	E3Y27	E3Y69	E3Y36	E3Y38
			Case	37920	37920	37920	37920	37920	37920	37920	37920	37920	37920
			Sampling date	10/9/2008	10/17/2008	10/17/2008	10/17/2008	10/17/2008	10/16/2008	10/16/2008	10/16/2008	10/14/2008	10/14/2008
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info						SB444A-08		SB444B-08		
			Investigation area	2	2	2	2	2	4	4	4	4	4
			Lithology	L1	L1, L4	L1	L2, L3, L4	L1	L2, L4	L2, L4	L2, L4	L1	L3, L4
			Depth (ft bgs)	6-8	0-2	6-8	0-4	10-12	0-2	8-10	8-10	0-2	0-2
Fluorene	2,300,000	22,000,000		190 U	**1,200**	190 U	**540**	**300**	200 U	200 U	200 U	220 U	200 U
Hexachlorobenzene	300	1,100		190 U	200 U	190 U	220 U	210 U	200 U	200 U	200 U	220 U	200 U
Indeno(1,2,3-cd)pyrene	150	2,100		190 U	**10,000**	190 U	**380**	**360**	200 U	200 U	200 U	220 U	200 U
Naphthalene	3,600	18,000		190 U	**920**	190 U	220 U	210 U	200 U	**59 J**	**39 J**	220 U	200 U
N-Nitrosodiphenylamine	99,000	350,000		190 U	200 U	190 U	220 U	210 U	200 U	200 U	200 U	220 U	200 U
Pentachlorophenol	3,000	9,000		370 U	380 UJ	370 UJ	430 UJ	420 UJ	380 UJ	380 UJ	390 U	430 UJ	380 UJ
Phenanthrene	17,000,000	170,000,000		190 U	**19,000**	190 U	**1,900**	**2,700**	200 U	**84 J**	**36 J**	220 U	200 U
Phenol	18,000,000	180,000,000		190 U	200 U	190 U	220 U	210 U	200 UJ	200 U	200 U	220 U	200 U
Pyrene	1,700,000	17,000,000		190 U	**27,000 J**	**69 J**	**2,900**	**1,700**	200 U	200 U	200 U	220 U	200 U

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.2-3

Notes:
Bold values indicate a detection
Yellow shaded cells indicate a residential RSL exceedance
Red shaded cells indicate an industrial RSL and residential RSL exceedance
Gray shaded cells indicate an industrial or residential RSL exceedance but below the BTV

µg/L	Microgram per liter
µg/kg	Microgram per kilogram
mg/kg	Milligram per kilogram
A	Indicates surface soil sample
B	Indicates subsurface soil sample
bgs	Below ground surface
BTV	Background threshold value
CLP	Contract laboratory program
CFR	Code of Federal Regulations
ft	Feet
GWSV	Groundwater screening value
ID	Identification
info	Information
J	Estimated result
J-	Underestimated result
J+	Overestimated result
MCL	Maximum contaminant level (EPA)
NC	No criteria available
PCB	Polychlorinated biphenyls
ppm	Part per million
R	Rejected result
RL	Regulatory Level (CFR)
RSL	Regional Screening Level (EPA)
SB	Soil boring
SPLP	Synthetic precipitation leaching procedure
SV	Screening value
SVOC	Semivolatile organic compounds
Tap	Tap water screening criteria (EPA)
TCLP	Toxicity Characteristic Leaching Procedure (CFR)
U	Non-detect result
UJ	Non-detected and estimated result
VOC	Volatile organic compounds

a	Analyte is compared to the April 2009 residential and industrial RSLs
b	Sample was not analyzed at the CLP laboratory. The sample ID number is the soil boring location followed by the sample depth then "A" if the sample was a duplicate sample
--	Not applicable

Lithology Definitions:

L1	Native soils
L2	Slag
L3	Sinter
L4	Fill materials

Table 4.2.2-4a
Detected Soil PCB Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB001A	SB001B	SB002A	SB002B	SB003A	SB250A	SB003B	SB004A	SB005A	SB005B	SB006A
			Sample ID	E3Q76	E3Q79	E3Q82	E3Q85	E3Q88	E3R13	E3Q91	E3R17	E3Q94	E3Q97	E3R59
			Case	36631	36631	36631	36631	36631	36631	36631	36631	36631	36631	36631
			Sampling date	7/16/2007	7/16/2007	7/16/2007	7/16/2007	7/16/2007	7/16/2007	7/16/2007	7/17/2007	7/16/2007	7/16/2007	7/17/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info						SB003A					
			Investigation area	1	1	1	1	1	1	1	1	1	1	1
			Lithology	L1	L3	L3, L4	L3, L4	L2, L3, L4	L2, L3, L4	L1	L1, L2, L3	L1	L2	L3
			Depth (ft bgs)	0-2	8-10	0-2	8-10	0-2	0-2	8-10	0-2	0-2	6-8	0-2
Aroclor-1016	3,900	21,000		37 U	36 U	40 U	40 U	36 U	1,800 U	34 U	38 U	38 U	36 U	40 U
Aroclor-1242	220	740		37 U	36 U	40 U	40 U	36 U	1,800 U	34 U	38 U	38 U	36 U	40 U
Aroclor-1248	220	740		37 U	36 U	40 U	40 U	36 U	1,800 U	34 U	38 U	38 U	36 U	40 U
Aroclor-1254	220	740		37 U	36 U	40 U	40 U	36 U	1,800 U	34 U	**590**	38 U	36 U	40 U
Aroclor-1260	220	740		**160**	**15,000 J**	**100,000 J**	**18,000**	**150,000**	**210,000 J**	**1,600**	38 U	**67**	**67**	**69**
Aroclor-1262	220	740		37 U	36 U	40 U	40 U	36 U	1,800 U	34 U	38 U	38 U	36 U	40 U

Table 4.2.2-4a
Detected Soil PCB Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB007A	SB007B	SB291B	SB010A	SB013A	SB013B	SB017A	SB017B	SB019A	SB019B	SB020A
			Sample ID	E3S07	E3S08	E3S09	E3R84	E3R01	E3R04	E3S10	E3S11	E3R07	E3R10	E3RX4
			Case	36664	36664	36664	36631	36631	36631	36664	36664	36631	36631	36664
			Sampling date	8/1/2007	8/1/2007	8/1/2007	7/20/2007	7/16/2007	7/16/2007	8/1/2007	8/1/2007	7/16/2007	7/16/2007	7/31/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info			SB007B								
			Investigation area	1	1	1	3	1	1	1	1	1	1	3
			Lithology	L1, L2	L1	L1	L1	L1	L1	L2, L3	L1	L2, L3	L2, L3	L1
			Depth (ft bgs)	0-2	8-10	8-10	0-2	0-2	8-10	0-2	8-10	0-2	5-7	0-2
Aroclor-1016	3,900	21,000		45 U	41 U	41 U	41 U	37 U	35 U	39 U	46 U	37 U	37 U	**28 J**
Aroclor-1242	220	740		45 U	41 U	41 U	41 U	37 U	35 U	39 U	46 U	37 U	37 U	48 U
Aroclor-1248	220	740		45 U	41 U	41 U	41 U	37 U	35 U	39 U	46 U	37 U	37 U	48 U
Aroclor-1254	220	740		45 U	41 U	41 U	**23 J**	37 U	35 U	39 U	46 U	37 U	37 U	**68 J**
Aroclor-1260	220	740		**34,000 J**	**1,200 J**	**39,000 J**	41 U	**8.9 J**	**15 J**	**9,800**	**1,100**	**43,000 J**	**110**	**41 J**
Aroclor-1262	220	740		45 U	41 U	41 U	41 U	37 U	35 U	39 U	46 U	37 U	37 U	48 U

Table 4.2.2-4a
Detected Soil PCB Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB023A	SB025A	SB031A	SB037A	SB038A	SB038B	SB041A	SB042A	SB044A	SB047A	SB258A
			Sample ID	E3RA0	E3SH8	E3RY2	E3RC2	E3RC0	E3RC1	E3RD8	E3RD4	E3RE8	E3RD6	E3RE0
			Case	36631	36697	36664	36631	36631	36631	36631	36631	36648	36631	36631
			Sampling date	7/19/2007	8/10/2007	7/31/2007	7/20/2007	7/20/2007	7/20/2007	7/20/2007	7/20/2007	7/23/2007	7/20/2007	7/20/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info											SB047A
			Investigation area	3	3	3	3	3	3	3	3	3	3	3
			Lithology	L4	L1	L4	L1	L1	L2, L3	L1	L4	L4	L2, L3	L2, L3
			Depth (ft bgs)	0-2	0-2	0-2	0-2	0-2	2-4	0-2	0-2	0-2	0-2	0-2
Aroclor-1016	3,900	21,000		42 U	41 U	40 U	41 U	44 U	**31 J**	44 U	39 U	39 U	40 U	**79**
Aroclor-1242	220	740		42 U	41 U	40 U	41 U	44 U	39 U	44 U	**140 J**	39 U	40 U	41 U
Aroclor-1248	220	740		42 U	41 U	40 U	41 U	44 U	39 U	44 U	39 U	**46 J**	40 U	41 U
Aroclor-1254	220	740		42 U	41 U	40 U	**18 J**	**17 J**	**24 J**	**220 J**	39 U	39 U	40 U	**130**
Aroclor-1260	220	740		**140**	**23 J**	**270**	41 U	44 U	39 U	44 U	**72**	39 U	**55**	41 U
Aroclor-1262	220	740		42 U	41 U	40 U	41 U	44 U	39 U	**230 J**	39 U	39 U	40 U	41 U

Table 4.2.2-4a
Detected Soil PCB Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB048A	SB051B	SB053A	SB055A	SB055B	SB087A	SB088A	SB091A	SB266A	SB092B	SB093A
			Sample ID	E3RE1	E3S22	E3RZ7	E3S02	E3S03	E3RK9	E3RL0	E3RL4	E3RL5	E3RM2	E3RM3
			Case	36631	36664	36664	36664	36664	36648	36648	36648	36648	36648	36648
			Sampling date	7/20/2007	8/1/2007	8/1/2007	8/1/2007	8/1/2007	7/25/2007	7/25/2007	7/25/2007	7/25/2007	7/25/2007	7/25/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info									SB091A		
			Investigation area	3	3	3	3	3	3	3	3	3	3	3
			Lithology	L1, L2, L3	L1	L4	L4	L1, L2, L4	L1, L2	L1	L1, L4	L1, L4	L1	L4
			Depth (ft bgs)	0-2	4-6	0-2	0-2	4-6	0-2	0-2	0-2	0-2	4-6	0-2
Aroclor-1016	3,900	21,000		42 U	46 U	40 U	40 U	41 U	44 U	45 U	39 U	38 U	40 U	37 U
Aroclor-1242	220	740		42 U	46 U	40 U	40 U	41 U	44 U	45 U	39 U	38 U	40 U	37 U
Aroclor-1248	220	740		42 U	46 U	40 U	40 U	41 U	44 U	45 U	39 U	38 U	40 U	37 U
Aroclor-1254	220	740		**120**	46 U	40 U	40 U	41 U	**64 J**	**1,000 J**	**74**	**240**	**26 J**	**53 J**
Aroclor-1260	220	740		42 U	**41 J**	**27 J**	**660**	**26 J**	44 U	45 U	39 U	38 U	40 U	37 U
Aroclor-1262	220	740		42 U	46 U	40 U	40 U	41 U	44 U	45 U	39 U	38 U	40 U	37 U

Table 4.2.2-4a
Detected Soil PCB Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB096A	SB096B	SB111A	SB116A	SB322A	SB118A	SB119A	SB133B	SB134A	SB269A	SB134B
			Sample ID	E3RN2	E3RN3	E3SD8	E3RL7	E3RT1	E3RT3	E3RT4	E3RR3	E3RQ7	E3RQ9	E3RQ8
			Case	36648	36648	36697	36648	36720	36720	36720	36648	36648	36648	36648
			Sampling date	7/26/2007	7/26/2007	8/8/2007	7/25/2007	8/15/2007	8/15/2007	8/15/2007	7/27/2007	7/26/2007	7/26/2007	7/26/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info					SB117A					SB134A	
			Investigation area	3	3	3	3	3	3	3	2	2	2	2
			Lithology	L4	L4	L4	L1, L4	L1, L2	L2	L2, L3	L1	L1	L1	L2, L3
			Depth (ft bgs)	0-2	8-10	0-2	0-2	0-2	0-2	0-2	8-10	0-2	0-2	4-6
Aroclor-1016	3,900	21,000		38 U	40 U	38 U	41 U	46 U	42 U	49 U	40 U	36 U	36 U	39 U
Aroclor-1242	220	740		38 U	40 U	38 U	41 U	46 U	42 U	49 U	40 U	36 U	36 U	39 U
Aroclor-1248	220	740		38 U	40 U	38 U	41 U	46 U	42 U	49 U	**24 J**	**16,000**	**13,000**	**2,100**
Aroclor-1254	220	740		**100 J**	**140 J**	**140**	**460 J**	46 U	42 U	49 U	40 U	36 U	36 U	39 U
Aroclor-1260	220	740		38 U	40 U	38 U	41 U	**74 J**	**26 J**	**75**	40 U	36 U	36 U	39 U
Aroclor-1262	220	740		38 U	40 U	38 U	41 U	46 U	42 U	49 U	40 U	36 U	36 U	39 U

Table 4.2.2-4a
Detected Soil PCB Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB135A E3RW0 36664 7/30/2007 µg/kg 3 L4 0-2	SB135B E3RW1 36664 7/30/2007 µg/kg 3 L4 8-10	SB136A E3RT8 36664 7/30/2007 µg/kg 3 L4 0-2	SB138A E3RW4 36664 7/30/2007 µg/kg 3 L4 0-2	SB140A E3RP0 36648 7/26/2007 µg/kg 2 L1, L2, L3 0-2	SB141A E3SP9 36720 8/14/2007 µg/kg 2 L1 0-2	SB144A E3RR9 36648 7/20/2007 µg/kg 2 L1, L4 0-2	SB158A E3SW3 36720 8/16/2007 µg/kg 3 L1, L2 0-2	SB161A E3RP1 36648 7/26/2007 µg/kg 3 L2, L3 0-2	SB163A E3RP3 36648 7/26/2007 µg/kg 3 L2, L3 0-2	SB169A E3RA7 36631 7/19/2007 µg/kg 3 L4 0-2
Aroclor-1016	3,900	21,000		38 U	37 U	40 U	43 U	37 U	39 U	43 U	41 U	37 U	38 U	38 U
Aroclor-1242	220	740		38 U	37 U	40 U	43 U	37 U	39 U	43 U	41 U	37 U	38 U	38 U
Aroclor-1248	220	740		38 U	37 U	40 U	43 U	37 U	39 U	**73 J**	41 U	37 U	38 U	38 U
Aroclor-1254	220	740		38 U	37 U	40 U	43 U	**26 J**	**230**	43 U	**30 J**	**21 J**	**32 J**	**78 J**
Aroclor-1260	220	740		**34 J**	**22 J**	**50**	**38 J**	37 U	39 U	43 U	41 U	37 U	38 U	38 U
Aroclor-1262	220	740		38 U	37 U	40 U	43 U	37 U	39 U	43 U	41 U	37 U	38 U	38 U

Table 4.2.2-4a
Detected Soil PCB Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB175A	SB306A	SB177A	SB178A	SB178B	SB180A	SB181A	SB184A	SB185A	SB185B	SB186A
			Sample ID	E3SF6	E3SG0	E3RR5	E3RR7	E3RR8	E3RS4	E3SN1	E3SN5	E3SK0	E3SK1	E3SN7
			Case	36697	36697	36648	36648	36648	36648	36720	36720	36697	36697	36720
			Sampling date	8/9/2007	8/9/2007	7/27/2007	7/27/2007	7/27/2007	7/27/2007	8/13/2007	8/13/2007	8/10/2007	8/10/2007	8/13/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info		SB176A									
			Investigation area	2	2	3	2	2	2	3	3	3	3	3
			Lithology	L1	L1, L4	L1		L4	L4	L4	L1, L2	L4	L2, L4	L4
			Depth (ft bgs)	0-2	0-2	0-2	0-2	8-10	0-2	0-2	0-2	0-2	8-10	0-2
Aroclor-1016	3,900	21,000		**27 J**	40 U	40 U	41 U	42 U	37 U	46 U	39 U	48 U	39 U	41 U
Aroclor-1242	220	740		36 U	40 U	40 U	41 U	42 U	37 U	46 U	39 U	48 U	39 U	41 U
Aroclor-1248	220	740		36 U	40 U	**160 J**	**240**	**36 J**	**220 J**	46 U	39 U	48 U	**64 J**	41 U
Aroclor-1254	220	740		36 U	**27 J**	40 U	41 U	42 U	37 U	46 U	39 U	**1,600**	**63 J**	41 U
Aroclor-1260	220	740		36 U	40 U	40 U	41 U	42 U	37 U	**130**	**22 J**	**1,200**	**120 J**	**83**
Aroclor-1262	220	740		36 U	40 U	40 U	41 U	42 U	37 U	46 U	39 U	48 U	39 U	41 U

Table 4.2.2-4a
Detected Soil PCB Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB188B	SB190A	SB190B	SB195A	SB198A	SB200A	SB214A	SB214B	SB215B	SB500A-08	SB408B-08
			Sample ID	E3SP2	E3RM4	E3RM5	E3RT5	E3RB4	E3S47	E3ST9	E3SW0	E3SW2	E3Y60	E3XT5
			Case	36720	36648	36648	36720	36631	36664	36720	36720	36720	37920	37920
			Sampling date	8/13/2007	7/25/2007	7/25/2007	8/15/2007	7/19/2007	8/2/2007	8/16/2007	8/16/2007	8/16/2007	10/15/2008	10/14/2008
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info										SB406A-08	
			Investigation area	3	3	3	3	3	3	3	3	3	1	1
			Lithology	L1	L4	L1	L1	L1, L3	L4	L1	L2, L4	L1, L4	L1	L2, L4
			Depth (ft bgs)	8-10	0-2	8-10	0-2	0-2	0-2	0-2	6-8	8-10	2-4	34-36
Aroclor-1016	3,900	21,000		36 U	39 U	40 U	42 U	40 U	38 U	43 U	34 U	41 U	39 U	42 U
Aroclor-1242	220	740		36 U	39 U	40 U	42 U	40 U	38 U	43 U	34 U	41 U	39 U	42 U
Aroclor-1248	220	740		36 U	39 U	40 U	42 U	40 U	38 U	43 U	34 U	41 U	39 U	42 U
Aroclor-1254	220	740		36 U	**29 J**	**65 J**	42 U	**9.1 J**	38 U	**81**	**1,100**	**48**	39 U	42 U
Aroclor-1260	220	740		**40 J**	39 U	40 U	**130**	40 U	38 U	43 U	34 U	41 U	**50**	**14 J**
Aroclor-1262	220	740		36 U	39 U	40 U	42 U	40 U	**170 J**	43 U	34 U	41 U	39 U	42 U

Table 4.2.2-4a
Detected Soil PCB Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB409A-08 E3XT6 37920 10/7/2008 µg/kg 1 L2, L3, L4 0-2	SB409B-08 E3XT7 37920 10/8/2008 µg/kg 1 L1 20-21	SB410A-08 E3XT8 37920 10/9/2008 µg/kg 1 L2, L3, L4 0-2	SB431A-08 E3Y00 37920 10/15/2008 µg/kg 2 L2, L3, L4 0-4
Aroclor-1016	3,900	21,000		3,800 U	39 U	40 U	40 U
Aroclor-1242	220	740		3,800 U	39 U	40 U	40 U
Aroclor-1248	220	740		3,800 U	39 U	40 U	40 U
Aroclor-1254	220	740		3,800 U	39 U	40 U	**300**
Aroclor-1260	220	740		**140,000**	**2,800**	**100**	40 U
Aroclor-1262	220	740		3,800 U	39 U	40 U	40 U

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.2-4

Notes:
Bold values indicate a detection
Yellow shaded cells indicate a residential RSL exceedance
Red shaded cells indicate an industrial RSL and residential RSL exceedance
Gray shaded cells indicate an industrial or residential RSL exceedance but below the BTV

µg/L	Microgram per liter
µg/kg	Microgram per kilogram
mg/kg	Milligram per kilogram
A	Indicates surface soil sample
B	Indicates subsurface soil sample
bgs	Below ground surface
BTV	Background threshold value
CLP	Contract laboratory program
CFR	Code of Federal Regulations
ft	Feet
GWSV	Groundwater screening value
ID	Identification
info	Information
J	Estimated result
J-	Underestimated result
J+	Overestimated result
MCL	Maximum contaminant level (EPA)
NC	No criteria available
PCB	Polychlorinated biphenyls
ppm	Part per million
R	Rejected result
RL	Regulatory Level (CFR)
RSL	Regional Screening Level (EPA)
SB	Soil boring
SPLP	Synthetic precipitation leaching procedure
SV	Screening value
SVOC	Semivolatile organic compounds
Tap	Tap water screening criteria (EPA)
TCLP	Toxicity Characteristic Leaching Procedure (CFR)
U	Non-detect result
UJ	Non-detected and estimated result
VOC	Volatile organic compounds

a	Analyte is compared to the April 2009 residential and industrial RSLs
b	Sample was not analyzed at the CLP laboratory. The sample ID number is the soil boring location followed by the sample depth then "A" if the sample was a duplicate sample
--	Not applicable

Lithology Definitions:

L1	Native soils
L2	Slag
L3	Sinter
L4	Fill materials

Table 4.2.2-4b
Detected Soil PCB Results and PCB Test Kit Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Soil Boring Location	Location ID	Sampling Date	PCB Test Kit Analysis Date	Depth (ft bgs)	PCB Test Kit Results for Total Chloride (ppm)	PCB Test Kit Results for Aroclor-1242 (ppm)	Converted Results for Aroclor-1260 (ppm)	Analytical Results for Aroclor-1260 (ppm)
SB401	SB401A-08	10/9/2008	--	0-2	--	--	--	0.041 U
	SB401B-08	10/9/2008	10/10/2008	14-16	1.35	1.35	2.99	0.037 U
SB402	SB402A-08	10/9/2008	--	0-2	--	--	--	0.037U
	SB402B-08	10/9/2008	10/10/2008	10-12	0.86	2.73	1.91	0.037 U
SB403	SB403A-08	10/9/2008	--	0-2	--	--	--	0.042 U
	SB403 10-12	--	10/10/2008	10-12	2.04	6.46	4.52	--
	SB403B-08	10/9/2008	10/10/2008	13-15	2.04	6.47	4.52	0.036 U
SB404	SB404A-08	10/9/2008	--	0-2	--	--	--	0.040 U
	SB404 6-8[b]	10/9/2008	10/9/2008	6-8	0.94	2.99	2.08	--
	SB404 10-12	10/9/2008	10/9/2008	10-12	1.00	3.17	2.22	--
	SB404B-08	10/9/2008	10/9/2008	16-18	0.91	2.90	2.02	0.037 U
SB405	SB405A-08	10/9/2008	--	0-2	--	--	--	0.039 U
	SB405 20-22[b]	10/9/2008	10/9/2008	20-22	0.81	2.57	1.80	--
	SB405B-08	10/9/2008	10/9/2008	22-24	1.05	3.35	2.33	0.040 U
SB406	SB406A-08	10/15/2008	--	2-4	--	--	--	0.037 U
	SB406B-08	10/15/2008	10/15/2008	26-28	1.79	5.68	3.97	0.038 U
SB408	SB408A-08	10/14/2008	--	0-2	--	--	--	0.041 U
	SB408 28-32[b]	10/14/2008	10/15/2008	28-32	4.03	12.7	8.93	--
	SB408B-08	10/14/2008	10/15/2008	34-36	1.00	3.19	2.22	**0.014 J**
SB409	SB409A-08	10/7/2008	--	0-2	--	--	--	**140**
	SB409 14-16[b]	10/8/2008	10/8/2008	14-16	1.51	4.80	3.35	--
	SB409 16-18[b]	10/8/2008	10/8/2008	16-18	17.5	55.50	38.79	--
	SB409 16-18A[b]	10/8/2008	10/8/2008	16-18	16.1	51.00	35.69	--
	SB409 18-20[b]	10/8/2008	10/8/2008	18-20	1.16	3.68	2.57	--
	SB409B-08	10/8/2008	10/8/2008	20-21	13.7	43.40	30.37	**2.8**
	SB409 20-21A[b]	10/8/2008	10/8/2008	20-21	17.9	17.90	39.68	--

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.2-4

Notes:
Bold values indicate a detection
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Gray shaded cells indicate an industrial or residential RSL exceedance but below the BTV

µg/L	Microgram per liter
µg/kg	Microgram per kilogram
mg/kg	Milligram per kilogram
A	Indicates surface soil sample
B	Indicates subsurface soil sample
bgs	Below ground surface
BTV	Background threshold value
CLP	Contract laboratory program
CFR	Code of Federal Regulations
ft	Feet
GWSV	Groundwater screening value
ID	Identification
info	Information
J	Estimated result
J-	Underestimated result
J+	Overestimated result
MCL	Maximum contaminant level (EPA)
NC	No criteria available
PCB	Polychlorinated biphenyls
ppm	Part per million
R	Rejected result
RL	Regulatory Level (CFR)
RSL	Regional Screening Level (EPA)
SB	Soil boring
SPLP	Synthetic precipitation leaching procedure
SV	Screening value
SVOC	Semivolatile organic compounds
Tap	Tap water screening criteria (EPA)
TCLP	Toxicity Characteristic Leaching Procedure (CFR)
U	Non-detect result
UJ	Non-detected and estimated result
VOC	Volatile organic compounds

a	Analyte is compared to the April 2009 residential and industrial RSLs
b	Sample was not analyzed at the CLP laboratory. The sample ID number is the soil boring location followed by the sample depth then "A" if the sample was a duplicate sample
--	Not applicable

Lithology Definitions:

L1	Native soils
L2	Slag
L3	Sinter
L4	Fill materials

Table 4.2.2-5
Detected Soil Pesticide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB010A E3R84 36631 7/20/2007 µg/kg 3 L1 0-2	SB010B E3R85 36631 7/20/2007 µg/kg 3 L1 8-10	SB011A E3R86 36631 7/20/2007 µg/kg 3 L1 0-2	SB011B E3R87 36631 7/20/2007 µg/kg 3 L1 8-10	SB012A E3R88 36631 7/20/2007 µg/kg 1 L1 0-2	SB020A E3RX4 36664 7/31/2007 µg/kg 3 L1 0-2	SB020B E3RX5 36664 7/31/2007 µg/kg 3 L1 5-7	SB021A E3RX6 36664 7/31/2007 µg/kg 3 L1 0-2	SB021B E3RX7 36664 7/31/2007 µg/kg 3 L1 4-6	SB022A E3RX8 36664 7/31/2007 µg/kg 3 L3 0-2	SB022B E3RX9 36664 7/31/2007 µg/kg 3 L1 4-6
4,4'-DDD	2,000	7,200		4.2 UJ	3.6 UJ	4.2 UJ	3.5 UJ	4.1 UJ	**5.6 J**	4.6 U	4.7 U	**0.97 J**	**3.2 J**	**2.3 J**
4,4'-DDE	1,400	5,100		**1.4 J**	3.6 UJ	4.2 UJ	3.5 UJ	**1.3 J**	**6.1 J**	4.6 U	4.7 U	4.8 U	**3.1 J**	4.2 U
4,4'-DDT	1,700	7,000		**4.8 J**	3.6 UJ	**0.76 J**	3.5 UJ	**1.2 J**	**20 J**	4.6 U	4.7 U	4.8 U	**4.1 J**	**1.9 J**
Aldrin	29	100		2.2 UJ	1.8 UJ	2.2 UJ	1.8 UJ	2.1 UJ	2.5 U	2.4 U	2.4 U	2.5 U	2.3 U	2.2 U
alpha-BHC	77	270		2.2 UJ	1.8 UJ	2.2 UJ	1.8 UJ	2.1 UJ	**1.7 J**	2.4 U	2.4 U	2.5 U	2.3 U	2.2 U
alpha-Chlordane	1,600	6,500		2.2 UJ	1.8 UJ	2.2 UJ	1.8 UJ	2.1 UJ	2.5 U	2.4 U	2.4 U	2.5 U	2.3 U	2.2 U
beta-BHC	270	960		**0.58 J**	1.8 UJ	2.2 UJ	1.8 UJ	2.1 UJ	2.5 U	**0.89 J**	2.4 U	2.5 U	2.3 U	2.2 U
delta-BHC	77	270		2.2 UJ	1.8 UJ	2.2 UJ	**0.85 J**	2.1 UJ	2.5 U	2.4 U	2.4 U	2.5 U	2.3 U	2.2 U
Dieldrin	30	110		4.2 UJ	3.6 UJ	4.2 UJ	3.5 UJ	4.1 UJ	**8.6 J**	4.6 U	**1.6 J**	4.8 U	**3.4 J**	**2.8 J**
Endosulfan I	370,000	3,700,000		2.2 UJ	1.8 UJ	2.2 UJ	1.8 UJ	2.1 UJ	**2.4 J**	2.4 U	**0.57 J**	2.5 U	**1.1 J**	2.2 U
Endosulfan II	370,000	3,700,000		4.2 UJ	3.6 UJ	4.2 UJ	3.5 UJ	4.1 UJ	**6.6 J**	4.6 U	4.7 U	4.8 U	**2.6 J**	**1.5 J**
Endosulfan sulfate	370,000	3,700,000		4.2 UJ	3.6 UJ	4.2 UJ	3.5 UJ	4.1 UJ	4.8 U	4.6 U	4.7 U	4.8 U	**1.9 J**	4.2 U
Endrin	18,000	180,000		4.2 UJ	3.6 UJ	4.2 UJ	3.5 UJ	4.1 UJ	**1.7 J**	4.6 U	4.7 U	4.8 U	**3.1 J**	**1.4 J**
Endrin aldehyde	18,000	180,000		4.2 UJ	3.6 UJ	4.2 UJ	3.5 UJ	4.1 UJ	**3.7 J**	4.6 U	**1.6 J**	4.8 U	**3.3 J**	**2.1 J**
Endrin ketone	18,000	180,000		**1.2 J**	3.6 UJ	4.2 UJ	3.5 UJ	4.1 UJ	4.8 U	4.6 U	4.7 U	4.8 U	**1.5 J**	4.2 U
gamma-BHC (Lindane)	520	2,100		2.2 UJ	1.8 UJ	2.2 UJ	1.8 UJ	2.1 UJ	**2.5 J**	**1.2 J**	**0.65 J**	**0.75 J**	2.3 U	**0.92 J**
gamma-Chlordane	1,600	6,500		**1.7 J**	**1.2 J**	**1.1 J**	**0.61 J**	**1.9 J**	3 U	2.4 U	2.4 U	2.5 U	2.3 U	2.2 U
Heptachlor	110	380		2.2 UJ	1.8 UJ	2.2 UJ	1.8 UJ	2.1 UJ	2.5 U	2.4 U	2.4 U	2.5 U	2.3 U	2.2 U
Heptachlor epoxide	53	190		2.2 UJ	**0.72 J**	**0.55 J**	1.8 UJ	**0.94 J**	**1.9 J**	2.4 U	**0.65 J**	2.5 U	**2 J**	**1.4 J**
Methoxychlor	310,000	3,100,000		**7.1 J**	18 UJ	22 UJ	18 UJ	21 UJ	**4.9 J**	24 U	24 U	25 U	23 U	22 U
Toxaphene	440	1,600		220 UJ	180 UJ	220 UJ	180 UJ	210 UJ	250 U	240 U	240 U	250 U	230 U	220 U

Table 4.2.2-5
Detected Soil Pesticide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB023A	SB024A	SB025A	SB025B	SB026A	SB027A	SB027B	SB029A	SB030A	SB031A	SB032A
			Sample ID	E3RA0	E3RB1	E3SH8	E3SH9	E3RA5	E3S63	E3S64	E3S70	E3S68	E3RY2	E3S75
			Case	36631	36631	36697	36697	36631	36664	36664	36664	36664	36664	36664
			Sampling date	7/19/2007	7/19/2007	8/10/2007	8/10/2007	7/19/2007	8/3/2007	8/3/2007	8/3/2007	8/3/2007	7/31/2007	8/3/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info											
			Investigation area	3	3	3	3	3	3	3	3	3	3	3
			Lithology	L4	L1, L4	L1	L1	L4	L1	L1	L1	L1, L2	L4	L2, L3, L4
			Depth (ft bgs)	0-2	0-2	0-2	8-10	0-2	0-2	6-8	0-2	0-2	0-2	0-2
4,4'-DDD	2,000	7,200		**4.2 J**	**0.61 J**	4.1 U	4.4 U	**12 J**	**4.6 J**	4.9 U	4.3 U	4.6 U	4 U	**6.4 J**
4,4'-DDE	1,400	5,100		4.3 U	4.2 U	4.1 U	4.4 U	4.6 U	**2.7 J**	4.9 U	4.3 U	**1.5 J**	**5 J**	**5.6 J**
4,4'-DDT	1,700	7,000		**2.5 J**	**2.5 J**	**3.7 J**	**0.88 J**	**2.8 J**	**19 J**	4.9 U	**1.6 J**	4.6 U	**7.3**	**9.5 J**
Aldrin	29	100		2.2 U	2.2 U	2.1 U	2.3 U	2.4 U	2.8 U	2.5 U	2.2 U	2.4 U	2.1 U	2.2 U
alpha-BHC	77	270		2.2 U	2.2 U	2.1 U	2.3 U	2.4 U	2.8 U	2.5 U	2.2 U	2.4 U	2.1 U	2.2 U
alpha-Chlordane	1,600	6,500		2.2 U	2.2 U	2.1 U	2.3 U	2.4 U	**3.1 J**	2.5 U	2.2 U	2.4 U	2.1 U	**1.9 J**
beta-BHC	270	960		2.2 U	2.2 U	2.1 U	2.3 U	2.4 U	2.8 U	**0.9 J**	2.2 U	2.4 U	2.1 U	2.2 U
delta-BHC	77	270		2.2 U	2.2 U	2.1 U	2.3 U	2.4 U	2.8 U	2.5 U	2.2 U	2.4 U	2.1 U	**0.7 J**
Dieldrin	30	110		**1.9 J**	4.2 U	**1.7 J**	4.4 U	4.6 U	**7.4 J**	4.9 U	**2.6 J**	4.6 U	**6.1 J**	**3.5 J**
Endosulfan I	370,000	3,700,000		2.2 U	2.2 U	2.1 U	2.3 U	2.4 U	**1.7 J**	2.5 U	2.2 U	2.4 U	**0.88 J**	**1.9 J**
Endosulfan II	370,000	3,700,000		**4 J**	**1.1 J**	4.1 U	4.4 U	4.6 U	**3.3 J**	4.9 U	4.3 U	4.6 U	**2.6 J**	**1.8 J**
Endosulfan sulfate	370,000	3,700,000		4.3 U	4.2 U	4.1 U	4.4 U	**2.9 J**	**14 J**	**1.4 J**	4.3 U	4.6 U	**1.7 J**	**5.2 J**
Endrin	18,000	180,000		4.3 U	4.2 U	4.1 U	4.4 U	**1.4 J**	**7.8 J**	4.9 U	4.3 U	4.6 U	**2.8 J**	4.2 U
Endrin aldehyde	18,000	180,000		4.3 U	4.2 U	**1.4 J**	4.4 U	**2.6 J**	**8.7 J**	4.9 U	**1.8 J**	4.6 U	4 U	**4.8 J**
Endrin ketone	18,000	180,000		4.3 U	**0.4 J**	4.1 U	4.4 U	**4.1 J**	**26 J**	4.9 U	**3 J**	4.6 U	4 U	**17**
gamma-BHC (Lindane)	520	2,100		2.2 U	2.2 U	2.1 U	2.3 U	2.4 U	2.8 U	2.5 U	2.2 U	2.4 U	2.1 U	2.2 U
gamma-Chlordane	1,600	6,500		2.2 U	**1.3 J**	2.1 U	2.3 U	2.4 U	**3.1 J**	2.5 U	2.2 U	2.4 U	2.7 U	2.2 U
Heptachlor	110	380		2.2 U	2.2 U	2.1 U	2.3 U	2.4 U	2.8 U	2.5 U	2.2 U	2.4 U	2.1 U	2.2 U
Heptachlor epoxide	53	190		**0.75 J**	2.2 U	2.1 U	**0.11 J**	2.4 U	**4 J**	2.5 U	**1 J**	2.4 U	**3 J**	**2.6 J**
Methoxychlor	310,000	3,100,000		22 U	22 U	21 U	23 U	24 U	**26 J**	25 U	22 U	24 U	21 U	22 U
Toxaphene	440	1,600		220 U	220 U	210 U	230 U	240 U	280 U	250 U	220 U	240 U	210 U	220 U

Table 4.2.2-5
Detected Soil Pesticide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB033A	SB034A	SB034B	SB035A	SB036A	SB037A	SB037B	SB038A	SB038B	SB041A	SB042A
			Sample ID	E3S73	E3RY0	E3RY1	E3SH3	E3RC4	E3RC2	E3RC3	E3RC0	E3RC1	E3RD8	E3RD4
			Case	36664	36664	36664	36697	36648	36631	36631	36631	36631	36631	36631
			Sampling date	8/3/2007	7/31/2007	7/31/2007	8/9/2007	7/23/2007	7/20/2007	7/20/2007	7/20/2007	7/20/2007	7/20/2007	7/20/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info											
			Investigation area	3	3	3	3	3	3	3	3	3	3	3
			Lithology	L1, L4	L2, L3	L2, L3, L4	L4	L4	L1	L1	L1	L2, L3	L1	L4
			Depth (ft bgs)	0-2	0-2	8-10	0-2	0-2	0-2	8-10	0-2	2-4	0-2	0-2
4,4'-DDD	2,000	7,200		4 U	**2.4 J**	3.9 U	**1.3 J**	**2.6 J**	4.2 UJ	4.2 UJ	4.4 UJ	4 UJ	**3.1 J**	4 UJ
4,4'-DDE	1,400	5,100		**1.2 J**	3.9 U	3.9 U	0.14 U	4.7 U	4.2 UJ	4.2 UJ	4.4 UJ	**3.9 J**	4.4 UJ	4 UJ
4,4'-DDT	1,700	7,000		**2.4 J**	**1.7 J**	3.9 U	**2.1 J**	**4.1 J**	**1.3 J**	**1.6 J**	4.4 UJ	**3.8 J**	**12 J**	**1.2 J**
Aldrin	29	100		2.1 U	2 U	2 U	2 U	2.4 U	2.1 UJ	2.1 UJ	2.3 UJ	**8.3 J**	**2 J**	2 UJ
alpha-BHC	77	270		2.1 U	2 U	2 U	2 U	2.4 U	2.1 UJ	2.1 UJ	2.3 UJ	**2 J**	**2.4 J**	2 UJ
alpha-Chlordane	1,600	6,500		2.1 U	2 U	2 U	2 U	2.4 U	2.1 UJ	2.1 UJ	2.3 UJ	**1.1 J**	2.3 UJ	2 UJ
beta-BHC	270	960		2.1 U	2 U	2 U	2 U	2.4 U	**1.4 J**	2.1 UJ	**1.7 J**	**3.7 J**	**1.9 J**	**2 J**
delta-BHC	77	270		2.1 U	2 U	2 U	2 U	2.4 U	2.1 UJ	2.1 UJ	2.3 UJ	**0.52 J**	2.3 UJ	2 UJ
Dieldrin	30	110		**1 J**	**1.6 J**	3.9 U	**1.1 J**	4.7 U	4.2 UJ	4.2 UJ	4.4 UJ	**3.9 J**	**1.9 J**	4 UJ
Endosulfan I	370,000	3,700,000		2.1 U	2 U	2 U	2 U	2.4 U	2.1 UJ	2.1 UJ	2.3 UJ	**1.4 J**	**1 J**	2 UJ
Endosulfan II	370,000	3,700,000		4 U	**2.4 J**	3.9 U	3.9 U	4.7 U	4.2 UJ	**1.6 J**	4.4 UJ	**13 J**	**5.8 J**	**4.7 J**
Endosulfan sulfate	370,000	3,700,000		4 U	**2 J**	3.9 U	3.9 U	**3.2 J**	4.2 UJ	4.2 UJ	4.4 UJ	**11 J**	**2.2 J**	**0.98 J**
Endrin	18,000	180,000		4 U	**1.4 J**	3.9 U	3.9 U	4.7 U	4.2 UJ	4.2 UJ	**1.1 J**	**13 J**	4.4 UJ	4 UJ
Endrin aldehyde	18,000	180,000		4 U	**2.4 J**	**0.88 J**	3.9 U	**15**	4.2 UJ	4.2 UJ	4.4 UJ	**5.2 J**	**3.7 J**	**1.3 J**
Endrin ketone	18,000	180,000		4 U	3.9 U	3.9 U	3.9 U	**5.9 J**	4.2 UJ	4.2 UJ	**2.5 J**	**4.1 J**	**1.5 J**	4 UJ
gamma-BHC (Lindane)	520	2,100		2.1 U	2 U	**0.56 J**	2 U	2.4 U	2.1 UJ	2.1 UJ	2.3 UJ	**1.2 J**	2.3 UJ	**0.95 J**
gamma-Chlordane	1,600	6,500		**0.57 J**	2 U	2 U	2 U	2.4 U	2.1 UJ	2.1 UJ	2.3 UJ	**2.8 J**	**3.5 J**	**0.78 J**
Heptachlor	110	380		2.1 U	2 U	2 U	2 U	2.4 U	2.1 UJ	2.1 UJ	2.3 UJ	**1.2 J**	**7.5 J**	2 UJ
Heptachlor epoxide	53	190		2.1 U	**1.7 J**	2 U	**0.37 J**	2.4 U	**0.75 J**	2.1 UJ	2.3 UJ	**1.4 J**	**4.8 J**	**1.4 J**
Methoxychlor	310,000	3,100,000		21 U	20 U	20 U	20 U	**11 J**	21 UJ	**9.9 J**	23 UJ	**15 J**	**11 J**	**4.9 J**
Toxaphene	440	1,600		210 U	200 U	200 U	200 U	240 U	210 UJ	210 UJ	230 UJ	200 UJ	230 UJ	200 UJ

Table 4.2.2-5
Detected Soil Pesticide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB043A E3RF0 36648 7/23/2007 µg/kg 3 L4 0-2	SB043B E3RF1 36648 7/23/2007 µg/kg 3 L2, L3 4-5	SB044A E3RE8 36648 7/23/2007 µg/kg 3 L4 0-2	SB044B E3RE9 36648 7/23/2007 µg/kg 3 L2, L3, L4 8-10	SB261B E3RF3 36648 7/23/2007 µg/kg SB044B 3 L2, L3, L4 8-10	SB045A E3RE6 36648 7/23/2007 µg/kg 3 L4 0-2	SB046A E3RE4 36648 7/23/2007 µg/kg 3 L3, L4 0-2	SB046B E3RE5 36648 7/23/2007 µg/kg 3 L1 8-10	SB047A E3RD6 36631 7/20/2007 µg/kg 3 L2, L3 0-2	SB258A E3RE0 36631 7/20/2007 µg/kg SB047A 3 L2, L3 0-2	SB048A E3RE1 36631 7/20/2007 µg/kg 3 L1, L2, L3 0-2
4,4'-DDD	2,000	7,200		**96**	4.1 U	**3.5 J**	**7.8 J**	**2 J**	3.9 U	**9 J**	3.8 U	**5.7 J**	4.1 U	4.1 U
4,4'-DDE	1,400	5,100		**40 J**	**5.8 J**	**3.9 J**	3.9 U	4.4 U	**26 J**	**3.9 J**	3.8 U	4.2 UJ	4.1 U	**4.2 J**
4,4'-DDT	1,700	7,000		**69 J**	**6.2 J**	**4.3 J**	3.9 U	4.4 U	**36 J**	**7.2 J**	3.8 U	**5.7 J**	4.1 U	**3.5 J**
Aldrin	29	100		**1.7 J**	2.1 U	2 U	2 U	2.3 U	2 U	2.2 U	2 U	2.1 UJ	2.1 U	2.1 U
alpha-BHC	77	270		**2.8 J**	**0.81 J**	2 U	2 U	2.3 U	**3 J**	2.2 U	2 U	2.1 UJ	2.1 U	2.1 U
alpha-Chlordane	1,600	6,500		20 U	2.1 U	2 U	2 U	2.3 U	2 U	2.2 U	2 U	**0.55 J**	2.1 U	**0.59 J**
beta-BHC	270	960		20 U	2.1 U	**1 J**	**1.1 J**	**0.4 J**	2 U	**0.85 J**	2 U	**1.3 J**	**0.44 J**	2.1 U
delta-BHC	77	270		20 U	2.1 U	2 U	2 U	2.3 U	**3 J**	**1.6 J**	2 U	2.1 UJ	2.1 U	2.1 U
Dieldrin	30	110		**47 J**	**2.5 J**	3.9 U	**7.6 J**	**1.9 J**	3.9 U	**3.6 J**	3.8 U	4.2 UJ	4.1 U	**1.5 J**
Endosulfan I	370,000	3,700,000		**45 J**	**5.6 J**	**2.1 J**	2 U	2.3 U	**28 J**	**2.6 J**	2 U	**0.85 J**	2.1 U	2.1 U
Endosulfan II	370,000	3,700,000		**55 J**	**4.2 J**	**2.9 J**	3.9 U	**1.7 J**	**24 J**	**4.6 J**	**1.4 J**	**1.7 J**	4.1 U	**3.2 J**
Endosulfan sulfate	370,000	3,700,000		**30 J**	**6.8 J**	**1.6 J**	**3 J**	4.4 U	**12**	**8.6**	3.8 U	**2.6 J**	4.1 U	4.1 U
Endrin	18,000	180,000		**26 J**	4.1 U	**1.8 J**	**3.8 J**	**1.4 J**	**10 J**	4.2 U	3.8 U	**1.5 J**	4.1 UJ	**2.6 J**
Endrin aldehyde	18,000	180,000		39 U	**20 J**	**2.1 J**	**7.4 J**	**2.3 J**	**60**	4.2 U	3.8 U	**2.6 J**	**0.14 J**	4.1 U
Endrin ketone	18,000	180,000		**130 J**	**17 J**	**2.4 J**	3.9 U	4.4 U	**45 J**	**8.8 J**	3.8 U	**2.2 J**	4.1 U	**1.3 J**
gamma-BHC (Lindane)	520	2,100		20 U	**0.72 J**	**1.4 J**	**1.9 J**	**0.67 J**	**7.9 J**	2.2 U	2 U	2.1 UJ	2.1 U	2.1 U
gamma-Chlordane	1,600	6,500		20 U	**14**	**1.1 J**	2 U	2.3 U	2 U	**2.5 J**	2 U	2.1 UJ	2.1 U	**0.77 J**
Heptachlor	110	380		**4.3 J**	**1.8 J**	2 U	**0.66 J**	2.3 U	**1.4 J**	2.2 U	**0.049 J**	2.1 UJ	2.1 U	**1.1 J**
Heptachlor epoxide	53	190		20 U	2.1 U	**0.74 J**	2 U	2.3 U	**8**	2.2 U	2 U	**1.6 J**	2.1 U	2.1 U
Methoxychlor	310,000	3,100,000		**120 J**	**17 J**	**6.5 J**	**7.8 J**	**2 J**	**43 J**	**22 J**	20 U	**21 J**	21 U	21 U
Toxaphene	440	1,600		2,000 U	210 U	200 U	200 U	230 U	200 U	220 U	200 U	210 UJ	210 U	**130 J**

Table 4.2.2-5
Detected Soil Pesticide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB048B	SB051B	SB052A	SB052B	SB053A	SB055B	SB057A	SB057B	SB058A	SB061A	SB061B
			Sample ID	E3RE2	E3S22	E3S40	E3S41	E3RZ7	E3S03	E3S42	E3S43	E3S44	E3SC1	E3SC2
			Case	36631	36664	36664	36664	36664	36664	36664	36664	36664	36697	36697
			Sampling date	7/20/2007	8/1/2007	8/2/2007	8/2/2007	8/1/2007	8/1/2007	8/2/2007	8/2/2007	8/2/2007	8/7/2007	8/7/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info											
			Investigation area	3	3	3	3	3	3	3	3	3	3	3
			Lithology	L1	L1	L1	L1	L4	L1, L2, L4	L4	L4	L1	L1, L2	L1
			Depth (ft bgs)	9-11	4-6	0-2	8-10	0-2	4-6	0-2	4-6	0-2	0-2	8-10
4,4'-DDD	2,000	7,200		4.2 U	4.6 U	**11 J**	3.9 U	4 U	4.1 U	**4.7 J**	4.2 U	4.5 U	**15 J**	3.9 U
4,4'-DDE	1,400	5,100		4.2 U	4.6 U	**11 J**	3.9 U	4 U	4.1 U	**3.1 J**	4.2 U	**1.8 J**	**5.3**	3.9 U
4,4'-DDT	1,700	7,000		**0.3 J**	**5.9**	**8 J**	3.9 U	**2.6 J**	**2.3 J**	4.1 U	4.2 U	**2.2 J**	3.9 U	3.9 U
Aldrin	29	100		2.2 U	2.4 U	2.4 U	2 U	2.1 U	2.1 U	2.1 U	2.2 U	2.3 U	2 U	2 U
alpha-BHC	77	270		2.2 U	2.4 U	2.4 U	2 U	2.1 U	2.1 U	2.1 U	2.2 U	2.3 U	2 U	2 U
alpha-Chlordane	1,600	6,500		2.2 U	2.4 U	4.4 U	2 U	2.1 U	2.1 U	2.1 U	2.2 U	2.3 U	2 U	2 U
beta-BHC	270	960		2.2 U	2.4 U	2.4 U	2 U	2.1 U	2.1 U	**2.8 J**	2.2 U	2.3 U	2 U	2 U
delta-BHC	77	270		2.2 U	2.4 U	2.4 U	2 U	2.1 U	2.1 U	2.1 U	2.2 U	2.3 U	**1.1 J**	2 U
Dieldrin	30	110		4.2 U	4.6 U	**6.9 J**	3.9 U	4 U	4.1 U	**4.5 J**	4.2 U	4.5 U	**4.6 J**	3.9 U
Endosulfan I	370,000	3,700,000		2.2 U	2.4 U	**2.3 J**	2 U	2.1 U	2.1 U	**0.87 J**	2.2 U	**0.71 J**	**2.1 J**	2 U
Endosulfan II	370,000	3,700,000		4.2 U	4.6 U	**7.2 J**	3.9 U	4 U	4.1 U	4.1 U	4.2 U	4.5 U	**6.9 J**	3.9 U
Endosulfan sulfate	370,000	3,700,000		4.2 U	**3 J**	**12 J**	3.9 U	4 U	4.1 U	4.1 U	4.2 U	4.5 U	**12**	3.9 U
Endrin	18,000	180,000		4.2 UJ	4.6 UJ	**6.3 J**	3.9 U	4 U	4.1 U	**1.9 J**	4.2 U	**1.1 J**	**4.2 J**	3.9 U
Endrin aldehyde	18,000	180,000		4.2 U	**1.9 J**	**9.4 J**	3.9 U	4 U	4.1 U	**1.7 J**	4.2 U	4.5 U	**14**	3.9 U
Endrin ketone	18,000	180,000		**0.31 J**	4.6 U	**35 J**	3.9 U	4 U	4.1 U	**13 J**	**2.8 J**	**2.8 J**	**36 J**	**1 J**
gamma-BHC (Lindane)	520	2,100		2.2 U	2.4 UJ	2.4 U	2 U	2.1 U	2.1 U	**0.98 J**	2.2 U	2.3 U	2 U	2 U
gamma-Chlordane	1,600	6,500		2.2 U	2.4 U	2.8 U	**0.58 J**	2.1 U	2.1 U	2.4 U	2.2 U	2.3 U	**2.6 J**	2 U
Heptachlor	110	380		2.2 U	2.4 U	**1 J**	2 U	2.1 U	2.1 U	2.1 U	2.2 U	2.3 U	**1.1 J**	2 U
Heptachlor epoxide	53	190		2.2 U	2.4 U	**11 J**	2 U	2.1 U	2.1 U	**2.6 J**	2.2 U	**0.68 J**	2 U	2 U
Methoxychlor	310,000	3,100,000		22 U	24 U	**25 J**	20 U	21 U	21 U	21 U	22 U	23 U	20 U	20 U
Toxaphene	440	1,600		220 U	240 U	240 U	200 U	210 U	210 U	210 U	220 U	230 U	200 U	200 U

Table 4.2.2-5
Detected Soil Pesticide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB062A	SB063A	SB063B	SB064B	SB065A	SB065B	SB066A	SB299A	SB066B	SB067A	SB068A
			Sample ID	E3SC6	E3SB7	E3SB8	E3SC8	E3SC9	E3SD0	E3SA7	E3SA9	E3SA8	E3RY6	E3RY8
			Case	36697	36697	36697	36697	36697	36697	36697	36697	36697	36664	36664
			Sampling date	8/7/2007	8/7/2007	8/7/2007	8/7/2007	8/7/2007	8/7/2007	8/7/2007	8/7/2007	8/7/2007	7/31/2007	7/31/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info								SB066A			
			Investigation area	3	3	3	3	3	3	3	3	3	3	3
			Lithology	L4	L1	L1	L1	L1, L4	L1, L4	L1	L1	L1	L1, L4	L1
			Depth (ft bgs)	0-2	0-2	4-6	8-10	0-2	8-10	0-2	0-2	8-10	0-2	0-2
4,4'-DDD	2,000	7,200		4.2 U	3.8 U	3.9 U	3.8 U	**4.6 J**	**1.4 J**	**1.3 J**	**9.5 J**	4 U	**3.9 J**	**1 J**
4,4'-DDE	1,400	5,100		4.2 U	3.8 U	3.9 U	3.8 U	3.9 U	**2.3 J**	3.8 U	**2.8 J**	4 U	**3.2 J**	4.3 U
4,4'-DDT	1,700	7,000		**2.5 J**	3.8 U	3.9 U	3.8 U	**11 J**	3.7 U	**1.2 J**	**4.6 J**	4 U	**5.4 J**	4.3 U
Aldrin	29	100		2.1 U	1.9 U	2 U	2 U	**0.77 J**	1.9 U	1.9 U	1.9 U	2.1 U	2.9 U	2.2 U
alpha-BHC	77	270		2.1 U	1.9 U	2 U	2 U	2 U	1.9 U	1.9 U	1.9 U	2.1 U	**2.6 J**	2.2 U
alpha-Chlordane	1,600	6,500		2.1 U	1.9 U	2 U	2 U	2 U	1.9 U	1.9 U	1.9 U	2.1 U	3.3 U	2.2 U
beta-BHC	270	960		2.1 U	1.9 U	2 U	2 U	2 U	1.9 U	1.9 U	1.9 U	2.1 U	**5.1 J**	**2.4 J**
delta-BHC	77	270		2.1 U	1.9 U	2 U	2 U	**2.5 J**	1.9 U	1.9 U	**1.3 J**	2.1 U	2.9 U	**0.55 J**
Dieldrin	30	110		**1.2 J**	3.8 U	3.9 U	3.8 U	**2.7 J**	3.7 U	3.8 U	**3.6 J**	4 U	**21 J**	4.3 U
Endosulfan I	370,000	3,700,000		2.1 U	1.9 U	2 U	**0.055 J**	**4.4 J**	1.9 U	1.9 U	**2.7**	2.1 U	**7.1 J**	2.2 U
Endosulfan II	370,000	3,700,000		**1.8 J**	3.8 U	3.9 U	3.8 U	**5.1 J**	**2.2 J**	3.8 U	**1.1 J**	4 U	**4.2 J**	4.3 U
Endosulfan sulfate	370,000	3,700,000		**4.2**	3.8 U	**1.1 J**	3.8 U	**4 J**	**1.6 J**	**1.7 J**	**6.6 J**	**1.4 J**	5.6 U	4.3 U
Endrin	18,000	180,000		**1.7 J**	3.8 U	3.9 U	3.8 U	**7.2 J**	**3.5 J**	3.8 U	**2.8 J**	4 U	5.6 U	4.3 U
Endrin aldehyde	18,000	180,000		4 U	3.8 U	3.9 U	3.8 U	**18**	**9.8**	3.8 U	**7.6 J**	4 U	**9.7 J**	4.3 U
Endrin ketone	18,000	180,000		**9.7**	**5.6**	3.9 U	3.8 U	**24**	**13**	**7.1**	**23**	**4.5**	**8.5 J**	4.3 U
gamma-BHC (Lindane)	520	2,100		2.1 U	1.9 U	2 U	2 U	2 U	1.9 U	1.9 U	1.9 U	2.1 U	2.9 U	**1.1 J**
gamma-Chlordane	1,600	6,500		2.1 U	1.9 U	2 U	2 U	2 U	**2.6 J**	1.9 U	**2.4 J**	2.1 U	4.8 U	2.2 U
Heptachlor	110	380		2.1 U	1.9 U	2 U	2 U	2 U	1.9 U	**0.32 J**	**3.1**	2.1 U	**1.3 J**	2.2 U
Heptachlor epoxide	53	190		2.1 U	1.9 U	2 U	2 U	2 U	1.9 U	1.9 U	1.9 U	2.1 U	2.9 U	2.2 U
Methoxychlor	310,000	3,100,000		21 U	19 U	20 U	20 U	20 U	19 U	**1.7 J**	19 U	21 U	29 U	22 U
Toxaphene	440	1,600		210 U	190 U	200 U	200 U	200 U	190 U	190 U	190 U	210 U	290 U	220 U

Table 4.2.2-5
Detected Soil Pesticide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB068B	SB283B	SB069A	SB069B	SB070A	SB071A	SB071B	SB072A	SB072B	SB073A	SB074A
			Sample ID	E3RY9	E3RZ0	E3RY4	E3RY5	E3RY3	E3S54	E3S55	E3S52	E3S53	E3S56	E3S57
			Case	36664	36664	36664	36664	36664	36664	36664	36664	36664	36664	36664
			Sampling date	7/31/2007	7/31/2007	7/31/2007	7/31/2007	7/31/2007	8/2/2007	8/2/2007	8/2/2007	8/2/2007	8/2/2007	8/2/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info		SB068B									
			Investigation area	3	3	3	3	3	3	3	3	3	3	3
			Lithology	L1	L1	L1	L1	L1, L4	L2, L3	L1	L4	L1	L2	L2, L3
			Depth (ft bgs)	10-12	10-12	0-2	8-10	0-2	0-2	6-8	0-2	6-8	0-2	0-2
4,4'-DDD	2,000	7,200		3.8 U	4.2 U	4.3 U	4.2 U	**5.6 J**	**4 J**	4.2 U	**2.1 J**	4.3 U	**2.1 J**	3.9 U
4,4'-DDE	1,400	5,100		3.8 U	4.2 U	4.3 U	4.2 U	**6.1 J**	**11 J**	4.2 U	**2.3 J**	4.3 U	4.5 U	3.9 U
4,4'-DDT	1,700	7,000		3.8 U	4.2 U	4.3 U	4.2 U	**3.9 J**	**9.6 J**	4.2 U	**3.2 J**	4.3 U	4.5 U	3.9 U
Aldrin	29	100		2 U	2.2 U	2.2 U	2.2 U	2.1 U	2 U	2.2 U	2.1 U	2.2 U	2.3 U	2 U
alpha-BHC	77	270		2 U	2.2 U	2.2 U	2.2 U	2.1 U	2 U	2.2 U	2.1 U	2.2 U	2.3 U	2 U
alpha-Chlordane	1,600	6,500		2 U	2.2 U	2.2 U	2.2 U	6.3 U	2 U	2.2 U	2.1 U	2.2 U	2.3 U	2 U
beta-BHC	270	960		2 U	2.2 U	**1.4 J**	**1.5 J**	2.1 U	2 U	2.2 U	2.1 U	2.2 U	2.3 U	2 U
delta-BHC	77	270		2 U	2.2 U	2.2 U	2.2 U	2.1 U	2 U	2.2 U	2.1 U	2.2 U	2.3 U	2 U
Dieldrin	30	110		3.8 U	4.2 U	4.3 U	**1.3 J**	**2.2 J**	**3.8 J**	4.2 U	4.1 U	4.3 U	4.5 U	3.9 U
Endosulfan I	370,000	3,700,000		2 U	2.2 U	2.2 U	2.2 U	**0.98 J**	**3.3 J**	2.2 U	2.1 U	2.2 U	2.3 U	2 U
Endosulfan II	370,000	3,700,000		3.8 U	4.2 U	4.3 U	4.2 U	**2.3 J**	**4.5 J**	4.2 U	4.1 U	4.3 U	4.5 U	3.9 U
Endosulfan sulfate	370,000	3,700,000		3.8 U	4.2 U	4.3 U	4.2 U	4 U	**14 J**	4.2 U	4.1 U	4.3 U	4.5 U	3.9 U
Endrin	18,000	180,000		3.8 U	4.2 U	4.3 U	4.2 U	**2 J**	**5.1 J**	4.2 U	**2.8 J**	4.3 U	4.5 U	3.9 U
Endrin aldehyde	18,000	180,000		3.8 U	4.2 U	4.3 U	4.2 U	**10**	**12**	4.2 U	**3.5 J**	4.3 U	**1.4 J**	3.9 U
Endrin ketone	18,000	180,000		3.8 U	4.2 U	4.3 U	4.2 U	**20**	**34**	4.2 U	**7.2 J**	4.3 U	4.5 U	**1.4 J**
gamma-BHC (Lindane)	520	2,100		**0.5 J**	**1.1 J**	2.2 U	2.2 U	**0.75 J**	2 U	2.2 U	2.1 U	2.2 U	2.3 U	2 U
gamma-Chlordane	1,600	6,500		2 U	2.2 U	2.2 U	2.2 U	2.6 U	**2.8 J**	2.2 U	**1 J**	2.2 U	**0.58 J**	2 U
Heptachlor	110	380		2 U	2.2 U	2.2 U	2.2 U	2.1 U	**1.8 J**	2.2 U	2.1 U	2.2 U	2.3 U	2 U
Heptachlor epoxide	53	190		2 U	2.2 U	2.2 U	2.2 U	**2.7**	**2.5 J**	**1.2 J**	**1.5 J**	**0.59 J**	2.3 U	2 U
Methoxychlor	310,000	3,100,000		20 U	22 U	22 U	22 U	21 U	**32 J**	22 U	21 U	22 U	23 U	20 U
Toxaphene	440	1,600		200 U	220 U	220 U	220 U	210 U	200 U	220 U	210 U	220 U	230 U	200 U

Table 4.2.2-5
Detected Soil Pesticide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB074B	SB075A	SB075B	SB076A	SB295A	SB076B	SB100A	SB262	SB102A	SB102B	SB103A
			Sample ID	E3S58	E3S50	E3S51	E3S59	E3S60	E3S61	E3RF8	E3RG0	E3RF6	E3RF7	E3RG1
			Case	36664	36664	36664	36664	36664	36664	36648	36648	36648	36648	36648
			Sampling date	8/2/2007	8/2/2007	8/2/2007	8/2/2007	8/2/2007	8/2/2007	7/23/2007	7/23/2007	7/23/2007	7/23/2007	7/23/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info					SB076A			SB100A			
			Investigation area	3	3	3	3	3	3	3	3	3	3	3
			Lithology	L1, L2, L3	L2	L1	L2, L3	L2, L3	L2, L3	L2, L3	L2, L3	L1	L1	L4
			Depth (ft bgs)	4-6	0-2	8-10	0-2	0-2	4-6	0-2	0-2	0-2	4-6	0-2
4,4'-DDD	2,000	7,200		4.3 U	**69 J**	**3.2 J**	4.2 U	**1.6 J**	4.1 U	**2.6 J**	**2 J**	**3.3 J**	4.1 U	**3 J**
4,4'-DDE	1,400	5,100		4.3 U	**15 J**	**1.2 J**	4.2 U	**9.2**	4.1 U	**1.7 J**	4.1 U	**1.6 J**	4.1 U	**0.98 J**
4,4'-DDT	1,700	7,000		4.3 U	**8.9 J**	4.1 U	**2.3 J**	**6.5 J**	4.1 U	**8.1 J**	4.1 U	**2.7 J**	4.1 U	3.7 U
Aldrin	29	100		2.2 U	2 U	2.1 U	2.2 U	2.1 U	2.1 U	2 U	2.1 U	2 U	2.1 U	1.9 U
alpha-BHC	77	270		2.2 U	2 U	2.1 U	2.2 U	2.1 U	2.1 U	2 U	2.1 U	2 U	2.1 U	1.9 U
alpha-Chlordane	1,600	6,500		2.2 U	2 U	2.1 U	2.2 U	4.3 U	2.1 U	2 U	2.1 U	2 U	2.1 U	1.9 U
beta-BHC	270	960		**0.97 J**	2 U	2.1 U	2.2 U	2.1 U	**1.2 J**	2 U	2.1 U	2 U	2.1 U	1.9 U
delta-BHC	77	270		2.2 U	**4.1 J**	2.1 U	2.2 U	2.1 U	2.1 U	2 U	2.1 U	2 U	2.1 U	1.9 U
Dieldrin	30	110		4.3 U	**9 J**	4.1 U	4.2 U	**2.9 J**	4.1 U	3.8 U	**2.2 J**	**2.5 J**	4.1 U	**1.7 J**
Endosulfan I	370,000	3,700,000		**0.61 J**	**4.1 J**	**0.79 J**	2.2 U	**3**	2.1 U	2 U	2.1 U	**1.1 J**	2.1 U	1.9 U
Endosulfan II	370,000	3,700,000		4.3 U	**8.7 J**	4.1 U	4.2 U	**2 J**	4.1 U	**1.8 J**	**1.7 J**	**2 J**	4.1 U	**2.2 J**
Endosulfan sulfate	370,000	3,700,000		4.3 U	**21 J**	4.1 U	4.2 U	4.1 U	4.1 U	3.8 U	**1.1 J**	**1.5 J**	4.1 U	3.7 U
Endrin	18,000	180,000		4.3 U	**29 J**	4.1 U	4.2 U	**3.6 J**	4.1 U	**1.4 J**	**1.4 J**	**1.7 J**	4.1 U	**1.9 J**
Endrin aldehyde	18,000	180,000		4.3 U	3.8 U	4.1 U	4.2 U	**3.5 J**	4.1 U	3.8 U	**2.5 J**	**2 J**	4.1 U	**0.98 J**
Endrin ketone	18,000	180,000		4.3 U	**39**	4.1 U	**2.8 J**	**9.7 J**	**5.7 J**	**3.8 J**	**3 J**	**3.2 J**	4.1 U	**2.6 J**
gamma-BHC (Lindane)	520	2,100		2.2 U	**1.9 J**	2.1 U	2.2 U	2.1 U	2.1 U	2 U	2.1 U	**0.58 J**	2.1 U	1.9 U
gamma-Chlordane	1,600	6,500		2.2 U	**23 J**	**1.8 J**	2.2 U	**5.2 J**	2.1 U	2 U	2.1 U	2 U	**0.16 J**	1.9 U
Heptachlor	110	380		2.2 U	**4.2**	2.1 U	2.2 U	2.1 U	2.1 U	2 U	2.1 U	2 U	2.1 U	1.9 U
Heptachlor epoxide	53	190		2.2 U	**4.1 J**	**1.4 J**	2.2 U	**3 J**	2.1 U	**0.5 J**	**0.43 J**	**0.74 J**	**0.23 J**	1.9 U
Methoxychlor	310,000	3,100,000		22 U	**48 J**	21 U	22 U	**8 J**	21 U	**7.9 J**	21 U	**3.1 J**	21 U	**2.4 J**
Toxaphene	440	1,600		220 U	200 U	210 U	220 U	210 U	210 U	200 U	210 U	200 U	210 U	190 U

Table 4.2.2-5
Detected Soil Pesticide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB107B	SB108A	SB302A	SB109A	SB109B	SB111A	SB113A	SB114B	SB117A	SB322A	SB118A
			Sample ID	E3SD2	E3SD3	E3SD4	E3SD6	E3SD7	E3SD8	E3RZ4	E3SE9	E3RT0	E3RT1	E3RT3
			Case	36697	36697	36697	36697	36697	36697	36664	36697	36720	36720	36720
			Sampling date	8/8/2007	8/8/2007	8/8/2007	8/8/2007	8/8/2007	8/8/2007	7/31/2007	8/8/2007	8/15/2007	8/15/2007	8/15/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info			SB108A							SB117A	
			Investigation area	3	3	3	3	3	3	4	4	3	3	3
			Lithology	L3	L4	L4	L1	L1	L4	L1	L1, L4	L1, L2	L1, L2	L2
			Depth (ft bgs)	8-10	0-2	0-2	0-2	8-10	0-2	0-2	8-10	0-2	0-2	0-2
4,4'-DDD	2,000	7,200		4 U	4.1 U	4 U	4.4 U	4.3 U	3.8 U	3.9 U	3.9 U	**1.5 J**	4.6 UJ	4.2 UJ
4,4'-DDE	1,400	5,100		4 U	**1.8 J**	4 U	4.4 U	4.3 U	**1.5 J**	3.9 U	3.9 U	4.3 UJ	4.6 UJ	4.2 UJ
4,4'-DDT	1,700	7,000		4 U	**5.7 J**	**2.1 J**	**3.5 J**	**0.39 J**	**27**	3.9 U	3.9 U	**8.3 J**	**8.1 J**	4.2 UJ
Aldrin	29	100		2.1 U	2.1 U	2.1 U	2.3 U	2.2 U	2 U	2 U	2 U	**0.68 J**	**0.81 J**	2.2 UJ
alpha-BHC	77	270		2.1 U	2.1 U	2.1 U	2.3 U	2.2 U	**0.56 J**	2 U	2 U	2.2 UJ	2.4 UJ	2.2 UJ
alpha-Chlordane	1,600	6,500		2.1 U	2.1 U	2.1 U	2.3 U	2.2 U	2 U	2 U	2 U	2.2 UJ	2.4 UJ	2.2 UJ
beta-BHC	270	960		2.1 U	2.1 U	2.1 U	2.3 U	2.2 U	2 U	2 U	2 U	**0.4 J**	2.4 UJ	2.2 UJ
delta-BHC	77	270		2.1 U	2.1 U	2.1 U	2.3 U	2.2 U	2 U	2 U	2 U	**0.44 J**	**0.39 J**	2.2 UJ
Dieldrin	30	110		4 U	**2.8 J**	**0.84 J**	4.4 U	4.3 U	3.8 U	**2.7 J**	3.9 U	**4.5 J**	**3.9 J**	4.2 UJ
Endosulfan I	370,000	3,700,000		2.1 U	2.1 U	2.1 U	2.3 U	**0.086 J**	**0.6 J**	2 U	2 U	2.2 UJ	2.4 UJ	2.2 UJ
Endosulfan II	370,000	3,700,000		4 U	4.1 U	4 U	4.4 U	4.3 U	**1 J**	3.9 U	3.9 U	4.3 UJ	4.6 UJ	4.2 UJ
Endosulfan sulfate	370,000	3,700,000		4 U	4.1 U	4 U	4.4 U	4.3 U	3.8 U	3.9 U	3.9 U	4.3 UJ	**0.47 J**	**0.4 J**
Endrin	18,000	180,000		4 U	4.1 U	4 U	**1.2 J**	4.3 U	**3.1 J**	3.9 U	3.9 U	4.3 UJ	4.6 UJ	4.2 UJ
Endrin aldehyde	18,000	180,000		**1.1 J**	**1.3 J**	4 U	**1.3 J**	4.3 U	**2.1 J**	3.9 U	3.9 U	**7.2 J**	**4.2 J**	4.2 UJ
Endrin ketone	18,000	180,000		4 U	4.1 U	**1.2 J**	**1.6 J**	**0.57 J**	3.8 U	3.9 U	3.9 U	**2.6 J**	**4.3 J**	4.2 UJ
gamma-BHC (Lindane)	520	2,100		2.1 U	2.1 U	2.1 U	2.3 U	2.2 U	2 U	2 U	2 U	2.2 UJ	2.4 UJ	2.2 UJ
gamma-Chlordane	1,600	6,500		2.1 U	2.1 U	2.1 U	2.3 U	2.2 U	2 U	2 U	**0.04 J**	2.2 UJ	2.4 UJ	2.2 UJ
Heptachlor	110	380		2.1 U	2.1 U	2.1 U	2.3 U	2.2 U	2 U	2 U	2 U	2.2 UJ	2.4 UJ	2.2 UJ
Heptachlor epoxide	53	190		2.1 U	**1 J**	2.1 U	2.3 U	2.2 U	**2.4 J**	2 U	2 U	2.2 UJ	2.4 UJ	**0.28 J**
Methoxychlor	310,000	3,100,000		21 U	**7.4 J**	21 U	**24 J**	22 U	20 U	20 U	20 U	22 UJ	24 UJ	22 UJ
Toxaphene	440	1,600		210 U	210 U	210 U	230 U	220 U	200 U	200 U	200 U	220 UJ	240 UJ	220 UJ

Table 4.2.2-5
Detected Soil Pesticide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB119A	SB124A	SB125A	SB125B	SB126A	SB126B	SB133A	SB133B	SB134A	SB269A	SB134B
			Sample ID	E3RT4	E3SG2	E3SJ8	E3SJ9	E3SJ6	E3SJ7	E3RR2	E3RR3	E3RQ7	E3RQ9	E3RQ8
			Case	36720	36697	36697	36697	36697	36697	36648	36648	36648	36648	36648
			Sampling date	8/15/2007	8/9/2007	8/10/2007	8/10/2007	8/10/2007	8/10/2007	7/27/2007	7/27/2007	7/26/2007	7/26/2007	7/26/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info										SB134A	
			Investigation area	3	3	3	3	3	3	2	2	2	2	2
			Lithology	L2, L3	L1, L4	L4	L1	L4	L4	L1, L4	L1	L1	L1	L2, L3
			Depth (ft bgs)	0-2	0-2	0-2	6-8	0-2	4-6	0-2	8-10	0-2	0-2	4-6
4,4'-DDD	2,000	7,200		4.9 UJ	3.8 UJ	3.8 U	4.4 U	3.9 U	3.8 U	4.2 U	**0.19 J**	3.6 UJ	3.6 UJ	**2.4 J**
4,4'-DDE	1,400	5,100		4.9 UJ	**1.8 J**	**0.68 J**	**1.2 J**	3.9 U	3.8 U	4.2 U	4 U	**180**	**67 J**	**20 J**
4,4'-DDT	1,700	7,000		**3.7 J**	**1.8 J**	**1.7 J**	4.4 U	3.9 U	3.8 U	4.2 U	4 U	**59 J**	**32 J**	**5 J**
Aldrin	29	100		**0.69 J**	1.9 UJ	1.9 U	2.2 U	2 U	1.9 U	2.2 U	2.1 U	1.9 UJ	1.9 UJ	2 U
alpha-BHC	77	270		2.5 UJ	1.9 UJ	1.9 U	2.2 U	2 U	1.9 U	2.2 U	2.1 U	1.9 UJ	1.9 UJ	2 U
alpha-Chlordane	1,600	6,500		2.5 UJ	**0.53 J**	1.9 U	2.2 U	2 U	1.9 U	2.2 U	2.1 U	1.9 UJ	1.9 UJ	2 U
beta-BHC	270	960		2.5 UJ	1.9 UJ	1.9 U	**0.73 J**	2 U	1.9 U	2.2 U	2.1 U	**2.7 J**	1.9 UJ	**0.66 J**
delta-BHC	77	270		**0.26 J**	1.9 UJ	**0.48 J**	2.2 U	2 U	1.9 U	**0.3 J**	2.1 U	1.9 UJ	1.9 UJ	2 U
Dieldrin	30	110		**3.2 J**	**4.8 J**	**1.2 J**	**1.6 J**	**5**	3.8 U	4.2 U	4 U	3.6 UJ	3.6 UJ	3.9 U
Endosulfan I	370,000	3,700,000		2.5 UJ	1.9 UJ	1.9 U	**1.4 J**	2 U	1.9 U	2.2 U	2.1 U	**11 J**	**8.7 J**	**2.6 J**
Endosulfan II	370,000	3,700,000		4.9 UJ	3.8 UJ	**1.6 J**	**4.6 J**	3.9 U	3.8 U	4.2 U	4 U	**2.6 J**	**1.6 J**	**1.2 J**
Endosulfan sulfate	370,000	3,700,000		**3.2 J**	3.8 UJ	**1.8 J**	4.4 U	3.9 U	**0.12 J**	4.2 U	4 U	3.6 UJ	3.6 UJ	3.9 U
Endrin	18,000	180,000		**1.3 J**	**6.3 J**	**1.1 J**	**1.4 J**	**3.3 J**	3.8 U	4.2 U	4 U	**6.7 J**	**4.1 J**	**1.5 J**
Endrin aldehyde	18,000	180,000		**3.7 J**	**28 J**	3.8 U	4.4 U	3.9 U	3.8 U	4.2 U	4 U	**13 J**	**7.4 J**	3.9 U
Endrin ketone	18,000	180,000		**1.4 J**	**7.4 J**	**6.1**	4.4 U	**3.3 J**	3.8 U	4.2 U	4 U	3.6 UJ	3.6 UJ	3.9 U
gamma-BHC (Lindane)	520	2,100		2.5 UJ	1.9 UJ	1.9 U	**0.9 J**	2 U	1.9 U	2.2 U	2.1 U	**79 J**	1.9 UJ	**12 J**
gamma-Chlordane	1,600	6,500		2.5 UJ	**3.1 J**	1.9 U	2.2 U	2 U	1.9 U	2.2 U	2.1 U	19 U	19 U	2 U
Heptachlor	110	380		**0.43 J**	1.9 UJ	1.9 U	2.2 U	2 U	1.9 U	2.2 U	2.1 U	**170 J**	**91 J**	**27**
Heptachlor epoxide	53	190		2.5 UJ	1.9 UJ	1.9 U	2.2 U	2 U	1.9 U	2.2 U	2.1 U	1.9 UJ	1.9 UJ	2 U
Methoxychlor	310,000	3,100,000		25 UJ	**61 J**	**9.1 J**	22 U	20 U	19 U	22 U	21 U	19 UJ	19 UJ	20 U
Toxaphene	440	1,600		250 UJ	190 UJ	190 U	220 U	200 U	190 U	220 U	210 U	190 UJ	190 UJ	200 U

Table 4.2.2-5
Detected Soil Pesticide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB135A	SB135B	SB136A	SB138A	SB139A	SB139B	SB141A	SB141B	SB142A	SB143A	SB272
			Sample ID	E3RW0	E3RW1	E3RT8	E3RW4	E3SQ1	E3SQ2	E3SP9	E3SQ0	E3SP4	E3RS1	E3RS3
			Case	36664	36664	36664	36664	36720	36720	36720	36720	36720	36648	36648
			Sampling date	7/30/2007	7/30/2007	7/30/2007	7/30/2007	8/14/2007	8/14/2007	8/14/2007	8/14/2007	8/14/2007	7/27/2007	7/27/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info											SB143B
			Investigation area	3	3	3	3	3	3	2	2	2	2	2
			Lithology	L4	L4	L4	L4	L2	L2	L1	L1	L1	L1	L1
			Depth (ft bgs)	0-2	8-10	0-2	0-2	0-2	8-10	0-2	8-10	0-2	0-2	8-10
4,4'-DDD	2,000	7,200		**2 J**	**1.4 J**	**3 J**	**2.2 J**	**1.7 J**	4.4 UJ	3.9 UJ	3.9 UJ	3.9 UJ	**3.1 J**	4.1 U
4,4'-DDE	1,400	5,100		3.8 U	3.7 U	3.9 U	4.3 U	4.1 UJ	4.4 UJ	**1.2 J**	3.9 UJ	3.9 UJ	4.1 UJ	4.1 U
4,4'-DDT	1,700	7,000		**2.6 J**	**1.8 J**	**3.8 J**	**3.2 J**	**3.3 J**	**0.8 J**	**2.1 J**	**0.67 J**	3.9 UJ	**2.2 J**	4.1 U
Aldrin	29	100		2 U	1.9 U	2 U	2.2 U	2.1 UJ	2.3 UJ	**0.19 J**	2 UJ	2 UJ	2.1 UJ	2.1 U
alpha-BHC	77	270		2 U	1.9 U	2 U	2.2 U	2.1 UJ	2.3 UJ	**0.23 J**	2 UJ	2 UJ	2.1 UJ	2.1 U
alpha-Chlordane	1,600	6,500		2 U	1.9 U	2 U	2.2 U	2.1 UJ	2.3 UJ	2 UJ	2 UJ	2 UJ	**1.1 J**	2.1 U
beta-BHC	270	960		2 U	1.9 U	2 U	2.2 U	**1.7 J**	2.3 UJ	2 UJ	2 UJ	2 UJ	**0.92 J**	**0.39 J**
delta-BHC	77	270		2 U	1.9 U	2 U	2.2 U	2.1 UJ	2.3 UJ	2 UJ	2 UJ	2 UJ	**1.4 J**	2.1 U
Dieldrin	30	110		3.8 U	3.7 U	3.9 U	4.3 U	4.1 UJ	4.4 UJ	3.9 UJ	3.9 UJ	3.9 UJ	**1.8 J**	4.1 U
Endosulfan I	370,000	3,700,000		2 U	1.9 U	2 U	2.2 U	2.1 UJ	2.3 UJ	2 UJ	2 UJ	2 UJ	2.1 UJ	2.1 U
Endosulfan II	370,000	3,700,000		3.8 U	3.7 U	3.9 U	4.3 U	4.1 UJ	4.4 UJ	3.9 UJ	3.9 UJ	3.9 UJ	4.1 UJ	4.1 U
Endosulfan sulfate	370,000	3,700,000		3.8 U	3.7 U	3.9 U	4.3 U	**6.4 J**	**0.93 J**	3.9 UJ	3.9 UJ	3.9 UJ	4.1 UJ	4.1 U
Endrin	18,000	180,000		3.8 U	3.7 U	3.9 U	4.3 U	4.1 UJ	4.4 UJ	3.9 UJ	3.9 UJ	3.9 UJ	4.1 UJ	4.1 U
Endrin aldehyde	18,000	180,000		3.8 U	3.7 U	**1.4 J**	4.3 U	**2.2 J**	4.4 UJ	3.9 UJ	3.9 UJ	3.9 UJ	4.1 UJ	4.1 U
Endrin ketone	18,000	180,000		3.8 U	3.7 U	3.9 U	4.3 U	**5.3 J**	4.4 UJ	3.9 UJ	3.9 UJ	3.9 UJ	4.1 UJ	4.1 U
gamma-BHC (Lindane)	520	2,100		2 U	1.9 U	2 U	2.2 U	2.1 UJ	2.3 UJ	2 UJ	2 UJ	2 UJ	2.1 UJ	2.1 U
gamma-Chlordane	1,600	6,500		2 U	1.9 U	2 U	2.2 U	0.27 UJ	**2.3 J**	**0.78 J**	2 UJ	2 UJ	**0.74 J**	2.1 U
Heptachlor	110	380		2 U	1.9 U	2 U	2.2 U	2.1 UJ	2.3 UJ	**0.24 J**	2 UJ	2 UJ	2.1 UJ	2.1 U
Heptachlor epoxide	53	190		2 U	1.9 U	2 U	2.2 U	2.1 UJ	2.3 UJ	2 UJ	**0.18 J**	2 UJ	2.1 UJ	2.1 U
Methoxychlor	310,000	3,100,000		20 U	19 U	20 U	22 U	21 UJ	23 UJ	20 UJ	20 UJ	**29 J**	21 UJ	**0.65 J**
Toxaphene	440	1,600		200 U	190 U	200 U	220 U	210 UJ	230 UJ	200 UJ	200 UJ	200 UJ	210 UJ	210 U

Table 4.2.2-5
Detected Soil Pesticide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB144A	SB144B	SB145A	SB153A	SB154A	SB155A	SB155B	SB156A	SB156B	SB312B	SB158A
			Sample ID	E3RR9	E3RS0	E3SP7	E3S76	E3SF0	E3SQ8	E3SQ9	E3SJ0	E3SJ1	E3SJ4	E3SW3
			Case	36648	36648	36720	36664	36697	36720	36720	36697	36697	36697	36720
			Sampling date	7/20/2007	7/27/2007	8/14/2007	8/3/2007	8/8/2007	8/14/2007	8/14/2007	8/10/2007	8/10/2007	8/10/2007	8/16/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info										SB157B	
			Investigation area	2	2	2	3	4	3	3	3	3	3	3
			Lithology	L1, L4	L1	L1	L1	L1	L1, L4	L4	L1, L4	L1	L1	L1, L2
			Depth (ft bgs)	0-2	8-10	0-2	0-2	0-2	0-2	8-10	0-2	8-10	8-10	0-2
4,4'-DDD	2,000	7,200		4.3 UJ	4.1 U	3.7 UJ	3.8 U	3.8 U	3.7 UJ	3.5 UJ	4 U	4 U	4.6 U	4.1 UJ
4,4'-DDE	1,400	5,100		4.3 UJ	4.1 U	3.7 UJ	**2 J**	3.8 U	**0.35 J**	3.5 UJ	**0.18 J**	4 U	4.6 U	4.1 UJ
4,4'-DDT	1,700	7,000		**1.8 J**	4.1 U	3.7 UJ	**3.2 J**	3.8 U	3.7 UJ	3.5 UJ	4 U	4 U	4.6 U	4.1 UJ
Aldrin	29	100		2.2 UJ	2.1 U	1.9 UJ	1.9 U	2 U	1.9 UJ	1.8 UJ	2.1 U	2 U	2.4 U	2.1 UJ
alpha-BHC	77	270		2.2 UJ	2.1 U	1.9 UJ	1.9 U	2 U	1.9 UJ	1.8 UJ	2.1 U	2 U	2.4 U	2.1 UJ
alpha-Chlordane	1,600	6,500		2.2 UJ	2.1 U	1.9 UJ	1.9 U	2 U	1.9 UJ	1.8 UJ	2.1 U	2 U	2.4 U	2.1 UJ
beta-BHC	270	960		**2.7 J**	2.1 U	1.9 UJ	1.9 U	2 U	**0.48 J**	1.8 UJ	2.1 U	2 U	2.4 U	2.1 UJ
delta-BHC	77	270		**2.1 J**	2.1 U	1.9 UJ	1.9 U	2 U	1.9 UJ	1.8 UJ	2.1 U	2 U	2.4 U	2.1 UJ
Dieldrin	30	110		4.3 UJ	4.1 U	3.7 UJ	**6.7 J**	**0.076 J**	3.7 UJ	3.5 UJ	4 U	4 U	4.6 U	4.1 UJ
Endosulfan I	370,000	3,700,000		2.2 UJ	2.1 U	1.9 UJ	**0.48 J**	2 U	1.9 UJ	**0.22 J**	2.1 U	2 U	2.4 U	2.1 UJ
Endosulfan II	370,000	3,700,000		4.3 UJ	4.1 U	3.7 UJ	3.8 U	3.8 U	**1.7 J**	3.5 UJ	4 U	4 U	4.6 U	4.1 UJ
Endosulfan sulfate	370,000	3,700,000		4.3 UJ	4.1 U	3.7 UJ	**1.6 J**	3.8 U	3.7 UJ	3.5 UJ	4 U	4 U	4.6 U	4.1 UJ
Endrin	18,000	180,000		4.3 UJ	4.1 U	3.7 UJ	3.8 U	3.8 U	**1.3 J**	3.5 UJ	4 U	4 U	4.6 U	4.1 UJ
Endrin aldehyde	18,000	180,000		**1.5 J**	4.1 U	3.7 UJ	3.8 U	3.8 U	3.7 UJ	3.5 UJ	4 U	4 U	4.6 U	4.1 UJ
Endrin ketone	18,000	180,000		4.3 UJ	4.1 U	**0.19 J**	**8.8 J**	3.8 U	3.7 UJ	3.5 UJ	4 U	4 U	4.6 U	4.1 UJ
gamma-BHC (Lindane)	520	2,100		2.2 UJ	2.1 U	1.9 UJ	1.9 U	2 U	1.9 UJ	1.8 UJ	2.1 U	2 U	2.4 U	2.1 UJ
gamma-Chlordane	1,600	6,500		**1.5 J**	**0.2 J**	1.9 UJ	1.9 U	2 U	**2.1 J**	1.8 UJ	2.1 U	2 U	2.4 U	2.1 UJ
Heptachlor	110	380		2.2 UJ	2.1 U	1.9 UJ	1.9 U	2 U	1.9 UJ	1.8 UJ	2.1 U	**0.059 J**	**0.083 J**	2.1 UJ
Heptachlor epoxide	53	190		2.2 UJ	2.1 U	1.9 UJ	1.9 U	2 U	1.9 UJ	1.8 UJ	2.1 U	2 U	2.4 U	2.1 UJ
Methoxychlor	310,000	3,100,000		22 UJ	21 U	19 UJ	**9.8 J**	20 U	19 UJ	18 UJ	21 U	20 U	24 U	**0.14 J**
Toxaphene	440	1,600		220 UJ	210 U	190 UJ	190 U	200 U	190 UJ	180 UJ	210 U	200 U	240 U	210 UJ

Table 4.2.2-5
Detected Soil Pesticide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB165A	SB165B	SB319B	SB303B	SB168A	SB169A	SB169B	SB170B	SB171A	SB172A	SB173A
			Sample ID	E3SQ3	E3SQ4	E3SQ5	E3SE5	E3RA9	E3RA7	E3RA8	E3SA6	E3SB9	E3SB2	E3SB4
			Case	36720	36720	36720	36697	36631	36631	36631	36697	36697	36697	36697
			Sampling date	8/14/2007	8/14/2007	8/14/2007	8/8/2007	7/19/2007	7/19/2007	7/19/2007	8/7/2007	8/7/2007	8/7/2007	8/7/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info			SB165B	SB166B							
			Investigation area	3	3	3	3	3	3	3	3	3	3	3
			Lithology	L1	L1	L1	L1	L3	L4	L1	L1	L1	L1	L1, L4
			Depth (ft bgs)	0-2	8-10	8-10	8-10	0-2	0-2	8-10	8-10	0-2	0-2	0-2
4,4'-DDD	2,000	7,200		3.6 UJ	4 UJ	4 UJ	3.8 U	4 U	**14 J**	3.9 U	4 U	**7.4 J**	**1 J**	4 U
4,4'-DDE	1,400	5,100		3.6 UJ	4 UJ	4 UJ	3.8 U	4 U	**1.9 J**	3.9 U	4 U	**3.2 J**	3.7 U	4 U
4,4'-DDT	1,700	7,000		**0.39 J**	4 UJ	4 UJ	3.8 U	**2 J**	**6.7 J**	3.9 U	4 U	**8.5 J**	**1.2 J**	4 U
Aldrin	29	100		1.9 UJ	2.1 UJ	2.1 UJ	2 U	2.1 U	2 U	2 U	2.1 U	1.9 U	1.9 U	2.1 U
alpha-BHC	77	270		1.9 UJ	2.1 UJ	2.1 UJ	2 U	2.1 U	**1.2 J**	2 U	2.1 U	1.9 U	1.9 U	2.1 U
alpha-Chlordane	1,600	6,500		1.9 UJ	2.1 UJ	2.1 UJ	2 U	2.1 U	2 U	2 U	2.1 U	1.9 U	1.9 U	2.1 U
beta-BHC	270	960		1.9 UJ	2.1 UJ	2.1 UJ	2 U	2.1 U	**0.86 J**	2 U	2.1 U	1.9 U	1.9 U	2.1 U
delta-BHC	77	270		1.9 UJ	2.1 UJ	2.1 UJ	2 U	2.1 U	2 U	2 U	2.1 U	**1.8 J**	1.9 U	2.1 U
Dieldrin	30	110		3.6 UJ	4 UJ	4 UJ	3.8 U	**0.6 J**	3.9 U	3.9 U	4 U	**2.2 J**	3.7 U	4 U
Endosulfan I	370,000	3,700,000		1.9 UJ	2.1 UJ	2.1 UJ	2 U	2.1 U	**0.53 J**	2 U	2.1 U	1.9 U	1.9 U	2.1 U
Endosulfan II	370,000	3,700,000		**0.48 J**	4 UJ	4 UJ	3.8 U	4 U	**1.2 J**	3.9 U	4 U	**5.5 J**	**1.5 J**	4 U
Endosulfan sulfate	370,000	3,700,000		3.6 UJ	**0.9 J**	4 UJ	3.8 U	4 U	**1 J**	3.9 U	4 U	**7.3 J**	**1.4 J**	4 U
Endrin	18,000	180,000		3.6 UJ	4 UJ	4 UJ	3.8 U	4 U	**1.8 J**	3.9 U	4 U	**8.8 J**	**0.96 J**	4 U
Endrin aldehyde	18,000	180,000		3.6 UJ	**0.35 J**	**0.36 J**	3.8 U	4 U	3.9 U	3.9 U	4 U	**19 J**	3.7 U	4 U
Endrin ketone	18,000	180,000		3.6 UJ	**1.7 J**	4 UJ	3.8 U	4 U	**6.2 J**	3.9 U	**1.4 J**	**28**	**7.9**	4 U
gamma-BHC (Lindane)	520	2,100		1.9 UJ	2.1 UJ	2.1 UJ	2 U	2.1 U	2 U	2 U	2.1 U	1.9 U	1.9 U	2.1 U
gamma-Chlordane	1,600	6,500		**0.67 J**	**2.3 J**	**1.4 J**	**0.065 J**	2.1 U	**0.89 J**	**2.2 J**	2.1 U	**5.8 J**	1.9 U	2.1 U
Heptachlor	110	380		1.9 UJ	2.1 UJ	2.1 UJ	2 U	2.1 U	**1.7 J**	2 U	2.1 U	**0.75 J**	1.9 U	**0.18 J**
Heptachlor epoxide	53	190		1.9 UJ	2.1 UJ	2.1 UJ	2 U	2.1 U	2 U	2 U	2.1 U	1.9 U	1.9 U	2.1 U
Methoxychlor	310,000	3,100,000		19 UJ	21 UJ	21 UJ	20 U	21 U	20 U	20 U	21 U	19 U	**7.1 J**	21 U
Toxaphene	440	1,600		190 UJ	210 UJ	210 UJ	200 U	210 U	200 U	200 U	210 U	190 U	190 U	210 U

Table 4.2.2-5
Detected Soil Pesticide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB173B	SB175B	SB176A	SB306A	SB176B	SB177A	SB178A	SB180A	SB183B	SB185A	SB185B
			Sample ID	E3SB5	E3SF7	E3SF9	E3SG0	E3SG1	E3RR5	E3RR7	E3RS4	E3SK4	E3SK0	E3SK1
			Case	36697	36697	36697	36697	36697	36648	36648	36648	36697	36697	36697
			Sampling date	8/7/2007	8/9/2007	8/9/2007	8/9/2007	8/9/2007	7/27/2007	7/27/2007	7/27/2007	8/10/2007	8/10/2007	8/10/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info				SB176A							
			Investigation area	3	2	2	2	2	3	2	2	3	3	3
			Lithology	L1	L1	L1, L4	L1, L4	L1, L4	L1		L4	L1	L4	L2, L4
			Depth (ft bgs)	8-10	8-10	0-2	0-2	8-10	0-2	0-2	0-2	8-10	0-2	8-10
4,4'-DDD	2,000	7,200		4 U	4.2 U	**0.87 J**	**2.5 J**	**0.48 J**	4 U	4.1 U	**2.2 J**	4 UJ	4.8 U	3.9 U
4,4'-DDE	1,400	5,100		4 U	4.2 U	3.9 U	4 U	3.9 U	4 U	4.1 U	3.7 U	4 UJ	**61**	**1.3 J**
4,4'-DDT	1,700	7,000		4 U	**0.079 J**	3.9 U	**2 J**	3.9 U	**3 J**	**3.9 J**	**6.5 J**	4 UJ	4.8 U	3.9 U
Aldrin	29	100		2 U	2.1 U	2 U	2.1 U	2 U	2.1 U	2.1 U	1.9 U	2.1 UJ	2.5 U	2 U
alpha-BHC	77	270		2 U	2.1 U	2 U	2.1 U	2 U	2.1 U	2.1 U	1.9 U	2.1 UJ	2.5 U	2 U
alpha-Chlordane	1,600	6,500		2 U	2.1 U	2 U	2.1 U	2 U	2.1 U	2.1 U	1.9 U	2.1 UJ	2.5 U	2 U
beta-BHC	270	960		2 U	2.1 U	2 U	2.1 U	2 U	2.1 U	2.1 U	**0.8 J**	2.1 UJ	**0.85 J**	2 U
delta-BHC	77	270		2 U	2.1 U	2 U	**1.8 J**	2 U	2.1 U	2.1 U	**0.5 J**	2.1 UJ	2.5 U	**0.65 J**
Dieldrin	30	110		4 U	4.2 U	3.9 U	4 U	2 U	4 U	4.1 U	3.7 U	4 UJ	4.8 U	**6.6 J**
Endosulfan I	370,000	3,700,000		2 U	2.1 U	2 U	2.1 U	2 U	2.1 U	2.1 U	**0.63 J**	2.1 UJ	2.5 U	2 U
Endosulfan II	370,000	3,700,000		4 U	4.2 U	3.9 U	**1.4 J**	3.9 U	4 U	4.1 U	**1.4 J**	4 UJ	**14 J**	3.9 U
Endosulfan sulfate	370,000	3,700,000		4 U	4.2 U	3.9 U	**1.1 J**	3.9 U	4 U	4.1 U	**1.9 J**	4 UJ	**4.4 J**	**1.5 J**
Endrin	18,000	180,000		4 U	4.2 U	3.9 U	4 U	3.9 U	4 U	4.1 U	**0.97 J**	4 UJ	**23 J**	**4 J**
Endrin aldehyde	18,000	180,000		4 U	4.2 U	3.9 U	**1.4 J**	3.9 U	**3.5 J**	4.1 U	3.7 U	4 UJ	**8.3 J**	**9.4**
Endrin ketone	18,000	180,000		4 U	4.2 U	3.9 U	4 U	3.9 U	**2.1 J**	**1.9 J**	**3.3 J**	**0.053 J**	**34 J**	**9.4**
gamma-BHC (Lindane)	520	2,100		2 U	2.1 U	2 U	**0.89 J**	2 U	2.1 U	2.1 U	1.9 U	2.1 UJ	**1.4 J**	2 U
gamma-Chlordane	1,600	6,500		2 U	2.1 U	2 U	2.1 U	2 U	2.1 U	2.1 U	1.9 U	2.1 UJ	2.5 U	2 U
Heptachlor	110	380		**2 J**	2.1 U	2 U	2.1 U	2 U	**1.2 J**	**1.7 J**	**3.1**	2.1 UJ	**2.8**	2 U
Heptachlor epoxide	53	190		2 U	2.1 U	2 U	**0.58 J**	2 U	**0.54 J**	2.1 U	1.9 U	2.1 UJ	**13 J**	**1.2 J**
Methoxychlor	310,000	3,100,000		20 U	21 U	20 U	21 U	20 U	21 U	**7.3 J**	**9.6 J**	21 UJ	**8.3 J**	**12 J**
Toxaphene	440	1,600		200 U	210 U	200 U	210 U	200 U	210 U	210 U	190 U	210 UJ	250 U	200 U

Table 4.2.2-5
Detected Soil Pesticide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB313B	SB189A	SB189B	SB195A	SB195B	SB196A	SB196B	SB197A	SB197B	SB198A	SB200A
			Sample ID	E3SK2	E3SQ6	E3SQ7	E3RT5	E3RT6	E3RT7	E3RT8	E3RA2	E3RA3	E3RB4	E3S47
			Case	36697	36720	36720	36720	36720	36720	36720	36631	36631	36631	36664
			Sampling date	8/10/2007	8/14/2007	8/14/2007	8/15/2007	8/15/2007	8/15/2007	8/15/2007	7/19/2007	7/19/2007	7/19/2007	8/2/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info	SB185B										
			Investigation area	3	3	3	3	3	3	3	3	3	3	3
			Lithology	L2, L4	L1, L4	L1, L4	L1	L1	L1, L2	L1	L2, L3	L1	L1, L3	L4
			Depth (ft bgs)	8-10	0-2	8-10	0-2	6-8	0-2	6-8	0-2	8-10	0-2	0-2
4,4'-DDD	2,000	7,200		4.1 U	3.8 UJ	4.2 UJ	**0.31 J**	3.6 UJ	4.4 UJ	3.9 UJ	**8.3 J**	3.8 U	4 U	**4.7 J**
4,4'-DDE	1,400	5,100		4.1 U	3.8 UJ	4.2 UJ	4.2 UJ	3.6 UJ	4.4 UJ	3.9 UJ	4.1 U	3.8 U	4 U	**2.6 J**
4,4'-DDT	1,700	7,000		4.1 U	3.8 UJ	4.2 UJ	4.2 UJ	3.6 UJ	**2.6 J**	3.9 UJ	4.1 U	**2 J**	**3 J**	**6.5 J**
Aldrin	29	100		2.1 U	2 UJ	2.1 UJ	2.2 UJ	1.9 UJ	2.2 UJ	2 UJ	2.1 U	2 U	2.1 U	1.9 U
alpha-BHC	77	270		2.1 U	2 UJ	2.1 UJ	2.2 UJ	**0.055 J**	2.2 UJ	2 UJ	2.1 U	2 U	2.1 U	1.9 U
alpha-Chlordane	1,600	6,500		2.1 U	2 UJ	2.1 UJ	2.2 UJ	1.9 UJ	2.2 UJ	2 UJ	2.1 U	2 U	2.1 U	1.9 U
beta-BHC	270	960		2.1 U	2 UJ	2.1 UJ	2.2 UJ	1.9 UJ	**0.58 J**	2 UJ	**0.57 J**	2 U	**0.69 J**	1.9 U
delta-BHC	77	270		2.1 U	2 UJ	2.1 UJ	2.2 UJ	1.9 UJ	**0.15 J**	2 UJ	2.1 U	2 U	2.1 U	1.9 U
Dieldrin	30	110		4.1 U	3.8 UJ	4.2 UJ	4.2 UJ	3.6 UJ	4.4 UJ	3.9 UJ	**1.2 J**	3.8 U	4 U	**4.1 J**
Endosulfan I	370,000	3,700,000		2.1 U	2 UJ	2.1 UJ	2.2 UJ	1.9 UJ	2.2 UJ	2 UJ	2.1 U	2 U	2.1 U	1.9 U
Endosulfan II	370,000	3,700,000		4.1 U	3.8 UJ	4.2 UJ	4.2 UJ	3.6 UJ	4.4 UJ	3.9 UJ	**2 J**	3.8 U	**1.1 J**	3.8 U
Endosulfan sulfate	370,000	3,700,000		4.1 U	3.8 UJ	4.2 UJ	4.2 UJ	3.6 UJ	4.4 UJ	3.9 UJ	**1.7 J**	3.8 U	4 U	**1.4 J**
Endrin	18,000	180,000		4.1 U	3.8 UJ	4.2 UJ	4.2 UJ	3.6 UJ	4.4 UJ	3.9 UJ	4.1 U	3.8 U	4 U	3.8 U
Endrin aldehyde	18,000	180,000		4.1 U	3.8 UJ	4.2 UJ	**1.2 J**	3.6 UJ	4.4 UJ	3.9 UJ	**1.4 J**	3.8 U	**0.63 J**	**5.3 J**
Endrin ketone	18,000	180,000		4.1 U	3.8 UJ	**0.25 J**	4.2 UJ	**0.14 J**	**2.7 J**	**0.12 J**	4.1 U	3.8 U	**1.8 J**	3.8 U
gamma-BHC (Lindane)	520	2,100		2.1 U	2 UJ	2.1 UJ	2.2 UJ	1.9 UJ	**0.15 J**	2 UJ	2.1 U	2 U	2.1 U	1.9 U
gamma-Chlordane	1,600	6,500		2.1 U	**3.5 J**	**1.1 J**	2.2 UJ	1.9 UJ	2.2 UJ	2 UJ	**0.8 J**	**1.8 J**	**7.9 J**	1.9 U
Heptachlor	110	380		2.1 U	2 UJ	2.1 UJ	**0.19 J**	1.9 UJ	2.2 UJ	**0.3 J**	2.1 U	2 U	2.1 U	1.9 U
Heptachlor epoxide	53	190		2.1 U	2 UJ	2.1 UJ	2.2 UJ	1.9 UJ	2.2 UJ	2 UJ	**0.65 J**	**1.9 J**	**1.9 J**	**1.8 J**
Methoxychlor	310,000	3,100,000		**30**	20 UJ	21 UJ	22 UJ	19 UJ	22 UJ	20 UJ	21 U	20 U	21 U	19 U
Toxaphene	440	1,600		210 U	200 UJ	210 UJ	220 UJ	190 UJ	220 UJ	200 UJ	210 U	200 U	210 U	190 U

Table 4.2.2-5
Detected Soil Pesticide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB201A	SB211A	SB211B	SB212A	SB213A	SB213B	SB214A	SB214B	SB215A	SB215B	SB323B
			Sample ID	E3SK9	E3SR0	E3SR1	E3SR2	E3SR4	E3SR5	E3ST9	E3SW0	E3SW1	E3SW2	E3SW5
			Case	36720	36720	36720	36720	36720	36720	36720	36720	36720	36720	36720
			Sampling date	8/13/2007	8/14/2007	8/14/2007	8/14/2007	8/14/2007	8/14/2007	8/16/2007	8/16/2007	8/16/2007	8/16/2007	8/16/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info											SB215B
			Investigation area	2	1	1	3	3	3	3	3	3	3	3
			Lithology	L1	L1	L1	L2, L3	L2, L3	L2	L1	L2, L4	L1, L2	L1, L4	L1, L4
			Depth (ft bgs)	0-2	0-2	8-10	0-2	0-2	8-10	0-2	6-8	0-2	8-10	8-10
4,4'-DDD	2,000	7,200		4 U	**7.5 J**	**1.5 J**	**5 J**	**2.5 J**	3.8 UJ	4.3 UJ	3.4 UJ	4.2 UJ	**1.5 J**	4.2 UJ
4,4'-DDE	1,400	5,100		4 U	**1.1 J**	**3.3 J**	4.3 UJ	4 UJ	3.8 UJ	4.3 UJ	**10 J**	4.2 UJ	4.1 UJ	4.2 UJ
4,4'-DDT	1,700	7,000		4 U	**2.9 J**	**14 J**	**5.8 J**	**1.1 J**	3.8 UJ	**2.4 J**	**64 J**	4.2 UJ	**2.6 J**	4.2 UJ
Aldrin	29	100		2 U	**0.73 J**	**0.51 J**	2.2 UJ	2.1 UJ	2 UJ	2.2 UJ	1.7 UJ	2.2 UJ	2.1 UJ	2.2 UJ
alpha-BHC	77	270		2 U	**1 J**	**1.1 J**	**1.1 J**	2.1 UJ	2 UJ	2.2 UJ	1.7 UJ	2.2 UJ	2.1 UJ	2.2 UJ
alpha-Chlordane	1,600	6,500		2 U	**2.5 J**	**1.6 J**	**2.8 J**	2.1 UJ	2 UJ	2.2 UJ	**0.54 J**	2.2 UJ	**0.95 J**	2.2 UJ
beta-BHC	270	960		2 U	**4.3 J**	**1.7 J**	**2.9 J**	2.1 UJ	2 UJ	2.2 UJ	1.7 UJ	2.2 UJ	**1.3 J**	2.2 UJ
delta-BHC	77	270		2 U	2.3 UJ	2 UJ	2.2 UJ	2.1 UJ	2 UJ	2.2 UJ	1.7 UJ	2.2 UJ	2.1 UJ	2.2 UJ
Dieldrin	30	110		4 U	**4.8 J**	4 UJ	**3 J**	4 UJ	3.8 UJ	4.3 UJ	**3.1 J**	4.2 UJ	**1.1 J**	4.2 UJ
Endosulfan I	370,000	3,700,000		2 U	2.3 UJ	**3.3 J**	2.2 UJ	2.1 UJ	2 UJ	2.2 UJ	**1.8 J**	2.2 UJ	2.1 UJ	2.2 UJ
Endosulfan II	370,000	3,700,000		4 U	4.4 UJ	4 UJ	4.3 UJ	**1.4 J**	3.8 UJ	4.3 UJ	**3.7 J**	4.2 UJ	**2.4 J**	4.2 UJ
Endosulfan sulfate	370,000	3,700,000		4 U	**4.9 J**	**5.6 J**	**2.8 J**	4 UJ	3.8 UJ	4.3 UJ	3.4 UJ	4.2 UJ	**1.4 J**	4.2 UJ
Endrin	18,000	180,000		4 U	**4.5 J**	**6.1 J**	**3.3 J**	4 UJ	3.8 UJ	4.3 UJ	**1.4 J**	**0.29 J**	**1.3 J**	4.2 UJ
Endrin aldehyde	18,000	180,000		4 U	**2.9 J**	**4 J**	**6.5 J**	4 UJ	3.8 UJ	4.3 UJ	**2.4 J**	4.2 UJ	**1.9 J**	4.2 UJ
Endrin ketone	18,000	180,000		4 U	**12 J**	**9.1 J**	**2.1 J**	**2 J**	3.8 UJ	4.3 UJ	**1.2 J**	4.2 UJ	4.1 UJ	**0.1 J**
gamma-BHC (Lindane)	520	2,100		2 U	2.3 UJ	2 UJ	2.2 UJ	2.1 UJ	2 UJ	2.2 UJ	1.7 UJ	2.2 UJ	2.1 UJ	2.2 UJ
gamma-Chlordane	1,600	6,500		2 U	**1.1 J**	**0.79 J**	**1 J**	2.1 UJ	2 UJ	2.2 UJ	1.7 UJ	2.2 UJ	2.1 UJ	2.2 UJ
Heptachlor	110	380		2 U	2.3 UJ	**0.6 J**	2.2 UJ	2.1 UJ	2 UJ	2.2 UJ	1.7 UJ	2.2 UJ	2.1 UJ	2.2 UJ
Heptachlor epoxide	53	190		2 U	2.3 UJ	2 UJ	2.2 UJ	2.1 UJ	**0.69 J**	2.2 UJ	**4 J**	2.2 UJ	2.1 UJ	2.2 UJ
Methoxychlor	310,000	3,100,000		**5.6 J**	23 UJ	20 UJ	22 UJ	21 UJ	20 UJ	22 UJ	17 UJ	22 UJ	21 UJ	22 UJ
Toxaphene	440	1,600		200 U	230 UJ	200 UJ	220 UJ	210 UJ	200 UJ	220 UJ	170 UJ	220 UJ	210 UJ	220 UJ

Table 4.2.2-5
Detected Soil Pesticide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	SB423A-08	SB502A-08	SB425A-08	SB431A-08	SB432A-08	SB434B-08	SB503B-08	SB435A-08	SB439B-08	SB446A-08
			Sample ID	E3XY4	E3Y64	E3XY8	E3Y00	E3Y02	E3Y07	E3Y67	E3Y08	E3Y17	E3Y30
			Case	37920	37920	37920	37920	37920	37920	37920	37920	37920	37920
			Sampling date	10/16/2008	10/16/2008	10/8/2008	10/15/2008	10/15/2008	10/15/2008	10/15/2008	10/15/2008	10/17/2008	10/14/2008
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info		SB423A-08					SB434B-08			
			Investigation area	3	3	4	2	2	2	2	2	2	4
			Lithology	L2, L3, L4	L2, L3, L4	L1	L2, L3, L4	L2, L3, L4	L1	L1	L4	L1	L1
			Depth (ft bgs)	0-2	0-2	0-2	0-4	0-2	8-10	8-10	2-4	10-12	0-2
4,4'-DDD	2,000	7,200		3.9 U	4.1 U	3.8 U	4 U	3.7 U	3.7 U	3.7 U	3.6 U	4.1 U	4.2 U
4,4'-DDE	1,400	5,100		3.9 U	4.1 U	3.8 U	4 U	3.7 U	3.7 U	3.7 U	3.6 U	4.1 U	4.2 U
4,4'-DDT	1,700	7,000		3.9 U	4.1 U	3.8 U	**29**	3.7 U	3.7 U	3.7 U	3.6 U	4.1 U	4.2 U
Aldrin	29	100		2 U	2.1 U	2 U	2 U	1.9 U	1.9 U	1.9 U	1.8 U	2.1 U	2.2 U
alpha-BHC	77	270		2 U	2.1 U	2 U	2 U	1.9 U	1.9 U	1.9 U	1.8 U	2.1 U	2.2 U
alpha-Chlordane	1,600	6,500		2 U	2.1 U	2 U	2 U	1.9 U	1.9 U	1.9 U	1.8 U	2.1 U	2.2 U
beta-BHC	270	960		2 U	2.1 U	2 U	**12 J**	1.9 U	1.9 U	1.9 U	1.8 U	2.1 U	2.2 U
delta-BHC	77	270		2 U	2.1 U	2 U	2 U	1.9 U	1.9 U	1.9 U	1.8 U	2.1 U	2.2 U
Dieldrin	30	110		3.9 U	4.1 U	3.8 U	4 U	3.7 U	3.7 U	3.7 U	3.6 U	4.1 U	4.2 U
Endosulfan I	370,000	3,700,000		2 U	2.1 U	2 U	2 U	1.9 U	1.9 U	1.9 U	1.8 U	2.1 U	2.2 U
Endosulfan II	370,000	3,700,000		3.9 U	4.1 U	3.8 U	**6.3 J**	3.7 U	3.7 U	3.7 U	3.6 U	4.1 U	4.2 U
Endosulfan sulfate	370,000	3,700,000		3.9 U	4.1 U	3.8 U	4 U	3.7 U	3.7 U	3.7 U	3.6 U	4.1 U	4.2 U
Endrin	18,000	180,000		3.9 U	4.1 U	3.8 U	**5.4**	3.7 U	3.7 U	3.7 U	3.6 U	4.1 U	4.2 U
Endrin aldehyde	18,000	180,000		3.9 U	4.1 U	3.8 U	**5.4 J**	3.7 U	3.7 U	3.7 U	3.6 U	4.1 U	4.2 U
Endrin ketone	18,000	180,000		3.9 U	4.1 U	3.8 U	**7.7 J**	3.7 U	3.7 U	3.7 U	3.6 U	4.1 U	4.2 U
gamma-BHC (Lindane)	520	2,100		2 U	2.1 U	2 U	2 U	1.9 U	1.9 U	1.9 U	1.8 U	2.1 U	2.2 U
gamma-Chlordane	1,600	6,500		2 U	2.1 U	2 U	**11 J**	1.9 U	1.9 U	1.9 U	1.8 U	2.1 U	2.2 U
Heptachlor	110	380		2 U	2.1 U	2 U	2 U	1.9 U	1.9 U	1.9 U	1.8 U	2.1 U	2.2 U
Heptachlor epoxide	53	190		2 U	2.1 U	2 U	2 U	1.9 U	1.9 U	1.9 U	1.8 U	2.1 U	2.2 U
Methoxychlor	310,000	3,100,000		**9.9 J**	**21 J**	**19 J**	**45 J**	**7.3 J**	**19 J**	**14 J**	**15 J**	**35 J**	**38**
Toxaphene	440	1,600		200 U	210 U	200 U	200 U	190 U	190 U	190 U	180 U	210 U	220 U

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.2-5

Notes:
Bold values indicate a detection
Yellow shaded cells indicate a residential RSL exceedance
Red shaded cells indicate an industrial RSL and residential RSL exceedance
Gray shaded cells indicate an industrial or residential RSL exceedance but below the BTV

µg/L	Microgram per liter
µg/kg	Microgram per kilogram
mg/kg	Milligram per kilogram
A	Indicates surface soil sample
B	Indicates subsurface soil sample
bgs	Below ground surface
BTV	Background threshold value
CLP	Contract laboratory program
CFR	Code of Federal Regulations
ft	Feet
GWSV	Groundwater screening value
ID	Identification
info	Information
J	Estimated result
J-	Underestimated result
J+	Overestimated result
MCL	Maximum contaminant level (EPA)
NC	No criteria available
PCB	Polychlorinated biphenyls
ppm	Part per million
R	Rejected result
RL	Regulatory Level (CFR)
RSL	Regional Screening Level (EPA)
SB	Soil boring
SPLP	Synthetic precipitation leaching procedure
SV	Screening value
SVOC	Semivolatile organic compounds
Tap	Tap water screening criteria (EPA)
TCLP	Toxicity Characteristic Leaching Procedure (CFR)
U	Non-detect result
UJ	Non-detected and estimated result
VOC	Volatile organic compounds

a	Analyte is compared to the April 2009 residential and industrial RSLs
b	Sample was not analyzed at the CLP laboratory. The sample ID number is the soil boring location followed by the sample depth then "A" if the sample was a duplicate sample
--	Not applicable

Lithology Definitions:

L1	Native soils
L2	Slag
L3	Sinter
L4	Fill materials

Table 4.2.2-6
Detected Soil Asbestos Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

	Location ID	SB001A	SB002A	SB003A	SB006A	SB025A	SB030A	SB053A	SB054A	SB055A	SB056A	SB073A	SB075A	SB094A	SB096A	SB122A	SB129A
	Case	276499022	276499024	276499026	276499031	276493020	276493027	276496003	276496004	276496006	276496008	276496025	276496027	276497006	276497009	276497040	276497049
	Sample ID	MEQ374	ME3Q76	ME3Q78	ME3RF4	ME3SH8	ME3S68	ME3RZ7	ME3RZ9	ME3S02	ME3S04	ME3S56	ME3S50	ME3RM6	ME3RN2	ME3SG9	ME3RX0
	Sampling date	7/16/2007	7/16/2007	7/16/2007	7/17/2007	8/10/2007	8/3/2007	8/1/2007	8/1/2007	8/1/2007	8/1/2007	8/2/2007	8/2/2007	7/25/2007	7/26/2007	8/9/2007	7/30/2007
	Duplicate info																
	Investigation area	1	1	1	1	3	3	3	3	3	3	3	3	3	3	3	2
	Lithology	L1	L3, L4	L2, L3, L4	L3	L1	L1, L2	L4	L4	L4	L2, L3	L2	L2	L4	L4	L1, L4	L4
	Depth (ft bgs)	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2
Asbestos		0.75	1.75	2.5	0.75	0.5	3.75	3.25	2.25	1.75	2.25	0.75	2	0.25	1.25	1.75	3.75

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.2-6

Notes:
Bold values indicate a detection
Yellow shaded cells indicate a residential RSL exceedance
Red shaded cells indicate an industrial RSL and residential RSL exceedance
Gray shaded cells indicate an industrial or residential RSL exceedance but below the BTV

µg/L	Microgram per liter
µg/kg	Microgram per kilogram
mg/kg	Milligram per kilogram
A	Indicates surface soil sample
B	Indicates subsurface soil sample
bgs	Below ground surface
BTV	Background threshold value
CLP	Contract laboratory program
CFR	Code of Federal Regulations
ft	Feet
GWSV	Groundwater screening value
ID	Identification
info	Information
J	Estimated result
J-	Underestimated result
J+	Overestimated result
MCL	Maximum contaminant level (EPA)
NC	No criteria available
PCB	Polychlorinated biphenyls
ppm	Part per million
R	Rejected result
RL	Regulatory Level (CFR)
RSL	Regional Screening Level (EPA)
SB	Soil boring
SPLP	Synthetic precipitation leaching procedure
SV	Screening value
SVOC	Semivolatile organic compounds
Tap	Tap water screening criteria (EPA)
TCLP	Toxicity Characteristic Leaching Procedure (CFR)
U	Non-detect result
UJ	Non-detected and estimated result
VOC	Volatile organic compounds

a	Analyte is compared to the April 2009 residential and industrial RSLs
b	Sample was not analyzed at the CLP laboratory. The sample ID number is the soil boring location followed by the sample depth then "A" if the sample was a duplicate sample
--	Not applicable

Lithology Definitions:

L1	Native soils
L2	Slag
L3	Sinter
L4	Fill materials

TABLE 4.2.2-7
Detected Soil TCLP Metals Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Location ID / Sample ID / Case / Sampling date / Unit / Duplicate info / Investigation area / Lithology / Depth (ft bgs)	RL (µg/L)	SB451A-08 ME3Y90 37920 10/7/2008 µg/L 3 L1, L3, L4 0-2	SB451B-08 ME3Y91 37920 10/7/2008 µg/L 3 L1 10-12	SB452A-08 ME3Y92 37920 10/7/2008 µg/L 3 L1, L3, L4 0-2	SB505A-08 ME3Y94 37920 10/7/2008 µg/L SB452A-08 3 L1, L3, L4 0-2	SB452B-08 ME3Y93 37920 10/7/2008 µg/L 3 L1 6-8	SB505B-08 ME3Y95 37920 10/7/2008 µg/L SB452B-08 3 L1 6-8	SB453A-08 ME3Y96 37920 10/7/2008 µg/L 3 L1, L2, L3, L4 0-2	SB453B-08 ME3Y97 37920 10/7/2008 µg/L 3 L1 10-12	SB454A-08 ME3Y98 37920 10/7/2008 µg/L 3 L2, L3, L4 0-2	SB454B-08 ME3Y99 37920 10/7/2008 µg/L 3 L2, L3 6-8	SB458A-08 ME3YA0 37920 10/7/2008 µg/L 3 L2, L3, L4 0-2	SB458B-08 ME3YA1 37920 10/7/2008 µg/L 3 L1 10-12
Aluminum	NC	284 U	**1,430**	351 U	**529**	222 U	222 U	222 U	222 U	22 U	222 U	222 U	222 U
Barium	100,000	**1,180**	**1,470**	**1,070**	**438**	**1,150**	**962**	**357**	**1,440**	222 U	**438**	**1,880**	**627**
Beryllium	NC	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	**0.24 J-**	**0.61 J-**	5.6 U
Cadmium	1000	**172 J**	**2 J+**	**467 J**	**35.5 J**	**1.2 J+**	**4.8 J+**	**604 J**	**11 J**	**1,590 J**	**604 J**	**1,280 J**	**231 J**
Calcium	NC	**32,100**	**664,000**	**155,000**	**701,000**	**700,000**	**714,000**	**50,900**	**730,000**	**832,000**	**72,200**	**38,200**	**782,000**
Chromium (total)	5,000	11.1 U	**2.3 J+**	11.1 U	11.1 U	**0.63 J+**	11.1 U	R	11.1 U	R	55.6 U	R	11.1 U
Cobalt	NC	**70.1**	**3.4 J-**	**31.7 J**	55.6 UJ	55.6 UJ	55.6 UJ	**215**	55.6 UJ	55.6 UJ	**95.9**	55.6 UJ	55.6 UJ
Copper	NC	**28.1**	27.8 U	**92.2**	27.8 U	27.8 U	27.8 U	**63,600**	**247**	**1,950**	**23,300**	**1,010**	27.8 U
Iron	NC	**242**	**1,260**	**219**	**415**	111 U	111 U	111 U	111 U	111 U	111 U	111 U	111 U
Lead	5,000	**419**	**7.6 J-**	**45.4**	**12.6 J-**	**3 J-**	**3.8 J-**	**37,100**	**30 J-**	**28,000**	**29,900**	**2,770**	**54.8**
Magnesium	NC	5,560 U	**74,700**	**26,800**	**88,600**	**76,200**	**62,000**	**17,900**	**39,500**	**4,410 J**	**973 J**	**2,430 J**	**15,600**
Manganese	NC	**10,600**	**3,480**	**2,100**	**986**	**1,060**	**1,560**	**4,870**	**3,380**	**4,920**	**3,400**	**1,180**	**5,810**
Mercury	200	0.2 U	0.2 U	0.2 U	**0.019 J**	0.2 U	0.2 U	**0.046 J**	0.2 U	**0.04 J**	0.2 U	0.2 U	0.2 U
Nickel	NC	44.4 U	44.4 U	44.4 U	44.4 U	44.4 U	44.4 U	**169**	44.4 U	**147**	**174**	**68**	44.4 U
Potassium	NC	5,560 U	5,560 U	5,560 U	5,560 U	5,560 U	5,560 U	5,560 U	5,560 U	5,560 U	5,560 U	5,560 U	**8,380**
Vanadium	NC	55.6 U	**2.3 J-**	55.6 U	**1.4 J-**	55.6 UJ	55.6 UJ	55.6 U	55.6 UJ	55.6 UJ	55.6 U	55.6 U	55.6 UJ
Zinc	NC	**22,600 J**	**612 J**	**135,000 J**	**38,600 J**	**430 J**	**2,550 J**	**675,000 J**	**19,900 J**	**622,000 J**	**662,000 J**	**339,000 J**	**2,250 J**

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.2-7

Notes:
Bold values indicate a detection
Yellow shaded cells indicate a residential RSL exceedance
Red shaded cells indicate an industrial RSL and residential RSL exceedance
Gray shaded cells indicate an industrial or residential RSL exceedance but below the BTV

µg/L	Microgram per liter
µg/kg	Microgram per kilogram
mg/kg	Milligram per kilogram
A	Indicates surface soil sample
B	Indicates subsurface soil sample
bgs	Below ground surface
BTV	Background threshold value
CLP	Contract laboratory program
CFR	Code of Federal Regulations
ft	Feet
GWSV	Groundwater screening value
ID	Identification
info	Information
J	Estimated result
J-	Underestimated result
J+	Overestimated result
MCL	Maximum contaminant level (EPA)
NC	No criteria available
PCB	Polychlorinated biphenyls
ppm	Part per million
R	Rejected result
RL	Regulatory Level (CFR)
RSL	Regional Screening Level (EPA)
SB	Soil boring
SPLP	Synthetic precipitation leaching procedure
SV	Screening value
SVOC	Semivolatile organic compounds
Tap	Tap water screening criteria (EPA)
TCLP	Toxicity Characteristic Leaching Procedure (CFR)
U	Non-detect result
UJ	Non-detected and estimated result
VOC	Volatile organic compounds

a	Analyte is compared to the April 2009 residential and industrial RSLs
b	Sample was not analyzed at the CLP laboratory. The sample ID number is the soil boring location followed by the sample depth then "A" if the sample was a duplicate sample
--	Not applicable

Lithology Definitions:

L1	Native soils
L2	Slag
L3	Sinter
L4	Fill materials

TABLE 4.2.2-8a
Detected Soil SPLP Metals Results - Regulatory Level SV
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Location ID / Sample ID / Case / Sampling date / Unit / Duplicate info / Investigation area / Lithology / Depth (ft bgs)	RL (µg/L)	SB451A-08 ME3Y40 37920 10/7/2008 µg/L 3 L1, L3, L4 0-2	SB451B-08 ME3Y41 37920 10/7/2008 µg/L 3 L1 10-12	SB452A-08 ME3Y42 37920 10/7/2008 µg/L 3 L1, L3, L4 0-2	SB505A-08 ME3Y70 37920 10/7/2008 µg/L SB452A-08 3 L1, L3, L4 0-2	SB452B-08 ME3Y43 37920 10/7/2008 µg/L 3 L1 6-8	SB505B-08 ME3Y71 37920 10/7/2008 µg/L SB452B-08 3 L1 6-8	SB453A-08 ME3Y44 37920 10/7/2008 µg/L 3 L1, L2, L3, L4 0-2	SB453B-08 ME3Y45 37920 10/7/2008 µg/L 3 L1 10-12	SB454A-08 ME3Y46 37920 10/7/2008 µg/L 3 L2, L3, L4 0-2	SB454B-08 ME3Y47 37920 10/7/2008 µg/L 3 L2, L3 6-8	SB455A-08 ME3Y48 37920 10/7/2008 µg/L 3 L1, L4 0-2	SB455B-08 ME3Y49 37920 10/7/2008 µg/L 3 L2, L3, L4 10-12	SB456A-08 ME3Y50 37920 10/6/2008 µg/L 3 L2, L3, L4 0-2	SB456B-08 ME3Y51 37920 10/6/2008 µg/L 3 L2, L3, L4 6-8
Aluminum	NC		**762**	222 U	222 U	222 U	222 U	222 U	222 U	**458**	222 U	222 U	222 U	222 U	222 U	222 U
Antimony	NC		**4 J**	**5.3 J**	**6.5 J**	**21.3 J**	**6.1 J**	**3.4 J**	**11.2 J**	**5.5 J**	**14.3 J**	**11.8 J**	**5 J**	**6 J**	**4 J**	**15.5 J**
Barium	100,000		222 U	222 U	222 U	222 U	222 U	222 U	222 U	222 U	222 U	222 U	222 U	222 U	222 U	222 U
Cadmium	1,000		5.6 U	5.6 U	5.6 U	**762**	**20.4**	5.6 U	**83**	5.6 U	**192**	**186**	5.6 U	**19.3**	**22.3**	**201**
Calcium	NC		**6,460**	**19,800**	**45,000**	**293,000**	**37,300**	**17,200**	**14,100**	**13,300**	**534,000**	**87,300**	**41,600**	**94,200**	**10,800**	**434,000**
Chromium (total)	5,000		**0.54 J-**	11.1 U	11.1 U	11.1 U	11.1 U	11.1 U	11.1 U	**0.42 J-**	11.1 U	11.1 U	11.1 U	11.1 U	11.1 U	11.1 U
Copper	NC		27.8 U	27.8 U	27.8 U	27.8 U	27.8 U	27.8 U	**83.4**	27.8 U	**5.7 J**	**57.4**	27.8 U	27.8 U	27.8 U	**12.6 J**
Iron	NC		**755**	111 U	111 U	111 U	**115**	111 U	111 U	**252**	111 U	111 U	111 U	111 U	111 U	111 U
Lead	5,000		**4.6 J-**	11.1 U	11.1 U	**1.6 J-**	**2.5 J-**	11.1 U	**10.8 J**	11.1 U	**116**	**1,100**	11.1 U	**2.6 J-**	11.1 U	**90.5**
Magnesium	NC		5,560 U	**7,950**	**23,600**	**26,500**	**8,660**	**8,000**	5,560 U	5,560 U	5,560 U	5,560 U	**7,410**	5,560 U	5,560 U	5,560 U
Manganese	NC		**779**	16.7 U	16.7 U	**16.7 U**	16.7 U	16.7 U	**357**	16.7 U	**63.1**	**235**	16.7 U	**33.5**	16.7 U	**49.2**
Nickel	NC		44.4 U	44.4 U	44.4 U	44.4 U	44.4 U	44.4 U	44.4 U	44.4 U	44.4 U	44.4 U	44.4 U	44.4 U	44.4 U	44.4 U
Potassium	NC		**1,860 J**	**894 J**	**326 J**	**1,570 J**	**323 J**	**219 J**	**954 J**	**460 J**	**621 J**	**628 J**	**2,710 J**	**1,360 J**	**444 J**	**631 J**
Selenium	1,000		**6.4 J**	**16.5 J**	**12.7 J**	**14.5 J**	**12.6 J**	**9.1 J**	**11.6 J**	**12.9 J**	**5.8 J**	**16.5 J**	**11.9 J**	**11.5 J**	**10.4 J**	**10.3 J**
Sodium	NC		5,560 U	5,560 U	5,560 U	5,560 U	5,560 U	5,560 U	5,560 U	5,560 U	5,560 U	5,560 U	5,560 U	5,560 U	5,560 U	5,560 U
Zinc	NC		**458**	66.7 U	66.7 U	**74,900**	**1,170**	66.7 U	**42,600**	66.7 U	**10,800**	**39,800**	66.7 U	**654**	**4,670**	**28,900**

TABLE 4.2.2-8a
Detected Soil SPLP Metals Results - Regulatory Level SV
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Location ID / Sample ID / Case / Sampling date / Unit / Duplicate info / Investigation area / Lithology / Depth (ft bgs)	RL (µg/L)	SB457A-08 ME3Y52 37920 10/6/2008 µg/L 3 L2, L4 0-2	SB457B-08 ME3Y53 37920 10/6/2008 µg/L 3 L2, L3, L4 10-12	SB458A-08 ME3Y54 37920 10/7/2008 µg/L 3 L2, L3, L4 0-2	SB458B-08 ME3Y55 37920 10/7/2008 µg/L 3 L1 10-12	SB459A-08 ME3Y56 37920 10/14/2008 µg/L 3 L2, L4 0-2	SB459B-08 ME3Y57 37920 10/14/2008 µg/L 3 L4 4-6	SB460A-08 ME3Y58 37920 10/7/2008 µg/L 3 L2, L3, L4 0-2	SB460B-08 ME3Y59 37920 10/7/2008 µg/L 3 L1 6-8
Aluminum		NC	222 U	222 U	222 U	222 U	**504 J**	222 UJ	222 U	222 U
Antimony		NC	**5.4 J**	**9.1 J**	**4.7 J**	**4 J**	**3.7 J**	**5.4 J**	**5.3 J**	**2.7 J**
Barium		100,000	**236**	222 U	222 U	222 U	**243 J**	**96.2 J**	222 U	222 U
Cadmium		1,000	**18.3**	**414**	**67.5**	5.6 U	0.2 UJ	0.53 UJ	**6.4**	5.6 U
Calcium		NC	**53,900**	**217,000**	**75,200**	**20,700**	**17,200 J**	**82,100 J**	**59,800**	**6,810**
Chromium (total)		5,000	11.1 U	11.1 U	11.1 U	11.1 U	2 UJ	1.1 UJ	11.1 U	11.1 U
Copper		NC	27.8 U	**5.1 J**	27.8 U	27.8 U	**3.9 J**	27.8 UJ	27.8 U	27.8 U
Iron		NC	**126**	111 U	111 U	111 U	**370 J**	111 UJ	111 U	111 U
Lead		5,000	**4.3 J-**	**4.1 J-**	11.1 U	11.1 U	**15.2 J**	1.3 UJ	11.1 U	**1.3 J-**
Magnesium		NC	5,560 U	5,560 U	5,560 U	5,560 U	**2,890 J**	**35,000 J**	5,560 U	5,560 U
Manganese		NC	16.7 U	**119**	**306**	16.7 U	**9.4 J**	16.7 UJ	**17.7**	16.7 U
Nickel		NC	44.4 U	44.4 U	44.4 U	44.4 U	**1.3 J**	44.4 UJ	44.4 U	44.4 U
Potassium		NC	**1,420 J**	**946 J**	**618 J**	**2,700 J**	**376 J**	**1,280 J**	**3,260 J**	**2,960 J**
Selenium		1,000	**16 J**	**5.3 J**	**13.4 J**	**12.6 J**	**6.3 J**	38.9 UJ	**10.5 J**	**7.3 J**
Sodium		NC	5,560 U	5,560 U	5,560 U	5,560 U	**2,010 J**	**1,570 JJ**	5,560 U	**7,420**
Zinc		NC	**953**	**8,240**	**2,610**	66.7 U	**133 J**	**103 J**	119 U	66.7 U

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.2-8

Notes:
Bold values indicate a detection
Yellow shaded cells indicate a residential RSL exceedance
Red shaded cells indicate an industrial RSL and residential RSL exceedance
Gray shaded cells indicate an industrial or residential RSL exceedance but below the BTV

µg/L	Microgram per liter
µg/kg	Microgram per kilogram
mg/kg	Milligram per kilogram
A	Indicates surface soil sample
B	Indicates subsurface soil sample
bgs	Below ground surface
BTV	Background threshold value
CLP	Contract laboratory program
CFR	Code of Federal Regulations
ft	Feet
GWSV	Groundwater screening value
ID	Identification
info	Information
J	Estimated result
J-	Underestimated result
J+	Overestimated result
MCL	Maximum contaminant level (EPA)
NC	No criteria available
PCB	Polychlorinated biphenyls
ppm	Part per million
R	Rejected result
RL	Regulatory Level (CFR)
RSL	Regional Screening Level (EPA)
SB	Soil boring
SPLP	Synthetic precipitation leaching procedure
SV	Screening value
SVOC	Semivolatile organic compounds
Tap	Tap water screening criteria (EPA)
TCLP	Toxicity Characteristic Leaching Procedure (CFR)
U	Non-detect result
UJ	Non-detected and estimated result
VOC	Volatile organic compounds

a	Analyte is compared to the April 2009 residential and industrial RSLs
b	Sample was not analyzed at the CLP laboratory. The sample ID number is the soil boring location followed by the sample depth then "A" if the sample was a duplicate sample
--	Not applicable

Lithology Definitions:

L1	Native soils
L2	Slag
L3	Sinter
L4	Fill materials

TABLE 4.2.2-8b
Detected Soil SPLP Metals Results - GWSV
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	GWSV (µg/L)	Location ID / Sample ID / Case / Sampling date / Unit / Duplicate info / Investigation area / Lithology / Depth (ft bgs) / Source	SB451A-08 ME3Y40 37920 10/7/2008 µg/L 3 L1, L3, L4 0-2	SB451B-08 ME3Y41 37920 10/7/2008 µg/L 3 L1 10-12	SB452A-08 ME3Y42 37920 10/7/2008 µg/L 3 L1, L3, L4 0-2	SB505A-08 ME3Y70 37920 10/7/2008 µg/L SB452A-08 3 L1, L3, L4 0-2	SB452B-08 ME3Y43 37920 10/7/2008 µg/L 3 L1 6-8	SB505B-08 ME3Y71 37920 10/7/2008 µg/L SB452B-08 3 L1 6-8	SB453A-08 ME3Y44 37920 10/7/2008 µg/L 3 L1, L2, L3, L4 0-2	SB453B-08 ME3Y45 37920 10/7/2008 µg/L 3 L1 10-12	SB454A-08 ME3Y46 37920 10/7/2008 µg/L 3 L2, L3, L4 0-2	SB454B-08 ME3Y47 37920 10/7/2008 µg/L 3 L2, L3 6-8	SB455A-08 ME3Y48 37920 10/7/2008 µg/L 3 L1, L4 0-2	SB455B-08 ME3Y49 37920 10/7/2008 µg/L 3 L2, L3, L4 10-12	SB456A-08 ME3Y50 37920 10/6/2008 µg/L 3 L2, L3, L4 0-2	SB456B-08 ME3Y51 37920 10/6/2008 µg/L 3 L2, L3, L4 6-8
Aluminum	37,000	Tap	**762**	222 U	222 U	222 U	222 U	222 U	222 U	**458**	222 U	222 U	222 U	222 U	222 U	222 U
Antimony	6	MCL	**4 J**	**5.3 J**	**6.5 J**	**21.3 J**	**6.1 J**	**3.4 J**	**11.2 J**	**5.5 J**	**14.3 J**	**11.8 J**	**5 J**	**6 J**	**4 J**	**15.5 J**
Barium	2,000	MCL	222 U	222 U	222 U	222 U	222 U	222 U	222 U	222 U	222 U	222 U	222 U	222 U	222 U	222 U
Cadmium	5	MCL	5.6 U	5.6 U	5.6 U	**762**	**20.4**	5.6 U	**83**	5.6 U	**192**	**186**	5.6 U	**19.3**	**22.3**	**201**
Calcium	NC	NC	**6,460**	**19,800**	**45,000**	**293,000**	**37,300**	**17,200**	**14,100**	**13,300**	**534,000**	**87,300**	**41,600**	**94,200**	**10,800**	**434,000**
Chromium (total)	100	MCL	**0.54 J-**	11.1 U	11.1 U	11.1 U	11.1 U	11.1 U	11.1 U	**0.42 J-**	11.1 U	11.1 U	11.1 U	11.1 U	11.1 U	11.1 U
Copper	1,300	MCL	27.8 U	27.8 U	27.8 U	27.8 U	27.8 U	27.8 U	**83.4**	27.8 U	**5.7 J**	**57.4**	27.8 U	27.8 U	27.8 U	**12.6 J**
Iron	26,000	Tap	**755**	111 U	111 U	111 U	**115**	111 U	111 U	**252**	111 U	**111 U**	111 U	111 U	111 U	111 U
Lead	15	MCL	**4.6 J-**	11.1 U	11.1 U	**1.6 J-**	**2.5 J-**	11.1 U	**10.8 J**	11.1 U	**116**	**1100**	11.1 U	**2.6 J-**	11.1 U	**90.5**
Magnesium	NC	NC	5,560 U	**7,950**	**23,600**	**26,500**	**8,660**	**8,000**	5,560 U	5,560 U	5,560 U	5,560 U	**7,410**	5,560 U	5,560 U	5,560 U
Manganese	880	Tap	**779**	16.7 U	16.7 U	16.7 U	16.7 U	16.7 U	**357**	16.7 U	**63.1**	**235**	16.7 U	**33.5**	16.7 U	**49.2**
Nickel	730	Tap	44.4 U	44.4 U	44.4 U	44.4 U	44.4 U	44.4 U	44.4 U	44.4 U	44.4 U	44.4 U	44.4 U	44.4 U	44.4 U	44.4 U
Potassium	NC	NC	**1,860 J**	**894 J**	**326 J**	**1,570 J**	**323 J**	**219 J**	**954 J**	**460 J**	**621 J**	**628 J**	**2,710 J**	**1,360 J**	**444 J**	**631 J**
Selenium	50	MCL	**6.4 J**	**16.5 J**	**12.7 J**	**14.5 J**	**12.6 J**	**9.1 J**	**11.6 J**	**12.9 J**	**5.8 J**	**16.5 J**	**11.9 J**	**11.5 J**	**10.4 J**	**10.3 J**
Sodium	NC	NC	5,560 U	5,560 U	5,560 U	5,560 U	5,560 U	5,560 U	5,560 U	5,560 U	5,560 U	5,560 U	5,560 U	5,560 U	5,560 U	5,560 U
Zinc	11,000	Tap	**458**	66.7 U	66.7 U	**74,900**	**1,170**	66.7 U	**42,600**	66.7 U	**10,800**	**39,800**	66.7 U	**654**	**4,670**	**28,900**

TABLE 4.2.2-8b
Detected Soil SPLP Metals Results - GWSV
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	GWSV (µg/L)	Location ID / Sample ID / Case / Sampling date / Unit / Duplicate info / Investigation area / Lithology / Depth (ft bgs) / Source	SB457A-08 ME3Y52 37920 10/6/2008 µg/L 3 L2, L4 0-2	SB457B-08 ME3Y53 37920 10/6/2008 µg/L 3 L2, L3, L4 10-12	SB458A-08 ME3Y54 37920 10/7/2008 µg/L 3 L2, L3, L4 0-2	SB458B-08 ME3Y55 37920 10/7/2008 µg/L 3 L1 10-12	SB459A-08 ME3Y56 37920 10/14/2008 µg/L 3 L2, L4 0-2	SB459B-08 ME3Y57 37920 10/14/2008 µg/L 3 L4 4-6	SB460A-08 ME3Y58 37920 10/7/2008 µg/L 3 L2, L3, L4 0-2	SB460B-08 ME3Y59 37920 10/7/2008 µg/L 3 L1 6-8
Aluminum	37,000	Tap	222 U	222 U	222 U	222 U	**504 J**	222 UJ	222 U	222 U
Antimony	6	MCL	**5.4 J**	**9.1 J**	**4.7 J**	**4 J**	**3.7 J**	**5.4 J**	**5.3 J**	**2.7 J**
Barium	2,000	MCL	**236**	222 U	222 U	222 U	**243 J**	**96.2 J**	222 U	222 U
Cadmium	5	MCL	**18.3**	**414**	**67.5**	5.6 U	0.2 UJ	0.53 UJ	**6.4**	5.6 U
Calcium	NC	NC	**53,900**	**217,000**	**75,200**	**20,700**	**17,200 J**	**82,100 J**	**59,800**	**6,810**
Chromium (total)	100	MCL	11.1 U	11.1 U	11.1 U	11.1 U	2 UJ	1.1 UJ	11.1 U	11.1 U
Copper	1,300	MCL	27.8 U	**5.1 J**	27.8 U	27.8 U	**3.9 J**	27.8 UJ	27.8 U	27.8 U
Iron	26,000	Tap	**126**	111 U	**111 U**	111 U	**370 J**	111 UJ	111 U	111 U
Lead	15	MCL	**4.3 J-**	**4.1 J-**	**11.1 U**	11.1 U	**15.2 J**	1.3 UJ	11.1 U	**1.3 J-**
Magnesium	NC	NC	5,560 U	5,560 U	5,560 U	5,560 U	**2,890 J**	**35,000 J**	5,560 U	5,560 U
Manganese	880	Tap	16.7 U	**119**	**306**	16.7 U	**9.4 J**	16.7 UJ	**17.7**	16.7 U
Nickel	730	Tap	44.4 U	44.4 U	44.4 U	44.4 U	**1.3 J**	44.4 UJ	44.4 U	44.4 U
Potassium	NC	NC	**1,420 J**	**946 J**	**618 J**	**2,700 J**	**376 J**	**1,280 J**	**3,260 J**	**2,960 J**
Selenium	50	MCL	**16 J**	**5.3 J**	**13.4 J**	**12.6 J**	**6.3 J**	38.9 UJ	**10.5 J**	**7.3 J**
Sodium	NC	NC	5,560 U	5,560 U	5,560 U	5,560 U	**2,010 J**	**1,570 JJ**	5,560 U	**7,420**
Zinc	11,000	Tap	**953**	**8,240**	**2,610**	66.7 U	**133 J**	**103 J**	119 U	66.7 U

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.2-8

Notes:
Bold values indicate a detection
Yellow shaded cells indicate a residential RSL exceedance
Red shaded cells indicate an industrial RSL and residential RSL exceedance
Gray shaded cells indicate an industrial or residential RSL exceedance but below the BTV

µg/L	Microgram per liter
µg/kg	Microgram per kilogram
mg/kg	Milligram per kilogram
A	Indicates surface soil sample
B	Indicates subsurface soil sample
bgs	Below ground surface
BTV	Background threshold value
CLP	Contract laboratory program
CFR	Code of Federal Regulations
ft	Feet
GWSV	Groundwater screening value
ID	Identification
info	Information
J	Estimated result
J-	Underestimated result
J+	Overestimated result
MCL	Maximum contaminant level (EPA)
NC	No criteria available
PCB	Polychlorinated biphenyls
ppm	Part per million
R	Rejected result
RL	Regulatory Level (CFR)
RSL	Regional Screening Level (EPA)
SB	Soil boring
SPLP	Synthetic precipitation leaching procedure
SV	Screening value
SVOC	Semivolatile organic compounds
Tap	Tap water screening criteria (EPA)
TCLP	Toxicity Characteristic Leaching Procedure (CFR)
U	Non-detect result
UJ	Non-detected and estimated result
VOC	Volatile organic compounds

a	Analyte is compared to the April 2009 residential and industrial RSLs
b	Sample was not analyzed at the CLP laboratory. The sample ID number is the soil boring location followed by the sample depth then "A" if the sample was a duplicate sample
--	Not applicable

Lithology Definitions:

L1	Native soils
L2	Slag
L3	Sinter
L4	Fill materials

Table 4.2.2-9
Detected XRF-Screened Soil Metals Results - Residential Area/Off-site Area
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Type Surface BTV (mg/kg)	001FY1E 4/23/2007 mg/kg 5 Front Yard	MHS-002-BY-1 ME0001 36348 4/23/2007 mg/kg 5 Back Yard	003DZ1A 4/23/2007 mg/kg 5 Drip Zone	003FY1E 4/23/2007 mg/kg 5 Front Yard	MHS-004-FY-1 ME0002 36348 4/23/2007 mg/kg 5 Front Yard	004FY2E 4/23/2007 mg/kg 5 Front Yard	005FY1E 4/23/2007 mg/kg 5 Front Yard	006SY1E 4/23/2007 mg/kg 5 Side Yard	MHS-008-FY-1 ME0003 36348 4/23/2007 mg/kg 5 Front Yard	009BY1E 4/23/2007 mg/kg 5 Back Yard	009BY2E 4/23/2007 mg/kg 5 Back Yard	010FY1E 4/23/2007 mg/kg 5 Front Yard
Aluminum	77,000	990,000	15,400	--	**13,400**	--	--	**13,000**	--	--	--	**13,600**	--	--	--
Antimony	31	410	NC	--	7.1 UJ	--	--	7.1 UJ	--	--	--	7.2 UJ	--	--	--
Arsenic	0.39	1.6	10.7	--	**9.3**	--	--	**7.9**	--	--	--	**6.6**	--	--	--
Barium	15,000	190,000	276	--	**136**	--	--	**130**	--	--	--	**130**	--	--	--
Beryllium	160	2,000	0.81	--	**0.52 J**	--	--	**0.49 J**	--	--	--	**0.56 J**	--	--	--
Cadmium	70	800	7.1	--	**1**	--	--	**1.9**	--	--	--	**2.2**	--	--	--
Calcium	NC	NC	NC	--	**12,100**	--	--	**6,760**	--	--	--	**5,950**	--	--	--
Chromium (total)[a]	280	1400	21.2	--	**18.6**	--	--	**16.6**	--	--	--	**17.5**	--	--	--
Cobalt	23	300	12.9	--	**6.4**	--	--	**7**	--	--	--	**7.4**	--	--	--
Copper	3,100	41,000	31.5	--	**38.5 J**	--	--	**17.2 J**	--	--	--	**20.5 J**	--	--	--
Iron	55,000	720,000	24,691	--	**18,100**	--	--	**17,200**	--	--	--	**17,600**	--	--	--
Lead	400	800	103	**20.27**	**15.9 J**	**133.91**	**88.50**	**26.7 J**	**30.96**	**60.56**	**53.90**	**31.9 J**	**20.29**	**28.39**	**43.09**
Magnesium	NC	NC	NC	--	**8,250**	--	--	**4,570**	--	--	--	**3,820**	--	--	--
Manganese	1,800	23,000	1,527	--	**444 J**	--	--	**530 J**	--	--	--	**392 J**	--	--	--
Mercury	5.6	34	1.32	--	**0.033 J**	--	--	**0.04 J**	--	--	--	**0.034 J**	--	--	--
Nickel	1,500	20,000	19.9	--	**15.7**	--	--	**15**	--	--	--	**14.3**	--	--	--
Potassium	NC	NC	NC	--	**1,460**	--	--	**1,560**	--	--	--	**1,610**	--	--	--
Selenium	390	5,100	NC	--	**0.44 J**	--	--	**0.67 J**	--	--	--	**0.69 J**	--	--	--
Silver	390	5,100	NC	--	1.2 U	--	--	1.2 U	--	--	--	1.2 U	--	--	--
Sodium	NC	NC	NC	--	**106 J**	--	--	**89.8 J**	--	--	--	**89.1 J**	--	--	--
Thallium[a]	5.1	66	NC	--	2.9 U	--	--	3 U	--	--	--	3 U	--	--	--
Vanadium	390	5,200	39.5	--	**33.4**	--	--	**32.6**	--	--	--	**34.2**	--	--	--
Zinc	23,000	310,000	1,310	**169.91**	**140 J**	**1152.14**	**840.32**	**224 J**	**238.62**	**413.03**	**559.67**	**264 J**	**230.84**	**183.44**	**451.76**

Table 4.2.2-9
Detected XRF-Screened Soil Metals Results - Residential Area/Off-site Area
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Type Surface BTV (mg/kg)	012BY1E 4/20/2007 mg/kg 5 Back Yard	013BY1E 4/20/2007 mg/kg 5 Back Yard	013DZ1A 4/20/2007 mg/kg 5 Drip Zone	013SY1E 4/20/2007 mg/kg 5 Side Yard	014SY1E 4/24/2007 mg/kg 5 Side Yard	014SY2E 4/24/2007 mg/kg 5 Side Yard	015FY1E 4/23/2007 mg/kg 5 Front Yard	016FY1E 4/23/2007 mg/kg 5 Front Yard	017FY1E 4/23/2007 mg/kg 5 Front Yard	MHS-018-FY-1 ME0004 36348 4/24/2007 mg/kg 5 Front Yard	020BY1E 4/23/2007 mg/kg 5 Back Yard	020BY2E 4/23/2007 mg/kg 5 Back Yard
Aluminum	77,000	990,000	15,400	--	--	--	--	--	--	--	--	--	**13,100**	--	--
Antimony	31	410	NC	--	--	--	--	--	--	--	--	--	7.2 UJ	--	--
Arsenic	0.39	1.6	10.7	--	--	--	--	--	--	--	--	--	**11**	--	--
Barium	15,000	190,000	276	--	--	--	--	--	--	--	--	--	**146**	--	--
Beryllium	160	2,000	0.81	--	--	--	--	--	--	--	--	--	**0.69**	--	--
Cadmium	70	800	7.1	--	--	--	--	--	--	--	--	--	**6.5**	--	--
Calcium	NC	NC	NC	--	--	--	--	--	--	--	--	--	**8,970**	--	--
Chromium (total)[a]	280	1400	21.2	--	--	--	--	--	--	--	--	--	**16.5**	--	--
Cobalt	23	300	12.9	--	--	--	--	--	--	--	--	--	**6.5**	--	--
Copper	3,100	41,000	31.5	--	--	--	--	--	--	--	--	--	**37.3 J**	--	--
Iron	55,000	720,000	24,691	--	--	--	--	--	--	--	--	--	**18,500**	--	--
Lead	400	800	103	**53.45**	**34.30**	**32.63**	**41.98**	**74.45**	**38.78**	**19.91**	**37.29**	**51.89**	**85.8 J**	**80.81**	**92.84**
Magnesium	NC	NC	NC	--	--	--	--	--	--	--	--	--	**3,550**	--	--
Manganese	1,800	23,000	1,527	--	--	--	--	--	--	--	--	--	**502 J**	--	--
Mercury	5.6	34	1.32	--	--	--	--	--	--	--	--	--	**0.11 J**	--	--
Nickel	1,500	20,000	19.9	--	--	--	--	--	--	--	--	--	**14.2**	--	--
Potassium	NC	NC	NC	--	--	--	--	--	--	--	--	--	**1,830**	--	--
Selenium	390	5,100	NC	--	--	--	--	--	--	--	--	--	**1.1 J**	--	--
Silver	390	5,100	NC	--	--	--	--	--	--	--	--	--	1.2 U	--	--
Sodium	NC	NC	NC	--	--	--	--	--	--	--	--	--	**113 J**	--	--
Thallium[a]	5.1	66	NC	--	--	--	--	--	--	--	--	--	3 U	--	--
Vanadium	390	5,200	39.5	--	--	--	--	--	--	--	--	--	**32.3**	--	--
Zinc	23,000	310,000	1,310	**511.75**	**407.24**	**469.52**	**215.36**	**1,431.21**	**535.50**	**271.19**	**316.86**	**483.39**	**1,350 J**	**649.79**	**725.59**

Table 4.2.2-9
Detected XRF-Screened Soil Metals Results - Residential Area/Off-site Area
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Type Surface BTV (mg/kg)	021BY1E 4/20/2007 mg/kg 5 Back Yard	022FY1E 4/20/2007 mg/kg 5 Front Yard	023BY1E 4/20/2007 mg/kg 5 Back Yard	023DZ1A 4/20/2007 mg/kg 5 Drip Zone	023SY1E 4/20/2007 mg/kg 5 Side Yard	024BY1E 4/20/2007 mg/kg 5 Back Yard	MHS-024-FY-1 ME0005 36348 4/20/2007 mg/kg 5 Front Yard	024FY2E 4/20/2007 mg/kg 5 Front Yard	MHS-025-BY-1 ME0006 36348 4/20/2007 mg/kg 5 Back Yard	MHS-025-BY-1-DP ME0007 36348 4/20/2007 mg/kg MHS-025-BY-1 5 Back Yard	025FY1E 4/20/2007 mg/kg 5 Front Yard	026BY1E 4/19/2007 mg/kg 5 Back Yard
Aluminum	77,000	990,000	15,400	--	--	--	--	--	--	**13,200**	--	**12,300**	**13,800**	--	--
Antimony	31	410	NC	--	--	--	--	--	--	**0.39 J**	--	7.5 UJ	7.5 UJ	--	--
Arsenic	0.39	1.6	10.7	--	--	--	--	--	--	**9.6**	--	**11.5**	**9.8**	--	--
Barium	15,000	190,000	276	--	--	--	--	--	--	**176**	--	**178**	**166**	--	--
Beryllium	160	2,000	0.81	--	--	--	--	--	--	**0.56 J**	--	**0.64**	**0.61 J**	--	--
Cadmium	70	800	7.1	--	--	--	--	--	--	**3.6**	--	**5.7**	**4.9**	--	--
Calcium	NC	NC	NC	--	--	--	--	--	--	**10,000**	--	**7,830**	**7,650**	--	--
Chromium (total)[a]	280	1400	21.2	--	--	--	--	--	--	**21.3**	--	**16.9**	**19.2**	--	--
Cobalt	23	300	12.9	--	--	--	--	--	--	**6.3**	--	**11.3**	6.2 UJ	--	--
Copper	3,100	41,000	31.5	--	--	--	--	--	--	**29.9 J**	--	**22.7 J**	**22.6 J**	--	--
Iron	55,000	720,000	24,691	--	--	--	--	--	--	**19,500**	--	**17,900**	**18,300**	--	--
Lead	400	800	103	**55.94**	**51.93**	**101.16**	**89.53**	**55.98**	**60.35**	**62.8 J**	**52.15**	**55 J**	**51.9 J**	**97.27**	**68.53**
Magnesium	NC	NC	NC	--	--	--	--	--	--	**6,260**	--	**4,320**	**4,640**	--	--
Manganese	1,800	23,000	1,527	--	--	--	--	--	--	**725 J**	--	**811 J**	**485 J**	--	--
Mercury	5.6	34	1.32	--	--	--	--	--	--	**0.053 J**	--	**0.056 J**	**0.046 J**	--	--
Nickel	1,500	20,000	19.9	--	--	--	--	--	--	**19.5**	--	**20.8**	**15.7**	--	--
Potassium	NC	NC	NC	--	--	--	--	--	--	**1,650**	--	**1,390**	**1,600**	--	--
Selenium	390	5,100	NC	--	--	--	--	--	--	**0.71 J**	--	**0.61 J**	**0.84 J**	--	--
Silver	390	5,100	NC	--	--	--	--	--	--	1.2 U	--	1.2 U	1.3 U	--	--
Sodium	NC	NC	NC	--	--	--	--	--	--	**92.7 J**	--	**82.9 J**	**83.6 J**	--	--
Thallium[a]	5.1	66	NC	--	--	--	--	--	--	3.1 U	--	3.1 U	3.1 U	--	--
Vanadium	390	5,200	39.5	--	--	--	--	--	--	**33**	--	**35**	**35.5**	--	--
Zinc	23,000	310,000	1,310	**489.05**	**374.91**	**853.03**	**605.58**	**666.29**	**488.51**	**376 J**	**562.72**	**610 J**	**606 J**	**652.54**	**661.52**

Table 4.2.2-9
Detected XRF-Screened Soil Metals Results - Residential Area/Off-site Area
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID / Sample ID / Case / Sampling date / Unit / Duplicate info / Investigation area / Type / Surface BTV (mg/kg)	026SY1E 4/19/2007 mg/kg 5 Front Yard	027BY1E 4/23/2007 mg/kg 5 Back Yard	028FY1E 4/23/2007 mg/kg 5 Front Yard	029FY1E 4/20/2007 mg/kg 5 Front Yard	029FY2E 4/20/2007 mg/kg 5 Front Yard	030FY1E 4/20/2007 mg/kg 5 Front Yard	030SY1E 4/20/2007 mg/kg 5 Side Yard	031FY1E 4/19/2007 mg/kg 5 Front Yard	032BY1E 4/19/2007 mg/kg 5 Back Yard	033DZ1A 4/20/2007 mg/kg 5 Drip Zone	MHS-033-FY-1 ME0008 36348 4/20/2007 mg/kg 5 Front Yard	034FY1E 4/20/2007 mg/kg 5 Front Yard
Aluminum	77,000	990,000	15,400	--	--	--	--	--	--	--	--	--	--	**14,100**	--
Antimony	31	410	NC	--	--	--	--	--	--	--	--	--	--	**0.74 J**	--
Arsenic	0.39	1.6	10.7	--	--	--	--	--	--	--	--	--	--	**13.4**	--
Barium	15,000	190,000	276	--	--	--	--	--	--	--	--	--	--	**235**	--
Beryllium	160	2,000	0.81	--	--	--	--	--	--	--	--	--	--	**0.86**	--
Cadmium	70	800	7.1	--	--	--	--	--	--	--	--	--	--	**18.9**	--
Calcium	NC	NC	NC	--	--	--	--	--	--	--	--	--	--	**7,120**	--
Chromium (total)[a]	280	1400	21.2	--	--	--	--	--	--	--	--	--	--	**27.4**	--
Cobalt	23	300	12.9	--	--	--	--	--	--	--	--	--	--	**11.7**	--
Copper	3,100	41,000	31.5	--	--	--	--	--	--	--	--	--	--	**44.5 J**	--
Iron	55,000	720,000	24,691	--	--	--	--	--	--	--	--	--	--	**19,500**	--
Lead	400	800	103	**89.55**	**25.35**	**108.71**	**84.69**	**63.31**	**80.21**	**62.96**	**385.53**	**266.39**	**1071.79**	**251 J**	**81.37**
Magnesium	NC	NC	NC	--	--	--	--	--	--	--	--	--	--	**3,460**	--
Manganese	1,800	23,000	1,527	--	--	--	--	--	--	--	--	--	--	**1,130 J**	--
Mercury	5.6	34	1.32	--	--	--	--	--	--	--	--	--	--	**0.13**	--
Nickel	1,500	20,000	19.9	--	--	--	--	--	--	--	--	--	--	**20**	--
Potassium	NC	NC	NC	--	--	--	--	--	--	--	--	--	--	**1,300**	--
Selenium	390	5,100	NC	--	--	--	--	--	--	--	--	--	--	**1.2 J**	--
Silver	390	5,100	NC	--	--	--	--	--	--	--	--	--	--	**0.52 J**	--
Sodium	NC	NC	NC	--	--	--	--	--	--	--	--	--	--	**131 J**	--
Thallium[a]	5.1	66	NC	--	--	--	--	--	--	--	--	--	--	**0.33 J**	--
Vanadium	390	5,200	39.5	--	--	--	--	--	--	--	--	--	--	**36.2**	--
Zinc	23,000	310,000	1,310	**1,930.60**	**241.01**	**1,150.32**	**651.13**	**584.99**	**534.77**	**732.54**	**4,044.99**	**2,827.33**	**2870.90**	**2,300 J**	**632.14**

Table 4.2.2-9
Detected XRF-Screened Soil Metals Results - Residential Area/Off-site Area
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID / Sample ID / Case / Sampling date / Unit / Duplicate info / Investigation area / Type / Surface BTV (mg/kg)	MHS-034-FY-2 ME0009 36348 4/20/2007 mg/kg 5 Front Yard	034SY1E 4/20/2007 mg/kg 5 Side Yard	035FY1E 4/20/2007 mg/kg 5 Front Yard	MHS-036-SY-1 ME0010 36348 4/19/2007 mg/kg 5 Side Yard	MHS-037-FY-1 ME0011 36348 4/19/2007 mg/kg 5 Front Yard	MHS-037-SY-1 ME0012 36348 4/19/2007 mg/kg 5 Side Yard	038FY1E 4/23/2007 mg/kg 5 Front Yard	039FY1E 4/23/2007 mg/kg 5 Front Yard	039FY2E 4/23/2007 mg/kg 5 Front Yard	040FY1E 4/23/2007 mg/kg 5 Front Yard	MHS-041-BY-1 ME0013 36348 4/20/2007 mg/kg 5 Back Yard	042BY1E 4/20/2007 mg/kg 5 Back Yard
Aluminum	77,000	990,000	15,400	**12,000**	--	--	**12,700**	**11,800**	**11,900**	--	--	--	--	**13,300**	--
Antimony	31	410	NC	7.2 UJ	--	--	**1.1 J**	7.4 UJ	**0.54 J**	--	--	--	--	**0.57 J**	--
Arsenic	0.39	1.6	10.7	**10.9**	--	--	**11**	**7.8**	**11.3**	--	--	--	--	**9.2**	--
Barium	15,000	190,000	276	**173**	--	--	**188**	**171**	**214**	--	--	--	--	**181**	--
Beryllium	160	2,000	0.81	**0.63**	--	--	**0.84**	**0.64**	**0.69**	--	--	--	--	**0.62 J**	--
Cadmium	70	800	7.1	**4.9**	--	--	**17.9**	**5.8**	**15.4**	--	--	--	--	**6.5**	--
Calcium	NC	NC	NC	**7,500**	--	--	**9,820**	**7,000**	**7,160**	--	--	--	--	**10,300**	--
Chromium (total)[a]	280	1400	21.2	**15.2**	--	--	**21.1**	**17.9**	**18.5**	--	--	--	--	**25.1**	--
Cobalt	23	300	12.9	**9.2**	--	--	**7**	**8.8**	**10.4**	--	--	--	--	**8.3**	--
Copper	3,100	41,000	31.5	**22.5 J**	--	--	**40.6 J**	**22.7 J**	**36.5 J**	--	--	--	--	**31.8 J**	--
Iron	55,000	720,000	24,691	**18,100**	--	--	**18,500**	**17,600**	**18,200**	--	--	--	--	**19,100**	--
Lead	400	800	103	**70.1 J**	**84.94**	**57.26**	**326 J**	**55.6 J**	**140 J**	**20.09**	**43.39**	**19.65**	**28.52**	**68.4 J**	**96.32**
Magnesium	NC	NC	NC	**4,060**	--	--	**4,010**	**3,550**	**3,280**	--	--	--	--	**6,150**	--
Manganese	1,800	23,000	1,527	**775 J**	--	--	**764 J**	**701 J**	**891 J**	--	--	--	--	**660 J**	--
Mercury	5.6	34	1.32	**0.07 J**	--	--	**0.13**	**0.056 J**	**0.1 J**	--	--	--	--	**0.077 J**	--
Nickel	1,500	20,000	19.9	**17.4**	--	--	**17.5**	**17.2**	**20.7**	--	--	--	--	**19.5**	--
Potassium	NC	NC	NC	**1,410**	--	--	**1,860**	**1,620**	**1,890**	--	--	--	--	**1,520**	--
Selenium	390	5,100	NC	**0.44 J**	--	--	**1.2 J**	**0.51 J**	**1 J**	--	--	--	--	**0.89 J**	--
Silver	390	5,100	NC	1.2 U	--	--	**0.37 J**	1.2 U	**0.23 J**	--	--	--	--	**0.15 J**	--
Sodium	NC	NC	NC	**81.9 J**	--	--	**133 J**	**124 J**	**112 J**	--	--	--	--	**121 J**	--
Thallium[a]	5.1	66	NC	3 U	--	--	3.1 U	3.1 U	3.2 U	--	--	--	--	3.2 U	--
Vanadium	390	5,200	39.5	**32.4**	--	--	**31.5**	**30.1**	**30.9**	--	--	--	--	**35.2**	--
Zinc	23,000	310,000	1,310	**636 J**	**736.49**	**736.76**	**2,480 J**	**686 J**	**1,850 J**	**243.30**	**265.21**	**206.69**	**337.05**	**676 J**	**1,045.51**

Table 4.2.2-9
Detected XRF-Screened Soil Metals Results - Residential Area/Off-site Area
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID / Sample ID / Case / Sampling date / Unit / Duplicate info / Investigation area / Type / Surface BTV (mg/kg)	042SY1E 4/20/2007 mg/kg 5 Side Yard	043DZ1A 4/20/2007 mg/kg 5 Drip Zone	043SY1E 4/20/2007 mg/kg 5 Side Yard	044BY1E 4/19/2007 mg/kg 5 Back Yard	044BY2E 4/19/2007 mg/kg 5 Back Yard	045BY1E 4/19/2007 mg/kg 5 Back Yard	045SY1E 4/19/2007 mg/kg 5 Side Yard	046BY1E 4/19/2007 mg/kg 5 Back Yard	047FY1E 4/20/2007 mg/kg 5 Front Yard	048BY1E 4/19/2007 mg/kg 5 Back Yard	048SY1E 4/19/2007 mg/kg 5 Side Yard	MHS-049-BY-1 ME0014 36348 4/19/2007 mg/kg 5 Back Yard
Aluminum	77,000	990,000	15,400	--	--	--	--	--	--	--	--	--	--	--	**10,400**
Antimony	31	410	NC	--	--	--	--	--	--	--	--	--	--	--	7.8 UJ
Arsenic	0.39	1.6	10.7	--	--	--	--	--	--	--	--	--	--	--	**13.6**
Barium	15,000	190,000	276	--	--	--	--	--	--	--	--	--	--	--	**165**
Beryllium	160	2,000	0.81	--	--	--	--	--	--	--	--	--	--	--	**0.57 J**
Cadmium	70	800	7.1	--	--	--	--	--	--	--	--	--	--	--	**7.5**
Calcium	NC	NC	NC	--	--	--	--	--	--	--	--	--	--	--	**4,620**
Chromium (total)[a]	280	1400	21.2	--	--	--	--	--	--	--	--	--	--	--	**14.5**
Cobalt	23	300	12.9	--	--	--	--	--	--	--	--	--	--	--	6.3 UJ
Copper	3,100	41,000	31.5	--	--	--	--	--	--	--	--	--	--	--	**24.6 J**
Iron	55,000	720,000	24,691	--	--	--	--	--	--	--	--	--	--	--	**14,900**
Lead	400	800	103	**139.62**	**1821.05**	**415.94**	**281.92**	**327.71**	**118.71**	**95.67**	**334.53**	**70.11**	**65.54**	**112.20**	**94.2 J**
Magnesium	NC	NC	NC	--	--	--	--	--	--	--	--	--	--	--	**2,160**
Manganese	1,800	23,000	1,527	--	--	--	--	--	--	--	--	--	--	--	**536 J**
Mercury	5.6	34	1.32	--	--	--	--	--	--	--	--	--	--	--	**0.071 J**
Nickel	1,500	20,000	19.9	--	--	--	--	--	--	--	--	--	--	--	**13.4**
Potassium	NC	NC	NC	--	--	--	--	--	--	--	--	--	--	--	**1,560**
Selenium	390	5,100	NC	--	--	--	--	--	--	--	--	--	--	--	**0.43 J**
Silver	390	5,100	NC	--	--	--	--	--	--	--	--	--	--	--	**0.12 J**
Sodium	NC	NC	NC	--	--	--	--	--	--	--	--	--	--	--	**103 J**
Thallium[a]	5.1	66	NC	--	--	--	--	--	--	--	--	--	--	--	3.3 U
Vanadium	390	5,200	39.5	--	--	--	--	--	--	--	--	--	--	--	**26.1**
Zinc	23,000	310,000	1,310	**949.99**	**2402.48**	**3,171.52**	**1,983.76**	**2,172.37**	**843.41**	**1,212.31**	**3,223.16**	**958.88**	**216.66**	**1,135.55**	**925 J**

Table 4.2.2-9
Detected XRF-Screened Soil Metals Results - Residential Area/Off-site Area
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID / Sample ID / Case / Sampling date / Unit / Duplicate info / Investigation area / Type / Surface BTV (mg/kg)	049BY2E 4/19/2007 mg/kg 5 Back Yard	049FY1E 4/19/2007 mg/kg 5 Front Yard	MHS-050-FY-1 ME0015 36348 4/19/2007 mg/kg 5 Front Yard	051BY1E 4/19/2007 mg/kg 5 Back Yard	052FY1E 4/24/2007 mg/kg 5 Front Yard	053FY1E 4/23/2007 mg/kg 5 Front Yard	054BY1E 4/24/2007 mg/kg 5 Back Yard	054BY2E 4/24/2007 mg/kg 5 Back Yard	MHS-055-FY-1 ME0016 36348 4/24/2007 mg/kg 5 Front Yard	056BY1E 4/19/2007 mg/kg 5 Back Yard	MHS-057-BY-1 ME0017 36348 4/18/2007 mg/kg 5 Back Yard	058BY1E 4/18/2007 mg/kg 5 Back Yard
Aluminum	77,000	990,000	15,400	--	--	**11,200**	--	--	--	--	--	**12,000**	--	**12,800**	--
Antimony	31	410	NC	--	--	**1.2 J**	--	--	--	--	--	**0.47 J**	--	**0.63 J**	--
Arsenic	0.39	1.6	10.7	--	--	**11.3**	--	--	--	--	--	**78.1**	--	**11.3**	--
Barium	15,000	190,000	276	--	--	**164**	--	--	--	--	--	**208**	--	**211**	--
Beryllium	160	2,000	0.81	--	--	**0.78**	--	--	--	--	--	**0.59**	--	**0.78**	--
Cadmium	70	800	7.1	--	--	**16**	--	--	--	--	--	**7.2**	--	**12**	--
Calcium	NC	NC	NC	--	--	**10,700**	--	--	--	--	--	**8,930**	--	**11,200**	--
Chromium (total)[a]	280	1400	21.2	--	--	**16.8**	--	--	--	--	--	**17.4**	--	**17.1**	--
Cobalt	23	300	12.9	--	--	**7.8**	--	--	--	--	--	**7.7**	--	6.1 UJ	--
Copper	3,100	41,000	31.5	--	--	**48.2 J**	--	--	--	--	--	**24.4 J**	--	**34.6 J**	--
Iron	55,000	720,000	24,691	--	--	**18,800**	--	--	--	--	--	**15,800**	--	**21,600**	--
Lead	400	800	103	**114.55**	**77.67**	**207 J**	**78.06**	**28.45**	**26.12**	**42.67**	**22.50**	**93.6 J**	**124.99**	**171 J**	**484.44**
Magnesium	NC	NC	NC	--	--	**3,650**	--	--	--	--	--	**4,130**	--	**4,260**	--
Manganese	1,800	23,000	1,527	--	--	**734 J**	--	--	--	--	--	**329 J**	--	**483 J**	--
Mercury	5.6	34	1.32	--	--	**0.18**	--	--	--	--	--	**0.054 J**	--	**0.082 J**	--
Nickel	1,500	20,000	19.9	--	--	**18.4**	--	--	--	--	--	**16.9**	--	**17**	--
Potassium	NC	NC	NC	--	--	**1,820**	--	--	--	--	--	**1,250**	--	**2,040**	--
Selenium	390	5,100	NC	--	--	**0.55 J**	--	--	--	--	--	**0.43 J**	--	**1 J**	--
Silver	390	5,100	NC	--	--	**0.31 J**	--	--	--	--	--	**0.64 J**	--	1.3 U	--
Sodium	NC	NC	NC	--	--	**161 J**	--	--	--	--	--	**108 J**	--	**121 J**	--
Thallium[a]	5.1	66	NC	--	--	3.1 U	--	--	--	--	--	2.9 U	--	3.1 U	--
Vanadium	390	5,200	39.5	--	--	**28.8**	--	--	--	--	--	**29.2**	--	**32.3**	--
Zinc	23,000	310,000	1,310	**1,035.56**	**1,001.68**	**1,900 J**	**1,528.61**	**353.18**	**181.94**	**366.85**	**271.10**	**868 J**	**1,130.92**	**1,460 J**	**2,831.54**

Table 4.2.2-9
Detected XRF-Screened Soil Metals Results - Residential Area/Off-site Area
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID / Sample ID / Case / Sampling date / Unit / Duplicate info / Investigation area / Type / Surface BTV (mg/kg)	058FY1E 4/18/2007 mg/kg 5 Front Yard	059BY1E 4/18/2007 mg/kg 5 Back Yard	MHS-059-BY-2 ME0018 36348 4/18/2007 mg/kg 5 Back Yard	MHS-059-SY-1 ME0019 36348 4/18/2007 mg/kg 5 Side Yard	060BY1E 4/19/2007 mg/kg 5 Back Yard	MHS-061-FY-1 ME0020 36348 4/19/2007 mg/kg 5 Front Yard	MHS-062-BY-1 ME0021 36348 4/19/2007 mg/kg 5 Back Yard	062FY1E 4/19/2007 mg/kg 5 Front Yard	063DZ1A 4/18/2007 mg/kg 5 Drip Zone	063BY1E 4/18/2007 mg/kg 5 Back Yard	064BY1E 4/18/2007 mg/kg 5 Back Yard	064BY2E 4/18/2007 mg/kg 5 Back Yard
Aluminum	77,000	990,000	15,400	--	--	**12,800**	**15,500**	--	**13,400**	**10,700**	--	--	--	--	--
Antimony	31	410	NC	--	--	**0.77 J**	**1.4 J**	--	8 UJ	**0.52 J**	--	--	--	--	--
Arsenic	0.39	1.6	10.7	--	--	**20**	**18.3**	--	**9.2**	**7.1**	--	--	--	--	--
Barium	15,000	190,000	276	--	--	**270**	**256**	--	**169**	**107**	--	--	--	--	--
Beryllium	160	2,000	0.81	--	--	**0.74**	**0.89**	--	**0.53 J**	**0.42 J**	--	--	--	--	--
Cadmium	70	800	7.1	--	--	**18.5**	**29.9**	--	**6**	**4.1**	--	--	--	--	--
Calcium	NC	NC	NC	--	--	**7,730**	**8,060**	--	**5,790**	**5,690**	--	--	--	--	--
Chromium (total)[a]	280	1400	21.2	--	--	**16.7**	**21.5**	--	**18.7**	**15.1**	--	--	--	--	--
Cobalt	23	300	12.9	--	--	**7.7**	**7.2**	--	**8.8**	**6.3**	--	--	--	--	--
Copper	3,100	41,000	31.5	--	--	**40.8 J**	**61.2 J**	--	**23.1 J**	**19.8**	--	--	--	--	--
Iron	55,000	720,000	24,691	--	--	**18,300**	**21,500**	--	**19,400**	**14,500**	--	--	--	--	--
Lead	400	800	103	**440.74**	**334.71**	**163 J**	**293 J**	**255.38**	**46.9 J**	**46.6**	**59.84**	**118.51**	**76.51**	**344.93**	**233.19**
Magnesium	NC	NC	NC	--	--	**2,600**	**3,720**	--	**3,310**	**2,900**	--	--	--	--	--
Manganese	1,800	23,000	1,527	--	--	**817 J**	**610 J**	--	**740 J**	**474**	--	--	--	--	--
Mercury	5.6	34	1.32	--	--	**0.18**	**0.2**	--	**0.039 J**	**0.061 J**	--	--	--	--	--
Nickel	1,500	20,000	19.9	--	--	**17.9**	**20**	--	**18.3**	**13.9**	--	--	--	--	--
Potassium	NC	NC	NC	--	--	**1,920**	**2,310**	--	**2,140**	**1,380**	--	--	--	--	--
Selenium	390	5,100	NC	--	--	**0.82 J**	**1.1 J**	--	**0.59 J**	**1.2 J**	--	--	--	--	--
Silver	390	5,100	NC	--	--	**0.16 J**	**0.72 J**	--	1.3 U	**0.17 J**	--	--	--	--	--
Sodium	NC	NC	NC	--	--	**110 J**	**160 J**	--	**96.1 J**	**73.2 J**	--	--	--	--	--
Thallium[a]	5.1	66	NC	--	--	3.3 U	**0.4 J**	--	3.3 U	3.2 U	--	--	--	--	--
Vanadium	390	5,200	39.5	--	--	**32.5**	**37.2**	--	**34.9**	**25.8**	--	--	--	--	--
Zinc	23,000	310,000	1,310	**5,404.32**	**4,846.89**	**2,270 J**	**3,690 J**	**4,011.93**	**704 J**	**443**	**315.92**	**1348.84**	**814.33**	**4,247.68**	**3,577.46**

Table 4.2.2-9
Detected XRF-Screened Soil Metals Results - Residential Area/Off-site Area
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Type Surface BTV (mg/kg)	065FY1E 4/24/2007 mg/kg 5 Front Yard	066FY1E 4/24/2007 mg/kg 5 Front Yard	067BY1E 4/19/2007 mg/kg 5 Back Yard	067FY1E 4/19/2007 mg/kg 5 Front Yard	068DZ1A 4/19/2007 mg/kg 5 Drip Zone	MHS-068-BY-1 ME0022 36348 4/19/2007 mg/kg 5 Back Yard	069BY1E 4/18/2007 mg/kg 5 Back Yard	069BY2E 4/18/2007 mg/kg 5 Back Yard	MHS-070-BY-1 ME0023 36348 4/18/2007 mg/kg 5 Back Yard	071BY1E 4/19/2007 mg/kg 5 Back Yard	MHS-071-FY-1 ME0024 36348 4/19/2007 mg/kg 5 Front Yard	072FY1E 4/24/2007 mg/kg 5 Front Yard
Aluminum	77,000	990,000	15,400	--	--	--	--	--	**12,100**	--	--	**13,700**	--	**10,400**	--
Antimony	31	410	NC	--	--	--	--	--	**2.1 J**	--	--	**1.9 J**	--	**1.5 J**	--
Arsenic	0.39	1.6	10.7	--	--	--	--	--	**18.1**	--	--	**20.3**	--	**12.7**	--
Barium	15,000	190,000	276	--	--	--	--	--	**200**	--	--	**317**	--	**140**	--
Beryllium	160	2,000	0.81	--	--	--	--	--	**0.93**	--	--	**1.1**	--	**0.61**	--
Cadmium	70	800	7.1	--	--	--	--	--	**19.1**	--	--	**29.1**	--	**6.2**	--
Calcium	NC	NC	NC	--	--	--	--	--	**5,870**	--	--	**13,500**	--	**15,900**	--
Chromium (total)[a]	280	1400	21.2	--	--	--	--	--	**20.7**	--	--	**26.2**	--	**17.6**	--
Cobalt	23	300	12.9	--	--	--	--	--	**9.3**	--	--	**14.8**	--	**8.2**	--
Copper	3,100	41,000	31.5	--	--	--	--	--	**57.7**	--	--	**75.8**	--	**81.1**	--
Iron	55,000	720,000	24,691	--	--	--	--	--	**21,800**	--	--	**24,000**	--	**19,600**	--
Lead	400	800	103	**73.64**	**27.58**	**104.52**	**76.42**	**696.98**	**301**	**324.76**	**371.77**	**272**	**375.90**	**167**	**49.29**
Magnesium	NC	NC	NC	--	--	--	--	--	**2,240**	--	--	**4,320**	--	**7,880**	--
Manganese	1,800	23,000	1,527	--	--	--	--	--	**858**	--	--	**1,630**	--	**673**	--
Mercury	5.6	34	1.32	--	--	--	--	--	**0.2**	--	--	**0.16**	--	**0.15**	--
Nickel	1,500	20,000	19.9	--	--	--	--	--	**17.6**	--	--	**28.1**	--	**43.9**	--
Potassium	NC	NC	NC	--	--	--	--	--	**1,940**	--	--	**2,670**	--	**2,060**	--
Selenium	390	5,100	NC	--	--	--	--	--	**2.1 J**	--	--	**1.8 J**	--	**0.99 J**	--
Silver	390	5,100	NC	--	--	--	--	--	**0.59 J**	--	--	**0.88 J**	--	**0.7 J**	--
Sodium	NC	NC	NC	--	--	--	--	--	**135 J**	--	--	**152 J**	--	**138 J**	--
Thallium[a]	5.1	66	NC	--	--	--	--	--	3.2 U	--	--	3.4 U	--	2.9 U	--
Vanadium	390	5,200	39.5	--	--	--	--	--	**33.4**	--	--	**48.7**	--	**27.1**	--
Zinc	23,000	310,000	1,310	**555.26**	**250.66**	**766.89**	**576.30**	**1787.76**	**2,180**	**3,173.90**	**4,612.10**	**3,330**	**1,664.93**	**1,300**	**339.53**

Table 4.2.2-9
Detected XRF-Screened Soil Metals Results - Residential Area/Off-site Area
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Type Surface BTV (mg/kg)	073BY1E 4/19/2007 mg/kg 5 Back Yard	074FY1E 4/25/2007 mg/kg 5 Front Yard	074FY2E 4/25/2007 mg/kg 5 Front Yard	075BY1E 4/18/2007 mg/kg 5 Back Yard	MHS-076-SY-1 ME0025 36348 4/18/2007 mg/kg 5 Side Yard	MHS-076-SY-1-DP ME0026 36348 4/18/2007 mg/kg MHS-076-SY-1 5 Side Yard	077SY1E 4/24/2007 mg/kg 5 Side Yard	078FY1E 4/24/2007 mg/kg 5 Front Yard	079SY1E 4/18/2007 mg/kg 5 Side Yard	079SY2E 4/18/2007 mg/kg 5 Side Yard	080BY1E 4/18/2007 mg/kg 5 Back Yard	081FY1E 4/18/2007 mg/kg 5 Front Yard
Aluminum	77,000	990,000	15,400	--	--	--	--	**13,600**	**13,500**	--	--	--	--	--	--
Antimony	31	410	NC	--	--	--	--	**4.9 J**	**5.1 J**	--	--	--	--	--	--
Arsenic	0.39	1.6	10.7	--	--	--	--	**22.6**	**24.6**	--	--	--	--	--	--
Barium	15,000	190,000	276	--	--	--	--	**217**	**208**	--	--	--	--	--	--
Beryllium	160	2,000	0.81	--	--	--	--	**1.3**	**1.3**	--	--	--	--	--	--
Cadmium	70	800	7.1	--	--	--	--	**106**	**113**	--	--	--	--	--	--
Calcium	NC	NC	NC	--	--	--	--	**15,700**	**15,600**	--	--	--	--	--	--
Chromium (total)[a]	280	1400	21.2	--	--	--	--	**22.6**	**22.7**	--	--	--	--	--	--
Cobalt	23	300	12.9	--	--	--	--	**10.9**	**9.7**	--	--	--	--	--	--
Copper	3,100	41,000	31.5	--	--	--	--	**135**	**140**	--	--	--	--	--	--
Iron	55,000	720,000	24,691	--	--	--	--	**24,900**	**26,000**	--	--	--	--	--	--
Lead	400	800	103	**274.73**	**311.90**	**215.28**	**551.25**	**569**	**626**	**280.17**	**269.68**	**376.65**	**299.84**	**197.12**	**457.86**
Magnesium	NC	NC	NC	--	--	--	--	**4,820**	**4,790**	--	--	--	--	--	--
Manganese	1,800	23,000	1,527	--	--	--	--	**1,180**	**1,110**	--	--	--	--	--	--
Mercury	5.6	34	1.32	--	--	--	--	**0.32**	**0.48**	--	--	--	--	--	--
Nickel	1,500	20,000	19.9	--	--	--	--	**25.9**	**26.8**	--	--	--	--	--	--
Potassium	NC	NC	NC	--	--	--	--	**2,080**	**1,990**	--	--	--	--	--	--
Selenium	390	5,100	NC	--	--	--	--	**2.4 J**	**2.7 J**	--	--	--	--	--	--
Silver	390	5,100	NC	--	--	--	--	**2.5**	**2.6**	--	--	--	--	--	--
Sodium	NC	NC	NC	--	--	--	--	**227 J**	**221 J**	--	--	--	--	--	--
Thallium[a]	5.1	66	NC	--	--	--	--	**0.43 J**	3.5 U	--	--	--	--	--	--
Vanadium	390	5,200	39.5	--	--	--	--	**35.8**	**36.8**	--	--	--	--	--	--
Zinc	23,000	310,000	1,310	**1,629.46**	**4,387.18**	**4,100.82**	**4,820.61**	**10,000**	**10,700**	**2,376.95**	**2,668.76**	**2,369.64**	**2,547.75**	**1,348.79**	**7,389.66**

Table 4.2.2-9
Detected XRF-Screened Soil Metals Results - Residential Area/Off-site Area
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Type Surface BTV (mg/kg)	082FY1E 4/18/2007 mg/kg 5 Front Yard	083DZ1A 4/18/2007 mg/kg 5 Drip Zone	083FY1E 4/18/2007 mg/kg 5 Front Yard	085SY1E 4/25/2007 mg/kg 5 Side Yard	086BY1E 4/18/2007 mg/kg 5 Back Yard	MHS-087-SY-1 ME0028 36348 4/24/2007 mg/kg 5 Side Yard	MHS-088-FY-1 ME0029 36348 4/24/2007 mg/kg 5 Front Yard	089FY1E 4/24/2007 mg/kg 5 Front Yard	MHS-089-FY-2 ME0030 36348 4/24/2007 mg/kg 5 Front Yard	MHS-090-BY-1 ME0031 36348 4/24/2007 mg/kg 5 Back Yard	091BY1E 4/24/2007 mg/kg 5 Back Yard	092FY1E 4/18/2007 mg/kg 5 Front Yard
Aluminum	77,000	990,000	15,400	--	--	--	--	--	**13,300**	**13,400**	--	**13,800**	**13,800**	--	--
Antimony	31	410	NC	--	--	--	--	--	7.2 UJ	**0.54 J**	--	**0.92 J**	**0.71 J**	--	--
Arsenic	0.39	1.6	10.7	--	--	--	--	--	**9.1**	**10.6**	--	**15.1**	**47.4**	--	--
Barium	15,000	190,000	276	--	--	--	--	--	**170**	**188**	--	**309**	**174**	--	--
Beryllium	160	2,000	0.81	--	--	--	--	--	**0.93**	**0.71**	--	**1.7**	**1.3**	--	--
Cadmium	70	800	7.1	--	--	--	--	--	**6.9**	**7.4**	--	**19.2**	**10.6**	--	--
Calcium	NC	NC	NC	--	--	--	--	--	**6,780**	**6,320**	--	**9,970**	**17,400**	--	--
Chromium (total)[a]	280	1400	21.2	--	--	--	--	--	**19.3**	**21.5**	--	**20.7**	**26.8**	--	--
Cobalt	23	300	12.9	--	--	--	--	--	**8.3**	**9.9**	--	**13.1**	**9.8**	--	--
Copper	3,100	41,000	31.5	--	--	--	--	--	**26.5**	**27.2**	--	**49.9**	**40.3**	--	--
Iron	55,000	720,000	24,691	--	--	--	--	--	**21,400**	**20,600**	--	**26,700**	**22,700**	--	--
Lead	400	800	103	**326.84**	**197.68**	**225.75**	**396.57**	**430.52**	**186**	**88.6**	**562.38**	**789**	**222**	**435.93**	**639.54**
Magnesium	NC	NC	NC	--	--	--	--	--	**3,250**	**3,410**	--	**3,690**	**6,760**	--	--
Manganese	1,800	23,000	1,527	--	--	--	--	--	**657**	**1,000**	--	**1,210**	**1,030**	--	--
Mercury	5.6	34	1.32	--	--	--	--	--	**0.07 J**	**0.074 J**	--	**0.22**	**0.39**	--	--
Nickel	1,500	20,000	19.9	--	--	--	--	--	**18.2**	**17.8**	--	**28.6**	**28**	--	--
Potassium	NC	NC	NC	--	--	--	--	--	**1,920**	**1,870**	--	**2,120**	**2,210**	--	--
Selenium	390	5,100	NC	--	--	--	--	--	**1.3 J**	**1.4 J**	--	**1.5 J**	**1.4 J**	--	--
Silver	390	5,100	NC	--	--	--	--	--	**0.22 J**	1.2 U	--	**0.21 J**	**0.3 J**	--	--
Sodium	NC	NC	NC	--	--	--	--	--	**199 J**	**110 J**	--	**149 J**	**122 J**	--	--
Thallium[a]	5.1	66	NC	--	--	--	--	--	3 U	3 U	--	**0.32 J**	3 U	--	--
Vanadium	390	5,200	39.5	--	--	--	--	--	**34.4**	**35.1**	--	**38.5**	**31.5**	--	--
Zinc	23,000	310,000	1,310	**9,022.43**	**2639.55**	**2,196.37**	**4,424.45**	**4,513.59**	**1,010**	**795**	**1,826.30**	**2,110**	**1,260**	**1,762.79**	**4,949.55**

Table 4.2.2-9
Detected XRF-Screened Soil Metals Results - Residential Area/Off-site Area
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Type Surface BTV (mg/kg)	093DZ1A 4/18/2007 mg/kg 5 Drip Zone	093FY1E 4/18/2007 mg/kg 5 Front Yard	093SY1E 4/18/2007 mg/kg 5 Side Yard	094FY1E 4/18/2007 mg/kg 5 Front Yard	094FY2E 4/18/2007 mg/kg 5 Front Yard	094SY1E 4/18/2007 mg/kg 5 Side Yard	095FY1E 4/18/2007 mg/kg 5 Front Yard	096FY1E 4/17/2007 mg/kg 5 Front Yard	097FY1E 4/17/2007 mg/kg 5 Front Yard	097SY1E 4/17/2007 mg/kg 5 Side Yard	098FY1E 4/25/2007 mg/kg 5 Front Yard	099FY1E 4/17/2007 mg/kg 5 Front Yard
Aluminum	77,000	990,000	15,400	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	31	410	NC	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	0.39	1.6	10.7	--	--	--	--	--	--	--	--	--	--	--	--
Barium	15,000	190,000	276	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	160	2,000	0.81	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	70	800	7.1	--	--	--	--	--	--	--	--	--	--	--	--
Calcium	NC	NC	NC	--	--	--	--	--	--	--	--	--	--	--	--
Chromium (total)[a]	280	1400	21.2	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt	23	300	12.9	--	--	--	--	--	--	--	--	--	--	--	--
Copper	3,100	41,000	31.5	--	--	--	--	--	--	--	--	--	--	--	--
Iron	55,000	720,000	24,691	--	--	--	--	--	--	--	--	--	--	--	--
Lead	400	800	103	**268.58**	**901.71**	**145.49**	**233.00**	**304.37**	**544.01**	**466.46**	**577.40**	**330.69**	**309.46**	**222.03**	**476.36**
Magnesium	NC	NC	NC	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	1,800	23,000	1,527	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	5.6	34	1.32	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	1,500	20,000	19.9	--	--	--	--	--	--	--	--	--	--	--	--
Potassium	NC	NC	NC	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	390	5,100	NC	--	--	--	--	--	--	--	--	--	--	--	--
Silver	390	5,100	NC	--	--	--	--	--	--	--	--	--	--	--	--
Sodium	NC	NC	NC	--	--	--	--	--	--	--	--	--	--	--	--
Thallium[a]	5.1	66	NC	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	390	5,200	39.5	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	23,000	310,000	1,310	**457.26**	**6,920.19**	**542.11**	**2,022.37**	**2,806.62**	**7,089.64**	**6,892.07**	**4,403.15**	**6,869.42**	**5,126.84**	**2,172.31**	**3,694.86**

Table 4.2.2-9
Detected XRF-Screened Soil Metals Results - Residential Area/Off-site Area
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Type	MHS-099-SY-1 ME0032 36348 4/17/2007 mg/kg 5 Side Yard	099SY2E 4/17/2007 mg/kg 5 Side Yard	100FY1E 4/17/2007 mg/kg 5 Front Yard	101BY1E 4/17/2007 mg/kg 5 Back Yard	MHS-101-SY-1 ME0034 36348 4/17/2007 mg/kg 5 Side Yard	102FY1E 4/17/2007 mg/kg 5 Front Yard	103DZ1A 4/17/2007 mg/kg 5 Drip Zone	103BY1E 4/17/2007 mg/kg 5 Back Yard	MHS-104-FY-1 ME0035 36348 4/17/2007 mg/kg 5 Front Yard	104FY2E 4/17/2007 mg/kg 5 Front Yard	105SY1E 4/17/2007 mg/kg 5 Side Yard	106BY1E 4/24/2007 mg/kg 5 Back Yard
Aluminum	77,000	990,000	15,400		**13,100**	--	--	--	**14,700**	--	--	--	**13,100**	--	--	--
Antimony	31	410	NC		**1.3 J**	--	--	--	**1.7 J**	--	--	--	**0.51 J**	--	--	--
Arsenic	0.39	1.6	10.7		**17.1**	--	--	--	**18**	--	--	--	**10.5**	--	--	--
Barium	15,000	190,000	276		**210**	--	--	--	**219**	--	--	--	**154**	--	--	--
Beryllium	160	2,000	0.81		**1.5**	--	--	--	**1.1**	--	--	--	**0.89**	--	--	--
Cadmium	70	800	7.1		**33.7**	--	--	--	**36**	--	--	--	**6.8**	--	--	--
Calcium	NC	NC	NC		**16,200**	--	--	--	**34,800**	--	--	--	**28,400**	--	--	--
Chromium (total)[a]	280	1400	21.2		**48.6**	--	--	--	**22.2**	--	--	--	**21.1**	--	--	--
Cobalt	23	300	12.9		**10.5**	--	--	--	**12.2**	--	--	--	**10.5**	--	--	--
Copper	3,100	41,000	31.5		**67.4**	--	--	--	**98.2**	--	--	--	**39.7**	--	--	--
Iron	55,000	720,000	24,691		**23,200**	--	--	--	**24,700**	--	--	--	**23,000**	--	--	--
Lead	400	800	103		**402**	**243.09**	**65.55**	**267.45**	**417**	**515.40**	**188.37**	**345.15**	**228**	**84.55**	**146.15**	**373.12**
Magnesium	NC	NC	NC		**4,220**	--	--	--	**7,560**	--	--	--	**10,100**	--	--	--
Manganese	1,800	23,000	1,527		**1,040**	--	--	--	**1,350**	--	--	--	**896**	--	--	--
Mercury	5.6	34	1.32		**0.26**	--	--	--	**0.27**	--	--	--	**0.1 J**	--	--	--
Nickel	1,500	20,000	19.9		**23.4**	--	--	--	**27.8**	--	--	--	**24**	--	--	--
Potassium	NC	NC	NC		**1,800**	--	--	--	**2,340**	--	--	--	**2,090**	--	--	--
Selenium	390	5,100	NC		**1.7 J**	--	--	--	**1.4 J**	--	--	--	**0.98 J**	--	--	--
Silver	390	5,100	NC		**0.82 J**	--	--	--	**0.65 J**	--	--	--	1.3 U	--	--	--
Sodium	NC	NC	NC		**171 J**	--	--	--	**271 J**	--	--	--	**258 J**	--	--	--
Thallium[a]	5.1	66	NC		3.3 U	--	--	--	3.6 U	--	--	--	3.3 U	--	--	--
Vanadium	390	5,200	39.5		**37.1**	--	--	--	**36.8**	--	--	--	**35.1**	--	--	--
Zinc	23,000	310,000	1,310		**3,420**	**2,754.39**	**947.84**	**1,458.34**	**3,650**	**4,406.12**	**1599.54**	**2,387.88**	**1,140**	**618.75**	**1,969.43**	**2,003.26**

Table 4.2.2-9
Detected XRF-Screened Soil Metals Results - Residential Area/Off-site Area
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID / Sample ID / Case / Sampling date / Unit / Duplicate info / Investigation area / Type / Surface BTV (mg/kg)	107BY1E 4/24/2007 mg/kg 5 Back Yard	108BY1E 4/24/2007 mg/kg 5 Back Yard	MHS-109-FY-1 ME0036 36348 4/24/2007 mg/kg 5 Front Yard	109FY2E 4/24/2007 mg/kg 5 Front Yard	110FY1E 4/17/2007 mg/kg 5 Front Yard	MHS-112-BY-1 ME0037 36348 4/17/2007 mg/kg 5 Back Yard	113DZ1A 4/17/2007 mg/kg 5 Drip Zone	113FY1E 4/17/2007 mg/kg 5 Front Yard	114BY1E 4/17/2007 mg/kg 5 Back Yard	114BY2E 4/17/2007 mg/kg 5 Back Yard	115BY1E 4/17/2007 mg/kg 5 Back Yard	115FY1E 4/17/2007 mg/kg 5 Front Yard
Aluminum	77,000	990,000	15,400	--	--	**11,900**	--	--	**14,700**	--	--	--	--	--	--
Antimony	31	410	NC	--	--	**0.41 J**	--	--	**3.6 J**	--	--	--	--	--	--
Arsenic	0.39	1.6	10.7	--	--	**11.3**	--	--	**18.4**	--	--	--	--	--	--
Barium	15,000	190,000	276	--	--	**209**	--	--	**472**	--	--	--	--	--	--
Beryllium	160	2,000	0.81	--	--	**0.82**	--	--	**1.1**	--	--	--	--	--	--
Cadmium	70	800	7.1	--	--	**12**	--	--	**18**	--	--	--	--	--	--
Calcium	NC	NC	NC	--	--	**12,200**	--	--	**29,600**	--	--	--	--	--	--
Chromium (total)[a]	280	1400	21.2	--	--	**21.9**	--	--	**26.9**	--	--	--	--	--	--
Cobalt	23	300	12.9	--	--	**9**	--	--	**12**	--	--	--	--	--	--
Copper	3,100	41,000	31.5	--	--	**36.8**	--	--	**68.1**	--	--	--	--	--	--
Iron	55,000	720,000	24,691	--	--	**19,600**	--	--	**25,500**	--	--	--	--	--	--
Lead	400	800	103	**592.43**	**496.35**	**558**	**432.05**	**475.55**	**3,220**	**249.92**	**364.68**	**114.81**	**353.86**	**876.00**	**272.03**
Magnesium	NC	NC	NC	--	--	**4,510**	--	--	**6,780**	--	--	--	--	--	--
Manganese	1,800	23,000	1,527	--	--	**1,020**	--	--	**1,190**	--	--	--	--	--	--
Mercury	5.6	34	1.32	--	--	**0.24**	--	--	**0.32**	--	--	--	--	--	--
Nickel	1,500	20,000	19.9	--	--	**21.1**	--	--	**27.7**	--	--	--	--	--	--
Potassium	NC	NC	NC	--	--	**1,790**	--	--	**2,790**	--	--	--	--	--	--
Selenium	390	5,100	NC	--	--	**1.3 J**	--	--	**1.4 J**	--	--	--	--	--	--
Silver	390	5,100	NC	--	--	**0.12 J**	--	--	**0.38 J**	--	--	--	--	--	--
Sodium	NC	NC	NC	--	--	**88.9 J**	--	--	**335 J**	--	--	--	--	--	--
Thallium[a]	5.1	66	NC	--	--	2.6 U	--	--	3.7 U	--	--	--	--	--	--
Vanadium	390	5,200	39.5	--	--	**29**	--	--	**36.1**	--	--	--	--	--	--
Zinc	23,000	310,000	1,310	**1,320.14**	**1,225.42**	**1,380**	**1,241.20**	**1,537.96**	**2,870**	**1070.06**	**2,573.99**	**617.59**	**1,249.67**	**1,864.94**	**2,927.11**

Table 4.2.2-9
Detected XRF-Screened Soil Metals Results - Residential Area/Off-site Area
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Type Surface BTV (mg/kg)	116FY1E 4/17/2007 mg/kg 5 Front Yard	MHS-117-FY-1 ME0038 36348 4/17/2007 mg/kg 5 Front Yard	118FY1E 4/16/2007 mg/kg 5 Front Yard	MHS-119-SY-1 ME0039 36348 4/16/2007 mg/kg 5 Side Yard	MHS-119-SY-2 ME0040 36348 4/16/2007 mg/kg 5 Side Yard	120FY1E 4/16/2007 mg/kg 5 Front Yard	121SY1E 4/16/2007 mg/kg 5 Side Yard	122DZ1A 4/16/2007 mg/kg 5 Drip Zone	122FY1E 4/16/2007 mg/kg 5 Front Yard	122SY1E 4/16/2007 mg/kg 5 Side Yard	123SY1E 4/16/2007 mg/kg 5 Side Yard	124BY1E 4/16/2007 mg/kg 5 Back Yard
Aluminum	77,000	990,000	15,400	--	**8,930**	--	**16,400**	**15,800**	--	--	--	--	--	--	--
Antimony	31	410	NC	--	**0.82 J**	--	**1.4 J**	**1.3 J**	--	--	--	--	--	--	--
Arsenic	0.39	1.6	10.7	--	**8.2**	--	**17.5**	**18.5**	--	--	--	--	--	--	--
Barium	15,000	190,000	276	--	**152**	--	**202**	**231**	--	--	--	--	--	--	--
Beryllium	160	2,000	0.81	--	**0.84**	--	**1.4**	**1.3**	--	--	--	--	--	--	--
Cadmium	70	800	7.1	--	**8.2**	--	**19.5**	**21.3**	--	--	--	--	--	--	--
Calcium	NC	NC	NC	--	**31,100**	--	**40,300**	**34,200**	--	--	--	--	--	--	--
Chromium (total)[a]	280	1400	21.2	--	**14.4**	--	**29.3**	**35.2**	--	--	--	--	--	--	--
Cobalt	23	300	12.9	--	**6.8**	--	**13**	**14**	--	--	--	--	--	--	--
Copper	3,100	41,000	31.5	--	**28.2**	--	**62.5**	**61.3**	--	--	--	--	--	--	--
Iron	55,000	720,000	24,691	--	**15,400**	--	**26,000**	**27,800**	--	--	--	--	--	--	--
Lead	400	800	103	**151.46**	**159**	**484.94**	**404**	**632**	**158.15**	**287.93**	**308.65**	**181.66**	**309.37**	**37.05**	**277.95**
Magnesium	NC	NC	NC	--	**8,260**	--	**8,310**	**7,090**	--	--	--	--	--	--	--
Manganese	1,800	23,000	1,527	--	**695**	--	**1,370**	**1,270**	--	--	--	--	--	--	--
Mercury	5.6	34	1.32	--	**0.075 J**	--	**0.22**	**0.28**	--	--	--	--	--	--	--
Nickel	1,500	20,000	19.9	--	**15.8**	--	**32.4**	**34.7**	--	--	--	--	--	--	--
Potassium	NC	NC	NC	--	**1,590**	--	**2,990**	**2,580**	--	--	--	--	--	--	--
Selenium	390	5,100	NC	--	**0.91 J**	--	**1.7 J**	**1.6 J**	--	--	--	--	--	--	--
Silver	390	5,100	NC	--	**0.09 J**	--	**0.33 J**	**0.46 J**	--	--	--	--	--	--	--
Sodium	NC	NC	NC	--	**151 J**	--	**169 J**	**174 J**	--	--	--	--	--	--	--
Thallium[a]	5.1	66	NC	--	2.7 U	--	3.8 U	3.9 U	--	--	--	--	--	--	--
Vanadium	390	5,200	39.5	--	**22.5**	--	**39.6**	**41.9**	--	--	--	--	--	--	--
Zinc	23,000	310,000	1,310	**1,789.22**	**1,050**	**1,689.13**	**2,300**	**2,550**	**834.15**	**2,548.42**	**1368.81**	**1,156.75**	**3,036.51**	**464.67**	**983.10**

Table 4.2.2-9
Detected XRF-Screened Soil Metals Results - Residential Area/Off-site Area
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID / Sample ID / Case / Sampling date / Unit / Duplicate info / Investigation area / Type / Surface BTV (mg/kg)	124BY2E 4/16/2007 mg/kg 5 Back Yard	125SY1E 4/16/2007 mg/kg 5 Side Yard	126FY1E 4/16/2007 mg/kg 5 Front Yard	127FY1E 4/16/2007 mg/kg 5 Front Yard	128SY1E 4/16/2007 mg/kg 5 Side Yard	129FY1E 4/24/2007 mg/kg 5 Front Yard	129FY2E 4/24/2007 mg/kg 5 Front Yard	MHS-130-FY-1 ME0041 36348 4/25/2007 mg/kg 5 Front Yard	133DZ1A 4/25/2007 mg/kg 5 Drip Zone	133BY1E 4/25/2007 mg/kg 5 Back Yard	134BY1E 4/16/2007 mg/kg 5 Back Yard	134BY2E 4/16/2007 mg/kg 5 Back Yard
Aluminum	77,000	990,000	15,400	--	--	--	--	--	--	--	**12,500**	--	--	--	--
Antimony	31	410	NC	--	--	--	--	--	--	--	6.6 UJ	--	--	--	--
Arsenic	0.39	1.6	10.7	--	--	--	--	--	--	--	**8.3**	--	--	--	--
Barium	15,000	190,000	276	--	--	--	--	--	--	--	**192**	--	--	--	--
Beryllium	160	2,000	0.81	--	--	--	--	--	--	--	**0.54 J**	--	--	--	--
Cadmium	70	800	7.1	--	--	--	--	--	--	--	**1.4**	--	--	--	--
Calcium	NC	NC	NC	--	--	--	--	--	--	--	**14,700**	--	--	--	--
Chromium (total)[a]	280	1400	21.2	--	--	--	--	--	--	--	**17.5**	--	--	--	--
Cobalt	23	300	12.9	--	--	--	--	--	--	--	**11.7**	--	--	--	--
Copper	3,100	41,000	31.5	--	--	--	--	--	--	--	**15.5**	--	--	--	--
Iron	55,000	720,000	24,691	--	--	--	--	--	--	--	**17,700**	--	--	--	--
Lead	400	800	103	**212.96**	**228.79**	**221.42**	**421.93**	**21.27**	**417.88**	**281.71**	**25.2**	**737**	**716.36**	**226.18**	**258.11**
Magnesium	NC	NC	NC	--	--	--	--	--	--	--	**7,690**	--	--	--	--
Manganese	1,800	23,000	1,527	--	--	--	--	--	--	--	**1,100**	--	--	--	--
Mercury	5.6	34	1.32	--	--	--	--	--	--	--	**0.037 J**	--	--	--	--
Nickel	1,500	20,000	19.9	--	--	--	--	--	--	--	**15.8**	--	--	--	--
Potassium	NC	NC	NC	--	--	--	--	--	--	--	**1,490**	--	--	--	--
Selenium	390	5,100	NC	--	--	--	--	--	--	--	**0.76 J**	--	--	--	--
Silver	390	5,100	NC	--	--	--	--	--	--	--	1.1 U	--	--	--	--
Sodium	NC	NC	NC	--	--	--	--	--	--	--	**61.4 J**	--	--	--	--
Thallium[a]	5.1	66	NC	--	--	--	--	--	--	--	2.7 U	--	--	--	--
Vanadium	390	5,200	39.5	--	--	--	--	--	--	--	**35.1**	--	--	--	--
Zinc	23,000	310,000	1,310	**1,091.35**	**1,118.00**	**1,068.67**	**2,158.10**	**206.55**	**1,139.19**	**1,478.92**	**108**	**1155.85**	**1,246.68**	**1,138.45**	**1,290.54**

Table 4.2.2-9
Detected XRF-Screened Soil Metals Results - Residential Area/Off-site Area
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Type Surface BTV (mg/kg)	135BY1E 4/16/2007 mg/kg 5 Back Yard	136FY1E 4/16/2007 mg/kg 5 Front Yard	140BY1E 4/25/2007 mg/kg 5 Back Yard	MH2_S001_FY_0-6 8/31/2009 mg/kg 5 Front Yard	MH2_S001_FY_6-12 8/31/2009 mg/kg 5 Front Yard	MH2_S002_BY_0-6 8/31/2009 mg/kg 5 Back Yard	MH2_S002_BY_6-12 8/31/2009 mg/kg 5 Back Yard	MH2_S003_FY_0-6 8/31/2009 mg/kg 5 Front Yard	MH2_S004_BY_0-6 8/31/2009 mg/kg 5 Back Yard	MH2_S005_FY_0-6 8/31/2009 mg/kg 5 Front Yard	MH2_S005_FY_6-12 8/31/2009 mg/kg 5 Front Yard
Aluminum	77,000	990,000	15,400	--	--	--	**13,000.00**	**13,000.00**	**13,000.00**	**14,000.00**	**13,000.00**	**12,000.00**	**13,000.00**	**14,000.00**
Antimony	31	410	NC	--	--	--	**6.90**	**2.50**	**3.50**	**5.50**	**1.60**	**6.10**	**6.30**	**2.70**
Arsenic	0.39	1.6	10.7	--	--	--	**26.00**	**18.00**	**18.00**	**24.00**	**18.00**	**26.00**	**32.00**	**20.00**
Barium	15,000	190,000	276	--	--	--	**190.00**	**240.00**	**250.00**	**260.00**	**200.00**	**270.00**	**210.00**	**200.00**
Beryllium	160	2,000	0.81	--	--	--	**1.30**	**1.00**	**1.10**	**1.30**	**1.40**	**1.60**	**1.60**	**2.00**
Cadmium	70	800	7.1	--	--	--	**110.00**	**91.00**	**55.00**	**76.00**	**32.00**	**35.00**	**120.00**	**60.00**
Calcium	NC	NC	NC	--	--	--	**17,000.00**	**8,900.00**	**22,000.00**	**18,000.00**	**12,000.00**	**12,000.00**	**12,000.00**	**12,000.00**
Chromium (total)[a]	280	1400	21.2	--	--	--	**23.00**	**20.00**	**23.00**	**24.00**	**22.00**	**24.00**	**23.00**	**22.00**
Cobalt	23	300	12.9	--	--	--	**10.00**	**10.00**	**9.4 J**	**11.00**	**9.50**	**9.2 J**	**17.00**	**9.60**
Copper	3,100	41,000	31.5	--	--	--	**140.00**	**94.00**	**93.00**	**130.00**	**53.00**	**92.00**	**150.00**	**84.00**
Iron	55,000	720,000	24,691	--	--	--	**28,000.00**	**25,000.00**	**23,000.00**	**27,000.00**	**33,000.00**	**31,000.00**	**30,000.00**	**33,000.00**
Lead	400	800	103	**120.99**	**372.65**	**95.52**	**760.00**	**390.00**	**800.00**	**790.00**	**400.00**	**510.00**	**680.00**	**340.00**
Magnesium	NC	NC	NC	--	--	--	**5,700.00**	**3,400.00**	**9,800.00**	**6,000.00**	**5,000.00**	**3,500.00**	**4,500.00**	**5,300.00**
Manganese	1,800	23,000	1,527	--	--	--	**1,400.00**	**1,400.00**	**1,100.00**	**1,300.00**	**990.00**	**990.00**	**1,700.00**	**850.00**
Mercury	5.6	34	1.32	--	--	--	**0.34**	**0.23**	**0.36**	**0.37**	**0.25**	**0.36**	**0.59**	**0.31**
Nickel	1,500	20,000	19.9	--	--	--	**32.00**	**22.00**	**23.00**	**30.00**	**24.00**	**31.00**	**31.00**	**28.00**
Potassium	NC	NC	NC	--	--	--	**1,800.00**	**1,800.00**	**2,000.00**	**2,500.00**	**1,900.00**	**2,300.00**	**1,800.00**	**1,700.00**
Selenium	390	5,100	NC	--	--	--	**1.40**	**0.68 J**	**1.1 J**	**1.2 J**	**0.59 J**	**1.1 J**	**1.4 J**	**0.72 J**
Silver	390	5,100	NC	--	--	--	**3.20**	1 U	**2.10**	**2.70**	0.9 U	**1.2 J**	**2.80**	**0.8 J**
Sodium	NC	NC	NC	--	--	--	**300 J**	**210 J**	**130 J**	**150 J**	**150 J**	**220 J**	**190 J**	**190 J**
Thallium[a]	5.1	66	NC	--	--	--	0.59 U	0.59 U	**0.6 J**	0.50 U	0.57 U	0.59 U	**0.7 J**	0.48 U
Vanadium	390	5,200	39.5	--	--	--	**41.00**	**42.00**	**38.00**	**39.00**	**40.00**	**43.00**	**46.00**	**48.00**
Zinc	23,000	310,000	1,310	**313.82**	**3,219.84**	**600.91**	**12,000.00**	**6,100.00**	**5,800.00**	**7,500.00**	**4,200.00**	**5,000.00**	**13,000.00**	**6,400.00**

Table 4.2.2-9
Detected XRF-Screened Soil Metals Results - Residential Area/Off-site Area
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Type Surface BTV (mg/kg)	MH2_S006_BY_0-6 8/31/2009 mg/kg 5 Back Yard	MH2_S007_FY_0-6 8/31/2009 mg/kg 5 Front Yard	MH2_S008_FY_0-6 8/31/2009 mg/kg 5 Front Yard	MH2_S009_FY_0-6 8/31/2009 mg/kg 5 Front Yard	MH2_S010_FY_0-6 9/1/2009 mg/kg 5 Front Yard	MH2_S011_BY_0-6 8/31/2009 mg/kg 5 Back Yard	MH2_S011_BY_6-12 8/31/2009 mg/kg 5 Back Yard	MH2_S012_BY_0-6 8/31/2009 mg/kg 5 Back Yard	MH2_S012_BY_6-12 8/31/2009 mg/kg 5 Back Yard	MH2_S013_FY_0-6 8/31/2009 mg/kg 5 Front Yard
Aluminum	77,000	990,000	15,400	**13,000.00**	**12,000.00**	**13,000.00**	**13,000.00**	**14,000.00**	**14,000.00**	**15,000.00**	**14,000.00**	**13,000.00**	**15,000.00**
Antimony	31	410	NC	**1.70**	**1.40**	**1.60**	**3.20**	**0.00**	**8.70**	**1.50**	**5.10**	**2.50**	**3.90**
Arsenic	0.39	1.6	10.7	**15.00**	**11.00**	**13.00**	**24.00**	**7.40**	**26.00**	**16.00**	**23.00**	**19.00**	**24.00**
Barium	15,000	190,000	276	**210.00**	**180.00**	**190.00**	**190.00**	**200.00**	**210.00**	**190.00**	**280.00**	**240.00**	**220.00**
Beryllium	160	2,000	0.81	**1.2 J-**	**0.7 J-**	**0.8 J-**	**0.8 J-**	**0.7 J-**	**2.50**	**2.10**	**1 J-**	**0.8 J-**	**1.1 J-**
Cadmium	70	800	7.1	**18.00**	**21.00**	**24.00**	**58.00**	**6.80**	**58.00**	**23.00**	**64.00**	**38.00**	**58.00**
Calcium	NC	NC	NC	**16,000.00**	**9,600.00**	**11,000.00**	**12,000.00**	**6,600.00**	**17,000.00**	**10,000.00**	**8,700.00**	**7,400.00**	**17,000.00**
Chromium (total)[a]	280	1400	21.2	**24.00**	**21.00**	**23.00**	**23.00**	**20.00**	**42.00**	**29.00**	**23.00**	**19.00**	**24.00**
Cobalt	23	300	12.9	**7.4 J**	**9.50**	**8.8 J**	**7.8 J**	**7.4 J**	**9.90**	**13.00**	**14.00**	**9.90**	**11.00**
Copper	3,100	41,000	31.5	**61.00**	**43.00**	**100.00**	**88.00**	**24.00**	**130.00**	**65.00**	**99.00**	**58.00**	**110.00**
Iron	55,000	720,000	24,691	**23,000.00**	**21,000.00**	**26,000.00**	**24,000.00**	**21,000.00**	**37,000.00**	**36,000.00**	**24,000.00**	**22,000.00**	**28,000.00**
Lead	400	800	103	**330.00**	**200.00**	**300.00**	**350.00**	**72.00**	**660.00**	**360.00**	**710.00**	**310.00**	**530.00**
Magnesium	NC	NC	NC	**6,400.00**	**5,400.00**	**4,500.00**	**4,500.00**	**3,400.00**	**3,000.00**	**3,300.00**	**2,800.00**	**3,000.00**	**4,100.00**
Manganese	1,800	23,000	1,527	**710.00**	**1,100.00**	**850.00**	**1,100.00**	**780.00**	**950.00**	**770.00**	**1,200.00**	**960.00**	**1,100.00**
Mercury	5.6	34	1.32	**0.23**	**0.17**	**0.19**	**0.28**	**0.08**	**0.30**	**0.26**	**0.39**	**0.30**	**0.27**
Nickel	1,500	20,000	19.9	**20.00**	**19.00**	**24.00**	**24.00**	**18.00**	**29.00**	**33.00**	**28.00**	**19.00**	**29.00**
Potassium	NC	NC	NC	**1,900.00**	**1,700.00**	**2,200.00**	**2,000.00**	**1,900.00**	**2,300.00**	**2,700.00**	**2,200.00**	**1,900.00**	**2,200.00**
Selenium	390	5,100	NC	**0.67 J**	**0.6 J**	**0.73 J**	**1.2 J**	**0.43 J**	**1.3 J**	**0.68 J**	**1.3 J**	**0.99**	**1.2 J**
Silver	390	5,100	NC	1.0 U	0.9 U	1.0 U	**1.8 J**	1.0 U	**2.80**	1.0 U	**1.6 J**	**1.2 J**	**1.7 J**
Sodium	NC	NC	NC	**120 J**	**130 J**	**150 J**	**100 J**	**57 J**	**360 J**	**250 J**	**110 J**	**70 J**	**180 J**
Thallium[a]	5.1	66	NC	0.57 U	0.56 U	0.58 U	0.60 U	0.58 U	**0.6 J**	0.58 U	**0.8 J**	0.59 U	**0.61 J**
Vanadium	390	5,200	39.5	**40.00**	**37.00**	**41.00**	**38.00**	**41.00**	**52.00**	**50.00**	**42.00**	**39.00**	**42.00**
Zinc	23,000	310,000	1,310	**2,800.00**	**2,400.00**	**3,900.00**	**6,500.00**	**1,100.00**	**7,000.00**	**3,300.00**	**7,500.00**	**4,900.00**	**7,500.00**

Table 4.2.2-9
Detected XRF-Screened Soil Metals Results - Residential Area/Off-site Area
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Type Surface BTV (mg/kg)	MH2_S013_FY_6-12 8/31/2009 mg/kg 5 Front Yard	MH2_S014_BY_0-6 9/1/2009 mg/kg 5 Back Yard	MH2_S015_BY_0-6 8/31/2009 mg/kg 5 Back Yard	MH2_S016_BY_0-6 8/31/2009 mg/kg 5 Back Yard	MH2_S017_FY_0-6 8/31/2009 mg/kg 5 Front Yard	MH2_S018_FY_0-6 8/31/2009 mg/kg 5 Front Yard	MH2_S019_BY_0-6 8/31/2009 mg/kg 5 Back Yard	MH2_S020_FY_0-6 9/1/2009 mg/kg 5 Front Yard	MH2_S021_FY_0-6 9/1/2009 mg/kg 5 Front Yard	MH2_S022_BY_0-6 9/1/2009 mg/kg 5 Back Yard
Aluminum	77,000	990,000	15,400	**15,000.00**	**14,000.00**	**13,000.00**	**13,000.00**	**14,000.00**	**12,000.00**	**13,000.00**	**17,000.00**	**12,000.00**	**16,000.00**
Antimony	31	410	NC	**1.10**	**1.50**	**1.40**	**1.80**	**2.90**	**0.76 J**	**3.10**	**1.30**	**0.67 J**	**2.00**
Arsenic	0.39	1.6	10.7	**16.00**	**14.00**	**13.00**	**14.00**	**15.00**	**10.00**	**24.00**	**13.00**	**9.40**	**20.00**
Barium	15,000	190,000	276	**220.00**	**230.00**	**210.00**	**240.00**	**190.00**	**150.00**	**270.00**	**300.00**	**160.00**	**420.00**
Beryllium	160	2,000	0.81	**1.1 J-**	**1.2 J-**	**1 J-**	**1 J-**	**1 J-**	**0.8 J-**	**1 J-**	**1.50**	**1.00**	**1.60**
Cadmium	70	800	7.1	**27.00**	**16.00**	**19.00**	**24.00**	**52.00**	**9.00**	**50.00**	**15.00**	**4.30**	**17.00**
Calcium	NC	NC	NC	**8,400.00**	**23,000.00**	**9,200.00**	**16,000.00**	**11,000.00**	**14,000.00**	**11,000.00**	**23,000.00**	**18,000.00**	**30,000.00**
Chromium (total)[a]	280	1400	21.2	**21.00**	**25.00**	**46.00**	**32.00**	**21.00**	**20.00**	**23.00**	**30.00**	**19.00**	**31.00**
Cobalt	23	300	12.9	**12.00**	**9.5 J**	**7 J**	**7.9 J**	**6.9 J**	**8.1 J**	**8.2 J**	**11.00**	**8 J**	**9.3 J**
Copper	3,100	41,000	31.5	**40.00**	**59.00**	**59.00**	**53.00**	**62.00**	**36.00**	**97.00**	**50.00**	**24.00**	**66.00**
Iron	55,000	720,000	24,691	**25,000.00**	**28,000.00**	**23,000.00**	**24,000.00**	**24,000.00**	**22,000.00**	**23,000.00**	**29,000.00**	**22,000.00**	**29,000.00**
Lead	400	800	103	**250.00**	**350.00**	**360.00**	**260.00**	**310.00**	**110.00**	**540.00**	**490.00**	**78.00**	**1,600.00**
Magnesium	NC	NC	NC	**3,100.00**	**4,400.00**	**3,100.00**	**3,500.00**	**3,700.00**	**7,300.00**	**3,400.00**	**5,000.00**	**7,800.00**	**4,200.00**
Manganese	1,800	23,000	1,527	**1,000.00**	**1,600.00**	**630.00**	**760.00**	**660.00**	**600.00**	**910.00**	**1,200.00**	**830.00**	**1000 J-**
Mercury	5.6	34	1.32	**0.28**	**0.18**	**0.21**	**0.18**	**0.15**	**0.17**	**0.43**	**0.24**	**0.07**	**0.27**
Nickel	1,500	20,000	19.9	**21.00**	**27.00**	**19.00**	**26.00**	**22.00**	**20.00**	**22.00**	**28.00**	**19.00**	**29.00**
Potassium	NC	NC	NC	**1,600.00**	**2,500.00**	**2,000.00**	**1,700.00**	**1,800.00**	**2,000.00**	**1,900.00**	**2,600.00**	**1,200.00**	**3,200.00**
Selenium	390	5,100	NC	**0.67 J**	**0.64 J**	**0.7 J**	**0.73 J**	**1.1 J**	**1.00**	**1.4 J**	**0.73 J**	**0.47 J**	**0.89 J**
Silver	390	5,100	NC	1.0 U	**1.2 J**	1.0 U	**1.2 J**	**1.3 J**	1.0 U	**1.5 J**	**1.4 J**	0.9 U	**1.6 J**
Sodium	NC	NC	NC	**180 J**	**110 J**	**140 J**	**91 J**	**130 J**	**97 J**	**160 J**	**130 J**	**170 J**	**280 J**
Thallium[a]	5.1	66	NC	0.59 U	0.58 U	0.58 U	0.59 U	0.58 U	0.57 U	**0.68 J**	**0.6 J**	0.57 U	**0.62 J**
Vanadium	390	5,200	39.5	**44.00**	**39.00**	**42.00**	**40.00**	**38.00**	**37.00**	**38.00**	**44.00**	**38.00**	**45.00**
Zinc	23,000	310,000	1,310	**3,400.00**	**2,600.00**	**2,400.00**	**2,900.00**	**4,500.00**	**1,400.00**	**6,700.00**	**2,500.00**	**840.00**	**2,600.00**

Table 4.2.2-9
Detected XRF-Screened Soil Metals Results - Residential Area/Off-site Area
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Type Surface BTV (mg/kg)	MH2_S022_BY_6-12 9/1/2009 mg/kg 5 Back Yard	MH2_S023_BY_0-6 9/1/2009 mg/kg 5 Back Yard	MH2_S024_FY_0-6 9/1/2009 mg/kg 5 Front Yard	MH2_S024_FY_6-12 9/1/2009 mg/kg 5 Front Yard	MH2_S025_SY_0-6 9/1/2009 mg/kg 5 Side Yard	MH2_S026_SY_0-6 8/31/2009 mg/kg 5 Side Yard	MH2_S027_BY_0-6 9/1/2009 mg/kg 5 Back Yard	MH2_S028_FY_0-6 9/1/2009 mg/kg 5 Front Yard	MH2_S029_BY_0-6 9/1/2009 mg/kg 5 Back Yard	MH2_S030_BY_0-6 8/31/2009 mg/kg 5 Back Yard
Aluminum	77,000	990,000	15,400	**15,000.00**	**15,000.00**	**14,000.00**	**14,000.00**	**13,000.00**	**12,000.00**	**13,000.00**	**14,000.00**	**13,000.00**	**10,000.00**
Antimony	31	410	NC	**1.90**	**2.00**	**2.70**	**1.50**	**3.00**	**2.70**	**1.70**	**1.40**	**1.80**	**1.10**
Arsenic	0.39	1.6	10.7	**21.00**	**16.00**	**20.00**	**18.00**	**21.00**	**26.00**	**13.00**	**17.00**	**16.00**	**13.00**
Barium	15,000	190,000	276	**1,200.00**	**320.00**	**260.00**	**320.00**	**200.00**	**200.00**	**200.00**	**230.00**	**220.00**	**110.00**
Beryllium	160	2,000	0.81	**1.80**	**1.60**	**1.50**	**1.60**	**1.70**	**0.6 J-**	**1.2 J-**	**1.1 J-**	**1.60**	**0.8 J**
Cadmium	70	800	7.1	**24.00**	**16.00**	**30.00**	**26.00**	**38.00**	**32.00**	**18.00**	**13.00**	**13.00**	**5.40**
Calcium	NC	NC	NC	**26,000.00**	**29,000.00**	**24,000.00**	**12,000.00**	**27,000.00**	**9,800.00**	**34,000.00**	**29,000.00**	**40,000.00**	**18,000.00**
Chromium (total)[a]	280	1400	21.2	**28.00**	**28.00**	**29.00**	**23.00**	**23.00**	**19.00**	**24.00**	**29.00**	**21.00**	**19.00**
Cobalt	23	300	12.9	**11.00**	**9.2 J**	**12.00**	**14.00**	**11.00**	**8.4 J**	**7.9 J**	**14.00**	**8.5 J**	**7.9 J**
Copper	3,100	41,000	31.5	**59.00**	**61.00**	**100.00**	**58.00**	**92.00**	**73.00**	**86.00**	**43.00**	**52.00**	**36.00**
Iron	55,000	720,000	24,691	**33,000.00**	**30,000.00**	**33,000.00**	**33,000.00**	**34,000.00**	**26,000.00**	**25,000.00**	**27,000.00**	**32,000.00**	**24,000.00**
Lead	400	800	103	**2,200.00**	**320.00**	**480.00**	**280.00**	**380.00**	**360.00**	**320.00**	**250.00**	**300.00**	**620.00**
Magnesium	NC	NC	NC	**3,900.00**	**4,100.00**	**6,400.00**	**3,800.00**	**8,100.00**	**4,600.00**	**4,500.00**	**6,100.00**	**3,700.00**	**8,400.00**
Manganese	1,800	23,000	1,527	**1,300.00**	**1,200.00**	**3,400.00**	**1,400.00**	**2,300.00**	**900.00**	**1,000.00**	**1,600.00**	**1,100.00**	**640.00**
Mercury	5.6	34	1.32	**0.38**	**0.40**	**0.33**	**3.91**	**0.47**	**0.20**	**0.15**	**0.28**	**0.17**	**0.08**
Nickel	1,500	20,000	19.9	**32.00**	**29.00**	**34.00**	**26.00**	**29.00**	**19.00**	**22.00**	**26.00**	**24.00**	**21.00**
Potassium	NC	NC	NC	**3,000.00**	**3,300.00**	**2,000.00**	**2,000.00**	**2,100.00**	**1,800.00**	**2,300.00**	**2,200.00**	**2,400.00**	**1,600.00**
Selenium	390	5,100	NC	**0.85 J**	**0.97 J**	**0.71 J**	**0.8 J**	**0.83 J**	**0.91 J**	**0.74 J**	**0.68 J**	**0.71 J**	**0.49 J**
Silver	390	5,100	NC	**1.3 J**	**1.1 J**	**1.5 J**	1.0 U	1.0 U	**1.2 J**	**1.4 J**	1.0 U	1.0 U	1.0 U
Sodium	NC	NC	NC	**250 J**	**200 J**	**480 J**	**530 J**	**220 J**	**71 J**	**240 J**	**160 J**	**280 J**	**74 J**
Thallium[a]	5.1	66	NC	0.60 U	0.59 U	0.58 U	0.60 U	0.60 U	**1.3 J**	0.59 U	0.59 U	0.59 U	0.60 U
Vanadium	390	5,200	39.5	**44.00**	**41.00**	**44.00**	**45.00**	**43.00**	**36.00**	**37.00**	**48.00**	**40.00**	**36.00**
Zinc	23,000	310,000	1,310	**3,300.00**	**2,300.00**	**4,900.00**	**3,700.00**	**4,300.00**	**4,800.00**	**2,500.00**	**1,800.00**	**2,500.00**	**1,300.00**

Table 4.2.2-9
Detected XRF-Screened Soil Metals Results - Residential Area/Off-site Area
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	MH2_S031_SY_0-6 9/1/2009 mg/kg 5 Side Yard	MH2_S032_BY_0-6 9/1/2009 mg/kg 5 Back Yard	MH2_S033_BY_0-6 9/1/2009 mg/kg 5 Back Yard	MH2_S034_SY_0-6 9/1/2009 mg/kg 5 Side Yard	MH2_S035_FY_0-6 9/1/2009 mg/kg 5 Front Yard	MH2_S036_FY_0-6 9/1/2009 mg/kg 5 Front Yard	MH2_S037_FY_0-6 9/1/2009 mg/kg 5 Front Yard	MH2_S037_FY_6-12 9/1/2009 mg/kg 5 Front Yard	MH2_S038_BY_0-6 8/31/2009 mg/kg 5 Back Yard	408001 ME47D3 38553 5/13/2009 mg/kg 5	408021 ME47G3 38553 5/13/2009 mg/kg 408001 5
Aluminum	77,000	990,000	15,400	**15,000.00**	**15,000.00**	**14,000.00**	**13,000.00**	**14,000.00**	**16,000.00**	**12,000.00**	**14,000.00**	**12,000.00**	**7,830**	**7,360**
Antimony	31	410	NC	**1.20**	**2.20**	**1.20**	**2.10**	**2.20**	**2.90**	**3.40**	**2.60**	**1.60**	8.3 UJ	**1.1 J**
Arsenic	0.39	1.6	10.7	**13.00**	**15.00**	**11.00**	**21.00**	**17.00**	**20.00**	**25.00**	**21.00**	**9.70**	**5.9**	**5.7**
Barium	15,000	190,000	276	**160.00**	**340.00**	**200.00**	**150.00**	**220.00**	**230.00**	**200.00**	**250.00**	**200.00**	**138 J-**	**127 J-**
Beryllium	160	2,000	0.81	**1 J-**	**1.3 J-**	**1 J-**	**1.1 J-**	**1.30**	**1.60**	**1.80**	**2.90**	**0.7 J-**	0.69 U	0.69 U
Cadmium	70	800	7.1	**11.00**	**20.00**	**14.00**	**20.00**	**33.00**	**33.00**	**64.00**	**40.00**	**9.00**	**5.7**	**5.3**
Calcium	NC	NC	NC	**28,000.00**	**47,000.00**	**21,000.00**	**51,000.00**	**22,000.00**	**22,000.00**	**22,000.00**	**27,000.00**	**9,200.00**	**37,400**	**35,100**
Chromium (total)[a]	280	1400	21.2	**29.00**	**30.00**	**23.00**	**23.00**	**22.00**	**30.00**	**21.00**	**23.00**	**24.00**	**16.3**	**15.7**
Cobalt	23	300	12.9	**8.3 J**	**9.40**	**12.00**	**11.00**	**9.2 J**	**8.9 J**	**9.8 J**	**14.00**	**7.6 J**	**7.9**	**7.4**
Copper	3,100	41,000	31.5	**46.00**	**56.00**	**44.00**	**54.00**	**67.00**	**74.00**	**92.00**	**100.00**	**39.00**	**41.9**	**40.5**
Iron	55,000	720,000	24,691	**27,000.00**	**28,000.00**	**24,000.00**	**28,000.00**	**26,000.00**	**28,000.00**	**28,000.00**	**38,000.00**	**21,000.00**	**17,900**	**17,400**
Lead	400	800	103	**240.00**	**620.00**	**200.00**	**280.00**	**410.00**	**450.00**	**720.00**	**1,500.00**	**110.00**	**98.1**	**96.9**
Magnesium	NC	NC	NC	**7,800.00**	**5,500.00**	**6,500.00**	**12,000.00**	**6,700.00**	**6,100.00**	**7,000.00**	**5,500.00**	**3,200.00**	**9,240**	**8,570**
Manganese	1,800	23,000	1,527	**840.00**	**1,000.00**	**1,300.00 J-**	**1,600.00**	**1,100.00**	**1,300.00**	**1,300.00**	**1,300.00**	**1,400.00**	**745**	**708**
Mercury	5.6	34	1.32	**0.30**	**0.27**	**0.20**	**0.24**	**0.21**	**0.38**	**0.29**	**0.48**	**0.09**	**0.53 J-**	**0.59 J-**
Nickel	1,500	20,000	19.9	**26.00**	**27.00**	**24.00**	**29.00**	**22.00**	**30.00**	**25.00**	**35.00**	**19.00**	**22.3**	**21.7**
Potassium	NC	NC	NC	**2,000.00**	**2,200.00**	**2,100.00**	**3,000.00**	**1,900.00**	**2,400.00**	**1,600.00**	**1,700.00**	**1,800.00**	**1,230**	**1,210**
Selenium	390	5,100	NC	**0.71 J**	**0.65 J**	**0.6 J**	**0.92 J**	**0.73 J**	**0.73 J**	**0.82**	**0.76 J**	**0.47 J**	**1.6 J**	**1.9 J**
Silver	390	5,100	NC	**1.1 J**	**1.6 J**	0.9 U	**1.1 J**	**1 J**	**1.2 J**	**2.00**	**2.70**	1.0 U	1.4 UJ	1.4 UJ
Sodium	NC	NC	NC	**170 J**	**220 J**	**130 J**	**330 J**	**170 J**	**200 J**	**180 J**	**260 J**	**82 J**	**167 J**	**158 J**
Thallium[a]	5.1	66	NC	0.59 U	0.54 U	0.55 U	0.60 U	**0.6 J**	0.56 U	0.59 U	0.57 U	0.58 U	3.5 R	3.4 R
Vanadium	390	5,200	39.5	**40.00**	**43.00**	**40.00**	**33.00**	**41.00**	**44.00**	**43.00**	**48.00**	**38.00**	**23.7**	**22.1**
Zinc	23,000	310,000	1,310	**1,600.00**	**2,800.00**	**2,000.00**	**2,700.00**	**4,200.00**	**4,600.00**	**9,100.00**	**10,000.00**	**1,200.00**	**732 J**	**682 J**

Table 4.2.2-9
Detected XRF-Screened Soil Metals Results - Residential Area/Off-site Area
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Surface BTV (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Type	408002 ME47D4 38553 5/13/2009 mg/kg 5	408003 ME47D5 38553 5/13/2009 mg/kg 5	408004 ME47D6 38553 5/13/2009 mg/kg 5	408005 ME47D7 38553 5/13/2009 mg/kg 5	408006 ME47D8 38553 5/13/2009 mg/kg 5	408007 ME47D9 38553 5/13/2009 mg/kg 5	408008 ME47F0 38553 5/13/2009 mg/kg 5	408009 ME47F1 38553 5/13/2009 mg/kg 5	408010 ME47F2 38553 5/13/2009 mg/kg 5	408022 ME47G4 38553 5/13/2009 mg/kg 408010 5	408011 ME47F3 38553 5/13/2009 mg/kg 5	408012 ME47F4 38553 5/13/2009 mg/kg 5	408013 ME47F5 38553 5/13/2009 mg/kg 5	408014 ME47F6 38553 5/13/2009 mg/kg 5	408015 ME47F7 38553 5/13/2009 mg/kg 5	408016 ME47F8 38553 5/13/2009 mg/kg 5	408017 ME47F9 38553 5/13/2009 mg/kg 5
Aluminum	77,000	990,000	15,400		**11,200**	**3,790**	**11,500**	**7,570**	**9,550**	**12,100**	**11,100**	**12,600**	**9,650**	**8,970**	**12,000**	**7,660**	**7,160**	**8,110**	**12,300**	**12,300**	**12,100**
Antimony	31	410	NC		**2 J**	**2 J**	**1.9 J**	9 UJ	9 UJ	12.1 UJ	8.5 UJ	**13.1 J**	10 UJ	**4 J**	9.1 UJ	8.3 UJ	8 UJ	13.9 UJ	**19.6 J**	**20 J**	10.8 UJ
Arsenic	0.39	1.6	10.7		**15.3**	**9.2**	**7.2**	**9.6**	**11.6**	**16.5**	**11.6**	**55.3**	**22.6**	**17.9**	**35**	**8.5**	**5**	**21.3**	**75.5**	**74.8**	**37.8**
Barium	15,000	190,000	276		**114 J-**	**147 J-**	**164 J-**	**186 J-**	**184 J-**	**162 J-**	**175 J-**	**318 J-**	**222 J-**	**222 J-**	**220 J-**	**161 J-**	**113 J-**	**170 J-**	**278 J-**	**300 J-**	**243 J-**
Beryllium	160	2,000	0.81		**0.89 J+**	0.63 U	0.84 U	0.75 U	**0.79 J+**	1 U	**0.79 J+**	**1.5 J+**	**0.99 J+**	0.85 U	**1.3 J+**	0.69 U	0.67 U	1.2 UJ	**1.4 J+**	**1.5 J+**	**1.4 J+**
Cadmium	70	800	7.1		**13.8**	**6.3**	**23.4**	**42**	**45**	**56.1**	**40.7**	**190**	**99.8**	**75.5**	**121**	**29**	**7.8**	**94**	**328**	**467**	**223**
Calcium	NC	NC	NC		**85,900**	**25,200**	**78,800**	**185,000**	**53,300**	**93,400**	**34,100**	**62,200**	**52,100**	**40,000**	**54,800**	**23,600**	**17,900**	**66,100**	**77,000**	**96,800**	**46,000**
Chromium (total)[a]	280	1400	21.2		**23.1**	**10.8**	**21.3**	**13.7**	**17**	**27.5**	**19.1**	**28.8**	**19.2**	**18.2**	**24.9**	**14.1**	**14.7**	**17.4**	**24.6**	**24.2**	**24.6**
Cobalt	23	300	12.9		**10.3**	**6.7**	**7.8 J**	7.5 U	**9.1**	10.1 U	7.1 U	**14.4**	**10.7**	**10.9**	**13.5**	**11.3**	6.7 U	11.6 U	**15**	**15**	**14.9**
Copper	3,100	41,000	31.5		**37.6**	**129**	**46**	**81.8**	**60.2**	**124**	**69.5**	**364**	**161**	**110**	**192**	**11.4**	**26.5**	**188**	**495**	**455**	**236**
Iron	55,000	720,000	24,691		**29,400**	**13,600**	**15,600**	**11,500**	**16,300**	**23,000**	**17,800**	**31,900**	**19,200**	**17,600**	**30,800**	**14,500**	**16,300**	**17,000**	**30,600**	**31,000**	**32,200**
Lead	400	800	103		**68.9**	**101**	**114**	**234**	**171**	**344**	**173**	**883**	**374**	**255**	**518**	**100**	**101**	**416**	**1,290**	**1,600**	**742**
Magnesium	NC	NC	NC		**15,300**	**524**	**3,550**	**3,110**	**2,800**	**9,720**	**2,730**	**3,670**	**2,900**	**2,630**	**9,070**	**2,030**	**6,430**	**6,880**	**5,880**	**5,150**	**3,650**
Manganese	1,800	23,000	1,527		**1,070**	**652**	**1,250**	**1,140**	**1,490**	**2,490**	**1,180**	**2,480**	**1,920**	**2,050**	**2,010**	**1,410**	**643**	**1,480**	**1,450**	**1,890**	**2,860**
Mercury	5.6	34	1.32		**0.085 J-**	**0.4 J-**	**0.12 J-**	**0.45 J-**	**0.15 J-**	**0.62 J-**	**0.22 J-**	**2.4 J-**	**0.55 J-**	**0.23 J-**	**1.1 J-**	**0.11 J-**	**0.49 J-**	**0.63 J-**	**1 J-**	**0.77 J-**	**0.65 J-**
Nickel	1,500	20,000	19.9		**35.4**	**21.2**	**21.7**	**21**	**19.8**	**36**	**19.5**	**48.9**	**26.7**	**22.9**	**41.1**	**16.8**	**16.8**	**31.9**	**54.7**	**44.2**	**46.7**
Potassium	NC	NC	NC		**2,110**	**731**	**2,340**	**1,680**	**2,050**	**2,350**	**1,860**	**2,250**	**2,030**	**1,790**	**2,100**	**1,480**	**1,180**	**1,830**	**2,150**	**2,170**	**2,400**
Selenium	390	5,100	NC		**1.9 J**	**2 J**	**2.3 J**	5.2 U	5.3 U	7.1 U	4.9 U	6.9 U	5.8 U	**3 J**	5.3 U	4.9 U	4.7 U	8.1 U	7.1 U	7.4 U	6.3 U
Silver	390	5,100	NC		1.4 UJ	1.3 UJ	1.7 UJ	1.5 UJ	1.5 UJ	**2.3 J-**	1.4 UJ	**6.3 J-**	**2.6 J-**	1.7 UJ	**2.7 J-**	1.4 UJ	1.3 UJ	**4.3 J-**	**10 J-**	**8.7 J-**	**3.7 J-**
Sodium	NC	NC	NC		**316 J**	**146 J**	**384 J**	**343 J**	**325 J**	**425 J**	**226 J**	**598 J**	**408 J**	**329 J**	**327 J**	**176 J**	**133 J**	**425 J**	**666 J**	**696 J**	**371 J**
Thallium[a]	5.1	66	NC		3.4 R	3.1 R	4.2 R	3.7 R	3.8 R	5.1 R	3.5 R	24.8 UJ	16.6 UJ	4.3 R	19 UJ	3.5 R	3.3 R	5.8 R	50.5 UJ	53.2 UJ	22.4 UJ
Vanadium	390	5,200	39.5		**51.2**	**16.6**	**26.2**	**15.7**	**26**	**36**	**29.3**	**40.8**	**24.7**	**26.1**	**45**	**24.5**	**20.4**	**20.7**	**30.8**	**30.3**	**34.5**
Zinc	23,000	310,000	1,310		**1,380 J**	**1,030 J**	**2,700 J**	**4,500 J**	**5,450 J**	**6,610 J**	**5,000 J**	**29,100 J**	**14,200 J**	**9,060 J**	**18,800 J**	**3,470 J**	**924 J**	**9,870 J**	**48,400 J**	**51,500 J**	**27,500 J**

Table 4.2.2-9
Detected XRF-Screened Soil Metals Results - Residential Area/Off-site Area
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Type Surface BTV (mg/kg)	408018 ME47G0 38553 5/13/2009 mg/kg 5	408019 ME47G1 38553 5/13/2009 mg/kg 5	408020 ME47G2 38553 5/13/2009 mg/kg 5
Aluminum	77,000	990,000	15,400	**4,620**	**13,000**	**7,760**
Antimony	31	410	NC	8.6 UJ	**3.1 J**	8.6 UJ
Arsenic	0.39	1.6	10.7	**2.7**	**22.3**	**2.9 J+**
Barium	15,000	190,000	276	**67 J-**	**131 J-**	**70.1 J-**
Beryllium	160	2,000	0.81	0.72 U	**0.97 J+**	0.72 U
Cadmium	70	800	7.1	**2.6**	**87.9**	**6.8**
Calcium	NC	NC	NC	**24,500**	**17,600**	**28,200**
Chromium (total)[a]	280	1400	21.2	**9.8**	**22**	**15.1**
Cobalt	23	300	12.9	7.2 U	**10.5**	**6.1 J**
Copper	3,100	41,000	31.5	**14**	**88.5**	**25.5**
Iron	55,000	720,000	24,691	**13,300**	**24,900**	**15,700**
Lead	400	800	103	**20.8**	**240**	**48.6**
Magnesium	NC	NC	NC	**7,430**	**3,420**	**7,520**
Manganese	1,800	23,000	1,527	**457**	**1,060**	**328**
Mercury	5.6	34	1.32	0.13 UJ	**0.2 J-**	**0.085 J-**
Nickel	1,500	20,000	19.9	**13.4**	**27.5**	**19.3**
Potassium	NC	NC	NC	**841**	**1,970**	**1,160**
Selenium	390	5,100	NC	5 U	**2.5 J**	**3.1 J**
Silver	390	5,100	NC	1.4 UJ	1.4 UJ	1.4 UJ
Sodium	NC	NC	NC	**159 J**	**203 J**	**151 J**
Thallium[a]	5.1	66	NC	3.6 R	14.4 UJ	3.6 R
Vanadium	390	5,200	39.5	**15.3**	**39.2**	**19.2**
Zinc	23,000	310,000	1,310	**276 J**	**10,600 J**	**923 J**

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.2-9

Notes:
Bold values indicate a detection
Yellow shaded cells indicate a residential RSL exceedance
Red shaded cells indicate an industrial RSL and residential RSL exceedance
Gray shaded cells indicate an industrial or residential RSL exceedance but below the BTV

µg/L	Microgram per liter
µg/kg	Microgram per kilogram
mg/kg	Milligram per kilogram
A	Indicates surface soil sample
B	Indicates subsurface soil sample
bgs	Below ground surface
BTV	Background threshold value
CLP	Contract laboratory program
CFR	Code of Federal Regulations
ft	Feet
GWSV	Groundwater screening value
ID	Identification
info	Information
J	Estimated result
J-	Underestimated result
J+	Overestimated result
MCL	Maximum contaminant level (EPA)
NC	No criteria available
PCB	Polychlorinated biphenyls
ppm	Part per million
R	Rejected result
RL	Regulatory Level (CFR)
RSL	Regional Screening Level (EPA)
SB	Soil boring
SPLP	Synthetic precipitation leaching procedure
SV	Screening value
SVOC	Semivolatile organic compounds
Tap	Tap water screening criteria (EPA)
TCLP	Toxicity Characteristic Leaching Procedure (CFR)
U	Non-detect result
UJ	Non-detected and estimated result
VOC	Volatile organic compounds

a	Analyte is compared to the April 2009 residential and industrial RSLs
b	Sample was not analyzed at the CLP laboratory. The sample ID number is the soil boring location followed by the sample depth then "A" if the sample was a duplicate sample
--	Not applicable

Lithology Definitions:

L1	Native soils
L2	Slag
L3	Sinter
L4	Fill materials

Table 4.2.3-1
Detected Building Material Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Type	BM001 ME3SF8 36697 8/9/2007 mg/kg 2 concrete	BM002 ME3SG4 36697 8/9/2007 mg/kg 3 brick	BM003 ME3SG7 36697 8/9/2007 mg/kg 3 brick	BM004 ME3SH5 36697 8/9/2007 mg/kg 3 brick	BM005 ME3SW8 36720 8/16/2007 mg/kg 3 other/unknown	BM006 ME3SW9 36720 8/16/2007 mg/kg 3 other/unknown	BM007 ME3SX0 36720 8/16/2007 mg/kg 3 other/unknown	BM008 ME3SX1 36720 8/16/2007 mg/kg 3 other/unknown	BM009 ME3SX2 36720 8/16/2007 mg/kg 3 other/unknown	BM010 ME3SX3 36720 8/16/2007 mg/kg 3 other/unknown	BM011K-08 ME3WX6 37697 7/24/2008 mg/kg 3 brick	BM012T-08 ME3WX7 37697 7/24/2008 mg/kg 3 stone	BM200T-08 ME3X26 37697 7/24/2008 mg/kg BM012T-08 3 stone
Aluminum	77,000	990,000		**5,100**	**3,430**	**2,240**	**6,530**	**1,280**	**22,700**	**28,600**	**2,130**	**12,900**	**4,950**	**12,700**	**284**	**418**
Antimony	31	410		6.9 U	**9.2**	**10.9**	**35.1**	**359 J**	**2 J**	**412 J**	**18.6 J**	**323 J**	**370 J**	6.1 U	6 U	6 UJ
Arsenic	0.39	1.6		**2.3**	**37.8**	**57.3**	**136**	**55.3**	**7.1**	**17.4**	**72.7**	**12.6**	**85.7**	**6.7**	**2.2**	**1.2**
Barium	15,000	190,000		**36.9**	**127**	**86.1**	**82.5**	**37.7 J-**	**146 J-**	**129 J-**	**333 J-**	**50 J-**	**133 J-**	**75.1**	**41.3**	**40.8**
Beryllium	160	2,000		0.57 U	0.58 U	0.59 U	0.54 U	0.52 U	**0.6 J+**	**0.89 J+**	0.38 U	**0.62**	**0.91**	**0.7 J+**	**0.07 J+**	**0.096 J+**
Cadmium	70	800		**0.61 J-**	**30.3**	**90.1**	**737 J**	**95.6**	**4.5**	**148**	**33.2**	**111**	**101**	**53.8**	**0.27 J+**	**1.1**
Calcium	NC	NC		**185,000 J**	576 U	590 UJ	**8,800 J**	**981 J**	**28,800 J**	**43,400 J**	**852 J**	**1,700 J**	**6,420 J**	**9,690**	**348,000**	**340,000**
Chromium (total) [a]	280	1,400		**10.1 J**	**788 J**	**40.8 J**	**95.8 J**	**3.6**	**30.5**	**27.5**	**8.1**	**11.7**	**15.1**	**18**	**3.5**	**1.5**
Cobalt	23	300		5.7 UJ	5.8 UJ	**2.1 J**	**24.3 J**	5.2 U	5.6 U	**13**	2.4 U	**7**	**18.8**	**7.9**	**0.98 J**	**0.43 J**
Copper	3,100	41,000		**394**	**197**	**190**	**1,290**	**251 J**	**30.7 J**	**582 J**	**385 J**	**108 J**	**1,090 J**	**9.9**	**3**	**1.8 J**
Cyanide	1,600	20,000		**0.24 J**	2.9 U	3.0 U	**0.11 J**	2.6 U	2.8 UJ	3 UJ	2.9 UJ	2.7 UJ	2.6 UJ	2.5 U	2.5 U	2.5 U
Iron	55,000	720,000		**5,080 J**	**36,800 J**	**30,200 J**	**187,000 J**	**10,700**	**18,800**	**15,600**	**21,600**	**10,200**	**62,700**	**14,400**	**13,800**	**3,830**
Lead	400	800		**10.2**	**2,890**	**3,540**	**3,360**	**487**	**51.8**	**317**	**4,210**	**455**	**1,300**	**12.6**	**6.9**	**5.8**
Magnesium	NC	NC		**68,500 J**	**35.7 J**	**309 J**	**5,350**	522 U	**12,000**	**20,700**	585 U	**959**	**1,200**	**5,670**	**5,370**	**1,850**
Manganese	1,800	23,000		**316 J**	**68.3 J**	**94.3 J**	**1,520 J**	**1,650**	**232**	**762**	**92.2**	**140**	**456**	**353**	**2,500**	**1,290**
Mercury	5.6	34		0.11 U	**5.5**	**85.2**	**0.51 J-**	**0.38**	**0.22**	**0.34**	**8.5**	**0.18**	**0.92**	0.1 U	0.1 U	0.1 U
Nickel	1,500	20,000		R	**10.9 J**	R	**1,750 J**	**8.7**	**12.5**	**252**	**6.5**	**18.3**	**84.4**	**16.9**	**1.9 J**	**2.1 J**
Potassium	NC	NC		**1,140 J**	**4,800 J**	**3,570 J**	**357 J**	522 U	**12,400**	**11,000**	**1,070**	**1,340**	**635**	**595**	497 U	503 U
Selenium	390	5,100		4 U	**7.1**	**6.3**	**8.9**	**2.2 J**	3.9 U	4.2 U	**17.1**	3.8 U	**1.2 J**	3.5 UJ	3.5 UJ	3.5 UJ
Silver	390	5,100		1.1 U	**15.6**	**21.6**	**19.9**	**7.2 J**	**0.76 J**	**3 J**	**18.9 J**	**2.4 J**	**14.8 J**	1 UJ	0.99 UJ	1 UJ
Sodium	NC	NC		**3,100**	**445 J-**	**827 J-**	**13,000**	R	**1,460**	R	585 U	R	R	**1,320 J**	**145 J-**	**135 J-**
Thallium [a]	5.1	66		2.9 U	2.9 U	3 U	2.7 U	2.6 U	2.8 U	3 U	**4.8 J+**	2.7 U	2.6 U	2.5 U	2.5 U	2.5 U
Vanadium	390	5,200		**18.9 J-**	**31**	**20.8 J-**	**10.6 J-**	3.3 U	**49.8**	**31**	**16.8**	**18.9**	**22.2**	**58.1**	**8.2**	**2.5 J**
Zinc	23,000	310,000		**52,200 J**	**2,900 J**	**16,100 J**	**227,000 J**	**33,400**	**805**	**50,300**	**5,690**	**65,000**	**35,500**	**6,090**	**22**	**78.4**

Table 4.2.3-1
Detected Building Material Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID	BM013Z-08	BM014T-08	BM015Z-08	BM201Z-08	BM016C-08	BM017C-08	BM018K-08	BM019C-08	BM020K-08	BM021C-08	BM022K-08	BM023K-08	BM024C-08	BM025W-08	BM026K-08
			Sample ID	ME3WX8	ME3WX9	ME3WY0	ME3X27	ME3WY1	ME3WY2	ME3WY3	ME3WY4	ME3WY5	ME3WY6	ME3WY7	ME3WY8	ME3WY9	ME3WZ0	ME3WZ1
			Case	37697	37697	37697	37697	37697	37697	37697	37697	37697	37697	37697	37697	37697	37697	37697
			Sampling date	7/23/2008	7/23/2008	7/23/2008	7/23/2008	7/23/2008	7/22/2008	7/22/2008	7/22/2008	7/24/2008	7/24/2008	7/24/2008	7/21/2008	7/21/2008	7/22/2008	7/22/2008
			Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			Duplicate info				BM015Z-08											
			Investigation area	3	3	3	3	3	3	3	3	1	1	1	3	3	3	3
			Type	other/unknown	stone	other/unknown	other/unknown	concrete	concrete	brick	concrete	brick	concrete	brick	brick	concrete	wood	brick
Aluminum	77,000	990,000		**6,380**	**5,770**	**24,400**	**26,500**	**4,830**	**4,500**	**991**	**4,560**	**2,530**	**6,150**	**29,000**	**292**	**4,720**	**755**	**597**
Antimony	31	410		**1.2 J**	6.6 UJ	**15**	**15.7**	6 UJ	6 UJ	6.2 U	6.8 UJ	6.1 U	6.2 U	6 UJ	6.2 U	6.4 UJ	**8.4 J**	6 U
Arsenic	0.39	1.6		**2.4**	**3.3 J-**	**5.6**	**8**	**2**	**2.2**	**2.4**	**2.2**	**6.9**	**3.5**	**4.2**	**0.69 J**	**1.1**	**8.2**	1 U
Barium	15,000	190,000		**85.6**	**64.5**	**66.8**	**55.6**	**32.6**	**35.3**	**3.4 J**	**28**	**17.5 J**	**62.1**	**213**	20.7 U	**28.1**	**844**	20.2 U
Beryllium	160	2,000		**0.28 J+**	**0.35 J+**	**0.67**	**0.91 J+**	**0.23 J+**	**0.23 J+**	**0.06 J+**	**0.23 J+**	**0.11 J+**	**0.31 J+**	**0.45 J+**	0.52 U	**0.25 J+**	**0.13 J**	**0.059 J**
Cadmium	70	800		**37.6**	**3.3**	**335**	**208**	**1.9**	**6**	0.52 UJ	**2**	**12.3 J**	**13.3 J**	**0.37 J+**	**0.26 J**	**0.56**	**62.2**	**0.45 J**
Calcium	NC	NC		**102,000**	**108,000**	**1,170**	**1,780**	**100,000**	**95,400**	**1,600**	**127,000**	**8,950**	**165,000**	**24,500**	**142 J**	**86,300**	**1,580**	**2,600**
Chromium (total)[a]	280	1,400		**8.5**	**7**	**20.4**	**25**	**5.6**	**5.4**	**5 J-**	**5.2**	**10.3 J**	**8 J**	**15.1**	**3.7**	**5.4**	**3.3**	**2.6**
Cobalt	23	300		**3.2 J**	**5 J**	**7.7**	**13**	**2.1 J**	**3.6 J**	**0.96 J**	**3 J**	**1.4 J**	**3.3 J**	**4.7 J**	5.2 U	**2.3 J**	**1.7 J**	**0.84 J**
Copper	3,100	41,000		**10.6**	**24.1**	**170**	**309**	**16**	**10.1**	**4.4 J+**	**7.6**	**8.4 J**	**12.1 J**	**12.4**	**3.8**	**5.7**	**110**	**2.9**
Cyanide	1,600	20,000		2.7 U	2.7 U	2.6 U	2.6 U	**5.3**	**0.04 J-**	2.6 U	2.8 U	2.5 U	2.6 U	2.5 U	2.6 U	2.7 U	4.1 U	2.5 U
Iron	55,000	720,000		**7,440**	**31,700**	**8,150**	**15,200**	**6,560**	**7,290**	**11,800**	**6,460**	**23,800**	**12,400**	**7,280**	**974**	**5,990**	**4,600**	**8,900**
Lead	400	800		**42.2**	**274**	**186**	**143**	**189**	**9.3**	**2.8**	**25.3**	**8.4**	**9**	**10.3**	**87.7**	**9.9**	**2,110**	**5.9**
Magnesium	NC	NC		**15,300**	**28,700**	**1,480**	**2,080**	**30,100**	**21,600**	**407 J**	**64,000**	**1,570**	**36,000**	**14,300**	517 U	**21,600**	805 U	504 U
Manganese	1,800	23,000		**701**	**917**	**166**	**359**	**390**	**548**	**153**	**419**	**391**	**813**	**177**	**1.4 J**	**389**	**65.7**	**122**
Mercury	5.6	34		**0.36**	**1.7**	0.1 U	0.11 U	**1.5**	**0.037 J**	0.1 U	**0.56**	**0.061 J**	0.1 U	0.1 U	**0.22**	**0.063 J**	**17.8**	0.097 U
Nickel	1,500	20,000		**8.8**	**12**	**118**	**235**	**7**	**8**	**1.1 J-**	**5.8**	**2 J-**	**11.5 J**	**11.4**	**0.28 J**	**6.1**	**6 J**	**1 J**
Potassium	NC	NC		540 U	549 U	**6,550**	**4,930**	**424 J**	**300 J**	519 U	**680**	505 U	**982**	**16,800**	**244 J**	**461 J**	**103 J-**	**57.8 J-**
Selenium	390	5,100		3.8 UJ	3.8 UJ	3.7 U	3.7 UJ	3.5 UJ	3.5 UJ	3.6 UJ	4 UJ	3.5 UJ	3.6 UJ	3.5 UJ	**0.42 J**	3.7 UJ	**14.3**	3.5 U
Silver	390	5,100		1.1 UJ	1.1 UJ	**1.5 J-**	**1.3 J-**	1 UJ	1 UJ	1 UJ	1.1 UJ	1 UJ	1 UJ	0.99 UJ	1 UJ	1.1 UJ	**2.3 J-**	1 UJ
Sodium	NC	NC		**236 J-**	549 U	**3,920**	**2,690**	**273 J-**	**184 J-**	519 U	**279 J-**	505 U	518 U	**2,060 J**	**44.9 J-**	**190 J-**	**125 J-**	**98.2 J-**
Thallium[a]	5.1	66		2.7 U	2.7 U	2.6 U	2.6 U	2.5 U	2.5 U	2.6 UJ	2.8 U	2.5 UJ	2.6 UJ	2.5 U	2.6 U	2.7 U	4 U	2.5 U
Vanadium	390	5,200		**14.2**	**26.6**	**33.2**	**29.2**	**11.9**	**11.1**	**6.9 J**	**11.8**	**15.6 J**	**14.7 J**	**18.6**	**4.1 J**	**10.1**	**2.4 J**	**3.5 J**
Zinc	23,000	310,000		**992**	**572**	**21,500**	**37,400**	**407**	**667**	**37.6 J**	**354**	**1,480 J**	**650 J**	**45.2**	**36.2**	**98.1**	**10,800**	**82**

Table 4.2.3-1
Detected Building Material Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Type	BM027Z-08 ME3WZ2 37697 7/22/2008 mg/kg 3 other	BM028C-08 ME3WZ3 37697 7/22/2008 mg/kg 3 concrete	BM029W-08 ME3WZ4 37697 7/22/2008 mg/kg 3 wood	BM030C-08 ME3WZ5 37697 7/22/2008 mg/kg 3 concrete	BM202C-08 ME3X28 37697 7/22/2008 mg/kg BM030C-08 3 concrete	BM031K-08 ME3WZ6 37697 7/22/2008 mg/kg 3 brick	BM032K-08 ME3WZ7 37697 7/22/2008 mg/kg 3 brick	BM033Z-08 ME3WZ8 37697 7/23/2008 mg/kg 3 other/unknown	BM034T-08 ME3WZ9 37697 7/24/2008 mg/kg 3 stone	BM035C-08 ME3X00 37697 7/24/2008 mg/kg 3 concrete	BM036Z-08 ME3X01 37697 7/24/2008 mg/kg 3 other/unknown	BM037K-08 ME3X02 37697 7/24/2008 mg/kg 3 brick	BM038C-08 ME3X03 37697 7/24/2008 mg/kg 3 concrete	BM039K-08 ME3X04 37697 7/24/2008 mg/kg 3 brick	BM203K-08 ME3X29 37697 7/24/2008 mg/kg BM039K-08 3 brick
Aluminum	77,000	990,000		**5,360**	**4,610**	**118**	**1,120**	**7,110**	**507**	**108**	**24,900**	**725**	**6,700**	**6,160**	**2,300**	**4,420**	**284**	**1,650**
Antimony	31	410		6.1 UJ	6.3 UJ	**5.2 J**	6.3 UJ	**3.2 J-**	6.2 U	**0.62 J**	**8.6**	6 UJ	**1.5 J**	6.2 U	6.3 U	6.2 UJ	6.2 U	6.1 U
Arsenic	0.39	1.6		**1.8**	**1.3**	**1.1 J**	**1 J**	**7.1**	**1.6**	1 U	**8.4**	**0.42 J**	**3**	**2.1**	**5.5**	**3.1**	**1**	**7.4**
Barium	15,000	190,000		**41.1**	**28.4**	29.7 U	20.9 U	**71.7**	20.6 U	**3.2 J**	**70.2**	**18.9 J**	**43.6**	**58.2**	**20.8 J**	**43.4**	**0.59 J**	**4.8 J**
Beryllium	160	2,000		**0.27 J+**	**0.26 J+**	**0.019 J**	**0.064 J+**	**0.32 J+**	**0.012 J**	0.51 U	**0.83**	**0.13 J+**	**0.34 J+**	**0.28 J+**	**0.15 J+**	**0.27 J+**	**0.026 J**	**0.075 J**
Cadmium	70	800		**12.7**	**0.15 J**	**5.9**	**0.2 J**	**16.5**	**0.76**	**1.5 J**	**206**	**27**	**5.1 J**	**3.8 J**	**0.88 J**	**22.1**	**0.34 J**	**4.2 J**
Calcium	NC	NC		**90,600**	**97,900**	**626 J**	**29,500**	**104,000**	**240 J**	**129 J**	**2,510**	**353,000**	**97,700**	**114,000**	**17,100**	**132,000**	**245 J**	**1,250**
Chromium (total) [a]	280	1,400		**8.5**	**5.9**	1.5 U	**1.5**	**11**	**1.1**	**0.17 J**	**14.5**	**1.2**	**8 J**	**8 J**	**7.8 J**	**6.8**	**0.28 J-**	**2.1 J**
Cobalt	23	300		**2.9 J**	**2.5 J**	**0.46 J**	**0.82 J**	**5.3**	**0.26 J**	**0.095 J**	**9.1**	**0.81 J**	**2.9 J**	**2.6 J**	**1.9 J**	**3.9 J**	**0.15 J**	**0.4 J**
Copper	3,100	41,000		**11.3**	**5.6**	**59.4**	**2.8**	**56.2**	**6.9**	**3.7 J**	**64.4**	**4**	**11 J**	**9.5 J**	**6.7 J**	**14.7**	**1.8 J**	**12 J**
Cyanide	1,600	20,000		2.6 U	2.6 U	3.7 U	2.7 U	2.6 U	2.6 U	2.6 U	**0.044 J-**	2.5 U	**0.1 J-**	2.6 U	2.7 U	2.6 U	2.6 U	2.6 U
Iron	55,000	720,000		**7,030**	**5,360**	**1,510**	**2,080**	**14,000**	**768**	**70.9**	**10,600**	**2,140**	**7,650**	**8,450**	**20,400**	**9,780**	**303**	**1,610**
Lead	400	800		**17.2**	**3.7**	**88.3**	**3.4**	**32.6**	**31**	**4.4**	**576**	**18.9**	**47.3**	**7.7**	**3.1**	**20.1**	**1.2**	**15.1**
Magnesium	NC	NC		**22,400**	**29,000**	743 U	**8,490**	**43,500**	516 U	**23.5 J**	**1,310**	**2,710**	**10,500**	**20,400**	**2,090**	**46,900**	520 U	512 U
Manganese	1,800	23,000		**455**	**311**	**25.6**	**118**	**590**	**2.3**	**2.9**	**104**	**854**	**560**	**464**	**329**	**655**	**4.6**	**13.1**
Mercury	5.6	34		**0.049 J**	0.1 U	**0.4**	**0.059 J**	**0.17**	0.11 U	0.094 U	0.1 U	0.095 U	0.11 U	**0.043 J**	0.11 U	0.098 U	0.099 U	**0.092 J**
Nickel	1,500	20,000		**7.5**	**7.9**	**10.2**	**1.9 J**	**12.7**	**1.8 J**	**0.57 J**	**25.3**	**2.7 J**	**8.7 J**	**6.9 J**	**2.3 J-**	**10.5**	**0.26 J**	**0.96 J**
Potassium	NC	NC		**974**	523 U	743 U	522 U	**1,220**	516 U	512 U	**3,330**	501 U	545 U	**913**	521 U	**886**	520 U	**218 J**
Selenium	390	5,100		3.6 UJ	3.7 UJ	**0.89 J**	3.7 UJ	3.6 UJ	3.6 U	3.6 U	3.7 UJ	3.5 UJ	3.8 UJ	3.6 UJ	3.7 UJ	3.6 UJ	3.6 U	**0.77 J**
Silver	390	5,100		1 UJ	1 UJ	**0.43 J-**	1 UJ	**0.28 J-**	**0.12 J-**	1 UJ	**2 J-**	1 UJ	1.1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	**0.24 J-**
Sodium	NC	NC		**196 J-**	**226 J-**	**28.3 J-**	**7.6 J-**	**362 J-**	**41.5 J-**	512 U	**882 J**	**238 J**	545 U	**552**	521 U	**324 J**	**17.3 J-**	**112 J**
Thallium [a]	5.1	66		2.6 U	2.6 U	3.7 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.5 U	2.7 UJ	2.6 UJ	2.6 UJ	2.6 U	2.6 U	2.6 U
Vanadium	390	5,200		**14.3**	**9.5**	**0.3 J**	**2.8 J+**	**22.3**	**2.7 J**	**0.64 J**	**24.8**	**2.8 J+**	**12.9 J**	**11.3 J**	**14.4 J**	**13.4**	**1 J**	**6.4 J**
Zinc	23,000	310,000		**584**	**57.7**	**1,740**	**69.6**	**1,940**	**65.6**	**48.2 J**	**19,700**	**684**	**1,090 J**	**353 J**	**236 J**	**2,490**	**56.1**	**254 J**

Table 4.2.3-1
Detected Building Material Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Type	BM040K-08 ME3X05 37697 7/24/2008 mg/kg 3 brick	BM041C-08 ME3X06 37697 7/24/2008 mg/kg 3 concrete	BM042W-08 ME3X07 37697 7/24/2008 mg/kg 3 wood	BM043K-08 ME3X08 37697 7/25/2008 mg/kg 3 brick	BM044C-08 ME3X09 37697 7/25/2008 mg/kg 3 concrete	BM045K-08 ME3X10 37697 7/25/2008 mg/kg 2 brick	BM046W-08 ME3X11 37697 7/24/2008 mg/kg 3 wood	BM047Z-08 ME3X12 37697 7/25/2008 mg/kg 2 other/unknown	BM048C-08 ME3X13 37697 7/25/2008 mg/kg 2 concrete	BM049K-08 ME3X14 37697 7/25/2008 mg/kg 2 brick	BM050K-08 ME3X15 37697 7/23/2008 mg/kg 3 brick	BM051C-08 ME3X16 37697 7/23/2008 mg/kg 3 concrete	BM052C-08 ME3X17 37697 7/23/2008 mg/kg 3 concrete	BM204C-08 ME3X30 37697 7/23/2008 mg/kg BM052C-08 3 concrete	BM053K-08 ME3X18 37697 7/25/2008 mg/kg 3 brick	BM054C-08 ME3X19 37697 7/23/2008 mg/kg 3 concrete
Aluminum	77,000	990,000		**1,700**	**3,960**	**182**	**1,100**	**3,620**	**923**	**81.6**	**4,110**	**4,900**	**28,300**	**449**	**6,420**	**5,930**	**5,010**	**1,570**	**5,940**
Antimony	31	410		6.6 UJ	6.1 UJ	6.7 U	6 U	6.1 U	6.1 U	7 U	6.3 U	6.3 U	6.9 U	**2.1 J**	6.3 UJ	6.1 UJ	**1.4 J-**	6.3 U	6.1 UJ
Arsenic	0.39	1.6		**3.2**	**2**	1.1 U	**0.4 J**	**5.7**	**1.5**	R	**2.1**	**1.4**	**6.4**	**10.5**	**3.7**	**17.3**	**15.1**	**3.5**	**2**
Barium	15,000	190,000		**11.8 J**	**23**	**42**	**18.1 J**	**40**	**6.1 J**	**65.3**	**35.9**	**33.8**	**106**	20 U	**44.2**	**49.7**	**46.7**	**38.4**	**51.5**
Beryllium	160	2,000		**0.065 J+**	**0.25 J+**	0.56 U	**0.06 J**	**0.2 J+**	**0.049 J**	0.58 U	**0.23 J+**	**0.23 J+**	**1.3**	**0.025 J**	**0.28 J+**	**0.31 J+**	**0.22 J+**	**0.08 J+**	**0.28 J+**
Cadmium	70	800		**14.6**	**167**	**8.9**	**0.98 J**	**0.94 J**	**1.9**	**7.7**	**9.1 J**	**0.11 J**	**0.12 J**	**8.7**	**0.92 J+**	**4.4**	**6.7 J**	**4.5 J**	**3.8**
Calcium	NC	NC		**689**	**96,300**	**3,290**	**2,390**	**241,000**	**2,920**	**2,140**	**132,000**	**140,000**	**37,100**	**583**	**94,200**	**94,400**	**56,300**	**1,910**	**128,000**
Chromium (total) [a]	280	1,400		**9.6**	**5.7**	**1.2**	**2.1 J**	**6.2 J**	**4.9**	**3.1**	**6.1 J**	**8.1 J**	**21.4 J**	**1.3**	**12.8**	**13.6**	**14 J**	**6.4 J**	**9.7**
Cobalt	23	300		**1.2 J**	**2.1 J**	**0.39 J**	**0.64 J**	**2 J**	**0.9 J**	**0.15 J**	**2.2 J**	**1.9 J**	**8.1**	**0.28 J**	**3.7 J**	**3.8 J**	**2.9 J**	**1.8 J**	**3.6 J**
Copper	3,100	41,000		**15.6**	**9.4**	**440**	**1.8 J**	**8.6 J**	**2.9**	**20.9**	**8.1 J**	**15.6 J**	**14 J**	**9.4**	**10.9**	**14.4**	**11.1 J**	**12 J**	**9.6**
Cyanide	1,600	20,000		2.8 U	2.5 U	**8**	2.5 U	2.5 U	2.5 U	2.9 U	2.6 U	**1.3 J**	**0.1 J-**	2.5 U	**0.056 J-**	2.6 U	2.6 U	2.6 U	**0.17 J-**
Iron	55,000	720,000		**16,700**	**5,760**	**501**	**1,160**	**7,840**	**9,560**	**322**	**6,480**	**5,610**	**15,200**	**2,330**	**13,600**	**31,400**	**19,000**	**13,100**	**8,090**
Lead	400	800		**82.9**	**23.4**	**44.9**	**3.1**	**24.7**	**1.4**	**68.2**	**18.6**	**3.7**	**5.4**	**632**	**472**	**953**	**920**	**60.9**	**38.3**
Magnesium	NC	NC		550 U	**29,100**	557 U	497 U	**40,100**	**554**	580 U	**50,400**	**45,800**	**22,100**	499 U	**23,200**	**14,500**	**13,500**	**576**	**22,300**
Manganese	1,800	23,000		**205**	**296**	**75.4**	**15.3**	**883**	**148**	**22.7**	**465**	**405**	**250**	**24.4**	**458**	**584**	**593**	**411**	**622**
Mercury	5.6	34		**0.051 J**	0.1 U	**4**	0.1 U	0.1 U	0.1 U	0.11 U	**0.19**	0.1 U	0.12 U	**0.23**	**105**	**47**	**13.1**	0.1 U	**0.37**
Nickel	1,500	20,000		**3.8 J**	**5.7**	**1.2 J**	**1.5 J**	**6.8 J**	**0.82 J**	**0.61 J**	**5.9 J**	**5.3 J**	**19.9 J**	**1 J**	**8.9**	**9.9**	**8.4 J**	**8.9 J**	**9**
Potassium	NC	NC		550 U	508 U	557 U	**42.1 J-**	**940**	507 U	580 U	**566**	**481 J**	**4,880**	499 U	**532**	**620**	**849**	**92.4 J**	**1,090**
Selenium	390	5,100		3.9 UJ	3.6 UJ	**1 J**	3.5 U	3.6 UJ	3.5 U	**0.95 J**	3.7 UJ	3.7 UJ	4 UJ	**0.78 J**	**15.1**	**34.5**	**29.3**	3.7 UJ	3.6 UJ
Silver	390	5,100		1.1 UJ	**0.29 J-**	**0.15 J-**	0.99 UJ	1 UJ	1 UJ	**1.2 J-**	1 UJ	1.1 UJ	1.2 UJ	1 UJ	1 UJ	**0.37 J-**	**0.19 J-**	1 UJ	1 UJ
Sodium	NC	NC		**167 J-**	**262 J**	**270 J**	**75.8 J-**	**837**	**149 J-**	**90.4 J-**	**325 J**	**358 J**	**2,760**	**84 J-**	**331 J**	**290 J**	519 U	**170 J**	**438 J**
Thallium [a]	5.1	66		2.8 U	2.5 U	2.8 U	2.5 U	2.5 UJ	2.5 U	2.9 U	2.6 UJ	2.6 UJ	2.9 UJ	2.5 U	2.6 U	2.5 U	2.6 U	2.6 UJ	2.5 U
Vanadium	390	5,200		**13.7**	**8.5**	**1 J**	**5.8 J**	**9.4 J**	**5.8**	**0.43 J**	**10.1 J**	**9.8 J**	**52.7 J**	**3.1 J**	**18.2**	**18.1**	**10.8 J**	**8.5 J**	**13.1**
Zinc	23,000	310,000		**5,200**	**1,200**	**2,370**	**92.9 J**	**271 J**	**74.7**	**730**	**729 J**	**408 J**	**35.5 J**	**712**	**125**	**484**	**588 J**	**3,670 J**	**532**

Table 4.2.3-1
Detected Building Material Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID: BM055C-08 Sample ID: ME3X20 Case: 37697 Sampling date: 7/23/2008 Unit: mg/kg Duplicate info: Investigation area: 3 Type: concrete	Location ID: BM056Z-08 Sample ID: ME3X21 Case: 37697 Sampling date: 7/23/2008 Unit: mg/kg Duplicate info: Investigation area: 3 Type: other/unknown	Location ID: BM057K-08 Sample ID: ME3X22 Case: 37697 Sampling date: 7/23/2008 Unit: mg/kg Duplicate info: Investigation area: 3 Type: brick	Location ID: BM058W-08 Sample ID: ME3X23 Case: 37697 Sampling date: 7/23/2008 Unit: mg/kg Duplicate info: Investigation area: 3 Type: wood	Location ID: BM059K-08 Sample ID: ME3X24 Case: 37697 Sampling date: 7/23/2008 Unit: mg/kg Duplicate info: Investigation area: 3 Type: brick	Location ID: BM060Z-08 Sample ID: ME3X25 Case: 37697 Sampling date: 7/24/2008 Unit: mg/kg Duplicate info: Investigation area: 3 Type: other/unknown
Aluminum	77,000	990,000	**4,480**	**6,390**	**27,500**	**19.4 J**	**2,150**	**4,770**
Antimony	31	410	6.3 UJ	6.3 UJ	7.4 UJ	**6 J**	6 U	6.2 UJ
Arsenic	0.39	1.6	**2.7**	**8.7**	**6**	1.1 U	**0.83 J**	**2.2**
Barium	15,000	190,000	**38.6**	**95**	**112**	**30.8**	**27**	**34**
Beryllium	160	2,000	**0.23 J+**	**0.39 J+**	**1.1**	0.55 U	**0.2 J**	**0.25 J+**
Cadmium	70	800	**8.2**	**156**	**18.1**	**1.4**	**12.4**	**3.3**
Calcium	NC	NC	**131,000**	**141,000**	**54,900**	**4,120**	**1,330**	**110,000**
Chromium (total) [a]	280	1,400	**6**	**9.2**	**28.2**	1.1 U	**8.5**	**7**
Cobalt	23	300	**2.7 J**	**4.4 J**	**8.7**	5.5 U	**1.4 J**	**2.5 J**
Copper	3,100	41,000	**7.9**	**51.4**	**17.2**	**2.6 J**	**6.9**	**8.3**
Cyanide	1,600	20,000	**0.022 J-**	2.6 U	3.1 U	2.8 U	2.5 U	2.6 U
Iron	55,000	720,000	**7,600**	**14,300**	**20,400**	**71.6**	**5,400**	**6,770**
Lead	400	800	**21.4**	**297**	**130**	**3.4**	**121**	**23.1**
Magnesium	NC	NC	**60,200**	**42,300**	**20,800**	552 U	502 U	**19,600**
Manganese	1,800	23,000	**492**	**876**	**796**	**41.1**	**14.6**	**497**
Mercury	5.6	34	0.1 U	**0.48**	**0.054 J**	**0.16**	0.1 U	0.1 U
Nickel	1,500	20,000	**6.6**	**12.3**	**19.4**	**0.9 J**	**6.8**	**6.8**
Potassium	NC	NC	**633**	**767**	**1,500**	552 U	502 U	**1,080**
Selenium	390	5,100	3.6 UJ	3.7 UJ	4.3 UJ	**0.85 J**	3.5 U	3.6 UJ
Silver	390	5,100	1 UJ	**0.6 J-**	1.2 UJ	1.1 UJ	**0.35 J-**	1 UJ
Sodium	NC	NC	**298 J**	**248 J**	**2,410 J**	**70.1 J-**	**292 J**	**211 J**
Thallium [a]	5.1	66	2.6 U	2.6 U	3.1 U	2.8 U	2.5 U	2.6 U
Vanadium	390	5,200	**10.1**	**15.2**	**58.6**	5.5 U	**16.4**	**10.9**
Zinc	23,000	310,000	**410**	**6,410**	**2,110**	**210**	**513**	**294**

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.3-1

Notes:
Bold values indicate a detection
Yellow shaded cells indicate a residential RSL exceedance
Red shaded cells indicate an industrial RSL and residential RSL exceedance

µg/L	Microgram per liter
µg/kg	Microgram per kilogram
mg/kg	Milligram per kilogram
BM	Building material
J	Estimated result
J-	Underestimated result
J+	Overestimated result
NC	No criteria available
NS	Not sampled
R	Rejected result
RSL	Regional Screening Level (EPA)
SV	Screening value
TCLP	Toxicity Characteristic Leaching Procedure (CFR)
U	Non-detect result
UJ	Non-detected and estimated result

a	Analyte is compared to the April 2009 residential and industrial RSLs

Table 4.2.3-2
Detected Building Material VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Type	BM001 E3SF8 36697 8/9/2007 µg/kg 2 concrete	BM004 E3SH5 36697 8/9/2007 µg/kg 3 brick	BM005 E3SW8 36720 8/16/2007 µg/kg 3 other/unknown	BM006 E3SW9 36720 8/16/2007 µg/kg 3 other/unknown	BM007 E3SX0 36720 8/16/2007 µg/kg 3 other/unknown	BM008 E3SX1 36720 8/16/2007 µg/kg 3 other/unknown	BM009 E3SX2 36720 8/16/2007 µg/kg 3 other/unknown	BM010 E3SX3 36720 8/16/2007 µg/kg 3 other/unknown
1,1-Dichloroethene	240,000	1,100,000		5.1 U	3.8 U	5.1 U	5.5 U	5.5 U	**0.72 J**	5.1 U	5.5 U
Acetone	61,000,000	630,000,000		**11**	7.6 U	10 U	11 U	11 U	11 U	10 U	11 U
Benzene	1,100	5,400		5.1 U	3.8 U	5.1 U	5.5 U	5.5 U	5.6 U	5.1 U	5.5 UJ
Chloroform	290	1,500		**32 J**	3.8 U	5.1 U	5.5 U	5.5 U	5.6 U	5.1 U	5.5 UJ
Cyclohexane	7,000,000	29,000,000		**0.94 J**	**1.6 J**	5.1 U	5.5 U	5.5 U	5.6 U	5.1 U	5.5 UJ
m,p-Xylene	3,400,000	17,000,000		5.1 U	3.8 U	5.1 U	5.5 UJ	5.5 U	**0.85 J**	5.1 UJ	5.5 UJ
Methyl acetate	78,000,000	1,000,000,000		5.1 U	3.8 U	5.1 U	**2.2 J**	5.5 U	5.6 U	5.1 U	**21 J**
Methylcyclohexane	7,000,000	29,000,000		5.1 U	3.8 U	5.1 U	5.5 U	5.5 U	5.6 U	5.1 U	**0.83 J**
Methylene chloride	11,000	53,000		5.1 U	**0.5 J**	5.1 U	1.1 U	1.2 U	5.6 U	5.1 U	5.5 UJ
o-Xylene	3,800,000	19,000,000		5.1 U	3.8 U	5.1 U	5.5 UJ	5.5 U	5.6 U	5.1 UJ	5.5 UJ
Toluene	5,000,000	45,000,000		5.1 U	3.8 U	**0.58 J**	5.5 UJ	**6**	**21**	**2.3 J**	**6.6 J**
Trichloroethene	2,800	14,000		**8.2**	3.8 U	5.1 U	5.5 UJ	5.5 U	5.6 U	5.1 UJ	5.5 UJ

Table 4.2.3-2
Detected Building Material VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Type	BM025W-08 E3WZ0RE 37697 ug/kg µg/kg 3 wood	BM029W-08 E3WZ4 37697 7/22/2008 µg/kg 3 wood	BM042W-08 E3X07 37697 7/24/2008 µg/kg 3 wood	BM046W-08 E3X11RE 37697 7/24/2008 µg/kg 3 wood	BM058W-08 E3X23 37697 7/23/2008 µg/kg 3 wood
1,1-Dichloroethene	240,000	1,100,000		5.3 U	R	R	6.4 U	5.9 U
Acetone	61,000,000	630,000,000		11 U	**46 J**	R	13 U	12 U
Benzene	1,100	5,400		5.3 U	R	**6.2 J**	R	R
Chloroform	290	1,500		5.3 U	R	R	6.4 U	5.9 U
Cyclohexane	7,000,000	29,000,000		5.3 U	**2.5 J**	**7.3 J**	R	**7.3 J**
m,p-Xylene	3,400,000	17,000,000		5.3 U	R	**23 J**	R	**3 J**
Methyl acetate	78,000,000	1,000,000,000		5.3 U	**84 J**	**60 J**	6.4 U	**100**
Methylcyclohexane	7,000,000	29,000,000		5.3 U	R	R	R	R
Methylene chloride	11,000	53,000		**44 J**	**58 J**	**44 J**	**43**	**40**
o-Xylene	3,800,000	19,000,000		5.3 U	R	**21 J**	R	**0.91 J**
Toluene	5,000,000	45,000,000		**3 J**	R	**26 J**	R	R
Trichloroethene	2,800	14,000		5.3 U	R	R	R	R

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.3-2

Notes:
Bold values indicate a detection
Yellow shaded cells indicate a residential RSL exceedance
Red shaded cells indicate an industrial RSL and residential RSL exceedance

µg/L	Microgram per liter
µg/kg	Microgram per kilogram
mg/kg	Milligram per kilogram
BM	Building material
J	Estimated result
J-	Underestimated result
J+	Overestimated result
NC	No criteria available
NS	Not sampled
R	Rejected result
RSL	Regional Screening Level (EPA)
SV	Screening value
TCLP	Toxicity Characteristic Leaching Procedure (CFR)
U	Non-detect result
UJ	Non-detected and estimated result

a	Analyte is compared to the April 2009 residential and industrial RSLs

Table 4.2.3-3
Detected Building Material SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Type	BM001 E3SF8 36697 8/9/2007 µg/kg 2 concrete	BM002 E3SG4 36697 8/9/2007 µg/kg 3 brick	BM003 E3SG7 36697 8/9/2007 µg/kg 3 brick	BM004 E3SH5 36697 8/9/2007 µg/kg 3 brick	BM005 E3SW8 36720 8/16/2007 µg/kg 3 other/unknown	BM006 E3SW9 36720 8/16/2007 µg/kg 3 other/unknown	BM007 E3SX0 36720 8/16/2007 µg/kg 3 other/unknown	BM008 E3SX1 36720 8/16/2007 µg/kg 3 other/unknown	BM009 E3SX2 36720 8/16/2007 µg/kg 3 other/unknown
1,1'-Biphenyl	3,900,000	51,000,000		190 U	190 U	210 U	390 U	180 U	190 U	200 U	1,000 U	**27 J**
2-Methylnaphthalene	310,000	4,100,000		190 U	**30 J**	210 U	**32 J**	180 U	190 U	200 U	**290 J**	**86 J**
2-Methylphenol	3,100,000	31,000,000		190 U	190 U	210 U	390 U	180 U	190 U	200 U	1,000 U	180 U
4-Methylphenol	310,000	3,100,000		190 U	190 U	210 U	390 U	180 U	190 U	200 U	1,000 U	180 U
Acenaphthene	3,400,000	33,000,000		190 U	190 U	**12 J**	390 U	180 U	190 U	200 U	1,000 U	180 U
Acenaphthylene	3,400,000	33,000,000		190 U	190 U	210 U	**66 J**	180 U	190 U	200 U	1,000 U	180 U
Acetophenone	7,800,000	100,000,000		**31 J**	**23 J**	**33 J**	**34 J**	180 U	**35 J**	200 U	1,000 U	180 U
Anthracene	17,000,000	170,000,000		190 U	190 U	**25 J**	**95 J**	180 U	190 U	200 U	1,000 U	180 U
Benzaldehyde	7,800,000	100,000,000		**9 J**	**35 J**	210 U	390 U	180 U	190 U	200 U	1,000 U	180 U
Benzo(a)anthracene	150	2,100		190 U	**51 J**	**330**	**1,400**	180 UJ	190 U	200 U	**240 J**	**25 J**
Benzo(a)pyrene	15	210		190 U	**41 J**	**250**	**1,200**	180 UJ	190 U	200 U	**180 J**	**22 J**
Benzo(b)fluoranthene	150	2,100		190 U	**73 J**	**460**	**1,900**	**34 J**	190 U	**38 J**	**310 J**	**32 J**
Benzo(g,h,i)perylene	150	2,100		190 U	**30 J**	**140 J**	**670**	180 UJ	190 UJ	200 U	1,000 U	180 U
Benzo(k)fluoranthene	1,500	21,000		190 U	**19 J**	**160 J**	**560**	180 UJ	190 U	200 U	**110 J**	180 U
Bis(2-ethylhexyl)phthalate	35,000	120,000		**39 J**	**28 J**	**28 J**	**130 J**	22 U	46 U	47 U	1,000 U	37 U
Butylbenzylphthalate	260,000	910,000		**580**	190 U	210 U	390 U	180 U	190 U	200 U	1,000 U	180 U
Carbazole	17,000,000	170,000,000		190 U	190 U	**25 J**	**130 J**	180 U	190 U	200 U	1,000 U	180 U
Chrysene	15,000	210,000		190 U	**57 J**	**370**	**1,300**	**32 J**	190 U	**29 J**	**340 J**	**33 J**
Dibenzo(a,h)anthracene	15	210		190 U	190 U	**56 J**	**170 J**	180 UJ	190 UJ	200 U	1,000 U	180 U
Dibenzofuran	78,000	1,000,000		190 U	190 U	210 U	**24 J**	180 U	190 U	200 U	**140 J**	**36 J**
Diethylphthalate	49,000,000	490,000,000		190 U	190 U	210 U	390 U	180 U	190 U	200 U	1,000 U	180 U
Fluoranthene	2,300,000	22,000,000		190 U	**72 J**	**610**	**1,500**	**41 J**	190 U	**52 J**	**620 J**	**56 J**
Fluorene	2,300,000	22,000,000		190 U	190 U	210 U	390 U	180 U	190 U	200 U	1,000 U	180 U
Indeno(1,2,3-cd)pyrene	150	2,100		190 U	**36 J**	**180 J**	**760**	180 UJ	190 UJ	200 U	**130 J**	180 U
Naphthalene	3,600	18,000		190 U	**29 J**	210 U	**42 J**	180 U	190 U	200 U	1,000 U	**24 J**
Phenanthrene	17,000,000	170,000,000		**7.5 J**	**53 J**	**240**	**720**	**25 J**	190 U	200 U	**930 J**	**200**
Pyrene	1,700,000	17,000,000		190 U	**95 J**	**680**	**1,900**	**19 J**	190 U	**34 J**	**440 J**	**52 J**

Table 4.2.3-3
Detected Building Material SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Type	BM010 E3SX3 36720 8/16/2007 µg/kg 3 other/unknown	BM013Z-08 E3WX8 37697 7/23/2008 µg/kg 3 other/unknown	BM024C-08 E3WY9 37697 7/21/2008 µg/kg 3 concrete	BM025W-08 E3WZ0 37697 7/22/2008 µg/kg 3 wood	BM026K-08 E3WZ1 37697 7/22/2008 µg/kg 3 brick	BM027Z-08 E3WZ2 37697 7/22/2008 µg/kg 3 other/unknown	BM029W-08 E3WZ4 37697 7/22/2008 µg/kg 3 wood	BM038C-08 E3X03 37697 7/24/2008 µg/kg 3 concrete	BM039K-08 E3X04 37697 7/24/2008 µg/kg 3 brick	BM203K-08 E3X29 37697 7/24/2008 µg/kg BM039K-08 3 brick
1,1'-Biphenyl	3,900,000	51,000,000		3,700 U	180 U	180 U	180 U	180 U	170 U	**3,600 J**	180 U	170 U	180 UJ
2-Methylnaphthalene	310,000	4,100,000		**1,100 J**	**68 J**	180 U	180 U	180 U	170 U	**2,400 J**	180 U	170 U	180 U
2-Methylphenol	3,100,000	31,000,000		3,700 U	180 U	180 U	**42 J**	180 U	170 U	4,300 U	180 U	170 U	180 U
4-Methylphenol	310,000	3,100,000		3,700 U	180 U	180 U	**49 J**	180 U	170 U	4,300 U	180 U	170 U	180 U
Acenaphthene	3,400,000	33,000,000		3,700 U	**280**	180 UJ	**140 J**	180 U	**87 J**	**100,000 J**	180 U	170 U	180 U
Acenaphthylene	3,400,000	33,000,000		3,700 U	**37 J**	**280**	**55 J**	180 U	170 U	**37,000**	180 U	170 U	180 U
Acetophenone	7,800,000	100,000,000		3,700 U	180 U	180 U	180 U	180 U	170 U	4,300 U	180 U	170 U	180 U
Anthracene	17,000,000	170,000,000		3,700 U	**1,200**	**430**	**570**	180 U	**480**	**220,000**	180 U	170 U	**79 J**
Benzaldehyde	7,800,000	100,000,000		3,700 U	180 U	180 U	**240**	180 U	170 U	4,300 U	180 U	170 U	180 U
Benzo(a)anthracene	150	2,100		**840 J**	**2,500**	**2,800**	180 UJ	180 U	**6,100**	**270,000**	180 U	170 U	**250**
Benzo(a)pyrene	15	210		**2,900 J**	**4,500**	**5,600**	180 U	**82 J**	**7,900**	**200,000**	180 U	170 U	**170 J**
Benzo(b)fluoranthene	150	2,100		**1,500 J**	**1,700**	**2,500**	180 U	**38 J**	**6,000**	**210,000**	180 U	170 U	**420**
Benzo(g,h,i)perylene	150	2,100		3,700 UJ	**1,200**	**1,500**	**110 J**	180 U	**2,000**	**51,000 J**	180 U	170 U	**42 J**
Benzo(k)fluoranthene	1,500	21,000		3,700 U	**1,700**	**2,000**	180 U	**53 J**	**4,000**	**70,000 J**	180 U	170 U	**87 J**
Bis(2-ethylhexyl)phthalate	35,000	120,000		3,700 U	180 U	180 U	**240 J**	180 U	170 U	4,300 U	180 U	170 U	180 UJ
Butylbenzylphthalate	260,000	910,000		3,700 U	180 U	180 U	180 U	180 U	170 U	4,300 U	180 U	170 U	180 UJ
Carbazole	17,000,000	170,000,000		3,700 U	**320**	**430**	**220**	180 U	**510**	**64,000**	180 U	170 U	180 UJ
Chrysene	15,000	210,000		**2,900 J**	**1,900**	**2,400**	180 UJ	**81 J**	**5,700**	**210,000**	180 U	170 U	**520**
Dibenzo(a,h)anthracene	15	210		3,700 UJ	**270**	**390**	180 U	180 U	**590**	4,300 U	180 U	170 U	180 U
Dibenzofuran	78,000	1,000,000		3,700 U	**260**	**71 J**	**270**	180 U	**58 J**	**47,000 J**	180 U	170 U	**61 J**
Diethylphthalate	49,000,000	490,000,000		3,700 U	180 U	180 U	**74 J**	180 U	170 U	4,300 U	180 U	170 U	180 UJ
Fluoranthene	2,300,000	22,000,000		**1,000 J**	**7,400**	**9,100**	**2,200 J**	**190**	**8,700**	**1,200,000**	**63 J**	**75 J**	**750**
Fluorene	2,300,000	22,000,000		3,700 U	**250**	**90 J**	**200**	180 U	**71 J**	**110,000**	180 U	170 U	180 UJ
Indeno(1,2,3-cd)pyrene	150	2,100		**800 J**	**1,500**	**2,000**	**160 J**	180 U	**2,500**	**78,000 J**	180 U	170 U	**55 J**
Naphthalene	3,600	18,000		3,700 U	**63 J**	180 U	180 U	180 U	**37 J**	4,300 U	180 U	170 U	**54 J**
Phenanthrene	17,000,000	170,000,000		**2,600 J**	**6,300**	**5,400**	**4,100**	**130 J**	**3,800**	**1,100,000**	**62 J**	170 U	**480**
Pyrene	1,700,000	17,000,000		**3,400 J**	**7,300**	**8,300 J**	**260 J**	**140 J**	**9,300**	**910,000 J**	**52 J**	**64 J**	**680**

Table 4.2.3-3
Detected Building Material SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Type	BM041C-08 E3X06 37697 7/24/2008 µg/kg 3 concrete	BM042W-08 E3X07 37697 7/24/2008 µg/kg 3 wood	BM046W-08 E3X11 37697 7/24/2008 µg/kg 3 wood	BM051C-08 E3X16 37697 7/23/2008 µg/kg 3 concrete	BM054C-08 E3X19 37697 7/23/2008 µg/kg 3 concrete	BM056Z-08 E3X21 37697 7/23/2008 µg/kg 3 other	BM057K-08 E3X22 37697 7/23/2008 µg/kg 3 brick	BM058W-08 E3X23 37697 7/23/2008 µg/kg 3 wood	BM059K-08 E3X24 37697 7/23/2008 µg/kg 3 brick
1,1'-Biphenyl	3,900,000	51,000,000		180 U	**6,200 J**	180 U	170 U	4,300 U	180 U	200 U	**6,200**	180 UJ
2-Methylnaphthalene	310,000	4,100,000		180 U	**14,000**	180 U	170 U	4,300 U	180 U	200 U	**12,000**	180 U
2-Methylphenol	3,100,000	31,000,000		180 U	4,100 U	180 U	170 U	4,300 U	180 U	200 U	4,300 U	180 U
4-Methylphenol	310,000	3,100,000		180 U	4,100 U	180 U	170 U	4,300 U	180 U	200 U	4,300 U	180 U
Acenaphthene	3,400,000	33,000,000		180 U	**23,000 J**	180 U	170 U	4,300 U	180 U	200 U	**60,000 J**	180 U
Acenaphthylene	3,400,000	33,000,000		180 U	**48,000 J**	180 U	170 U	**3,300 J**	180 U	200 U	**3,900 J**	180 U
Acetophenone	7,800,000	100,000,000		180 U	4,100 U	180 U	170 U	4,300 U	180 U	200 U	4,300 U	180 U
Anthracene	17,000,000	170,000,000		180 U	**92,000**	**510**	170 U	**860 J**	180 U	200 U	**150,000**	180 U
Benzaldehyde	7,800,000	100,000,000		180 U	4,100 U	180 U	170 U	4,300 U	180 U	200 U	4,300 U	180 U
Benzo(a)anthracene	150	2,100		180 U	**220,000**	**420**	170 U	**8,400**	**56 J**	**51 J**	**78,000 J**	180 UJ
Benzo(a)pyrene	15	210		180 U	**170,000**	**250**	170 U	**11,000**	**180**	**100 J**	**64,000**	180 UJ
Benzo(b)fluoranthene	150	2,100		180 U	**200,000**	**330**	170 U	**12,000**	**100 J**	**65 J**	**73,000 J**	180 UJ
Benzo(g,h,i)perylene	150	2,100		180 U	**48,000 J**	**74 J**	170 U	**4,200 J**	**98 J**	**42 J**	**20,000**	180 UJ
Benzo(k)fluoranthene	1,500	21,000		180 U	**47,000 J**	**75 J**	170 U	**3,600 J**	**96 J**	**44 J**	**12,000**	180 UJ
Bis(2-ethylhexyl)phthalate	35,000	120,000		180 U	4,100 UJ	**110 J**	170 U	4,300 U	180 U	200 U	4,300 U	**1,100 J**
Butylbenzylphthalate	260,000	910,000		180 U	4,100 UJ	180 U	**310**	4,300 U	180 U	200 U	4,300 U	180 UJ
Carbazole	17,000,000	170,000,000		180 U	**43,000 J**	180 U	170 U	**3,700 J**	180 UJ	200 U	**28,000**	180 UJ
Chrysene	15,000	210,000		180 U	**180,000**	**420**	170 U	**9,000**	**65 J**	**51 J**	**75,000 J**	**39 J**
Dibenzo(a,h)anthracene	15	210		180 U	4,100 UJ	180 U	170 U	**1,300 J**	180 U	200 U	4,300 U	180 UJ
Dibenzofuran	78,000	1,000,000		180 U	**38,000 J**	180 U	170 U	**1,700 J**	180 UJ	200 U	**60,000**	180 UJ
Diethylphthalate	49,000,000	490,000,000		180 U	4,100 UJ	180 U	170 U	4,300 U	180 U	200 U	4,300 U	180 UJ
Fluoranthene	2,300,000	22,000,000		180 U	**530,000**	**1,900**	170 U	**29,000**	**66 J**	**67 J**	**410,000**	**100 J**
Fluorene	2,300,000	22,000,000		180 U	**64,000**	180 U	170 U	**1,100 J**	180 UJ	200 U	**61,000 J**	180 UJ
Indeno(1,2,3-cd)pyrene	150	2,100		180 U	**74,000**	**92 J**	170 U	**5,800 J**	**100 J**	**52 J**	**28,000**	180 UJ
Naphthalene	3,600	18,000		180 U	**7,200**	180 U	170 U	4,300 U	180 U	200 U	**2,500 J**	180 U
Phenanthrene	17,000,000	170,000,000		**67 J**	**810,000**	**500**	170 U	**23,000**	180 U	200 U	**380,000**	**110 J**
Pyrene	1,700,000	17,000,000		180 U	**480,000 J**	**1,500**	170 U	**20,000**	**80 J**	**100 J**	**240,000 J**	**73 J**

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.3-3

Notes:
Bold values indicate a detection
Yellow shaded cells indicate a residential RSL exceedance
Red shaded cells indicate an industrial RSL and residential RSL exceedance

µg/L	Microgram per liter
µg/kg	Microgram per kilogram
mg/kg	Milligram per kilogram
BM	Building material
J	Estimated result
J-	Underestimated result
J+	Overestimated result
NC	No criteria available
NS	Not sampled
R	Rejected result
RSL	Regional Screening Level (EPA)
SV	Screening value
TCLP	Toxicity Characteristic Leaching Procedure (CFR)
U	Non-detect result
UJ	Non-detected and estimated result

a	Analyte is compared to the April 2009 residential and industrial RSLs

Table 4.2.3-4
Detected Building Material PCB Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	BM002	BM003	BM004	BM006	BM008	BM010	BM020K-08	BM021C-08	BM042W-08	BM043K-08	BM044C-08
			Sample ID	E3SG4	E3SG7	E3SH5	E3SW9	E3SX1	E3SX3	E3WY5	E3WY6	E3X07	E3X08	E3X09
			Case	36697	36697	36697	36720	36720	36720	37697	37697	37697	37697	37697
			Sampling date	8/9/2007	8/9/2007	8/9/2007	8/16/2007	8/16/2007	8/16/2007	7/24/2008	7/24/2008	7/24/2008	7/25/2008	7/25/2008
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info											
			Investigation area	3	3	3	3	3	3	1	1	3	3	3
			Type	brick	brick	brick	other/unknown	other/unknown	other/unknown	brick	concrete	wood	brick	concrete
Aroclor-1016	3,900	21,000		37 U	40 U	37 U	37 U	39 U	36 U	34 U	34 U	**87**	32 U	33 U
Aroclor-1254	220	740		**28 J**	40 U	37 U	37 U	**200**	36 U	34 U	34 U	34 U	32 U	33 U
Aroclor-1260	220	740		**39**	**18 J**	**68**	**460**	39 U	**69**	**700**	**61**	**120 J**	**16 J**	**45 J**

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.3-4

Notes:
Bold values indicate a detection
Yellow shaded cells indicate a residential RSL exceedance
Red shaded cells indicate an industrial RSL and residential RSL exceedance

µg/L	Microgram per liter
µg/kg	Microgram per kilogram
mg/kg	Milligram per kilogram
BM	Building material
J	Estimated result
J-	Underestimated result
J+	Overestimated result
NC	No criteria available
NS	Not sampled
R	Rejected result
RSL	Regional Screening Level (EPA)
SV	Screening value
TCLP	Toxicity Characteristic Leaching Procedure (CFR)
U	Non-detect result
UJ	Non-detected and estimated result

a	Analyte is compared to the April 2009 residential and industrial RSLs

Table 4.2.3-5
Detected Building Material Pesticide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	BM002	BM003	BM004	BM005	BM006	BM008	BM009	BM010	BM020K-08	BM042W-08	BM051C-08	BM054C-08	BM058W-08
			Sample ID	E3SG4	E3SG7	E3SH5	E3SW8	E3SW9	E3SX1	E3SX2	E3SX3	E3WY5	E3X07	E3X16	E3X19	E3X23
			Case	36697	36697	36697	36720	36720	36720	36720	36720	37697	37697	37697	37697	37697
			Sampling date	8/9/2007	8/9/2007	8/9/2007	8/16/2007	8/16/2007	8/16/2007	8/16/2007	8/16/2007	7/24/2008	7/24/2008	7/23/2008	7/23/2008	7/23/2008
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info													
			Investigation area	3	3	3	3	3	3	3	3	1	3	3	3	3
			Type	brick	brick	brick	other/unknown	other/unknown	other/unknown	other/unknown	other/unknown	brick	wood	concrete	concrete	wood
4,4'-DDD	2,000	7,200		3.7 U	4 U	**7.9 J**	3.4 UJ	3.7 UJ	**1.2 J**	3.5 UJ	**55 J**	3.3 U	340 U	3.4 U	340 U	68 U
4,4'-DDE	1,400	5,100		3.7 U	4 U	3.7 U	3.4 U	3.7 U	**1.7 J**	**0.12 J**	**35 J**	3.3 U	340 U	3.4 U	340 U	68 U
4,4'-DDT	1,700	7,000		**7.2**	4 U	**9.9 J**	**2.3 J**	3.7 U	3.9 U	3.5 U	**22 J**	3.3 UJ	340 UJ	3.4 UJ	340 UJ	R
Aldrin	29	100		1.9 U	2.1 U	1.9 U	1.8 U	1.9 U	**1 J**	1.8 U	1.9 U	1.7 U	170 U	1.7 U	180 U	R
alpha-BHC	77	270		1.9 U	2.1 U	1.9 U	1.8 U	1.9 U	2 U	1.8 U	**0.97 J**	1.7 U	170 U	1.7 U	180 U	35 U
alpha-Chlordane	1,600	6,500		1.9 U	2.1 U	1.9 U	**0.2 J**	1.9 U	**1.3 J**	1.8 U	**9.1 J**	1.7 U	170 U	1.7 U	180 U	35 U
beta-BHC	270	960		1.9 U	2.1 U	1.9 U	1.8 U	1.9 U	**1.4 J**	1.8 U	**1.5 J**	1.7 U	**1,500 J**	1.7 U	180 U	35 U
delta-BHC	77	270		**0.17 J**	2.1 U	1.9 U	1.8 U	1.9 U	2 U	1.8 U	1.9 U	1.7 U	170 U	1.7 U	180 U	35 U
Dieldrin	30	110		**1.1 J**	4 U	3.7 U	3.4 U	**4.9 J**	3.9 U	3.5 U	**2.9 J**	3.3 U	340 U	3.4 U	340 U	R
Endosulfan I	370,000	3,700,000		1.9 U	2.1 U	**0.52 J**	1.8 U	1.9 U	**0.57 J**	1.8 U	**20 J**	1.7 U	170 U	1.7 U	180 U	35 U
Endosulfan II	370,000	3,700,000		3.7 U	4 U	3.7 U	3.4 U	3.7 U	3.9 U	3.5 U	38 U	**5.1 J**	340 U	3.4 U	340 U	68 U
Endosulfan sulfate	370,000	3,700,000		3.7 U	4 U	**2.9 J**	3.4 U	3.7 U	**3.2 J**	**0.17 J**	**39 J**	3.3 U	340 U	3.4 U	340 U	68 U
Endrin	18,000	180,000		3.7 U	**0.097 J**	3.7 U	3.4 U	**2.2 J**	**2.5 J**	3.5 U	**70 J**	3.3 U	340 U	R	340 U	R
Endrin aldehyde	18,000	180,000		**3.7 J**	4 U	**6.1 J**	**0.47 J**	**4.8 J**	3.9 U	**0.17 J**	**16 J**	3.3 U	340 U	**25 J**	340 U	68 U
Endrin ketone	18,000	180,000		3.7 U	4 U	**4.9 J**	3.4 U	**2.8 J**	**4.5 J**	3.5 U	**110 J**	**10 J**	**1,500 J**	3.4 U	**770 J**	**500**
gamma-Chlordane	1,600	6,500		1.9 U	2.1 U	**1.1 J**	1.8 U	1.9 U	2 U	1.8 U	11 U	1.7 U	170 U	1.7 U	180 U	35 U
Heptachlor	110	380		1.9 U	2.1 U	1.9 U	1.8 U	1.9 U	2 U	1.8 U	**0.87 J**	1.7 U	170 U	1.7 U	180 U	R
Heptachlor epoxide	53	190		**0.6 J**	2.1 U	**1.8 J**	1.8 U	**0.63 J**	**0.52 J**	1.8 U	**4.4 J**	1.7 U	170 U	1.7 U	180 U	35 U
Methoxychlor	310,000	3,100,000		19 U	21 U	**9.3 J**	**0.71 J**	**2.7 J**	20 U	18 U	190 U	17 U	1,700 U	17 U	1,800 U	350 U

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Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.3-5

Notes:
Bold values indicate a detection
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Red shaded cells indicate an industrial RSL and residential RSL exceedance

µg/L	Microgram per liter
µg/kg	Microgram per kilogram
mg/kg	Milligram per kilogram
BM	Building material
J	Estimated result
J-	Underestimated result
J+	Overestimated result
NC	No criteria available
NS	Not sampled
R	Rejected result
RSL	Regional Screening Level (EPA)
SV	Screening value
TCLP	Toxicity Characteristic Leaching Procedure (CFR)
U	Non-detect result
UJ	Non-detected and estimated result

a	Analyte is compared to the April 2009 residential and industrial RSLs

Table 4.2.3-6
Detected Building Material Asbestos Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Location ID	BM002	BM003	BM004	BM007	BM054C
	Sample ID	ME3SG4	ME3SG9	ME3SH5	ME3SX0	concrete
	Sampling date	8/9/2007	8/9/2007	8/9/2007	8/16/2007	7/23/2008
	Investigation Area	3	3	3	3	3
	Type	brick	brick	brick	other/unknown	concrete
Asbestos		**1.5**	**0.25**	**5.25**	**0.75**	**7**

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.3-6

Notes:
Bold values indicate a detection
Yellow shaded cells indicate a residential RSL exceedance
Red shaded cells indicate an industrial RSL and residential RSL exceedance

µg/L	Microgram per liter
µg/kg	Microgram per kilogram
mg/kg	Milligram per kilogram
BM	Building material
J	Estimated result
J-	Underestimated result
J+	Overestimated result
NC	No criteria available
NS	Not sampled
R	Rejected result
RSL	Regional Screening Level (EPA)
SV	Screening value
TCLP	Toxicity Characteristic Leaching Procedure (CFR)
U	Non-detect result
UJ	Non-detected and estimated result

a	Analyte is compared to the April 2009 residential and industrial RSLs

TABLE 4.2.3-7
Detected Building Material TCLP Metals Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Location ID / Sample ID / Case / Sampling date / Unit / Investigation Area / Type	TCLP SV (µg/L)	BM013Z-08 ME3WX8 37697 7/23/2008 µg/L 3 other/unknown	BM028C-08 ME3WZ3 37697 7/22/2008 µg/L 3 concrete	BM042W-08 ME3X07 37697 7/24/2008 µg/L 3 wood	BM049K-08 ME3X14 37697 7/25/2008 µg/L 2 brick	BM059K-08 ME3X24 37697 7/23/2008 µg/L 3 brick
Arsenic		5,000	10.0 U	10.0 U	4.9 U	**98.2**	10.0 U
Barium		100,000	**108 J**	**108 J**	**225**	**46.7 J**	**110 J**
Cadmium		1,000	5.0 U	5.0 U	**82.2**	**1.2 J**	**35.8**
Chromium (total)		5,000	**17.7**	10.0 U	10.0 U	10.0 U	10.0 U
Lead		5,000	**22.1**	**19.3**	**26.8**	**19.2**	**206**
Silver		5,000	10.0 UJ	10.0 UJ	10.0 UJ	10.0 UJ	**2.9 J-**
Zinc		NC	60.0 U	60.0 U	**17300**	**92.4**	**1730**

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.3-7

Notes:
Bold values indicate a detection
Yellow shaded cells indicate a residential RSL exceedance
Red shaded cells indicate an industrial RSL and residential RSL exceedance

µg/L	Microgram per liter
µg/kg	Microgram per kilogram
mg/kg	Milligram per kilogram
BM	Building material
J	Estimated result
J-	Underestimated result
J+	Overestimated result
NC	No criteria available
NS	Not sampled
R	Rejected result
RSL	Regional Screening Level (EPA)
SV	Screening value
TCLP	Toxicity Characteristic Leaching Procedure (CFR)
U	Non-detect result
UJ	Non-detected and estimated result

a	Analyte is compared to the April 2009 residential and industrial RSLs

Table 4.2.4-1
Detected Pile Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area	P001S ME3R65 36631 7/18/2007 mg/kg 3	P002S ME3R66 36631 7/18/2007 mg/kg 3	P003S ME3R67 36631 7/18/2007 mg/kg 2	P004S ME3R68 36631 7/18/2007 mg/kg 3	P005S ME3R69 36631 7/18/2007 mg/kg 3	P006S ME3R70 36631 7/18/2007 mg/kg 3	P007S ME3R71 36631 7/18/2007 mg/kg 3	P008S ME3R72 36631 7/18/2007 mg/kg 3	P100S ME3R80 36631 7/18/2007 mg/kg P008S 3	P009S ME3R73 36631 7/18/2007 mg/kg 3	P010S ME3R74 36631 7/18/2007 mg/kg 3	P011S ME3R75 36631 7/19/2007 mg/kg 3	P012S ME3R76 36631 7/19/2007 mg/kg 3
Aluminum	77,000	990,000		**5,200**	**5,130**	**5,160**	**7,300**	**7,800**	**6,140**	**12,500**	**9,810**	**7,310**	**8,910**	**9,440**	**65.2**	**6,740**
Antimony	31	410		**3.6 J-**	**12.8 J-**	**5.1 J-**	**18.4 J-**	**9.1 J-**	**27.4 J-**	**5 J-**	**21.2 J-**	**50.1 J-**	**6.9 J-**	**34.1 J-**	**9.9 J-**	**7.3 J-**
Arsenic	0.39	1.6		**15.7 J-**	**42.4 J-**	**16.9 J-**	**44.3 J-**	**38 J-**	**135 J-**	**86.5 J-**	**89 J-**	**139 J-**	**35.3 J-**	**50.2 J-**	1.1 U	**38.1**
Barium	15,000	190,000		**69.1 J**	**214 J**	**138 J**	**186 J**	**247 J**	**2,080 J**	**546 J**	**356 J**	**272 J**	**523 J**	**148 J**	**5.9 J**	**30.5 J**
Beryllium	160	2,000		**1**	**0.66**	**0.81**	**1.2**	**1.2**	**1.5**	**1.6**	**1.9**	**1.4**	**2.2**	**1.4**	0.57 U	**0.45 J+**
Cadmium	70	800		**53.1 J-**	**108 J-**	**108 J-**	**106 J-**	**72.8 J-**	**49.2 J-**	**156 J-**	**253 J-**	**373 J-**	**114 J-**	**179 J-**	**0.8**	**90.9**
Calcium	NC	NC		**87,000 J**	**12,300**	**3,720**	**24,100**	**46,700**	**5,280**	**40,400**	**3,820**	**2,950**	**10,700**	**7,860**	**147 J**	**619 J**
Chromium (total) [a]	280	1,400		**21.1 J-**	**27.7 J-**	**10.8 J-**	**19.1 J-**	**24.4 J-**	**10.8 J-**	**48.5 J-**	**43.4 J-**	**33.1 J-**	**24.4 J-**	**69.1 J-**	**0.74 J**	**8.6**
Cobalt	23	300		**9.9**	**6.3**	**7.1**	**14.1**	**16.5**	**36.3**	**19.5**	**26.3**	**25.6**	**20.1**	**27.1**	5.7 U	**8.9**
Copper	3,100	41,000		**185 J-**	**525 J-**	**312 J-**	**477 J-**	**625 J-**	**1,460 J-**	**324 J-**	**907 J-**	**879 J-**	**673 J-**	**3,000 J-**	**5.9**	**178**
Cyanide	1,600	20,000		**0.44 J-**	**0.48 J-**	**0.44 J-**	**0.54 J-**	**1 J-**	3.1 UJ	**0.79 J-**	3.1 UJ	3.1 UJ	3 UJ	3.1 UJ	**0.42 J-**	2.9 U
Iron	55,000	720,000		**51,300 J**	**55,300 J**	**12,100**	**36,500 J**	**37,000 J**	**114,000 J**	**30,700 J**	**110,000 J**	**89,100 J**	**56,300 J**	**89,300 J**	**1,080 J**	**11,200 J**
Lead	400	800		**6,210 J**	**7,550 J**	**1,120 J**	**944 J**	**673 J**	**6,100 J**	**2,250 J**	**6,480 J**	**3,800 J**	**2,290 J**	**1,100 J**	**51,900 J**	**637**
Magnesium	NC	NC		**56,600 J**	**4,310 J**	**894 J**	**10,800 J**	**17,400 J**	**3,750 J**	**11,300 J**	**2,260 J**	**1,740 J**	**951 J**	**2,110 J**	567 U	**793**
Manganese	1,800	23,000		**1,080**	**3,000 J**	**500**	**1,090**	**2,170**	**934**	R	**1,200**	**1,310**	**357**	**1,830**	**9.3**	**158**
Mercury	5.6	34		**1.2**	**0.2 J-**	**0.45**	**0.47**	**0.58**	**0.9**	**1**	**1.1**	**0.61**	**0.33**	**1.1**	**0.69 J+**	**0.68 J+**
Nickel	1,500	20,000		**27 J-**	**50.09 J-**	**38.9 J-**	**44.4 J-**	**61.9 J-**	**47.9 J-**	**49.9 J-**	**123 J-**	**133 J-**	**48.9 J-**	**1,170 J-**	4.5 U	**15.2**
Potassium	NC	NC		**978 J**	**279 J**	**784 J**	**890 J**	**1,550 J**	**648 J**	**2,830 J**	**622 J**	**478 J**	**674 J**	**571 J**	567 UJ	**704 J**
Selenium	390	5,100		**2.8 J-**	**2.6 J-**	**1.9 J-**	**2.4 J-**	**3.8 J-**	**3.7 J-**	**9.4 J-**	**4.3 J-**	**4.3 J-**	**3.3 J-**	**5.3 J-**	**1.4 J-**	**1.6 J-**
Silver	390	5,100		**2.2**	**3.8**	**2.8**	**5**	**4.8**	**17.7**	**4.7**	**12.5**	**14.1**	**6**	**22.1**	**0.97 J+**	**4.7 J+**
Sodium	NC	NC		**194 J**	**206 J**	**269 J**	**476 J**	**286 J**	624 U	**2,270**	**337 J**	**257 J**	**241 J**	**704**	567 U	**268 J**
Thallium [a]	5.1	66		2.9 U	**1.6 J**	2.9 U	**2 J**	3.3 U	**5.6**	**5.7**	3.1 U	3.1 U	3 U	3.1 U	2.8 UJ	2.9 UJ
Vanadium	390	5,200		**22.1**	**15.8**	**15.2**	**24.8**	**27.5**	**15.4**	**59.8**	**47.5**	**31.1**	**40**	**32.2**	5.7 U	**11.1**
Zinc	23,000	310,000		**22,800 J**	**34,000 J**	**17,600 J**	**18,900 J**	**15,500 J**	**21,700 J**	**22,700 J**	**29,800 J**	**31,000 J**	**20,400 J**	**38,400 J**	**69.8**	**23,600 J**

Table 4.2.4-1
Detected Pile Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID / Sample ID / Case / Sampling date / Unit / Duplicate info / Investigation area	P013S ME3R77 36631 7/19/2007 mg/kg 3	P014S ME3R78 36631 7/19/2007 mg/kg 3	P015S ME3R79 36631 7/19/2007 mg/kg 3	P016 ME3RR0 36648 7/26/2007 mg/kg 2	P017 ME3RR1 36648 7/26/2007 mg/kg 2	P018 ME3S27 36664 8/2/2007 mg/kg 1	P019 ME3S28 36664 8/2/2007 mg/kg 3	P020 ME3S29 36664 8/2/2007 mg/kg 3	P021 ME3S30 36664 8/2/2007 mg/kg 3	P021B ME3S31 36664 8/2/2007 mg/kg P021 3	P022 ME3S32 36664 8/2/2007 mg/kg 3	P023 ME3S33 36664 8/2/2007 mg/kg 3	P024 ME3S34 36664 8/2/2007 mg/kg 3
Aluminum	77,000	990,000		**2,150**	**1,080**	**10,400**	**409**	**4,890**	**237**	**79.8**	**10,400**	**12,400**	**8,680**	**14,300**	**6,180**	**12,700**
Antimony	31	410		**40.7 J-**	**13.7 J-**	**6.4 J-**	9.9 U	**8.4 J+**	**9.9 J+**	**1.3 J**	**7.7 J+**	**61.3**	**38.4**	**85.6**	**15.1**	**21.6**
Arsenic	0.39	1.6		**421**	**78**	**32.3**	1.7 U	**5.9**	**22.5**	1.2 U	**27.4**	**45**	**115**	**309**	**5.9**	**87 J**
Barium	15,000	190,000		**245 J**	**22 J**	**172 J**	33 U	**1,000**	**125**	**50**	**113**	**81.8**	**67.7**	**148**	**63.1**	**207**
Beryllium	160	2,000		**0.78 J+**	**1.2 J+**	**0.71 J+**	0.83 U	**0.83**	0.54 U	0.59 U	**0.78**	**0.83**	0.6 U	0.59 U	0.55 U	**1.2 J+**
Cadmium	70	800		**29.5**	**7,350 J**	**76.4**	0.83 UJ	**10.9 J**	**113**	**2.5**	**768**	**147**	**79.5**	**508**	**16.8**	**124 J**
Calcium	NC	NC		**13,500 J**	**930 J**	**1,150 J**	**434,000 J**	**172,000 J**	**242 J**	**1,780**	**32,200**	**1,130**	**1,520**	**932**	**12,200**	**10,300 J**
Chromium (total) [a]	280	1,400		**11.6**	**35.4**	**12.2**	**5.6 J**	**43 J**	**13.1 J**	1.2 UJ	**21.4 J**	**22 J**	**21 J**	**46.2 J**	**8.3 J**	**20.9**
Cobalt	23	300		**5.5 J**	**10.2**	**10.6**	8.3 UJ	5.4 UJ	**1.3 J**	5.9 U	**13**	**13.1**	**16.5**	**13.2**	**3.5 J**	**13.6 J**
Copper	3,100	41,000		**1,020**	**457**	**157**	**108**	**12,500**	**233**	**8.1**	**187**	**733**	**705**	**2,010**	**4,040**	**897**
Cyanide	1,600	20,000		3.1 U	3.1 U	**0.56 J-**	**3.3 J**	**105**	**0.11 J**	2.9 U	**0.28 J**	**0.79 J**	**0.87 J**	**0.17 J**	**0.65 J**	**0.59 J**
Iron	55,000	720,000		**95,200 J**	**153,000 J**	**20,800 J**	**553 J**	**71,200 J**	**19,500**	**69.6**	**46,600**	**72,300**	**86,900**	**103,000**	**7,020**	**28,500**
Lead	400	800		**4,440 J**	**1,900**	**2,080**	**3.1 J-**	**245 J**	**3,250**	**1,060**	**819**	**1,020**	**1,550**	**7,930**	**155**	**3,180 J**
Magnesium	NC	NC		**324 J**	**356 J**	**965**	**2,110**	**4,480**	543 U	588 U	**10,300**	**953**	**1,190**	588 U	**6,510**	**2,480**
Manganese	1,800	23,000		**198**	**832**	**223**	**16.9 J**	**720 J**	**60.1**	**1.1 J**	**1,200**	**598**	**716**	**642**	**283**	**704 J**
Mercury	5.6	34		**35 J+**	**1.5 J+**	**50.1 J+**	0.17 U	**0.32**	**5.4 J+**	**0.68 J+**	**1.4 J+**	**0.79 J+**	**1.6 J+**	**9.2 J+**	**0.15 J+**	**5.4**
Nickel	1,500	20,000		**6**	**148**	**21.2**	**2.5 J**	**19.8**	4.3 U	**0.63 J**	**35.7**	**19.8**	**13.4**	R	R	**67.4 J**
Potassium	NC	NC		**877 J**	614 UJ	**894 J**	**2,430 J**	**8,730 J**	543 UJ	588 UJ	**2,340 J**	**923 J**	**687 J**	**1,910 J**	551 UJ	**1,450 J**
Selenium	390	5,100		**12.8 J-**	**5.8 J-**	**11.5 J-**	**2.6 J**	**6.5**	**9.2**	**2.2 J**	**1.9 J**	**2.2 J**	**3 J**	**21.4**	**4.2**	**6**
Silver	390	5,100		**125 J+**	**28.8 J+**	**3.3 J+**	1.7 U	**8.4 J+**	**16.3**	**0.91 J**	**6.6 J+**	**7.8**	**15.9**	**48.8**	R	**13.5 J**
Sodium	NC	NC		**197 J**	614 U	**372 J**	**1,800 J+**	**3,700 J+**	**1,340 J+**	588 U	**1,490 J+**	**9,410 J+**	**6,870 J+**	**10,600 J+**	**28,100 J+**	**9,350 J+**
Thallium [a]	5.1	66		3.1 UJ	3.1 UJ	3.1 UJ	4.1 U	R	2.7 U	2.9 U	2.9 U	2.8 U	3 U	**1.4 J**	2.8 U	4 UJ
Vanadium	390	5,200		**19.9**	**3.8 J**	**15.3**	**9.8 J**	**16.3 J**	**3 J-**	5.9 U	**22.8**	**16.9**	**10.5**	**9.4**	**10.6**	**25.5**
Zinc	23,000	310,000		**5,970 J**	**22,900 J**	**26,200 J**	**82.4 J**	**6,450 J**	**17,600 J**	**318 J**	**16,300 J**	**132,000 J**	**95,300 J**	**163,000 J**	**408,000 J**	**135,000 J**

Table 4.2.4-1
Detected Pile Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID	P025	P026	P027	P028	P029	P030	P031	P032	P033	P034	P034B	P035	P036
			Sample ID	ME3S35	ME3S36	ME3S37	ME3S38	ME3S39	ME3S74	ME3S77	ME3S78	ME3S79	ME3S80	ME3SA3	ME3S81	ME3S82
			Case	36664	36664	36664	36664	36664	36664	36697	36697	36697	36697	36697	36697	36697
			Sampling date	8/2/2007	8/2/2007	8/2/2007	8/2/2007	8/2/2007	8/3/2007	8/6/2007	8/6/2007	8/6/2007	8/6/2007	8/6/2007	8/6/2007	8/6/2007
			Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			Duplicate info											P034		
			Investigation area	3	3	3	3	3	3	3	3	3	3	3	3	3
Aluminum	77,000	990,000		**6,750**	**4,080**	**5,080**	**7,060**	**8,930**	**5,550**	**775**	**27,600**	**4,200**	**12,500**	**7,350**	**5,700**	**8,360**
Antimony	31	410		**15.4**	**12.3**	**10 J+**	**9.8 J+**	**22**	**67.7**	**4.3 J**	**18.9**	**12.6 J+**	**25**	**26.1**	**14.7 J+**	**22.5**
Arsenic	0.39	1.6		**55.4 J**	**27.2 J**	**40 J**	**106 J**	**88.8**	**159**	**8.2**	**18.8**	**21.8**	**55**	**62.1**	**60.6**	**39**
Barium	15,000	190,000		**206**	**306**	**907**	**95**	**155**	**210**	22.3 U	**154**	**165**	**101**	**96**	**290**	**159**
Beryllium	160	2,000		**1.4**	**0.67 J+**	**0.74 J+**	**0.63 J+**	**0.64**	0.53 U	0.56 U	**2.1**	0.6 U	**1.5**	**1**	**0.73 J+**	**1.1**
Cadmium	70	800		**200 J**	**53 J**	**71.6 J**	**897 J**	**429**	**159**	0.56 U	**61.8**	**89.6**	**258**	**275**	**71.5**	**135**
Calcium	NC	NC		**6,910 J**	**1,190 J**	**4,720 J**	**49,000 J**	**8,270**	**1,170**	**251 J**	**1,990**	**5,160**	**43,800**	**11,800**	**5,740**	**16,000**
Chromium (total) [a]	280	1,400		**16.8**	**14.2**	**17.5**	**123**	**31.8 J**	**9.9 J**	**1.3**	**26.7**	**13.4**	**17.7**	**17**	**15.4**	**27.2**
Cobalt	23	300		**8.8 J**	**22 J**	**29.5 J**	**14.6 J**	**25.7**	**17.3**	5.6 U	**258**	**9.1**	**24.4**	**21.6 J**	**34**	**24.5**
Copper	3,100	41,000		**773**	**609**	**996**	**443**	**1,280**	**880**	**16.5**	**899**	**128**	**996**	**828 J**	**645**	**225**
Cyanide	1,600	20,000		**0.14 J**	**0.11 J**	2.6 U	**0.16 J**	**0.23 J**	**1.3 J**	2.8 U	**2.3 J**	**0.23 J**	**0.3 J**	**0.14 J**	**0.13 J**	**0.13 J**
Iron	55,000	720,000		**47,000**	**55,000**	**60,600**	**46,300**	**69,700**	**32,400**	**8,800**	**25,900**	**35,600**	**65,800**	**59,200**	**58,800**	**122,000**
Lead	400	800		**10,900 J**	**1,490 J**	**1,110 J**	**3,810 J**	**3,030**	**3,760**	**52.9**	**11,700**	**1,360**	**1,240**	**1,470**	**2,870**	**3,200**
Magnesium	NC	NC		**1,440**	**437 J**	**999**	**11,200**	**5,880**	**1,070**	**66.2 J**	**1,440**	**2,310**	**495 J**	**595**	**3,780**	**4,180**
Manganese	1,800	23,000		**552 J**	**235 J**	**315 J**	**747 J**	**971**	**898**	**20.2**	**13,600**	**355**	**317**	**340 J**	**488**	**936**
Mercury	5.6	34		**24.5**	**0.052 J**	**0.082 J**	**3.4**	**1.5 J+**	**1.4 J+**	**0.17 J+**	**11.1 J+**	**2.5 J+**	**0.39 J+**	**0.43**	**0.29 J+**	**0.65 J+**
Nickel	1,500	20,000		**30.6 J**	**8.6 J**	**13.8 J**	**24.6 J**	**328**	**10.3**	**1.1 J**	**29.6**	**8.6**	**20.2**	**4.8**	**29.8**	**30.4**
Potassium	NC	NC		**695 J**	**220 J**	**106 J**	**3,590 J**	**1,340 J**	529 UJ	559 UJ	**1,310 J**	**834 J**	**1,500 J**	**803 J**	598 UJ	**730 J**
Selenium	390	5,100		**23.3**	**3.9**	**5.3**	**20.6**	**5.3**	**4.7**	**7.4**	**9.1**	**5**	4.1 U	**4.3 J+**	4.2 U	4.4 U
Silver	390	5,100		**12.7 J**	**6.5 J+**	**7.4 J**	**25.9 J**	**24.8**	**17.6**	**0.51 J**	**3.6**	**3 J+**	**10.8**	**8.1**	**9.4**	**15.7**
Sodium	NC	NC		**4,360 J+**	**1,470 J+**	**2,280 J+**	**5,730 J+**	**9,870 J+**	**22,500 J+**	559 U	**2,470 J+**	**1,390 J+**	**7,640 J+**	**8,330**	**3,800 J+**	**3,650 J+**
Thallium [a]	5.1	66		2.7 UJ	2.6 UJ	2.6 UJ	4.2 UJ	2.7 U	2.6 U	2.8 U	3.8 U	3 U	2.9 U	R	3 U	3.1 U
Vanadium	390	5,200		**17.5**	**21.9**	**18.8**	**13.5**	**16.5**	**9.4**	**2.3 J**	**12.5 J**	**17.6 J**	**19.7 J**	**20.6**	**14.8 J**	**29.8 J**
Zinc	23,000	310,000		**62,600 J**	**23,500 J**	**39,600 J**	**47,600 J**	**126,000 J**	**321,000 J**	**62.7**	**34,400**	**19,100**	**99,000**	**158,000**	**55,400**	**48,900**

Table 4.2.4-1
Detected Pile Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID / Sample ID / Case / Sampling date / Unit / Duplicate info / Investigation area	P037 ME3S83 36697 8/6/2007 mg/kg 3	P038 ME3S84 36697 8/6/2007 mg/kg 3	P039 ME3S85 36697 8/6/2007 mg/kg 1	P040 ME3S86 36697 8/6/2007 mg/kg 3	P041 ME3S87 36697 8/6/2007 mg/kg 3	P042 ME3S88 36697 8/6/2007 mg/kg 3	P042B ME3SA4 36697 8/6/2007 mg/kg P042 3	P043 ME3S89 36697 8/6/2007 mg/kg 3	P044 ME3S90 36697 8/6/2007 mg/kg 3	P045 ME3S91 36697 8/6/2007 mg/kg 3	P046 ME3S92 36697 8/6/2007 mg/kg 3	P047 ME3S93 36697 8/6/2007 mg/kg 3	P048 ME3S94 36697 8/6/2007 mg/kg 3
Aluminum	77,000	990,000		11,000	617	3,510	5,420	7,170	9,390	5,460	13,800	10,300	5,120	6,330	9,240	4,410
Antimony	31	410		5.2 J	2 J	32.6	19.9 J+	1.4 J+	4.6 J+	5.5 J+	14 J+	8.8 J+	26.4 J+	58.6	28.7 J+	27.2 J+
Arsenic	0.39	1.6		8.8	6.7	526	51.3	6.8 J+	17.2	18.7	49.3	19.1	44.9	74.7	48.2	58.9
Barium	15,000	190,000		32	22.4 U	83	304	136	171	92.2	226	153	337	136	274	598
Beryllium	160	2,000		0.56 U	0.56 U	0.6 U	0.82 J+	0.57 U	0.84 J+	0.73 J+	2	1.1 J+	0.64 J+	1.5	1.2 J+	0.78 J+
Cadmium	70	800		102	21.4	2,010	231	12.6	39.5	69.6	158	381	87.3	199	189	136
Calcium	NC	NC		1,380	2,010	1,820	36,800	54,000	23,300	18,400	8,850	36,800	3,700	3,360	5,300	2,360
Chromium (total) [a]	280	1,400		8.9	1.8	7	17.7	12	17.4	10.9	21	16.8	26.2	18.4	55.2	18.6
Cobalt	23	300		6.9	2.6 J	22	16.1	5.1 J	14.9	13.4 J	24.9	11.5	14.6	17	16.2	20.9
Copper	3,100	41,000		55.2	40.4	2,380	544	186	124	140 J	537	218	732	929	546	831
Cyanide	1,600	20,000		2.8 U	2.8 U	3 U	0.71 J	0.32 J	0.18 J	0.27 J	4.6 U	11.2	1 J	0.34 J	5.1	0.12 J
Iron	55,000	720,000		8,570	5,050	71,500	72,700	14,300	25,500	24,600	35,700	51,600	44,400	65,700	55,100	60,000
Lead	400	800		270	177	2,630	1,080	148	848	1,030	4,300	1,330	15,700	1,320	6,590	2,430
Magnesium	NC	NC		723	218 J	1,390	22,300	30,500	7,110	5,780	4,950	6,870	1,960	597 J	2,950	687
Manganese	1,800	23,000		87.7	56	1,460	7,730	744	600	521 J	1,650	608	1,170	823	430	388
Mercury	5.6	34		0.14 J+	0.42 J+	2.5 J+	0.69 J+	0.13 J	0.46 J+	0.55	7.2 J+	2.9 J+	116 J+	1.5 J+	28 J+	0.29 J
Nickel	1,500	20,000		R	1.3 J	R	17.5	7.2	29.1	18.1	31.1	12	20.1	110	34.9	33.5
Potassium	NC	NC		1,370 J	561 UJ	605 UJ	690 J	1,130 J	2,380 J	1,140 J	1,470 J	1,340 J	1,170 J	609 UJ	925 J	566 UJ
Selenium	390	5,100		1.1 J	1.3 J	45.9	4.4 U	4 U	1.1 J	1.9 J+	17	2.4 J	214	3 J	44.1	3.9 J
Silver	390	5,100		1.1 J	0.78 J	62.9	10	1.8 J+	2.6 J+	2.5 J+	9.8 J+	4.7 J+	11.8	21.5	12.5	11.4
Sodium	NC	NC		5,190 J+	561 U	18,900 J+	2,680 J+	797 J+	950 J+	866	6,150 J+	3,640 J+	2,820 J+	3,630 J+	2,680 J+	2,770 J+
Thallium [a]	5.1	66		2.8 U	2.8 U	3 U	3.2 U	2.9 U	2.9 U	2.8 U	4.6 U	3.1 U	3.1 U	3 U	3.2 U	2.8 U
Vanadium	390	5,200		13.3 J	4 J-	7.2 J	23.4 J	19.1 J	19.5 J	13.3 J-	26 J	19.1 J	19.1 J	20.5 J	30.5 J	18.7 J
Zinc	23,000	310,000		58,900	3,740	250,000	35,200	8,500	8,320	13,200	80,800	45,200	32,500	47,300	33,300	36,800

Table 4.2.4-1
Detected Pile Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (mg/kg)	Industrial RSL (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area	P049 ME3S95 36697 8/6/2007 mg/kg 3	P050 ME3S96 36697 8/6/2007 mg/kg 3	P051 ME3SH6 36697 8/10/2007 mg/kg 1	P052 ME3SH7 36697 8/10/2007 mg/kg 3	P053 ME3SK6 36697 8/10/2007 mg/kg 3	P054 ME3SK7 36697 8/10/2007 mg/kg 3	P055 ME3SK8 36697 8/11/2007 mg/kg 2
Aluminum	77,000	990,000		**13,000**	**5,140**	**6,280**	**8,470**	**9,330**	**6,120**	**1,680**
Antimony	31	410		**86.3**	**1,040**	**18.4**	**13.9**	**62.6**	**124**	8.3 U
Arsenic	0.39	1.6		**111**	**555**	**131 J**	**60.5 J**	**40.5 J**	**257 J**	**5.5**
Barium	15,000	190,000		**158**	**202**	**1,030**	**40**	**42.7**	**401**	**64.2**
Beryllium	160	2,000		**1.8**	0.56 U	**1.1 J+**	**0.51 J+**	**0.56 J+**	0.56 UJ	0.69 U
Cadmium	70	800		**49.1**	**60.4**	**196**	**93.9**	**84.6**	**426**	**8.5 J**
Calcium	NC	NC		**949**	**1,120**	**17,200**	**788**	**506 J**	**8,690**	**41,300 J**
Chromium (total) [a]	280	1,400		**31.7**	**23.1**	**15.1**	**158**	**10**	**46.9**	**113 J**
Cobalt	23	300		**28**	**24.5**	**42.2**	**20.1**	**11.6**	**36**	**3.5 J**
Copper	3,100	41,000		**1,240**	**9,270**	**456**	**474**	**429**	**3,700**	**1,740**
Cyanide	1,600	20,000		**0.2 J**	2.8 U	**0.32 J**	**0.13 J**	**0.21 J**	**0.19 J**	**0.56 J**
Iron	55,000	720,000		**98,700**	**129,000**	**53,900**	**14,900**	**18,800**	**94,000**	**26,200 J**
Lead	400	800		**1,700**	**3,550**	**806**	**1,070**	**874**	**5,630**	**314**
Magnesium	NC	NC		**931**	**430 J**	**3,840**	578 U	**914**	**4,460**	**23,000**
Manganese	1,800	23,000		**627**	**9,650**	**51,900**	**338**	**423**	**2,330**	**530 J**
Mercury	5.6	34		**0.73 J+**	**0.23 J**	**0.75**	**1**	**0.2**	**2.6**	0.14 UJ
Nickel	1,500	20,000		**96.2**	**26.4**	**55.7**	**121**	4.4 U	**2,840**	**15 J**
Potassium	NC	NC		**729 J**	561 UJ	**1,800 J**	**858 J**	**952 J**	**472 J**	**447 J**
Selenium	390	5,100		**4.5**	**3.8 J**	4.1 U	**2.2 J**	**1 J**	**12.1**	**1.1 J+**
Silver	390	5,100		**23.7**	**132**	**9.6**	**4 J+**	**5.7 J+**	**51.5**	**1.4 J+**
Sodium	NC	NC		**1,320 J+**	**6,120 J+**	**2,310 J+**	**5,110 J+**	**4,640 J+**	**10,500 J+**	**392 J-**
Thallium [a]	5.1	66		3 U	2.8 U	**8.4**	2.9 U	2.8 U	R	3.5 U
Vanadium	390	5,200		**29.5 J**	**21.5 J**	**59.3**	**13 J-**	**12.8 J-**	**12.6 J-**	**6 J-**
Zinc	23,000	310,000		**16,000**	**71,500**	**40,300**	**149,000**	**79,700**	**166,000**	**6,320 J**

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.4-1

Notes:
Bold values indicate a detection
Yellow shaded cells indicate a residential RSL exceedance
Red shaded cells indicate an industrial RSL and residential RSL exceedance

µg/kg	Microgram per kilogram
mg/kg	Milligram per kilogram
P	Pile
J	Estimated result
J-	Underestimated result
J+	Overestimated result
NC	No criteria available
NS	Not sampled
R	Rejected result
RSL	Regional Screening Level (EPA)
U	Non-detect result
UJ	Non-detected and estimated result

a	Analyte is compared to the April 2009 residential and industrial RSLs

Table 4.2.4-2
Detected Pile VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	P001S	P002S	P003S	P004S	P006S	P007S	P008S	P100S	P009S	P013S	P014S	P015S
			Sample ID	E3R65	E3R66	E3R67RE	E3R68	E3R70	E3R71	E3R72	E3R80	E3R73	E3R77RE	E3R78	E3R79
			Case	36631	36631	36631	36631	36631	36631	36631	36631	36631	36631	36631	36631
			Sampling date	7/18/2007	7/18/2007	7/18/2007	7/18/2007	7/18/2007	7/18/2007	7/18/2007	7/18/2007	7/18/2007	7/19/2007	7/19/2007	7/19/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info								P100S				
			Investigation area	3	3	2	3	3	3	3	3	3	3	3	3
2-Butanone	28,000,000	200,000,000		12 U	12 U	13 U	11 U	12 U	15 U	10 U	7.9 U	13 U	12 U	23 UJ	**150 J**
2-Hexanone	210,000	1,400,000		12 U	12 U	13 U	11 U	12 U	15 U	10 U	7.9 U	13 U	14 U	34 UJ	**140 J**
Acetone	61,000,000	630,000,000		12 U	12 U	13 U	11 U	12 U	**34**	10 U	7.9 U	13 U	12 U	12 UJ	R
Chloroform	290	1,500		6.2 U	6.1 U	6.6 U	5.3 U	6.1 U	7.4 U	5.1 U	3.9 U	6.7 U	6 U	6 UJ	R
cis-1,2-Dichloroethene	780,000	10,000,000		6.2 U	6.1 U	6.6 U	5.3 U	6.1 U	7.4 U	5.1 U	3.9 U	6.7 U	6 U	6 UJ	R
Cyclohexane	7,000,000	29,000,000		**41**	**22**	**20 J**	**7.8**	**7.6**	**44 J**	**23**	**22**	**15**	**22 J**	**27 J**	R
Dichlorodifluoromethane	180,000	780,000		6.2 U	6.1 U	6.6 U	5.3 U	6.1 U	7.4 U	5.1 U	3.9 U	6.7 U	6 U	6 UJ	R
Ethylbenzene	5,400	27,000		6.2 U	6.1 U	6.6 U	5.3 U	6.1 U	7.4 U	5.1 U	3.9 U	6.7 U	6 U	6 UJ	R
m,p-Xylene	3,400,000	17,000,000		**3 J**	**1.3 J**	6.6 U	**1.7 J**	6.1 U	**2.1 J**	5.1 U	3.9 U	6.7 U	6 U	**0.97 J**	R
Methyl acetate	78,000,000	1,000,000,000		6.2 U	6.1 U	6.6 U	5.3 U	6.1 U	**21**	5.1 U	3.9 U	6.7 U	6 U	6 UJ	R
Methylene chloride	11,000	53,000		9.4 U	6.6 U	6.6 U	5.3 U	6.1 U	7.4 U	5.1 U	5.5 U	10 U	6 UJ	6 UJ	R
o-Xylene	3,800,000	19,000,000		**1.3 J**	6.1 U	6.6 U	5.3 U	6.1 U	7.4 U	5.1 U	3.9 U	6.7 U	6 U	6 UJ	R
Toluene	5,000,000	45,000,000		6.2 U	6.1 U	6.6 U	5.3 U	6.1 U	7.4 U	5.1 U	3.9 U	6.7 U	6 U	**0.66 J**	R
Trichloroethene	2,800	14,000		6.2 U	6.1 U	6.6 U	5.3 U	6.1 U	7.4 U	5.1 U	3.9 U	6.7 U	6 U	6 UJ	R
Trichlorofluoromethane	790,000	3,400,000		6.2 U	6.1 U	6.6 U	5.3 U	6.1 U	7.4 U	5.1 U	3.9 U	6.7 U	6 U	6 UJ	R

Table 4.2.4-2
Detected Pile VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID: P016	P017	P018	P019	P020	P021	P021B	P022	P023	P025	P026	P027
			Sample ID: E3RR0	E3RR1RE	E3S27	E3S28RE	E3S29	E3S30	E3S31	E3S32RE	E3S33	E3S35	E3S36	E3S37
			Case: 36648	36648	36664	36664	36664	36664	36664	36664	36664	36664	36664	36664
			Sampling date: 7/26/2007	7/26/2007	8/2/2007	8/2/2007	8/2/2007	8/2/2007	8/2/2007	8/2/2007	8/2/2007	8/2/2007	8/2/2007	8/2/2007
			Unit: µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info:					P021B						
			Investigation area: 2	2	1	3	3	3	3	3	3	3	3	3
2-Butanone	28,000,000	200,000,000	15 U	12 U	11 U	10 U	9.7 U	10 U	9.6 U	12 U	9.3 U	11 U	13 U	20 U
2-Hexanone	210,000	1,400,000	15 U	12 UJ	11 U	10 U	9.7 U	10 U	9.6 U	12 U	9.3 U	11 U	13 U	20 U
Acetone	61,000,000	630,000,000	15 U	12 UJ	19 U	37 U	13 U	10 U	12 U	18 U	10 U	13 U	16 U	28 U
Chloroform	290	1,500	**61 J**	**5.1 J**	5.7 U	5 U	4.8 U	5.2 U	4.8 U	6.2 U	4.7 U	5.6 U	6.4 U	9.8 U
cis-1,2-Dichloroethene	780,000	10,000,000	7.4 U	**0.8 J**	5.7 U	5 U	4.8 U	5.2 U	4.8 U	6.2 U	4.7 U	5.6 U	6.4 U	9.8 U
Cyclohexane	7,000,000	29,000,000	7.4 U	**210 J**	**0.57 J**	**1.2 J**	**0.72 J**	**2.6 J**	4.8 U	**1.3 J**	4.7 U	5.6 U	6.4 U	9.8 U
Dichlorodifluoromethane	180,000	780,000	7.4 U	6.2 U	**2.3 J**	5 U	**1.5 J**	5.2 U	4.8 U	6.2 U	**1.3 J**	5.6 U	6.4 U	9.8 U
Ethylbenzene	5,400	27,000	7.4 U	6.2 UJ	5.7 UJ	5 UJ	4.8 U	5.2 U	4.8 U	6.2 UJ	4.7 U	5.6 U	6.4 UJ	9.8 U
m,p-Xylene	3,400,000	17,000,000	7.4 U	**1.5 J**	**0.33 J**	5 UJ	4.8 U	5.2 U	4.8 U	6.2 UJ	4.7 U	5.6 U	6.4 UJ	**0.7 J**
Methyl acetate	78,000,000	1,000,000,000	7.4 U	6.2 U	5.7 U	5 UJ	4.8 U	5.2 U	4.8 U	6.2 U	4.7 U	5.6 U	6.4 U	9.8 U
Methylene chloride	11,000	53,000	7.4 U	**41**	5.7 U	**4.1 J**	4.8 U	1.6 U	1.8 U	**6.5**	1.7 U	**4.6 J**	**5.8 J**	**11**
o-Xylene	3,800,000	19,000,000	7.4 U	6.2 UJ	5.7 UJ	5 UJ	4.8 U	5.2 U	4.8 U	6.2 UJ	4.7 U	5.6 U	6.4 UJ	9.8 U
Toluene	5,000,000	45,000,000	7.4 U	6.2 UJ	**8.3 J**	**5.4 J**	**1.7 J**	**10**	**3.1 J**	6.2 UJ	**0.62 J**	5.6 U	6.4 UJ	**7.2 J**
Trichloroethene	2,800	14,000	**34**	**3.4 J**	5.7 UJ	5 UJ	4.8 U	5.2 U	4.8 U	6.2 UJ	4.7 U	5.6 U	6.4 UJ	9.8 U
Trichlorofluoromethane	790,000	3,400,000	7.4 U	**7.2**	5.7 U	5 UJ	4.8 U	5.2 U	4.8 U	6.2 U	4.7 U	5.6 U	6.4 U	9.8 U

Table 4.2.4-2
Detected Pile VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	P028	P029	P030	P031	P032	P033	P034	P034B	P035	P036	P037	P038
			Sample ID	E3S38	E3S39	E3S74	E3S77	E3S78	E3S79	E3S80	E3SA3	E3S81RE	E3S82	E3S83	E3S84
			Case	36664	36664	36664	36697	36697	36697	36697	36697	36697	36697	36697	36697
			Sampling date	8/2/2007	8/2/2007	8/3/2007	8/6/2007	8/6/2007	8/6/2007	8/6/2007	8/6/2007	8/6/2007	8/6/2007	8/6/2007	8/6/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info							P034B					
			Investigation area	3	3	3	3	3	3	3	3	3	3	3	3
2-Butanone	28,000,000	200,000,000		8.4 U	10 U	8.5 U	13 U	31 U	12 U	13 U	13 U	22 U	8.8 U	9 U	15 U
2-Hexanone	210,000	1,400,000		8.4 U	10 U	8.5 U	13 U	31 U	12 U	13 U	13 U	22 U	8.8 U	9 U	15 UJ
Acetone	61,000,000	630,000,000		10 U	15 U	**6.1 J**	13 U	31 U	12 U	13 U	13 U	22 U	8.8 U	9 U	15 U
Chloroform	290	1,500		4.2 U	5.1 U	4.3 U	6.7 U	15 U	6.1 U	6.4 U	6.5 U	11 U	4.4 U	4.5 U	7.5 U
cis-1,2-Dichloroethene	780,000	10,000,000		4.2 U	5.1 U	4.3 U	6.7 U	15 U	6.1 U	6.4 U	6.5 U	11 U	4.4 U	4.5 U	7.5 U
Cyclohexane	7,000,000	29,000,000		**0.98 J**	**0.45 J**	4.3 U	**12 J**	**4 J**	**1.6 J**	**4.1 J**	**6.7**	**9 J**	**7.2**	**5.9**	**39 J**
Dichlorodifluoromethane	180,000	780,000		4.2 U	**2.1 J**	4.3 U	6.7 U	15 U	6.1 U	6.4 U	6.5 U	11 U	4.4 U	4.5 U	7.5 U
Ethylbenzene	5,400	27,000		4.2 U	5.1 U	4.3 U	6.7 U	15 U	6.1 U	6.4 U	6.5 U	11 U	4.4 U	4.5 U	7.5 UJ
m,p-Xylene	3,400,000	17,000,000		4.2 U	5.1 U	4.3 U	6.7 U	**1.7 J**	6.1 U	6.4 U	6.5 U	11 U	4.4 U	4.5 U	7.5 UJ
Methyl acetate	78,000,000	1,000,000,000		4.2 U	5.1 U	4.3 U	6.7 U	15 UJ	6.1 U	6.4 U	6.5 U	11 UJ	4.4 U	4.5 U	7.5 U
Methylene chloride	11,000	53,000		4.2 U	1.8 U	4.3 U	6.7 U	**3 J**	6.1 U	6.4 U	**1.2 J**	**1.3 J**	**1.3 J**	**0.82 J**	7.5 U
o-Xylene	3,800,000	19,000,000		4.2 U	5.1 U	4.3 U	6.7 U	15 U	6.1 U	6.4 U	6.5 U	11 U	4.4 U	4.5 U	7.5 UJ
Toluene	5,000,000	45,000,000		4.2 U	5.1 U	4.3 U	6.7 U	15 U	6.1 U	6.4 U	6.5 U	11 U	4.4 U	4.5 U	7.5 UJ
Trichloroethene	2,800	14,000		4.2 U	5.1 U	4.3 U	6.7 U	15 U	6.1 U	6.4 U	6.5 U	11 U	4.4 U	4.5 U	7.5 UJ
Trichlorofluoromethane	790,000	3,400,000		4.2 U	5.1 U	4.3 U	6.7 U	**7.6 J**	6.1 U	6.4 U	6.5 U	**1.7 J**	4.4 U	4.5 U	7.5 U

Table 4.2.4-2
Detected Pile VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	P039	P040	P041	P042	P042B	P043	P044	P045	P046	P047	P048	P049
			Sample ID	E3S85	E3S86	E3S87	E3S88	E3SA4	E3S89	E3S90	E3S91	E3S92	E3S93RE	E3S94RE	E3S95
			Case	36697	36697	36697	36697	36697	36697	36697	36697	36697	36697	36697	36697
			Sampling date	8/6/2007	8/6/2007	8/6/2007	8/6/2007	8/6/2007	8/6/2007	8/6/2007	8/6/2007	8/6/2007	8/6/2007	8/6/2007	8/6/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info				P042B								
			Investigation area	1	3	3	3	3	3	3	3	3	3	3	3
2-Butanone	28,000,000	200,000,000		12 U	16 U	10 U	19 U	15 U	13 U	11 U	16 U	15 UJ	11 U	16 U	12 U
2-Hexanone	210,000	1,400,000		12 U	16 U	10 U	19 U	15 U	13 U	11 U	16 U	R	11 U	16 U	12 U
Acetone	61,000,000	630,000,000		12 U	16 U	10 U	19 U	15 U	13 U	11 U	16 U	15 UJ	11 U	16 U	12 U
Chloroform	290	1,500		6.1 UJ	8.2 U	5.2 U	9.5 U	7.6 U	6.5 U	5.4 U	7.8 U	7.5 UJ	5.4 U	8.1 U	6.2 U
cis-1,2-Dichloroethene	780,000	10,000,000		6.1 U	8.2 U	5.2 U	9.5 U	7.6 U	6.5 U	5.4 U	7.8 U	7.5 UJ	5.4 U	8.1 U	6.2 U
Cyclohexane	7,000,000	29,000,000		**5.6 J**	**14**	**4.2 J**	**4.6 J**	**12**	**4.6 J**	**1.3 J**	**5.1 J**	**32 J**	**5.5**	**3.9 J**	**8.1**
Dichlorodifluoromethane	180,000	780,000		6.1 U	8.2 U	5.2 U	9.5 U	7.6 U	6.5 U	5.4 U	7.8 U	7.5 UJ	5.4 U	8.1 U	6.2 U
Ethylbenzene	5,400	27,000		6.1 U	8.2 U	5.2 U	**0.77 J**	7.6 U	6.5 U	5.4 U	7.8 U	R	5.4 U	8.1 U	**0.75 J**
m,p-Xylene	3,400,000	17,000,000		6.1 U	8.2 U	5.2 U	**2.4 J**	**0.54 J**	6.5 U	**0.44 J**	**1.3 J**	R	5.4 U	**1.5 J**	**2.1 J**
Methyl acetate	78,000,000	1,000,000,000		6.1 U	8.2 U	5.2 U	9.5 U	7.6 U	6.5 UJ	5.4 U	7.8 U	7.5 UJ	5.4 UJ	8.1 UJ	6.2 U
Methylene chloride	11,000	53,000		**0.47 J**	**1.3 J**	**0.87 J**	**0.86 J**	**4.7 J**	**1.5 J**	**1 J**	**2.5 J**	7.5 UJ	**1.7 J**	**4 J**	**2.4 J**
o-Xylene	3,800,000	19,000,000		6.1 U	8.2 U	5.2 U	**0.31 J**	7.6 U	6.5 U	5.4 U	7.8 U	R	5.4 U	8.1 U	**0.44 J**
Toluene	5,000,000	45,000,000		6.1 U	8.2 U	5.2 U	9.5 U	7.6 U	6.5 U	5.4 U	7.8 U	R	5.4 U	8.1 U	6.2 U
Trichloroethene	2,800	14,000		6.1 U	8.2 U	5.2 U	9.5 U	7.6 U	6.5 U	5.4 U	7.8 U	R	5.4 U	8.1 U	6.2 U
Trichlorofluoromethane	790,000	3,400,000		**1.1 J**	**3.7 J**	**2.9 J**	**8.5 J**	7.6 U	**1.5 J**	**4.6 J**	**8.1**	7.5 UJ	**3.2 J**	**5.4 J**	**4 J**

Table 4.2.4-2
Detected Pile VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area	P050 E3S96 36697 8/6/2007 µg/kg 3	P051 E3SH6 36697 8/10/2007 µg/kg 1	P052 E3SH7 36697 8/10/2007 µg/kg 3	P053 E3SK6 36697 8/10/2007 µg/kg 3	P054 E3SK7 36697 8/10/2007 µg/kg 3	P055 E3SK8 36697 8/10/2007 µg/kg 2
2-Butanone	28,000,000	200,000,000		13 U	13 U	7.8 U	8.7 U	11 U	16 U
2-Hexanone	210,000	1,400,000		13 U	13 U	7.8 U	8.7 U	11 U	16 U
Acetone	61,000,000	630,000,000		13 U	13 U	7.8 U	8.7 U	**18**	16 U
Chloroform	290	1,500		6.5 U	6.5 U	3.9 U	4.3 U	5.4 U	7.9 U
cis-1,2-Dichloroethene	780,000	10,000,000		6.5 U	6.5 U	3.9 U	4.3 U	5.4 U	7.9 U
Cyclohexane	7,000,000	29,000,000		**12 J**	**8.3**	**1.6 J**	**1.3 J**	**4.7 J**	**15 J**
Dichlorodifluoromethane	180,000	780,000		6.5 U	6.5 U	3.9 U	4.3 U	5.4 U	7.9 U
Ethylbenzene	5,400	27,000		6.5 U	**0.4 J**	**0.29 J**	4.3 U	**1.8 J**	7.9 U
m,p-Xylene	3,400,000	17,000,000		6.5 U	**0.98 J**	**0.77 J**	**0.19 J**	**5.4 J**	**0.49 J**
Methyl acetate	78,000,000	1,000,000,000		6.5 U	6.5 U	3.9 U	4.3 U	5.4 U	7.9 U
Methylene chloride	11,000	53,000		**0.77 J**	6.5 U	**2.7 J**	**1.4 J**	**17**	**4.2 J**
o-Xylene	3,800,000	19,000,000		6.5 U	6.5 U	**0.099 J**	4.3 U	**1.6 J**	7.9 U
Toluene	5,000,000	45,000,000		6.5 U	5 U	1.1 U	4.3 U	5.4 U	7.9 U
Trichloroethene	2,800	14,000		6.5 U	6.5 U	3.9 U	4.3 U	5.4 U	7.9 U
Trichlorofluoromethane	790,000	3,400,000		**2.3 J**	6.5 U	3.9 U	4.3 U	5.4 U	7.9 U

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.4-2

Notes:
Bold values indicate a detection
Yellow shaded cells indicate a residential RSL exceedance
Red shaded cells indicate an industrial RSL and residential RSL exceedance

µg/kg	Microgram per kilogram
mg/kg	Milligram per kilogram
P	Pile
J	Estimated result
J-	Underestimated result
J+	Overestimated result
NC	No criteria available
NS	Not sampled
R	Rejected result
RSL	Regional Screening Level (EPA)
U	Non-detect result
UJ	Non-detected and estimated result

a	Analyte is compared to the April 2009 residential and industrial RSLs

Table 4.2.4-3
Detected Pile SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	P001S	P002S	P003S	P004S	P005S	P006S	P007S	P008S	P100S	P009S	P010S	P011S
			Sample ID	E3R65	E3R66	E3R67	E3R68	E3R69	E3R70	E3R71	E3R72	E3R80	E3R73	E3R74	E3R75
			Case	36631	36631	36631	36631	36631	36631	36631	36631	36631	36631	36631	36631
			Sampling date	7/18/2007	7/18/2007	7/18/2007	7/18/2007	7/18/2007	7/18/2007	7/18/2007	7/18/2007	7/18/2007	7/18/2007	7/18/2007	7/19/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info									P008S			
			Investigation area	3	3	2	3	3	3	3	3	3	3	3	3
1,1'-Biphenyl	3,900,000	51,000,000		190 U	220 U	210 U	300 U	240 U	200 U	240 U	**190 J**	**100 J**	190 U	210 U	970 U
2-Methylnaphthalene	310,000	4,100,000		190 UJ	220 U	**54 J**	**92 J**	**37 J**	**67 J**	240 U	**760**	**340**	**23 J**	**63 J**	970 U
2-Nitrophenol	120,000	1,200,000		190 U	220 U	210 U	300 U	240 U	200 U	240 U	210 U	210 U	190 U	210 U	970 U
4-Methylphenol	310,000	3,100,000		190 U	220 U	210 U	300 U	240 UJ	200 U	240 UJ	**77 J**	**54 J**	190 U	210 U	970 U
4-Nitrophenol	120,000	1,200,000		360 U	420 U	400 U	580 U	470 U	400 U	460 U	410 U	410 U	370 U	400 U	1,900 U
Acenaphthene	3,400,000	33,000,000		190 UJ	220 U	210 U	**280 J**	**160 J**	**86 J**	240 U	**1,500**	**650**	190 U	210 U	970 U
Acenaphthylene	3,400,000	33,000,000		**71 J**	220 U	**200 J**	**120 J**	**200 J**	**190 J**	240 U	**1,000**	**900**	**200**	**100 J**	970 U
Acetophenone	7,800,000	100,000,000		190 U	220 U	210 U	300 U	240 U	200 U	240 U	**76 J**	210 U	190 U	210 U	970 U
Anthracene	17,000,000	170,000,000		**48 J**	220 U	**150 J**	**680**	**460**	**230**	**25 J**	**5,000**	**3,400 J**	**71 J**	**160 J**	**560 J**
Benzaldehyde	7,800,000	100,000,000		190 U	220 U	210 U	300 U	240 U	**110 J**	240 U	210 U	210 U	190 U	210 U	970 U
Benzo(a)anthracene	150	2,100		**270**	**81 J**	**680**	**2,600**	**1,700**	**1,000**	**150 J**	**22,000**	**17,000**	**370**	**1,200**	**2,000**
Benzo(a)pyrene	15	210		**410 J**	**120 J**	**1,000**	**2,700**	**2,100**	**1,500**	**240**	**30,000**	**23,000**	**760**	**1,700**	**1,800**
Benzo(b)fluoranthene	150	2,100		**540 J**	**150 J**	**1,700**	**3,400**	**2,700**	**1,400 J**	**320**	**27,000 J**	**22,000 J**	**1,200 J**	**2,200 J**	**3,000**
Benzo(g,h,i)perylene	150	2,100		**310 J**	**87 J**	**810**	**2,000**	**1,700**	**1,100**	**230 J**	**19,000 J**	**14,000**	**610**	**1,200**	**1,200**
Benzo(k)fluoranthene	1,500	21,000		**520 J**	**87 J**	**1,200 J**	**3,500**	**1,800**	**1,400 J**	**220 J**	**27,000**	**21,000**	**670 J**	**1,300 J**	**1,400**
Bis(2-ethylhexyl)phthalate	35,000	120,000		**43 J**	**150 J**	210 U	300 U	240 U	200 U	240 U	210 U	210 U	190 U	210 U	970 U
Butylbenzylphthalate	260,000	910,000		190 U	220 U	210 U	300 U	240 U	200 U	240 U	210 U	210 U	190 U	210 U	970 U
Caprolactam	31,000,000	310,000,000		190 U	220 U	210 U	300 U	240 U	200 U	240 U	210 U	210 U	190 U	210 U	970 U
Carbazole	17,000,000	170,000,000		**17 J**	220 U	**64 J**	**440**	**200 J**	**140 J**	240 U	**2,500 J**	**1,700**	190 U	**92 J**	**520 J**
Chrysene	15,000	210,000		**360**	**110 J**	**990**	**2,800**	**1,900**	**1,100**	**180 J**	**24,000**	**19,000**	**590**	**1,400**	**2,200**
Dibenzo(a,h)anthracene	15	210		**110 J**	220 U	**270**	**680 J**	**580**	**340 J**	**60 J**	**4,900**	**4,900**	**210**	**460**	970 U
Dibenzofuran	78,000	1,000,000		**11 J**	220 U	**70 J**	**210 J**	**110 J**	**59 J**	240 U	**1,400**	**750**	190 U	**41 J**	**200 J**
Di-n-butylphthalate	6,100,000	62,000,000		190 U	220 U	210 U	300 U	240 U	200 U	240 U	210 U	210 U	190 U	210 U	970 U
Di-n-octylphthalate	35,000	120,000		190 U	220 U	210 U	300 U	240 U	200 U	240 U	210 U	210 U	190 U	210 U	970 U
Fluoranthene	2,300,000	22,000,000		**450**	**190 J**	**1,100**	**9,200**	**4,300**	**2,300**	**300**	**38,000**	**32,000**	**670**	**2,100**	**4,900**
Fluorene	2,300,000	22,000,000		**14 J**	220 U	210 U	**290 J**	**160 J**	**69 J**	240 U	**1,800**	**1,200**	190 U	**42 J**	970 U
Hexachlorobenzene	300	1,100		190 U	220 U	210 U	300 U	240 U	200 U	240 U	210 U	210 U	190 U	210 U	970 U
Indeno(1,2,3-cd)pyrene	150	2,100		**340 J**	**89 J**	**950**	**2,100**	**1,800**	**1,300 J**	**250**	**21,000 J**	**16,000**	**710**	**1,300**	**1,300**
Isophorone	510,000	1,800,000		190 U	220 U	210 U	300 U	240 U	200 U	240 U	210 U	210 U	190 U	210 U	970 U
Naphthalene	3,600	18,000		**13 J**	220 U	**58 J**	**68 J**	**43 J**	**40 J**	240 U	**1,700**	**840**	190 U	**50 J**	970 U
Pentachlorophenol	3,000	9,000		360 U	420 U	400 U	580 U	470 U	400 U	460 U	410 U	410 U	370 U	400 U	1,900 U
Phenanthrene	17,000,000	170,000,000		**140 J**	**91 J**	**470**	**7,300**	**3,000**	**1,200**	**110 J**	**22,000**	**15,000**	**220**	**750**	**3,600**
Phenol	18,000,000	180,000,000		190 U	220 U	210 U	300 U	240 U	200 U	240 U	**42 J**	210 U	190 U	210 U	970 U
Pyrene	1,700,000	17,000,000		**430 J**	**170 J**	**1,200**	**7,600**	**3,900**	**2,000**	**290**	**40,000**	**31,000**	**670**	**2,100**	**4,100**

Table 4.2.4-3
Detected Pile SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	P012S	P013S	P014S	P015S	P016	P017	P018	P018	P019	P020	P020	P021
			Sample ID	E3R76	E3R77	E3R78	E3R79	E3RR0	E3RR1	E3S27	E3S27RE	E3S28	E3S29	E3S29RE	E3S30
			Case	36631	36631	36631	36631	36648	36648	36664	36664	36664	36664	36664	36664
			Sampling date	7/19/2007	7/19/2007	7/19/2007	7/19/2007	7/26/2007	7/26/2007	8/2/2007	8/2/2007	8/2/2007	8/2/2007	8/2/2007	8/2/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info												
			Investigation area	3	3	3	3	2	2	1	1 P018	3	3	3 P020	3
1,1'-Biphenyl	3,900,000	51,000,000		210 U	1,200 U	1,100 U	210 U	260 UJ	**260**	**88 J**	**89 J**	1,100 U	190 U	190 U	190 U
2-Methylnaphthalene	310,000	4,100,000		**83 J**	1,200 U	1,100 U	**30 J**	260 UJ	**800**	**610**	**610**	1,100 U	190 U	190 U	**34 J**
2-Nitrophenol	120,000	1,200,000		210 U	1,200 U	1,100 U	210 U	260 UJ	170 U	560 U	560 U	**250 J**	190 U	190 U	190 U
4-Methylphenol	310,000	3,100,000		210 U	1,200 U	1,100 U	210 U	260 UJ	**25 J**	560 U	560 U	1,100 U	190 U	190 U	190 U
4-Nitrophenol	120,000	1,200,000		400 U	2,300 U	2,100 U	410 U	510 UJ	340 UJ	1,100 U	1,100 U	**420 J**	360 U	360 U	370 U
Acenaphthene	3,400,000	33,000,000		210 U	1,200 U	1,100 U	210 U	260 UJ	**800**	560 U	560 U	**250 J**	190 U	190 U	190 U
Acenaphthylene	3,400,000	33,000,000		210 U	1,200 U	1,100 U	210 U	260 UJ	**150 J**	**280 J**	**280 J**	1,100 U	190 U	190 U	190 U
Acetophenone	7,800,000	100,000,000		210 U	1,200 U	1,100 U	210 U	**22 J**	**270**	**2,800**	**2,600**	**4,400**	38 U	190 U	190 U
Anthracene	17,000,000	170,000,000		210 U	**340 J**	1,100 U	**39 J**	260 UJ	**770 J**	**580**	**520 J**	**420 J**	**47 J**	**43 J**	190 U
Benzaldehyde	7,800,000	100,000,000		210 U	1,200 U	1,100 U	210 U	260 UJ	**1,100**	**740**	**700**	**1,700**	190 U	190 U	190 U
Benzo(a)anthracene	150	2,100		210 U	**3,500**	1,100 U	**190 J**	260 UJ	**2,200**	**1,200**	**1,200**	**910 J**	**230**	**230**	**73 J**
Benzo(a)pyrene	15	210		210 U	**2,600**	1,100 U	**130 J**	260 UJ	**530 J**	**530 J**	**560 J**	**520 J**	**240**	**230**	**110 J**
Benzo(b)fluoranthene	150	2,100		210 U	**3,900**	1,100 U	**240**	260 UJ	**2,400 J**	**2,300 J**	**2,900**	**710 J**	**270**	**320**	**130 J**
Benzo(g,h,i)perylene	150	2,100		210 U	**1,000 J**	1,100 U	**76 J**	260 UJ	**180 J**	**190 J**	**230 J**	1,100 U	190 U	190 U	**58 J**
Benzo(k)fluoranthene	1,500	21,000		210 U	**1,700**	1,100 U	**94 J**	260 UJ	**630 J**	**2,000**	**1,600**	**710 J**	**270**	**240**	**100 J**
Bis(2-ethylhexyl)phthalate	35,000	120,000		210 U	1,200 U	1,100 U	210 U	**25 J**	**1,400**	560 U	560 U	1,100 U	190 U	190 U	190 U
Butylbenzylphthalate	260,000	910,000		210 U	1,200 U	1,100 U	210 U	260 UJ	170 U	560 U	560 U	1,100 U	190 U	190 U	190 U
Caprolactam	31,000,000	310,000,000		210 U	1,200 U	1,100 U	210 U	260 UJ	170 U	560 U	560 U	1,100 U	190 U	190 U	190 U
Carbazole	17,000,000	170,000,000		210 U	**410 J**	1,100 U	210 U	260 UJ	**330 J**	**250 J**	**200 J**	1,100 U	**42 J**	**46 J**	190 U
Chrysene	15,000	210,000		210 U	**3,400**	1,100 U	**190 J**	260 UJ	**1,700**	**2,800**	**2,900**	**1,000 J**	**290**	**290**	**130 J**
Dibenzo(a,h)anthracene	15	210		210 U	1,200 U	1,100 U	210 U	260 UJ	170 UJ	**220 J**	**210 J**	1,100 U	**53 J**	**42 J**	190 U
Dibenzofuran	78,000	1,000,000		210 U	1,200 U	1,100 U	210 U	260 UJ	**1,100**	**400 J**	**400 J**	**240 J**	190 U	190 U	190 U
Di-n-butylphthalate	6,100,000	62,000,000		210 U	1,200 U	1,100 U	210 U	260 UJ	170 U	560 U	560 U	1,100 U	190 U	190 U	190 U
Di-n-octylphthalate	35,000	120,000		210 U	1,200 U	1,100 U	210 U	260 UJ	**430 J**	560 UJ	560 U	1,100 U	190 UJ	190 U	190 UJ
Fluoranthene	2,300,000	22,000,000		**38 J**	**3,800**	**130 J**	**370**	260 UJ	**12,000 J**	**4,900**	**4,200**	**2,600**	**400**	**420**	**170 J**
Fluorene	2,300,000	22,000,000		210 U	1,200 U	1,100 U	210 U	260 UJ	**560**	560 U	560 U	1,100 U	190 U	190 U	190 U
Hexachlorobenzene	300	1,100		210 U	1,200 U	1,100 U	210 U	260 UJ	170 U	560 U	560 U	1,100 U	190 U	190 U	190 U
Indeno(1,2,3-cd)pyrene	150	2,100		210 U	**1,400**	1,100 U	**87 J**	260 UJ	**190 J**	**480 J**	**530 J**	**350 J**	**120 J**	**95 J**	**50 J**
Isophorone	510,000	1,800,000		210 U	1,200 U	1,100 U	210 U	260 UJ	170 U	560 U	560 U	1,100 U	190 U	190 U	190 U
Naphthalene	3,600	18,000		**27 J**	1,200 U	1,100 U	210 U	260 UJ	**1,800**	**230 J**	**230 J**	1,100 U	190 U	190 U	190 U
Pentachlorophenol	3,000	9,000		400 U	2,300 U	2,100 U	410 U	510 UJ	340 U	1,100 U	1,100 UJ	2,200 U	360 U	360 U	370 U
Phenanthrene	17,000,000	170,000,000		**56 J**	**1,300**	1,100 U	**160 J**	**24 J**	**12,000 J**	**2,300**	**2,100**	**2,800**	**200**	**210**	**94 J**
Phenol	18,000,000	180,000,000		210 U	1,200 U	1,100 U	210 U	260 UJ	**45 J**	**6,300**	**6,000**	**9,700**	190 U	190 U	190 U
Pyrene	1,700,000	17,000,000		**33 J**	**4,200**	**140 J**	**310**	260 UJ	**7,100**	**2,500**	**2,500**	**2,300**	**430**	**460**	**200**

Table 4.2.4-3
Detected Pile SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	P021	P021B	P021B	P022	P022	P023	P023	P024	P024	P025	P025	P026
			Sample ID	E3S30RE	E3S31	E3S31RE	E3S32	E3S32RE	E3S33	E3S33RE	E3S34	E3S34RE	E3S35	E3S35RE	E3S36
			Case	36664	36664	36664	36664	36664	36664	36664	36664	36664	36664	36664	36664
			Sampling date	8/2/2007	8/2/2007	8/2/2007	8/2/2007	8/2/2007	8/2/2007	8/2/2007	8/2/2007	8/2/2007	8/2/2007	8/2/2007	8/2/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info	P021											
			Investigation area	3	3	3	3	3	3	3	3	3	3	3	3
				P021		P021B		P022		P023		P024		P025	
1,1'-Biphenyl	3,900,000	51,000,000		190 U	200 U	200 U	190 U	190 U	180 U	180 U	650 U	650 U	190 U	190 U	180 U
2-Methylnaphthalene	310,000	4,100,000		**35 J**	**63 J**	**48 J**	**550**	**390**	180 U	180 U	**110 J**	**100 J**	**110 J**	**110 J**	**37 J**
2-Nitrophenol	120,000	1,200,000		190 U	200 U	200 U	190 U	190 U	180 U	180 U	650 U	650 U	190 U	190 U	180 U
4-Methylphenol	310,000	3,100,000		190 U	200 U	200 U	190 U	190 U	180 U	180 U	650 U	650 U	190 U	190 U	180 U
4-Nitrophenol	120,000	1,200,000		370 U	380 U	380 U	370 U	370 U	350 U	350 U	1,300 U	1,300 U	360 U	360 U	340 U
Acenaphthene	3,400,000	33,000,000		190 U	200 U	200 U	190 U	190 U	180 U	180 U	**130 J**	**130 J**	**43 J**	**43 J**	180 U
Acenaphthylene	3,400,000	33,000,000		190 U	200 U	200 U	**29 J**	190 U	180 U	180 U	**150 J**	**150 J**	190 U	**30 J**	180 U
Acetophenone	7,800,000	100,000,000		190 U	200 U	200 U	190 U	190 U	180 U	180 U	190 U	650 U	190 U	190 U	180 U
Anthracene	17,000,000	170,000,000		190 U	200 U	200 U	**58 J**	**42 J**	180 U	180 U	**490 J**	**480 J**	**130 J**	**140 J**	180 U
Benzaldehyde	7,800,000	100,000,000		190 U	200 U	200 U	**42 J**	190 U	180 U	180 U	650 U	650 U	190 U	190 U	180 U
Benzo(a)anthracene	150	2,100		**74 J**	**67 J**	**47 J**	**290 J**	**190**	**58 J**	**62 J**	**1,500**	**1,500**	**500**	**510**	**54 J**
Benzo(a)pyrene	15	210		**110 J**	**75 J**	**55 J**	**170 J**	**120 J**	**51 J**	**55 J**	**1,400**	**1,400**	**350**	190 U	180 UJ
Benzo(b)fluoranthene	150	2,100		**130 J**	**120 J**	**80 J**	**270 J**	**220 J**	**72 J**	**82 J**	**1,800**	**2,500**	**600**	**550**	180 UJ
Benzo(g,h,i)perylene	150	2,100		**67 J**	200 UJ	200 UJ	**44 J**	190 UJ	180 UJ	180 UJ	**430 J**	**400 J**	**94 J**	**94 J**	180 UJ
Benzo(k)fluoranthene	1,500	21,000		**96 J**	**92 J**	**77 J**	**270 J**	**170 J**	**97 J**	**86 J**	**2,000**	**1,500**	**400**	**470**	**45 J**
Bis(2-ethylhexyl)phthalate	35,000	120,000		190 U	**79 J**	200 U	190 UJ	190 U	180 UJ	180 U	650 U	650 U	190 U	190 U	180 U
Butylbenzylphthalate	260,000	910,000		190 U	200 UJ	200 U	190 UJ	190 U	180 UJ	180 U	650 U	650 U	190 U	190 U	180 U
Caprolactam	31,000,000	310,000,000		190 U	200 U	200 U	190 U	190 U	180 U	180 U	650 U	650 U	190 U	190 U	180 U
Carbazole	17,000,000	170,000,000		190 U	200 U	200 U	**63 J**	**46 J**	180 U	180 U	**400 J**	**390 J**	**94 J**	**100 J**	180 U
Chrysene	15,000	210,000		**130 J**	**130 J**	**96 J**	**470 J**	**320**	**88 J**	**90 J**	**1,900**	**1,900**	**690**	**710**	**74 J**
Dibenzo(a,h)anthracene	15	210		190 U	200 UJ	200 UJ	**33 J**	**25 J**	180 UJ	180 UJ	**310 J**	**280 J**	**63 J**	**64 J**	180 UJ
Dibenzofuran	78,000	1,000,000		190 U	200 U	200 U	**73 J**	**53 J**	180 U	180 U	**160 J**	**160 J**	**68 J**	**64 J**	180 U
Di-n-butylphthalate	6,100,000	62,000,000		190 U	200 U	200 U	190 U	190 U	180 U	180 U	650 U	650 U	190 U	190 U	180 U
Di-n-octylphthalate	35,000	120,000		190 U	200 UJ	200 UJ	190 UJ	190 UJ	180 UJ	180 UJ	650 U	650 U	190 U	190 U	180 U
Fluoranthene	2,300,000	22,000,000		**160 J**	**160 J**	**100 J**	**670**	**430**	**130 J**	**100 J**	**3,100**	**3,000**	**1,100**	**1,200**	**180**
Fluorene	2,300,000	22,000,000		190 U	200 U	200 U	190 U	190 U	180 U	180 U	**150 J**	**160 J**	**37 J**	**43 J**	180 U
Hexachlorobenzene	300	1,100		190 U	200 U	200 U	190 U	190 U	180 U	180 U	650 U	650 U	190 U	190 U	180 U
Indeno(1,2,3-cd)pyrene	150	2,100		**53 J**	**43 J**	**41 J**	**57 J**	**58 J**	**49 J**	**38 J**	**830**	**770**	**150 J**	**160 J**	180 UJ
Isophorone	510,000	1,800,000		190 U	200 U	200 U	190 U	190 U	180 U	180 U	650 U	650 U	190 U	190 U	180 U
Naphthalene	3,600	18,000		190 U	**34 J**	200 U	**200**	**140 J**	180 U	180 U	**110 J**	**120 J**	**56 J**	**56 J**	180 U
Pentachlorophenol	3,000	9,000		370 UJ	380 U	380 U	370 U	370 U	350 U	350 UJ	1,300 UJ	1,300 U	360 UJ	360 U	340 U
Phenanthrene	17,000,000	170,000,000		**90 J**	**96 J**	**70 J**	**660**	**490**	**110 J**	**78 J**	**2,300**	**2,200**	**680**	**760**	**130 J**
Phenol	18,000,000	180,000,000		190 U	200 U	200 U	190 U	190 U	180 U	180 U	420 U	650 U	190 U	190 U	180 U
Pyrene	1,700,000	17,000,000		**210**	**200 J**	**160 J**	**1,000 J**	**820**	**120 J**	**130 J**	**2,700 J**	**2,800 J**	**1,200**	**1,300**	**140 J**

Table 4.2.4-3
Detected Pile SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	P027	P028	P029	P030	P031	P032	P033	P034	P034B	P035	P036	P037
			Sample ID	E3S37	E3S38	E3S39	E3S74	E3S77	E3S78	E3S79	E3S80	E3SA3	E3S81	E3S82RE	E3S83
			Case	36664	36664	36664	36664	36697	36697	36697	36697	36697	36697	36697	36697
			Sampling date	8/2/2007	8/2/2007	8/2/2007	8/3/2007	8/6/2007	8/6/2007	8/6/2007	8/6/2007	8/6/2007	8/6/2007	8/6/2007	8/6/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info									P034			
			Investigation area	3	3	3	3	3	3	3	3	3	3	3	3
1,1'-Biphenyl	3,900,000	51,000,000		180 U	240 U	200 U	230 U	190 U	230 U	**8.6 J**	200 U	210 U	200 U	**440 J**	190 U
2-Methylnaphthalene	310,000	4,100,000		180 U	**210 J**	**200 J**	230 U	190 U	230 U	**44 J**	**5.9 J**	**10 J**	200 U	**1,800 J**	**9.1 J**
2-Nitrophenol	120,000	1,200,000		180 U	240 U	200 U	230 U	190 U	230 U	200 U	200 U	210 U	200 U	5,100 U	190 U
4-Methylphenol	310,000	3,100,000		180 U	240 U	200 U	230 U	190 U	230 U	200 U	200 U	210 U	200 U	5,100 U	190 U
4-Nitrophenol	120,000	1,200,000		340 U	460 U	390 U	440 U	370 U	440 U	380 U	380 U	410 U	380 U	9,800 U	360 U
Acenaphthene	3,400,000	33,000,000		180 U	240 U	200 U	230 U	190 U	230 U	**12 J**	200 U	210 U	200 U	**3,800 J**	190 U
Acenaphthylene	3,400,000	33,000,000		180 U	240 U	**77 J**	230 U	190 U	230 U	**28 J**	200 U	210 U	**22 J**	5,100 U	190 U
Acetophenone	7,800,000	100,000,000		180 U	240 U	200 U	230 U	**19 J**	**25 J**	**66 J**	**30 J**	**19 J**	**37 J**	5,100 U	**8.6 J**
Anthracene	17,000,000	170,000,000		180 U	**160 J**	**94 J**	230 U	190 U	**9 J**	**63 J**	200 U	**6.4 J**	**24 J**	**8,700**	**7.5 J**
Benzaldehyde	7,800,000	100,000,000		180 U	240 U	200 U	230 U	**36 J**	**43 J**	**82 J**	**33 J**	**16 J**	**32 J**	5,100 U	190 U
Benzo(a)anthracene	150	2,100		180 UJ	**1,700**	**600**	230 U	**18 J**	**120 J**	**700**	**61 J**	**39 J**	**330**	**15,000 J**	**22 J**
Benzo(a)pyrene	15	210		180 UJ	**970**	**490**	230 U	190 U	**49 J**	**670**	**60 J**	**33 J**	**370**	**11,000 J**	**19 J**
Benzo(b)fluoranthene	150	2,100		180 UJ	**1,400**	**610**	230 U	**28 J**	**140 J**	**880**	**88 J**	**51 J**	**500**	**14,000 J**	**27 J**
Benzo(g,h,i)perylene	150	2,100		180 UJ	**300**	**170 J**	230 U	190 U	**40 J**	**600**	**51 J**	**23 J**	**330**	**6,500 J**	190 U
Benzo(k)fluoranthene	1,500	21,000		180 UJ	**1,000**	**660**	**55 J**	**9.4 J**	**29 J**	**300**	**27 J**	**14 J**	**140 J**	**5,600 J**	**5.2 J**
Bis(2-ethylhexyl)phthalate	35,000	120,000		180 U	240 U	200 U	230 U	**13 J**	230 U	200 U	**14 J**	**19 J**	200 U	5,100 UJ	190 U
Butylbenzylphthalate	260,000	910,000		180 U	240 U	200 U	230 U	190 U	230 U	200 U	200 U	210 U	200 U	5,100 UJ	190 U
Caprolactam	31,000,000	310,000,000		180 U	240 U	200 U	230 U	190 U	230 U	200 U	200 U	210 U	200 U	5,100 U	190 U
Carbazole	17,000,000	170,000,000		180 U	**79 J**	**50 J**	230 U	190 U	230 U	**34 J**	200 U	210 U	**15 J**	**3,900 J**	190 U
Chrysene	15,000	210,000		180 UJ	**2,200**	**820**	**64 J**	**24 J**	**120 J**	**660**	**64 J**	**41 J**	**320**	**12,000 J**	**23 J**
Dibenzo(a,h)anthracene	15	210		180 UJ	**180 J**	**79 J**	230 U	190 U	**18 J**	**130 J**	200 U	210 U	**79 J**	**1,900 J**	190 U
Dibenzofuran	78,000	1,000,000		180 U	**68 J**	**62 J**	230 U	190 U	230 U	**20 J**	200 U	**7.9 J**	200 U	**2,600 J**	190 U
Di-n-butylphthalate	6,100,000	62,000,000		180 U	240 U	200 U	230 U	190 U	230 U	200 U	200 U	**9.3 J**	200 U	5,100 U	190 U
Di-n-octylphthalate	35,000	120,000		180 U	240 U	200 U	230 U	190 U	230 U	200 U	200 U	210 U	200 U	5,100 UJ	190 U
Fluoranthene	2,300,000	22,000,000		**43 J**	**1,800**	**1,300**	**95 J**	**41 J**	**180 J**	**950**	**91 J**	**73 J**	**390**	**33,000**	**35 J**
Fluorene	2,300,000	22,000,000		180 U	240 U	200 U	230 U	190 U	230 U	**18 J**	200 U	210 U	200 U	**3,100 J**	190 U
Hexachlorobenzene	300	1,100		180 U	240 U	200 U	230 U	190 U	230 U	200 U	200 U	210 U	200 U	5,100 U	190 U
Indeno(1,2,3-cd)pyrene	150	2,100		180 UJ	**520**	**270**	230 U	190 U	**49 J**	**610**	**53 J**	**22 J**	**340**	**6,400 J**	190 U
Isophorone	510,000	1,800,000		180 U	240 U	200 U	230 U	190 U	230 U	200 U	200 U	210 U	200 U	5,100 U	190 U
Naphthalene	3,600	18,000		180 U	**78 J**	**88 J**	230 U	190 U	230 U	**36 J**	**11 J**	**15 J**	**7.7 J**	**3,200 J**	190 U
Pentachlorophenol	3,000	9,000		340 U	460 U	390 U	440 U	370 U	440 U	380 U	380 U	410 U	380 U	9,800 U	360 U
Phenanthrene	17,000,000	170,000,000		180 U	**1,100**	**610**	**42 J**	**13 J**	**61 J**	**540**	**41 J**	**55 J**	**110 J**	**45,000**	**42 J**
Phenol	18,000,000	180,000,000		180 U	240 U	200 U	230 U	190 UJ	230 UJ	200 UJ	200 UJ	210 U	200 UJ	5,100 U	190 UJ
Pyrene	1,700,000	17,000,000		180 UJ	**4,300**	**1,300**	**78 J**	**38 J**	**99 J**	**2,000**	**100 J**	**73 J**	**490**	**49,000 J**	**41 J**

Table 4.2.4-3
Detected Pile SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area	P038 E3S84 36697 8/6/2007 µg/kg 3	P039 E3S85 36697 8/6/2007 µg/kg 1	P040 E3S86RE 36697 8/6/2007 µg/kg 3	P041 E3S87 36697 8/6/2007 µg/kg 3	P042 E3S88 36697 8/6/2007 µg/kg 3	P042B E3SA4 36697 8/6/2007 µg/kg P042 3	P043 E3S89 36697 8/6/2007 µg/kg 3
1,1'-Biphenyl	3,900,000	51,000,000		**35 J**	200 U	620 U	1,900 U	210 U	210 U	220 U
2-Methylnaphthalene	310,000	4,100,000		**35 J**	**9.1 J**	**46 J**	1,900 U	**13 J**	210 U	**7 J**
2-Nitrophenol	120,000	1,200,000		190 U	200 U	620 U	1,900 U	210 U	210 U	220 U
4-Methylphenol	310,000	3,100,000		190 U	200 U	620 U	1,900 U	210 U	210 U	220 U
4-Nitrophenol	120,000	1,200,000		380 U	400 U	1,200 U	3,800 U	420 U	400 U	420 U
Acenaphthene	3,400,000	33,000,000		**15 J**	200 U	**27 J**	1,900 U	**9.2 J**	**8.3 J**	**25 J**
Acenaphthylene	3,400,000	33,000,000		**10 J**	**21 J**	**330 J**	1,900 U	**8.9 J**	**6.6 J**	**20 J**
Acetophenone	7,800,000	100,000,000		**17 J**	**11 J**	**31 J**	**160 J**	**12 J**	**21 J**	**13 J**
Anthracene	17,000,000	170,000,000		**42 J**	**27 J**	**240 J**	**72 J**	**35 J**	**29 J**	**31 J**
Benzaldehyde	7,800,000	100,000,000		**31 J**	**32 J**	620 U	**190 J**	**20 J**	**21 J**	**37 J**
Benzo(a)anthracene	150	2,100		**150 J**	**180 J**	**2,500 J**	**250 J**	**190 J**	**140 J**	**380**
Benzo(a)pyrene	15	210		**140 J**	**160 J**	**2,700 J**	1,900 U	**180 J**	**140 J**	**380**
Benzo(b)fluoranthene	150	2,100		**200**	**330 J**	**5,600 J**	1,900 U	**240**	**190 J**	**640**
Benzo(g,h,i)perylene	150	2,100		**96 J**	**150 J**	**2,600 J**	1,900 U	**150 J**	**110 J**	**320**
Benzo(k)fluoranthene	1,500	21,000		**54 J**	**130 J**	**2,000 J**	1,900 U	**79 J**	**65 J**	**190 J**
Bis(2-ethylhexyl)phthalate	35,000	120,000		190 U	**98 J**	620 UJ	1,900 UJ	210 U	**16 J**	**33 J**
Butylbenzylphthalate	260,000	910,000		190 U	**18 J**	620 UJ	1,900 UJ	210 U	210 U	220 U
Caprolactam	31,000,000	310,000,000		190 U	200 U	620 U	1,900 U	210 U	210 U	220 U
Carbazole	17,000,000	170,000,000		**17 J**	**8.1 J**	**71 J**	1,900 U	**13 J**	**16 J**	**51 J**
Chrysene	15,000	210,000		**160 J**	**200 J**	**3,200 J**	**290 J**	**180 J**	**150 J**	**460**
Dibenzo(a,h)anthracene	15	210		**27 J**	**38 J**	**780 J**	1,900 U	**38 J**	**30 J**	**86 J**
Dibenzofuran	78,000	1,000,000		**17 J**	**11 J**	**58 J**	1,900 U	**7.3 J**	210 U	**17 J**
Di-n-butylphthalate	6,100,000	62,000,000		190 U	200 U	620 U	1,900 U	210 U	**12 J**	220 U
Di-n-octylphthalate	35,000	120,000		190 U	200 UJ	620 UJ	1,900 U	210 U	210 U	220 U
Fluoranthene	2,300,000	22,000,000		**270**	**300**	**2,500**	**380 J**	**290**	**240**	**1,100**
Fluorene	2,300,000	22,000,000		**21 J**	200 U	**27 J**	1,900 U	**10 J**	**9.1 J**	**28 J**
Hexachlorobenzene	300	1,100		190 U	200 U	620 U	1,900 U	210 U	210 U	220 U
Indeno(1,2,3-cd)pyrene	150	2,100		**110 J**	**170 J**	**3,000 J**	1,900 U	**160 J**	**120 J**	**350**
Isophorone	510,000	1,800,000		190 U	200 U	620 U	1,900 U	210 U	210 U	220 U
Naphthalene	3,600	18,000		**34 J**	**9.6 J**	**60 J**	1,900 U	**8.7 J**	**9.1 J**	**24 J**
Pentachlorophenol	3,000	9,000		380 U	400 U	1,200 U	3,800 U	420 U	400 U	420 U
Phenanthrene	17,000,000	170,000,000		**280**	**120 J**	**500 J**	**490 J**	**190 J**	**120 J**	**680**
Phenol	18,000,000	180,000,000		190 UJ	200 UJ	620 U	1,900 UJ	210 UJ	210 U	220 UJ
Pyrene	1,700,000	17,000,000		**290**	**290**	**4,000 J**	**540 J**	**450**	**230**	**1,000**

Table 4.2.4-3
Detected Pile SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	P044	P045	P046	P047	P048	P049	P050	P051	P052	P053	P054	P055
			Sample ID	E3S90	E3S91RE	E3S92	E3S93	E3S94	E3S95	E3S96	E3SH6	E3SH7	E3SK6	E3SK7	E3SK8
			Case	36697	36697	36697	36697	36697	36697	36697	36697	36697	36697	36697	36697
			Sampling date	8/6/2007	8/6/2007	8/6/2007	8/6/2007	8/6/2007	8/6/2007	8/6/2007	8/10/2007	8/10/2007	8/10/2007	8/10/2007	8/10/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info												
			Investigation area	3	3	3	3	3	3	3	1	3	3	3	2
1,1'-Biphenyl	3,900,000	51,000,000		210 U	4,200 U	**140 J**	5,100 U	190 U	960 UJ	190 U	**92 J**	190 U	200 U	**24 J**	190 U
2-Methylnaphthalene	310,000	4,100,000		**33 J**	4,200 U	**23 J**	**480 J**	**17 J**	960 UJ	**9.2 J**	**350**	**28 J**	**25 J**	**530 J**	**9.6 J**
2-Nitrophenol	120,000	1,200,000		210 U	4,200 U	220 UJ	5,100 U	190 U	960 UJ	190 U	200 U	190 U	200 U	200 U	190 U
4-Methylphenol	310,000	3,100,000		210 U	4,200 U	220 UJ	5,100 U	190 U	960 UJ	190 UJ	200 U	190 U	200 U	200 U	190 U
4-Nitrophenol	120,000	1,200,000		410 U	8,200 U	430 UJ	10,000 U	370 U	1,900 UJ	370 U	380 U	380 U	380 U	380 U	380 U
Acenaphthene	3,400,000	33,000,000		**43 J**	**420 J**	220 UJ	**1,800 J**	**9.7 J**	960 UJ	190 U	**26 J**	**10 J**	200 U	200 U	190 U
Acenaphthylene	3,400,000	33,000,000		**14 J**	4,200 U	220 UJ	5,100 U	**23 J**	960 UJ	190 U	**80 J**	190 U	200 U	**12 J**	**46 J**
Acetophenone	7,800,000	100,000,000		**15 J**	4,200 U	**770 J**	5,100 U	**23 J**	960 UJ	**31 J**	**130 J**	**25 J**	**25 J**	**120 J**	**14 J**
Anthracene	17,000,000	170,000,000		**110 J**	**1,100 J**	**16 J**	**3,900 J**	**41 J**	960 UJ	**8.5 J**	**120 J**	**18 J**	200 U	**34 J**	**47 J**
Benzaldehyde	7,800,000	100,000,000		**31 J**	4,200 U	**770 J**	5,100 U	**22 J**	960 UJ	**31 J**	200 U	190 U	**26 J**	**95 J**	**260**
Benzo(a)anthracene	150	2,100		**620**	**5,600 J**	**65 J**	**11,000 J**	**360 J**	**230 J**	**62 J**	**700**	**47 J**	**11 J**	**120 J**	**330**
Benzo(a)pyrene	15	210		**450**	**4,300 J**	**71 J**	**8,800 J**	**310**	**280 J**	190 UJ	**550**	**43 J**	200 U	**48 J**	**340**
Benzo(b)fluoranthene	150	2,100		**640**	**6,900 J**	**130 J**	**14,000 J**	**450**	**400 J**	**66 J**	**1,100**	**50 J**	200 U	**96 J**	**650**
Benzo(g,h,i)perylene	150	2,100		**310**	**3,000 J**	220 UJ	**5,400 J**	**300**	**350 J**	190 UJ	**370**	**43 J**	200 U	**28 J**	**270**
Benzo(k)fluoranthene	1,500	21,000		**240**	**2,100 J**	**44 J**	**4,900 J**	**120 J**	**110 J**	**29 J**	**330**	**18 J**	200 U	**27 J**	**220**
Bis(2-ethylhexyl)phthalate	35,000	120,000		**36 J**	4,200 UJ	220 UJ	5,100 UJ	190 UJ	960 UJ	**22 J**	200 U	190 U	200 U	**32 J**	**36 J**
Butylbenzylphthalate	260,000	910,000		210 U	4,200 UJ	220 UJ	5,100 UJ	190 UJ	960 UJ	190 UJ	200 U	190 U	200 U	200 U	**6.7 J**
Caprolactam	31,000,000	310,000,000		210 U	4,200 U	220 UJ	5,100 U	190 U	960 UJ	190 U	200 U	190 U	200 U	**88 J**	190 U
Carbazole	17,000,000	170,000,000		**74 J**	**680 J**	**16 J**	**2,200 J**	**21 J**	960 UJ	190 U	**59 J**	**9.2 J**	200 U	**22 J**	**14 J**
Chrysene	15,000	210,000		**530**	**5,000 J**	**150 J**	**12,000 J**	**620 J**	**200 J**	**61 J**	**860**	**48 J**	**9.6 J**	**140 J**	**460**
Dibenzo(a,h)anthracene	15	210		**96 J**	**910 J**	220 UJ	**1,600 J**	**91 J**	960 UJ	190 UJ	**150 J**	190 U	200 U	200 U	**73 J**
Dibenzofuran	78,000	1,000,000		**25 J**	**200 J**	**32 J**	**1,600 J**	**13 J**	960 UJ	190 U	**290**	**17 J**	200 U	**130 J**	**6.1 J**
Di-n-butylphthalate	6,100,000	62,000,000		210 U	4,200 U	220 UJ	5,100 U	190 U	960 UJ	190 U	200 U	190 U	200 U	**10 J**	**31 J**
Di-n-octylphthalate	35,000	120,000		210 U	4,200 UJ	220 UJ	5,100 UJ	190 U	960 UJ	190 UJ	200 U	190 U	200 U	200 U	190 U
Fluoranthene	2,300,000	22,000,000		**1,200**	**9,800**	**120 J**	**26,000**	**290**	**240 J**	**95 J**	**1,600**	**120 J**	**14 J**	**220**	**480**
Fluorene	2,300,000	22,000,000		**35 J**	**310 J**	220 UJ	**1,600 J**	**11 J**	960 UJ	190 U	**14 J**	190 U	200 UJ	200 UJ	**8.3 J**
Hexachlorobenzene	300	1,100		210 U	4,200 U	220 UJ	5,100 U	190 U	960 UJ	190 U	200 U	190 U	200 U	**10 J**	190 U
Indeno(1,2,3-cd)pyrene	150	2,100		**380**	**3,400 J**	220 UJ	**6,200 J**	**260**	**360 J**	190 UJ	**470**	**38 J**	200 U	**25 J**	**310**
Isophorone	510,000	1,800,000		210 U	4,200 U	220 UJ	5,100 U	190 U	960 UJ	190 U	200 U	190 U	200 U	**8.2 J**	190 U
Naphthalene	3,600	18,000		**16 J**	4,200 U	**53 J**	**1,300 J**	**16 J**	960 UJ	**21 J**	**270**	**19 J**	**17 J**	**240**	**9.6 J**
Pentachlorophenol	3,000	9,000		410 U	8,200 U	430 UJ	10,000 U	370 U	1,900 UJ	370 U	380 U	380 U	380 U	380 U	**11 J**
Phenanthrene	17,000,000	170,000,000		**840**	**6,200**	**350 J**	**25,000**	**260**	**160 J**	**53 J**	**1,500**	**120 J**	**24 J**	**420**	**100 J**
Phenol	18,000,000	180,000,000		210 UJ	4,200 U	**81 J**	5,100 UJ	190 UJ	960 UJ	190 UJ	200 U	190 U	200 U	**17 J**	190 U
Pyrene	1,700,000	17,000,000		**1,600**	**15,000 J**	**140 J**	**33,000 J**	**680 J**	**330 J**	**65 J**	**1,200**	**110 J**	**18 J**	**220**	**580**

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.4-3

Notes:
Bold values indicate a detection
Yellow shaded cells indicate a residential RSL exceedance
Red shaded cells indicate an industrial RSL and residential RSL exceedance

µg/kg	Microgram per kilogram
mg/kg	Milligram per kilogram
P	Pile
J	Estimated result
J-	Underestimated result
J+	Overestimated result
NC	No criteria available
NS	Not sampled
R	Rejected result
RSL	Regional Screening Level (EPA)
U	Non-detect result
UJ	Non-detected and estimated result

a	Analyte is compared to the April 2009 residential and industrial RSLs

Table 4.2.4-4
Detected Pile PCB Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	P001S	P002S	P003S	P004S	P005S	P006S	P007S	P010S	P013S	P014S	P016	P021	P021B
			Sample ID	E3R65	E3R66	E3R67	E3R68	E3R69	E3R70	E3R71	E3R74	E3R77	E3R78	E3RR0	E3S30	E3S31
			Case	36631	36631	36631	36631	36631	36631	36631	36631	36631	36631	36648	36664	36664
			Sampling date	7/18/2007	7/18/2007	7/18/2007	7/18/2007	7/18/2007	7/18/2007	7/18/2007	7/18/2007	7/19/2007	7/19/2007	7/26/2007	8/2/2007	8/2/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info													P021
			Investigation area	3	3	2	3	3	3	3	3	3	3	2	3	3
Aroclor-1248	220	740		37 U	42 U	39 U	56 U	48 U	40 U	47 U	40 U	46 U	**91 J**	**37 J**	37 U	38 U
Aroclor-1254	220	740		37 U	42 U	39 U	56 U	48 U	**1,000**	47 U	40 U	**65 J**	**79**	51 U	37 U	38 U
Aroclor-1260	220	740		**450**	**190**	**22 J**	**180 J**	**8,100**	40 U	**2,600**	**2,300 J**	46 U	40 U	51 U	**68**	38 U

Table 4.2.4-4
Detected Pile PCB Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	P023	P027	P028	P029	P039	P043	P044	P046	P047	P051	P055
			Sample ID	E3S33	E3S37	E3S38	E3S39	E3S85	E3S89	E3S90	E3S92	E3S93DL	E3SH6	E3SK8
			Case	36664	36664	36664	36664	36697	36697	36697	36697	36697	36697	36697
			Sampling date	8/2/2007	8/2/2007	8/2/2007	8/2/2007	8/6/2007	8/6/2007	8/6/2007	8/6/2007	8/6/2007	8/10/2007	8/10/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info											
			Investigation area	3	3	3	3	1	3	3	3	3	1	2
Aroclor-1248	220	740		35 U	34 U	46 U	**200 J**	40 U	42 U	41 U	43 U	**2,000**	38 U	38 U
Aroclor-1254	220	740		35 U	34 U	**250**	39 U	40 U	**40 J**	**1,600**	43 U	**1,000 J**	38 U	38 U
Aroclor-1260	220	740		**18 J**	**27 J**	46 U	39 U	**97**	42 U	41 U	**3,800**	**790 J**	**1,200**	**84 J**

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.4-4

Notes:
Bold values indicate a detection
Yellow shaded cells indicate a residential RSL exceedance
Red shaded cells indicate an industrial RSL and residential RSL exceedance

µg/kg	Microgram per kilogram
mg/kg	Milligram per kilogram
P	Pile
J	Estimated result
J-	Underestimated result
J+	Overestimated result
NC	No criteria available
NS	Not sampled
R	Rejected result
RSL	Regional Screening Level (EPA)
U	Non-detect result
UJ	Non-detected and estimated result

a	Analyte is compared to the April 2009 residential and industrial RSLs

Table 4.2.4-5
Detected Pile Pesticide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area	P002S E3R66 36631 7/18/2007 µg/kg 3	P011S E3R75 36631 7/19/2007 µg/kg 3	P012S E3R76 36631 7/19/2007 µg/kg 3	P013S E3R77 36631 7/19/2007 µg/kg 3	P014S E3R78 36631 7/19/2007 µg/kg 3	P015S E3R79 36631 7/19/2007 µg/kg 3	P016 E3RR0 36648 7/26/2007 µg/kg 2	P017 E3RR1 36648 7/26/2007 µg/kg 2	P018 E3S27 36664 8/2/2007 µg/kg 1	P019 E3S28 36664 8/2/2007 µg/kg 3	P020 E3S29 36664 8/2/2007 µg/kg 3	P021 E3S30 36664 8/2/2007 µg/kg 3	P021B E3S31 36664 8/2/2007 µg/kg P021 3
4,4'-DDD	2,000	7,200		4.2 UJ	**12 J**	**2.1 J**	**11 J**	4.1 U	**1.9 J**	5.1 U	**4.9**	**24 J**	**29 J**	**1.3 J**	**2.7 J**	3.8 U
4,4'-DDE	1,400	5,100		4.2 U	**1 J**	4 U	**2.1 J**	**1.9 J**	**1.9 J**	**0.77 J**	**6.5 J**	**13 J**	**14 J**	3.6 U	3.7 U	**1.8 J**
4,4'-DDT	1,700	7,000		4.2 UJ	**2.6 J**	4 U	**8.8 J**	**2.6 J**	**6.8 J**	5.1 U	**13 J**	**32 J**	**5.6 J**	**2.7 J**	**4.3 J**	**7.2 J**
Aldrin	29	100		2.1 U	1.9 U	**0.41 J**	**1.8 J**	**1.3 J**	2.1 U	2.6 U	1.7 U	1.9 U	**1.1 J**	1.9 U	1.9 U	2 U
alpha-BHC	77	270		2.1 U	1.9 U	2.1 U	**0.97 J**	2.1 U	2.1 U	2.6 U	1.7 U	**2.4 J**	**5.5**	1.9 U	1.9 U	2 U
alpha-Chlordane	1,600	6,500		2.1 U	**1.3 J**	2.1 U	2.4 U	2.1 U	2.1 U	2.6 U	**0.98 J**	3.4 U	**15 J**	1.9 U	1.9 U	2 U
beta-BHC	270	960		2.1 UJ	1.9 U	**3.1 J**	**1.1 J**	**2.2 J**	2.1 U	2.6 U	**4.7**	**4.9 J**	**2.9 J**	1.9 U	**1.4 J**	2 U
delta-BHC	77	270		2.1 UJ	1.9 U	2.1 U	2.4 U	2.1 U	2.1 U	2.6 U	**5.7**	**3.3 J**	1.9 U	1.9 U	1.9 U	2 U
Dieldrin	30	110		4.2 U	**2.3 J**	**1.4 J**	4.6 U	**5.6 J**	4.1 U	5.1 U	3.4 U	**23 J**	**24 J**	**4.6 J**	**4.5 J**	**5.4 J**
Endosulfan I	370,000	3,700,000		2.1 U	**0.75 J**	2.1 U	2.4 U	2.1 U	2.1 U	2.6 U	**3.7 J**	**16 J**	**17**	1.9 U	1.9 U	2 U
Endosulfan II	370,000	3,700,000		4.2 U	**0.99 J**	4 U	**2.5 J**	**1.2 J**	4.1 U	5.1 U	**2 J**	**16 J**	**1.9 J**	3.6 U	3.7 U	3.8 U
Endosulfan sulfate	370,000	3,700,000		4.2 U	**2.1 J**	4 U	4.6 U	4.1 U	4.1 U	5.1 U	3.4 U	**27 J**	**2.9 J**	3.6 U	3.7 U	3.8 U
Endrin	18,000	180,000		4.2 UJ	**1.2 J**	4 U	**2.1 J**	4.1 U	**1.4 J**	5.1 U	3.4 U	**8.2 J**	3.7 U	3.6 U	**1.5 J**	3.8 U
Endrin aldehyde	18,000	180,000		4.2 UJ	**3.3 J**	**1.1 J**	4.6 U	**0.69 J**	4.1 U	5.1 U	**12 J**	3.6 U	**4.8 J**	**1.7 J**	**3.3 J**	3.8 U
Endrin ketone	18,000	180,000		4.2 U	3.8 U	**1.1 J**	**6.5 J**	**3.3 J**	**2.9 J**	5.1 U	**6.1 J**	**48 J**	3.7 U	**1 J**	3.7 U	3.8 U
gamma-BHC (Lindane)	520	2,100		2.1 UJ	1.9 U	2.1 U	2.4 U	2.1 U	2.1 U	2.6 U	1.7 U	**4.6 J**	1.9 U	1.9 U	1.9 U	2 U
gamma-Chlordane	1,600	6,500		**6.5**	**3.1 J**	2.1 U	**0.7 J**	**1.7 J**	2.1 U	2.6 U	**11 J**	**13 J**	1.9 U	1.9 U	1.9 U	**2.7**
Heptachlor	110	380		2.1 U	**0.5 J**	2.1 U	**0.89 J**	**1.5 J**	2.1 U	2.6 U	1.7 U	**5.5 J**	**3.6 J**	1.9 U	1.9 U	2 U
Heptachlor epoxide	53	190		2.1 U	**0.69 J**	**0.65 J**	**1.6 J**	**3.8 J**	**0.59 J**	2.6 U	1.7 U	**11 J**	1.9 U	**1.1 J**	**2.1 J**	**1.5 J**
Methoxychlor	310,000	3,100,000		21 UJ	19 U	21 U	**58 J**	21 U	**27 J**	26 U	**15 J**	**100 J**	**7.9 J**	19 U	19 U	20 U

Table 4.2.4-5
Detected Pile Pesticide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID	P022	P023	P024	P025	P026	P027	P028	P029	P031	P032	P033	P034	P034B
			Sample ID	E3S32	E3S33	E3S34	E3S35	E3S36	E3S37	E3S38	E3S39	E3S77	E3S78	E3S79	E3S80	E3SA3
			Case	36664	36664	36664	36664	36664	36664	36664	36664	36697	36697	36697	36697	36697
			Sampling date	8/2/2007	8/2/2007	8/2/2007	8/2/2007	8/2/2007	8/2/2007	8/2/2007	8/2/2007	8/6/2007	8/6/2007	8/6/2007	8/6/2007	8/6/2007
			Unit	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
			Duplicate info													P034
			Investigation area	3	3	3	3	3	3	3	3	3	3	3	3	3
4,4'-DDD	2,000	7,200		**6.3 J**	3.5 U	4.2 U	**2.4 J**	**1.2 J**	3.4 U	4.6 U	3.9 U	3.7 U	4.4 U	3.8 U	3.8 U	4.1 U
4,4'-DDE	1,400	5,100		3.7 U	**2 J**	4.2 U	3.6 U	**1 J**	3.4 U	**10 J**	3.9 U	3.7 U	4.4 U	**1.3 J**	3.8 U	4.1 U
4,4'-DDT	1,700	7,000		**19 J**	**3.6**	**13 J**	**5.8**	**1.3 J**	**1.4 J**	**12 J**	**6.1 J**	3.7 U	4.4 U	**5.7 J**	3.8 U	4.1 U
Aldrin	29	100		1.9 U	1.8 U	2.2 U	1.9 U	1.8 U	1.8 U	2.4 U	2 U	1.9 U	2.3 U	2 U	2 U	2.1 U
alpha-BHC	77	270		1.9 U	1.8 U	2.2 U	1.9 U	1.8 U	1.8 U	2.4 U	2 U	1.9 U	2.3 U	2 U	2 U	2.1 U
alpha-Chlordane	1,600	6,500		4.3 U	1.8 U	2.2 U	3.3 U	1.8 U	1.8 U	3.6 U	2.1 U	1.9 U	2.3 U	2 U	2 U	2.1 U
beta-BHC	270	960		1.9 U	1.8 U	**1.6 J**	**1.3 J**	1.8 U	1.8 U	**4.1 J**	**5.6 J**	1.9 U	2.3 U	2 U	2 U	2.1 U
delta-BHC	77	270		1.9 U	1.8 U	2.2 U	1.9 U	1.8 U	1.8 U	2.4 U	2 U	1.9 U	2.3 U	2 U	2 U	2.1 U
Dieldrin	30	110		**7.6 J**	**1.7 J**	**3.2 J**	**4.2 J**	**1.9 J**	**1.3 J**	**5.5 J**	**2.5 J**	3.7 U	4.4 U	3.8 U	3.8 U	4.1 U
Endosulfan I	370,000	3,700,000		**6.7 J**	1.8 U	2.2 U	**0.73 J**	1.8 U	1.8 U	**1.7 J**	**2 J**	1.9 U	2.3 U	2 U	2 U	2.1 U
Endosulfan II	370,000	3,700,000		**7 J**	3.5 U	4.2 U	**0.9 J**	3.4 U	3.4 U	**2 J**	3.9 U	3.7 U	4.4 U	**2.2 J**	3.8 U	4.1 U
Endosulfan sulfate	370,000	3,700,000		**8.7 J**	3.5 U	**1.6 J**	**1.6 J**	3.4 U	3.4 U	4.6 U	3.9 U	3.7 U	4.4 U	**6.3**	3.8 U	**0.32 J**
Endrin	18,000	180,000		3.7 U	3.5 U	4.2 U	**2.6 J**	3.4 U	3.4 U	**1.8 J**	**2.5 J**	**0.23 J**	4.4 U	**5.1 J**	3.8 U	4.1 U
Endrin aldehyde	18,000	180,000		**20**	3.5 U	**2.8 J**	**3.2 J**	3.4 U	**0.87 J**	**1.8 J**	**1.4 J**	**1.1 J**	4.4 U	3.8 U	**2.3 J**	4.1 U
Endrin ketone	18,000	180,000		**2 J**	3.5 U	**3.9 J**	**4.7 J**	3.4 U	3.4 U	**9.3 J**	**7.2 J**	3.7 U	**0.67 J**	**11 J**	3.8 U	4.1 U
gamma-BHC (Lindane)	520	2,100		**1.4 J**	1.8 U	**0.7 J**	**0.83 J**	1.8 U	1.8 U	**0.84 J**	**0.96 J**	1.9 U	2.3 U	2 U	2 U	2.1 U
gamma-Chlordane	1,600	6,500		**3.8 J**	1.8 U	2.2 U	1.9 U	1.8 U	1.8 U	2.3 U	2 U	1.9 U	2.3 U	**1.6 J**	2 U	2.1 U
Heptachlor	110	380		1.9 U	1.8 U	2.2 UJ	1.9 U	1.8 U	1.8 U	2.4 U	2 U	1.9 U	2.3 U	2 U	**0.35 J**	2.1 U
Heptachlor epoxide	53	190		**4.8 J**	1.8 U	**1.7 J**	**1.4 J**	**0.99 J**	**0.47 J**	**3 J**	**2.2 J**	1.9 U	2.3 U	2 U	2 U	2.1 U
Methoxychlor	310,000	3,100,000		**13 J**	18 U	**11 J**	**4.9 J**	18 U	18 U	**9.3 J**	20 U	19 U	23 U	**15 J**	20 U	21 U

Table 4.2.4-5
Detected Pile Pesticide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area	P035 E3S81 36697 8/6/2007 µg/kg 3	P036 E3S82 36697 8/6/2007 µg/kg 3	P037 E3S83 36697 8/6/2007 µg/kg 3	P038 E3S84 36697 8/6/2007 µg/kg 3	P039 E3S85 36697 8/6/2007 µg/kg 1	P040 E3S86 36697 8/6/2007 µg/kg 3	P041 E3S87 36697 8/6/2007 µg/kg 3	P042 E3S88 36697 8/6/2007 µg/kg 3	P042B E3SA4 36697 8/6/2007 µg/kg P042 3	P043 E3S89 36697 8/6/2007 µg/kg 3	P044 E3S90 36697 8/6/2007 µg/kg 3	P045 E3S91 36697 8/6/2007 µg/kg 3	P046 E3S92 36697 8/6/2007 µg/kg 3
4,4'-DDD	2,000	7,200		3.8 U	3.9 U	3.6 U	**1.1 J**	**1.7 J**	**1 J**	38 U	**1.6 J**	4 U	4.2 U	**3.1 J**	**10 J**	4.3 U
4,4'-DDE	1,400	5,100		3.8 U	3.9 U	3.6 U	3.8 U	**1.5 J**	**3.8 J**	38 U	4.2 U	4 U	4.2 U	**64 J**	4.1 U	**16 J**
4,4'-DDT	1,700	7,000		3.8 U	**2.6 J**	3.6 U	3.8 U	**7 J**	**10 J**	38 U	**3.3 J**	**1.7 J**	**4.3 J**	**230**	**19 J**	**570**
Aldrin	29	100		2 U	2 U	1.9 U	1.9 U	2 U	2.1 U	19 U	2.1 U	2.1 U	2.2 U	2.1 U	2.1 U	2.2 U
alpha-BHC	77	270		2 U	2 U	1.9 U	1.9 U	2 U	2.1 U	19 U	2.1 U	2.1 U	2.2 U	2.1 U	**2.2 J**	2.2 U
alpha-Chlordane	1,600	6,500		2 U	2 U	1.9 U	1.9 U	2 U	2.1 U	19 U	2.1 U	2.1 U	2.2 U	2.1 U	2.1 U	**2.4 J**
beta-BHC	270	960		2 U	2 U	1.9 U	1.9 U	2 U	2.1 U	19 U	2.1 U	2.1 U	2.2 U	2.1 U	2.1 U	2.2 U
delta-BHC	77	270		2 U	2 U	1.9 U	1.9 U	2 U	2.1 U	19 U	2.1 U	2.1 U	2.2 U	2.1 U	2.1 U	2.2 U
Dieldrin	30	110		3.8 U	**1.5 J**	3.6 U	**1.6 J**	**3.2 J**	4 U	38 U	4.2 U	**0.81 J**	4.2 U	4.1 U	**8 J**	**78 J**
Endosulfan I	370,000	3,700,000		2 U	2 U	1.9 U	1.9 U	2 U	2.1 U	19 U	2.1 U	2.1 U	2.2 U	**9.1 J**	**2.8**	2.2 U
Endosulfan II	370,000	3,700,000		3.8 U	**1.3 J**	3.6 U	3.8 U	4 U	**1.7 J**	38 U	4.2 U	4 U	4.2 U	**10 J**	**1.5 J**	**2.5 J**
Endosulfan sulfate	370,000	3,700,000		3.8 U	**2.5 J**	3.6 U	3.8 U	4 U	**2.2 J**	38 U	4.2 U	4 U	4.2 U	4.1 U	**1.3 J**	4.3 U
Endrin	18,000	180,000		3.8 U	3.9 U	3.6 U	3.8 U	**1.4 J**	**2.4 J**	38 U	4.2 U	4 U	4.2 U	**14 J**	4.1 U	**49 J**
Endrin aldehyde	18,000	180,000		**1.9 J**	**1.1 J**	**1 J**	**2 J**	**3.4 J**	4 U	**14 J**	**4.1 J**	4 U	4.2 U	**6 J**	**11 J**	**25 J**
Endrin ketone	18,000	180,000		**1.7 J**	**4.8 J**	**0.38 J**	**1.9 J**	4 U	**11 J**	38 U	**2.2 J**	**1.2 J**	**2.1 J**	4.1 U	**37**	**5.6 J**
gamma-BHC (Lindane)	520	2,100		2 U	2 U	1.9 U	1.9 U	2 U	2.1 U	19 U	2.1 U	2.1 U	2.2 U	2.1 U	2.1 U	2.2 U
gamma-Chlordane	1,600	6,500		2 U	2 U	1.9 U	1.9 U	2 U	**1 J**	19 U	2.1 U	2.1 U	2.2 U	2.1 U	**4.9 J**	**1.7 J**
Heptachlor	110	380		**0.37 J**	2 U	1.9 U	**0.52 J**	2 U	2.1 U	19 U	**0.55 J**	2.1 U	**0.69 J**	2.1 U	**0.55 J**	2.2 U
Heptachlor epoxide	53	190		2 U	2 U	1.9 U	1.9 U	2 U	2.1 U	19 U	2.1 U	2.1 U	2.2 U	**11 J**	**2.8 J**	**5.7 J**
Methoxychlor	310,000	3,100,000		20 U	**9.3 J**	19 U	19 U	20 U	**8.3 J**	190 U	21 U	**2.4 J**	22 U	**34 J**	**14 J**	**19 J**

Table 4.2.4-5
Detected Pile Pesticide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Residential RSL (µg/kg)	Industrial RSL (µg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area	P047 E3S93 36697 8/6/2007 µg/kg 3	P048 E3S94 36697 8/6/2007 µg/kg 3	P049 E3S95 36697 8/6/2007 µg/kg 3	P050 E3S96 36697 8/6/2007 µg/kg 3	P051 E3SH6 36697 8/10/2007 µg/kg 1	P052 E3SH7 36697 8/10/2007 µg/kg 3	P053 E3SK6 36697 8/10/2007 µg/kg 3	P054 E3SK7 36697 8/10/2007 µg/kg 3	P055 E3SK8 36697 8/10/2007 µg/kg 2
4,4'-DDD	2,000	7,200		**32**	**1.3 J**	**6.1 J**	3.7 U	3.8 U	3.8 U	R	**2 J**	3.8 U
4,4'-DDE	1,400	5,100		**50 J**	3.7 U	**6.9 J**	3.7 U	**4.5 J**	3.8 U	R	**3.3 J**	3.8 U
4,4'-DDT	1,700	7,000		**99 J**	**8 J**	**11 J**	3.7 U	3.8 U	**1.2 J**	R	**11 J**	**9.6 J**
Aldrin	29	100		2.1 U	1.9 U	1.9 U	1.9 U	2 U	1.9 U	R	2 U	1.9 U
alpha-BHC	77	270		**4.1 J**	1.9 U	1.9 U	1.9 U	2 U	1.9 U	R	2 U	1.9 U
alpha-Chlordane	1,600	6,500		**9.8 J**	1.9 U	1.9 U	1.9 U	2 U	1.9 U	R	2 U	1.9 U
beta-BHC	270	960		**5.5 J**	1.9 U	**0.72 J**	1.9 U	**1.8 J**	1.9 U	R	**2.2 J**	**8.2 J**
delta-BHC	77	270		2.1 U	1.9 U	1.9 U	1.9 U	**0.54 J**	1.9 U	R	2 U	1.9 U
Dieldrin	30	110		**33 J**	3.7 U	**5.3**	3.7 U	**43 J**	**1 J**	R	**4.5**	**5.4 J**
Endosulfan I	370,000	3,700,000		**5 J**	1.9 U	1.9 U	1.9 U	2 U	1.9 U	R	2 U	1.9 U
Endosulfan II	370,000	3,700,000		**4.9 J**	3.7 U	**6.5 J**	3.7 U	**6.8 J**	3.8 U	R	**2.3 J**	**1.4 J**
Endosulfan sulfate	370,000	3,700,000		4 U	3.7 U	**4.1 J**	3.7 U	**19 J**	**0.32 J**	R	**2.8 J**	**3.9 J**
Endrin	18,000	180,000		**18 J**	3.7 U	**5 J**	3.7 U	**29 J**	3.8 U	**0.35 J**	**4.5 J**	**9.1 J**
Endrin aldehyde	18,000	180,000		**3.5 J**	3.7 U	3.7 U	3.7 U	**13 J**	3.8 U	R	3.8 U	3.8 U
Endrin ketone	18,000	180,000		4 U	**2.6 J**	**8.1 J**	**0.64 J**	**59 J**	3.8 U	R	3.8 U	3.8 U
gamma-BHC (Lindane)	520	2,100		2.1 U	1.9 U	1.9 U	1.9 U	**1.3 J**	1.9 U	R	**2.3 J**	1.9 U
gamma-Chlordane	1,600	6,500		**10 J**	**1.1 J**	**0.89 J**	1.9 U	2 U	1.9 U	**0.14 J**	2 U	1.9 U
Heptachlor	110	380		**26 J**	**1.1 J**	1.9 U	1.9 U	**0.96 J**	1.9 U	R	2 U	**0.76 J**
Heptachlor epoxide	53	190		**0.74 J**	1.9 U	**2.1 J**	1.9 U	**5.9 J**	1.9 U	R	**2**	**0.79 J**
Methoxychlor	310,000	3,100,000		**5.4 J**	**5.4 J**	**10 J**	19 U	**26 J**	19 U	R	20 U	**7.4 J**

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.4-5

Notes:
Bold values indicate a detection
Yellow shaded cells indicate a residential RSL exceedance
Red shaded cells indicate an industrial RSL and residential RSL exceedance

µg/kg	Microgram per kilogram
mg/kg	Milligram per kilogram
P	Pile
J	Estimated result
J-	Underestimated result
J+	Overestimated result
NC	No criteria available
NS	Not sampled
R	Rejected result
RSL	Regional Screening Level (EPA)
U	Non-detect result
UJ	Non-detected and estimated result

a	Analyte is compared to the April 2009 residential and industrial RSLs

Table 4.2.4-6
Detected Pile Asbestos Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Location ID	P006S	P010S	P015S	P024	P040	P049	P050	P053
Sample ID	ME3R70	ME3R74	ME3R79	ME3S34	ME3S86	ME3S95	ME3S96	ME3SK6
Sampling date	7/18/2007	7/18/2007	7/19/2007	8/2/2007	8/6/2007	8/6/2007	8/6/2007	8/10/2007
Investigation area	3	3	3	3	3	3	2	3
Asbestos	0.75	1.75	6.5	4.5	0.5	1	2.75	1.5

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.4-6

Notes:
Bold values indicate a detection
Yellow shaded cells indicate a residential RSL exceedance
Red shaded cells indicate an industrial RSL and residential RSL exceedance

µg/kg	Microgram per kilogram
mg/kg	Milligram per kilogram
P	Pile
J	Estimated result
J-	Underestimated result
J+	Overestimated result
NC	No criteria available
NS	Not sampled
R	Rejected result
RSL	Regional Screening Level (EPA)
U	Non-detect result
UJ	Non-detected and estimated result

a	Analyte is compared to the April 2009 residential and industrial RSLs

Table 4.2.5-1
Summary of Groundwater Analyte Group Sampling Per Monitoring Well
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

	Quarterly Groundwater Analyses															
	Total Metals								Dissolved Metals							
Well ID	11/07	03/08	06/08	09/08	12/08	03/09	06/09	10/09	11/07	03/08	06/08	09/08	12/08	03/09	06/09	10/09
MW01	X	X	X	X	--	--	--	--	--	--	--	--	X	X	X	X
MW02S	X	X	X	X	--	--	--	--	--	--	--	--	X	X	X	X
MW02D	X	--	X	X	--	--	--	--	--	--	--	--	X	X	X	X
MW03	X	X	X	X	--	--	--	--	--	--	--	--	X	X	X	X
MW04	X	X	X	X	--	--	--	--	--	--	--	--	X	X	X	X
MW05	X	X	X	X	--	--	--	--	--	--	--	--	X	X	X	X
MW06	X	X	X	X	--	--	--	--	--	--	--	--	X	X	X	X
MW07	X	X	X	X	--	--	--	X	--	--	--	--	X	X	X	X
MW08	Dry	X	X	X	--	--	--	Dry	Dry	--	--	--	X	X	X	Dry
MW09	X	X	X	X	--	--	--	--	--	--	--	--	X	X	X	X
MW10	X	X	X	X	--	--	--	--	--	--	--	--	X	X	X	X
MW11	X	X	X	X	--	--	--	--	--	--	--	--	X	X	X	X
MW12	X	X	X	X	--	--	--	--	--	--	--	--	X	X	X	X
MW13	X	X	X	X	--	--	--	--	--	--	--	--	X	X	X	X
MW14	X	X	X	X	--	X	X	X	--	--	--	--	X	X	X	X
MW15	X	X	X	X	--	--	--	--	--	--	--	--	X	X	X	X
MW16	X	X	X	X	--	--	X	X	--	--	--	--	X	X	X	X
MW17	X	X	X	X	--	X	X	X	--	--	--	--	X	X	X	X
MW18	X	X	X	X	--	--	--	--	--	--	--	--	X	X	X	X
MW19	NS	NS	NS	X	--	--	--	--	NS	NS	NS	--	X	X	X	X
MW20	NS	NS	NS	X	--	--	--	--	NS	NS	NS	--	X	X	X	X
MW21	NS	NS	NS	X	--	--	--	--	NS	NS	NS	--	X	X	X	X
MW22	NS	NS	NS	X	--	--	--	--	NS	NS	NS	--	X	X	X	X
MW23	NS	NS	NS	X	--	--	--	--	NS	NS	NS	--	X	X	X	X
MW24	NS	NS	NS	X	--	--	--	--	NS	NS	NS	--	X	X	X	X
MW25	NS	NS	NS	X	--	--	--	--	NS	NS	NS	--	X	X	X	X
MW26	NS	NS	NS	X	Dry	--	Dry	Dry	NS	NS	NS	--	Dry	X	Dry	Dry
MW27	NS	NS	NS	X	Dry	--	Dry	Dry	NS	NS	NS	--	Dry	X	Dry	Dry
MW28	NS	NS	NS	X	--	--	--	--	NS	NS	NS	--	X	X	X	X
MW29	NS	NS	NS	X	--	--	--	--	NS	NS	NS	--	X	X	X	X
MW30	NS	NS	NS	X	--	--	--	--	NS	NS	NS	--	X	X	X	X
MW31	NS	NS	NS	X	--	--	--	--	NS	NS	NS	--	X	X	X	X
MW32	NS	NS	NS	X	--	--	--	Dry	NS	NS	NS	--	X	X	X	Dry
MW33	NS	NS	NS	X	--	--	--	--	NS	NS	NS	--	X	X	X	X
MW34	NS	NS	NS	X	--	--	--	--	NS	NS	NS	--	X	X	X	X
MW35	NS	NS	NS	X	--	--	--	--	NS	NS	NS	--	X	X	X	X

Table 4.2.5-1
Summary of Groundwater Analyte Group Sampling Per Monitoring Well
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

	Quarterly Groundwater Analyses															
	VOCs								SVOCs							
Well ID	11/07	03/08	06/08	09/08	12/08	03/09	06/09	10/09	11/07	03/08	06/08	09/08	12/08	03/09	06/09	10/09
MW01	--	X	X	X	--	--	--	X	--	X	X	X	--	--	--	X
MW02S	--	X	X	X	--	--	--	X	--	X	X	X	X	X	X	X
MW02D	--	--	--	X	X	X	X	X	--	--	--	--	X	X	X	X
MW03	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW04	X	X	X	X	X	X	X	X	X	X	X	X	--	--	--	X
MW05	--	X	X	X	--	--	--	X	--	X	X	X	--	--	--	X
MW06	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW07	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW08	Dry	X	X	X	--	--	--	Dry	Dry	X	X	X	--	--	--	Dry
MW09	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW11	--	X	X	X	--	--	--	X	--	X	X	X	--	--	--	X
MW12	X	X	X	X	--	--	--	X	X	X	X	X	X	X	X	X
MW13	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW14	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW15	X	X	X	X	X	X	X	X	X	X	X	X	--	--	--	X
MW16	X	X	X	X	--	--	--	X	--	X	X	X	--	--	--	X
MW17	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW18	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW19	NS	NS	NS	X	X	X	X	X	NS	NS	NS	X	X	X	X	X
MW20	NS	NS	NS	X	X	X	X	X	NS	NS	NS	X	X	X	X	X
MW21	NS	NS	NS	X	X	X	X	X	NS	NS	NS	X	X	X	X	X
MW22	NS	NS	NS	X	X	X	X	X	NS	NS	NS	--	X	X	X	X
MW23	NS	NS	NS	X	X	X	X	X	NS	NS	NS	X	X	X	X	X
MW24	NS	NS	NS	X	X	X	X	X	NS	NS	NS	X	X	X	X	X
MW25	NS	NS	NS	X	X	X	X	X	NS	NS	NS	X	X	X	X	X
MW26	NS	NS	NS	X	Dry	X	Dry	Dry	NS	NS	NS	X	Dry	X	Dry	Dry
MW27	NS	NS	NS	X	Dry	X	Dry	Dry	NS	NS	NS	X	Dry	X	Dry	Dry
MW28	NS	NS	NS	X	X	X	X	X	NS	NS	NS	X	X	X	X	X
MW29	NS	NS	NS	X	X	X	X	X	NS	NS	NS	X	X	X	X	X
MW30	NS	NS	NS	X	X	X	X	X	NS	NS	NS	X	X	X	X	X
MW31	NS	NS	NS	X	X	X	X	X	NS	NS	NS	X	X	X	X	X
MW32	NS	NS	NS	X	X	X	X	Dry	NS	NS	NS	X	X	X	X	Dry
MW33	NS	NS	NS	X	X	X	X	X	NS	NS	NS	X	X	X	X	--
MW34	NS	NS	NS	X	X	X	X	X	NS	NS	NS	X	X	X	X	X
MW35	NS	NS	NS	X	X	X	X	X	NS	NS	NS	X	X	X	X	X

Table 4.2.5-1
Summary of Groundwater Analyte Group Sampling Per Monitoring Well
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

	Quarterly Groundwater Analyses															
	PCBs								Pesticides							
Well ID	11/07	03/08	06/08	09/08	12/08	03/09	06/09	10/09	11/07	03/08	06/08	09/08	12/08	03/09	06/09	10/09
MW01	--	X	X	X	--	--	--	X	--	X	X	X	--	--	--	X
MW02S	--	X	X	X	--	--	--	X	--	X	X	X	--	--	--	X
MW02D	--	--	--	--	X	X	X	X	--	--	--	--	X	X	X	X
MW03	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW04	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW05	--	X	X	X	--	--	--	X	--	X	X	X	--	--	--	X
MW06	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW07	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW08	Dry	X	--	X	--	--	--	Dry	Dry	X	--	X	--	--	--	Dry
MW09	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW10	X	X	X	X	--	--	--	--	X	X	--	X	X	X	X	X
MW11	--	X	X	X	--	--	--	X	--	X	X	X	--	--	--	X
MW12	X	X	X	X	--	--	--	X	X	X	X	X	X	X	X	X
MW13	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW14	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW15	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW16	X	X	X	X	--	--	--	X	--	X	X	X	--	--	--	X
MW17	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW18	X	X	X	X	--	--	--	X	X	X	X	X	--	--	--	X
MW19	NS	NS	NS	X	X	X	X	X	NS	NS	NS	X	X	X	X	X
MW20	NS	NS	NS	X	X	X	X	X	NS	NS	NS	X	X	X	X	X
MW21	NS	NS	NS	X	X	X	X	X	NS	NS	NS	X	X	X	X	X
MW22	NS	NS	NS	--	X	X	X	X	NS	NS	NS	--	X	X	X	X
MW23	NS	NS	NS	X	X	X	X	X	NS	NS	NS	X	X	X	X	X
MW24	NS	NS	NS	X	X	X	X	X	NS	NS	NS	X	X	X	X	X
MW25	NS	NS	NS	X	X	X	X	X	NS	NS	NS	X	X	X	X	X
MW26	NS	NS	NS	X	Dry	X	Dry	Dry	NS	NS	NS	X	Dry	X	Dry	Dry
MW27	NS	NS	NS	X	Dry	X	Dry	Dry	NS	NS	NS	X	Dry	X	Dry	Dry
MW28	NS	NS	NS	X	X	X	X	X	NS	NS	NS	X	X	X	X	X
MW29	NS	NS	NS	X	X	X	X	X	NS	NS	NS	X	X	X	X	X
MW30	NS	NS	NS	X	X	X	X	X	NS	NS	NS	X	X	X	X	X
MW31	NS	NS	NS	X	X	X	X	X	NS	NS	NS	X	X	X	X	X
MW32	NS	NS	NS	X	X	X	X	Dry	NS	NS	NS	X	X	X	X	Dry
MW33	NS	NS	NS	X	X	X	X	--	NS	NS	NS	X	X	X	X	--
MW34	NS	NS	NS	X	X	X	X	X	NS	NS	NS	X	X	X	X	X
MW35	NS	NS	NS	X	X	X	X	X	NS	NS	NS	X	X	X	X	X

Table 4.2.5-1
Summary of Groundwater Analyte Group Sampling Per Monitoring Well
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

	Quarterly Groundwater Analyses							
	Cyanide							
Well ID	11/07	03/08	06/08	09/08	12/08	03/09	06/09	10/09
MW01	--	X	X	X	--	--	--	X
MW02S	--	X	X	X	--	--	--	X
MW02D	--	--	X	X	X	X	X	X
MW03	X	X	X	X	--	--	--	X
MW04	X	X	X	X	X	X	X	X
MW05	--	X	X	X	X	X	X	X
MW06	X	X	X	X	X	X	X	X
MW07	X	X	X	X	--	--	--	X
MW08	Dry	X	X	X	--	--	--	Dry
MW09	X	X	X	X	--	--	--	X
MW10	X	X	X	X	--	--	--	X
MW11	--	X	X	X	--	--	--	X
MW12	X	X	X	X	--	--	--	X
MW13	X	X	X	X	--	--	--	X
MW14	X	X	X	X	--	--	--	X
MW15	X	X	X	X	--	--	--	X
MW16	X	X	X	X	--	--	--	X
MW17	X	X	X	X	X	X	X	X
MW18	X	X	X	X	--	--	--	X
MW19	NS	NS	NS	X	X	X	--	X
MW20	NS	NS	NS	X	X	X	X	X
MW21	NS	NS	NS	X	X	X	X	X
MW22	NS	NS	NS	X	X	X	X	X
MW23	NS	NS	NS	X	X	X	X	X
MW24	NS	NS	NS	X	X	X	X	X
MW25	NS	NS	NS	X	X	X	X	X
MW26	NS	NS	NS	X	Dry	X	Dry	Dry
MW27	NS	NS	NS	X	Dry	X	Dry	Dry
MW28	NS	NS	NS	--	X	X	X	X
MW29	NS	NS	NS	X	X	X	X	X
MW30	NS	NS	NS	X	X	X	X	X
MW31	NS	NS	NS	X	X	X	X	X
MW32	NS	NS	NS	X	X	X	X	Dry
MW33	NS	NS	NS	X	X	X	X	X
MW34	NS	NS	NS	X	X	X	X	X
MW35	NS	NS	NS	X	X	X	X	X

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.5-1

Notes:

--	Analyzed not analyzed for (Table 4.2.5-1) or did not exceed MCL/RSL (Table 4.2.5-2)
X	Positive result
Dry	Monitoring well was dry during sampling event
ID	Identification
MCL	Maximum contaminant level (EPA)
MW	Monitoring well
NS	Monitoring well not sampled
RSL	Regional Screening Level (EPA)

Table 4.2.5-2
Summary of MCL and RSL Exceedances in Groundwater Per Monitoring Well Location
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Result Type	Metals													
		Arsenic	Cadmium	Lead	Mercury	Zinc	Aluminum	Antimony	Chromium	Cobalt	Cyanide	Iron	Manganese	Selenium	Thallium
MW01	Total	--	--	--	--	--	--	X	--	--	--	--	--	--	X
	Dissolved	X	--	--	--	--	--	--	--	--	--	--	--	--	--
MW02S	Total	X	X	X	--	--	--	X	--	--	--	--	--	--	X
	Dissolved	X	X	--	--	--	--	--	--	--	--	--	--	--	--
MW02D	Total	X	--	X	--	--	X	--	--	X	--	X	X	--	X
	Dissolved	X	--	--	--	--	--	--	--	--	--	--	--	--	--
MW03	Total	X	--	--	--	--	--	--	--	X	--	X	--	--	X
	Dissolved	X	--	--	--	--	--	--	--	--	--	--	--	--	--
MW04	Total	--	X	--	--	X	--	X	--	X	X	--	X	X	--
	Dissolved	X	X	--	--	--	--	--	--	X	X	--	X	X	--
MW05	Total	--	--	--	--	--	--	X	--	--	--	--	--	--	--
	Dissolved	X	--	--	--	--	--	--	--	--	--	--	--	--	--
MW06	Total	--	X	--	--	X	--	X	--	--	--	--	--	--	X
	Dissolved	X	X	--	--	X	--	--	--	--	--	--	--	--	--
MW07	Total	X	X	X	X	X	--	--	--	X	--	--	X	--	X
	Dissolved	X	X	--	--	X	--	--	--	X	--	--	X	--	--
MW08	Total	--	X	--	--	--	--	X	--	--	--	--	--	--	--
	Dissolved	X	X	--	--	--	--	--	--	--	--	--	--	--	--
MW09	Total	X	X	X	--	X	--	--	--	--	--	--	X	--	--
	Dissolved	X	X	--	--	X	--	--	--	--	--	--	X	--	--
MW10	Total	X	--	X	--	--	--	--	X	X	--	X	X	--	--
	Dissolved	X	--	--	--	--	--	--	--	--	--	X	X	--	--
MW11	Total	--	X	X	--	X	--	X	--	--	--	--	X	--	X
	Dissolved	X	X	--	--	X	--	--	--	--	--	--	X	--	--
MW12	Total	X	--	X	--	--	--	X	--	--	--	--	X	--	X
	Dissolved	X	--	--	--	--	--	--	--	--	--	--	X	--	--
MW13	Total	--	--	--	--	--	--	X	--	X	--	--	--	--	--
	Dissolved	X	X	--	--	X	--	--	--	X	--	--	--	--	--
MW14	Total	X	--	--	--	--	--	X	--	--	--	--	--	--	--
	Dissolved	X	--	--	--	--	--	--	--	--	--	--	--	--	--
MW15	Total	X	--	--	--	--	--	--	--	--	--	--	--	--	X
	Dissolved	X	--	--	--	--	--	--	--	--	--	--	--	--	--
MW16	Total	X	X	--	--	--	--	--	--	--	--	--	--	--	--
	Dissolved	X	X	--	--	--	--	--	--	--	--	--	--	--	--
MW17	Total	X	X	X	X	X	--	--	--	X	--	X	X	--	X
	Dissolved	X	X	X	--	X	--	--	--	X	--	X	X	--	--

Table 4.2.5-2
Summary of MCL and RSL Exceedances in Groundwater Per Monitoring Well Location
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	Result Type	Metals													
		Arsenic	Cadmium	Lead	Mercury	Zinc	Aluminum	Antimony	Chromium	Cobalt	Cyanide	Iron	Manganese	Selenium	Thallium
MW18	Total	--	X	--	--	X	--	--	--	--	--	--	X	--	--
	Dissolved	X	X	--	--	X	--	--	--	--	--	--	X	--	--
MW19	Total	--	--	X	--	--	--	--	--	--	--	--	X	--	--
	Dissolved	X	X	X	--	--	--	--	--	X	--	--	--	--	--
MW20	Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dissolved	X	--	--	--	--	--	--	--	--	--	--	--	--	--
MW21	Total	--	--	--	--	--	--	X	--	X	--	--	X	--	--
	Dissolved	X	X	--	--	--	--	--	--	X	--	--	X	--	--
MW22	Total	--	--	X	--	--	--	--	--	--	--	--	--	--	--
	Dissolved	X	--	--	--	--	--	--	--	--	--	--	--	--	--
MW23	Total	--	--	X	--	--	--	--	--	--	--	--	X	--	--
	Dissolved	X	X	--	--	--	--	--	--	X	--	--	X	--	--
MW24	Total	--	X	X	--	X	--	X	--	--	--	--	X	X	--
	Dissolved	X	X	X	--	X	--	--	--	X	--	--	X	X	--
MW25	Total	--	X	X	--	X	--	X	--	X	--	--	X	--	--
	Dissolved	X	X	X	--	X	--	--	--	X	--	--	X	--	--
MW26	Total	--	X	--	--	--	--	X	--	--	--	--	X	--	--
	Dissolved	X	X	--	--	--	--	--	--	--	--	--	--	--	--
MW27	Total	--	X	X	--	X	--	--	--	--	--	--	--	--	--
	Dissolved	--	X	X	--	X	--	--	--	--	--	--	--	--	--
MW28	Total	--	--	X	--	--	--	X	--	X	--	--	X	--	--
	Dissolved	X	--	--	--	--	--	--	--	X	--	--	--	--	--
MW29	Total	--	X	--	--	--	--	--	--	--	--	--	X	--	--
	Dissolved	X	--	--	--	--	--	--	--	--	--	--	X	--	--
MW30	Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dissolved	X	--	--	--	--	--	--	--	--	--	--	--	--	--
MW31	Total	--	X	X	--	X	--	X	--	--	--	--	--	--	--
	Dissolved	X	X	X	--	X	--	X	--	X	--	--	X	--	--
MW32	Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dissolved	X	--	--	--	--	--	--	--	--	--	--	--	--	--
MW33	Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dissolved	X	--	--	--	--	--	--	--	--	--	--	--	--	--
MW34	Total	--	--	--	--	--	--	X	--	--	--	--	--	--	--
	Dissolved	X	--	--	--	X	--	--	--	--	--	--	X	--	--
MW35	Total	X	X	X	--	--	--	--	--	--	--	--	X	--	--
	Dissolved	X	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 4.2.5-2
Summary of MCL and RSL Exceedances in Groundwater Per Monitoring Well Location
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	SVOCs									
	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo (g,h,I) perylene	Benzo(k) fluoranthene	Bis (2-ethylhexyl) phthalate	Dibenzo(a,h)anthracene	Indeno (1,2,3-cd) pyrene	Pentachlorophenol	Naphthalene
MW01	--	--	--	--	--	--	--	--	--	--
MW02S	--	--	--	--	--	X	--	--	--	--
MW02D	--	--	--	--	--	--	--	--	--	--
MW03	--	--	--	--	--	--	--	--	--	--
MW04	--	--	--	--	--	--	--	--	--	--
MW05	--	--	--	--	--	--	--	--	--	--
MW06	--	--	--	--	--	--	--	--	--	--
MW07	--	--	--	--	--	--	--	--	--	--
MW08	--	--	--	--	--	--	--	--	--	--
MW09	--	--	--	--	--	--	--	--	--	--
MW10	--	--	--	--	--	X	--	--	--	X
MW11	--	--	--	--	--	--	--	--	--	--
MW12	X	X	X	X	X	--	X	X	--	--
MW13	--	--	--	--	--	--	--	--	--	--
MW14	--	--	--	--	--	--	--	--	--	--
MW15	--	--	--	--	--	--	--	--	--	--
MW16	--	--	--	--	--	--	--	--	--	--
MW17	--	--	--	--	--	--	--	--	--	--

Table 4.2.5-2
Summary of MCL and RSL Exceedances in Groundwater Per Monitoring Well Location
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Well ID	SVOCs									
	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo (g,h,I) perylene	Benzo(k) fluoranthene	Bis (2-ethylhexyl) phthalate	Dibenzo(a,h)anthracene	Indeno (1,2,3-cd) pyrene	Pentachlorophenol	Naphthalene
MW18	--	--	--	--	--	--	--	--	--	--
MW19	--	--	--	--	--	--	--	--	--	--
MW20	--	--	--	--	--	--	--	--	--	--
MW21	--	--	--	--	--	--	--	--	--	--
MW22	--	--	--	--	--	--	--	--	--	X
MW23	--	--	--	--	--	--	--	--	--	--
MW24	--	--	--	--	--	--	--	--	--	--
MW25	--	--	--	--	--	--	--	--	--	--
MW26	--	--	--	--	--	--	--	--	--	--
MW27	--	--	--	--	--	X	--	--	--	--
MW28	--	--	--	--	--	--	--	--	--	--
MW29	--	--	--	--	--	--	--	--	X	--
MW30	--	--	--	--	--	--	--	--	--	--
MW31	--	--	--	--	--	--	--	--	--	--
MW32	--	--	--	--	--	--	--	--	--	X
MW33	--	--	--	--	--	--	--	--	--	X
MW34	--	--	--	--	--	--	--	--	--	--
MW35	--	--	--	--	--	--	--	--	--	--

Table 4.2.5-2
Summary of MCL and RSL Exceedances in Groundwater Per Monitoring Well Location
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

	VOCs								PCBs		Pesticides					
Well ID	Benzene	Bromodichloromethane	Chloroform	cis-1,2-DCE	Ethylbenzene	PCE	TCE	Vinyl chloride	Aroclor-1248	Aroclor-1254	Aldrin	alpha-BHC	beta-BHC	delta-BHC	Heptachlor	Heptachlor epoxide
MW01	--	--	--	--	--	--	--	--	--	--	--	--	--	X	--	--
MW02S	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW02D	--	--	--	--	--	--	--	--	--	--	--	--	--	X	--	--
MW03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW04	--	--	--	X	--	--	X	X	--	--	--	--	--	--	--	--
MW05	--	--	--	--	--	--	--	--	--	--	--	--	--	X	--	X
MW06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW07	--	--	--	--	--	--	--	--	X	--	--	--	--	--	--	X
MW08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW09	--	--	--	--	--	--	--	--	--	--	--	--	--	X	--	--
MW10	X	--	--	--	X	--	--	--	--	--	X	X	X	X	X	X
MW11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW12	--	--	--	--	--	--	--	--	--	--	--	--	--	X	--	X
MW13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	X

Table 4.2.5-2
Summary of MCL and RSL Exceedances in Groundwater Per Monitoring Well Location
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

	VOCs								PCBs		Pesticides					
Well ID	Benzene	Bromodichloromethane	Chloroform	cis-1,2-DCE	Ethylbenzene	PCE	TCE	Vinyl chloride	Aroclor-1248	Aroclor-1254	Aldrin	alpha-BHC	beta-BHC	delta-BHC	Heptachlor	Heptachlor epoxide
MW18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	X
MW19	--	X	X	--	--	--	--	--	--	--	--	--	--	X	--	--
MW20	--	--	--	--	--	--	--	--	--	--	--	--	--	X	--	--
MW21	--	--	--	--	--	--	--	--	--	--	--	--	--	X	--	X
MW22	--	--	X	--	--	--	--	--	--	--	--	--	--	X	--	--
MW23	--	--	--	--	--	--	--	--	--	--	--	--	--	X	--	--
MW24	--	--	--	--	--	--	--	--	--	--	--	--	--	X	--	X
MW25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW26	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW27	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW28	--	--	--	--	--	--	--	--	--	--	--	--	--	X	--	X
MW29	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	X
MW30	--	--	--	--	--	X	X	X	--	X	--	--	--	X	--	--
MW31	--	--	--	--	--	X	--	--	--	--	--	--	--	--	--	--
MW32	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW33	--	--	--	--	--	X	X	--	--	--	--	--	--	X	--	--
MW34	--	--	--	--	--	--	--	--	--	--	--	--	--	X	--	X
MW35	--	--	--	--	--	--	--	--	--	--	--	--	--	X	--	X

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.5-2

Notes:

--	Analyzed not analyzed for (Table 4.2.5-1) or did not exceed MCL/RSL (Table 4.2.5-2)
X	Positive result
Dry	Monitoring well was dry during sampling event
ID	Identification
MCL	Maximum contaminant level (EPA)
MW	Monitoring well
NS	Monitoring well not sampled
RSL	Regional Screening Level (EPA)

Table 4.2.5-3
Detected Groundwater Metals Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID Sample ID Case Sampling date Unit Duplicate info WBZ Filtered info	MW01 ME3M47 37006 11/17/2007 µg/L 1 	MW01 ME3M99 37288 3/17/2008 µg/L 1 	MW01 ME3P00 37600 6/17/2008 µg/L 1 	MW01-0908 ME3XF5 37848 9/22/2008 µg/L 1 	MW01-1208 ME4772 38119 12/9/2008 µg/L 1 filtered	MW01-0309 ME47K1 38346 3/24/2009 µg/L 1 filtered	MW01-0609 ME4F67 38664 6/11/2009 µg/L 1 filtered	MW01-0909 ME4GK2 39115 10/6/2009 µg/L 1 filtered	MW02D ME3M49 37006 11/17/2007 µg/L 2 	MW02D ME3P02 37600 6/17/2008 µg/L 2 	MW02D-0908 ME3XF7 37848 9/22/2008 µg/L 2
Aluminum	37,000	NC		**576 J**	200 U	**460**	**179 J-**	200 U	--	200 U	200 U	**45,100 J**	**16,400**	**15,400**
Antimony	15	6		60 UJ	60 U	60 U	**10 J-**	60 U	2 UJ	2 UJ	2 U	60 UJ	60 U	66.7 U
Arsenic	0.045	10		10 UJ	10 U	10 U	11.1 U	10 U	**0.22 J**	**0.3 J**	**0.88 J**	**14.8 J**	**11.5**	11.1 U
Barium	7,300	2,000		**51.7 J**	200 U	**37.1 J**	**35.7 J**	200 U	**33.3**	**26.3**	**29.6**	**160 J**	200 U	**89.4 J**
Beryllium	73	4		5 UJ	5 U	5 U	5.6 U	5 U	1 U	1 U	1 U	**2.8 J**	5 U	**0.81 J**
Cadmium	18	5		**0.2 J**	5 U	5 U	5.6 U	5 UJ	**0.07 J-**	**0.042 J**	1 UJ	**2.1 J**	5 U	5.6 U
Calcium	NC	NC		**130,000 J**	**181,000**	**178,000 J**	**192,000**	**201,000 J**	--	**129,000**	**179,000**	**129,000 J**	**78,600 J**	**101,000**
Chromium	NC	100		**5.2 J**	10 U	10 U	**0.93 J**	10 U	**0.054 J-**	2 U	2 U	**81.9 J**	**65**	**23.6**
Cobalt	11	NC		50 UJ	50 U	50 U	55.6 U	50 U	**0.3 J**	1 U	**1.3 J+**	**31.4 J**	**19.3 J**	55.6 U
Copper	1,500	1,300		**3.3 J**	25 U	**1.8 J**	27.8 U	**2.2 J**	2 U	**1 J**	2 UJ	**36.4 J**	**58.8**	**12.1 J**
Cyanide	730	200		--	10 U	10 U	10 UJ	--	--	--	**4.3 J-**	--	10 U	10 UJ
Iron	26,000	NC		**1,340 J**	R	**1,520**	**309**	100 UJ	--	R	**408**	**46,700 J**	**21,400**	**13,300**
Lead	NC	15		**8.1 J-**	10 U	10 U	11.1 U	10 U	**0.65 J**	1 U	1 U	**34.1 J**	**135**	11.5 U
Magnesium	NC	NC		**52,800 J**	**69,100**	**68,500**	**71,800**	**75,400 J**	--	**50,300**	**69,300**	**43,000 J**	**28,800**	**56,300**
Manganese	880	NC		**63.1 J**	15 U	**28.1 J**	**6.9 J**	15 UJ	**7.1 J+**	**1.1 J+**	**177**	**1,830 J**	**979 J**	**550**
Mercury	0.57	2		0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**0.11 J**	**0.046 J**	0.2 U
Nickel	730	NC		**5.3 J**	40 U	**3.7 J**	**1.6 J**	40 U	**3**	**3**	**5 J**	**103 J**	**62.4**	**28.4 J**
Potassium	NC	NC		**16,100 J**	**10,900 J**	**7,700**	**8,310**	**8,280**	--	**1,770 J**	**10,300**	**23,800 J**	**10,100**	**13,400**
Selenium	180	50		35 UJ	**4.7 J**	35 U	38.9 U	35 U	5 U	5 U	5 U	35 UJ	35 U	**2.6 J-**
Silver	180	NC		10 UJ	10 U	10 UJ	11.1 U	10 UJ	1 UJ	1 UJ	1 U	10 UJ	**0.9 J-**	**1.2 J-**
Sodium	NC	NC		**81,800 J**	**77,100**	**65,100 J**	**63,700**	**70,300**	--	**20,600**	**59,100**	**72,100 J**	**248,000 J**	**161,000**
Thallium	NC	2		**3.6 J**	25 U	25 U	27.8 U	25 U	**0.015 J**	**0.01 J**	1 U	**6.2 J**	25 U	27.8 U
Vanadium	180	NC		**0.87 J-**	**0.57 J**	50 U	**0.99 J**	50 U	**0.11 J**	**0.1 J-**	5 UJ	**55.6 J**	**25.1 J**	55.6 UJ
Zinc	11,000	NC		**61.8 J**	60 U	60 U	**10.8 J**	**8.8 J**	**11.9**	**5.5 J**	**20.6**	**302 J**	**404**	**121**

Table 4.2.5-3
Detected Groundwater Metals Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID	MW02D-1208	MW02D-0309	MW02D-0309	MW02D-0609	MW02D-0609	MW02D-0909	MW02D-0909	MW02S	MW02S	MW02S
			Sample ID	ME4774	ME47K3	ME47K4	ME4F69	ME4F70	ME4GK4	ME4N08	ME3M48	ME3MA0	ME3P01
			Case	38119	38346	38346	38664	38664	39115	39115	37006	37288	37600
			Sampling date	12/8/2008	3/23/2009	3/23/2009	6/10/2009	6/10/2009	10/12/2009	10/12/2009	11/17/2007	3/18/2008	6/17/2008
			Unit	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
			Duplicate info										
			WBZ	2	2	2	2	2	2	2	1	1	1
			Filtered info	filtered	filtered		filtered		filtered				
Aluminum	37,000	NC		200 U	--	--	200 U	200 U	200 U	**1,120**	**8,630 J**	200 U	**538**
Antimony	15	6		60 U	2 UJ	2 UJ	2 UJ	2 UJ	2 U	2 U	60 UJ	60 U	60 U
Arsenic	0.045	10		10 U	**0.62 J**	1 U	**0.64 J**	**0.63 J**	1 U	1 UJ	**14.4 J**	10 U	10 U
Barium	7,300	2,000		200 U	**64.7**	**55.6 J**	**50.1**	**50.1**	**63 J**	**60.3**	**109 J**	200 U	200 U
Beryllium	73	4		5 U	1 U	**0.089 J**	1 U	1 U	1 UJ	**0.11 J**	**0.4 J**	5 U	5 U
Cadmium	18	5		5 UJ	**0.11 J-**	**0.11 J**	**0.052 J**	**0.084 J**	1 UJ	1 UJ	**11.3 J**	**11.1**	**11.7**
Calcium	NC	NC		**31,300 J**	--	--	**41,400**	**41,500**	**27,600**	**36,200**	**190,000 J**	**215,000**	**191,000 J**
Chromium	NC	100		10 U	**0.034 J-**	**3.2**	2 U	**0.055 J-**	2 U	**4.5**	**23.7 J**	**0.61 J**	**11.1**
Cobalt	11	NC		50 U	**0.19 J**	**1.8 J+**	1 U	1 U	1 UJ	**2.1 J+**	**5.4 J**	50 U	50 U
Copper	1,500	1,300		**7.6 J**	**2.4**	**4.4 J**	**5.8**	**2.8**	2 UJ	**3.4**	**34.7 J**	25 U	**5.8 J**
Cyanide	730	200		10 U	10 U	--	10 U	--	10 U	--	--	10 U	10 U
Iron	26,000	NC		100 UJ	--	--	R	**30.3 J**	100 U	**1,210**	**18,500 J**	R	**1,430**
Lead	NC	15		10 U	**1**	**1.3 J**	**1.1**	1 U	1 UJ	**6.7**	**443 J**	10 U	**45.6**
Magnesium	NC	NC		**16,700 J**	--	--	**25,300**	**25,300**	**15,400**	**20,100**	**102,000 J**	**69,000**	**71,700**
Manganese	880	NC		**29.4 J**	**1.9 J+**	**44 J+**	**1.2 J+**	**10.1 J+**	**14.8**	**63.4**	**317 J**	**31.7**	**38.1 J**
Mercury	0.57	2		0.2 U	0.2 U	**0.087 J**	0.2 U	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 U
Nickel	730	NC		**2 J**	**2.2**	**5.9**	**2**	**2.2**	**1.4 J+**	**4.8 J+**	**26 J**	40 U	**9.2 J**
Potassium	NC	NC		**6,710**	--	--	**7,760 J**	**7,830 J**	**6,130**	**6,930**	**30,200 J**	**10,100 J**	**8,430**
Selenium	180	50		35 U	5 U	5 U	5 U	5 U	5 U	5 U	35 UJ	**11.4 J**	35 U
Silver	180	NC		10 UJ	1 UJ	1 U	1 UJ	1 UJ	1 U	1 U	10 UJ	10 U	10 UJ
Sodium	NC	NC		**232,000**	--	--	**258,000**	**260,000**	**240,000**	**246,000**	**83,500 J**	**46,000**	**45,300 J**
Thallium	NC	2		25 U	1 U	1 U	1 U	1 U	1 U	1 UJ	**3.9 J**	25 U	25 U
Vanadium	180	NC		50 U	**0.43 J**	**3.3**	**0.37 J-**	**0.56 J-**	5 UJ	5 UJ	**16.3 J**	**0.37 J**	50 U
Zinc	11,000	NC		**14.7 J**	**10.4**	**16.3**	**11.2 J**	**9.4 J**	**5.9**	**82.4**	**1,090 J**	**566**	**761**

Table 4.2.5-3
Detected Groundwater Metals Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID	MW02S-0908	MW02S-1208	MW02S-0309	MW02S-0609	MW02S-0909	MW03	MW03	MW03	MW03-0908	MW03-1208	MW03-0309
			Sample ID	ME3XF6	ME4773	ME47K2	ME4F68	ME4GK3	ME3M50	ME3MA2	ME3P03	ME3XF8	ME4775	ME47K5
			Case	37848	38119	38346	38664	39115	37006	37288	37600	37848	38119	38346
			Sampling date	9/22/2008	12/9/2008	3/23/2009	6/10/2009	10/7/2009	11/13/2007	3/19/2008	6/20/2008	9/16/2008	12/9/2008	3/16/2009
			Unit	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
			Duplicate info											
			WBZ	1	1	1	1	1	1	1	1	1	1	1
			Filtered info		filtered	filtered	filtered	filtered					filtered	filtered
Aluminum	37,000	NC		**307**	200 U	--	200 U	200 U	**22,200**	200 U	200 U	**2,150**	200 U	--
Antimony	15	6		**6.6 J-**	60 U	2 UJ	2 UJ	2 U	60 UJ	60 U	60 U	**4.7 J**	60 U	2 UJ
Arsenic	0.045	10		11.1 U	10 U	**0.36 J**	**0.35 J**	**0.53 J**	**9.3 J**	10 U	10 U	11.1 U	10 U	1 U
Barium	7,300	2,000		**25 J**	200 U	**17.7**	**19.2**	**31.8**	**176 J**	**54.2 J**	200 U	247 U	200 U	**49.8 J**
Beryllium	73	4		5.6 U	5 U	1 U	1 U	1 U	**1 J**	5 U	5 U	5.6 U	5 U	1 U
Cadmium	18	5		**35.9**	**3 J**	**43.1**	**34.1**	**9.4**	**1.5 J**	5 U	5 U	6.2 U	5 UJ	**0.41 J-**
Calcium	NC	NC		**151,000**	**142,000 J**	--	**189,000**	**159,000**	**232,000**	**240,000**	**198,000 J**	**253,000**	**201,000 J**	--
Chromium	NC	100		**1.6 J**	10 U	**0.48 J**	2 U	2 U	**34.6**	10 U	10 U	12.3 U	10 U	**0.035 J-**
Cobalt	11	NC		55.6 U	50 U	**0.25 J**	1 U	1 UJ	**13.4 J**	50 U	50 U	55.6 U	50 U	**0.38 J**
Copper	1,500	1,300		**5.1 J**	**2.4 J**	**6.1**	**1.8 J**	2 UJ	**27.1**	25 U	25 U	**4 J**	**2.5 J**	**1.9 J**
Cyanide	730	200		10 UJ	--	--	--	10 U	10 U	10 U	10 U	10 U	--	--
Iron	26,000	NC		**872**	100 UJ	--	R	100 U	**26,700**	R	**201**	**2,160**	100 UJ	--
Lead	NC	15		**20.8**	**5.5 J**	**0.17 J**	1 U	1 U	**10.2 J-**	10 UJ	10 U	**2.8 J**	**4.3 J**	**0.041 J**
Magnesium	NC	NC		**26,700**	**74,600 J**	--	**46,700**	**86,300**	**55,300**	**54,100**	**46,200**	**64,000**	**43,600 J**	--
Manganese	880	NC		**31.6**	**217 J**	**1.2 J+**	1 UJ	**99.9**	**764**	**1.7 J-**	**34.1 J**	**55.4**	15 UJ	**1.2 J+**
Mercury	0.57	2		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	730	NC		**7.5 J**	40 U	**9.8**	**8.8**	**5.6 J**	**43.4**	40 U	**3.5 J**	**5 J**	40 U	**7 J**
Potassium	NC	NC		**5,010 J**	**8,750**	--	**5,010 J**	**7,740**	**17,500 J**	**2,180 J**	**1,530 J**	**3,350 J**	**3,000 J**	--
Selenium	180	50		**12.2 J-**	35 U	**15.1**	**10.3**	5 U	35 U	35 U	35 U	**11.5 J**	35 U	5 U
Silver	180	NC		11.1 U	10 UJ	1 UJ	1 UJ	1 U	10 U	10 U	10 UJ	12.3 U	10 UJ	1 U
Sodium	NC	NC		**14,500**	**53,700**	--	**23,800**	**63,000**	R	**48,400**	**46,500 J**	**65,700**	**44,200**	--
Thallium	NC	2		27.8 U	25 U	**0.023 J**	**0.02 J**	1 U	25 U	**4.7 J-**	25 U	27.8 U	25 U	1 U
Vanadium	180	NC		**1.5 J**	50 U	**0.99 J**	**0.72 J-**	5 UJ	**29.6 J**	**0.42 J-**	50 U	61.7 U	50 U	5 UJ
Zinc	11,000	NC		**2,660**	**108 J**	**2,950**	**2,340 J**	**447**	**238**	**115**	**112**	**163**	**45.5 J**	**77.5**

Table 4.2.5-3
Detected Groundwater Metals Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID	MW03-0609	MW03-0909	MW04	MW04	MW04	MW04-0908	MW04-1208	MW04-0309	MW04-0609	MW04-0909	MW05
			Sample ID	ME4F71	ME4GK5	ME3M51	ME3MA3	ME3P04	ME3XF9	ME4776	ME47K6	ME4F72	ME4GK6	ME3M52
			Case	38664	39115	37006	37288	37600	37848	38119	38346	38664	39115	37006
			Sampling date	6/9/2009	10/6/2009	11/15/2007	3/16/2008	6/19/2008	9/17/2008	12/12/2008	3/19/2009	6/10/2009	10/8/2009	11/14/2007
			Unit	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
			Duplicate info											
			WBZ	1	1	1	1	1	1	1	1	1	1	2
			Filtered info	filtered	filtered					filtered	filtered	filtered	filtered	
Aluminum	37,000	NC		200 U	200 U	**463**	**520**	200 U	**97.4 J**	200 U	--	200 U	200 U	**5,880**
Antimony	15	6		2 UJ	2 U	60 UJ	60 U	60 U	**9.2 J-**	60 UJ	4 UJ	2 UJ	**0.29 J+**	60 UJ
Arsenic	0.045	10		**0.22 J**	**0.19 J**	10 U	10 U	10 U	11.1 UJ	10 U	**3.4**	**2.7**	**1.9 J**	10 U
Barium	7,300	2,000		**40.7**	**56.3**	**30.1 J-**	200 U	200 U	247 U	200 U	**25.3 J+**	**15.3**	**23.6 J**	**36.3 J**
Beryllium	73	4		1 U	1 U	5 U	5 U	5 U	5.6 U	5 U	2 U	2 U	1 UJ	**0.25 J-**
Cadmium	18	5		**0.34 J**	1 UJ	**32.8 J+**	**8.8**	**18.4 J+**	**19.9**	**5.6 J+**	**15.9**	**11**	**14.9**	**0.41 J**
Calcium	NC	NC		**191,000**	**171,000**	**603,000**	**809,000**	**498,000 J**	**551,000**	**750,000 J**	--	**629,000**	**626,000**	**42,300**
Chromium	NC	100		2 U	2 U	**1 J**	**2.7 J**	10 U	12.3 U	10 UJ	**0.48 J**	4 U	2 U	**11.1**
Cobalt	11	NC		**0.25 J+**	1 UJ	**395**	**7,080**	**2,520**	**592**	**7,010**	**1,300**	**1,940**	**4,050 J**	**2.5 J**
Copper	1,500	1,300		**1.2 J**	2 UJ	**135**	**51.3**	**413**	**446**	**8.3 J+**	**284**	**23.5**	**101 J-**	**4.3 J**
Cyanide	730	200		--	10 U	**20.5**	**302**	**61.5**	**99.6**	**65.9**	**236**	**195**	**239**	--
Iron	26,000	NC		R	100 U	**375**	**392**	**118**	**141**	**127 J**	--	R	100 U	**8,790**
Lead	NC	15		2 U	1 U	10 UJ	**7.2 J**	10 U	**3.4 J+**	**6.5 J**	**0.7 J**	1 UJ	1 UJ	**5.6 J-**
Magnesium	NC	NC		**48,300**	**36,500**	**61,000**	**159,000**	**57,900**	**19,100**	**153,000 J**	--	**59,300**	**88,400**	**21,800**
Manganese	880	NC		**3.5 J+**	**4.3**	**6,150**	**15,300**	**4,750 J**	**1,010**	**15,300 J**	**1,970**	**5,590**	**8,960 J**	**97.3**
Mercury	0.57	2		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**0.16 J**	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	730	NC		**5.4**	**3.9 J**	**54.8**	40 U	**48.7**	**92.4**	**14.6 J-**	**99.2**	**52.9 J+**	**29.3 J+**	**11.7 J**
Potassium	NC	NC		5,000 UJ	**2,840 J**	**37,700 J**	**16,900 J**	**12,400**	**12,200**	**15,800**	--	**17,600 J**	**14,100**	**18,500 J**
Selenium	180	50		5 U	**1 J**	**136 J+**	**62.5**	**52.8 J-**	**64.9 J+**	**59.4**	**189**	**82.4**	**54.4 J**	35 U
Silver	180	NC		1 UJ	1 U	10 U	**1.8 J**	10 UJ	12.3 U	10 UJ	2 U	1 UJ	2 U	10 U
Sodium	NC	NC		**47,400**	**31,300**	R	**151,000**	**63,700 J**	**31,100**	**143,000**	--	**74,500**	**90,300**	R
Thallium	NC	2		2 U	1 U	25 U	25 U	25 U	27.8 U	25 U	2 U	**0.024 J**	1 U	25 U
Vanadium	180	NC		**0.26 J-**	5 UJ	50 U	**1.2 J**	50 U	61.7 UJ	50 U	**2 J-**	**0.28 J-**	5 UJ	**12.1 J**
Zinc	11,000	NC		**59.8 J**	**57.8**	**9,960**	**3,210**	**9,860**	**11,600**	**2,040 J**	**10,200**	**7,340 J**	**8,070**	**100**

Table 4.2.5-3
Detected Groundwater Metals Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID Sample ID Case Sampling date Unit Duplicate info WBZ Filtered info	MW05 ME3MA4 37288 3/14/2008 µg/L 2	MW05 ME3P05 37600 6/20/2008 µg/L 2	MW05-0908 ME3XG0 37848 9/16/2008 µg/L 2	MW05-1208 ME4777 38119 12/18/2008 µg/L 2 filtered	MW05-0309 ME47K7 38346 3/20/2009 µg/L 2 filtered	MW05-0609 ME4F73 38664 6/16/2009 µg/L 2 filtered	MW05-0909 ME4GK7 39115 10/9/2009 µg/L 2 filtered	MW06 ME3M53 37006 11/14/2007 µg/L 1	MW06 ME3MA5 37288 3/13/2008 µg/L 1	MW06 ME3P06 37600 6/20/2008 µg/L 1	MW06-0809 ME3XG1 37848 9/16/2008 µg/L 1
Aluminum	37,000	NC		200 U	**284**	**533**	200 U	--	200 U	200 U	**77.2 J**	200 U	200 U	**34.4 J**
Antimony	15	6		60 U	60 U	**6.3 J**	60 U	4 UJ	4 UJ	**0.33 J+**	60 UJ	60 UJ	60 U	**6 J**
Arsenic	0.045	10		10 U	10 U	11.1 U	10 U	2 U	**0.7 J**	1 U	10 U	10 U	10 U	11.1 U
Barium	7,300	2,000		200 U	200 U	247 U	**33.7 J**	**24.2 J+**	20 UJ	**17.1 J**	**21 J-**	200 U	200 U	247 U
Beryllium	73	4		5 U	5 U	5.6 U	5 U	2 U	**0.042 J**	1 UJ	5 U	5 U	5 U	5.6 U
Cadmium	18	5		**0.91 J**	5 U	6.2 U	5 U	**0.27 J**	**0.29 J-**	1 UJ	**70.4**	**101**	**221**	**119**
Calcium	NC	NC		**51,300**	**44,800 J**	**44,900**	**57,200**	--	**51,600**	**46,200**	**392,000**	**344,000**	**319,000 J**	**218,000**
Chromium	NC	100		**0.49 J**	10 U	12.3 U	**0.84 J**	**0.14 J**	4 U	2 U	**1.1 J**	10 U	10 U	11.1 U
Cobalt	11	NC		**2.2 J**	50 U	55.6 U	50 U	**0.25 J+**	**0.31 J+**	1 UJ	**1.5 J-**	50 U	50 U	55.6 U
Copper	1,500	1,300		25 U	**3.3 J**	**5.4 J**	25 UJ	**10.7**	**13.8 J**	**6.9 J-**	**1.4 J**	25 U	25 U	27.8 U
Cyanide	730	200		**5.8 J-**	10 U	10 U	10 U	10 U	10 U	10 U	10 U	**5.3 J-**	10 U	10 U
Iron	26,000	NC		100 U	**441**	**784**	100 UJ	--	R	100 U	**65.7 J**	100 U	**189**	123 U
Lead	NC	15		**4.9 J**	10 U	11.1 U	**3 J**	**0.96 J**	**8.3 J**	1 UJ	**3.9 J-**	10 UJ	**5.7 J**	**2.8 J**
Magnesium	NC	NC		**37,800**	**35,700**	**28,000**	**47,700**	--	**41,400**	**37,200**	**61,300**	**47,200**	**41,800**	**25,200**
Manganese	880	NC		**51.5**	**49.5 J**	**25.4**	**21.2**	**22.1 J+**	**36.8 J+**	**30.5**	**167**	**74.8**	**52.7 J**	**28.4**
Mercury	0.57	2		0.2 U	0.2 U	0.2 U	**0.046 J-**	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	730	NC		40 U	40 U	49.4 U	40 U	**1.9 J**	**1.4 J**	**1.2 J+**	**12 J**	40 U	**16.8 J**	49.4 U
Potassium	NC	NC		**24,200 J**	**13,800**	**11,600**	**17,600**	--	**19,500 J**	**14,400**	**31,200 J**	**11,200 J**	**10,200**	**10,400**
Selenium	180	50		35 U	35 U	**5 J**	35 U	10 U	10 U	**0.75 J**	**20.6 J+**	**46.3 J+**	**28.8 J-**	**32.4 J**
Silver	180	NC		10 U	10 UJ	12.3 U	10 U	2 U	2 UJ	1 U	10 U	10 U	10 UJ	12.3 U
Sodium	NC	NC		**1,180,000**	**1,230,000 J**	**872,000**	**1,430,000 J**	--	**1,210,000**	**1,130,000**	R	**19,200**	**15,500 J**	**8,340**
Thallium	NC	2		25 U	25 U	27.8 U	25 U	2 U	2 U	1 U	25 U	25 UJ	**2.6 J**	27.8 U
Vanadium	180	NC		**1.7 J**	50 U	61.7 U	50 U	**0.84 J-**	**0.67 J-**	5 UJ	50 U	**0.5 J-**	50 U	55.6 U
Zinc	11,000	NC		60 U	60 U	74.1 U	**29.8 J**	**28.1**	**158 J**	**362**	**18,500**	**30,300**	**28,600**	**20,400**

Table 4.2.5-3
Detected Groundwater Metals Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID Sample ID Case Sampling date Unit Duplicate info WBZ Filtered info	MW06-1208 ME4778 38119 12/12/2008 µg/L 1 filtered	MW06-0309 ME47K8 38346 3/18/2009 µg/L 1 filtered	MW06-0609 ME4F74 38664 6/16/2009 µg/L 1 filtered	MW06-0909 ME4GK8 39115 10/7/2009 µg/L 1 filtered	MW07 ME3M54 37006 11/14/2007 µg/L 1	MW07 ME3MA6 37288 3/12/2008 µg/L 1	MW07 ME3P07 37600 6/19/2008 µg/L 1	MW07-0908 ME3XG2 37848 9/22/2008 µg/L 1	MW50-0908 ME3XK1 37848 9/22/2008 µg/L MW07-0908 1	MW07-1208 ME4779 38119 12/12/2008 µg/L 1 filtered	MW50-1208 ME47A8 38119 12/12/2008 µg/L MW07-1208 1 filtered
Aluminum	37,000	NC		200 U	--	200 U	200 U	**2,320**	**1,360**	**754**	**1,260**	**886**	**13.1 J-**	**33.4 J**
Antimony	15	6		60 UJ	2 UJ	4 UJ	2 U	60 UJ	60 UJ	60 U	66.7 U	66.7 U	60 UJ	60 U
Arsenic	0.045	10		10 U	1 U	**0.78 J**	**0.5 J**	**24.2**	**19.7**	**18.4 J+**	**9.5 J-**	**8.9 J-**	**7.2 J+**	**4.5 J**
Barium	7,300	2,000		200 U	**9.7 J**	20 UJ	**17.8**	**69.5 J**	200 U	200 U	**47.6 J**	**37.3 J**	200 U	**37.3 J**
Beryllium	73	4		5 U	1 U	2 U	2 U	**0.18 J**	5 U	5 U	**0.23 J+**	5.6 U	5 U	5 U
Cadmium	18	5		**139 J**	**125 J**	**178**	**127**	**376**	**253**	**192**	**281**	**219**	**13 J**	**12.6 J-**
Calcium	NC	NC		**426,000 J**	--	**293,000**	**376,000**	**440,000**	**513,000**	**413,000 J**	**452,000**	**449,000**	**473,000 J**	**509,000**
Chromium	NC	100		10 UJ	2 U	4 U	2 U	**11**	**6.2 J**	10 U	11.1 U	11.1 U	10 UJ	**1.5 J+**
Cobalt	11	NC		**4 J-**	**0.37 J**	**0.33 J+**	1 UJ	**18.1 J**	**18.7 J+**	**15.7 J**	55.6 UJ	55.6 UJ	**14.2 J**	**14.9 J+**
Copper	1,500	1,300		**2.9 J+**	**1.2 J**	**1.4 J**	2 UJ	**275**	**141**	**80.7**	**156**	**111**	**2.6 J+**	**41.5 J**
Cyanide	730	200		**2.5 J-**	**1.2 J**	10 U	10 U	10 U	10 U	**2.7 J**	10 UJ	10 UJ	--	--
Iron	26,000	NC		100 UJ	--	R	100 U	**17,000**	**14,300**	**11,200**	**12,600**	**10,800**	**8,440 J**	**8,710 J**
Lead	NC	15		10 U	**1.2**	2 UJ	**2.2**	**685**	**437**	**345**	**518**	**400**	**10**	**12.8**
Magnesium	NC	NC		**49,700 J**	--	**34,100**	**44,600**	**44,900**	**55,100**	**47,200**	**50,900**	**50,200**	**46,800 J**	**52,100**
Manganese	880	NC		**62.9 J**	**2.2 J+**	2 U	**9.2**	**2,400**	**2,450**	**1,250 J**	**1,400**	**1,370**	**1,460 J**	**1,420**
Mercury	0.57	2		0.2 U	0.2 U	0.2 U	0.2 U	**4.1**	**3.6**	**1.7**	**3**	**2**	0.2 U	0.2 U
Nickel	730	NC		**12.9 J-**	**14.7 J**	**16 J**	**14.1 J**	**78.9**	**70.7**	**63.5**	**87.2**	**83.5**	**49.4**	**56.3**
Potassium	NC	NC		**12,500**	--	**10,100 J**	**13,000**	**159,000 J**	**133,000 J**	**107,000**	**113,000**	**114,000**	**102,000**	**107,000**
Selenium	180	50		**19.3 J**	**37.1**	**31.7 J+**	**14.1**	**15.2 J+**	35 U	35 UJ	38.9 U	38.9 U	35 U	35 U
Silver	180	NC		10 UJ	1 U	2 UJ	1 U	**3.1 J**	**2.1 J**	10 UJ	**0.75 J**	11.1 U	10 UJ	10 U
Sodium	NC	NC		**17,400**	--	**9,950**	**14,000**	R	**75,100**	**59,600 J**	**59,000**	**58,400**	**63,300**	**74,600 J**
Thallium	NC	2		25 U	1 U	**0.92 J**	**0.69 J**	**5.5 J+**	25 UJ	25 U	27.8 U	27.8 U	25 U	25 U
Vanadium	180	NC		50 U	5 UJ	**0.13 J-**	5 UJ	**5.2 J**	**3.8 J-**	**2.9 J**	55.6 UJ	55.6 UJ	50 U	50 U
Zinc	11,000	NC		**32,000 J**	**27,600**	**29,200 J**	**32,200**	**58,900**	**48,700**	**30,100**	**51,900**	**50,000**	**35,300 J**	**43,100**

Table 4.2.5-3
Detected Groundwater Metals Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID	MW07-0309	MW50-0309	MW07-0609	MW50-0609	MW07-0909	MW51-0909	MW07-0909	MW51-0909	MW08	MW08	MW08-0908
			Sample ID	ME47K9	ME47P1	ME4F75	ME4FA7	ME4GK9	ME4GN9	ME4N06	ME4N07	ME3MJ0	ME3P08	ME3XG3
			Case	38346	38346	38664	38664	39115	39115	39115	39115	37288	37600	37848
			Sampling date	3/18/2009	3/18/2009	6/12/2009	6/12/2009	10/12/2009	10/12/2009	10/12/2009	10/12/2009	3/18/2008	6/18/2008	9/18/2008
			Unit	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
			Duplicate info		MW07-0309		MW07-0609		MW07-0909		MW07-0909			
			WBZ	1	1	1	1	1	1	1	1	1	1	1
			Filtered info	filtered	filtered	filtered	filtered	filtered	filtered					
Aluminum	37,000	NC		--	--	200 U	R	200 U	200 U	**207**	**208**	200 U	200 U	**217 J-**
Antimony	15	6		4 UJ	4 UJ	2 UJ	4 UJ	4 U	4 U	2 U	2 U	60 U	60 U	**7.8 J-**
Arsenic	0.045	10		**5.5**	**5.9**	**7.4 J**	**7.2**	**6.7 J**	**6.4 J**	**7.6 J**	**7.7 J**	10 U	10 U	11.1 U
Barium	7,300	2,000		**15.1 J**	**15.8 J**	**13.8**	20 UJ	20 UJ	20 UJ	**20.1**	**19.3**	**23.9 J**	200 U	**99.6 J**
Beryllium	73	4		2 U	2 U	**0.038 J**	2 U	1 UJ	1 UJ	**0.058 J**	**0.047 J**	**0.12 J+**	5 U	5.6 U
Cadmium	18	5		**19.7 J**	**19.9 J**	**32.8 J**	**37.2**	**31.1**	**31.4**	**67.6**	**69**	**4.2 J+**	**3.8 J+**	**30.8**
Calcium	NC	NC		--	--	**526,000**	**549,000**	**486,000**	**476,000**	**489,000**	**500,000**	**372,000**	**336,000 J**	**215,000**
Chromium	NC	100		4 U	4 U	2 UJ	4 U	2 U	2 UJ	2 U	2 U	10 U	10 U	**0.89 J**
Cobalt	11	NC		**16 J**	**16.3 J**	**16.8 J**	**19.7 J+**	**12.2 J**	**12.4 J+**	**16.3 J**	**15.6 J**	**0.45 J-**	50 U	55.6 U
Copper	1,500	1,300		**1.9 J**	**2 J**	**0.95 J**	**1.5 J**	2 UJ	2 UJ	**19.3**	**19.6**	25 U	25 U	27.8 U
Cyanide	730	200		--	--	--	--	10 U	10 U	--	--	10 U	10 U	10 UJ
Iron	26,000	NC		--	--	**5,230**	**5,340**	**6,150**	**5,970**	**6,880**	**7,080**	100 U	**837**	**603**
Lead	NC	15		**2.6**	**2.6**	**4.3 J**	**4.8 J**	**5.7 J**	**5.8 J**	**83.8**	**87.3**	10 UJ	10 U	11.1 U
Magnesium	NC	NC		--	--	**51,800**	**53,800**	**44,200**	**42,900**	**44,600**	**45,600**	**65,600**	**53,900**	**28,300**
Manganese	880	NC		**1,220**	**1,260**	**894 J**	**1,020**	**951 J**	**958 J**	**937**	**926**	**20.7**	**48 J**	**37**
Mercury	0.57	2		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.36 U	**0.41**	0.2 U	0.2 U	0.2 U
Nickel	730	NC		**62.9 J**	**63.5 J**	**65.3 J**	**73.4 J**	**51.7 J+**	**52.7 J+**	**80 J+**	**75.8 J+**	40 U	**4.2 J**	**4.2 J**
Potassium	NC	NC		--	--	**89,200 J**	**88,600 J**	**88,300**	**85,000**	**87,800**	**90,100**	**21,600 J**	**17,800**	**16,700**
Selenium	180	50		10 U	10 U	5 UJ	10 U	5 U	**0.76 J**	**3.5 J**	**3.2 J**	**11.2 J**	**8.9 J-**	**7.4 J-**
Silver	180	NC		2 U	2 U	1 UJ	2 UJ	2 U	2 U	**0.14 J-**	**0.16 J-**	10 U	10 UJ	**1 J-**
Sodium	NC	NC		--	--	**50,200**	**52,300**	**43,600**	**42,000**	**43,700**	**44,800**	**96,900**	**94,100 J**	**35,600**
Thallium	NC	2		2 U	2 U	**0.012 J**	2 U	1 U	1 U	1 UJ	1 UJ	25 U	25 U	27.8 U
Vanadium	180	NC		10 UJ	10 UJ	**0.03 J-**	**0.055 J-**	5 UJ	5 UJ	5 UJ	5 UJ	**0.4 J**	50 U	**0.98 J**
Zinc	11,000	NC		**37,500**	**38,300**	**48,500 J**	**41,400 J**	**51,600**	**52,500**	**54,900**	**54,200**	**1,260**	**1,160**	**4,490**

Table 4.2.5-3
Detected Groundwater Metals Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID Sample ID Case Sampling date Unit Duplicate info WBZ Filtered info	MW08-1208 ME4780 38119 12/15/2008 µg/L 1 filtered	MW08-0309 ME47L0 38346 3/18/2009 µg/L 1 filtered	MW08-0609 ME4F76 38664 6/15/2009 µg/L 1 filtered	MW09 ME3M56 37006 11/15/2007 µg/L 1	MW09 ME3MA7 37288 3/13/2008 µg/L 1	MW09 ME3P09 37600 6/18/2008 µg/L 1	MW09-0908 ME3XG4 37848 9/17/2008 µg/L 1	MW51-0908 ME3XK2 37848 9/17/2008 µg/L MW09-0908 1	MW09-1208 ME4781 38119 12/10/2008 µg/L 1 filtered	MW09-0309 ME47L1 38346 3/16/2009 µg/L 1 filtered	MW09-0609 ME4F77 38664 6/11/2009 µg/L 1 filtered
Aluminum	37,000	NC		200 U	--	200 U	**4,340**	200 U	200 U	**209 J**	**130 J**	200 U	--	200 U
Antimony	15	6		60 U	2 UJ	4 UJ	60 UJ	60 U	60 U	**5.9 J**	**5.4 J**	60 U	2 UJ	2 UJ
Arsenic	0.045	10		10 U	1 U	**0.27 J**	**4.9 J**	10 U	10 U	11.1 U	11.1 U	10 U	**2.3**	**0.73 J**
Barium	7,300	2,000		200 U	**53.9 J**	**25.9 J+**	**55.4 J**	200 U	200 U	247 U	247 U	200 UJ	**12.4 J**	10 U
Beryllium	73	4		5 U	1 U	2 U	**0.17 J-**	5 U	5 U	5.6 U	5.6 U	5 U	1 U	1 U
Cadmium	18	5		**1.7 J-**	**24.3 J**	**6 J-**	**3 J**	**77.9**	**14.6 J+**	**12.1**	**15**	**17 J**	**224 J**	**14.5**
Calcium	NC	NC		**302,000**	--	**316,000**	**198,000**	**367,000**	**256,000 J**	**243,000**	**249,000**	**251,000 J**	--	**290,000**
Chromium	NC	100		**10.6**	**0.024 J-**	4 U	**6.8 J**	10 U	10 U	12.3 U	12.3 U	10 UJ	2 U	2 U
Cobalt	11	NC		50 U	**0.37 J**	**0.33 J+**	**2.6 J**	**3.5 J+**	50 U	55.6 U	55.6 U	50 U	**4.3 J**	1 U
Copper	1,500	1,300		**6.1 J**	**0.91 J**	**1.3 J**	**13.8 J**	25 U	**1.7 J**	27.8 U	27.8 U	**2.8 J+**	**3.8 J**	**2.1**
Cyanide	730	200		--	--	--	10 U	10 U	10 U	10 U	10 U	--	--	--
Iron	26,000	NC		**484 J**	--	R	**4,770**	100 U	**142**	**390**	**328**	100 UJ	--	R
Lead	NC	15		10 U	**0.079 J**	2 UJ	**30.8**	**7.1 J-**	10 U	**4.3 J**	**3.1 J**	**4.6 J**	**0.27 J**	2 U
Magnesium	NC	NC		**63,400**	--	**45,600**	**84,800**	**121,000**	**95,200**	**93,400**	**94,500**	**94,700 J**	--	**108,000**
Manganese	880	NC		**90.9**	**2.8 J+**	2 U	**589**	**3,560**	**809 J**	**1,110**	**1,290**	**1,570 J**	**3,140**	**673 J**
Mercury	0.57	2		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	730	NC		**6.4 J**	**9.9 J**	**7.5 J**	**11.4 J**	**52.8**	**17.8 J**	49.4 U	49.4 U	**11.5 J-**	**129 J**	**23.6**
Potassium	NC	NC		**20,400**	--	**22,100 J**	**13,500 J**	**8,990 J**	**4,790 J**	**4,650 J**	**4,790 J**	**4,600 J**	--	**4,460 J**
Selenium	180	50		35 U	**8.3**	10 U	35 U	35 U	35 UJ	38.9 U	38.9 U	35 UJ	**8.6**	5 U
Silver	180	NC		10 U	1 U	2 UJ	10 U	**0.76 J**	10 UJ	12.3 U	12.3 U	10 UJ	**0.025 J**	1 UJ
Sodium	NC	NC		**116,000 J**	--	**93,900**	R	**96,400**	**57,500 J**	**47,900**	**52,600**	**48,000**	--	**43,100**
Thallium	NC	2		25 U	1 U	**0.066 J**	25 U	25 UJ	25 U	27.8 U	27.8 U	25 UJ	1 U	2 U
Vanadium	180	NC		50 U	5 UJ	**0.11 J-**	**5 J**	**0.49 J-**	50 U	55.6 U	61.7 U	50 U	5 UJ	**0.06 J-**
Zinc	11,000	NC		**2,560**	**3,680**	**1,400 J**	**1,340**	**44,600**	**12,600**	**6,730**	**7,720**	**10,800 J**	**126,000**	**17,800 J**

Table 4.2.5-3
Detected Groundwater Metals Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID	MW09-0909	MW52-0909	MW10	MW10	MW10	MW10-0908	MW10-1208	MW10-0309	MW10-0609	MW10-0909	MW11
			Sample ID	ME4GL1	ME4GP0	ME3M57	ME3MA8	ME3P10	ME3XG5	ME4782	ME47L2	ME4F78	ME4GL2	ME3M58
			Case	39115	39115	37006	37288	37600	37848	38119	38346	38664	39115	37006
			Sampling date	10/8/2009	10/8/2009	11/15/2007	3/13/2008	6/17/2008	9/17/2008	12/9/2008	3/23/2009	6/9/2009	10/6/2009	11/15/2007
			Unit	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
			Duplicate info		MW09-0909									
			WBZ	1	1	1	1	1	1	1	1	1	1	1
			Filtered info	filtered	filtered					filtered	filtered	filtered	filtered	
Aluminum	37,000	NC		200 U	200 U	**4,160**	**1,380**	**12,000**	**545**	200 U	--	200 U	200 U	**1,040**
Antimony	15	6		2 U	2 U	60 UJ	60 U	60 U	66.7 U	60 U	2 UJ	2 UJ	2 U	60 UJ
Arsenic	0.045	10		1 U	2 U	10 U	**7.4 J**	**11**	12.3 U	**6 J**	**7.4**	**9.5**	**10**	10 U
Barium	7,300	2,000		**10.3 J**	**10.9 J**	**315**	**513**	**744**	**563**	**588**	**533**	**574**	**506**	**42.4 J-**
Beryllium	73	4		2 UJ	2 UJ	**0.097 J-**	5 U	5 U	5.6 U	5 U	1 U	1 U	1 U	5 U
Cadmium	18	5		**9**	**9.4**	**0.69 J**	5 U	5 U	5.6 U	5 UJ	**0.054 J-**	1 U	1 UJ	**1.9 J+**
Calcium	NC	NC		**232,000**	**227,000**	**106,000**	**126,000**	**189,000 J**	**112,000**	**120,000 J**	--	**117,000**	**105,000**	**303,000**
Chromium	NC	100		2 U	4 U	**10.2**	**3.8 J**	**617**	12.3 U	10 U	**0.14 J-**	2 U	2 U	**6.2 J**
Cobalt	11	NC		1 UJ	2 UJ	**4.8 J**	**5 J**	**19.8 J**	61.7 U	**5.9 J**	**3.7 J**	**2.9 J+**	**2.4 J+**	**4 J-**
Copper	1,500	1,300		2 UJ	4 UJ	**7.9 J**	25 U	**49.7**	**4 J**	**3.9 J**	2 U	**0.87 J**	2 UJ	**17.6 J**
Cyanide	730	200		10 U	10 U	10 U	10 U	10 U	**10**	--	--	--	10 U	--
Iron	26,000	NC		**217**	**225**	**4,060**	**38,700**	**27,600**	**29,900**	**19,600 J**	--	**34,500**	**35,500**	**2,760**
Lead	NC	15		1 UJ	1 UJ	**7.6 J-**	**4.7 J**	**39**	**6.1 J**	**4.8 J**	**0.64 J**	1 U	1 U	**86.9 J-**
Magnesium	NC	NC		**95,200**	**92,900**	**75,800**	**30,600**	**72,300**	**31,400**	**37,500 J**	--	**26,100**	**19,400**	**93,000**
Manganese	880	NC		**579**	**623**	**1,420**	**7,660**	**6,620 J**	**5,410**	**5,410 J**	**8,080**	**6,260 J**	**5,960**	**1,570**
Mercury	0.57	2		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**0.17 J**
Nickel	730	NC		**10.2 J+**	**13.1 J+**	**15.6 J**	40 U	**314**	49.4 U	**5.3 J**	**6.3**	**6.3**	**5.4 J**	**9.6 J**
Potassium	NC	NC		**4,300 J**	**4,260 J**	**21,600 J**	5,000 UJ	**9,150**	**3,270 J**	**3,560 J**	--	5,000 UJ	**2,350 J**	**17,300 J**
Selenium	180	50		5 U	10 U	35 U	35 U	35 U	**2.5 J**	35 U	5 U	5 U	**0.65 J**	**13.5 J+**
Silver	180	NC		1 U	1 U	10 U	**1 J**	**1 J-**	12.3 U	10 UJ	1 UJ	1 UJ	1 U	10 U
Sodium	NC	NC		**40,900**	**40,000**	R	**5,960**	**12,300 J**	**6,740**	**8,610**	--	**6,650**	**6,260**	R
Thallium	NC	2		1 U	1 U	25 U	25 U	25 U	27.8 U	25 U	1 U	1 U	1 U	**4.7 J+**
Vanadium	180	NC		5 UJ	10 UJ	**4.6 J**	**2.2 J**	**19.6 J**	55.6 U	50 U	**0.079 J-**	**0.24 J-**	5 UJ	**1.8 J-**
Zinc	11,000	NC		**7,030**	**7,290**	60 U	**117**	**282**	**24.3 J**	**8 J**	**7.9**	**3 J**	**4.7**	**375**

Table 4.2.5-3
Detected Groundwater Metals Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID	MW11	MW11	MW11-0908	MW11-1208	MW11-0309	MW11-0609	MW11-0909	MW12	MW12	MW12	MW12-0908
			Sample ID	ME3MA9	ME3P11	ME3XG6	ME4783	ME47L3	ME4F79	ME4GL3	ME3M59	ME3MB0	ME3P12	ME3XG7
			Case	37288	37600	37848	38119	38346	38664	39115	37006	37288	37600	37848
			Sampling date	3/16/2008	6/19/2008	9/19/2008	12/16/2008	3/26/2009	6/11/2009	10/9/2009	11/16/2007	3/13/2008	6/18/2008	9/18/2008
			Unit	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
			Duplicate info											
			WBZ	1	1	1	1	1	1	1	1	1	1	1
			Filtered info				filtered	filtered	filtered	filtered				
Aluminum	37,000	NC		**299**	251 U	**1,270**	**79.7 J**	--	200 U	200 U	**3,830**	**1,930**	200 U	**358**
Antimony	15	6		60 U	60 U	**17 J+**	60 U	4 UJ	2 UJ	4 U	60 UJ	60 U	60 U	**7.1 J-**
Arsenic	0.045	10		10 U	10 U	11.1 UJ	10 U	**0.85 J**	**1.1 J**	1 UJ	**8 J**	**13.6**	**10.8 J+**	12.3 UJ
Barium	7,300	2,000		**20.4 J**	200 U	**23 J**	200 U	**9.6 J**	**10.7**	20 UJ	**47.3 J**	**33.1 J**	200 U	247 U
Beryllium	73	4		5 U	5 U	5.6 U	5 U	**0.22 J**	2 U	1 UJ	**0.12 J**	5 U	5 U	5.6 U
Cadmium	18	5		**139**	**310**	**302**	**274**	**456**	**173**	**232 J**	**1.4 J+**	**1.6 J+**	5 U	6.2 UJ
Calcium	NC	NC		**457,000**	**425,000 J**	**524,000**	**515,000**	--	**517,000**	**486,000**	**526,000**	**580,000**	**456,000 J**	**469,000**
Chromium	NC	100		**1.5 J**	10 U	**3.6 J+**	**4.4 J+**	**0.77 J**	2 UJ	2 UJ	**6.9 J**	**3.3 J**	10 U	12.3 U
Cobalt	11	NC		**4.9 J+**	50 U	**1.4 J-**	50 U	**4.3 J**	1 UJ	1 UJ	**8 J-**	**9.1 J+**	**4.5 J**	61.7 UJ
Copper	1,500	1,300		25 U	**7.4 J**	**7.4 J+**	**9.6 J**	**16.3**	**4.1 J**	**2.1 J-**	**7.9 J**	25 U	25 U	**4.2 J+**
Cyanide	730	200		10 U	**1.4 J**	10 UJ	--	--	--	10 U	10 U	10 U	10 U	10 U
Iron	26,000	NC		**916**	100 U	**3,890**	**299 J**	--	R	100 U	**19,300**	**21,500**	**17,900**	**15,800**
Lead	NC	15		**6.4 J-**	**10.9**	**18.6 J-**	10 U	**0.61 J**	**1.4 J**	1 UJ	**90.2 J-**	**43.3 J-**	**21.5**	**16.8**
Magnesium	NC	NC		**61,700**	**41,200**	**46,400**	**50,100**	--	**45,800**	**42,000**	**385,000**	**461,000**	**344,000**	**318,000**
Manganese	880	NC		**3,350**	**2,300 J**	**1,470**	**1,740**	**2,740**	**574 J**	**398 J**	**5,250**	**5,600**	**5,580 J**	**5,100**
Mercury	0.57	2		**0.079 J**	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U	**0.15 J**	**0.14 J**	0.2 U	0.2 U
Nickel	730	NC		40 U	**54.1**	**55.9**	**41.6**	**61.3**	**39.7 J**	**28.7 J+**	**23.2 J**	40 U	**11.9 J**	49.4 U
Potassium	NC	NC		**21,600 J**	**18,100**	**24,300**	**26,500**	--	**19,300 J**	**20,600**	**61,000 J**	**38,800 J**	**30,100**	**30,000**
Selenium	180	50		**16.3 J**	**9.8 J-**	**9.1 J**	35 U	10 U	**9.5 J**	**3.9 J**	35 U	35 U	35 UJ	**3.4 J+**
Silver	180	NC		10 U	10 UJ	**1.7 J**	10 U	2 UJ	1 UJ	1 U	10 U	**1.3 J**	10 UJ	11.1 U
Sodium	NC	NC		**800,000**	**389,000 J**	**297,000**	**192,000 J**	--	**367,000**	**302,000**	R	**42,500**	**31,900 J**	**32,900**
Thallium	NC	2		25 UJ	25 U	27.8 U	25 U	**0.049 J**	**0.031 J**	1 U	**3.5 J-**	25 UJ	25 U	27.8 U
Vanadium	180	NC		**0.96 J-**	50 U	**3.5 J-**	50 U	**0.13 J-**	**0.16 J-**	5 UJ	**3.3 J**	**3 J-**	**3.5 J**	55.6 UJ
Zinc	11,000	NC		**18,500**	**30,900**	**32,700**	**44,900**	**59,600**	**38,400 J**	**35,800**	**1,840**	**2,370**	**3,810**	**3,830**

Table 4.2.5-3
Detected Groundwater Metals Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID Sample ID Case Sampling date Unit Duplicate info WBZ Filtered info	MW12-1208 ME4784 38119 12/9/2008 µg/L 1 filtered	MW12-0309 ME47L4 38346 3/17/2009 µg/L 1 filtered	MW12-0609 ME4F80 38664 6/17/2009 µg/L 1 filtered	MW12-0909 ME4GL4 39115 10/7/2009 µg/L 1 filtered	MW13 ME3M60 37006 11/16/2007 µg/L 2	MW13 ME3MB1 37288 3/16/2008 µg/L 2	MW13 ME3P13 37600 6/19/2008 µg/L 2	MW13-0908 ME3XG8 37848 9/18/2008 µg/L 2	MW13-1208 ME4785 38119 12/15/2008 µg/L 2 filtered	MW13-0309 ME47L5 38346 3/20/2009 µg/L 2 filtered	MW13-0609 ME4F81 38664 6/15/2009 µg/L 2 filtered
Aluminum	37,000	NC		200 U	--	200 U	200 U	**119 J**	200 U	200 U	**263**	**19.2 J**	--	200 U
Antimony	15	6		60 U	2 UJ	2 U	2 U	60 UJ	60 U	60 U	**9.1 J-**	60 U	4 UJ	4 UJ
Arsenic	0.045	10		**7.6 J+**	**8.6**	**11.7**	**14**	10 U	10 U	10 U	11.1 UJ	10 U	2 U	**0.48 J**
Barium	7,300	2,000		200 UJ	**14 J**	**17.6 J**	**16.8**	**30.3 J-**	200 U	200 U	247 U	200 U	**14.8 J+**	20 UJ
Beryllium	73	4		5 U	1 U	1 U	2 U	5 U	5 U	5 U	5.6 U	5 U	2 U	2 U
Cadmium	18	5		5 UJ	**0.22 J-**	1 UJ	1 UJ	5 U	**0.95 J+**	5 U	5.6 UJ	**101**	**0.14 J**	**0.19 J-**
Calcium	NC	NC		**470,000 J**	--	**594,000**	**533,000**	**373,000**	**402,000**	**341,000 J**	**413,000**	**403,000**	--	**418,000**
Chromium	NC	100		10 UJ	2 U	2 UJ	2 U	**3 J**	10 U	10 U	12.3 U	**1.8 J+**	**0.56 J**	4 U
Cobalt	11	NC		**3.5 J**	**7.1 J**	**7.2 J+**	**7 J+**	**2.5 J-**	**8.4 J+**	**24.3 J**	61.7 UJ	**24.4 J+**	**49.7**	**82.6**
Copper	1,500	1,300		**3.1 J+**	**0.69 J**	2 U	2 UJ	**3.1 J**	25 U	25 U	**4.6 J+**	**3.3 J**	**4.6**	**4.7 J**
Cyanide	730	200		--	--	--	10 U	10 U	10 U	10 U	10 U	--	--	--
Iron	26,000	NC		**17,000 J**	--	**16,700**	**20,400**	**156**	**158**	**167**	**1,060**	**197 J**	--	R
Lead	NC	15		**7.6 J**	**1.9 J**	2.3 UJ	**3**	10 UJ	10 UJ	**3.6 J**	**5.2 J+**	10 U	**0.43 J**	2 UJ
Magnesium	NC	NC		**390,000 J**	--	**332,000**	**369,000**	**471,000**	**479,000**	**332,000**	**389,000**	**267,000**	--	**356,000**
Manganese	880	NC		**2,860 J**	**4,280**	**4,440**	**4,910**	**268**	**120**	**34.6 J**	**43**	**481**	**43.8 J+**	**7.8 J+**
Mercury	0.57	2		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	730	NC		**10.2 J-**	**24.2 J**	**31.9 J+**	**18.5 J**	**5 J**	40 U	**3 J**	49.4 U	**17.3 J**	**11.2**	**9.7 J**
Potassium	NC	NC		**23,300**	--	**27,300 J**	**28,900**	**65,800 J**	**32,400 J**	**16,400**	**20,200**	**20,500**	--	**17,900 J**
Selenium	180	50		35 UJ	5 U	5 U	5 U	35 U	35 U	35 UJ	**4 J+**	35 U	10 U	10 U
Silver	180	NC		10 UJ	1 U	1 UJ	1 U	10 U	10 U	10 UJ	12.3 U	10 U	2 U	2 UJ
Sodium	NC	NC		**43,400**	--	**33,000**	**34,900**	R	**478,000**	**446,000 J**	**446,000**	**418,000 J**	--	**439,000**
Thallium	NC	2		25 UJ	1 UJ	2 U	**0.025 J-**	25 U	25 UJ	25 U	27.8 U	25 U	2 U	**0.025 J**
Vanadium	180	NC		50 U	5 UJ	**0.031 J-**	5 UJ	50 U	**0.73 J-**	50 U	61.7 UJ	50 U	**0.58 J-**	**0.44 J-**
Zinc	11,000	NC		**1,340 J**	**3,320**	**4,220**	**4,990**	**91.5**	60 U	**90**	**56.9 J+**	**14,100**	**41.9**	**51.1 J**

Table 4.2.5-3
Detected Groundwater Metals Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID	MW13-0909	MW14	MW14	MW14	MW14-0309	MW14-0309	MW14-0908	MW14-1208	MW14-0609	MW14-0609	MW14-0909
			Sample ID	ME4GL5	ME3M61	ME3MB2	ME3P14	ME47L6	ME47L7	ME3XG9	ME4786	ME4F82	ME4F83	ME4GL6
			Case	39115	37006	37288	37600	38346	38346	37848	38119	38664	38664	39115
			Sampling date	10/6/2009	11/17/2007	3/14/2008	6/18/2008	3/18/2009	3/18/2009	9/18/2008	12/17/2008	6/10/2009	6/10/2009	10/13/2009
			Unit	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
			Duplicate info											
			WBZ	2	2	2	2	2	2	2	2	2	2	2
			Filtered info	filtered				filtered			filtered	filtered		filtered
Aluminum	37,000	NC		200 U	**2,820 J**	**9,790**	**338**	--	--	**2,810**	200 U	200 U	**433**	200 U
Antimony	15	6		2 U	60 UJ	60 U	60 U	2 UJ	2 UJ	**6.1 J-**	60 U	2 UJ	2 UJ	2 U
Arsenic	0.045	10		**0.69 J**	10 UJ	**9.7 J**	**4.4 J**	**3**	**3.1**	11.1 U	10 U	**2.7**	**3.2**	**5.4**
Barium	7,300	2,000		**14.6**	**54.6 J**	**83.5 J**	200 U	**23.6 J**	**25.8 J**	**45.4 J**	**23.6 J**	**17.8**	**24.4**	**23.2 J**
Beryllium	73	4		2 U	**0.08 J-**	5 U	5 U	1 U	**0.036 J**	5.6 U	5 U	1 U	**0.026 J**	1 UJ
Cadmium	18	5		1 UJ	**0.53 J**	5 U	5 U	**0.085 J-**	**0.093 J**	5.6 U	5 U	**0.081 J**	**0.23 J**	1 UJ
Calcium	NC	NC		**364,000**	**30,300 J**	**39,500**	**25,900 J**	--	--	**27,900**	**27,600**	**28,400**	**29,500**	**23,800**
Chromium	NC	100		2 U	**7.7 J**	**21.6**	**5.9 J**	2 U	**0.52 J**	**5.5 J**	10 U	2 U	**1.6 J**	2 U
Cobalt	11	NC		**87.1 J**	**2.4 J**	**9.5 J**	50 U	**0.18 J**	**0.5 J+**	**1.5 J**	50 U	1 U	1 U	**1.8 J+**
Copper	1,500	1,300		2 UJ	**3.1 J**	25 U	**2.5 J**	**3 J**	**7.9 J**	**3.4 J**	25 UJ	**2.7**	**3.6**	2 UJ
Cyanide	730	200		10 U	10 UJ	10 U	10 U	--	--	10 UJ	--	--	--	10 U
Iron	26,000	NC		100 U	**2,420 J**	**9,080**	**407**	--	--	**2,550**	100 UJ	100 U	**397**	100 U
Lead	NC	15		1 U	**7.1 J-**	**13.2**	10 U	**0.54 J**	**1.8 J**	11.1 U	**2.9 J**	1 U	**2.7**	1 UJ
Magnesium	NC	NC		**354,000**	**14,900 J**	**18,900**	**14,100**	--	--	**14,200**	**15,000**	**16,300**	**16,400**	**13,200**
Manganese	880	NC		**11.9**	**208 J**	**419**	**46.4 J**	**8.7 J+**	**38.8 J+**	**171**	**28.5**	**12 J+**	**73.3 J+**	**110**
Mercury	0.57	2		0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	730	NC		**5.8 J**	**8.6 J**	40 U	**6.1 J**	**1.6 J**	**1.9**	**5.3 J**	40 U	**1.2**	**2.9**	**1.9 J+**
Potassium	NC	NC		**15,000**	**9,420 J**	**10,500 J**	**5,900**	--	--	**6,830**	**6,430**	**6,850 J**	**7,020 J**	**6,060**
Selenium	180	50		**1 J**	35 UJ	35 U	35 U	5 U	5 U	**3.2 J-**	35 U	5 U	5 U	5 U
Silver	180	NC		1 U	10 UJ	10 U	10 UJ	1 U	1 U	**2.8 J-**	10 U	1 UJ	1 UJ	1 U
Sodium	NC	NC		**462,000**	**73,400 J**	**262,000**	**258,000 J**	--	--	**234,000**	**291,000 J**	**267,000**	**270,000**	**248,000**
Thallium	NC	2		1 U	25 UJ	25 U	25 U	1 U	1 U	27.8 U	25 U	**0.0099 J**	**0.013 J**	1 U
Vanadium	180	NC		5 UJ	**3.9 J**	**15.2 J**	50 U	5 UJ	**0.5 J-**	**3.7 J**	50 U	**0.21 J-**	**0.74 J-**	5 UJ
Zinc	11,000	NC		**27.4**	**91.9 J**	60 U	60 U	**12.1**	**18.4**	**47 J**	**16.3 J-**	**10.5 J**	**24.2 J**	**4.8**

Table 4.2.5-3
Detected Groundwater Metals Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID Sample ID Case Sampling date Unit Duplicate info WBZ Filtered info	MW14-0909 ME4N09 39115 10/13/2009 µg/L 2	MW15 ME3M62 37006 11/14/2007 µg/L 1	MW50 ME3M66 37006 11/14/2007 µg/L MW15 1	MW15 ME3MB3 37288 3/17/2008 µg/L 1	MW50 ME3MB7 37288 3/17/2008 µg/L MW15 1	MW15 ME3P15 37600 6/16/2008 µg/L 1	MW50 ME3P19 37600 6/16/2008 µg/L MW15 1	MW15-0908 ME3XH0 37848 9/22/2008 µg/L 1	MW15-1208 ME4787 38119 12/12/2008 µg/L 1 filtered	MW15-0309 ME47L8 38346 3/23/2009 µg/L 1 filtered	MW15-0609 ME4F84 38664 6/15/2009 µg/L 1 filtered
Aluminum	37,000	NC		**173 J**	**3,040**	**3,480**	200 U	200 U	**202**	200 U	**97.5 J-**	200 U	--	200 U
Antimony	15	6		2 U	60 UJ	60 UJ	60 U	60 U	60 U	60 U	66.7 U	60 UJ	2 UJ	4 UJ
Arsenic	0.045	10		**5 J**	**13.7**	**13.6**	**12.9**	**12.6**	**21.5 J+**	**20.4 J+**	**2.7 J-**	**17.9 J+**	**6.7**	**12.8**
Barium	7,300	2,000		**26.7**	**27.1 J-**	**28.9 J-**	200 U	**12.6 J-**	200 U	200 U	**10 J**	200 U	**6.8 J**	20 UJ
Beryllium	73	4		1 U	**0.1 J**	**0.099 J**	5 U	5 U	5 U	5 U	5.6 U	5 U	1 U	2 U
Cadmium	18	5		1 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5.6 UJ	5 UJ	1 UJ	2 UJ
Calcium	NC	NC		**25,200**	**306,000**	**304,000**	**423,000**	**433,000**	**370,000 J**	**369,000 J**	**393,000**	**412,000 J**	--	**478,000**
Chromium	NC	100		2 U	**6.1 J**	10 U	**0.43 J**	**1.1 J**	10 U	10 U	11.1 U	10 UJ	2 U	4 U
Cobalt	11	NC		**1.9 J+**	**5.2 J-**	**5.7 J-**	**4.1 J+**	**3.8 J-**	50 U	50 U	55.6 UJ	**2.1 J-**	**3.4 J**	**4.2 J+**
Copper	1,500	1,300		**2.1**	**5.3 J**	**5.7 J**	25 U	25 U	25 U	25 U	27.8 U	**2.7 J+**	2 U	**2.7 J**
Cyanide	730	200		--	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	--	--	--
Iron	26,000	NC		**253**	**8,690**	**9,120**	**6,360**	**6,540**	**8,030**	**7,950**	**4,940**	**6,800 J**	--	**7,480**
Lead	NC	15		**1.2**	10 UJ	10 UJ	10 UJ	10 UJ	10 U	10 U	11.1 UJ	**6 J**	**0.048 J**	2 UJ
Magnesium	NC	NC		**14,100**	**169,000**	**166,000**	**244,000**	**250,000**	**215,000**	**215,000**	**227,000**	**235,000 J**	--	**262,000**
Manganese	880	NC		**114**	**343**	**369**	**238**	**243**	**180 J**	**177 J**	**240**	**198 J**	**169**	**166 J+**
Mercury	0.57	2		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	730	NC		**2.8 J+**	**13 J**	40 U	40 U	40 U	**4.3 J**	**4 J**	**6.7 J+**	**4.8 J-**	**11.3**	**12.1 J**
Potassium	NC	NC		**6,220**	**18,900 J**	**17,900 J**	**7,790 J**	**8,130 J**	**4,400 J**	**4,370 J**	**6,140**	**5,700**	--	**5,140 J**
Selenium	180	50		5 U	35 U	35 U	35 U	35 U	35 UJ	35 UJ	**2.8 J**	35 U	5 U	10 U
Silver	180	NC		1 U	10 U	10 U	10 U	10 U	10 UJ	10 UJ	11.1 U	10 UJ	1 UJ	2 UJ
Sodium	NC	NC		**250,000**	R	R	**43,800**	**44,800**	**38,900 J**	**39,800 J**	**41,800**	**39,000**	--	**44,100**
Thallium	NC	2		1 UJ	25 U	**4.6 J+**	25 UJ	25 U	25 U	25 U	27.8 U	25 U	**0.051 J**	**0.049 J**
Vanadium	180	NC		5 UJ	**4.4 J**	**5.6 J**	**0.51 J-**	**0.58 J**	50 U	50 U	55.6 UJ	50 U	5 UJ	10 UJ
Zinc	11,000	NC		**31**	60 U	60 U	60 U	60 U	60 U	60 U	**9 J+**	60 UJ	**10.5**	**12.2 J**

Table 4.2.5-3
Detected Groundwater Metals Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID Sample ID Case Sampling date Unit Duplicate info WBZ Filtered info	MW15-0909 ME4GL7 39115 10/12/2009 µg/L 1 filtered	MW16 ME3M63 37006 11/16/2007 µg/L 1	MW16 ME3MB4 37288 3/18/2008 µg/L 1	MW16 ME3P16 37600 6/19/2008 µg/L 1	MW16-0908 ME3XH1 37848 9/23/2008 µg/L 1	MW16-1208 ME4788 38119 12/11/2008 µg/L 1 filtered	MW16-0309 ME47L9 38346 3/25/2009 µg/L 1 filtered	MW16-0309 ME47M0 38346 3/25/2009 µg/L 1	MW16-0609 ME4F85 38664 6/12/2009 µg/L 1 filtered	MW16-0609 ME4F86 38664 6/12/2009 µg/L 1	MW16-0909 ME4GL8 39115 10/13/2009 µg/L 1 filtered
Aluminum	37,000	NC		200 U	**3,940**	**1,290**	**2,670**	**901**	200 U	--	--	**126 J**	**664**	200 U
Antimony	15	6		2 U	60 UJ	60 U	60 U	66.7 U	60 U	2 UJ	2 UJ	2 U	2 UJ	2 U
Arsenic	0.045	10		**18.2**	10 U	10 U	10 U	11.1 U	10 U	**1.3**	1 U	**0.32 J**	**0.52 J**	2 U
Barium	7,300	2,000		10 UJ	**48.5 J**	**29.7 J**	**38.3 J**	222 U	200 U	**45.3**	**17.9 J**	**22.4**	**21.1**	**25.4 J**
Beryllium	73	4		1 UJ	**0.18 J**	5 U	5 U	5.6 U	5 U	**0.3 J**	1 U	**0.11 J**	**0.039 J**	2 UJ
Cadmium	18	5		2 UJ	5 U	5 U	5 U	5.6 U	**1.9 J-**	**6.6**	**6.4**	**6.4**	**6.3**	**8**
Calcium	NC	NC		**412,000**	**275,000**	**137,000**	**121,000**	**92,800**	**89,400 J**	--	--	**92,800**	**94,000**	**106,000**
Chromium	NC	100		4 U	10 U	**4.8 J**	10 U	11.1 U	10 U	**7.3**	**0.16 J**	2 U	2 U	2 U
Cobalt	11	NC		**5.2 J+**	**1.3 J-**	50 U	50 U	55.6 U	50 U	**2.2 J**	**0.21 J+**	1 U	1 U	2 UJ
Copper	1,500	1,300		4 UJ	**5.5 J**	25 U	**3.4 J**	27.8 U	25 UJ	**7**	1.6 UJ	**0.72 J**	**1.9 J**	4 UJ
Cyanide	730	200		10 U	10 U	10 U	10 U	10 U	--	--	--	--	--	10 U
Iron	26,000	NC		**8,010**	**4,270**	**2,320**	**3,330**	**1,030**	100 UJ	--	--	100 U	**817**	100 U
Lead	NC	15		1 UJ	10 UJ	**5.6 J**	11.2 U	**4.1 J**	**4.8 J**	**6.9**	**0.3 J**	**1.8**	1 U	1 UJ
Magnesium	NC	NC		**244,000**	**163,000**	**38,500**	**27,400**	**20,500**	**20,200 J**	--	--	**22,600**	**22,900**	**26,000**
Manganese	880	NC		**177**	**192**	**76.2**	**108**	**39.3**	21.4 UJ	**88.7 J+**	**28.8 J+**	**48.2 J+**	**45.6 J+**	**49.9**
Mercury	0.57	2		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	730	NC		**9.3 J+**	40 U	40 U	**7.8 J**	**5.7 J**	**4.1 J**	**13.7**	**8.9**	**8**	**8.6**	**13.1 J+**
Potassium	NC	NC		**5,770**	**45,300 J**	5,000 UJ	**2,170 J**	**1,310 J**	**981 J**	--	--	**974 J**	**1,120 J**	**1,250 J**
Selenium	180	50		10 U	35 U	35 U	35 U	**3.4 J+**	35 U	5 U	5 U	5 U	5 U	10 U
Silver	180	NC		2 U	10 U	10 U	10 UJ	**0.52 J-**	10 UJ	**0.071 J-**	1 U	1 UJ	1 UJ	1 U
Sodium	NC	NC		**40,700**	R	**32,800**	**24,700**	**16,600**	**16,600**	--	--	**16,100**	**15,000**	**14,100**
Thallium	NC	2		1 U	25 U	25 U	25 U	27.8 U	25 U	**0.05 J**	1 U	**0.012 J**	**0.012 J**	1 U
Vanadium	180	NC		10 UJ	**6.2 J**	**3.1 J**	**5.3 J**	**1.3 J**	50 U	**6**	**0.16 J-**	**0.17 J-**	**0.91 J-**	10 UJ
Zinc	11,000	NC		**6.6**	60 U	60 U	60 UJ	**436**	**591 J**	**1,130**	**1,170**	**1,160 J**	**1,150 J**	**1,660**

Table 4.2.5-3
Detected Groundwater Metals Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID Sample ID Case Sampling date Unit Duplicate info WBZ Filtered info	MW16-0909 ME4N10 39115 10/13/2009 µg/L 1 	MW17 ME3M64 37006 11/15/2007 µg/L 1 	MW51 ME3M67 37006 11/15/2007 µg/L MW17 1 	MW17 ME3MB5 37288 3/13/2008 µg/L 1 	MW51 ME3MB8 37288 3/13/2008 µg/L MW17 1 	MW17 ME3P17 37600 6/17/2008 µg/L 1 	MW51 ME3P20 37600 6/17/2008 µg/L MW17 1 	MW17-0908 ME3XH2 37848 9/22/2008 µg/L 1 	MW17-1208 ME4789 38119 12/11/2008 µg/L 1 filtered	MW53-1208 ME47B1 38119 12/11/2008 µg/L MW17-1208 1 filtered	MW17-0309 ME47M1 38346 3/10/2009 µg/L 1 filtered
Aluminum	37,000	NC		**161 J**	**166 J**	**147 J**	**3,930**	**5,000**	**3,340**	**5,880**	**2,200**	**761**	**921**	--
Antimony	15	6		2 U	60 UJ	60 UJ	60 U	60 U	60 U	60 U	66.7 U	60 U	60 UJ	4 UJ
Arsenic	0.045	10		1 UJ	10 U	10 U	**8.1 J**	**10.4**	**12.7 J+**	**20.2 J+**	**3.3 J-**	**13.5 J+**	**16.8 J+**	**7.5**
Barium	7,300	2,000		**27.1**	**25.4 J-**	**26.8 J-**	**17.2 J**	200 U	200 U	200 U	**26.1 J**	200 UJ	200 U	**15.4 J**
Beryllium	73	4		1 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.39 J+**	5 U	5 U	**0.37 J**
Cadmium	18	5		**8.4**	**189**	**178**	**368**	**391**	**214**	**226**	**287**	**123 J**	**140 J**	**165 J**
Calcium	NC	NC		**112,000**	**501,000**	**519,000**	**537,000**	**530,000**	**455,000 J**	**441,000 J**	**507,000**	**494,000 J**	**507,000 J**	--
Chromium	NC	100		2 U	10 U	10 U	**1.7 J**	**1.8 J**	10 U	**11.8**	11.1 U	10 UJ	10 UJ	**0.58 J-**
Cobalt	11	NC		1 UJ	**36 J**	**37.1 J**	**47.9 J**	**48.7 J**	**30 J**	**31.1 J**	55.6 UJ	**22.5 J**	**24.5 J**	**25.9 J**
Copper	1,500	1,300		2 U	**4.4 J**	**4 J**	25 U	25 U	**7.5 J**	**11 J**	**8.3 J+**	**9.8 J+**	**11.2 J+**	**8 J**
Cyanide	730	200		--	10 U	**6.8 J**	10 U	10 U	**20.6**	**1.4 J**	10 UJ	10 U	10 U	**2.4 J**
Iron	26,000	NC		**212**	**17,000**	**13,800**	**99,000**	**109,000**	**79,700**	**107,000**	**98,300**	**69,800 J**	**82,500 J**	--
Lead	NC	15		1 U	**63.6 J-**	**67 J-**	**71.1 J-**	**86.3**	**640**	**1,740**	**116**	**50.4**	**53.7**	**77.9**
Magnesium	NC	NC		**27,300**	**213,000**	**234,000**	**218,000**	**229,000**	**336,000**	**315,000**	**170,000**	**363,000 J**	**331,000 J**	--
Manganese	880	NC		**56.2**	**8,570**	**9,320**	**7,060**	**6,570**	**5,350 J**	**4,960 J**	**5,030**	**5,710 J**	**5,420 J**	**4,310**
Mercury	0.57	2		0.2 U	**0.14 J**	**0.13 J**	**0.16 J**	**0.11 J**	**0.19 J**	**0.62**	**0.3**	0.2 U	**0.11 J**	0.2 U
Nickel	730	NC		**14.5 J+**	**58.3**	**59.6**	**75.1**	**78.1**	**57.7**	**62.9**	**69.3**	**42.7**	**45.5**	**55.6 J**
Potassium	NC	NC		**1,350 J-**	**34,000 J**	**38,400 J**	**10,500 J**	**10,900 J**	**9,160**	**8,550**	**10,400**	**9,580**	**9,230**	--
Selenium	180	50		5 U	35 U	35 U	35 U	35 U	35 UJ	35 UJ	**3.8 J**	35 UJ	35 U	10 U
Silver	180	NC		1 U	10 U	10 U	**0.84 J**	**1 J**	10 UJ	10 UJ	11.1 U	10 UJ	10 UJ	2 U
Sodium	NC	NC		**15,200**	R	R	**26,900**	**27,900**	**43,900 J**	**42,600 J**	**28,200**	**45,600**	**41,300**	--
Thallium	NC	2		1 UJ	**5.2 J+**	**4.2 J+**	25 UJ	25 UJ	25 U	25 U	**4.5 J+**	25 U	25 U	2 U
Vanadium	180	NC		5 UJ	50 U	50 U	**29.6 J**	**38 J**	**31.8 J**	**47.7 J**	55.6 UJ	50 U	50 U	**20 J**
Zinc	11,000	NC		**1,720**	**21,700**	**20,300**	**47,000**	**50,100**	**24,200**	**24,600**	**45,600**	**26,300 J**	**30,300 J**	**37,800**

Table 4.2.5-3
Detected Groundwater Metals Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID Sample ID Case Sampling date Unit Duplicate info WBZ Filtered info	MW53-0309 ME47P4 38346 3/17/2009 µg/L MW17-0309 1 filtered	MW17-0309 ME47M2 38346 3/10/2009 µg/L 1	MW54-0309 ME47P5 38346 3/17/2009 µg/L MW17-0309 1	MW17-0609 ME4F87 38664 6/12/2009 µg/L 1 filtered	MW53-0609 ME4FB0 38664 6/12/2009 µg/L MW17-0609 1 filtered	MW17-0609 ME4F88 38664 6/12/2009 µg/L 1	MW54-0609 ME4FB1 38664 6/12/2009 µg/L MW17-0609 1	MW17-0909 ME4GL9 39115 10/13/2009 µg/L 1 filtered	MW17-0909 ME4N11 39115 10/13/2009 µg/L 1	MW18 ME3M65 37006 11/14/2007 µg/L 2	MW18 ME3MB6 37288 3/12/2008 µg/L 2
Aluminum	37,000	NC	--	--	--	1,740	1,790	2,390	2,670	1,080	1,490	1,350	444
Antimony	15	6	2 UJ	4 UJ	2 UJ	2 UJ	4 UJ	2 UJ	4 UJ	2 U	2 U	60 UJ	60 U
Arsenic	0.045	10	5	13.3	13.3	12.5 J	11	16 J	15.6	14.8	17 J	10 U	10 U
Barium	7,300	2,000	16.9 J	16.4 J+	16.9 J	17	20 UJ	17.1	20 UJ	21.1	21.3	24.5 J-	23.4 J
Beryllium	73	4	0.26 J	0.6 J	0.48 J	0.37 J	0.4 J	0.27 J	0.45 J	0.24 J	0.28 J	5 U	5 U
Cadmium	18	5	125 J	175	169	153	173	149	174	113	107	12 J+	13.1
Calcium	NC	NC	--	--	--	545,000	606,000	545,000	591,000	494,000	493,000	398,000	472,000
Chromium	NC	100	0.41 J	1.1 J	1.1 J	2 UJ	4 U	2 UJ	4 U	2 U	2 U	10 U	0.52 J
Cobalt	11	NC	20.6 J	29.2	28.1	23.9 J	27.3	23.5 J	27.5	21.8	21.6 J	6.3 J-	4.9 J+
Copper	1,500	1,300	3.6 J	5.4 J	4.8 J	3.3 J	6.1 J	3.7 J	4.1 J	2.3 UJ	2 U	2.7 J	25 U
Cyanide	730	200	2.3 J	--	--	1.3 J	2.9 J	--	--	10 U	--	10 U	10 U
Iron	26,000	NC	--	--	--	74,300	79,300	76,000	79,800	78,500	74,700	1,380	277
Lead	NC	15	55.2 J	128 J	140 J	72.6 J	77.4 J	112 J	96.3 J	95.7	119	10 UJ	10 UJ
Magnesium	NC	NC	--	--	--	232,000	257,000	233,000	234,000	320,000	357,000	66,800	93,000
Manganese	880	NC	5,250	4,500 J	4,570 J	3,500 J	3,820	3,440 J	3,790	4,500	4,730	1,050	993
Mercury	0.57	2	0.2 U	0.22	0.28	0.2 U	0.2 U	0.16 J	0.2 U	0.26	0.2 U	0.2 U	0.2 U
Nickel	730	NC	50.2 J	60.6	56.8	47.4 J	52.4 J	47 J	52 J	55.2 J+	56.8 J+	40 U	40 U
Potassium	NC	NC	--	--	--	8,080 J	8,540 J	8,380 J	8,020 J	8,850	8,950	92,200 J	72,600 J
Selenium	180	50	7.1	10 U	8.3	8 J	10 U	8.1 J	10 U	5.7 J	5.7	35 U	35 U
Silver	180	NC	2 U	2 U	1 U	1 UJ	2 UJ	1 UJ	2 UJ	1 U	1 U	10 U	10 U
Sodium	NC	NC	--	--	--	32,600	36,600 J	35,500	33,500	42,900	47,800	R	161,000
Thallium	NC	2	1.3 J	2 U	3 U	1.8 J	1.8 J	1.7 J	1.9 J	1 UJ	1 UJ	25 U	25 UJ
Vanadium	180	NC	14 J	27.5	26.6	17.3 J	20.5	21.2 J	26.7	14.4	15.3	1.5 J-	1 J-
Zinc	11,000	NC	28,000	45,700	46,100	44,800 J	39,600 J	43,100 J	41,200 J	33,000	30,800	25,400	25,100

Table 4.2.5-3
Detected Groundwater Metals Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID Sample ID Case Sampling date Unit Duplicate info WBZ Filtered info	MW18 ME3P18 37600 6/18/2008 µg/L 2	MW18-0908 ME3XH3 37848 9/23/2008 µg/L 2	MW52-0908 ME3XK3 37848 9/23/2008 µg/L MW18-0908 2	MW18-1208 ME4790 38119 12/18/2008 µg/L 2 filtered	MW18-0309 ME47M3 38346 3/17/2009 µg/L 2 filtered	MW18-0609 ME4F89 38664 6/15/2009 µg/L 2 filtered	MW18-0909 ME4GM0 39115 10/7/2009 µg/L 2 filtered	MW53-0909 ME4GP1 39115 10/7/2009 µg/L MW18-0909 2 filtered	MW19-0908 ME3XH4 37848 9/23/2008 µg/L 2	MW19-1208 ME4791 38119 12/15/2008 µg/L 2 filtered	MW19-0309 ME47M4 38346 3/18/2009 µg/L 2 filtered
Aluminum	37,000	NC		**388**	**875**	**362**	200 U	--	200 U	200 U	200 U	**6,280**	200 U	--
Antimony	15	6		60 U	66.7 U	66.7 U	60 U	4 UJ	4 UJ	2 U	2 U	66.7 U	60 U	4 UJ
Arsenic	0.045	10		10 U	11.1 UJ	11.1 U	10 U	2 U	**0.67 J**	**0.54 J**	1 U	11.1 UJ	10 U	2 U
Barium	7,300	2,000		200 U	**22.4 J**	**20.3 J**	**20 J**	**16.9 J**	20 UJ	**19.5**	**18.6**	222 U	200 U	**21.8 J**
Beryllium	73	4		5 U	5.6 U	5.6 U	5 U	2 U	2 U	2 U	2 U	5.6 U	5 U	2 U
Cadmium	18	5		**15.5 J+**	**13.9 J-**	**14.7 J-**	**9 J-**	**13.8 J**	**11.6**	**11.7**	**11.8**	5.6 UJ	**17.9 J-**	**1.7 J-**
Calcium	NC	NC		**409,000**	**399,000**	**396,000**	**413,000**	--	**462,000**	**405,000**	**417,000**	**525,000**	**388,000**	--
Chromium	NC	100		10 U	11.1 U	11.1 U	10 U	4 U	4 U	2 U	1 U	11.1 U	**2.2 J+**	4 U
Cobalt	11	NC		**4.3 J**	55.6 UJ	55.6 UJ	50 U	**4 J**	**3.4 J+**	**3.6 J+**	**3.7 J+**	55.6 UJ	**12.2 J+**	**2.2 J**
Copper	1,500	1,300		**1.7 J**	**3.7 J+**	**3.5 J+**	25 UJ	**1.9 J**	**2.4 J**	2 UJ	2 UJ	**15.2 J+**	**2.9 J**	**1.9 J**
Cyanide	730	200		10 U	10 UJ	10 UJ	--	--	--	10 U	10 U	10 U	10 U	**3.2 J**
Iron	26,000	NC		**611**	**1,020**	**452**	**23.4 J**	--	R	100 U	100 U	**7,600**	**185 J**	--
Lead	NC	15		10 U	12.3 UJ	11.1 UJ	**2.8 J**	**0.16 J**	2 UJ	1 U	1 U	**17.4 J+**	10 U	**1 J**
Magnesium	NC	NC		**61,500**	**79,000**	**74,600**	**92,000**	--	**93,400**	**79,600**	**81,000**	**307,000**	**266,000**	--
Manganese	880	NC		**1,020**	**1,070**	**1,040**	**999**	**893**	**788**	**1,010**	**979**	**2,120**	**379**	**371**
Mercury	0.57	2		0.2 U	0.2 U	2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	730	NC		**37.5 J**	**40.2 J**	**39.5 J**	**25.3 J**	**39.6 J**	**33.5 J**	**29 J**	**29.4 J**	**43 J**	**11.6 J**	**13.5 J**
Potassium	NC	NC		**59,000**	**59,300**	**60,100**	**54,100**	--	**56,200 J**	**52,100**	**53,300**	**26,900**	**21,700**	--
Selenium	180	50		35 UJ	38.9 U	38.9 U	35 U	10 U	10 U	**0.72 J**	**0.77 J**	**5.1 J+**	35 U	10 U
Silver	180	NC		10 UJ	11.1 U	11.1 U	10 U	2 U	2 UJ	1 U	1 U	11.1 UJ	10 U	2 U
Sodium	NC	NC		**141,000**	**148,000**	**147,000**	**179,000 J**	--	**154,000**	**147,000**	**148,000**	**173,000**	**262,000 J**	--
Thallium	NC	2		25 U	27.8 U	27.8 U	25 U	2 U	**0.1 J**	1 U	1 U	27.8 U	25 U	2 U
Vanadium	180	NC		50 U	55.6 UJ	55.6 UJ	50 U	10 UJ	**0.09 J-**	5 UJ	5 UJ	**9.6 J-**	50 U	10 UJ
Zinc	11,000	NC		**22,700 J**	**25,700**	**26,600**	**22,900**	**26,500**	**20,000 J**	**25,600**	**25,200**	**1,700**	**4,990**	**557**

Table 4.2.5-3
Detected Groundwater Metals Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID Sample ID Case Sampling date Unit Duplicate info WBZ Filtered info	MW19-0609 ME4F90 38664 6/15/2009 µg/L 2 filtered	MW19-0909 ME4GM1 39115 10/6/2009 µg/L 2 filtered	MW20-0908 ME3XH5 37848 9/17/2008 µg/L 2	MW20-1208 ME4792 38119 12/18/2008 µg/L 2 filtered	MW20-0309 ME47M5 38346 3/19/2009 µg/L 2 filtered	MW20-0609 ME4F91 38664 6/16/2009 µg/L 2 filtered	MW20-0909 ME4GM2 39115 10/8/2009 µg/L 2 filtered	MW21-0908 ME3XH6 37848 9/18/2008 µg/L 1	MW21-1208 ME4793 38119 12/15/2008 µg/L 1 filtered	MW51-1208 ME47A9 38119 12/15/2008 µg/L MW21-1208 1 filtered	MW21-0309 ME47M6 38346 3/24/2009 µg/L 1 filtered
Aluminum	37,000	NC		200 U	200 U	**1,020**	**23 J**	--	200 U	200 U	**146 J-**	200 U	**23.4 J**	--
Antimony	15	6		4 UJ	2 U	**4.1 J**	60 U	2 UJ	2 U	2 U	**13.1 J+**	60 U	60 U	4 UJ
Arsenic	0.045	10		**0.5 J**	**0.57 J**	11.1 U	10 U	**1.1**	**1.4**	**1.2**	R	10 U	10 U	**4.1**
Barium	7,300	2,000		20 UJ	**17.7**	247 U	200 U	**11.7 J**	**11.3 J+**	**10.7**	**25.6 J**	200 U	**30.7 J**	**20.9**
Beryllium	73	4		2 U	2 U	5.6 U	5 U	1 U	1 U	1 U	5.6 U	5 U	5 U	2 U
Cadmium	18	5		**2.3 J-**	**2.3 J-**	5.6 U	5 U	1 UJ	1 UJ	1 UJ	**3 J-**	**7.9 J-**	5 UJ	**0.22 J-**
Calcium	NC	NC		**347,000**	**345,000**	**8,780**	**9,930**	--	**9,120**	**8,650**	**375,000**	**382,000**	**428,000**	--
Chromium	NC	100		4 U	2 U	12.3 U	10 U	**0.028 J-**	2 U	2 U	11.1 U	**1.1 J+**	**4 J+**	4 U
Cobalt	11	NC		**2.5 J+**	**3.1 J+**	55.6 U	50 U	**0.032 J**	1 U	1 UJ	**19.8 J**	**14.2 J+**	**15.6 J+**	**18.1 J**
Copper	1,500	1,300		**3.2 J**	2 UJ	**4.7 J**	25 UJ	**6 J**	**9.6**	**3 J**	27.8 U	25 UJ	**15.2 J**	4 U
Cyanide	730	200		--	10 U	10 U	10 U	**1 J**	10 U	10 U	10 UJ	10 U	10 U	10 U
Iron	26,000	NC		R	100 U	**1,320**	**19.4 J**	--	100 U	100 U	**2,690**	**7,310 J**	**7,720 J**	--
Lead	NC	15		**28.7 J**	1 U	**1.2 J**	**1.7 J**	**0.082 J**	2 UJ	1 U	11.1 UJ	10 U	10 U	**0.074 J**
Magnesium	NC	NC		**254,000**	**235,000**	**3,970 J**	**4,110 J**	--	**4,050 J**	5,000 U	**243,000**	**225,000**	**281,000**	--
Manganese	880	NC		**316**	**439**	**15.1 J**	**6.6 J**	**1.4 J+**	**4.6**	**5.3**	**7,880**	**5,310**	**6,510**	**8,780**
Mercury	0.57	2		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	730	NC		**12.4 J**	**11.8 J**	49.4 U	40 U	**0.45 J**	1 U	**0.27 J**	**11.5 J+**	**9.2 J**	**12 J**	**12.8**
Potassium	NC	NC		**24,500 J**	**24,000**	**5,180 J**	**5,560**	--	**5,620 J**	**4,830 J**	**8,830**	**13,200**	**8,080**	--
Selenium	180	50		10 U	5 U	**3.6 J**	35 U	5 U	5 U	5 U	**2.7 J**	35 U	35 U	10 U
Silver	180	NC		2 UJ	1 U	12.3 U	10 U	1 UJ	1 UJ	1 U	**0.98 J**	10 U	10 U	2 UJ
Sodium	NC	NC		**133,000**	**118,000**	**722,000**	**934,000 J**	--	**738,000**	**779,000**	**255,000**	**228,000 J**	**244,000 J**	--
Thallium	NC	2		**0.11 J**	1 U	27.8 U	25 U	1 UJ	2 U	1 U	27.8 U	25 U	25 U	2 U
Vanadium	180	NC		**0.45 J-**	5 UJ	61.7 U	**2.6 J**	5 UJ	**0.75 J-**	5 UJ	55.6 UJ	50 U	50 U	**0.061 J-**
Zinc	11,000	NC		**689 J**	**743**	**23.5 J**	**66.4**	**8.1**	**6.4 J+**	**4.7**	**527**	**2,830**	**1,640**	**171**

Table 4.2.5-3
Detected Groundwater Metals Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID Sample ID Case Sampling date Unit Duplicate info WBZ Filtered info	MW51-0309 ME47P2 38346 3/24/2009 µg/L MW21-0309 1 filtered	MW21-0609 ME4F92 38664 6/11/2009 µg/L 1 filtered	MW51-0609 ME4FA8 38664 6/11/2009 µg/L MW21-0609 1 filtered	MW21-0909 ME4GM3 39115 10/13/2009 µg/L 1 filtered	MW22-0908 ME3XH7 37848 9/17/2008 µg/L 2	MW22-1208 ME4794 38119 12/17/2008 µg/L 2 filtered	MW22-0309 ME47M7 38346 3/19/2009 µg/L 2 filtered	MW22-0609 ME4F93 38664 6/15/2009 µg/L 2 filtered	MW22-0909 ME4GM4 39115 10/8/2009 µg/L 2 filtered	MW23-0908 ME3XH8 37848 9/22/2008 µg/L 2	MW23-1208 ME4795 38119 12/16/2008 µg/L 2 filtered
Aluminum	37,000	NC		--	200 U	200 U	200 U	**32,700**	200 U	--	200 U	200 U	**5,700**	**29.9 J**
Antimony	15	6		4 UJ	4 UJ	4 UJ	2 U	**2.9 J**	60 U	4 UJ	4 UJ	2 U	66.7 U	60 U
Arsenic	0.045	10		**3.9**	**1.1 J**	**2.2**	**2.4 J**	12.3 U	**4.1 J**	**4.4**	**1.9 J**	**2**	11.1 UJ	10 U
Barium	7,300	2,000		**20.7**	20 UJ	20 UJ	**22.4 J**	247 U	200 U	**15.5 J+**	20 UJ	**14.1**	**44.4 J**	**28 J**
Beryllium	73	4		2 U	2 U	2 U	1 UJ	6.2 U	5 U	**0.061 J**	2 U	1 U	5.6 U	5 U
Cadmium	18	5		**0.24 J-**	**0.15 J-**	**3.2 J-**	2 UJ	6.2 U	5 U	2 U	2 UJ	1 UJ	5.6 UJ	**2.8 J-**
Calcium	NC	NC		--	**404,000**	**453,000**	**367,000**	**36,800**	**14,800**	--	**18,600**	**17,200**	**422,000**	**472,000**
Chromium	NC	100		4 U	4 U	4 U	2 UJ	**51**	10 U	**2 J**	4 U	2 U	11.1 U	**1.2 J+**
Cobalt	11	NC		**18.1 J**	**15.3 J+**	**18.8 J+**	**12.4 J+**	61.7 U	50 U	**1.5 J+**	**0.94 J+**	**1 J+**	55.6 UJ	**8.4 J+**
Copper	1,500	1,300		4 U	**3.5 J**	**2.8 J**	2 UJ	**17.3 J**	25 UJ	**8.1**	**14.4 J**	**3.7 J**	**6.4 J+**	**27.3 J**
Cyanide	730	200		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 U
Iron	26,000	NC		--	**4,980**	**8,320**	**6,600**	**24,600**	**17.8 J**	--	R	100 U	**6,570**	**477 J**
Lead	NC	15		**0.97 J**	2 UJ	2 UJ	1 UJ	**17**	10 U	**0.67 J**	2 UJ	1 U	**17.6 J-**	10 U
Magnesium	NC	NC		--	**286,000**	**240,000**	**240,000**	**18,200**	**10,000**	--	**12,800**	**11,800**	**325,000**	**365,000**
Manganese	880	NC		**8,750**	**7,790**	**7,820**	**7,680 J**	**270**	**8 J**	**12 J+**	**2.9 J+**	**6.1**	**2,130**	**1,740**
Mercury	0.57	2		0.2 U	0.2 U	0.2 U	0.2 U	**0.072 J**	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	730	NC		**12.9**	**12.4 J**	**17.7 J**	**8.8 J+**	**61.4**	40 U	**3**	**1.4 J**	**1.3 J**	**20.2 J+**	**18 J**
Potassium	NC	NC		--	**11,200 J**	**8,300 J**	**9,020**	**21,100**	**10,900**	--	**11,800 J**	**8,920**	**10,400**	**8,370**
Selenium	180	50		10 U	10 U	10 U	**0.62 J**	**7.5 J**	35 U	10 U	10 U	**0.58 J**	38.9 U	35 U
Silver	180	NC		2 UJ	2 UJ	2 UJ	2 U	12.3 U	10 U	2 U	2 UJ	1 U	11.1 U	10 U
Sodium	NC	NC		--	**348,000**	**265,000**	**277,000**	**613,000**	**879,000 J**	--	**861,000**	**881,000**	**108,000**	**110,000 J**
Thallium	NC	2		2 U	2 U	2 U	1 U	27.8 U	25 U	2 U	**0.026 J**	1 U	27.8 U	25 U
Vanadium	180	NC		**0.059 J-**	**0.081 J-**	**0.055 J-**	5 UJ	61.7 U	50 U	**2.5 J-**	**1.1 J-**	5 UJ	55.6 UJ	50 U
Zinc	11,000	NC		**191**	**200 J**	**1,490 J**	**673 J**	**159**	**10.9 J-**	**9.5**	**13.1 J**	**5.1**	**452**	**2,960**

Table 4.2.5-3
Detected Groundwater Metals Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID Sample ID Case Sampling date Unit Duplicate info WBZ Filtered info	MW23-0309 ME47M8 38346 3/24/2009 µg/L 2 filtered	MW23-0609 ME4F94 38664 6/11/2009 µg/L 2 filtered	MW23-0909 ME4GM5 39115 10/8/2009 µg/L 2 filtered	MW24-0908 ME3XH9 37848 9/17/2008 µg/L 1	MW53-0908 ME3XK4 37848 9/17/2008 µg/L MW24-0908 1	MW24-1208 ME4796 38119 12/10/2008 µg/L 1 filtered	MW52-1208 ME47B0 38119 12/10/2008 µg/L MW24-1208 1 filtered	MW24-0309 ME47M9 38346 3/19/2009 µg/L 1 filtered	MW52-0309 ME47P3 38346 3/19/2009 µg/L MW24-0309 1 filtered	MW24-0609 ME4F95 38664 6/16/2009 µg/L 1 filtered	MW52-0609 ME4FA9 38664 6/16/2009 µg/L MW24-0609 1 filtered
Aluminum	37,000	NC		--	200 U	200 U	**3,210**	**3,010**	**3,310**	**3,990**	--	--	200 U	200 U
Antimony	15	6		4 UJ	4 UJ	4 U	**12.5 J-**	**14.1 J-**	60 U	60 U	2 UJ	2 UJ	4 UJ	4 UJ
Arsenic	0.045	10		**0.56 J**	**0.58 J**	**1.1 J**	11.1 UJ	11.1 UJ	10 U	10 U	**1.9**	**2.4**	**3.8**	**3.1**
Barium	7,300	2,000		**9.8 J**	20 UJ	20 UJ	247 U	247 U	200 UJ	200 UJ	**11.2 J**	**10.7 J+**	20 UJ	20 UJ
Beryllium	73	4		**0.13 J**	2 U	1 UJ	6.2 U	6.2 U	**0.89 J**	**0.87 J**	**0.73 J**	**0.6 J**	2 U	**0.044 J**
Cadmium	18	5		**20.1**	**3.5 J-**	**2.8 J-**	**245**	**249**	**320 J**	**334 J**	**313 J**	**305**	**59**	**59**
Calcium	NC	NC		--	**538,000**	**478,000**	**596,000**	**599,000**	**600,000 J**	**594,000 J**	--	--	**706,000**	**690,000**
Chromium	NC	100		4 U	4 U	2 UJ	12.3 U	12.3 U	**3.5 J-**	10 UJ	**0.47 J**	**0.45 J**	4 U	4 U
Cobalt	11	NC		**26.8 J**	**3.3 J+**	**2.4 J+**	61.7 UJ	61.7 UJ	**21.7 J**	**21.3 J**	**12.8 J**	**13.5**	**2.6 J+**	**2.5 J+**
Copper	1,500	1,300		4 U	**1.2 J**	2 UJ	**32.8 J+**	**31.2 J+**	**41.5 J+**	**44.1 J+**	**18.1 J**	**18.9**	**4.6 J**	**3.8 J**
Cyanide	730	200		10 U	10 U	10 U	10 U	10 U	**1.7 J-**	**2.1 J-**	**5.4 J**	10 U	**3 J**	**1.9 J**
Iron	26,000	NC		--	**58.9 J**	**369**	**2,520**	**2,130**	**1,410 J**	**1,670 J**	--	--	R	R
Lead	NC	15		**0.45 J**	2 UJ	1 UJ	**19.4 J+**	**17**	**32.5**	**31.1**	**3.5 J**	**3**	**4.2 J**	**2.4 J**
Magnesium	NC	NC		--	**483,000**	**457,000**	**30,100**	**30,200**	**28,400 J**	**27,000 J**	--	--	**39,300**	**38,800**
Manganese	880	NC		**3,380**	**1,370**	**1,640 J**	**1,850**	**1,880**	**2,080 J**	**1,950 J**	**1,570**	**1,620**	**222**	**212**
Mercury	0.57	2		0.2 U	0.2 U	0.2 U	**0.17 J**	**0.15 J**	0.2 U	0.2 U	**0.077 J-**	0.2 U	0.2 U	0.2 U
Nickel	730	NC		**57.9**	**20.9 J**	**12.6 J+**	**41.2 J**	**41.8 J**	**49.8**	**49.8**	**40.9 J**	**43.6**	**15.5 J**	**15.3**
Potassium	NC	NC		--	**5,560 J**	**5,830**	**5,040 J**	**4,990 J**	**4,420 J**	**4,360 J**	--	--	**10,800 J**	**10,600 J**
Selenium	180	50		10 U	10 U	5 UJ	**244**	**245**	**215**	**222**	**112**	**123**	**188 J+**	**186 J+**
Silver	180	NC		2 UJ	2 UJ	2 U	12.3 U	12.3 U	10 UJ	10 UJ	1 U	1 U	2 UJ	2 UJ
Sodium	NC	NC		--	**78,300**	**69,500**	**31,900**	**31,700**	**31,400**	**31,400**	--	--	**32,200**	**31,600**
Thallium	NC	2		**0.13 J**	**0.18 J**	1 U	27.8 U	27.8 U	25 U	25 U	1 UJ	1 U	**0.14 J**	**0.14 J**
Vanadium	180	NC		**0.14 J-**	**0.15 J-**	5 UJ	61.7 UJ	61.7 UJ	50 U	50 U	5 UJ	**0.057 J-**	**0.21 J-**	**0.18 J-**
Zinc	11,000	NC		**10,800**	**732 J**	**891 J**	**48,200**	**47,600**	**47,800 J**	**49,600 J**	**35,900**	**49,100**	**2,610 J**	**2,650 J**

Table 4.2.5-3
Detected Groundwater Metals Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID Sample ID Case Sampling date Unit Duplicate info WBZ Filtered info	MW24-0909 ME4GM6 39115 10/13/2009 µg/L 1 filtered	MW54-0909 ME4GP2 39115 10/13/2009 µg/L MW24-0909 1 filtered	MW25-0908 ME3XJ0 37848 9/17/2008 µg/L 1	MW25-1208 ME4797 38119 12/10/2008 µg/L 1 filtered	MW25-0309 ME47N0 38346 3/26/2009 µg/L 1 filtered	MW25-0609 ME4F96 38664 6/11/2009 µg/L 1 filtered	MW25-0909 ME4GM7 39115 10/13/2009 µg/L 1 filtered	MW26-0908 ME3XJ1 37848 9/17/2008 µg/L 1	MW26-0309 ME47N1 38346 3/24/2009 µg/L 1 filtered	MW27-0908 ME3XJ2 37848 9/24/2008 µg/L 1	MW27-0309 ME47N2 38346 3/17/2009 µg/L 1 filtered
Aluminum	37,000	NC		**406**	**315**	**6,140**	200 U	--	R	200 U	**628**	--	222 U	--
Antimony	15	6		4 U	4 U	**15.7 J-**	60 U	4 UJ	4 UJ	2 U	**8.9 J-**	2 UJ	66.7 U	2 UJ
Arsenic	0.045	10		**2.1 J**	**1.6 J**	12.3 UJ	**5 J+**	**3.2**	**4.6**	**5.3**	11.1 UJ	**0.16 J**	11.1 U	1 U
Barium	7,300	2,000		20 UJ	20 UJ	247 U	200 UJ	**10.8 J**	20 UJ	**14.9**	247 U	**16.8**	222 U	**19.3 J**
Beryllium	73	4		**0.19 J-**	**0.15 J-**	6.2 U	**0.2 J-**	**0.092 J**	**0.18 J**	**0.11 J**	6.2 U	**0.099 J**	5.6 U	**0.052 J**
Cadmium	18	5		**390**	**369 J**	**83.2**	**45 J**	**54.5**	**57.5**	**39.2**	**54.3**	**14.8**	**106**	**90.1 J**
Calcium	NC	NC		**584,000**	**579,000**	**522,000**	**508,000 J**	--	**583,000**	**503,000**	**703,000**	--	**223,000**	--
Chromium	NC	100		2 UJ	2 UJ	12.3 U	10 UJ	4 U	4 U	2 U	12.3 U	**0.48 J**	11.1 U	**0.065 J-**
Cobalt	11	NC		**17.9 J**	**17.7 J**	**559**	**453**	**465 J**	**455**	**479**	61.7 UJ	**5.3 J**	55.6 U	**0.67 J**
Copper	1,500	1,300		**4.1 J-**	**3.9 J-**	**27.3 J+**	**4.5 J+**	4 U	**2.6 J**	2 UJ	**6.9 J+**	**4.6**	**22.5 J**	**19.7 J**
Cyanide	730	200		10 U	10 U	10 U	**21.5**	10 U	**1.7 J**	10 U	10 U	10 U	10 U	**1.6 J**
Iron	26,000	NC		**1,120**	**904**	**25,200**	**20,600 J**	--	**21,500**	**23,600**	**149**	--	111 U	--
Lead	NC	15		**1.2 J**	**1.2 J**	**133**	**42.9**	**36.8**	**31.9 J**	**44.2**	**2.6 J+**	**0.77 J**	**35**	**21.2**
Magnesium	NC	NC		**28,900**	**28,600**	**193,000**	**186,000 J**	--	**203,000**	**191,000**	**87,300**	--	**21,400**	--
Manganese	880	NC		**1,750 J**	**1,740 J**	**40,100**	**40,300 J**	**41,300**	**40,500**	**41,900**	**1,440**	**628**	**21.4**	**7.7 J+**
Mercury	0.57	2		0.2 U	0.2 U	**0.38**	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	730	NC		**41.6 J+**	**39.7 J+**	**519**	**349**	**404**	**397 J**	**421**	**261**	**57.3**	**33.1 J**	**27.6 J**
Potassium	NC	NC		**6,750**	**6,730**	**9,510**	**6,530**	--	**5,990 J**	**5,990**	**4,640 J**	--	**6,820**	--
Selenium	180	50		**119 J**	**117 J**	38.9 U	35 UJ	10 U	10 U	**4.8 J**	38.9 U	5 U	**16 J+**	**15.7**
Silver	180	NC		2 U	1 UJ	12.3 U	10 UJ	2 UJ	2 UJ	**0.048 J-**	12.3 U	1 UJ	11.1 UJ	1 U
Sodium	NC	NC		**40,500**	**40,700**	**76,300**	**70,400**	--	**69,900**	**61,300**	**13,600**	--	**33,100**	--
Thallium	NC	2		**0.036 J-**	1 U	27.8 U	25 U	**0.1 J**	**0.13 J**	1 UJ	27.8 U	**0.026 J**	27.8 U	1 U
Vanadium	180	NC		5 UJ	5 UJ	61.7 UJ	50 U	10 UJ	**0.095 J-**	5 UJ	61.7 UJ	**0.22 J**	55.6 U	5 UJ
Zinc	11,000	NC		**75,700**	**74,900**	**87,300**	**83,400 J**	**83,600**	**80,500 J**	**88,200**	**8,450**	**792**	**17,000**	**14,100**

Table 4.2.5-3
Detected Groundwater Metals Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID Sample ID Case Sampling date Unit Duplicate info WBZ Filtered info	MW28-0908 ME3XJ3 37848 9/18/2008 µg/L 2	MW28-1208 ME47A0 38119 12/10/2008 µg/L 2 filtered	MW28-0309 ME47N3 38346 3/17/2009 µg/L 2 filtered	MW28-0609 ME4F99 38664 6/9/2009 µg/L 2 filtered	MW28-0909 ME4GN0 39115 10/9/2009 µg/L 2 filtered	MW29-0908 ME3XJ4 37848 9/16/2008 µg/L 1	MW29-1208 ME47A1 38119 12/16/2008 µg/L 1 filtered	MW29-0309 ME47N4 38346 3/25/2009 µg/L 1 filtered	MW29-0609 ME4FA0 38664 6/9/2009 µg/L 1 filtered	MW29-0909 ME4GN1 39115 10/7/2009 µg/L 1 filtered	MW30-0908 ME3XJ5 37848 9/16/2008 µg/L 1
Aluminum	37,000	NC		**4,090**	200 U	--	200 U	200 U	**3,670**	**35.1 J**	--	200 U	200 U	247 U
Antimony	15	6		**14.5 J+**	60 U	4 UJ	2 UJ	4 U	**3.2 J**	60 U	2 UJ	2 UJ	2 U	**2.3 J**
Arsenic	0.045	10		11.1 UJ	10 U	2 U	**0.46 J**	1 UJ	11.1 U	10 U	**0.24 J**	**0.73 J**	**0.52 J**	11.1 U
Barium	7,300	2,000		**55.1 J**	200 UJ	**21.8 J**	**16.9**	20 UJ	247 U	**47.7 J**	**23.1**	**16.2**	**21.1**	247 U
Beryllium	73	4		5.6 U	5 U	2 U	1 U	1 UJ	5.6 U	5 U	1 U	**0.031 J**	1 U	5.6 U
Cadmium	18	5		**0.99 J-**	5 UJ	**0.26 J-**	**0.2 J**	2 UJ	**15.8**	**0.62 J-**	**0.38 J-**	**0.57 J**	1 UJ	6.2 U
Calcium	NC	NC		**500,000**	**392,000 J**	--	**443,000**	**403,000**	**173,000**	**275,000**	--	**287,000**	**267,000**	**211,000**
Chromium	NC	100		**8.3 J+**	10 UJ	4 U	2 UJ	2 UJ	12.3 U	**1.5 J+**	**0.027 J-**	**0.15 J**	2 U	12.3 U
Cobalt	11	NC		**49.5 J**	**13.4 J**	**2.5 J**	**2.5 J+**	**1.4 J+**	61.7 U	50 U	**2.3 J**	**5.3 J+**	**5.3 J+**	61.7 U
Copper	1,500	1,300		**14.7 J+**	**2 J+**	**1.5 J**	**1.8 J**	2 UJ	**4.7 J**	**48.5 J**	2 U	**1.1 J**	2 UJ	27.8 U
Cyanide	730	200		--	10 U	10 U	**1.3 J**	10 U	10 U	10 U	10 U	10 U	**6.3 J-**	10 U
Iron	26,000	NC		**7,110**	**240 J**	--	R	100 U	**3,980**	**467 J**	--	**997**	**1,360**	123 U
Lead	NC	15		**27.4 J-**	10 U	**0.18 J**	1 UJ	1 UJ	**6.5 J**	10 U	**0.072 J**	2 U	1 U	**2.3 J**
Magnesium	NC	NC		**316,000**	**286,000 J**	--	**330,000**	**334,000**	**34,100**	**49,700**	--	**61,400**	**53,500**	**30,500**
Manganese	880	NC		**983**	**372 J**	**32.9 J+**	**52 J+**	**39.5 J**	**2,700**	**5,770**	**3,480**	**6,350 J**	**6,660**	**273**
Mercury	0.57	2		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**0.057 J-**	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	730	NC		**66.5**	**13.4 J-**	**15.1 J**	**14.7 J**	**8.5 J+**	**14 J**	**8.2 J**	**6.5**	**10**	**8.5 J**	**3.1 J**
Potassium	NC	NC		**50,900**	**31,600**	--	**32,400 J**	**29,600**	**8,650**	**10,000**	--	**8,640 J**	**9,580**	**16,900**
Selenium	180	50		**2.7 J**	35 UJ	**46.1**	**24.4 J**	**8.2 J**	**4.9 J**	35 U	5 U	5 U	**1.2 J**	**11.2 J**
Silver	180	NC		11.1 U	10 UJ	2 U	1 UJ	2 U	12.3 U	10 U	1 UJ	1 UJ	1 U	12.3 U
Sodium	NC	NC		**201,000**	**117,000**	--	**157,000**	**183,000**	**32,000**	**59,000 J**	--	**65,300**	**65,400**	**25,400**
Thallium	NC	2		27.8 U	25 U	2 U	**0.043 J**	1 U	27.8 U	25 U	**0.022 J**	**0.038 J**	1 U	27.8 U
Vanadium	180	NC		**7.4 J**	50 U	10 UJ	**0.31 J-**	5 UJ	61.7 U	50 U	**0.077 J-**	**0.1 J-**	5 UJ	55.6 U
Zinc	11,000	NC		**234**	60 UJ	**36.7**	**30.1 J**	**49.9 J**	**3,400**	**841**	**439**	**563 J**	**428**	**689**

Table 4.2.5-3
Detected Groundwater Metals Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID Sample ID Case Sampling date Unit Duplicate info WBZ Filtered info	MW30-1208 ME47A2 38119 12/12/2008 µg/L 1 filtered	MW30-0309 ME47N5 38346 3/26/2009 µg/L 1 filtered	MW30-0609 ME4FA1 38664 6/9/2009 µg/L 1 filtered	MW30-0909 ME4GN2 39115 10/7/2009 µg/L 1 filtered	MW31-0908 ME3XJ6 37848 9/16/2008 µg/L 1	MW31-1208 ME47A3 38119 12/11/2008 µg/L 1 filtered	MW31-0309 ME47N6 38346 3/18/2009 µg/L 1 filtered	MW31-0609 ME4FA2 38664 6/17/2009 µg/L 1 filtered	MW31-0909 ME4GN3 39115 10/7/2009 µg/L 1 filtered	MW32-0908 ME3XJ7 37848 9/24/2008 µg/L 2	MW32-1208 ME47A4 38119 12/17/2008 µg/L 2 filtered
Aluminum	37,000	NC		**11.1 J-**	--	200 U	200 U	222 U	200 U	--	R	200 U	**990**	200 U
Antimony	15	6		60 U	2 UJ	2 UJ	2 U	**20 J-**	**8.6 J**	2 UJ	2 U	2 U	66.7 U	60 U
Arsenic	0.045	10		10 U	**0.18 J**	**0.28 J**	**0.25 J**	11.1 UJ	10 U	**2.6**	**2.2**	**1.1 J**	11.1 U	10 U
Barium	7,300	2,000		**25.2 J**	**21.6**	**18.2**	**19.3**	247 U	200 UJ	**16.8 J**	**16.5 J**	**17.7**	**33.1 J**	200 U
Beryllium	73	4		5 U	1 U	1 U	1 U	5.6 U	5 U	**0.13 J**	**0.084 J**	**0.083 J**	5.6 U	5 U
Cadmium	18	5		**0.62 J-**	**1.4 J-**	**1.4**	**1.8 J-**	**439**	**153 J**	**430 J**	**247**	**148**	5.6 UJ	5 U
Calcium	NC	NC		**218,000 J**	--	**202,000**	**207,000**	**549,000**	**498,000 J**	--	**493,000**	**479,000**	**160,000**	**154,000**
Chromium	NC	100		10 U	**0.095 J-**	2 U	2 U	11.1 U	10 UJ	**0.25 J**	2 U	4 U	11.1 U	**0.92 J**
Cobalt	11	NC		**1.1 J**	**1.5 J**	**1.2 J+**	**1.1 J+**	61.7 UJ	**27.7 J**	**8.6 J**	**3.3 J+**	**15.5 J+**	55.6 U	50 U
Copper	1,500	1,300		**3.5 J**	2 U	**0.97 J**	2 UJ	**30.3 J+**	**178 J**	**24.2 J**	**60.1 J**	**115 J**	**4.5 J**	25 UJ
Cyanide	730	200		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	**4.8 J-**	10 UJ	10 U
Iron	26,000	NC		100 UJ	--	R	100 U	123 U	**2,490 J**	--	R	**4,430**	**1,030**	**16.4 J**
Lead	NC	15		**4.3 J**	**0.15 J**	2 U	1 U	**164**	**70.9**	**159**	**40.5 J**	**38.8**	11.1 U	10 U
Magnesium	NC	NC		**34,300 J**	--	**33,200**	**30,400**	**75,400**	**73,300 J**	--	**68,100**	**62,400**	**103,000**	**101,000**
Manganese	880	NC		**293 J**	**43.3 J+**	**59.7 J+**	**99.3**	**343**	**1,720 J**	**478**	**88.5 J+**	**829**	**74.2**	**34.7**
Mercury	0.57	2		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	730	NC		**2.3 J**	**4.7**	**6.1**	**5.2 J**	**93.6**	**77.3**	**105 J**	**77.3 J**	**69.2 J**	**8.5 J**	40 U
Potassium	NC	NC		**19,800**	--	**14,700 J**	**16,400**	**15,700**	**22,500**	--	**13,700 J**	**21,800**	**7,750**	**6,460**
Selenium	180	50		**4.9 J**	**6.8**	5 U	**1.6 J**	**31.1 J+**	35 UJ	**31.2**	**26.5 J+**	**6.3 J**	**3.3 J-**	35 U
Silver	180	NC		10 UJ	1 UJ	1 UJ	1 U	12.3 U	10 UJ	**0.049 J**	1 UJ	1 U	11.1 U	10 U
Sodium	NC	NC		**31,500**	--	**29,800**	**29,100**	**35,600**	**54,700**	--	**50,000**	**47,600**	**75,700**	**79,100 J**
Thallium	NC	2		25 U	**0.021 J**	2 U	1 U	27.8 U	25 U	1 U	1 U	1 U	27.8 U	25 U
Vanadium	180	NC		50 U	**0.18 J**	**0.22 J-**	5 UJ	61.7 UJ	50 U	5 UJ	**0.32 J-**	10 UJ	55.6 U	**2.9 J**
Zinc	11,000	NC		**216 J**	**381**	**565 J**	**842**	**113,000**	**131,000 J**	**143,000**	**98,600 J**	**104,000**	**329**	**121**

Table 4.2.5-3
Detected Groundwater Metals Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID Sample ID Case Sampling date Unit Duplicate info WBZ Filtered info MW32-0309 ME47N7 38346 3/25/2009 µg/L 2 filtered
Aluminum	37,000	NC	--
Antimony	15	6	2 UJ
Arsenic	0.045	10	**0.12 J**
Barium	7,300	2,000	**15.3**
Beryllium	73	4	1 U
Cadmium	18	5	**0.38 J-**
Calcium	NC	NC	--
Chromium	NC	100	2 U
Cobalt	11	NC	**0.43 J**
Copper	1,500	1,300	2 U
Cyanide	730	200	10 U
Iron	26,000	NC	--
Lead	NC	15	**0.11 J**
Magnesium	NC	NC	--
Manganese	880	NC	**29.3 J+**
Mercury	0.57	2	0.2 U
Nickel	730	NC	**4.8**
Potassium	NC	NC	--
Selenium	180	50	5 U
Silver	180	NC	1 UJ
Sodium	NC	NC	--
Thallium	NC	2	**0.0089 J**
Vanadium	180	NC	**0.08 J-**
Zinc	11,000	NC	**110**

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.5-3

Notes:
Bold values indicate a detection
Yellow shaded cells indicate a Tapwater exceedance
Orange shaded cells indicate an MCL exceedance
Red shaded cells indicate an exceedance of both Tapwater and MCL

--	No data available
µg/L	Microgram per liter
ID	Identification
J	Estimated result
J-	Underestimated result
J+	Overestimated result
MCL	Maximum contaminant level (EPA)
MW	Monitoring well
NC	No criteria available
R	Rejected result
RSL	Regional Screening Level (EPA)
U	Non-detect result
UJ	Non-detected and estimated result
WBZ	Water bearing zone

Table 4.2.5-4
Detected Groundwater VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID Sample ID Case Sampling date Unit Duplicate info WBZ	MW01 E3M99 37288 3/17/2008 µg/L 1	MW02D-0609 E4F69 38664 6/10/2009 µg/L 2	MW02S E3MA0 37288 3/18/2008 µg/L 1	MW03 E3MA2 37288 3/19/2008 µg/L 1	MW04 E3M51 37006 11/15/2007 µg/L 1	MW04 E3MA3 37288 3/16/2008 µg/L 1	MW04 E3P04 37600 6/19/2008 µg/L 1	MW04-0908 E3XF9 37848 9/17/2008 µg/L 1	MW04-1208 E4776 38119 12/12/2008 µg/L 1	MW04-0309 E47K6 38346 3/19/2009 µg/L 1	MW04-0609 E4F72 38664 6/10/2009 µg/L 1
1,1,2-Trichloroethane	0.24	5		5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	2.4	NC		5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	340	7		5 U	0.5 U	5 U	5 U	5 U	5 U	**3.8 J**	5 U	0.5 U	**1.2**	**2.5**
1,2,4-Trichlorobenzene	2.3	70		5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	0.39	5		5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
1,3-Dichlorobenzene	0.43	75		5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
Acetone	22,000	NC		10 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	5 U	5 U	5 U
Benzene	0.41	5		5 U	0.5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	0.12	NC		5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
Carbon Disulfide	1,000	NC		5 U	**0.19 J**	5 U	5 U	5 U	5 U	5 UJ	5 U	0.5 U	0.5 U	0.5 U
Chloroform	0.19	NC		5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
Chloromethane	190	NC		5 U	0.5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	370	70		5 U	0.5 U	5 U	5 U	**42**	**240**	**130**	**21**	**110**	**49**	**120**
Ethylbenzene	1.5	700		5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene	680	NC		5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
m,p-Xylene	1,200	NC		5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
Methylcyclohexane	13,000	NC		5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
Methylene chloride	4.8	5		5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
o-Xylene	1200	NC		5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethene	0.11	5		5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U
Toluene	2,300	1,000		**1.1 J**	0.5 U	**1.6 J**	**0.81 J**	5 U	**3.8 J**	5 U	5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	110	100		5 U	0.5 U	5 U	5 U	**11**	**55**	**32**	**4.1 J**	**14**	**8.5**	**25**
Trichloroethene	2	5		5 U	0.5 U	5 U	5 U	**56**	**230**	**150**	**26**	**78**	**55**	**140**
Vinyl chloride	0.016	2		5 U	0.5 U	5 UJ	5 U	5 U	**18**	**8.1**	5 UJ	**4**	**4.1**	**11**

Table 4.2.5-4
Detected Groundwater VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	Location ID Sample ID Case Sampling date Unit Duplicate info WBZ MCL (µg/L)	MW04-0909 E4GK6 39115 10/8/2009 µg/L 2	MW05 E3MA4 37288 3/14/2008 µg/L 2	MW05-0909 E4GK7 39115 10/9/2009 µg/L 1	MW06 E3MA5 37288 3/13/2008 µg/L 1	MW07 E3M54 37006 11/14/2007 µg/L 1	MW07 E3MA6 37288 3/12/2008 µg/L 1	MW07-0909 E4GK9 39115 10/12/2009 µg/L 1	MW51-0909 E4GN9 39115 10/12/2009 µg/L MW07-0909 1	MW10 E3M57 37006 11/15/2007 µg/L 1	MW10 E3MA8 37288 3/13/2008 µg/L 1
1,1,2-Trichloroethane	0.24	5	1 U	5 U	0.5 U	5 U	5 U	5 U	0.5 U	0.5 U	5 U	5 U
1,1-Dichloroethane	2.4	NC	1 U	5 U	0.5 U	5 U	**0.32 J**	5 U	**0.18 J**	**0.18 J**	5 U	5 U
1,1-Dichloroethene	340	7	**3.1**	5 U	0.5 U	5 U	5 U	5 U	0.5 U	0.5 U	5 U	5 U
1,2,4-Trichlorobenzene	2.3	70	1 U	5 U	0.5 U	5 U	5 U	5 U	0.5 U	0.5 U	5 U	5 U
1,2-Dichloropropane	0.39	5	1 U	5 U	0.5 U	5 U	5 U	5 U	0.5 U	0.5 U	5 U	5 U
1,3-Dichlorobenzene	0.43	75	1 U	5 U	0.5 U	5 U	5 U	5 U	0.5 U	0.5 U	5 U	5 U
Acetone	22,000	NC	10 U	10 U	5 U	10 U	10 U	10 U	5 U	5 U	**5.7 J**	29 U
Benzene	0.41	5	1 U	5 U	0.5 U	5 U	5 UJ	5 U	0.5 U	0.5 U	5 UJ	**1.7 J**
Bromodichloromethane	0.12	NC	1 U	5 U	0.5 U	5 U	5 U	5 U	0.5 U	0.5 U	5 U	5 U
Carbon Disulfide	1,000	NC	1 U	5 U	0.5 U	5 U	5 U	5 U	0.5 U	0.5 U	5 U	5 U
Chloroform	0.19	NC	1 U	5 U	0.5 U	5 U	5 U	5 U	0.5 U	0.5 U	5 U	5 U
Chloromethane	190	NC	1 U	5 U	**0.14 J**	5 U	5 U	5 U	0.5 U	0.5 U	5 U	5 U
cis-1,2-Dichloroethene	370	70	**150**	5 U	0.5 U	5 U	5 U	5 U	**0.49 J**	**0.53**	5 U	5 U
Ethylbenzene	1.5	700	1 U	5 U	0.5 U	5 U	5 U	5 U	0.5 U	0.5 U	5 U	**36**
Isopropylbenzene	680	NC	1 U	5 U	0.5 U	5 U	5 U	5 U	0.5 U	0.5 U	5 U	5 U
m,p-Xylene	1,200	NC	1 U	5 U	0.5 U	5 U	5 U	5 U	0.5 U	0.5 U	5 U	**14**
Methylcyclohexane	13,000	NC	1 U	5 U	0.5 U	5 U	5 U	5 U	0.5 U	0.5 U	5 U	5 U
Methylene chloride	4.8	5	1 U	5 U	0.5 U	5 U	5 U	5 U	0.5 U	0.5 U	5 U	5 U
o-Xylene	1200	NC	1 U	5 U	0.5 U	5 U	5 U	5 U	0.5 U	0.5 U	5 U	**23**
Tetrachloroethene	0.11	5	1 U	5 U	0.5 U	5 U	5 U	5 U	0.5 U	0.5 U	5 U	5 U
Toluene	2,300	1,000	1 U	**1.1 J**	0.5 U	**0.83 J**	5 U	**4.4 J**	0.5 U	0.5 U	5 U	**2.6 J**
trans-1,2-Dichloroethene	110	100	**26**	5 U	0.5 U	5 U	5 U	5 U	0.5 U	0.5 U	5 U	5 U
Trichloroethene	2	5	**170**	5 U	0.5 U	5 U	5 U	5 U	0.5 U	**0.14 J**	5 U	5 U
Vinyl chloride	0.016	2	**11**	5 U	0.5 U	5 U	5 U	5 U	0.5 U	0.5 U	5 U	5 U

Table 4.2.5-4
Detected Groundwater VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	Location ID Sample ID Case Sampling date Unit Duplicate info WBZ MCL (µg/L)	MW10 E3P10 37600 6/17/2008 µg/L 1	MW10-0908 E3XG5 37848 9/17/2008 µg/L 1	MW10-1208 E4782 38119 12/9/2008 µg/L 1	MW10-0309 E47L2 38346 3/23/2009 µg/L 1	MW10-0609 E4F78 38664 6/9/2009 µg/L 1	MW10-0909 E4GL2 39115 10/6/2009 µg/L 1	MW11 E3MA9 37288 3/16/2008 µg/L 1	MW12 E3MB0 37288 3/13/2008 µg/L 1	MW13 E3MB1 37288 3/16/2008 µg/L 2	MW14 E3MB2 37288 3/14/2008 µg/L 2	MW15 E3M62 37006 11/14/2007 µg/L 1
1,1,2-Trichloroethane	0.24	5	5 U	5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	2.4	NC	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene	340	7	5 UJ	5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U
1,2,4-Trichlorobenzene	2.3	70	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane	0.39	5	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	**0.28 J**
1,3-Dichlorobenzene	0.43	75	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U
Acetone	22,000	NC	10 U	10 U	5 U	5 U	5 U	5 U	10 U	10 U	10 U	10 U	10 U
Benzene	0.41	5	5 U	5 U	0.5 U	**0.31 J**	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 UJ
Bromodichloromethane	0.12	NC	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U
Carbon Disulfide	1,000	NC	5 UJ	5 U	0.5 U	0.5 U	**0.18 J**	**0.16 J**	5 U	5 U	5 U	5 U	5 U
Chloroform	0.19	NC	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U
Chloromethane	190	NC	5 UJ	5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	370	70	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	1.5	700	**9**	**7.6**	**6.4**	**9.3**	**10**	**6.2**	5 U	5 U	5 U	5 U	5 U
Isopropylbenzene	680	NC	**4.3 J**	**3.4 J**	**3.3**	**4.9**	**5.6**	**3.4**	5 U	5 U	5 U	5 U	5 U
m,p-Xylene	1,200	NC	**3.3 J**	**2.2 J**	**2**	**3.2**	**3.7**	**1.7**	5 U	5 U	5 U	5 U	5 U
Methylcyclohexane	13,000	NC	5 U	5 U	0.5 U	0.5 U	0.5 U	**0.25 J**	5 U	5 U	5 U	5 U	5 U
Methylene chloride	4.8	5	5 UJ	5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U
o-Xylene	1200	NC	**3.6 J**	**2.7 J**	**3.9**	**6.8**	**6.6**	**3.8**	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	0.11	5	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U
Toluene	2,300	1,000	5 U	5 U	**0.17 J**	**0.27 J**	**0.28 J**	**0.2 J**	**0.86 J**	**0.91 J**	**0.99 J**	**1.7 J**	5 U
trans-1,2-Dichloroethene	110	100	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U
Trichloroethene	2	5	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	**0.91 J**	5 U	5 U
Vinyl chloride	0.016	2	5 U	5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U

Table 4.2.5-4
Detected Groundwater VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	MW50 E3MB7 37288 3/17/2008 µg/L MW15 1	MW15-0909 E4GL7 39115 10/12/2009 µg/L 1	MW18 E3MB6 37288 3/12/2008 µg/L 2	MW19-1208 E4791 38119 12/15/2008 µg/L 2	MW20-0909 E4GM2 39115 10/8/2009 µg/L 1	MW21-1208 E4793 38119 12/15/2008 µg/L 1	MW22-1208 E4794 38119 12/17/2008 µg/L 2	MW22-0609 E4F93 38664 6/15/2009 µg/L 2	MW22-0909 E4GM4 39115 10/8/2009 µg/L 2	MW23-1208 E4795 38119 12/16/2008 µg/L 2	MW54-1208 E47B2 38119 12/16/2008 µg/L MW23-1208 2
1,1,2-Trichloroethane	0.24	5	5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	2.4	NC	5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	340	7	5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trichlorobenzene	2.3	70	**0.93 J**	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	0.39	5	5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichlorobenzene	0.43	75	**0.32 J**	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Acetone	22,000	NC	10 U	5 U	**6 J**	**5.9**	5 U	**5.5**	5 U	5 U	5 U	**5.7**	5 U
Benzene	0.41	5	5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	0.12	NC	5 U	0.5 U	5 U	**0.15 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Disulfide	1,000	NC	5 U	0.5 U	5 U	**0.28 J**	0.5 U	0.5 U	0.5 U	0.5 U	**0.26 J**	0.5 U	0.5 U
Chloroform	0.19	NC	5 U	0.5 U	5 U	**0.29 J**	0.5 U	0.5 U	**0.44 J**	0.5 U	0.5 U	0.5 U	0.5 U
Chloromethane	190	NC	5 U	0.5 U	5 U	0.5 U	**0.18 J**	0.5 U	0.5 U	0.5 U	**0.13 J**	0.5 U	**0.26 J**
cis-1,2-Dichloroethene	370	70	5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	1.5	700	5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene	680	NC	5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
m,p-Xylene	1,200	NC	5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylcyclohexane	13,000	NC	5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene chloride	4.8	5	5 U	0.5 U	5 U	1 U	0.5 U	1 U	1 U	**0.13 J**	0.5 U	1 U	1 U
o-Xylene	1200	NC	5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethene	0.11	5	5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	2,300	1,000	5 U	0.5 U	**1.3 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	110	100	5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	2	5	5 U	**0.12 J**	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl chloride	0.016	2	5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Table 4.2.5-4
Detected Groundwater VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	MW24-0609 E4F95 38664 6/16/2009 µg/L 1	MW29-1208 E47A1 38119 12/16/2008 µg/L 1	MW30-0908 E3XJ5 37848 9/16/2008 µg/L 1	MW30-1208 E47A2 38119 12/12/2008 µg/L 1	MW30-0309 E47N5 38346 3/26/2009 µg/L 1	MW30-0609 E4FA1 38664 6/9/2009 µg/L 1	MW30-0909 E4GN2 39115 10/7/2009 µg/L 1	MW31-1208 E47A3 38119 12/11/2008 µg/L 1	MW31-0309 E47N6 38346 3/18/2009 µg/L 1	MW31-0609 E4FA2 38664 6/17/2009 µg/L 1	MW31-0909 E4GN3 39115 10/7/2009 µg/L 2
1,1,2-Trichloroethane	0.24	5	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	2.4	NC	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	340	7	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trichlorobenzene	2.3	70	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	0.39	5	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichlorobenzene	0.43	75	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Acetone	22,000	NC	5 U	**6.6**	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzene	0.41	5	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	0.12	NC	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Disulfide	1,000	NC	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	0.19	NC	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloromethane	190	NC	**0.29 J**	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	370	70	0.5 U	0.5 U	**13**	**19**	**16**	**18**	**22**	**0.72**	**0.81**	**0.96**	**0.7**
Ethylbenzene	1.5	700	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene	680	NC	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
m,p-Xylene	1,200	NC	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylcyclohexane	13,000	NC	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene chloride	4.8	5	0.5 U	1 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
o-Xylene	1200	NC	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethene	0.11	5	0.5 U	0.5 U	5 U	**0.24 J**	**0.5**	**0.38 J**	**0.28 J**	**0.12 J**	0.5 U	0.5 U	0.5 U
Toluene	2,300	1,000	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	110	100	0.5 U	0.5 U	5 U	**0.24 J**	**0.28 J**	**0.42 J**	**0.39 J**	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	2	5	0.5 U	0.5 U	**93**	**29**	**45**	**53**	**45**	**0.73**	**0.81 J**	**1.2**	**0.76**
Vinyl chloride	0.016	2	0.5 U	0.5 U	5 UJ	0.5 U	**1.1**	**1.6**	**2.3**	0.5 U	0.5 U	0.5 U	0.5 U

Table 4.2.5-4
Detected Groundwater VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	MW33-0908 E3XJ8 37848 9/24/2008 µg/L 2	MW33-1208 E47A5 38119 12/17/2008 µg/L 2	MW33-0609 E4FA4 38664 6/11/2009 µg/L 2	MW33-0909 E4GN5 39115 10/12/2009 µg/L 2	MW34-1208 E47A6 38119 12/11/2008 µg/L 2
1,1,2-Trichloroethane	0.24	5	5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	2.4	NC	5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	340	7	5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trichlorobenzene	2.3	70	5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	0.39	5	5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichlorobenzene	0.43	75	5 U	0.5 U	0.5 U	0.5 U	0.5 U
Acetone	22,000	NC	10 U	5 U	5 U	**13**	5 U
Benzene	0.41	5	5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	0.12	NC	5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Disulfide	1,000	NC	5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	0.19	NC	5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloromethane	190	NC	5 U	0.5 U	0.5 U	**0.12 J**	**0.15 J**
cis-1,2-Dichloroethene	370	70	5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	1.5	700	5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene	680	NC	5 U	0.5 U	0.5 U	0.5 U	0.5 U
m,p-Xylene	1,200	NC	5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylcyclohexane	13,000	NC	5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene chloride	4.8	5	5 U	0.5 U	0.5 U	0.5 U	0.5 U
o-Xylene	1200	NC	5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethene	0.11	5	5 U	**0.28 J**	**0.57**	**0.21 J**	0.5 U
Toluene	2,300	1,000	5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	110	100	5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	2	5	**2.6 J**	**1.5**	**1.5**	**0.97**	0.5 U
Vinyl chloride	0.016	2	5 U	0.5 U	0.5 U	0.5 U	0.5 U

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.5-3

Notes:
Bold values indicate a detection
Yellow shaded cells indicate a Tapwater exceedance
Orange shaded cells indicate an MCL exceedance
Red shaded cells indicate an exceedance of both Tapwater and MCL

--	No data available
µg/L	Microgram per liter
ID	Identification
J	Estimated result
J-	Underestimated result
J+	Overestimated result
MCL	Maximum contaminant level (EPA)
MW	Monitoring well
NC	No criteria available
R	Rejected result
RSL	Regional Screening Level (EPA)
U	Non-detect result
UJ	Non-detected and estimated result
WBZ	Water bearing zone

Table 4.2.5-5
Detected Groundwater SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID Sample ID Case Sampling date Unit Duplicate info WBZ	MW01-0909 E4GK2 39115 10/6/2009 µg/L 1	MW02D-1208 E4774 38119 12/8/2008 µg/L 2	MW02D-0309 E47K3 38346 3/23/2009 µg/L 2	MW02D-0609 E4F69 38664 6/10/2009 µg/L 2	MW02S E3MA0 37288 3/18/2008 µg/L 1	MW02S-0908 E3XF6 37848 9/22/2008 µg/L 1	MW02S-1208 E4773 38119 12/9/2008 µg/L 1	MW02S-0609 E4F68 38664 6/10/2009 µg/L 1
1,1'-Biphenyl	1,800	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Methylnaphthalene	150	NC		0.1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Methylphenol	1,800	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methylphenol	180	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acenaphthene	2,200	NC		0.1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acenaphthylene	2,200	NC		0.1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetophenone	3,700	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Anthracene	11,000	NC		0.1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(a)anthracene	0.029	NC		0.1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(a)pyrene	0.0029	0.2		0.1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(b)fluoranthene	0.029	NC		0.1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(g,h,I)perylene	0.029	NC		0.1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(k)fluoranthene	0.29	NC		0.1 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U
Bis(2-ethylhexyl)phthalate	4.8	6		25 U	**0.67 J**	**1.3 J**	**0.6 J**	**8.6**	5 U	**0.49 J**	5 U
Butylbenzylphthalate	35	NC		5 U	5 U	5 U	**0.7 J**	5 U	5 U	5 U	**0.84 J**
Caprolactam	18,000	NC		**0.56 J**	5 U	5 U	**0.51 J**	5 U	5 U	5 U	**0.74 J**
Carbazole	11,000	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chrysene	2.9	NC		0.1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibenzo(a,h)anthracene	0.0029	NC		0.1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibenzofuran	37	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Diethylphthalate	29,000	NC		**0.21 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Di-n-butylphthalate	3,700	NC		5 U	5 U	5 U	5 U	5 U	**0.52 J**	5 U	5 U
Di-n-octylphthalate	4.8	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluoranthene	1,500	NC		0.1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluorene	1,500	NC		0.1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Indeno(1,2,3-cd)pyrene	0.029	NC		0.1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	0.14	NC		**0.04 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Pentachlorophenol	0.56	1		**0.06 J**	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	11,000	NC		0.1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Phenol	11,000	NC		5 U	5 U	5 U	5 U	5 U	5 U	**0.25 J**	5 U
Pyrene	1,100	NC		0.1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

Table 4.2.5-5
Detected Groundwater SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID	MW02S-0909	MW03	MW03-0908	MW03-0909	MW04	MW04	MW04-0909	MW05	MW05-0908
			Sample ID	E4GK3	E3MA2	E3XF8	E4GK5	E3M51	E3MA3	E4GK6	E3MA4	E3XG0
			Case	39115	37288	37848	39115	37006	37288	39115	37288	37848
			Sampling date	10/7/2009	3/19/2008	9/16/2008	10/6/2009	11/15/2007	3/16/2008	10/8/2009	3/14/2008	9/16/2008
			Unit	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
			Duplicate info									
			WBZ	1	1	1	1	1	1	1	2	2
1,1'-Biphenyl	1,800	NC		7.9 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Methylnaphthalene	150	NC		7.9 U	5 U	5 U	0.1 U	5 U	5 U	0.1 U	5 U	5 U
2-Methylphenol	1,800	NC		7.9 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methylphenol	180	NC		7.9 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acenaphthene	2,200	NC		7.9 U	5 U	5 U	0.1 U	5 U	5 U	0.1 U	5 U	5 U
Acenaphthylene	2,200	NC		7.9 U	5 U	5 U	0.1 U	5 U	5 U	0.1 U	5 U	5 U
Acetophenone	3,700	NC		7.9 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Anthracene	11,000	NC		7.9 U	5 U	5 U	**0.02 J**	5 U	5 U	0.1 U	5 U	5 U
Benzo(a)anthracene	0.029	NC		7.9 U	5 U	5 U	0.1 U	5 U	5 U	0.1 U	5 U	5 U
Benzo(a)pyrene	0.0029	0.2		7.9 U	5 U	5 U	0.1 U	5 U	5 U	0.1 U	5 U	5 U
Benzo(b)fluoranthene	0.029	NC		7.9 U	5 U	5 U	0.1 U	5 U	5 U	0.1 U	5 U	5 U
Benzo(g,h,I)perylene	0.029	NC		7.9 U	5 U	5 U	0.1 U	5 U	5 U	0.1 U	5 U	5 U
Benzo(k)fluoranthene	0.29	NC		7.9 U	5 U	5 U	0.1 U	5 U	5 U	0.1 U	5 U	5 U
Bis(2-ethylhexyl)phthalate	4.8	6		**3.4 J**	**1.4 J**	**0.77 J**	25 U	**0.63 J**	**1.8 J**	**0.19 J**	**1.6 J**	25 U
Butylbenzylphthalate	35	NC		7.9 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Caprolactam	18,000	NC		7.9 U	5 U	5 U	**0.43 J**	5 U	5 U	5 U	5 U	5 U
Carbazole	11,000	NC		7.9 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chrysene	2.9	NC		7.9 U	5 U	5 U	0.1 U	5 U	5 U	0.1 U	5 U	5 U
Dibenzo(a,h)anthracene	0.0029	NC		7.9 U	5 U	5 U	0.1 U	5 U	5 U	0.1 U	5 U	5 U
Dibenzofuran	37	NC		7.9 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Diethylphthalate	29,000	NC		7.9 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Di-n-butylphthalate	3,700	NC		7.9 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.68 J**
Di-n-octylphthalate	4.8	NC		7.9 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluoranthene	1,500	NC		7.9 U	5 U	5 U	0.1 U	5 U	5 U	0.1 U	5 U	5 U
Fluorene	1,500	NC		7.9 U	5 U	5 U	**0.03 J**	5 U	5 U	0.1 U	5 U	5 U
Indeno(1,2,3-cd)pyrene	0.029	NC		7.9 U	5 U	5 U	0.1 U	5 U	5 U	**0.02 J**	5 U	5 U
Naphthalene	0.14	NC		7.9 U	5 U	5 U	**0.01 J**	5 U	5 U	**0.01 J**	5 U	5 U
Pentachlorophenol	0.56	1		16 U	10 U	10 U	**0.17 J**	10 U	10 U	**0.03 J**	10 U	10 U
Phenanthrene	11,000	NC		7.9 U	5 U	5 U	**0.03 J**	5 U	5 U	0.1 U	5 U	5 U
Phenol	11,000	NC		7.9 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Pyrene	1,100	NC		7.9 U	5 U	5 U	0.1 U	5 U	5 U	0.1 U	5 U	5 U

Table 4.2.5-5
Detected Groundwater SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	MW05-0909 E4GK7 39115 10/9/2009 µg/L 2	MW06 E3MA5 37288 3/13/2008 µg/L 1	MW06-0809 E3XG1 37848 9/16/2008 µg/L 1	MW06-0909 E4GK8 39115 10/7/2009 µg/L 1	MW07 E3MA6 37288 3/12/2008 µg/L 1	MW08 E3MJ0 37288 3/18/2008 µg/L 1	MW08-0908 E3XG3 37848 9/18/2008 µg/L 1	MW09 E3M56 37006 11/15/2007 µg/L 1	MW09 E3MA7 37288 3/13/2008 µg/L 1	MW09-0908 E3XG4 37848 9/17/2008 µg/L 1
1,1'-Biphenyl	1,800	NC	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.4 U	5 U	5 U
2-Methylnaphthalene	150	NC	5 U	5 U	5 U	0.1 U	5 U	5 U	5 U	5.4 U	5 U	5 U
2-Methylphenol	1,800	NC	5 U	**0.36 J**	5 U	5 U	5 U	5 U	5 U	5.4 U	5 U	5 UJ
4-Methylphenol	180	NC	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.4 U	5 U	5 UJ
Acenaphthene	2,200	NC	5 U	5 UJ	5 U	0.1 U	5 U	5 U	5 U	5.4 U	5 U	5 U
Acenaphthylene	2,200	NC	5 U	5 U	5 U	0.1 U	5 U	5 U	5 U	5.4 U	5 U	5 U
Acetophenone	3,700	NC	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.4 U	5 U	5 U
Anthracene	11,000	NC	5 U	5 U	5 U	0.1 U	5 U	5 U	5 U	5.4 U	5 U	5 U
Benzo(a)anthracene	0.029	NC	5 U	5 U	5 U	0.1 U	5 U	5 U	5 U	5.4 U	5 U	5 U
Benzo(a)pyrene	0.0029	0.2	5 U	5 U	5 U	0.1 U	5 U	5 U	5 U	5.4 U	5 U	5 U
Benzo(b)fluoranthene	0.029	NC	5 U	5 U	5 U	0.1 U	5 U	5 U	5 U	5.4 U	5 U	5 U
Benzo(g,h,I)perylene	0.029	NC	5 U	5 U	5 U	**0.01 J**	5 U	5 U	5 U	5.4 U	5 U	5 UJ
Benzo(k)fluoranthene	0.29	NC	5 U	5 U	5 U	0.1 U	5 U	5 U	5 U	5.4 U	5 U	5 U
Bis(2-ethylhexyl)phthalate	4.8	6	**0.36 J**	**0.26 J**	**0.78 J**	25 U	**1.2 J**	**2.1 J**	**0.62 J**	**1.4 J**	**1 J**	5 U
Butylbenzylphthalate	35	NC	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.4 U	5 U	5 U
Caprolactam	18,000	NC	5 U	5 U	5 U	**0.91 J**	**0.63 J**	5 U	5 U	5.4 U	**1 J**	5 U
Carbazole	11,000	NC	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.4 U	5 U	5 U
Chrysene	2.9	NC	5 U	5 U	5 U	0.1 U	5 U	5 U	5 U	5.4 U	5 U	5 U
Dibenzo(a,h)anthracene	0.0029	NC	5 U	5 U	5 U	0.1 U	5 U	5 U	5 U	5.4 U	5 U	5 U
Dibenzofuran	37	NC	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.4 U	5 U	5 U
Diethylphthalate	29,000	NC	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.4 U	5 U	5 U
Di-n-butylphthalate	3,700	NC	5 U	5 U	5 U	5 U	**0.23 J**	5 U	5 U	5.4 U	5 U	**0.6 J**
Di-n-octylphthalate	4.8	NC	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.4 U	5 U	5 U
Fluoranthene	1,500	NC	5 U	5 U	5 U	0.1 U	5 U	5 U	5 U	5.4 U	5 U	5 U
Fluorene	1,500	NC	5 U	5 U	5 U	0.1 U	5 U	5 U	5 U	5.4 U	5 U	5 U
Indeno(1,2,3-cd)pyrene	0.029	NC	5 U	5 U	5 U	0.1 U	5 U	5 U	5 U	5.4 U	5 U	5 U
Naphthalene	0.14	NC	5 U	5 U	5 U	0.1 U	5 U	5 U	5 U	5.4 U	5 U	5 U
Pentachlorophenol	0.56	1	10 U	10 U	10 U	**0.07 J**	10 U	10 U	10 U	11 U	10 U	10 U
Phenanthrene	11,000	NC	5 U	5 U	5 U	0.1 U	5 U	5 U	5 U	5.4 U	5 U	5 U
Phenol	11,000	NC	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.4 U	5 U	5 U
Pyrene	1,100	NC	5 U	5 U	5 U	0.1 U	5 U	5 U	5 U	5.4 U	5 U	5 U

Table 4.2.5-5
Detected Groundwater SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID Sample ID Case Sampling date Unit Duplicate info WBZ	MW09-0909 E4GL1 39115 10/8/2009 µg/L 1	MW52-0909 E4GP0 39115 10/8/2009 µg/L MW09-0909 1	MW10 E3M57 37006 11/15/2007 µg/L 1	MW10 E3MA8 37288 3/13/2008 µg/L 1	MW10 E3P10 37600 6/17/2008 µg/L 1	MW10-0908 E3XG5 37848 9/17/2008 µg/L 1	MW10-1208 E4782 38119 12/9/2008 µg/L 1	MW10-0309 E47L2 38346 3/23/2009 µg/L 1	MW10-0609 E4F78 38664 6/9/2009 µg/L 1	MW10-0909 E4GL2 39115 10/6/2009 µg/L 1
1,1'-Biphenyl	1,800	NC		5 U	5 U	5.1 U	**0.46 J**	5 U	**2.2 J**	**3.2 J**	**5.3**	5 U	**5.4**
2-Methylnaphthalene	150	NC		5 U	5 U	5.1 U	**17**	5 U	**22**	**21 J**	**57 J**	5 U	**38**
2-Methylphenol	1,800	NC		5 U	5 U	**0.58 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methylphenol	180	NC		5 U	5 U	5.1 U	5 U	5 U	5 U	**0.45 J**	5 U	5 U	5 U
Acenaphthene	2,200	NC		5 U	5 U	5.1 U	**1.5 J**	**0.62 J**	**1.4 J**	**2.1 J**	**2.7 J**	5 U	**0.56 J**
Acenaphthylene	2,200	NC		5 U	5 U	5.1 U	5 U	5 U	5 U	**0.44 J**	0.5 U	5 U	**0.12 J**
Acetophenone	3,700	NC		5 U	5 U	5.1 U	**5 J**	5 U	5 U	5 U	5 U	5 U	5 U
Anthracene	11,000	NC		5 U	5 U	5.1 U	5 U	5 U	5 U	**0.22 J**	0.5 U	5 U	**0.18**
Benzo(a)anthracene	0.029	NC		5 U	5 U	5.1 U	5 U	5 U	5 U	0.3 U	0.5 U	5 U	0.1 U
Benzo(a)pyrene	0.0029	0.2		5 U	5 U	5.1 U	5 U	5 UJ	5 U	0.3 U	0.5 U	5 U	0.1 U
Benzo(b)fluoranthene	0.029	NC		5 U	5 U	5.1 U	5 U	5 UJ	5 U	0.3 U	0.5 U	5 U	0.1 U
Benzo(g,h,I)perylene	0.029	NC		5 U	5 U	5.1 U	5 U	5 UJ	5 UJ	0.3 U	0.5 UJ	5 U	0.1 U
Benzo(k)fluoranthene	0.29	NC		5 U	5 U	5.1 U	5 U	5 UJ	5 U	0.3 U	0.5 U	5 U	0.1 U
Bis(2-ethylhexyl)phthalate	4.8	6		**0.17 J**	**0.22 J**	**16**	**0.82 J**	5 U	5 U	**0.68 J**	**1.8 J**	5 U	25 U
Butylbenzylphthalate	35	NC		5 U	5 U	5.1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Caprolactam	18,000	NC		**0.34 J**	**0.4 J**	5.1 U	5 U	5 U	5 U	5 U	5 U	**0.21 J**	5 U
Carbazole	11,000	NC		5 U	5 U	5.1 U	**0.74 J**	5 U	**0.74 J**	**0.87 J**	5 U	5 U	5 U
Chrysene	2.9	NC		5 U	5 U	5.1 U	5 U	5 U	5 U	0.3 U	0.5 U	5 U	0.1 U
Dibenzo(a,h)anthracene	0.0029	NC		5 U	5 U	5.1 U	5 U	5 UJ	5 U	0.3 U	0.5 UJ	5 U	0.1 U
Dibenzofuran	37	NC		5 U	5 U	5.1 U	**1.6 J**	5 U	**1.6 J**	**2 J**	**2.7 J**	5 U	**2.5 J**
Diethylphthalate	29,000	NC		5 U	5 U	5.1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Di-n-butylphthalate	3,700	NC		5 U	5 U	**0.58 J**	5 U	5 U	**0.69 J**	5 U	5 U	5 U	5 U
Di-n-octylphthalate	4.8	NC		5 U	5 U	5.1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluoranthene	1,500	NC		5 U	5 U	5.1 U	5 U	5 U	5 U	0.3 U	0.5 U	5 U	**0.03 J**
Fluorene	1,500	NC		5 U	5 U	5.1 U	**2.3 J**	5 U	5 U	**3 J**	**4.1**	5 U	**0.78 J**
Indeno(1,2,3-cd)pyrene	0.029	NC		5 U	5 U	5.1 U	5 U	5 UJ	5 U	0.3 U	0.5 UJ	5 U	0.1 U
Naphthalene	0.14	NC		5 U	5 U	5.1 U	**24**	**1.4 J**	**16**	**16**	**37**	5 U	**23**
Pentachlorophenol	0.56	1		10 U	10 U	10 U	10 U	10 U	10 U	**0.18 J**	1 U	10 U	**0.26 J**
Phenanthrene	11,000	NC		5 U	5 U	5.1 U	**1.1 J**	5 U	**2 J**	**2.5 J**	**3.4**	5 U	**2.9**
Phenol	11,000	NC		5 U	5 U	5.1 U	5 U	5 U	5 U	**0.3 J**	5 U	5 U	**0.2 J**
Pyrene	1,100	NC		5 U	5 U	5.1 U	5 U	5 U	5 U	0.3 U	0.5 U	5 U	**0.06 J**

Table 4.2.5-5
Detected Groundwater SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID	MW11	MW11-0908	MW11-0909	MW12	MW12	MW12-0908	MW12-1208	MW12-0309	MW12-0609	MW12-0909
			Sample ID	E3MA9	E3XG6	E4GL3	E3M59	E3MB0	E3XG7	E4784	E47L4	E4F80	E4GL4
			Case	37288	37848	39115	37006	37288	37848	38119	38346	38664	39115
			Sampling date	3/16/2008	9/19/2008	10/9/2009	11/16/2007	3/13/2008	9/18/2008	12/9/2008	3/17/2009	6/17/2009	10/7/2009
			Unit	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
			Duplicate info										
			WBZ	1	1	1	1	1	1	1	1	1	1
1,1'-Biphenyl	1,800	NC		5 U	5 U	5 U	5.3 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Methylnaphthalene	150	NC		5 U	5 U	5 U	5.3 U	5 U	5 U	5 U	5 U	5 U	0.1 U
2-Methylphenol	1,800	NC		5 U	5 U	5 U	5.3 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methylphenol	180	NC		5 U	5 U	5 U	5.3 U	5 U	5 U	5 U	5 U	5 U	5 U
Acenaphthene	2,200	NC		5 U	5 U	5 U	5.3 U	5 U	5 U	5 U	5 U	5 U	**0.01 J**
Acenaphthylene	2,200	NC		5 U	5 U	5 U	5.3 U	5 U	5 U	5 U	5 U	5 U	**0.01 J**
Acetophenone	3,700	NC		5 U	5 U	5 U	5.3 U	5 U	5 U	5 U	5 U	5 U	5 U
Anthracene	11,000	NC		5 U	5 U	5 U	5.3 U	5 U	5 U	5 U	5 U	5 U	**0.02 J**
Benzo(a)anthracene	0.029	NC		5 U	5 U	5 U	5.3 U	**0.67 J**	5 U	**0.24 J**	5 U	5 U	**0.12**
Benzo(a)pyrene	0.0029	0.2		5 U	5 U	5 U	5.3 U	5 U	5 U	**0.19**	5 U	5 U	**0.1**
Benzo(b)fluoranthene	0.029	NC		5 U	5 U	5 U	5.3 U	**0.59 J**	5 U	**0.25 J**	5 U	5 U	**0.14**
Benzo(g,h,I)perylene	0.029	NC		5 U	5 U	5 U	5.3 U	**0.42 J**	5 U	5 U	5 U	5 U	**0.11**
Benzo(k)fluoranthene	0.29	NC		5 U	5 U	5 U	5.3 U	**0.5 J**	5 UJ	5 U	5 U	5 U	**0.05 J**
Bis(2-ethylhexyl)phthalate	4.8	6		**0.56 J**	5 U	5 U	**1.6 J**	**2.5 J**	5 U	**0.55 J**	**2.4 J**	5 U	25 U
Butylbenzylphthalate	35	NC		5 U	5 U	5 U	5.3 U	5 U	5 U	5 U	5 U	5 U	5 U
Caprolactam	18,000	NC		**0.39 J**	**6.3**	**0.29 J**	5.3 U	5 U	5 U	5 U	5 U	**0.64 J**	**0.73 J**
Carbazole	11,000	NC		5 U	5 U	5 U	5.3 U	5 U	5 U	5 U	5 U	5 U	5 U
Chrysene	2.9	NC		5 U	5 U	5 U	**0.36 J**	**0.69 J**	5 U	**0.18 J**	5 U	5 U	**0.09 J**
Dibenzo(a,h)anthracene	0.0029	NC		5 U	5 U	5 U	5.3 U	5 U	5 U	5 U	5 U	5 U	**0.04 J**
Dibenzofuran	37	NC		5 U	5 U	5 U	5.3 U	5 U	5 U	5 U	5 U	5 U	5 U
Diethylphthalate	29,000	NC		5 U	5 U	5 U	5.3 U	5 U	5 U	5 U	5 U	5 U	5 U
Di-n-butylphthalate	3,700	NC		**0.2 J**	5 U	5 U	5.3 U	**0.24 J**	**0.63 J**	5 U	5 U	5 U	5 U
Di-n-octylphthalate	4.8	NC		5 U	5 U	5 U	5.3 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluoranthene	1,500	NC		5 U	5 U	5 U	**0.76 J**	**1.3 J**	5 U	**0.38 J**	5 U	5 U	**0.18**
Fluorene	1,500	NC		5 U	5 U	5 U	5.3 U	5 U	5 U	5 U	5 U	5 U	**0.01 J**
Indeno(1,2,3-cd)pyrene	0.029	NC		5 U	5 U	5 U	5.3 U	**0.33 J**	5 U	5 U	5 U	5 U	**0.17**
Naphthalene	0.14	NC		5 U	5 U	5 U	5.3 U	5 U	5 U	5 U	5 U	5 U	0.1 U
Pentachlorophenol	0.56	1		10 U	10 U	10 U	11 U	10 U	10 U	10 U	10 U	10 U	**0.03 J**
Phenanthrene	11,000	NC		5 U	5 U	5 U	5.3 U	**0.42 J**	5 U	**0.19 J**	5 U	5 U	**0.06 J**
Phenol	11,000	NC		5 U	5 U	5 U	5.3 U	5 U	5 U	5 U	5 U	5 U	5 U
Pyrene	1,100	NC		5 U	5 U	5 U	**0.64 J**	**1.2 J**	5 U	**0.45 J**	5 U	5 U	**0.2**

Table 4.2.5-5
Detected Groundwater SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID Sample ID Case Sampling date Unit Duplicate info WBZ	MW13 E3M60 37006 11/16/2007 µg/L 2	MW13 E3MB1 37288 3/16/2008 µg/L 2	MW13-0909 E4GL5 39115 10/6/2009 µg/L 2	MW14 E3M61 37006 11/17/2007 µg/L 2	MW14 E3MB2 37288 3/14/2008 µg/L 2	MW14-0909 E4GL6 39115 10/13/2009 µg/L 2	MW15 E3P15 37600 6/16/2008 µg/L 1	MW15-0908 E3XH0 37848 9/22/2008 µg/L 1	MW15-0909 E4GL7 39115 10/12/2009 µg/L 1	MW17 E3M64 37006 11/15/2007 µg/L 1
1,1'-Biphenyl	1,800	NC		5 U	5 U	5 U	5.1 U	5 U	5 U	5 UJ	5 U	5 U	5.4 U
2-Methylnaphthalene	150	NC		5 U	5 U	0.1 U	5.1 U	5 U	5 U	5 UJ	5 U	5 U	5.4 U
2-Methylphenol	1,800	NC		5 U	5 U	5 U	5.1 U	5 U	5 U	5 UJ	5 U	5 U	5.4 U
4-Methylphenol	180	NC		5 U	5 U	5 U	5.1 U	5 U	5 U	5 UJ	5 U	5 U	5.4 U
Acenaphthene	2,200	NC		5 U	5 U	0.1 U	5.1 U	5 U	5 U	5 UJ	5 U	5 U	5.4 U
Acenaphthylene	2,200	NC		5 U	5 U	0.1 U	5.1 U	5 U	5 U	5 UJ	5 U	5 U	5.4 U
Acetophenone	3,700	NC		5 U	5 U	5 U	5.1 U	5 U	5 U	5 UJ	5 U	5 U	5.4 U
Anthracene	11,000	NC		5 U	5 U	0.1 U	5.1 U	5 U	5 U	5 UJ	5 U	5 U	5.4 U
Benzo(a)anthracene	0.029	NC		5 U	5 U	0.1 U	5.1 U	5 U	5 U	5 UJ	5 U	5 U	5.4 U
Benzo(a)pyrene	0.0029	0.2		5 U	5 U	0.1 U	5.1 U	5 U	5 U	5 UJ	5 U	5 U	5.4 U
Benzo(b)fluoranthene	0.029	NC		5 U	5 U	0.1 U	5.1 U	5 U	5 U	5 UJ	5 U	5 U	5.4 U
Benzo(g,h,I)perylene	0.029	NC		5 U	5 U	0.1 U	5.1 U	5 U	5 U	5 UJ	5 U	5 U	5.4 U
Benzo(k)fluoranthene	0.29	NC		5 U	5 U	0.1 U	5.1 U	5 U	5 U	5 UJ	5 UJ	5 U	5.4 U
Bis(2-ethylhexyl)phthalate	4.8	6		**0.78 J**	**0.35 J**	5 U	5.1 U	**4.4 J**	5 U	**0.54 J**	5 U	5 U	**3.1 J**
Butylbenzylphthalate	35	NC		5 U	5 U	5 U	5.1 U	5 U	5 U	5 UJ	5 U	5 U	5.4 U
Caprolactam	18,000	NC		5 U	**0.24 J**	**0.37 J**	5.1 U	5 U	**0.28 J**	5 UJ	5 U	**0.26 J**	5.4 U
Carbazole	11,000	NC		5 U	5 U	5 U	5.1 U	5 U	5 U	5 UJ	5 U	5 U	5.4 U
Chrysene	2.9	NC		5 U	5 U	0.1 U	5.1 U	5 U	5 U	5 UJ	5 U	5 U	5.4 U
Dibenzo(a,h)anthracene	0.0029	NC		5 U	5 U	0.1 U	5.1 U	5 U	5 U	5 UJ	5 U	5 U	5.4 U
Dibenzofuran	37	NC		5 U	5 U	5 U	5.1 U	**0.22 J**	5 U	5 UJ	5 U	5 U	5.4 U
Diethylphthalate	29,000	NC		5 U	5 U	5 U	5.1 U	5 U	5 U	5 UJ	5 U	5 U	5.4 U
Di-n-butylphthalate	3,700	NC		5 U	**0.25 J**	**0.16 J**	**0.36 J**	**0.21 J**	5 U	5 UJ	5 U	5 U	5.4 U
Di-n-octylphthalate	4.8	NC		5 U	5 U	5 U	5.1 U	5 U	5 U	5 UJ	5 U	5 U	5.4 U
Fluoranthene	1,500	NC		5 U	5 U	0.1 U	5.1 U	5 U	5 U	5 UJ	5 U	5 U	5.4 U
Fluorene	1,500	NC		5 U	5 U	0.1 U	5.1 U	5 U	5 U	5 UJ	5 U	5 U	5.4 U
Indeno(1,2,3-cd)pyrene	0.029	NC		5 U	5 U	0.1 U	5.1 U	5 U	5 U	5 UJ	5 U	5 U	5.4 U
Naphthalene	0.14	NC		5 U	5 U	0.1 U	5.1 U	5 U	5 U	5 UJ	5 U	5 U	5.4 U
Pentachlorophenol	0.56	1		10 U	10 U		10 U	10 U	10 U	10 UJ	**0.55 J**	10 U	11 U
Phenanthrene	11,000	NC		5 U	5 U	0.1 U	5.1 U	5 U	5 U	5 UJ	5 U	5 U	5.4 U
Phenol	11,000	NC		5 U	5 U	5 U	5.1 U	5 U	5 U	5 UJ	5 U	5 U	5.4 U
Pyrene	1,100	NC		5 U	5 U	0.1 U	5.1 U	5 U	5 U	5 UJ	5 U	5 U	5.4 U

Table 4.2.5-5
Detected Groundwater SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID Sample ID Case Sampling date Unit Duplicate info WBZ	MW17 E3MB5 37288 3/13/2008 µg/L 1	MW51 E3MB8 37288 3/13/2008 µg/L MW17 1	MW17 E3P17 37600 6/17/2008 µg/L 1	MW51 E3P20 37600 6/17/2008 µg/L MW17 1	MW17-0909 E4GL9 39115 10/13/2009 µg/L 1	MW18 E3M65 37006 11/14/2007 µg/L 2	MW18 E3MB6 37288 3/12/2008 µg/L 2	MW18-0909 E4GM0 39115 10/7/2009 µg/L 2	MW53-0909 E4GP1 39115 10/7/2009 µg/L MW18-0909 2	MW19-1208 E4791 38119 12/15/2008 µg/L 2
1,1'-Biphenyl	1,800	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Methylnaphthalene	150	NC		5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	0.1 U	0.1 U	5 U
2-Methylphenol	1,800	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ
4-Methylphenol	180	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.59 J**	5 U	5 UJ
Acenaphthene	2,200	NC		5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	0.1 U	0.1 U	5 U
Acenaphthylene	2,200	NC		5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	0.1 U	0.1 U	5 U
Acetophenone	3,700	NC		5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Anthracene	11,000	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.1 U	0.1 U	5 U
Benzo(a)anthracene	0.029	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.1 U	0.1 U	5 U
Benzo(a)pyrene	0.0029	0.2		5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.1 U	0.1 U	5 U
Benzo(b)fluoranthene	0.029	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.1 U	0.1 U	5 U
Benzo(g,h,I)perylene	0.029	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.1 U	0.1 U	5 U
Benzo(k)fluoranthene	0.29	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.1 U	0.1 U	5 U
Bis(2-ethylhexyl)phthalate	4.8	6		**1.1 J**	**4 J**	5 U	5 U	**0.19 J**	**0.85 J**	**1.4 J**	25 U	25 U	**0.89 J**
Butylbenzylphthalate	35	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.17 J**	**0.26 J**	5 U
Caprolactam	18,000	NC		**0.85 J**	**0.24 J**	**6.5**	**2.5 J**	**1.3 J**	5 U	5 U	5 U	5 U	5 U
Carbazole	11,000	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chrysene	2.9	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.1 U	0.1 U	5 U
Dibenzo(a,h)anthracene	0.0029	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.1 U	0.1 U	5 U
Dibenzofuran	37	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Diethylphthalate	29,000	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Di-n-butylphthalate	3,700	NC		5 U	5 U	5 U	5 U	5 U	**0.46 J**	5 U	**0.19 J**	**0.22 J**	5 U
Di-n-octylphthalate	4.8	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluoranthene	1,500	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.1 U	0.1 U	5 U
Fluorene	1,500	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.1 U	0.1 U	5 U
Indeno(1,2,3-cd)pyrene	0.029	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.1 U	0.1 U	5 U
Naphthalene	0.14	NC		5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	0.1 U	0.1 U	5 U
Pentachlorophenol	0.56	1		10 U	10 U	10 U	10 U	10 U	10 U	10 U	0.2 U	**0.13 J**	10 U
Phenanthrene	11,000	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.1 U	0.1 U	5 U
Phenol	11,000	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.59 J**	5 U	5 U
Pyrene	1,100	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.1 U	0.1 U	5 U

Table 4.2.5-5
Detected Groundwater SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	MW19-0309 E47M4 38346 3/18/2009 µg/L 2	MW19-0609 E4F90 38664 6/15/2009 µg/L 2	MW19-0909 E4GM1 39115 10/6/2009 µg/L 2	MW20-0908 E3XH5 37848 9/17/2008 µg/L 2	MW20-1208 E4792 38119 12/18/2008 µg/L 2	MW20-0309 E47M5 38346 3/19/2009 µg/L 2	MW20-0609 E4F91 38664 6/16/2009 µg/L 2	MW20-0909 E4GM2 39115 10/8/2009 µg/L 2	MW21-0908 E3XH6 37848 9/18/2008 µg/L 1
1,1'-Biphenyl	1,800	NC	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U
2-Methylnaphthalene	150	NC	5 U	5 U	0.1 U	5 U	5 UJ	5 U	5 U	0.1 U	5 U
2-Methylphenol	1,800	NC	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 UJ
4-Methylphenol	180	NC	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 UJ
Acenaphthene	2,200	NC	5 U	5 U	0.1 U	5 U	5 UJ	5 U	5 U	0.1 U	5 U
Acenaphthylene	2,200	NC	5 U	5 U	0.1 U	5 U	5 UJ	5 U	5 U	0.1 U	5 U
Acetophenone	3,700	NC	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U
Anthracene	11,000	NC	5 U	5 U	0.1 U	5 U	5 UJ	5 U	5 U	0.1 U	5 U
Benzo(a)anthracene	0.029	NC	5 U	5 U	0.1 U	5 U	5 UJ	5 U	5 U	0.1 U	5 U
Benzo(a)pyrene	0.0029	0.2	5 U	5 U	0.1 U	5 U	5 UJ	5 U	5 U	0.1 U	5 U
Benzo(b)fluoranthene	0.029	NC	5 U	5 U	0.1 U	5 U	5 UJ	5 U	5 U	0.1 U	5 U
Benzo(g,h,I)perylene	0.029	NC	5 U	5 U	0.1 U	5 U	5 UJ	5 U	5 U	0.1 U	5 U
Benzo(k)fluoranthene	0.29	NC	5 U	5 U	0.1 U	5 UJ	5 UJ	5 U	5 U	0.1 U	5 UJ
Bis(2-ethylhexyl)phthalate	4.8	6	**1.8 J**	5 U	25 U	5 U	5 UJ	**2.8 J**	5 U	**0.19 J**	5 U
Butylbenzylphthalate	35	NC	5 U	5 U	5 U	5 U	**0.22 J**	5 U	5 U	5 U	5 U
Caprolactam	18,000	NC	5 U	**0.83 J**	**0.79 J**	5 U	5 UJ	5 U	**1.7 J**	**0.43 J**	**0.58 J**
Carbazole	11,000	NC	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U
Chrysene	2.9	NC	5 U	5 U	0.1 U	5 U	5 UJ	5 U	5 U	0.1 U	5 U
Dibenzo(a,h)anthracene	0.0029	NC	5 U	5 U	0.1 U	5 U	5 UJ	5 U	5 U	0.1 U	5 U
Dibenzofuran	37	NC	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U
Diethylphthalate	29,000	NC	5 U	**0.31 J**	**0.32 J**	5 U	**0.42 J**	5 U	**0.2 J**	5 U	5 U
Di-n-butylphthalate	3,700	NC	5 U	5 U	**0.21 J**	5 U	**0.2 J**	5 U	5 U	5 U	5 U
Di-n-octylphthalate	4.8	NC	5 U	5 U	5 U	**1.2 J**	5 UJ	5 U	5 U	5 U	5 U
Fluoranthene	1,500	NC	5 U	5 U	0.1 U	5 U	5 UJ	5 U	5 U	0.1 U	5 U
Fluorene	1,500	NC	5 U	5 U	0.1 U	5 U	5 UJ	5 U	5 U	0.1 U	5 U
Indeno(1,2,3-cd)pyrene	0.029	NC	5 U	5 U	0.1 U	5 U	5 UJ	5 U	5 U	**0.01 J**	5 U
Naphthalene	0.14	NC	5 U	5 U	0.1 U	5 U	5 UJ	5 U	5 U	0.1 U	5 U
Pentachlorophenol	0.56	1	10 U	10 U	**0.04 J**	10 U	10 UJ	10 U	10 U	**0.03 J**	10 U
Phenanthrene	11,000	NC	5 U	5 U	0.1 U	5 U	5 UJ	5 U	5 U	0.1 U	5 U
Phenol	11,000	NC	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U
Pyrene	1,100	NC	5 U	5 U	0.1 U	5 U	5 UJ	5 U	5 U	0.1 U	5 U

Table 4.2.5-5
Detected Groundwater SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	MW21-1208 E4793 38119 12/15/2008 µg/L 1	MW51-1208 E47A9 38119 12/15/2008 µg/L MW21-1208 1	MW21-0609 E4F92 38664 6/11/2009 µg/L 1	MW51-0609 E4FA8 38664 6/11/2009 µg/L MW21-0609 1	MW21-0909 E4GM3 39115 10/13/2009 µg/L 1	MW22-1208 E4794 38119 12/17/2008 µg/L 2	MW22-0609 E4F93 38664 6/15/2009 µg/L 2	MW22-0909 E4GM4 39115 10/8/2009 µg/L 2	MW23-1208 E4795 38119 12/16/2008 µg/L 2
1,1'-Biphenyl	1,800	NC	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U
2-Methylnaphthalene	150	NC	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	0.1 U	5 U
2-Methylphenol	1,800	NC	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U
4-Methylphenol	180	NC	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U
Acenaphthene	2,200	NC	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	0.1 U	5 U
Acenaphthylene	2,200	NC	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	0.1 U	5 U
Acetophenone	3,700	NC	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U
Anthracene	11,000	NC	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	0.1 U	5 U
Benzo(a)anthracene	0.029	NC	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	0.1 U	5 U
Benzo(a)pyrene	0.0029	0.2	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	0.1 U	5 U
Benzo(b)fluoranthene	0.029	NC	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	0.1 U	5 U
Benzo(g,h,I)perylene	0.029	NC	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	0.1 U	5 U
Benzo(k)fluoranthene	0.29	NC	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	0.1 U	5 U
Bis(2-ethylhexyl)phthalate	4.8	6	**0.27 J**	**0.5 J**	**0.48 J**	5 U	5 U	5 UJ	5 U	5 U	**0.51 J**
Butylbenzylphthalate	35	NC	5 U	5 U	5 U	5 U	5 U	**0.26 J**	5 U	5 U	5 U
Caprolactam	18,000	NC	5 U	5 U	5 U	**0.69 J**	**0.7 J**	5 UJ	5 U	5 U	5 U
Carbazole	11,000	NC	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U
Chrysene	2.9	NC	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	0.1 U	5 U
Dibenzo(a,h)anthracene	0.0029	NC	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	0.1 U	5 U
Dibenzofuran	37	NC	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U
Diethylphthalate	29,000	NC	5 U	5 U	5 U	5 U	5 U	**0.39 J**	**0.57 J**	5 U	5 U
Di-n-butylphthalate	3,700	NC	5 U	5 U	5 U	5 U	5 U	**0.22 J**	5 U	5 U	5 U
Di-n-octylphthalate	4.8	NC	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U
Fluoranthene	1,500	NC	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	0.1 U	5 U
Fluorene	1,500	NC	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	0.1 U	5 U
Indeno(1,2,3-cd)pyrene	0.029	NC	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	**0.01 J**	5 U
Naphthalene	0.14	NC	5 U	5 U	5 U	5 U	5 U	**0.2 J**	5 U	0.1 U	5 U
Pentachlorophenol	0.56	1	10 U	10 U	10 U	10 U	10 U	10 UJ	10 U	**0.03 J**	10 U
Phenanthrene	11,000	NC	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	0.1 U	5 U
Phenol	11,000	NC	5 U	5 U	5 U	5 U	5 U	5 UJ	5 UJ	5 U	5 U
Pyrene	1,100	NC	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	0.1 U	5 U

Table 4.2.5-5
Detected Groundwater SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID Sample ID Case Sampling date Unit Duplicate info WBZ	MW54-1208 E47B2 38119 12/16/2008 µg/L MW23-1208 2	MW55-0309 E47P6 38346 3/24/2009 µg/L MW23-0309 2	MW23-0609 E4F94 38664 6/11/2009 µg/L 2	MW23-0909 E4GM5 39115 10/8/2009 µg/L 2	MW24-0908 E3XH9 37848 9/17/2008 µg/L 1	MW53-0908 E3XK4 37848 9/17/2008 µg/L MW24-0908 1	MW52-1208 E47B0 38119 12/10/2008 µg/L MW24-1208 1	MW24-0609 E4F95 38664 6/16/2009 µg/L 1	MW24-0909 E4GM6 39115 10/13/2009 µg/L 1
1,1'-Biphenyl	1,800	NC		5 U	5 U	5 U	5 U	5 UJ	5 UJ	5 U	5 U	5 U
2-Methylnaphthalene	150	NC		5 U	5 U	5 U	0.1 U	5 UJ	5 UJ	5 U	5 U	5 U
2-Methylphenol	1,800	NC		5 U	5 U	5 U	5 U	5 UJ	5 UJ	5 U	5 U	5 U
4-Methylphenol	180	NC		5 U	5 U	5 U	5 U	5 UJ	5 UJ	5 U	5 U	5 U
Acenaphthene	2,200	NC		5 U	5 U	5 U	0.1 U	5 UJ	5 UJ	5 U	5 U	5 U
Acenaphthylene	2,200	NC		5 U	5 U	5 U	0.1 U	5 UJ	5 UJ	5 U	5 U	5 U
Acetophenone	3,700	NC		5 U	5 U	5 U	5 U	5 UJ	5 UJ	5 U	5 U	5 U
Anthracene	11,000	NC		5 U	5 U	5 U	0.1 U	5 UJ	5 UJ	5 U	5 U	5 U
Benzo(a)anthracene	0.029	NC		5 U	5 U	5 U	0.1 U	5 UJ	5 UJ	5 U	5 U	5 U
Benzo(a)pyrene	0.0029	0.2		5 U	5 U	5 U	0.1 U	5 UJ	5 UJ	5 U	5 U	5 U
Benzo(b)fluoranthene	0.029	NC		5 U	5 U	5 U	0.1 U	5 UJ	5 UJ	5 U	5 U	5 U
Benzo(g,h,I)perylene	0.029	NC		5 U	5 U	5 U	0.1 U	5 UJ	5 UJ	5 U	5 U	5 U
Benzo(k)fluoranthene	0.29	NC		5 U	5 U	5 U	0.1 U	5 UJ	5 UJ	5 U	5 U	5 U
Bis(2-ethylhexyl)phthalate	4.8	6		**0.56 J**	**1.4 J**	**0.78 J**	5 U	**1.2 J**	**0.91 J**	**0.47 J**	5 U	5 U
Butylbenzylphthalate	35	NC		5 U	5 U	5 U	5 U	5 UJ	5 UJ	5 U	5 U	5 U
Caprolactam	18,000	NC		5 U	5 U	5 U	5 U	5 UJ	5 UJ	5 U	**0.62 J**	**0.23 J**
Carbazole	11,000	NC		5 U	5 U	5 U	5 U	5 UJ	5 UJ	5 U	5 U	5 U
Chrysene	2.9	NC		5 U	5 U	5 U	0.1 U	5 UJ	5 UJ	5 U	5 U	5 U
Dibenzo(a,h)anthracene	0.0029	NC		5 U	5 U	5 U	0.1 U	5 UJ	5 UJ	5 U	5 U	5 U
Dibenzofuran	37	NC		5 U	5 U	5 U	5 U	5 UJ	5 UJ	5 U	5 U	5 U
Diethylphthalate	29,000	NC		**0.18 J**	5 U	5 U	5 U	5 UJ	5 UJ	5 U	5 U	5 U
Di-n-butylphthalate	3,700	NC		5 U	5 U	5 U	5 U	5 UJ	5 UJ	5 U	5 U	5 U
Di-n-octylphthalate	4.8	NC		5 U	5 U	5 U	5 U	5 UJ	5 UJ	5 U	5 U	5 U
Fluoranthene	1,500	NC		5 U	5 U	5 U	0.1 U	5 UJ	5 UJ	5 U	5 U	5 U
Fluorene	1,500	NC		5 U	5 U	5 U	0.1 U	5 UJ	5 UJ	5 U	5 U	5 U
Indeno(1,2,3-cd)pyrene	0.029	NC		5 U	5 U	5 U	**0.01 J**	5 UJ	5 UJ	5 U	5 U	5 U
Naphthalene	0.14	NC		5 U	5 U	5 U	0.1 U	5 UJ	5 UJ	5 U	5 U	5 U
Pentachlorophenol	0.56	1		10 U	10 U	10 U	**0.02 J**	10 UJ	10 UJ	10 U	10 U	10 U
Phenanthrene	11,000	NC		5 U	5 U	5 U	0.1 U	5 UJ	5 UJ	5 U	5 U	5 U
Phenol	11,000	NC		5 U	5 U	5 U	5 U	5 UJ	5 UJ	5 U	5 U	5 U
Pyrene	1,100	NC		5 UJ	5 U	5 U	0.1 U	5 UJ	5 UJ	5 U	5 U	5 U

Table 4.2.5-5
Detected Groundwater SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID	MW25-1208	MW25-0609	MW25-0909	MW26-0908	MW27-0309	MW28-1208	MW28-0309	MW28-0609	MW28-0909
			Sample ID	E4797	E4F96	E4GM7	E3XJ1	E47N2	E47A0	E47N3	E4F99	E4GN0
			Case	38119	38664	39115	37848	38346	38119	38346	38664	39115
			Sampling date	12/10/2008	6/11/2009	10/13/2009	9/17/2008	3/17/2009	12/10/2008	3/17/2009	6/9/2009	10/9/2009
			Unit	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
			Duplicate info									
			WBZ	1	1	1	1	1	2	2	2	2
1,1'-Biphenyl	1,800	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Methylnaphthalene	150	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Methylphenol	1,800	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methylphenol	180	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acenaphthene	2,200	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acenaphthylene	2,200	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetophenone	3,700	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Anthracene	11,000	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(a)anthracene	0.029	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(a)pyrene	0.0029	0.2		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(b)fluoranthene	0.029	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(g,h,I)perylene	0.029	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(k)fluoranthene	0.29	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-ethylhexyl)phthalate	4.8	6		**0.52 J**	5 U	5 U	5 U	**7.7**	**0.47 J**	**1.7 J**	5 U	**0.19 J**
Butylbenzylphthalate	35	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.65 J**	5 U
Caprolactam	18,000	NC		5 U	**0.19 J**	**0.26 J**	5 U	5 U	5 U	5 U	**0.39 J**	**0.43 J**
Carbazole	11,000	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chrysene	2.9	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibenzo(a,h)anthracene	0.0029	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibenzofuran	37	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Diethylphthalate	29,000	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Di-n-butylphthalate	3,700	NC		5 U	5 U	5 U	**0.6 J**	5 U	5 U	5 U	5 U	5 U
Di-n-octylphthalate	4.8	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluoranthene	1,500	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluorene	1,500	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Indeno(1,2,3-cd)pyrene	0.029	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	0.14	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Pentachlorophenol	0.56	1		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	11,000	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Phenol	11,000	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Pyrene	1,100	NC		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

Table 4.2.5-5
Detected Groundwater SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	MW29-0908	MW29-1208	MW29-0609	MW29-0909	MW30-0908	MW30-1208	MW30-0609	MW30-0909	MW31-1208
Location ID			MW29-0908	MW29-1208	MW29-0609	MW29-0909	MW30-0908	MW30-1208	MW30-0609	MW30-0909	MW31-1208
Sample ID			E3XJ4	E47A1	E4FA0	E4GN1	E3XJ5	E47A2	E4FA1	E4GN2	E47A3
Case			37848	38119	38664	39115	37848	38119	38664	39115	38119
Sampling date			9/16/2008	12/16/2008	6/9/2009	10/7/2009	9/16/2008	12/12/2008	6/9/2009	10/7/2009	12/11/2008
Unit			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Duplicate info											
WBZ			1	1	1	1	1	1	1	1	1
1,1'-Biphenyl	1,800	NC	R	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Methylnaphthalene	150	NC	R	5 UJ	5 U	0.1 U	5 U	5 U	5 U	0.1 U	5 U
2-Methylphenol	1,800	NC	R	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methylphenol	180	NC	R	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acenaphthene	2,200	NC	R	5 UJ	5 U	0.1 U	5 U	5 U	5 U	0.1 U	5 U
Acenaphthylene	2,200	NC	R	5 UJ	5 U	0.1 U	5 U	5 U	5 U	0.1 U	5 U
Acetophenone	3,700	NC	R	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Anthracene	11,000	NC	R	5 UJ	5 U	0.1 U	5 U	5 U	5 U	**0.02 J**	5 U
Benzo(a)anthracene	0.029	NC	R	5 UJ	5 U	0.1 U	5 U	5 U	5 U	0.1 U	5 U
Benzo(a)pyrene	0.0029	0.2	R	5 UJ	5 U	0.1 U	5 U	5 U	5 U	0.1 U	5 U
Benzo(b)fluoranthene	0.029	NC	R	5 UJ	5 U	0.1 U	5 U	5 U	5 U	0.1 U	5 U
Benzo(g,h,I)perylene	0.029	NC	R	5 UJ	5 U	0.1 U	5 U	5 U	5 U	0.1 U	5 U
Benzo(k)fluoranthene	0.29	NC	R	5 UJ	5 U	0.1 U	5 U	5 U	5 U	0.1 U	5 U
Bis(2-ethylhexyl)phthalate	4.8	6	**1.3 J**	**0.54 J**	5 U	25 U	**0.59 J**	**0.38 J**	5 U	**0.24 J**	**0.31 J**
Butylbenzylphthalate	35	NC	R	5 UJ	**0.35 J**	5 U	5 U	5 U	**0.69 J**	5 U	5 U
Caprolactam	18,000	NC	R	5 UJ	**0.47 J**	**0.38 J**	5 U	5 U	**0.37 J**	5 U	5 U
Carbazole	11,000	NC	R	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chrysene	2.9	NC	R	5 UJ	5 U	0.1 U	5 U	5 U	5 U	0.1 U	5 U
Dibenzo(a,h)anthracene	0.0029	NC	R	5 UJ	5 U	0.1 U	5 U	5 U	5 U	0.1 U	5 U
Dibenzofuran	37	NC	R	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Diethylphthalate	29,000	NC	R	5 UJ	5 U	5 U	5 U	**0.21 J**	**0.25 J**	5 U	5 U
Di-n-butylphthalate	3,700	NC	R	5 UJ	5 U	5 U	5 U	5 U	**0.44 J**	5 U	5 U
Di-n-octylphthalate	4.8	NC	R	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluoranthene	1,500	NC	R	5 UJ	5 U	0.1 U	5 U	5 U	5 U	0.1 U	5 U
Fluorene	1,500	NC	R	5 UJ	5 U	0.1 U	5 U	5 U	5 U	0.1 U	5 U
Indeno(1,2,3-cd)pyrene	0.029	NC	R	5 UJ	5 U	0.1 U	5 U	5 U	5 U	0.1 U	5 U
Naphthalene	0.14	NC	R	5 UJ	5 U	0.1 U	5 U	5 U	5 U	0.1 U	5 U
Pentachlorophenol	0.56	1	R	10 UJ	10 U	**0.7 J**	10 U	10 U	10 U	**0.01 J**	10 U
Phenanthrene	11,000	NC	R	5 UJ	5 U	0.1 U	5 U	5 U	5 U	0.1 U	5 U
Phenol	11,000	NC	R	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Pyrene	1,100	NC	R	5 UJ	5 U	0.1 U	5 U	5 U	5 U	0.1 U	5 U

Table 4.2.5-5
Detected Groundwater SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	MW31-0909 E4GN3 39115 10/7/2009 µg/L 1	MW32-0908 E3XJ7 37848 9/24/2008 µg/L 2	MW32-1208 E47A4 38119 12/17/2008 µg/L 2	MW33-0908 E3XJ8 37848 9/24/2008 µg/L 2	MW33-1208 E47A5 38119 12/17/2008 µg/L 2	MW33-0609 E4FA4 38664 6/11/2009 µg/L 2	MW33-0909 E4GN5 39115 10/12/2009 µg/L 2	MW34-0908 E3XJ9 37848 9/16/2008 µg/L 2	MW34-1208 E47A6 38119 12/11/2008 µg/L 2
1,1'-Biphenyl	1,800	NC	5 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U
2-Methylnaphthalene	150	NC	0.1 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U
2-Methylphenol	1,800	NC	5 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U
4-Methylphenol	180	NC	5 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U
Acenaphthene	2,200	NC	0.1 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U
Acenaphthylene	2,200	NC	0.1 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U
Acetophenone	3,700	NC	5 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U
Anthracene	11,000	NC	0.1 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U
Benzo(a)anthracene	0.029	NC	0.1 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U
Benzo(a)pyrene	0.0029	0.2	0.1 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U
Benzo(b)fluoranthene	0.029	NC	0.1 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U
Benzo(g,h,I)perylene	0.029	NC	0.1 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U
Benzo(k)fluoranthene	0.29	NC	0.1 U	5 UJ	5 UJ	5 UJ	5 UJ	5 U	5 U	5 U	5 U
Bis(2-ethylhexyl)phthalate	4.8	6	**0.29 J**	5 U	5 UJ	5 U	5 UJ	5 U	5 U	**0.74 J**	**0.64 J**
Butylbenzylphthalate	35	NC	5 U	5 U	**0.19 J**	5 U	**0.22 J**	5 U	5 U	5 U	5 U
Caprolactam	18,000	NC	5 U	5 U	5 UJ	5 U	5 UJ	**0.21 J**	**0.32 J**	5 U	5 U
Carbazole	11,000	NC	5 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U
Chrysene	2.9	NC	0.1 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U
Dibenzo(a,h)anthracene	0.0029	NC	0.1 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U
Dibenzofuran	37	NC	5 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U
Diethylphthalate	29,000	NC	5 U	5 U	**0.5 J**	5 U	**0.33 J**	5 U	5 U	5 U	5 U
Di-n-butylphthalate	3,700	NC	5 U	5 U	**0.18 J**	5 U	5 UJ	5 U	5 U	5 U	5 U
Di-n-octylphthalate	4.8	NC	5 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U
Fluoranthene	1,500	NC	0.1 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U
Fluorene	1,500	NC	0.1 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U
Indeno(1,2,3-cd)pyrene	0.029	NC	0.1 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U
Naphthalene	0.14	NC	0.1 U	**1.5 J**	5 UJ	**0.56 J**	**0.21 J**	5 U	5 U	5 U	5 U
Pentachlorophenol	0.56	1	0.2 U	10 U	10 UJ	10 U	10 UJ	10 U	10 U	10 U	10 U
Phenanthrene	11,000	NC	0.1 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U
Phenol	11,000	NC	5 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U
Pyrene	1,100	NC	0.1 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U

Table 4.2.5-5
Detected Groundwater SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID Sample ID Case Sampling date Unit Duplicate info WBZ	MW34-0609 E4FA5 38664 6/10/2009 µg/L 2	MW34-0909 E4GN6 39115 10/8/2009 µg/L 2	MW35-1208 E47A7 38119 12/17/2008 µg/L 1	MW35-0309 E47P0 38346 3/25/2009 µg/L 1	MW35-0609 E4FA6 38664 6/16/2009 µg/L 1
1,1'-Biphenyl	1,800	NC		5 U	5 U	5 U	5 U	5 U
2-Methylnaphthalene	150	NC		5 U	5 U	5 U	5 U	5 U
2-Methylphenol	1,800	NC		5 U	5 U	5 U	5 U	5 U
4-Methylphenol	180	NC		5 U	5 U	5 U	5 U	5 U
Acenaphthene	2,200	NC		5 U	5 U	5 U	5 U	5 U
Acenaphthylene	2,200	NC		5 U	5 U	5 U	5 U	5 U
Acetophenone	3,700	NC		5 U	5 U	5 U	5 U	5 U
Anthracene	11,000	NC		5 U	5 U	5 U	5 U	5 U
Benzo(a)anthracene	0.029	NC		5 U	5 U	5 U	5 U	5 U
Benzo(a)pyrene	0.0029	0.2		5 U	5 U	5 U	5 U	5 U
Benzo(b)fluoranthene	0.029	NC		5 U	5 U	5 U	5 U	5 U
Benzo(g,h,I)perylene	0.029	NC		5 U	5 U	5 U	5 U	5 U
Benzo(k)fluoranthene	0.29	NC		5 U	5 U	5 U	5 U	5 U
Bis(2-ethylhexyl)phthalate	4.8	6		5 U	5 U	**0.55 J**	**3 J**	5 U
Butylbenzylphthalate	35	NC		5 U	5 U	5 U	5 U	5 U
Caprolactam	18,000	NC		**0.17 J**	**0.85 J**	5 U	5 U	**0.39 J**
Carbazole	11,000	NC		5 U	5 U	5 U	5 U	5 U
Chrysene	2.9	NC		5 U	5 U	5 U	5 U	5 U
Dibenzo(a,h)anthracene	0.0029	NC		5 U	5 U	5 U	5 U	5 U
Dibenzofuran	37	NC		5 U	5 U	5 U	5 U	5 U
Diethylphthalate	29,000	NC		5 U	5 U	5 U	5 U	**0.28 J**
Di-n-butylphthalate	3,700	NC		5 U	5 U	5 U	5 U	5 U
Di-n-octylphthalate	4.8	NC		5 U	5 U	5 U	5 U	5 U
Fluoranthene	1,500	NC		5 U	5 U	5 U	5 U	5 U
Fluorene	1,500	NC		5 U	5 U	5 U	5 U	5 U
Indeno(1,2,3-cd)pyrene	0.029	NC		5 U	5 U	5 U	5 U	5 U
Naphthalene	0.14	NC		5 U	5 U	5 U	5 U	5 U
Pentachlorophenol	0.56	1		10 U	10 U	10 U	10 U	10 U
Phenanthrene	11,000	NC		5 U	5 U	5 U	5 U	5 U
Phenol	11,000	NC		5 U	5 U	5 U	5 U	5 U
Pyrene	1,100	NC		5 U	5 U	5 UJ	5 U	5 U

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.5-5

Notes:
Bold values indicate a detection
Yellow shaded cells indicate a Tapwater exceedance
Orange shaded cells indicate an MCL exceedance
Red shaded cells indicate an exceedance of both Tapwater and MCL

--	No data available
µg/L	Microgram per liter
ID	Identification
J	Estimated result
J-	Underestimated result
J+	Overestimated result
MCL	Maximum contaminant level (EPA)
MW	Monitoring well
NC	No criteria available
R	Rejected result
RSL	Regional Screening Level (EPA)
U	Non-detect result
UJ	Non-detected and estimated result
WBZ	Water bearing zone

Table 4.2.5-7
Detected Groundwater Pesticide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	MW01-0909 E4GK2 39115 10/6/2009 µg/L 1	MW02D-0609 E4F69 38664 6/10/2009 µg/L 2	MW02D-0909 E4GK4 39115 10/12/2009 µg/L 2	MW02S-0909 E4GK3 39115 10/7/2009 µg/L 1	MW03-0909 E4GK5 39115 10/6/2009 µg/L 1	MW04 E3P04 37600 6/19/2008 µg/L 1	MW04-0909 E4GK6 39115 10/8/2009 µg/L 1	MW05 E3P05 37600 6/20/2008 µg/L 2	MW05-0909 E4GK7 39115 10/9/2009 µg/L 2
4,4'-DDD	0.28	NC	0.1 U	0.1 U	0.1 U	0.1 U	**0.0076 J**	0.1 U	**0.0036 J**	0.1 U	0.1 U
4,4'-DDE	0.2	NC	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDT	0.2	NC	**0.0047 J**	0.1 U	0.1 U	**0.0021 J**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aldrin	0.004	NC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
alpha-BHC	0.011	NC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
alpha-Chlordane	0.19	NC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
beta-BHC	0.037	NC	0.05 U	0.05 U	0.05 U	**0.0033 J**	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
delta-BHC	0.011	NC	**0.025 J**	**0.015 J**	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	**0.017 J**
Endosulfan I	220	NC	**0.0047 J**	0.05 U	0.05 U	0.05 U	0.05 U	**0.019 J**	0.05 U	0.05 U	0.05 U
Endosulfan sulfate	220	NC	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	11	2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin aldehyde	11	NC	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin ketone	11	NC	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
gamma-BHC (Lindane)	0.061	0.2	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
gamma-Chlordane	0.19	NC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	0.015	0.4	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	0.0074	0.2	0.05 U	0.05 U	**0.0015 J**	0.05 U	0.05 U	0.05 U	0.05 U	**0.043 J**	0.05 U
Methoxychlor	180	40	**0.047 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Table 4.2.5-7
Detected Groundwater Pesticide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID Sample ID Case Sampling date Unit Duplicate info WBZ	MW07-0909 E4GK9 39115 10/12/2009 µg/L 1	MW51-0909 E4GN9 39115 10/12/2009 µg/L MW07-0909 1	MW09-0909 E4GL1 39115 10/8/2009 µg/L 1	MW52-0909 E4GP0 39115 10/8/2009 µg/L MW09-0909 1	MW10 E3M57 37006 11/15/2007 µg/L 1	MW10-1208 E4782 38119 12/9/2008 µg/L 1	MW10-0609 E4F78 38664 6/9/2009 µg/L 1	MW10-0909 E4GL2 39115 10/6/2009 µg/L 1	MW12 E3P12 37600 6/18/2008 µg/L 1	MW12-1208 E4784 38119 12/9/2008 µg/L 1
4,4'-DDD	0.28	NC		0.1 U	0.1 U	0.1 U	0.1 U	0.11 U	0.1 U	**0.029 J**	0.1 U	0.1 U	0.1 U
4,4'-DDE	0.2	NC		0.1 U	0.1 U	0.1 U	0.1 U	0.11 U	0.1 U	**0.044 J**	**0.034 J**	0.1 U	0.1 U
4,4'-DDT	0.2	NC		0.1 U	0.1 U	0.1 U	0.1 U	0.11 U	**0.0047 J**	**0.028 J**	0.1 U	0.1 U	0.1 U
Aldrin	0.004	NC		0.05 U	0.05 U	0.05 U	0.05 U	0.053 U	0.05 U	**0.015 J**	0.05 U	0.05 U	0.05 U
alpha-BHC	0.011	NC		0.05 U	0.05 U	0.05 U	0.05 U	**0.022 J**	**0.031 J**	**0.048 J**	0.05 U	0.05 U	0.05 U
alpha-Chlordane	0.19	NC		0.05 U	0.05 U	0.05 U	0.05 U	0.053 U	0.05 U	0.05 U	0.05 U	**0.02 J**	0.05 U
beta-BHC	0.037	NC		0.05 U	**0.0018 J**	0.05 U	0.05 U	**0.069 J**	**0.035 J**	0.05 U	0.05 U	0.05 U	0.05 U
delta-BHC	0.011	NC		0.05 U	0.05 U	**0.024 J**	0.05 U	**0.014 J**	**0.018 J**	**0.033 J**	**0.11 J**	0.05 U	0.05 U
Endosulfan I	220	NC		**0.0014 J**	**0.00085 J**	0.05 U	0.05 U	0.053 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan sulfate	220	NC		0.1 U	0.1 U	0.1 U	0.1 U	0.11 U	0.1 U	**0.019 J**	0.1 U	0.1 U	0.1 U
Endrin	11	2		0.1 U	0.1 U	0.1 U	0.1 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin aldehyde	11	NC		0.1 U	0.1 U	0.1 U	0.1 U	0.11 U	0.1 U	**0.021 J**	0.1 U	0.1 U	**0.0096 J**
Endrin ketone	11	NC		0.1 U	0.1 U	0.1 U	0.1 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
gamma-BHC (Lindane)	0.061	0.2		0.05 U	0.05 U	0.05 U	0.05 U	0.053 U	**0.028 J**	0.05 U	0.05 U	0.05 U	0.05 U
gamma-Chlordane	0.19	NC		0.05 U	0.05 U	0.05 U	0.05 U	**0.018 J**	0.05 U	**0.02 J**	0.05 U	**0.026 J**	0.05 U
Heptachlor	0.015	0.4		0.05 U	0.05 U	0.05 U	0.05 U	**0.017 J**	0.05 U	**0.061 J**	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	0.0074	0.2		**0.02 J**	0.05 U	0.05 U	**0.002 J**	0.053 U	**0.014 J**	**0.066**	**0.12**	**0.028 J**	0.05 U
Methoxychlor	180	40		0.5 U	0.5 U	0.5 U	0.5 U	0.53 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Table 4.2.5-7
Detected Groundwater Pesticide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID Sample ID Case Sampling date Unit Duplicate info WBZ	MW12-0609 E4F80 38664 6/17/2009 µg/L 1	MW12-0909 E4GL4 39115 10/7/2009 µg/L 1	MW13-0909 E4GL5 39115 10/6/2009 µg/L 2	MW14-0909 E4GL6 39115 10/13/2009 µg/L 2	MW15-0909 E4GL7 39115 10/12/2009 µg/L 1	MW17 E3P17 37600 6/17/2008 µg/L 1	MW17-0909 E4GL9 39115 10/13/2009 µg/L 1	MW18-0909 E4GM0 39115 10/7/2009 µg/L 2	MW53-0909 E4GP1 39115 10/7/2009 µg/L MW18-0909 2
4,4'-DDD	0.28	NC		**0.035 J**	0.1 U	0.1 U	0.1 U	**0.0023 J**	0.1 U	0.1 U	**0.0016 J**	0.1 U
4,4'-DDE	0.2	NC		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDT	0.2	NC		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aldrin	0.004	NC		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
alpha-BHC	0.011	NC		0.05 U	**0.00028 J**	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
alpha-Chlordane	0.19	NC		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
beta-BHC	0.037	NC		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
delta-BHC	0.011	NC		**0.017 J**	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan I	220	NC		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan sulfate	220	NC		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	11	2		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.0047 J**	0.1 U
Endrin aldehyde	11	NC		**0.018 J**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin ketone	11	NC		0.1 U	0.1 U	0.1 U	**0.0011 J**	0.1 U	0.1 U	**0.00057 J**	0.1 U	0.1 U
gamma-BHC (Lindane)	0.061	0.2		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
gamma-Chlordane	0.19	NC		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	0.015	0.4		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	0.0074	0.2		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	**0.036 J**	0.05 U	0.05 U	**0.044 J**
Methoxychlor	180	40		0.5 U	0.5 U	**0.035 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Table 4.2.5-7
Detected Groundwater Pesticide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	Location ID Sample ID Case Sampling date Unit Duplicate info WBZ MCL (µg/L)	MW19-1208 E4791 38119 12/15/2008 µg/L 2	MW19-0909 E4GM1 39115 10/6/2009 µg/L 2	MW20-0609 E4F91 38664 6/16/2009 µg/L 2	MW20-0909 E4GM2 39115 10/8/2009 µg/L 2	MW21-1208 E4793 38119 12/15/2008 µg/L 1	MW21-0609 E4F92 38664 6/11/2009 µg/L 1	MW51-0609 E4FA8 38664 6/11/2009 µg/L MW21-0609 1	MW21-0909 E4GM3 39115 10/13/2009 µg/L 1	MW22-1208 E4794 38119 12/17/2008 µg/L 2	MW22-0609 E4F93 38664 6/15/2009 µg/L 2
4,4'-DDD	0.28	NC	0.1 U	0.1 U	0.1 U	**0.011 J**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDE	0.2	NC	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDT	0.2	NC	0.1 U	0.1 U	0.1 U	**0.0015 J**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aldrin	0.004	NC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
alpha-BHC	0.011	NC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
alpha-Chlordane	0.19	NC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
beta-BHC	0.037	NC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
delta-BHC	0.011	NC	0.05 U	**0.03 J**	**0.015 J**	0.05 U	0.05 U	**0.019 J**	**0.014 J**	**0.015 J**	0.05 U	**0.015 J**
Endosulfan I	220	NC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan sulfate	220	NC	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	11	2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.0031 J**	0.1 U	0.1 U	0.1 U	0.1 U
Endrin aldehyde	11	NC	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin ketone	11	NC	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.0016 J**	0.1 U	0.1 U
gamma-BHC (Lindane)	0.061	0.2	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
gamma-Chlordane	0.19	NC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	0.015	0.4	0.05 U	0.05 U	0.05 U	0.05 U	**0.0018 J**	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	0.0074	0.2	**0.0028 J**	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	**0.011 J**	**0.0051 J**	0.05 U
Methoxychlor	180	40	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.039 J**	0.5 U	0.5 U	0.5 U

Table 4.2.5-7
Detected Groundwater Pesticide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	MW22-0909 E4GM4 39115 10/8/2009 µg/L 2	MW23-0609 E4F94 38664 6/11/2009 µg/L 2	MW24-1208 E4796 38119 12/10/2008 µg/L 1	MW52-1208 E47B0 38119 12/10/2008 µg/L MW24-1208 1	MW24-0609 E4F95 38664 6/16/2009 µg/L 1	MW52-0609 E4FA9 38664 6/16/2009 µg/L MW24-0609 1	MW24-0909 E4GM6 39115 10/13/2009 µg/L 1	MW54-0909 E4GP2 39115 10/13/2009 µg/L MW24-0909 1	MW25-1208 E4797 38119 12/10/2008 µg/L 1	MW25-0909 E4GM7 39115 10/13/2009 µg/L 1
4,4'-DDD	0.28	NC	**0.0025 J**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDE	0.2	NC	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.0023 J**	0.1 U	0.1 U
4,4'-DDT	0.2	NC	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aldrin	0.004	NC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
alpha-BHC	0.011	NC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
alpha-Chlordane	0.19	NC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
beta-BHC	0.037	NC	0.05 U	0.05 U	0.05 U	**0.0034 J**	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	**0.0023 J**
delta-BHC	0.011	NC	0.05 U	**0.013 J**	0.05 U	0.05 U	**0.014 J**	**0.016 J**	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan I	220	NC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan sulfate	220	NC	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	11	2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin aldehyde	11	NC	0.1 U	0.1 U	**0.02 J**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.0079 J**	0.1 U
Endrin ketone	11	NC	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.0014 J**	0.1 U	0.1 U
gamma-BHC (Lindane)	0.061	0.2	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	**0.0019 J**	0.05 U	0.05 U	0.05 U
gamma-Chlordane	0.19	NC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	0.015	0.4	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	0.0074	0.2	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	**0.014 J**	0.05 U	0.05 U
Methoxychlor	180	40	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Table 4.2.5-7
Detected Groundwater Pesticide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	Location ID / Sample ID / Case / Sampling date / Unit / Duplicate info / WBZ MCL (µg/L)	MW28-1208 E47A0 38119 12/10/2008 µg/L 2	MW28-0609 E4F99 38664 6/9/2009 µg/L 2	MW29-1208 E47A1 38119 12/16/2008 µg/L 1	MW29-0909 E4GN1 39115 10/7/2009 µg/L 1	MW30-1208 E47A2 38119 12/12/2008 µg/L 1	MW30-0609 E4FA1 38664 6/9/2009 µg/L 1	MW31-1208 E47A3 38119 12/11/2008 µg/L 1	MW32-1208 E47A4 38119 12/17/2008 µg/L 2	MW33-1208 E47A5 38119 12/17/2008 µg/L 2	MW33-0609 E4FA4 38664 6/11/2009 µg/L 2	MW33-0909 E4GN5 39115 10/12/2009 µg/L 2
4,4'-DDD	0.28	NC	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDE	0.2	NC	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDT	0.2	NC	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aldrin	0.004	NC	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
alpha-BHC	0.011	NC	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
alpha-Chlordane	0.19	NC	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
beta-BHC	0.037	NC	0.05 U	0.05 U	**0.0076 J**	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
delta-BHC	0.011	NC	0.05 U	**0.017 J**	0.05 UJ	0.05 U	**0.017 J**	0.05 U	0.05 U	0.05 U	0.05 U	**0.018 J**	0.05 U
Endosulfan I	220	NC	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan sulfate	220	NC	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	11	2	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin aldehyde	11	NC	**0.02 J**	0.1 U	0.1 UJ	0.1 U	0.1 U	**0.013 J**	**0.017 J**	0.1 U	0.1 U	0.1 U	0.1 U
Endrin ketone	11	NC	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.0013 J**
gamma-BHC (Lindane)	0.061	0.2	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
gamma-Chlordane	0.19	NC	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	0.015	0.4	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	**0.0023 J**	0.05 U	0.05 U
Heptachlor epoxide	0.0074	0.2	0.05 U	**0.046 J**	0.05 UJ	**0.019 J**	0.05 U	**0.0018 J**	0.05 U	**0.0022 J**	0.05 U	**0.0011 J**	0.05 U
Methoxychlor	180	40	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Table 4.2.5-7
Detected Groundwater Pesticide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	Location ID Sample ID Case Sampling date Unit Duplicate info WBZ MCL (µg/L)	MW34-0609 E4FA5 38664 6/10/2009 µg/L 2	MW34-0909 E4GN6 39115 10/8/2009 µg/L 2	MW35-1208 E47A7 38119 12/17/2008 µg/L 1	MW35-0609 E4FA6 38664 6/16/2009 µg/L 1	MW35-0909 E4GN7 39115 10/14/2009 µg/L 1
4,4'-DDD	0.28	NC	0.1 U	0.1 U	0.1 U	0.1 U	**0.0044 J**
4,4'-DDE	0.2	NC	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDT	0.2	NC	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aldrin	0.004	NC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
alpha-BHC	0.011	NC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
alpha-Chlordane	0.19	NC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
beta-BHC	0.037	NC	0.05 U	0.05 U	**0.0038 J**	0.05 U	**0.0018 J**
delta-BHC	0.011	NC	**0.017 J**	0.05 U	0.05 U	**0.014 J**	0.05 U
Endosulfan I	220	NC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan sulfate	220	NC	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	11	2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin aldehyde	11	NC	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin ketone	11	NC	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
gamma-BHC (Lindane)	0.061	0.2	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
gamma-Chlordane	0.19	NC	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	0.015	0.4	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	0.0074	0.2	0.05 U	**0.044 J**	0.05 U	0.05 U	**0.013 J**
Methoxychlor	180	40	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.5-7

Notes:
Bold values indicate a detection
Yellow shaded cells indicate a Tapwater exceedance
Orange shaded cells indicate an MCL exceedance
Red shaded cells indicate an exceedance of both Tapwater and MCL

--	No data available
µg/L	Microgram per liter
ID	Identification
J	Estimated result
J-	Underestimated result
J+	Overestimated result
MCL	Maximum contaminant level (EPA)
MW	Monitoring well
NC	No criteria available
R	Rejected result
RSL	Regional Screening Level (EPA)
U	Non-detect result
UJ	Non-detected and estimated result
WBZ	Water bearing zone

Table 4.2.5-6
Detected Groundwater PCB Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Tapwater RSL (µg/L)	MCL (µg/L)	Location ID Sample ID Case Sampling date Unit Duplicate info WBZ	MW07-0908 E3XG2 37848 9/22/2008 µg/L 1	MW50-0908 E3XK1 37848 9/22/2008 µg/L MW07-0908 1	MW30-0609 E4FA1 38664 6/9/2009 µg/L 1
Aroclor-1016	0.96	0.5		1 U	1 U	1 U
Aroclor-1221	0.0068	0.5		1 U	1 U	1 U
Aroclor-1232	0.0068	0.5		1 U	1 U	1 U
Aroclor-1242	0.034	0.5		1 U	1 U	1 U
Aroclor-1248	0.034	0.5		1 U	**0.47 J**	1 U
Aroclor-1254	0.034	0.5		1 U	1 U	**0.28 J**
Aroclor-1260	0.034	0.5		1 U	1 U	1 U
Aroclor-1262	0.034	0.5		1 U	1 U	1 U
Aroclor-1268	0.034	0.5		1 U	1 U	1 U

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.5-6

Notes:
Bold values indicate a detection
Yellow shaded cells indicate a Tapwater exceedance
Orange shaded cells indicate an MCL exceedance
Red shaded cells indicate an exceedance of both Tapwater and MCL

--	No data available
µg/L	Microgram per liter
ID	Identification
J	Estimated result
J-	Underestimated result
J+	Overestimated result
MCL	Maximum contaminant level (EPA)
MW	Monitoring well
NC	No criteria available
R	Rejected result
RSL	Regional Screening Level (EPA)
U	Non-detect result
UJ	Non-detected and estimated result
WBZ	Water bearing zone

Table 4.2.6-1
Summary of Surface Water Sampling Events
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Location	Total Metals				Dissolved Metals				VOCs / SVOCs / PCBs / Pesticides			
	Phase I		Phase II		Phase I		Phase II		Phase I		Phase II	
	July 2007 Dry event	August 2007 Wet event	July 2008 Summer event	October 2008 Fall event	July 2007 Dry event	August 2007 Wet event	July 2008 Summer event	October 2008 Fall event	July 2007 Dry event	August 2007 Wet event	July 2008 Summer event	October 2008 Fall event
SW001	X	--	--	--	--	--	--	--	X		--	--
SW002	X	X	--	--	--	--	--	--	X	X	--	--
SW003	X	X	--	--	--	--	--	--	X	X	--	--
SW004	X	X	--	--	--	--	--	--	X	X	--	--
SW005 / SW012	X	X	X	X	--	--	--	X	X	X	X	X
SW006	X	X	--	--	--	--	--	--	X	X	--	--
SW007 / SW013	X	X	X	X	--	--	--	X	X	X	X	X
SW010	--	--	X	--	--	--	--	--	--	--	X	--
SW011	--	--	X	X	--	--	--	X	--	--	X	X
SW014	--	--	X	X	--	--	--	X	--	--	X	X
SW018	--	--	--	X	--	--	--	X	--	--	--	X

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.6-1

Notes:

--	No sample collected
X	Sample collected
SW	Surface water

Table 4.2.6-2
Detected Surface Water Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Location ID Sample ID Case Sampling date Unit Duplicate info Filtered info SWSV (µg/L)	SW001 ME3RH4 36648 7/24/2007 µg/L	SW002 ME3RH9 36648 7/24/2007 µg/L	SW002W ME3SF2 36697 8/8/2007 µg/L	SW003 ME3RK1 36648 7/25/2007 µg/L	SW003W ME3SF3 36697 8/8/2007 µg/L	SW305W ME3SF4 36697 8/8/2007 µg/L SW003W	SW004 ME3RK6 36648 7/25/2007 µg/L	SW004W ME3SF5 36697 8/8/2007 µg/L	SW005 ME3RP9 36648 7/26/2007 µg/L	SW005W ME3RS8 36720 8/15/2007 µg/L	SW006 ME3RQ0 36648 7/26/2007 µg/L
Aluminum	37,000	**270**	200 U	**27.6 J-**	**1,340**	**430 J**	**722 J**	200 U	**1,930 J**	200 U	**253**	200 U
Antimony	640	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U
Arsenic	0.14	**5.2 J+**	**5.4 J**	10 UJ	**7.6 J+**	10 UJ	10 UJ	10 U	**5.4 J+**	**4.2 J+**	10 UJ	10 U
Barium	5,000	200 U	200 U	**17.7 J**	200 U	**27.2 J**	**31.5 J**	200 U	**22.8 J**	200 U	**20.3 J**	200 U
Beryllium	73	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.15 J+**	5 U
Cadmium	18	**592**	**1.6 J**	5 U	**500**	**490**	**534**	**423**	**524**	**351**	**314**	**345**
Calcium	NC	**438,000**	**23,400**	**24,200**	**437,000**	**415,000**	**450,000**	**465,000**	**446,000**	**442,000**	**464,000**	**425,000**
Chromium (total)	100	10 U	**4.6 J**	10 UJ	**3.1 J**	**1.4 J**	**1.7 J**	10 U	**3.2 J**	10 U	10 U	10 U
Cobalt	11	**9.5 J**	50 U	50 U	**15.3 J**	**14.2 J**	**14.7 J**	**9.3 J**	**14.7 J**	**5.4 J**	50 U	**2.7 J**
Copper	1,500	**56.5**	25 U	**8 J-**	**244**	**91 J**	**109 J**	25 U	**452 J**	25 U	**37.5**	**63.6**
Iron	1,000	**457**	**2,620**	**272 J**	**938**	**605 J**	**1,010 J**	**117**	**1,470 J**	100 U	**286**	**85.2 J**
Lead	15	**226**	**8.5 J**	10 UJ	**378**	**182 J**	**233 J**	**225**	**567 J**	**81.8**	**100 J**	**271**
Magnesium	NC	**57,900**	5,000 U	**1,370 J**	**60,300**	**63,200**	**67,800**	**51,100**	**66,800**	**54,900**	**62,200**	**52,900**
Manganese	1,000	**313**	**77.2**	**35.6 J**	**426**	**486 J**	**537 J**	**521**	**536 J**	**110**	**91.8**	**109**
Mercury	0.012	--	0.2 U	0.2 UJ	**0.58 J-**	0.2 UJ	0.2 UJ	0.2 R	**2.3 J+**	0.2 U	0.2 U	0.2 U
Nickel	4,600	**71.3**	**3.5 J**	**2.4 J**	**84.2**	**87.1 J**	**89.2 J**	**37 J**	**98.2 J**	**55.6**	**55.7**	**53.6**
Potassium	NC	**25,100 J**	**7,660 J**	**10,400 J**	**26,700 J**	**36,700 J**	**38,300 J**	**90,700 J**	**37,000 J**	**30,100 J**	**34,700**	**30,500 J**
Selenium	1,000	**17.3 J**	35 U	35 U	**23.4 J**	**15.2 J**	**14.5 J**	35 U	**22.6 J**	**21.2 J**	**12.8 J**	**19.6 J**
Silver	5	**3.2 J-**	10 U	10 U	**7.1 J-**	**2.5 J-**	**2.3 J-**	**2 J-**	10 UJ	**4.2 J-**	**3.8 J-**	10 UJ
Sodium	NC	**39,700**	5,000 U	5,000 U	**46,600**	**53,800**	**55,800**	**56,400**	**54,700**	**36,400**	**26,800 J**	**36,800**
Thallium	0.47	25 U	25 U	25 U	25 U	25 UJ	25 UJ	25 U	25 UJ	25 U	25 UJ	25 U
Vanadium	180	**1.2 J**	**0.99 J**	50 U	**2.3 J**	**1.3 J**	**2 J**	50 U	**1.7 J**	**1.2 J**	50 U	50 U
Zinc	26,000	**113,000 J**	**886 J**	**441 J**	**104,000 J**	**91,700 J**	**91,400 J**	**66,600 J**	**114,000 J**	**56,900 J**	**63,600**	**63,300 J**

Table 4.2.6-2
Detected Surface Water Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Location ID / Sample ID / Case / Sampling date / Unit / Duplicate info / Filtered info / SWSV (µg/L)	SB268 ME3RQ2 36648 7/26/2007 µg/L SW006	SW006W ME3RS9 36720 8/15/2007 µg/L	SW007 ME3RQ1 36648 7/26/2007 µg/L	SW007W ME3RT2 36720 8/15/2007 µg/L	SW010-0708 ME3P25 37656 7/9/2008 µg/L	SW011-0708 ME3P26 37656 7/9/2008 µg/L	SW011-1008 ME3YA5 37991 11/3/2008 µg/L	SW050-1008 ME3YB3 37991 11/3/2008 µg/L SW011-1008	SW011-1008 ME4899 37991 11/3/2008 µg/L dissolved	SW050-1008 ME48A2 37991 11/3/2008 µg/L SW011-1008	SW012-0708 ME3P27 37656 7/9/2008 µg/L
Aluminum	37,000	**211**	**281**	**381**	**32.3 J-**	**500**	**264 J**	222 U	**52.7 J**	32.6 U	222 U	200 U
Antimony	640	60 U	60 U	60 U	60 U	**18.1 J**	60 U	66.7 U	66.7 U	66.7 U	66.7 U	60 U
Arsenic	0.14	10 U	10 UJ	**11.1 J+**	10 UJ	10 U	**5.3 J**	11.1 U	11.1 U	11.1 U	11.1 U	10 U
Barium	5,000	200 U	**18.9 J**	200 U	**26.1 J**	**70.1 J**	**15.6 J**	222 U	**15.2 J**	222 U	**15.6 J**	**24.8 J**
Beryllium	73	5 U	**0.22 J+**	5 U	**0.12 J+**	**0.14 J**	**0.14 J**	5.6 U	5.6 U	5.6 U	5.6 U	5 U
Cadmium	18	**406**	**328**	**412**	**273**	**31.3 J+**	**1,550 J+**	**1,320**	**1,310**	**1,310**	**1,320**	**286 J+**
Calcium	NC	**499,000**	**468,000**	**469,000**	**442,000**	**48,300 J**	**463,000 J**	**499,000**	**502,000**	**499,000**	**505,000**	**431,000 J**
Chromium (total)	100	10 U	10 U	**5.4 J**	10 U	10 U	10 U	11.1 R	11.1 R	11.1 R	11.1 R	10 U
Cobalt	11	**2.6 J**	50 U	**8.9 J**	50 U	50 U	**11 J**	**15.5 J**	55.6 UJ	55.6 UJ	55.6 UJ	50 U
Copper	1,500	**66.4**	**47.5**	**60.4**	25 U	**22.3 J**	**49.2**	**15.4 J**	**13 J**	**9.7 J**	**9.2 J**	**25.8 J+**
Iron	1,000	**198**	**358**	**900**	**109**	**1,310 J+**	**432 J+**	**121**	**64 J**	**9.9 J**	111 U	**50.7 J+**
Lead	15	**324**	**127 J**	**309**	**47.8 J**	**119**	**308**	**168**	**156**	**124**	**124**	**88.8**
Magnesium	NC	**62,200**	**62,100**	**59,300**	**59,500**	**3,360 J**	**71,900 J**	**70,600**	**70,400**	**70,100**	**70,700**	**60,800 J**
Manganese	1,000	**121**	**127**	**159**	**94.1**	**143 J**	**768 J**	**986**	**991**	**976**	**983**	**1.9 J**
Mercury	0.012	0.2 U	0.2 U	0.2 U	0.2 U	**0.27**	**0.36**	0.2 U	0.2 U	0.2 U	0.2 U	**0.13 J**
Nickel	4,600	**62.3**	**58.3**	**62.1**	**47.1**	**2.1 J**	**74.7**	**67.2**	**67.1**	**68.2**	**68**	**51.4**
Potassium	NC	**31,500 J**	**33,400**	**29,900 J**	**34,200**	**3,930 J**	**16,100**	**17,000**	**17,200**	**17,000**	**17,000**	**25,700**
Selenium	1,000	**16.7 J**	**16.2 J**	**20.4 J**	**18.4 J**	35 U	**11.3 J**	38.9 UJ	38.9 UJ	38.9 UJ	38.9 UJ	**9.3 J**
Silver	5	10 UJ	**4.2 J-**	**10 J-**	**3.1 J-**	10 UJ	10 UJ	**5.4 J+**	11 U	11.1 U	11.1 U	10 UJ
Sodium	NC	**38,100**	**25,100 J**	**36,300**	**27,400 J**	2,060 UJ	**46,600 J**	**44,600**	**44,800**	**44,700**	**45,000**	**36,300 J**
Thallium	0.47	25 U	25 UJ	25 U	25 UJ	25 U	**4.1 J**	27.8 UJ	27.8 UJ	27.8 UJ	27.8 UJ	25 U
Vanadium	180	50 U	50 U	**6 J**	50 U	50 U	50 U	55.6 UJ	55.6 UJ	**0.93 J-**	55.6 UJ	50 U
Zinc	26,000	**74,400 J**	**65,200**	**80,400 J**	**56,800**	**2,400 J**	**208,000 J**	**276,000**	**275,000**	**275,000**	**271,000**	**50,000 J**

Table 4.2.6-2
Detected Surface Water Metals and Cyanide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Location ID / Sample ID / Case / Sampling date / Unit / Duplicate info / Filtered info / SWSV (µg/L)	SW012-1008 ME3YA6 37991 11/3/2008 µg/L	SW012-1008 ME48A0 37991 11/3/2008 µg/L dissolved	SW013-0708 ME3P28 37656 7/9/2008 µg/L	SW013-1008 ME3YA7 37991 10/30/2008 µg/L	SW013-1008 ME48A1 37991 10/30/2008 µg/L dissolved	SW014-0708 ME3P29 37656 7/9/2008 µg/L	SW050-0708 ME3P33 37656 7/9/2008 µg/L	SW014-1008 ME3YA8 37991 10/30/2008 µg/L	SW014-1008 ME4897 37991 10/30/2008 µg/L dissolved	SW018-1008 ME3YB2 37991 10/30/2008 µg/L	SW018-1008 ME4898 37991 10/30/2008 µg/L dissolved
Aluminum	37,000	222 U	222 U	**201**	222 U	222 U	**10.1 J**	**52.8 J**	222 U	222 U	**36,300**	**36,500**
Antimony	640	66.7 U	66.7 U	60 U	66.7 U	66.7 U	60 U	60 U	66.7 U	66.7 U	66.7 U	66.7 U
Arsenic	0.14	11.1 U	11.1 U	10 U	11.1 U	11.1 U	10 U	**4.3 J**	11.1 U	11.1 U	**10.6 J+**	**10.1 J+**
Barium	5,000	222 U	222 U	**41.3 J**	222 U	**31 J**	**85.1 J**	**96.8 J**	222 U	222 U	222 U	222 U
Beryllium	73	5.6 U	5.6 U	5 U	5.6 U	5.6 U	5 U	5 U	5.6 U	5.6 U	5.6 U	**1.2 J+**
Cadmium	18	**262**	**259**	**173 J+**	**245**	**239**	**0.5 J+**	**2 J+**	5.6 U	5.6 U	**388**	**386**
Calcium	NC	**456,000**	**451,000**	**398,000 J**	**455,000**	**451,000**	**41,700 J**	**42,700**	**39,200**	**38,600**	**389,000**	**390,000**
Chromium (total)	100	11.1 U	11.1 U	10 U	11.1 U	11.1 U	10 U	10 U	11.1 U	**0.85 J**	**51.3 J+**	**51.5**
Cobalt	11	55.6 UJ	55.6 U	**2.2 J**	55.6 UJ	55.6 UJ	50 U	**1 J**	55.6 U	55.6 U	**11.6 J**	55.6 UJ
Copper	1,500	**29.5**	**24.6 J**	**8.5 J+**	**16.5 J**	**9.3 J**	**3.3 J**	**8.2 J**	**3.3 J**	27.8 U	**54.1**	**53.3**
Iron	1,000	**7 J-**	111 U	**370 J+**	**304**	111 U	**4,560 J+**	**7,040 J+**	**355**	**78.6 J**	**31,700**	**31,700**
Lead	15	**106**	**89.9**	**51.1**	**99.2**	**52.7**	**6.7 J**	**20.2**	**7 J**	11.1 U	**1,420**	**1,410**
Magnesium	NC	**62,000**	**61,200**	**57,600 J**	**61,600**	**60,600**	**5,700 J**	**5,810**	**5,340 J**	**5,230 J**	**99,600**	**99,300**
Manganese	1,000	**1.8 J-**	16.7 UJ	**327 J**	**31.8 J-**	**12.1 J-**	**292 J**	**387**	**12.6 J**	16.7 U	**1,210**	**1,210**
Mercury	0.012	0.2 U	0.2 U	**0.22**	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**0.63**	0.2 U
Nickel	4,600	**55.9**	**56.5**	**41**	**51.2**	**51.5**	40 U	**5.2 J**	**1.6 J**	**1.4 J**	**61.5**	**63**
Potassium	NC	**27,700**	**27,400**	**25,500**	**29,600**	**29,800**	**3,610 J**	**3,580 J**	**7,530**	**7,450**	**21,900**	**22,000**
Selenium	1,000	**9.7 J-**	**7.9 J-**	**6.9 J**	**9.4 J-**	**8 J-**	35 U	35 U	38.9 UJ	38.9 UJ	**35 J-**	**32.9 J-**
Silver	5	**4.3 J+**	11.1 U	10 UJ	**4.5 J+**	11.1 U	10 UJ	10 UJ	**1.6 J-**	11.1 U	**4.9 J+**	11.1 U
Sodium	NC	**33,600**	**33,400**	**34,100 J**	**34,400**	**34,700**	**6,140 J**	**6,240**	**5,540 J**	**5,540 J**	**19,400**	**19,500**
Thallium	0.47	27.8 UJ	27.8 UJ	25 U	27.8 UJ	27.8 UJ	25 U	25 U	27.8 U	27.8 U	27.8 UJ	27.8 UJ
Vanadium	180	55.6 UJ	**0.88 J-**	50 U	**1.1 J-**	**0.82 J-**	50 U	50 U	55.6 U	55.6 U	**42.3 J**	**42.5 J-**
Zinc	26,000	**58,600**	**56,600**	**32,900 J**	**54,800**	**50,900**	**268 J**	**618**	**405**	**243**	**66,000**	**64,500**

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.6-2

Notes:
Bold values indicate a detection
Red shaded cells indicate an exceedance of the SWSV

--	No data available
µg/L	Microgram per liter
J	Estimated result
J-	Underestimated result
J+	Overestimated result
NC	No criteria available
R	Rejected result
SW	Surface water
SWSV	Surface water screening value
U	Non-detect result
UJ	Non-detected and estimated result

Table 4.2.6-3
Detected Surface Water VOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Location ID Sample ID Case Sampling date Unit Duplicate info SWSV (µg/L)	SW002W E3SF2 36697 8/8/2007 µg/L	SW003 E3RK1 36648 7/25/2007 µg/L	SW003W E3SF3 36697 8/8/2007 µg/L	SW305W E3SF4 36697 8/8/2007 µg/L SW003W	SW004W E3SF5 36697 8/8/2007 µg/L	SW005 E3RP9 36648 7/26/2007 µg/L	SW010-0708 E3P25 37656 7/9/2008 µg/L	SW014-0708 E3P29 37656 7/9/2008 µg/L	SW050-0708 E3P33 37656 7/9/2008 µg/L SW014-0708	SW014-1008 E3YA8 37991 10/30/2008 µg/L
1,2,3-Trichlorobenzene	8.2	5 U	**1.3 J**	5 U	5 U	5 U	**5.3**	5 U	5 U	5 U	5 U
1,2,4-Trichlorobenzene	70	5 U	5 U	5 U	5 U	5 U	**2.8 J**	5 U	5 U	5 U	5 U
Acetone	22,000	10 U	10 U	10 U	10 U	10 U	10 U	**4.8 J**	**8.4 J**	**6.9 J**	20 U
Carbon disulfide	1,000	**1.4 J**	5 U	**0.96 J**	5 U	5 U	5 U	5 U	5 U	5 U	**0.55 J**
cis-1,2-Dichloroethene	370	5 U	**0.34 J**	**0.4 J**	**0.4 J**	**0.49 J**	5 U	5 U	5 U	5 U	5 U
Trichloroethene	26	5 U	**0.48 J**	**0.46 J**	**0.48 J**	**0.59 J**	5 U	5 U	5 U	5 U	5 U

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.6-3

Notes:
Bold values indicate a detection
Red shaded cells indicate an exceedance of the SWSV

--	No data available
µg/L	Microgram per liter
J	Estimated result
J-	Underestimated result
J+	Overestimated result
NC	No criteria available
R	Rejected result
SW	Surface water
SWSV	Surface water screening value
U	Non-detect result
UJ	Non-detected and estimated result

Table 4.2.6-4
Detected Surface Water SVOC Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Location ID Sample ID Case Sampling date Unit Duplicate info SWSV (µg/L)	SW002 E3RH9 36648 7/24/2007 µg/L	SW002W E3SF2 36697 8/8/2007 µg/L	SW003 E3RK1 36648 7/25/2007 µg/L	SW003W E3SF3 36697 8/8/2007 µg/L	SW011-1008 E3YA5 37991 11/3/2008 µg/L	SW050-1008 E3YB3 37991 11/3/2008 µg/L SW011-1008	SW012-1008 E3YA6 37991 11/3/2008 µg/L	SW013-0708 E3P28 37656 7/9/2008 µg/L	SW013-1008 E3YA7 37991 10/30/2008 µg/L	SW014-0708 E3P29 37656 7/9/2008 µg/L	SW014-1008 E3YA8 37991 10/30/2008 µg/L	SW018-1008 E3YB2 37991 10/30/2008 µg/L
Bis(2-ethylhexyl)phthalate	1.9	**1.9 J**	**2.3 J**	5 U	**0.48 J**	**0.61 J**	**0.48 J**	**1 J**	4.7 U	**0.46 J**	4.8 U	**0.96 J**	**0.53 J**
Butylbenzylphthalate	1,700	5 UJ	5 U	5 U	5 U	**0.25 J**	**0.27 J**	**0.17 J**	4.7 U	**0.31 J**	4.8 U	**0.33 J**	**0.31 J**
Caprolactam	18,000	5 U	5 U	5 U	5 U	**0.68 J**	**0.62 J**	5 U	24 U	**0.62 J**	24 U	**0.74 J**	**0.92 J**
Diethylphthalate	44,000	5 U	5 U	5 U	5 U	**0.22 J**	**0.24 J**	**0.25 J**	4.7 U	**0.3 J**	4.8 U	**0.3 J**	**0.23 J**
Di-n-butylphthalate	4,500	5 U	5 U	5 U	5 U	**0.25 J**	**0.16 J**	5 U	**0.92 J**	**0.26 J**	**0.72 J**	**0.19 J**	**0.22 J**
Hexachlorobutadiene	18	5 U	5 U	**0.23 J**	5 U	5 U	5 U	5 U	4.7 U	5 U	4.8 U	5 U	5 U
Phenol	860,000	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.7 U	5 U	4.8 U	5 U	**0.19 J**

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.6-4

Notes:
Bold values indicate a detection
Red shaded cells indicate an exceedance of the SWSV

--	No data available
µg/L	Microgram per liter
J	Estimated result
J-	Underestimated result
J+	Overestimated result
NC	No criteria available
R	Rejected result
SW	Surface water
SWSV	Surface water screening value
U	Non-detect result
UJ	Non-detected and estimated result

Table 4.2.6-5
Detected Surface Water Pesticide Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Location ID Sample ID Case Sampling date Unit Duplicate info SWSV (µg/L)	SW002W E3SF2 36697 8/8/2007 µg/L	SW003W E3SF3 36697 8/8/2007 µg/L	SW007W E3RT2 36720 8/15/2007 µg/L	SW011-1008 E3YA5 37991 11/3/2008 µg/L	SW050-1008 E3YB3 37991 11/3/2008 µg/L SW011-1008	SW013-0708 E3P28 37656 7/9/2008 µg/L	SW014-1008 E3YA8 37991 10/30/2008 µg/L	SW018-1008 E3YB2 37991 10/30/2008 µg/L
alpha-BHC	0.0042	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.048 U	0.05 U	**0.013 J**
alpha-Chlordane	0.00072	0.05 U	0.05 U	0.05 UJ	**0.0016 J**	**0.0017 J**	0.048 U	0.05 U	0.05 U
beta-BHC	0.015	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.048 U	0.05 U	**0.042 J**
delta-BHC	0.0049	**0.023 J**	0.05 U	0.05 UJ	0.05 U	0.05 U	0.048 U	0.05 U	0.05 U
Dieldrin	0.000046	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.095 U	**0.0031 J**	0.1 U
Endosulfan I	89	**0.0084 J**	0.05 U	0.05 UJ	0.05 U	0.05 U	0.048 U	0.05 U	0.05 U
Endrin aldehyde	0.3	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	**0.049 J**	0.1 U	0.1 U
Heptachlor	0.000068	0.05 U	0.05 U	**0.005 J**	0.05 U	0.05 U	0.048 U	0.05 U	**0.044 J**
Heptachlor epoxide	0.000036	0.05 U	**0.0063 J**	0.05 UJ	0.05 U	0.05 U	0.048 U	0.05 U	0.05 U

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.6-5

Notes:
Bold values indicate a detection
Red shaded cells indicate an exceedance of the SWSV

--	No data available
µg/L	Microgram per liter
J	Estimated result
J-	Underestimated result
J+	Overestimated result
NC	No criteria available
R	Rejected result
SW	Surface water
SWSV	Surface water screening value
U	Non-detect result
UJ	Non-detected and estimated result

Table 4.2.7-1
Summary of Air Asbestos Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

	Location ID	AbsAir1	AbsAir2	AbsAir3	AbsAir4	AbsAir6	AbsAir6	AbsAir8	AbsAir8	PS1	PS2	PS3
	Case	279353001	279353001	279353001	279353001	A0912039-027A	A0912039-028A	A0912039-029A	A0912039-030A	A0912039-031A	A0912039-032A	A0912039-033A
	Sample ID	AbsAir1	AbsAir2	AbsAir3	AbsAir4	ABSAIR6-LOW	ABSAIR6-HIGH	ABSAIR8-LOW	ABSAIR8-HIGH	PS1	PS2	PS3
	Sampling date	7/9/2008	7/9/2008	7/9/2008	7/9/2008	9/30/2009	9/30/2009	9/30/2009	9/30/2009	9/30/2009	9/30/2009	9/30/2009
	Investigation area	3	3	2	2	1	1	3	3	3	1	3
	Type	Passive	Passive	Passive	Passive	ABS-Low	ABS-High	ABS-Low	ABS-High	Perimeter	Perimeter	Perimeter
Asbestos		<0.003	<0.003	<0.006	<0.006	<0.005	<0.0029	<0.0049	<0.0029	<0.00063	<0.0013	<0.0022

Table 4.2.7-1
Summary of Air Asbestos Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

	Location ID	PS4	B1	RAFS-A5	RAFS-A5	RAFS-A5	RAFS-A5	RAFS-A6	RAFS-A6	RAFS-A6
	Case	A0912039-034A	A0912039-035A	A0912039-001A	A0912039-002A	A0912039-003A	A0912039-006A	A0912039-007A	A0912039-008A	A0912039-010A
	Sample ID	PS4	B1	MHIL-RAFS-A5-L1-01	MHIL-RAFS-A5-L1-02	MHIL-RAFS-A5-L2-01	MHIL-RAFS-A5-L3-02	MHIL-RAFS-A6-L1-01	MHIL-RAFS-A6-L1-02	MHIL-RAFS-A6-L2-02
	Sampling date	9/30/2009	9/30/2009	10/1/2009	10/1/2009	10/1/2009	10/1/2009	9/30/2009	9/30/2009	9/30/2009
	Investigation area	2	Off site	3	3	3	3	1	1	1
	Type	Perimeter	Background	RAFS	RAFS	RAFS	RAFS	RAFS	RAFS	RAFS
Asbestos		<0.005	<0.0043	<0.005	<0.005	<0.005	**0.0049**	**0.005**	<0.005	<0.0049

Table 4.2.7-1
Summary of Air Asbestos Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

	Location ID	RAFS-A6	RAFS-A6	RAFS-A7	RAFS-A7	RAFS-A7	RAFS-A7	RAFS-A8	RAFS-A8
	Case	A0912039-011A	A0912039-012A	A0912039-013A	A0912039-014A	A0912039-016A	A0912039-018A	A0912039-019A	A0912039-022A
	Sample ID	MHIL-RAFS-A6-L3-01	MHIL-RAFS-A6-L3-02	MHIL-RAFS-A7-L1-01	MHIL-RAFS-A7-L1-02	MHIL-RAFS-A7-L2-02	MHIL-RAFS-A7-L3-02	MHIL-RAFS-A8-L1-01	MHIL-RAFS-A8-L2-02
	Sampling date	9/30/2009	9/30/2009	9/30/2009	9/30/2009	9/30/2009	9/30/2009	9/30/2009	9/30/2009
	Investigation area	1	1	3	3	3	3	3	3
	Type	RAFS	RAFS	RAFS	RAFS	RAFS	RAFS	RAFS	RAFS
Asbestos		<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	**0.015**	<0.0049	<0.0049

Table 4.2.7-1
Summary of Air Asbestos Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

	Location ID	RAFS-A8
	Case	A0912039-024A
	Sample ID	MHIL-RAFS-A8-L3-02
	Sampling date	9/30/2009
	Investigation area	3
	Type	RAFS
Asbestos		<0.0049

Section 4.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 4.2.7-1

Notes:

ABS	Activity based sampling
ID	Identification
NA	Not applicable
RAFS	Releasable Asbestos Field Sampler

Table 4.3.1-1
Summary of Constituents of Interest Exceeding Screening Values for OU1
Matthiessen and Hegeler Zinc Company Site
LaSalle, Illinois

Sampling Media	Sampling Area					
	Plant Area	**Slag Pile**		**Little Vermilion River**		
Shallow Soils	**Metals** Arsenic Iron Lead Manganese Mercury* Zinc* **SVOCs** Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene* Dibenzo(a,h)anthracene* Indeno(1,2,3-cd)pyrene **PCBs** Aroclor 1254* Aroclor 1260*	**Metals** Arsenic Cadmium Cobalt Copper* Lead Manganese Mercury Vanadium* Zinc **SVOCs** Benzo(a)pyrene* Hexachlorobenzene*		NA		
Deep Soils	**Metals** Arsenic Cobalt* Lead* Manganese	**Metals** Antimony Arsenic Cadmium Cobalt Iron Lead Manganese Mercury* Zinc	**SVOCs** Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene* Dibenzo(a,h)anthracene Indeno(1,2,3-cd)pyrene*			
Sediment	NA	**Metals** Arsenic Cadmium Chromium Copper Lead Mercury Nickel Silver* Zinc **VOCs** Acetone	**SVOCs** Acenaphthene* Acenaphthylene* Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(g,h,i)perylene* Benzo(k)fluoranthene Bis(2-ethylhexyl)phthalate Carbazole* Chrysene Dibenzo(a,h)anthracene* Fluoranthene Indeno(1,2,3-cd)pyrene* Phenanthrene Pyrene **PCBs** Aroclor 1254* Aroclor 1260*	**Metals** Arsenic Cadmium Cobalt Copper Lead Mercury Manganese Nickel Silver Zinc Cyanide **VOCs** Acetone 2-Butanone (MEK)* **SVOCs** Benzo(a)anthracene Benzo(a)pyrene* Bis(2-ethylhexyl)phthalate Chrysene* Fluoranthene* Phenanthrene Pyrene	**PCBs** Aroclor 1242 Aroclor 1254 Aroclor 1260* **Pesticides** 4,4'-DDD* 4,4'-DDT* alpha-Chlordane Dieldrin Endrin Endrin Aldehyde* gamma-Chlordane*
Surface Water	NA	NA		**Metals** Aluminum Cadmium Chromium* Copper Iron Lead Nickel Selenium Silver Zinc Cyanide		
Groundwater	**Metals** Aluminum Arsenic Barium Beryllium Cadmium Chromium Cobalt Iron Lead Manganese Mercury Vanadium* Zinc **VOCs** 1,2-Dichloroethane* Vinyl Chloride*	**Metals** Arsenic Cadmium Cobalt Copper* Iron Lead Manganese Mercury* Nickel* Zinc		NA		

Notes:
*COIs were detected at concentrations exceeding the screening values in one sample per medium.

Table 4.3.2-1
OU2 Summary of Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Matrix [a]			Investigation Area 1 Building 100	Investigation Area 2 Rolling Mill	Investigation Area 3 Former Main Industrial Area	Investigation Area 4 North Area/Northeast Periphery Area	Investigation Area 5 Residential Area / Off-Site Area
Soil/Solid	Soil[b]	Surface	**Metals:** Arsenic, Cadmium, Cobalt, Manganese, Mercury, Lead, Zinc **SVOCs:** Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Dibenzo(a,h)anthracene, Indeno(1,2,3-cd)pyrene **PCBs:** Aroclor-1260 **Asbestos:** Asbestos fibers detected above detection limit	**Metals:** Arsenic, Cadmium, Cobalt, Manganese, Lead, Zinc **SVOCs:** Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Benzo(k)fluoranthene, Chrysene, Dibenzo(a,h)anthracene, Indeno(1,2,3-cd)pyrene **PCBs:** Aroclor-1254	**Metals:** Antimony, Arsenic, Cadmium, Cobalt, Copper, Lead, Manganese, Mercury, Zinc **SVOCs:** Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Benzo(k)fluoranthene, Chrysene, Dibenzo(a,h)anthracene, Indeno(1,2,3-cd)pyrene, Naphthalene **PCBs:** Aroclor-1254, Aroclor-1260 **Asbestos:** Asbestos fibers detected above detection limit **TCLP Metals:** Cadmium, Lead **SPLP Metals:** Anitmony, Cadmium, Lead, Zinc	**Metals:** Arsenic, Cadmium, Cobalt, Lead, Zinc **SVOCs:** Benzo(a)pyrene	**Metals:** Arsenic, Cadmium, Lead, Zinc
		Subsurface	**Metals:** Arsenic, Cobalt, Manganese, Lead, Zinc **SVOCs:** Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Indeno(1,2,3-cd)pyrene **PCBs:** Aroclor-1260	**Metals:** Arsenic, Cadmium, Cobalt, Manganese, Lead, Zinc **SVOCs:** Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Indeno(1,2,3-cd)pyrene	**Metals:** Antimony, Arsenic, Cadmium, Cobalt, Lead, Manganese, Mercury, Zinc **SVOCs:** Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Benzo(k)fluoranthene, Chrysene, Dibenzo(a,h)anthracene, Indeno(1,2,3-cd)pyrene **SPLP Metals:** Antimony, Cadmium, Lead, Zinc	**Metals:** Arsenic, Cobalt, Manganese	NA
	Building Materials[c]		**Metals:** Arsenic	**Metals:** Arsenic	**Metals:** Antimony, Arsenic, Cadmium, Chromium, Lead, Mercury, Zinc **SVOCs:** Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Benzo(k)fluoranthene, Chrysene, Dibenzo(a,h)anthracene, Indeno(1,2,3-cd)pyrene **Asbestos:** Asbestos fibers detected above detection limit	NA	NA
	Piles[d]		**Metals:** Arsenic, Cadmium, Lead, Zinc **SVOCs:** Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Dibenzo(a,h)anthracene, Indeno(1,2,3-cd)pyrene	**Metals:** Arsenic **SVOCs:** Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Dibenzo(a,h)anthracene, Indeno(1,2,3-cd)pyrene	**Metals:** Antimony, Arsenic, Cadmium, Cobalt, Copper, Iron, Lead, Manganese, Mercury, Thallium, Zinc **SVOCs:** Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-cd)pyrene **PCBs:** Aroclor-1260, Aroclor-1254, Aroclor-1248 **Pesticides:** Dieldrin **Asbestos:** Asbestos fibers detected above detection limit	NA	NA

Table 4.3.2-1
OU2 Summary of Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Matrix [a]		Investigation Area 1 Building 100	Investigation Area 2 Rolling Mill	Investigation Area 3 Former Main Industrial Area	Investigation Area 4 North Area/Northeast Periphery Area	Investigation Area 5 Residential Area / Off-Site Area
Groundwater[e]	WBZ1	**Total Metals:** Arsenic, Cadmium, Cobalt, Iron, Lead, Manganese, Mercury, Selenium, Thallium, Zinc **Dissolved Metals:** Arsenic, Cadmium, Cobalt, Iron, Lead, Manganese, Selenium, Zinc **VOCs:** Trichloroethene, Vinyl Chloride **SVOCs:** Bis(2-ethylhexyl)phthalate **Pesticides:** delta-BHC, Heptachlor epoxide				NA
	WBZ2	**Total Metals:** Arsenic, Cobalt, Lead, Manganese **Dissolved Metals:** Arsenic, Cadmium, Cobalt, Manganese, Zinc **VOCs:** Chloroform **SVOCs:** Naphthalene **Pesticides:** Delta-BHC, Heptachlor epoxide				NA
Surface Water[f]		**Metals:** Arsenic, Cadmium, Cobalt, Iron, Lead, Mercury, Silver, Zinc **Pesticides:** Heptachlor				NA

Notes:

a This table summarizes contaminants detected at concentrations exceeding the screening values in more than one sample per medium.

b Soil sample results were compared to the EPA residential and industrial Regional Screening Levels (RSL). TCLP metals results were compared to the regulatory levels in Title 40 of the *Code of Federal Regulations* (40 CFR), Section 261.24. SPLP metals results were compared to both the 40 CFR Section 261.24 regulatory levels and the EPA groundwater maximum contaminant levels (MCL) or the EPA Tapwater RSLs if no MCLs existed.

c Building material sample results were compared to the EPA residential and industrial RSLs.

d Pile sample results were compared to the EPA residential and industrial RSLs.

e Groundwater sample results were compared to the EPA groundwater MCLs and EPA Tapwater RSLs.

f Surface water sample results were compared to the surface water screening values, which were chosen from the Human Health Surface Water Medium-Specific Screening Criteria as agreed upon and presented in Attachment 4, Revision 1, of the "Technical Approach Consensus Document, Human Health and Ecological Risk Assessments" (Geosyntec and SulTRAC 2008) (see Appendix RA).

Table 4.3.3-1
Border Area List of Soil Samples and Analyte Groups
Matthiessen and Hegeler Zinc Company Site
LaSalle, Illinois

Operable Unit	Border Area	0 -100 ft of border	100-200 ft of border	Location ID	Sample ID	Depth (ft bgs)	Metals	XRF Metals[a]	VOCs	SVOCs	PCBs	Pests	Asbestos
OU1	Southern Border	x		G-04	G-04-Surface	0			x	x			
					G-04-5	5			x	x			
					G-04-15	15			x	x			
	Southern Border	x		C-5	C-5-12	12			x	x			
					C-5	3	x						
	Southern Border	x		C-6	C-6-5	5			x	x			
	Southern Border	x		SB-311	OU1-SS-SB311-0-1	0-1	x		x	x	x	x	
					OU1-SS-SB311-2-4	2-4	x						
	Southern Border	x		SB-312	OU1-SS-SB312-0-1	0-1	x						
					OU1-SS-SB312-2-4	2-4	x		x	x	x	x	
	Southern Border		x	G-03	G-03	5	x						
					G-03	15	x						
	Southern Border		x	C-7	C-7-6	6			x	x			
	Southern Border		x	C-8	C-8	0	x						
	Southern Border		x	SB-314	OU1-SS-SB314-0-1	0-1	x						
					OU1-SS-SB314-2-4	2-4	x						
OU1	Slag Pile Border	x		SB-302	OU1-SS-SB302-0-1	0-1	x						
					OU1-SS-SB302-10.5-11.5	10.5-11.5	x		x	x			
					OU1-SS-SB302-12-13	12-13	x						
	Slag Pile Border	x		poly_2_002	poly_2_002	0-1		x					
	Slag Pile Border	x		poly_2_091	poly_2_091	0-1		x					
	Slag Pile Border	x		poly_4_007	poly_4_007	0-1		x					
	Slag Pile Border	x		poly_4_009	poly_4_009	0-1		x					
	Slag Pile Border		x	ISA-x104	ISA-x104	0 - 0.833	x		x	x	x	x	
	Slag Pile Border		x	MW-301H	OU1-SS-SB301-0-1	0-1	x		x	x	x	x	
					OU1-SS-SB301-40-41	40-41	x						
					OU1-SS-SB301-44-50	44-50	x						
	Slag Pile Border		x	MW-304S	OU1-SS-SB304-0-1	0-1	x						
					OU1-SS-SB304-58-59	58-59	x						
					OU1-SS-SB304-59-60	59-60	x		x	x			
	Slag Pile Border		x	P-2	P-2	19	x						
					P-2	42	x						

Table 4.3.3-1
Border Area List of Soil Samples and Analyte Groups
Matthiessen and Hegeler Zinc Company Site
LaSalle, Illinois

Operable Unit	Border Area	0 -100 ft of border	100-200 ft of border	Location ID	Sample ID	Depth (ft bgs)	Metals	XRF Metals[a]	VOCs	SVOCs	PCBs	Pests	Asbestos
OU2	Southern Border	x		SB182	SB182A	0-2	x		x	x	x	x	x
					SB182B	8-10	x		x	x	x	x	
	Southern Border	x		SB184	SB184A	0-2	x		x	x	x	x	x
					SB184B	8-10	x		x	x	x	x	
	Southern Border	x		SB436	SB436A	0-2	x		x	x	x	x	x
					SB436B	8-10	x		x	x	x	x	
	Southern Border	x		poly_4_001	poly_4_001	0-1	x	x					
	Southern Border	x		poly_6_002	poly_6_002	0-1		x					
	Southern Border	x		poly_6_003	poly_6_003	0-1		x					
	Southern Border	x		poly_6_004	poly_6_004	0-1		x					
	Southern Border	x		poly_6_005	poly_6_005	0-1		x					
	Southern Border	x		poly_6_006	poly_6_006	0-1		x					
	Southern Border	x		poly_6_007	poly_6_007	0-1		x					
	Southern Border	x		poly_6_008	poly_6_008	0-1		x					
	Southern Border	x		poly_6_009	poly_6_009	0-1		x					
	Southern Border		x	SB141	SB141A	0-2	x		x	x	x	x	x
					SB141B	8-10	x		x	x	x	x	
	Southern Border		x	SB181	SB181A	0-2	x		x	x	x	x	x
					SB181B	8-10	x		x	x	x	x	
	Southern Border		x	SB183	SB183A	0-2	x		x	x	x	x	x
					SB183B	8-10	x		x	x	x	x	
	Southern Border		x	SB185	SB185A	0-2	x		x	x	x	x	x
					SB185B	8-10	x		x	x	x	x	
	Southern Border		x	SB188	SB188A	0-2	x		x	x	x	x	x
					SB188B	8-10	x		x	x	x	x	
	Southern Border		x	SB201	SB201A	0-2	x		x	x	x	x	x
					SB201B	6-8	x		x	x	x	x	
	Southern Border		x	SB431	SB431A	0-2	x		x	x	x	x	x
					SB431B	8-10	x		x	x	x	x	
	Southern Border		x	SB434	SB434A	0-2	x		x	x	x	x	x
					SB434B	8-10	x		x	x	x	x	
	Southern Border		x	SB435	SB435A	0-2	x		x	x	x	x	x
					SB435B	8-10	x		x	x	x	x	

Table 4.3.3-1
Border Area List of Soil Samples and Analyte Groups
Matthiessen and Hegeler Zinc Company Site
LaSalle, Illinois

Operable Unit	Border Area	0 -100 ft of border	100-200 ft of border	Location ID	Sample ID	Depth (ft bgs)	Metals	XRF Metals[a]	VOCs	SVOCs	PCBs	Pests	Asbestos
OU2	Slag Pile Border	x		SB100	SB100A	0-2	x		x	x	x	x	x
					SB100B	6-8	x		x	x	x	x	
	Slag Pile Border	x		SB101	SB101A	0-2	x		x	x	x	x	x
					SB101B	8-10	x		x	x	x	x	
	Slag Pile Border	x		SB102	SB102A	0-2	x		x	x	x	x	x
					SB102B	4-6	x		x	x	x	x	
	Slag Pile Border	x		SB108	SB108A	0-2	x		x	x	x	x	x
					SB108B	8-10	x		x	x	x	x	
	Slag Pile Border	x		SB109	SB109A	0-2	x		x	x	x	x	x
					SB109B	8-10	x		x	x	x	x	
	Slag Pile Border	x		SB110	SB110A	0-2	x		x	x	x	x	x
					SB110B	8-10	x		x	x	x	x	
	Slag Pile Border	x		SB111	SB111A	0-2	x		x	x	x	x	x
					SB111B	8-10	x		x	x	x	x	
	Slag Pile Border	x		SB166	SB166A	0-2	x		x	x	x	x	x
					SB166B	8-10	x		x	x	x	x	
	Slag Pile Border	x		poly_2_001	poly_2_001	0-1		x					
	Slag Pile Border	x		poly_4_002	poly_4_002	0-1	x	x					
	Slag Pile Border	x		poly_4_004	poly_4_004	0-1	x	x					
	Slag Pile Border	x		poly_4_006	poly_4_006	0-1		x					
	Slag Pile Border	x		poly_4_008	poly_4_008	0-1	x	x					
	Slag Pile Border	x		poly_4_010	poly_4_010	0-1	x	x					
	Slag Pile Border	x		poly_4_011	poly_4_011	0-1	x	x					
	Slag Pile Border	x		poly_4_013	poly_4_013	0-1		x					
	Slag Pile Border		x	SB085	SB085A	0-2	x		x	x	x	x	x
					SB085B	8-10	x		x	x	x	x	
	Slag Pile Border		x	SB099	SB099A	0-2	x		x	x	x	x	x
					SB099B	4-6	x		x	x	x	x	
	Slag Pile Border		x	SB107	SB107A	0-2	x		x	x	x	x	x
					SB107B	8-10	x		x	x	x	x	x
	Slag Pile Border		x	SB460	SB460A	0-2	x		x	x	x	x	
					SB460B	6-8	x		x	x	x	x	
	Slag Pile Border		x	poly_4_003	poly_4_003	0-1	x	x					
	Slag Pile Border		x	poly_4_005	poly_4_005	0-1	x	x					
	Slag Pile Border		x	poly_4_012	poly_4_012	0-1		x					

Table 4.3.3-1
Border Area List of Soil Samples and Analyte Groups
Matthiessen and Hegeler Zinc Company Site
LaSalle, Illinois

Operable Unit	Border Area	0 -100 ft of border	100-200 ft of border	Location ID	Sample ID	Depth (ft bgs)	Metals	XRF Metals[a]	VOCs	SVOCs	PCBs	Pests	Asbestos

Notes:

A	Surface soil boring sample
B	Subsurface soil boring sample
bgs	Below ground surface
ft	Feet
MW	Monitoring well
OU1	Operable unit 1
OU2	Operable unit 2
poly	Polygon where XRF soil samples were collected
SB	Soil Boring
a	Denotes samples that were screened using an XRF. Some of these samples were also sent in for laboratory analysis.

Table 4.3.3-2
Summary of Screening Value Exceedances in Soil Boring: Border Areas
Matthiessen and Hegeler Zinc Company Site - OU 2
LaSalle, Illinois

Sample ID	Duplicate info	OU	Depth (ft bgs)	Metals								SVOCs							PCBs	
				Sb	As [a]	Cd	Co	Fe	Pb	Mn	Zn	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene	Aroclor-1254	Aroclor-1260
poly_2_002	--	OU1	0-1	--	X	X	--	--	X	--	X	--	--	--	--	--	--	--	--	--
poly_2_091	--	OU1	0-1	--	X	X	--	--	X	--	--	--	--	--	--	--	--	--	--	--
poly_4_007	--	OU1	0-1	--	--	X	--	--	X	--	--	--	--	--	--	--	--	--	--	--
poly_4_009	--	OU1	0-1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB085A	--	OU2	0-2	X	X	X	--	--	X	--	X	X	X	X	X	--	X	X	--	--
SB085B	--	OU2	8-10	--	X [b]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB099A	--	OU2	0-2	--	X	X	X	X	X	X	X	X	X	X	X	--	X	X	--	--
SB099B	--	OU2	4-6	--	X [b]	--	--	--	--	X	--	--	--	--	--	--	--	--	--	--
SB100A	--	OU2	0-2	--	X	X	--	--	X	--	X	X	X	X	--	X	X	X	--	--
SB262	SB100A	OU2	0-2	--	X	X	--	--	X	--	X	X	X	X	X	--	X	X	--	--
SB100B	--	OU2	6-8	--	X [b]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB101A	--	OU2	0-2	--	X	X	--	--	X	--	X	X	X	X	--	--	--	--	--	--
SB101B	--	OU2	8-10	--	X [b]	--	--	X	--	--	--	--	--	--	--	--	--	--	--	--
SB102A	--	OU2	0-2	--	X	--	--	--	X	--	--	--	X	--	--	--	--	--	--	--
SB102B	--	OU2	4-6	--	X [b]	--	--	--	--	--	--	--	X	--	--	--	--	--	--	--
SB107A	--	OU2	0-2	--	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB107B	--	OU2	8-10	--	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB108A	--	OU2	0-2	--	X [b]	--	--	--	--	--	--	--	X	--	--	--	--	--	--	--
SB302A	SB108A	OU2	0-2	--	X [b]	--	--	--	--	--	--	--	X	--	--	--	--	--	--	--
SB108B	--	OU2	8-10	--	X [b]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB109A	--	OU2	0-2	--	X [b]	--	--	--	--	--	--	--	X	--	--	--	--	--	--	--
SB108B	--	OU2	8-10	--	X [b]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB109A	--	OU2	0-2	--	X [b]	--	--	--	--	--	--	--	X	--	--	--	--	--	--	--
SB109B	--	OU2	8-10	--	X	--	--	--	--	--	--	--	X	--	--	--	--	--	--	--
SB110A	--	OU2	0-2	--	X [b]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB110B	--	OU2	8-10	--	X [b]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB111A	--	OU2	0-2	--	X	--	--	--	X	--	--	--	X	--	--	--	--	--	--	--
SB111B	--	OU2	8-10	--	X [b]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB141A	--	OU2	0-2	--	X	--	--	--	X	X	--	--	X	--	--	--	--	--	X	--
SB141B	--	OU2	8-10	--	X [b]	--	--	--	--	--	--	X	X	X	--	--	--	X	--	--
SB166A	--	OU2	0-2	--	X [b]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB166B	--	OU2	8-10	--	X [b]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB303B	SB166B	OU2	8-10	--	X [b]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB181A	--	OU2	0-2	--	X	--	--	X	X	--	--	--	--	--	--	--	--	--	--	--
SB181B	--	OU2	8-10	X	X	--	--	--	X	X	X	--	--	--	--	--	--	--	--	--
SB182A	--	OU2	0-2	X	X	--	X	--	X	X	X	--	X	--	--	--	--	--	--	--
SB182B	--	OU2	8-10	--	X	--	--	X	X	X	--	--	--	--	--	--	--	--	--	--
SB183A	--	OU2	0-2	--	X	--	X	X	X	X	X	--	--	--	--	--	--	--	--	--
SB183B	--	OU2	8-10	--	X [b]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB184A	--	OU2	0-2	X	X	X	X	X	--	--	X	--	--	--	--	--	--	--	--	--
SB184B	--	OU2	8-10	X	X	X	X	X	--	--	X	--	--	--	--	--	--	--	--	--
SB185A	--	OU2	0-2	--	X	X	X	--	X	X	X	X	--	X	--	--	--	--	X	X
SB185B	--	OU2	8-10	--	X	X	X	X	X	X	X	--	X	--	--	--	--	--	--	--
SB313B	SB185B	OU2	8-10	--	X	X	X	X	X	X	X	--	--	--	--	--	--	--	--	--
SB188A	--	OU2	0-2	--	X [b]	--	--	--	--	X	--	--	X	--	--	--	--	--	--	--

Table 4.3.3-2
Summary of Screening Value Exceedances in Soil Boring: Border Areas
Matthiessen and Hegeler Zinc Company Site - OU 2
LaSalle, Illinois

Sample ID	Duplicate info	OU	Depth (ft bgs)	Metals								SVOCs							PCBs	
				Sb	As [a]	Cd	Co	Fe	Pb	Mn	Zn	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene	Aroclor-1254	Aroclor-1260
SB188B	--	OU2	8-10	--	X [b]	--	--	--	--	--	--	--	X	--	--	--	--	--	--	--
SB201A	--	OU2	0-2	--	X [b]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB201B	--	OU2	6-8	--	X [b]	--	--	--	--	--	--	X	X	X	--	--	--	--	--	--
SB316B	SB201B	OU2	6-8	--	--	--	--	--	--	--	--	X	X	X	--	--	--	--	--	--
SB431A-08	--	OU2	0-4	--	X	--	--	--	X	--	--	X	X	X	X	--	X	X	X	--
SB431B-08	--	OU2	8-10	--	X [b]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB434A-08	--	OU2	0-2	--	X [b]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB503A-08	SB434A-08	OU2	0-2	--	X [b]	--	--	--	--	--	--	--	X	--	--	--	--	--	--	--
SB434B-08	--	OU2	8-10	--	X [b]	--	--	--	--	--	--	--	X	--	--	--	--	--	--	--
SB503B-08	SB434B-08	OU2	8-10	--	X [b]	--	--	--	--	--	--	--	X	--	--	--	--	--	--	--
SB435A-08	--	OU2	2-4	--	X [b]	--	--	--	--	--	--	--	X	--	--	--	--	--	--	--
SB435B-08	--	OU2	8-10	--	X [b]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB436A-08	--	OU2	0-2	--	X [b]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB436B-08	--	OU2	8-10	--	X [b]	--	--	--	--	--	--	--	X	--	--	--	--	--	--	--
SB460A-08	--	OU2	0-2	--	X	X	--	--	X	--	--	--	--	--	--	--	--	--	--	--
SB460B-08	--	OU2	6-8	--	X [b]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
poly_2_001	--	OU2	0-1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
poly_4_001	--	OU2	0-1	--	X	X	--	X	X	X	X	--	--	--	--	--	--	--	--	--
poly_4_002	--	OU2	0-1	--	X	X	--	--	X	--	X	--	--	--	--	--	--	--	--	--
poly_4_003	--	OU2	0-1	--	X	X	X	X	X	--	X	--	--	--	--	--	--	--	--	--
poly_4_004	--	OU2	0-1	--	X	--	X	--	X	--	X	--	--	--	--	--	--	--	--	--
poly_4_005	--	OU2	0-1	--	X	X	--	--	X	--	X	--	--	--	--	--	--	--	--	--
poly_4_006	--	OU2	0-1	--	X	X	--	--	--	--	X	--	--	--	--	--	--	--	--	--
poly_4_008	--	OU2	0-1	--	X	--	X	--	X	X	--	--	--	--	--	--	--	--	--	--
poly_4_200	poly_4_008	OU2	0-1	--	X	--	X	--	X	X	--	--	--	--	--	--	--	--	--	--
poly_4_010	--	OU2	0-1	X	X	X	X	--	X	--	X	--	--	--	--	--	--	--	--	--
poly_4_011	--	OU2	0-1	--	X	--	--	--	X	--	--	--	--	--	--	--	--	--	--	--
poly_4_012	--	OU2	0-1	--	--	X	--	--	X	--	X	--	--	--	--	--	--	--	--	--
poly_4_013	--	OU2	0-1	--	--	X	--	--	X	--	X	--	--	--	--	--	--	--	--	--
poly_6_002	--	OU2	0-1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
poly_6_003	--	OU2	0-1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
poly_6_004	--	OU2	0-1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
poly_6_005	--	OU2	0-1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
poly_6_006	--	OU2	0-1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
poly_6_007	--	OU2	0-1	--	--	X	--	--	X	--	X	--	--	--	--	--	--	--	--	--
poly_6_008	--	OU2	0-1	--	X	X	--	--	X	--	--	--	--	--	--	--	--	--	--	--
poly_6_009	--	OU2	0-1	--	--	X	--	--	X	--	--	--	--	--	--	--	--	--	--	--

Notes:
X Exceeds RSL and BTV values (if applicable)

a BTV values exceeds both the Residential and Industrial RSLs.
b Sample exceeds Residental and/or Industrial RSL for analyte; however, sample does not exceed BTV value for this analyte.

Table 4.3.3-3
Border Area List of Groundwater Samples and Analyte Groups
Matthiessen and Hegeler Zinc Company Site
LaSalle, Illinois

Operable Unit	Border Area	Location ID	WBZ	Metals	VOCs	SVOCs	PCBs	Pesticides
OU1	Slag Pile Border	P15	WBZ2	X				
	Slag Pile Border	P15A	WBZ1					
	Slag Pile Border	P17	WBZ1	X				
	Slag Pile Border	P18	WBZ1	X				
	Slag Pile Border	MW-2	WBZ1	X	X	X		
	Slag Pile Border	MW-301H	WBZ1					
	Slag Pile Border	MW-301S	WBZ1					
	Slag Pile Border	MW-303H	WBZ1	X				
	Slag Pile Border	MW-303S	WBZ1					
	Slag Pile Border	MW305H	WBZ1	X				
OU1	Slag Pile Border	MW305S	WBZ1					
	Slag Pile Border	MW-305R	WBZ2					
	Slag Pile Border	MW-320H	WBZ1					
	Slag Pile Border	MW-321H	WBZ1	X				
	Slag Pile Border	MW-322H	WBZ1	X	X	X		
	Slag Pile Border	ISW-001	WBZ1	X				
	Slag Pile Border	ISW-002	WBZ1	X				
OU2	LVR Border	MW18	WBZ2	X	X	X	X	X
	LVR Border	MW19	WBZ2	X	X	X	X	X
	LVR Border	MW22	WBZ2	X	X	X	X	X
	Slag Pile Border	MW08	WBZ2	X	X	X	X	X

Notes:

LVR	Little Vermilion River
MW	Monitoring well
OU1	Operable unit 1
OU2	Operable unit 2
WBZ	Water bearing zone

Table 4.3.3-4
Summary of Screening Value Exceedances in Groundwater Monitoring Wells: Little Vermilion River and Slag Pile Border Areas
Matthiessen and Hegeler Zinc Company Site - OU1 and OU2
LaSalle, Illinois

Well ID	Operating Unit	Result Type	Metals										VOC	SVOCs		Pesticides	
			Arsenic	Cadmium	Lead	Zinc	Antimony	Copper	Cobalt	Iron	Mercury	Manganese	Naphthalene	Bromodichloro methane	Chloroform	delta-BHC	Heptachlor epoxide
P-15	OU1	Total										X					
		Dissolved															
P-17	OU1	Total	X						X			X					
		Dissolved															
P-18	OU1	Total	X														
		Dissolved															
MW-2	OU1	Total	X	T	X	X		X	X	X	X	X					
		Dissolved	X		X				X			X					
MW-303H	OU1	Total										X					
		Dissolved										X					
MW-305H	OU1	Total										X					
		Dissolved										X					
MW-312H	OU1	Total	X									X					
		Dissolved															
MW-322H	OU1	Total															
		Dissolved	X			X			X			X					
ISW-001	OU1	Total	X	X	X				X			X					
		Dissolved	X						X			X					
ISW-002	OU1	Total	X	X	X	X			X	X		X					
		Dissolved	X			X			X	X		X					
MW08	OU2	Total	--	X	--	--	X		--			--	--	--	--	--	--
		Dissolved	X	X	--	--			--			--					
MW18	OU2	Total	--	X	--	X	--		--			X	--	--	--	--	X
		Dissolved	X	X	--	X	--		--			X					
MW19	OU2	Total	--	--	X	--	--					X	--	X	X	X	--
		Dissolved	X	X	X	--	--		X			--					
MW22	OU2	Total	--	--	X	--	--		--			--	X	--	X	X	--
		Dissolved	X	--	--	--	--		--			--					

Table 5.1-1
Chemical Properties for Organic Contaminants of Concern
Matthiessen and Hegeler Zinc Company Site
LaSalle, Illinois

Contaminant of Concern	Water solubility (mg/L water)	Vapor Pressure (mm Hg)	Henry's Law Constant, KH (atm-m^3/mol)	Organic Carbon Partitioning Coefficient, log(K_{OC}) (mL/g)	Octanol-Water Partition Coefficient, log(K_{OW}) (mL/g)	Distribution Coefficient, K_d (3) (mL/g)	S.G. (unitless)	Molecular Weight (g/mole)
VOCs								
1, 2-Dichloroethane	8,690 @ 20° C	79.1 @ 25° C	1.1E-3 @ 20° C	1.6	1.48	0.04	1.23	99.0
2-Butanone (MEK)	136,000 @ 25° C	90.6 @ 25° C	5.77E-5 @ 25° C	0.6	0.29	2.5E-03	0.81	72.1
Acetone	Completely miscible	182 @ 20° C	4.26E-5 @ 25° C	0.73	-0.24	7.3E-04	0.78	58.1
Benzene	1,780 @ 25° C	95.2 @ 25° C	5.5E-3 @ 25° C	1.78 - 1.92	2.13	0.17	0.88	78.1
Bromodichloromethane	4,700 @ 20° C	50 @ 20° C	0.13 @ 20° C	1.74	1.61	0.05	1.98	163.8
Chloroform	7,220 @ 25° C	160 @ 25° C	4.1E-3 @ 25° C	2.4	1.97	0.12	1.49	119.4
Cis-1,2-Dichloroethene	3,500 @ 25° C	180 @ 20° C	4.1E-3 @ 25° C	1.7	1.86	0.09	1.28	97.0
Ethylbenzene	160 @ 25° C	7 @ 20° C	6.6E-3 @ 20° C	2.38	4.34	27.6	0.87	106.2
Tetrachloroethene	150 @ 25° C	18.47 @ 25° C	1.8E-2 @ 25° C	2.2-2.7	3.40	3.16	1.62	165.8
Trichloroethene	1,070 @ 20° C	74 @ 25° C	0.020 @ 20° C	2.03 - 2.66	2.42	0.33	1.47	131.4
Vinyl Chloride	2,763 @ 25° C	2,530 @ 20° C	2.8E-2 @ 25° C	1.99	1.36	0.03	0.91	62.5
SVOCs								
Acenaphthene	1.93	4.47E-03	7.9E-05	3.7	4.0	12	1.02	154.2
Acenaphthylene	3.93	0.029 @ 20° C	1.5E-03	1.4	4.1	15	0.90	152.2
Anthracene	4.5E-02	1.7E-05	2.9E-05	4.1	5.6	513	1.25	178.2
Benzo(a)anthracene	1.4E-02	5.0E-9 @ 20° C	1.2E-06	6.1	5.6	501	1.30	228.3
Benzo(a)pyrene	1.2E-03	5.60E-09	1.6E-06	6.7	6.1	1,449	1.24	252.3
Benzo(b)fluoranthene	1.2E-03	5.0E-7 @ 20° C	1.2E-05	5.7	6.1	1,661	1.29	252.3
Benzo(g, h, i)perylene	2.6E-4 @ 25° C	1.03E-10	1.4E-07	6.2	6.5	3,984	1.30	276.3
Benzo(k)fluoranthene	1.4E-02	1.0E-10 @ 25° C	3.9E-05	5.7	6.1	1,449	1.29	252.3
Bis(2-Ethylhexyl) phthalate	6.0E-4 - 1.3	6.45E-06	1.3E-05	5.8	8.4	309,293	0.98	390.6
Carbazole	0.72	2.7E-4 @ 20° C	3.4E-03	3.4	3.2	2.1	1.10	167.2
Chrysene	1.8E-03	6.30E-09	4.3E-07	5.3	5.9	1,025	1.27	228.3
Dibenzo(a, h)anthracene	5.0E-4 @ 25° C	1E-10 @ 20° C	7.3E-08	6.5	6.8	8,717	1.28	278.4
Fluoranthene	0.26	5.0E-06	9.1E-06	4.6	5.1	166	1.25	202.3
Hexachlorobenzene	6.0E-3 @ 20° C	1.1E-5 @ 20° C	5.8E-04	6.1	5.7	677	2.04	284.8
Indeno(1, 2, 3-cd)pyrene	3.8E-03	1.40E-10	2.9E-06	6.2	6.6	4,790	1.38	276.3
Naphthalene	31.7 @ 20° C	8.7E-2 @ 25° C	4.6E-04	3.0	3.3	2.5	1.15	128.2
Phenanthrene	1.2 - 1.3 @ 25° C	6.8E-04	1.6E-04	4.1	4.5	36	1.06	178.2
Pyrene	0.16 @ 26° C	2.5E-06	5.0E-06	4.6	4.9	96	1.27	202.3

Table 5.1-1
Chemical Properties for Organic Contaminants of Concern
Matthiessen and Hegeler Zinc Company Site
LaSalle, Illinois

Contaminant of Concern	Water solubility (mg/L water)	Vapor Pressure (mm Hg)	Henry's Law Constant, KH (atm-m^3/mol)	Organic Carbon Partitioning Coefficient, log(K_{OC}) (mL/g)	Octanol-Water Partition Coefficient, log(K_{OW}) (mL/g)	Distribution Coefficient, K_d (3) (mL/g)	S.G. (unitless)	Molecular Weight (g/mole)
PCBs								
Aroclor 1242	0.34 @ 25° C	4.06E-4 @ 25° C	5.2E-04	NA	5.6	502	1.38	266.5
Aroclor 1248	1.7E-02	5.0E-4 @ 20° C	9.4E-02	NA	4.9	105	1.40	288.0
Aroclor 1254	0.012 @ 24° C	7.71E-5 @ 25° C	2.0E-03	4.6	6.5	3,984	1.54	328.0
Aroclor 1260	2.7E-3 @ 24° C	4.05E-5 @ 25° C	4.6E-03	NA	6.8	7,950	1.62	357.7
Pesticides								
4,4'-DDD	0.16 @ 24°C	1.0E-6 @ 30°C	2.2E-05	4.6	6.0	1,260	1.39	320.1
4,4'-DDT	4.0E-4 @ 24°C	2.0E-7 @ 30°C	5.2E-05	6.3	6.2	2,091	0.98 to 0.99	354.5
Aldrin	0.011	1.2E-4 @ 25° C	4.9E-5 @ 25° C	7.67	6.50	3,984	1.60	364.9
Alpha-BHC	5 to 69.5 @ 28° C	4.5E-5 @ 25° C	6.86E-06	3.57	3.8	8.0	1.87	290.8
Alpha-chlordane	0.051 @ 25°C	1.0E-6 @ 20°C	4.1E-3 @ 20° C	6.9	7.0	11,759	NA	409.8
Beta-BHC	5	3.6E-7 @ 20° C	4.5E-07	3.57	3.78	7.6	1.89	290.8
Delta-BHC	10 @ 25°C	3.5E-5 @ 25° C	2.1E-07	3.8	4.14	17	NA	290.8
Dieldrin	0.11 @ 25° C	5.89E-6 @ 25° C	5.2E-6 @ 25° C	6.67	6.2	1,997	1.75	380.9
Endrin	0.2 @ 25°C	2.0E-7 @ 25°C	4.0E-7 @ 25°C	4.5	5.6	502	1.70	380.9
Endrine aldehyde	50 @ 25°C	2.0E-7 @ 25°C	2E-9 @ 25°C	4.8	4.7	63	NA	381.9
Gamma-chlordane	2.3E-02	4.2E-6 @ 20°C	4.1E-3@ 20oC	5.6	7.0	11,491	NA	409.8
Heptachlor	0.05 @ 25° C	3.0E-4 @ 25° C	2.9E-04	4.34	6.1	1,586	1.57	373.3
Heptachlor epoxide	0.275 @ 25° C	1.95E-5 @ 30° C	3.20E-05	3.34-4.37	5.4	316	NA	389.4

Notes
(1) Data Sources: EPA, 1990; Verschueren, 2001; ATSDR, 2008.
(2) NA = data not available
(3) K_d values calculated assuming 0.2% fraction of organic carbon (f_{OC}) in soil (IDEM 2007):
$K_d = 0.63 * f_{OC} * K_{OW}$

Table 5.1.2-1
Potential Forms, Immobilization and Mobilization Mechanisms for Inorganic Contaminants of Concern
Matthiessen and Hegeler Zinc Company Site
LaSalle, Illinois

Inorganic Constituent	[1]Potential Aqueous/Soluble Forms in the Environment	Immobilization Mechanism(s)	Mobilization Mechanisms/Pathways
Aluminum	$Al(OH)_3$, $Al(OH)_2^+$, Al^{3+}, $AlOH^{2+}$	Formation of aluminum oxides, hydroxides, and/or aluminosilicates minerals, precipitation as alumino sulfate complexes, sorption to clays, organic matter, and amorphous aluminosilicates	Low pH may dissolve aluminum minerals, potassium may compete with aluminum for sorption sites, aluminum may be complexed by other ions. In more alkaline solutions, hydroxyl complexes of aluminum ($Al(OH)_2^+$, $Al(OH)_3^0$, and $Al(OH)_4^-$), many of which are soluble, will be dominant.
Antimony	Reduced Form - $Sb(OH)_3$ Oxidized Form - $Sb(OH)_6^-$	Sorption to iron and aluminum hydroxides, noncrystalline aluminosilicates, formation of sulfides	Low pH destabilizes iron hydroxides. Low EH dissolves iron hydroxides.
Arsenic	Reduced Form - $H_3AsO_3^o$, Oxidized Form - H_2AsO_4, $HAsO_4^{2-}$	Sorption to iron and aluminum hydroxides, noncrystalline aluminosilicates, Fe and Ca precipitates; formation of sulfides (AsS, As_2S_3 , As_4S_4)	Low pH destabilizes iron hydroxides. Low EH dissolves iron hydroxides. Phosphates and in some cases elevated sulfate levels may outcompete arsenic for sorption sites in soil. Arsenic may be mobilized if sulfides are oxidized.
Asbestos	Fibers	Asbestos fibers are nonvolatile and insoluble, so their natural tendancy is to settle out of air and water, and deposit in soil or sediment.	Some asbestos fibers that are small in size (0.1-1 um) can be transported long distances in air and water. Adsorptive interactions between the fibers and organic matter or contaminants may also occur.
Barium	Ba^{2+}	Formation of sparingly soluble sulfate ($BaSO_4$),and carbonate minerals ($BaCO_3$); ion exchange.	Low EH may destabilize sulfates.
Beryllium	Be^{2+}, $BeOH^+$	Sorption to negatively charged sites of clays and other soil minerals	Low pH destabilizes carbonates and iron hydroxides minerals that may serve as sorption sites for beryllium.
Cadmium	Cd^{2+}	Sorption to Fe/Mn/Al hydroxides and carbonate minerals; formation of sparingly soluble carbonates ($CdCO_3$), phosphates, and sulfides.	Low pH destabilizes carbonates and iron hydroxides. Commingled organic acids and chelates may decrease sorption. Low EH dissolves iron hydroxides, but favors formation of sulfides. Cadmium may also be complexed by other ions resulting in greater mobility
Chromium	Oxidized Forms - CrO_4^{2-}, $HCrO_4^-$ Reduced forms - $CrOH^{2+}$ Cr^{3+}	Sorption to Fe/Al/Mn hydroxides, organic matter, noncrystalline aluminosilicates; formation of sparingly soluble hydroxides	Low pH destabilizes hydroxides. Commingled organic acids and chelates (e.g., EDTA) may decrease sorption. Low EH dissolves iron hydroxides. Sorption to Mn-oxides and oxidation to Cr(VI) at low pH.
Cobalt	Co^{2+} $HCoO^{2-}$	Sorption to Al/Mn/Fe hydroxides and organic matter, carbonate minerals ($CoCO_3$).	Low pH destabilizes carbonates. Low EH dissolves iron hydroxides. Stable complexes form with chelators.

Table 5.1.2-1
Potential Forms, Immobilization and Mobilization Mechanisms for Inorganic Contaminants of Concern
Matthiessen and Hegeler Zinc Company Site
LaSalle, Illinois

Inorganic Constituent	[1]Potential Aqueous/Soluble Forms in the Environment	Immobilization Mechanism(s)	Mobilization Mechanisms/Pathways
Copper	Cu^{2+}, Cu^{+}, $Cu(OH)^{+}$	Sorption to Al/Fe/Mn oxides, noncrystalline aluminosilicates, organic matter and silicate clays; sparingly soluble carbonate, hydroxide, and sulfides (CuS, Cu_2S).	Low pH destabilizes carbonates and iron hydroxides. Commingled organic acids and chelates may decrease sorption. Low EH dissolves iron hydroxides but favors formation of sulfides. Oxidation may mobilize copper complexed with sulfides.
Cyanide	HCN, CN^{-}, SCN^{-}	Volitilization from water is expected, but varies depending upon temperature, pH, and wind conditions. Cyanide may sorb to natural media such as clays and sediments.	May be sorbed to sediments and suspended solids and subsequently transported.
Iron	Fe^{+2}	Precipitation as oxidized ferrihydrite minerals (FeOOH), precipitation as reduced iron sulfide (FeS)	Very sensitive to variability in redox conditions. Reduction may reduce ferric iron minerals to the more mobile ferrous iron form. Oxidation of pyrite (FeS) may solubilize iron and also result in a significant drop in pH.
Lead	Pb^{2+}, $PbCO_3$	Sorption to iron hydroxides, organic matter, noncrystalline aluminosilicates, carbonate minerals; formation of sparingly soluble carbonates ($PbCO_3$), sulfides (PbS), sulfates ($PbSO_4$), phosphates.	Low pH destabilizes carbonates and iron hydroxides. Commingled organic acids and chelates (e.g., EDTA) may decrease sorption. Low EH dissolves iron hydroxides but favors sulfide formation.
Manganese	Mn^{2+}	Formation of sparingly soluble oxide, hydroxide, and carbonate complexes	Very sensitive to variability in redox conditions
Mercury	Hg	Formation of sparingly soluble sulfides (HgS); sorption to organic matter.	May be methylated by organisms
Nickel	Ni^{2+}, $Ni(OH)_3^{-}$, $Ni(OH)_2$	Sorption to Fe/Mn/Al hydroxides and noncrystalline aluminosilicates; ion exchange; formation of sulfides.	Commingled organic acids and chelates may decrease sorption. Low EH dissolves iron hydroxides but favors sulfide formation. Oxidation of sulfides may release complexed nickel
Selenium	HSe^{-}, $HSeO_3^{-}$	Sorption to iron and aluminum hydroxides, noncrystalline aluminosilicates, Fe and Ca precipitates; formation of sulfides	Low pH destabilizes iron hydroxides. Low EH dissolves iron hydroxides.
Silver	Ag^{+}	Forms strong complexes with sulfides (AgS), halides, cyanides and thiosulfates. Weaker complexes with arsenates, phosphates, sulfates, carbonates, and organic ligands	Sensitive to redox changes and organic matter chelation
Thalliium	Tl^{3+}, Tl^{+}	Thalium oxide formation (Tl_2O_3) and sorption to soil	Reduction and/or desorption due to changes in soil mineral pH

Table 5.1.2-1
Potential Forms, Immobilization and Mobilization Mechanisms for Inorganic Contaminants of Concern
Matthiessen and Hegeler Zinc Company Site
LaSalle, Illinois

Inorganic Constituent	[1]Potential Aqueous/Soluble Forms in the Environment	Immobilization Mechanism(s)	Mobilization Mechanisms/Pathways
Vanadium	$VO_3(OH)^{2-}$, $VO_2(OH)_2^-$, $VO(OH)_3$, VO^{2+}	Complexation with iron minerals, and formation of oxide minerals. Sorption to soil minerals	Vanadium forms are generally more soluble under oxidizing conditions-
Zinc	Zn^{2+}	Sorption to Fe/Mn/Al hydroxides, noncrystalline aluminosilicates and carbonate minerals ($ZnCO_3$); formation of sulfides (ZnS); ion exchange.	Low pH destabilizes carbonates and iron hydroxides. Commingled organic acids and chelates may decrease sorption. Low EH dissolves iron hydroxides but favors formation of sulfides. Oxidation of soil may solubilize zin complexed by sulfides.

Notes:

[1] Likely form refers to aqueous species within a nominal pH (5 to 8) range.

Sources: Brady et al., 1998; Brady et al., 1999; Rai et al., 1984; McBride, 1994; Smith et al., 1995.

Table 5.4.1-1
Sequential Extraction Procedure Analytical Summary
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Sample ID	Date Collected	Location	Start Depth (ft)	End Depth (ft)	Media	Parameter	SEP Extraction 1 Exchangeable Fraction	SEP Extraction 2 Carbonate Fraction	SEP Extraction 3 Non-Crystalline Fraction	SEP Extraction 4 Metal Hydroxide Fraction	SEP Extraction 5 Organic Fraction	SEP Extraction 6 Acid/Sulfide Fraction	SEP Extraction 7 Residual Fraction	Sum of Fractions
OU1-SS-SB301-0-1	10/9/2007	MW-301H	0	1	Terrestrial Black Slag	Arsenic	0	0	8.5	17.3	0	74	8.9	108.7
OU1-SS-SB301-0-1	10/9/2007	MW-301H	0	1	Terrestrial Black Slag	Cadmium	7.9	11.2	3.2	18.7	34	11.8	5.4	92.2
OU1-SS-SB301-0-1	10/9/2007	MW-301H	0	1	Terrestrial Black Slag	Chromium, Total	0	0	0.75	3.8	2	8.3	15.7	30.55
OU1-SS-SB301-0-1	10/9/2007	MW-301H	0	1	Terrestrial Black Slag	Copper	0	88	109	62.1	24.1	129	25.4	437.6
OU1-SS-SB301-0-1	10/9/2007	MW-301H	0	1	Terrestrial Black Slag	Lead	3.1	453	278	1700	38.6	490	195	3157.7
OU1-SS-SB301-0-1	10/9/2007	MW-301H	0	1	Terrestrial Black Slag	Mercury	0	0	0	0.16	10.2	0.24	0	10.6
OU1-SS-SB301-0-1	10/9/2007	MW-301H	0	1	Terrestrial Black Slag	Nickel	1.7	1.7	5.4	9.9	0	20.5	5.6	44.8
OU1-SS-SB301-0-1	10/9/2007	MW-301H	0	1	Terrestrial Black Slag	Selenium	0	0	0	0.68	0	0.8	0.8	2.28
OU1-SS-SB301-0-1	10/9/2007	MW-301H	0	1	Terrestrial Black Slag	Zinc	941	17800	3640	16600	513	17000	6800	63294
OU1-SS-SB302-10.5-11.5	10/9/2007	SB-302	10.5	11.5	Rd/Br Sandy Clay	Arsenic	0	0	2.1	5.2	2.1	14.7	3.1	27.2
OU1-SS-SB302-10.5-11.5	10/9/2007	SB-302	10.5	11.5	Rd/Br Sandy Clay	Cadmium	14.9	19.9	2.2	7.8	6	1.1	0.37	52.27
OU1-SS-SB302-10.5-11.5	10/9/2007	SB-302	10.5	11.5	Rd/Br Sandy Clay	Chromium, Total	0	0	0.18	4.5	5.1	11	28.5	49.28
OU1-SS-SB302-10.5-11.5	10/9/2007	SB-302	10.5	11.5	Rd/Br Sandy Clay	Copper	0	3	6.4	11.9	0	10.4	17.2	48.9
OU1-SS-SB302-10.5-11.5	10/9/2007	SB-302	10.5	11.5	Rd/Br Sandy Clay	Lead	0	0	4.2	44.7	0	11.3	6.5	66.7
OU1-SS-SB302-10.5-11.5	10/9/2007	SB-302	10.5	11.5	Rd/Br Sandy Clay	Mercury	0	0	0	0	0	0	0	0
OU1-SS-SB302-10.5-11.5	10/9/2007	SB-302	10.5	11.5	Rd/Br Sandy Clay	Nickel	2.2	1	2.3	25.5	0	20.5	13.4	64.9
OU1-SS-SB302-10.5-11.5	10/9/2007	SB-302	10.5	11.5	Rd/Br Sandy Clay	Selenium	0	0	0	0.39	0	0	0.64	1.03
OU1-SS-SB302-10.5-11.5	10/9/2007	SB-302	10.5	11.5	Rd/Br Sandy Clay	Zinc	785	1030	1180	628	7.8	262	192	4084.8
OU1-SS-SB303-108-109	10/11/2007	MW-303H	108	109	Alluvium	Arsenic	0	0	0.61	0.25	0	9.3	1.1	11.26
OU1-SS-SB303-108-109	10/11/2007	MW-303H	108	109	Alluvium	Cadmium	0	2	0	1.5	0.42	0.51	0.085	4.515
OU1-SS-SB303-108-109	10/11/2007	MW-303H	108	109	Alluvium	Chromium, Total	0	0	0.18	0.72	4.4	11	96.8	113.1
OU1-SS-SB303-108-109	10/11/2007	MW-303H	108	109	Alluvium	Copper	0	2.2	5.1	2	0	5.8	1.3	16.4
OU1-SS-SB303-108-109	10/11/2007	MW-303H	108	109	Alluvium	Lead	0	0.96	0	6.5	0	6.3	2.2	15.96
OU1-SS-SB303-108-109	10/11/2007	MW-303H	108	109	Alluvium	Mercury	0	0	0	0	0.034	0	0	0.034
OU1-SS-SB303-108-109	10/11/2007	MW-303H	108	109	Alluvium	Nickel	0.76	4.6	2.4	5.1	2.1	14.2	9.4	38.56
OU1-SS-SB303-108-109	10/11/2007	MW-303H	108	109	Alluvium	Selenium	0	0	0	0.43	4.3	0.35	1.3	6.38
OU1-SS-SB303-108-109	10/11/2007	MW-303H	108	109	Alluvium	Zinc	0	8.3	9.1	20.4	6	63.5	6.5	113.8
OU1-SS-SB303-89-90	10/11/2007	MW-303H	89	90	Clay	Arsenic	0	0	1.1	1.1	0	4.3	3.4	9.9
OU1-SS-SB303-89-90	10/11/2007	MW-303H	89	90	Clay	Cadmium	0.76	56	6.9	85.6	348	18.8	21	537.06
OU1-SS-SB303-89-90	10/11/2007	MW-303H	89	90	Alluvium	Chromium, Total	0	0	0.98	8.3	5.5	14.1	80.2	109.08
OU1-SS-SB303-89-90	10/11/2007	MW-303H	89	90	Clay	Copper	0	119	72.2	29.7	14	83.6	23.1	341.6
OU1-SS-SB303-89-90	10/11/2007	MW-303H	89	90	Clay	Lead	0	5.5	4.7	57.4	0	30.3	628	725.9
OU1-SS-SB303-89-90	10/11/2007	MW-303H	89	90	Clay	Mercury	0	0	0	0.0083	0.39	0.032	0	0.4303
OU1-SS-SB303-89-90	10/11/2007	MW-303H	89	90	Alluvium	Nickel	2.9	16.8	12.8	12.6	2.4	33.3	12.8	93.6
OU1-SS-SB303-89-90	10/11/2007	MW-303H	89	90	Alluvium	Selenium	0	0	0.32	0.66	5.5	2.7	0.96	10.14
OU1-SS-SB303-89-90	10/11/2007	MW-303H	89	90	Clay	Zinc	236	1700	2050	1830	195	497	177	6685
OU1-SS-SB304-58-59	10/10/2007	MW-304S	58	59	Terrestrial Slag	Arsenic	0	0	1.3	0.59	0	1.5	11.2	14.59
OU1-SS-SB304-58-59	10/10/2007	MW-304S	58	59	Terrestrial Slag	Cadmium	2.2	49.5	2.6	10.7	5.4	4.5	15.9	90.8
OU1-SS-SB304-58-59	10/10/2007	MW-304S	58	59	Terrestrial Slag	Chromium, Total	0	0	0.43	2.1	2.4	7.4	33.5	45.83
OU1-SS-SB304-58-59	10/10/2007	MW-304S	58	59	Terrestrial Slag	Copper	0	67.2	85.4	49.7	0	71.7	95.4	369.4
OU1-SS-SB304-58-59	10/10/2007	MW-304S	58	59	Terrestrial Slag	Lead	0	8.2	6.6	69.4	0	80.5	208	372.7
OU1-SS-SB304-58-59	10/10/2007	MW-304S	58	59	Terrestrial Slag	Mercury	0	0	0	0	0	0	0	0
OU1-SS-SB304-58-59	10/10/2007	MW-304S	58	59	Terrestrial Slag	Nickel	1.2	3.2	6.3	5.5	0	10.8	16.8	43.8
OU1-SS-SB304-58-59	10/10/2007	MW-304S	58	59	Terrestrial Slag	Selenium	0	0	0	0.49	0	0	0	0.49
OU1-SS-SB304-58-59	10/10/2007	MW-304S	58	59	Terrestrial Slag	Zinc	11.6	4250	3450	2350	27.9	2160	2880	15129.5
OU1-SS-SB311-0-1	10/3/2007	SB-311	0	1	Fill/Till	Arsenic	0	0	2	0.76	4.9	12.2	1.6	21.46
OU1-SS-SB311-0-1	10/3/2007	SB-311	0	1	Fill/Till	Cadmium	0	0	0	0.42	0	0.079	0	0.499
OU1-SS-SB311-0-1	10/3/2007	SB-311	0	1	Fill/Till	Chromium, Total	0	0	1	2.7	18.8	7.2	25.7	55.4
OU1-SS-SB311-0-1	10/3/2007	SB-311	0	1	Fill/Till	Copper	0	0	8.3	2.9	0	4.5	1.3	17
OU1-SS-SB311-0-1	10/3/2007	SB-311	0	1	Fill/Till	Lead	0	0	0	22.4	0	7.3	1.8	31.5
OU1-SS-SB311-0-1	10/3/2007	SB-311	0	1	Fill/Till	Mercury	0	0	0	0	0.087	0	0	0.087
OU1-SS-SB311-0-1	10/3/2007	SB-311	0	1	Fill/Till	Nickel	0	0	11.8	6.1	0	6.8	3.9	28.6
OU1-SS-SB311-0-1	10/3/2007	SB-311	0	1	Fill/Till	Selenium	0	0	0.26	0	0	0	0.61	0.87

Table 5.4.1-1
Sequential Extraction Procedure Analytical Summary
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Sample ID	Date Collected	Location	Start Depth (ft)	End Depth (ft)	Media	Parameter	SEP Extraction 1 Exchangeable Fraction	SEP Extraction 2 Carbonate Fraction	SEP Extraction 3 Non-Crystalline Fraction	SEP Extraction 4 Metal Hydroxide Fraction	SEP Extraction 5 Organic Fraction	SEP Extraction 6 Acid/Sulfide Fraction	SEP Extraction 7 Residual Fraction	Sum of Fractions
OU1-SS-SB311-0-1	10/3/2007	SB-311	0	1	Fill/Till	Zinc	0	7.9	61	36.1	6.8	33.6	10.6	156
OU1-SS-SB313-2-4	10/3/2007	SB-313	2	4	Fill/Till	Arsenic	0	0	0	0.23	0	1.1	1.2	2.53
OU1-SS-SB313-2-4	10/3/2007	SB-313	2	4	Fill/Till	Cadmium	0	0	0	0.086	0	0	0	0.086
OU1-SS-SB313-2-4	10/3/2007	SB-313	2	4	Fill/Till	Chromium, Total	0	0	0.64	2.4	4.2	6.8	27.7	41.74
OU1-SS-SB313-2-4	10/3/2007	SB-313	2	4	Fill/Till	Copper	0	0	1.3	2.3	0	0.82	1.5	5.92
OU1-SS-SB313-2-4	10/3/2007	SB-313	2	4	Fill/Till	Lead	0	0	0	2.7	0	0.89	0.37	3.96
OU1-SS-SB313-2-4	10/3/2007	SB-313	2	4	Fill/Till	Mercury	0	0	0	0	0	0	0	0
OU1-SS-SB313-2-4	10/3/2007	SB-313	2	4	Fill/Till	Nickel	0.77	0	2.7	7.3	0	8.5	4.2	23.47
OU1-SS-SB313-2-4	10/3/2007	SB-313	2	4	Fill/Till	Selenium	0	0	0	0.5	0	0	0.27	0.77
OU1-SS-SB313-2-4	10/3/2007	SB-313	2	4	Fill/Till	Zinc	0	0.69	2.5	8.3	6.4	9.3	12.7	39.89
OU1-SS-SB316-0-1	10/3/2007	SB-316	0	1	Fill/Till	Arsenic	0	0	2.8	7.5	0	24.4	6	40.7
OU1-SS-SB316-0-1	10/3/2007	SB-316	0	1	Fill/Till	Cadmium	1.1	12.4	1.8	13.3	7.7	10.1	4.6	51
OU1-SS-SB316-0-1	10/3/2007	SB-316	0	1	Fill/Till	Chromium, Total	0	2.3	1.9	6.8	12.1	35	31.1	89.2
OU1-SS-SB316-0-1	10/3/2007	SB-316	0	1	Fill/Till	Copper	0	27.9	77	66.5	0	57.5	43.3	272.2
OU1-SS-SB316-0-1	10/3/2007	SB-316	0	1	Fill/Till	Lead	0	62.2	35	1180	0	344	66	1687.2
OU1-SS-SB316-0-1	10/3/2007	SB-316	0	1	Fill/Till	Mercury	0	0.016	0	0	1.3	0	0	1.316
OU1-SS-SB316-0-1	10/3/2007	SB-316	0	1	Fill/Till	Nickel	0.84	0.73	9.9	15.2	0	33.6	12	72.27
OU1-SS-SB316-0-1	10/3/2007	SB-316	0	1	Fill/Till	Selenium	0	0	0.36	0.58	0	0.4	0.7	2.04
OU1-SS-SB316-0-1	10/3/2007	SB-316	0	1	Fill/Till	Zinc	56.6	3520	5520	7500	41	4030	2620	23287.6
OU1-SS-SB317-2-4	10/3/2007	SB-317	2	4	Fill/Till	Arsenic	0	0	4.1	3.4	0	3.6	1.8	12.9
OU1-SS-SB317-2-4	10/3/2007	SB-317	2	4	Fill/Till	Cadmium	0.38	4.5	0.38	3.5	1.9	0.8	0.14	11.6
OU1-SS-SB317-2-4	10/3/2007	SB-317	2	4	Fill/Till	Chromium, Total	0	0	0.55	7.4	5.4	15.1	38.7	67.15
OU1-SS-SB317-2-4	10/3/2007	SB-317	2	4	Fill/Till	Copper	0	4.9	19.2	15.2	0	5.8	2.7	47.8
OU1-SS-SB317-2-4	10/3/2007	SB-317	2	4	Fill/Till	Lead	0	3.1	4.3	106	0	35.5	6.9	155.8
OU1-SS-SB317-2-4	10/3/2007	SB-317	2	4	Fill/Till	Mercury	0	0	0	0	0.15	0	0	0.15
OU1-SS-SB317-2-4	10/3/2007	SB-317	2	4	Fill/Till	Nickel	0.78	0	6	18.6	0	17.1	8	50.48
OU1-SS-SB317-2-4	10/3/2007	SB-317	2	4	Fill/Till	Selenium	0	0	0	0	0	0	0.32	0.32
OU1-SS-SB317-2-4	10/3/2007	SB-317	2	4	Fill/Till	Zinc	11.7	296	1060	1060	8.7	216	73.3	2725.7
OU1-SS-LRS412S-0908	8/11/2009	LRS-412	0	0	Submerged Slag	Arsenic	0	0	8.9	11.4	2.4	31.3	3.3	57.3
OU1-SS-LRS412S-0908	8/11/2009	LRS-412	0	0	Submerged Slag	Cadmium	0	1.7	0.37	0.96	1	3.6	0	7.63
OU1-SS-LRS412S-0908	8/11/2009	LRS-412	0	0	Submerged Slag	Chromium, Total	0	0	0.95	2.8	0	7.1	52.7	63.55
OU1-SS-LRS412S-0908	8/11/2009	LRS-412	0	0	Submerged Slag	Copper	0	98.2	185	458	99.1	2180	1570	4590.3
OU1-SS-LRS412S-0908	8/11/2009	LRS-412	0	0	Submerged Slag	Lead	0	4.3	7.3	26.6	0	23.4	29.6	91.2
OU1-SS-LRS412S-0908	8/11/2009	LRS-412	0	0	Submerged Slag	Mercury	0	0	0	0.059	0.028	0.018	0	0.105
OU1-SS-LRS412S-0908	8/11/2009	LRS-412	0	0	Submerged Slag	Nickel	4.3	0.6	2.3	3.9	2.8	34.1	8.8	56.8
OU1-SS-LRS412S-0908	8/11/2009	LRS-412	0	0	Submerged Slag	Selenium	0	0	0	0	0	1	0	1
OU1-SS-LRS412S-0908	8/11/2009	LRS-412	0	0	Submerged Slag	Zinc	1.8	142	477	1850	942	4730	3,160	11302.8
OU1-SS-LRS413S-0908	8/12/2009	LRS-413	0	0	Submerged Slag	Arsenic	0	0	19.5	50.8	6	74.4	98.4	249.1
OU1-SS-LRS413S-0908	8/12/2009	LRS-413	0	0	Submerged Slag	Cadmium	0	0.91	0.35	1.2	0.36	0.66	1.6	5.08
OU1-SS-LRS413S-0908	8/12/2009	LRS-413	0	0	Submerged Slag	Chromium, Total	0	0	1.1	3.3	0	6.8	299	310.2
OU1-SS-LRS413S-0908	8/12/2009	LRS-413	0	0	Submerged Slag	Copper	0	63.2	107	501	109	980	2470	4230.2
OU1-SS-LRS413S-0908	8/12/2009	LRS-413	0	0	Submerged Slag	Lead	0	2.5	11.6	49.3	0	41.4	233	337.8
OU1-SS-LRS413S-0908	8/12/2009	LRS-413	0	0	Submerged Slag	Mercury	0	0	0	0.074	0.04	0.014	0	0.128
OU1-SS-LRS413S-0908	8/12/2009	LRS-413	0	0	Submerged Slag	Nickel	4.2	5.6	45.4	70.5	40.4	110	397	673.1
OU1-SS-LRS413S-0908	8/12/2009	LRS-413	0	0	Submerged Slag	Selenium	0	0	0	0	0	0	0	0
OU1-SS-LRS413S-0908	8/12/2009	LRS-413	0	0	Submerged Slag	Zinc	13.1	263	517	2060	759	3540	27000	34152.1
OU1-SS-SB406-0908	8/11/2009	LRS-412	0	0	Submerged Slag	Arsenic	0	0	8.1	20.5	1.7	46.5	33.7	110.5
OU1-SS-SB406-0908	8/11/2009	LRS-412	0	0	Submerged Slag	Cadmium	0	0.41	0	0.12	0	0	0.12	0.65
OU1-SS-SB406-0908	8/11/2009	LRS-412	0	0	Submerged Slag	Chromium, Total	0	0	0.55	1.1	0	3.8	82.1	87.55
OU1-SS-SB406-0908	8/11/2009	LRS-412	0	0	Submerged Slag	Copper	0	88.1	22.5	477	149	2110	1250	4096.6
OU1-SS-SB406-0908	8/11/2009	LRS-412	0	0	Submerged Slag	Lead	0	5.1	2.8	59.7	0	119	126	312.6
OU1-SS-SB406-0908	8/11/2009	LRS-412	0	0	Submerged Slag	Mercury	NA	NA	NA	NA	NA	NA	NA	NA
OU1-SS-SB406-0908	8/11/2009	LRS-412	0	0	Submerged Slag	Nickel	4.5	5.6	98.7	162	139	709	619	1737.8

Table 5.4.1-1
Sequential Extraction Procedure Analytical Summary
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Sample ID	Date Collected	Location	Start Depth (ft)	End Depth (ft)	Media	Parameter	SEP Extraction 1 Exchangeable Fraction	SEP Extraction 2 Carbonate Fraction	SEP Extraction 3 Non-Crystalline Fraction	SEP Extraction 4 Metal Hydroxide Fraction	SEP Extraction 5 Organic Fraction	SEP Extraction 6 Acid/Sulfide Fraction	SEP Extraction 7 Residual Fraction	Sum of Fractions
OU1-SS-SB406-0908	8/11/2009	LRS-412	0	0	Submerged Slag	Selenium	0	0	0	0	0	0	0	0
OU1-SS-SB406-0908	8/11/2009	LRS-412	0	0	Submerged Slag	Zinc	4.5	209	742	2320	774	9380	5800	19229.5
OU1-SS-SLP415S-0908	8/13/2009	SLP-415	0	0	Terrestrial Slag	Arsenic	0	0.88	3.7	2.8	1.7	5.4	2.7	17.18
OU1-SS-SLP415S-0908	8/13/2009	SLP-415	0	0	Terrestrial Slag	Cadmium	0.27	1.6	0.98	3.9	0.81	1.8	0.18	9.54
OU1-SS-SLP415S-0908	8/13/2009	SLP-415	0	0	Terrestrial Slag	Chromium, Total	0	0	0.32	2.6	0	11.6	34.5	49.02
OU1-SS-SLP415S-0908	8/13/2009	SLP-415	0	0	Terrestrial Slag	Copper	0	89.6	253	219	37.9	93	115	807.5
OU1-SS-SLP415S-0908	8/13/2009	SLP-415	0	0	Terrestrial Slag	Lead	0	42.8	21	93.4	0	15.3	6	178.5
OU1-SS-SLP415S-0908	8/13/2009	SLP-415	0	0	Terrestrial Slag	Mercury	0	0	0	0.51	0.12	0.0096	0	0.6396
OU1-SS-SLP415S-0908	8/13/2009	SLP-415	0	0	Terrestrial Slag	Nickel	4.3	2	9.1	8.9	0	16.1	16	56.4
OU1-SS-SLP415S-0908	8/13/2009	SLP-415	0	0	Terrestrial Slag	Selenium	0	0	0	0	0	0	0	0
OU1-SS-SLP415S-0908	8/13/2009	SLP-415	0	0	Terrestrial Slag	Zinc	4.4	530	697	898	125	288	338	2880.4

Table 5.4.1-2
Sequential Extraction Data Summary - Average Relative Fractions
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Parameter	Media	Fraction Type						
		Exchangeable	Organic	Carbonate	Non-Crystalline	Metal Hydroxide	Sulfide	Residual
ARSENIC	Clay and Alluvium	0.0%	4.3%	0.0%	7.9%	13.5%	58.5%	15.7%
	Fill/Till	0.0%	6.3%	0.0%	11.5%	15.3%	53.2%	13.7%
	Terrestrial Slag	0.0%	1.2%	0.6%	9.6%	14.7%	57.6%	16.2%
	Submerged Slag	0.0%	2.4%	0.0%	8.8%	19.8%	36.5%	32.5%
CADMIUM	Clay and Alluvium	2.6%	59.7%	13.1%	1.5%	16.0%	3.4%	3.6%
	Fill/Till	2.3%	15.2%	26.7%	3.5%	27.4%	17.4%	7.5%
	Terrestrial Slag	5.4%	20.9%	32.4%	3.5%	17.3%	9.4%	11.2%
	Submerged Slag	0.0%	10.2%	22.6%	5.4%	17.1%	31.9%	12.9%
CHROMIUM	Clay and Alluvium	0.0%	5.5%	0.0%	0.5%	5.0%	13.3%	75.7%
	Fill/Till	0.0%	16.0%	0.9%	1.6%	7.6%	25.3%	48.6%
	Terrestrial Slag	0.0%	3.5%	0.0%	1.2%	6.8%	21.8%	66.7%
	Submerged Slag	0.0%	0.0%	0.0%	0.6%	1.6%	3.8%	94.0%
COPPER	Clay and Alluvium	0.0%	3.4%	30.5%	20.6%	10.7%	24.5%	10.2%
	Fill/Till	0.0%	0.0%	9.6%	30.9%	25.3%	20.0%	14.2%
	Terrestrial Slag	0.0%	3.8%	15.2%	27.7%	20.5%	18.2%	14.6%
	Submerged Slag	0.0%	2.8%	1.9%	2.4%	11.1%	40.8%	41.0%
LEAD	Clay and Alluvium	0.0%	0.0%	0.8%	1.1%	13.4%	5.9%	78.7%
	Fill/Till	0.0%	0.0%	3.5%	2.1%	69.8%	20.6%	4.0%
	Terrestrial Slag	0.1%	1.0%	13.6%	8.2%	50.2%	15.8%	11.0%
	Submerged Slag	0.0%	0.0%	1.6%	2.9%	18.3%	24.8%	52.4%
MERCURY	Clay and Alluvium	0.0%	91.3%	0.0%	0.0%	1.8%	6.9%	0.0%
	Fill/Till	0.0%	99.0%	1.0%	0.0%	0.0%	0.0%	0.0%
	Terrestrial Slag	0.0%	91.8%	0.0%	0.0%	6.0%	2.2%	0.0%
	Submerged Slag	0.0%	29.2%	0.0%	0.0%	57.1%	13.7%	0.0%
ZINC	Clay and Alluvium	9.4%	1.9%	25.2%	29.8%	22.8%	7.6%	3.5%
	Fill/Till	0.3%	0.2%	14.6%	25.3%	32.8%	16.4%	10.4%
	Terrestrial Slag	1.2%	0.8%	27.8%	9.6%	24.4%	23.9%	12.3%
	Submerged Slag	0.0%	3.8%	0.9%	2.7%	9.6%	27.3%	55.6%

Table 5.4.1-3
Soil SEP Identification of Controlling Immobilization Processes and Conditions That May Increase Inorganic Mobility
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Inorganic	Media	Predicted Immobilization Process(es)		Geochemical Condition(s) That May Increase Mobility		Other Considerations
		Predominant	Secondary	Predominant	Secondary	
Arsenic	Clay and Alluvium	Precipitation and/or assocation with sulfide minerals (F6)	Metal hydroxide (F5) or non-crystalline (F4) metal oxide/hydroxide complexation	Oxidative Dissolution	Reductive Dissolution	
	Fill/Till					
	Terrestrial Slag					
	Submerged Slag					
Cadmium	Clay and Alluvium	Organic Matter complexation (F2)	Metal hydroxide (F4) or carbonate complexation (F3)	Oxidative Dissolution	Reductive Dissolution Carbonate Dissolution	The presence of Cd in exchangeable fraction (F1) suggests that ~2 % of soil Cd has the potential to be mobilized under ambient conditions.
	Fill/Till	Carbonate Complexation (F3)	Metal hydroxide (F5) , organic matter complexation (F2), sulfide mineral precipitation (F6)	Carbonate Dissolution	Reductive Dissolution Oxidative Dissolution	Oxidative dissolution may increase the mobility of cadmium present in both sulfide and organic matter fractions. The presence of Cd in exchangeable fraction (F1) suggests that ~2 % of soil Cd has the potential to be mobilized under ambient conditions.
	Terrestrial Slag		Metal hydroxide (F5) or organic matter complexation (F2)		Reductive Dissolution Oxidative Dissolution	The presence of Cd in exchangeable fraction (F1) suggests that ~2 % of soil Cd has the potential to be mobilized under ambient conditions.
	Submerged Slag	Precipitation and/or assocation with sulfide minerals (F6)	Metal hydroxide (F5) or non-crystalline (F4) metal oxide/hydroxide, or carbonate (F3) complexation	Oxidative Dissolution	Reductive Dissolution Carbonate dissolution	
Copper	Clay and Alluvium	Carbonate complexation (F3) and sulfide precipitation (F6)	Metal hydroxide (F5) or non-crystalline (F4) metal oxide/hydroxide complexation	Carbonate Dissolution Oxidative Dissolution	Reductive Dissolution	
	Fill/Till	Metal hydroxide (F5) or non-crystalline (F4) metal oxide/hydroxide complexation	Precipitation and/or assocation with sulfide minerals (F6)	Reductive Dissolution	Oxidative Dissolution	Approximately 9 % of copper is associated with carbonates that may be mobilized with the introduction of mildly acidic (pH <~5.2) surface or groundwater
	Terrestrial Slag		Precipitation and/or assocation with sulfide minerals (F6) and carbonate complexation (F3)		Oxidative Dissolution Carbonate Dissolution	
	Submerged Slag	Precipitation and/or assocation with sulfide minerals (F6), residual (F7)	Metal hydroxide (F5) complexation	Oxidative Dissolution	Reductive Dissolution	
Chromium	Clay and Alluvium	Residual (F7)	Precipitation and/or assocation with sulfide minerals (F6)		Oxidative Dissolution	
	Fill/Till					
	Terrestrial Slag					
	Submerged Slag					
Lead	Clay and Alluvium	Precipitation and/or assocation with sulfide minerals (F6), Residual (F7)	Metal hydroxide complexation (F5)	Oxidative Dissolution	Reductive Dissolution	
	Fill/Till	Metal hydroxide complexation (F5)	Precipitation and/or assocation with sulfide minerals (F6)	Reductive Dissolution	Oxidative Dissolution	
	Terrestrial Slag		Precipitation and/or assocation with sulfide minerals (F6) and carbonate complexation (F3)		Oxidative Dissolution Carbonate Dissolution	Reductive dissolution may also mobilize lead present in non-crystallined oxide/hydroxide minerals.
	Submerged Slag	Residual (F7)	Precipitation and/or assocation with sulfide minerals (F6)		Oxidative Dissolution	
Mercury	Clay and Alluvium	Organic Matter complexation (F2)	Sulfide Precipitation	Oxidative Dissolution	Oxidative Dissolution	
	Fill/Till					
	Terrestrial Slag		Metal hydroxide (F5) complexation		Reductive Dissolution	
	Submerged Slag	Metal hydroxide complexation (F5)	Precipitation and/or assocation with sulfide minerals (F6) and organic matter complexation (F2)	Reductive Dissolution	Oxidative Dissolution	
Zinc	Clay and Alluvium	Metal hydroxide (F5) non-crystalline (F4), and carbonate (F2) complexation	Precipitation and/or assocation with sulfide minerals (F6)	Reductive Dissolution Carbonate Dissolution	Oxidative Dissolution	The presence of Zn in exchangeable fraction (F1) suggests that soil Zn has the potential to be mobilized under ambient conditions.
	Fill/Till	Metal hydroxide (F5) complexation	Precipitation and/or assocation with sulfide minerals (F6) and carbonate (F3) complexation	Reductive Dissolution	Oxidative Dissolution Carbonate Dissolution	
	Terrestrial Slag	Metal hydroxide (F5) and carbonate (F2) complexation	Precipitation and/or assocation with sulfide minerals (F6)	Reductive Dissolution Carbonate Dissolution	Oxidative Dissolution	
	Submerged Slag	Residual (F7)				

Notes:
Oxidative dissolution may be induced by introduction of surface or groundwater with high dissolved oxygen or introduction of an oxidant that results in mineral dissolution.
Reductive dissolution may be induced by introduction of reduced surface or groundwater or introduction of a reductant that results in mineral dissolution.
Carbonate dissolution may be induced by introduction of mildly acidic (pH <~5.2) surface or groundwater that results in dissolution of carbonate and pH sensitive minerals.

Table 5.4.1-4
SPLP Data Summary - Terrestrial Soils
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

	Sample Location	MW-301H	SB-302	MW-303H	MW-303H	MW-304S	MW-305H	SB-308	SB-309	MW-306S	SB-307
	Sample Name	OU1-SS-SB301-0-1	OU1-SS-SB302-10.5-11	OU1-SS-SB303-108-109	OU1-SS-SB303-89-90-S	OU1-SS-SB304-0-1	OU1-SS-SB305-90-91-S	OU1-SS-SB308-26.5-27.5	OU1-SS-SB309-28.5-29.5	SS-SB306-67-68-SPLP	SS-SB307-0-1-SPLP
	Depth	0 - 1'	10.5 - 11.5'	108 - 109'	89 - 90'	0 - 1'	90 - 91'	26.5 - 27'	28.5 - 29'	67 - 68'	0 - 1'
	Media	Terrestrial Black Slag	Red Brown Sandy Clay	Alluvium	Clay	Terrestrial Black Slag	Silty Clay	Slag	Terrestrial Black Slag	Red-Orange Clay	Black Topsoil
Analyte	**Comparison Value**										
Arsenic	0.01 (MCL)	**0.00048 J**	0.00011 U	**0.00043 J**	**0.00045 J**	**0.0018**	**0.00038 J**	**0.0014**	**0.0013**	0.00011 U	**0.0016**
Cadmium	0.005 (MCL)	**0.0095**	**0.14**	0.00011 U	**0.0014**	**0.0033**	**0.2**	**0.00029 J**	**0.0013**	**0.065**	**0.00068 J**
Chromium	0.7 (MCL)**	**0.000987 J**	**0.000799 J**	**0.00130 J**	**0.000710 J**	**0.00210 J**	**0.000968 J**	**0.00230 J**	**0.000899 J**	**0.00120 J**	**0.00210 J**
Cobalt	0.011 (Tap Water RSL)	**0.00034 J**	**0.0032**	**0.00017 J**	**0.038**	**0.00029 J**	**0.063**	**0.00011 J**	**0.0027**	**0.023**	**0.00032 J**
Copper	1.3 (MCL)	**0.0012**	**0.00063 J**	**0.0016**	**0.00095 J**	**0.0093**	**0.0024**	**0.012**	**0.0051**	**0.0014**	**0.0045 J**
Iron	0.015 (MCL)	**0.044 J**	NA	**0.18**	0.013 U	**0.62**	**0.055 J**	**0.19**	**0.045 J**	**0.051 J**	**1.8**
Lead	0.015 (MCL)	**0.0062**	**0.00010 J**	**0.00039 J**	**0.00025 J**	**0.02**	**0.00028 J**	**0.0054**	**0.00031 J**	**0.00030 J**	**0.013**
Manganese	0.57 (Tapw Water RSL)	**0.0011 J**	**0.21**	**0.0034 J**	**0.98**	**0.03**	**2.8**	**0.047**	**0.78**	**1.1**	**0.02**
Mercury	0.002 (MCL)	**0.00014 J**	0.000014 U	**0.000021 J**	**0.000018 J**	**0.000081 J**	**0.000029 J**	**0.00019 J**	**0.000028 J**	0.000014 U	**0.00012 J**
Zinc	0.73 (Tap Water RSL)	**1.6**	NA	**0.17**	**0.78**	**1.1**	**33.5**	**0.27**	**0.077**	**5.4**	**0.2**

Notes:
All concentrations reported in mg/L.

	Highlighted values indicate concentration above comparison value (MCL or TACO).
1,000	Bold indicates a detection
J	Estimated
U	Non-Detect
NA	Data not available
**	Screening value for Cr VI multiplied by 7 (assuming a Cr VI : CR III ratio of 1:6)

Table 5.4.1-5
SPLP Mass Summary - Terrestrial Soils and Slag
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Sample Name	Depth	Inorganic COC	SPLP Result (mg/L)	SPLP20 (mg/kg)	Total Result (mg/kg)	Percent Mobile
Terrestrial Slag						
OU1-SS-SB301-0-1	0 - 1'	Arsenic	0.00048 J	9.54E-03	117	0.01%
OU1-SS-SB304-0-1	0 - 1'	Arsenic	0.0018	3.60E-02	28.1	0.13%
OU1-SS-SB308-26.5-27.5	26.5 - 27'	Arsenic	0.0014	2.80E-02	46.5	0.06%
OU1-SS-SB309-28.5-29.5	28.5 - 29'	Arsenic	0.0013	2.60E-02	117	0.02%
OU1-SS-SB301-0-1	0 - 1'	Cadmium	0.0095	0.190	88.1	0.22%
OU1-SS-SB304-0-1	0 - 1'	Cadmium	0.0033	6.60E-02	109	0.06%
OU1-SS-SB308-26.5-27.5	26.5 - 27'	Cadmium	0.00029 J	5.86E-03	53.5	0.01%
OU1-SS-SB309-28.5-29.5	28.5 - 29'	Cadmium	0.0013	2.60E-02	26.7	0.10%
OU1-SS-SB301-0-1	0 - 1'	Chromium	0.00099	1.98E-02	54.3	0.04%
OU1-SS-SB304-0-1	0 - 1'	Chromium	0.0021	4.20E-02	19.4	0.22%
OU1-SS-SB308-26.5-27.5	26.5 - 27'	Chromium	0.0023	4.60E-02	78.7	0.06%
OU1-SS-SB309-28.5-29.5	28.5 - 29'	Chromium	0.0009	1.80E-02	27.8	0.06%
OU1-SS-SB301-0-1	0 - 1'	Cobalt	0.00034 J	6.84E-03	26.7	0.03%
OU1-SS-SB304-0-1	0 - 1'	Cobalt	0.00029 J	5.72E-03	10.4	0.06%
OU1-SS-SB308-26.5-27.5	26.5 - 27'	Cobalt	0.00011 J	2.16E-03	31	0.01%
OU1-SS-SB309-28.5-29.5	28.5 - 29'	Cobalt	0.0027	5.40E-02	30.8	0.18%
OU1-SS-SB301-0-1	0 - 1'	Copper	0.0012	2.40E-02	522	0.00%
OU1-SS-SB304-0-1	0 - 1'	Copper	0.0093	0.186	296	0.06%
OU1-SS-SB308-26.5-27.5	26.5 - 27'	Copper	0.012	0.238	1,410	0.02%
OU1-SS-SB309-28.5-29.5	28.5 - 29'	Copper	0.0051	0.102	2,810	0.00%
OU1-SS-SB301-0-1	0 - 1'	Iron	0.044 J	0.878	49,000	0.00%
OU1-SS-SB304-0-1	0 - 1'	Iron	0.62	12.46	21,900	0.06%
OU1-SS-SB308-26.5-27.5	26.5 - 27'	Iron	0.19	3.780	64,800	0.01%
OU1-SS-SB309-28.5-29.5	28.5 - 29'	Iron	0.045 J	0.890	123,000	0.00%
OU1-SS-SB301-0-1	0 - 1'	Lead	0.0062	0.124	4,400	0.00%
OU1-SS-SB304-0-1	0 - 1'	Lead	0.02	0.404	627	0.06%
OU1-SS-SB308-26.5-27.5	26.5 - 27'	Lead	0.0054	0.108	500	0.02%
OU1-SS-SB309-28.5-29.5	28.5 - 29'	Lead	0.00031 J	6.10E-03	328	0.00%
OU1-SS-SB301-0-1	0 - 1'	Manganese	0.0011 J	2.20E-02	289	0.01%
OU1-SS-SB304-0-1	0 - 1'	Manganese	0.03	0.600	918	0.07%
OU1-SS-SB308-26.5-27.5	26.5 - 27'	Manganese	0.047	0.942	7,870	0.01%
OU1-SS-SB309-28.5-29.5	28.5 - 29'	Manganese	0.78	15.60	13,800	0.11%
OU1-SS-SB301-0-1	0 - 1'	Mercury	0.00014 J	2.82E-03	18.5	0.02%
OU1-SS-SB304-0-1	0 - 1'	Mercury	0.000081 J	1.62E-03	0.69	0.23%
OU1-SS-SB308-26.5-27.5	26.5 - 27'	Mercury	0.00019 J	3.78E-03	2.5	0.15%
OU1-SS-SB309-28.5-29.5	28.5 - 29'	Mercury	0.000028 J	5.60E-04	0.39	0.14%
OU1-SS-SB301-0-1	0 - 1'	Zinc	1.6	31.2	79,900	0.04%
OU1-SS-SB304-0-1	0 - 1'	Zinc	1.1	22.0	46,000	0.05%
OU1-SS-SB308-26.5-27.5	26.5 - 27'	Zinc	0.27	5.34	10,300	0.05%
OU1-SS-SB309-28.5-29.5	28.5 - 29'	Zinc	0.077	1.54	18,600	0.01%
Soil						
OU1-SS-SB302-10.5-11	10.5 - 11.5'	Arsenic	0.00011 U	0	32.7	0.00%
OU1-SS-SB303-108-109	108 - 109'	Arsenic	0.00043 J	8.64E-03	8.4	0.10%
OU1-SS-SB303-89-90-S	89 - 90'	Arsenic	0.00045 J	8.90E-03	8.5	0.10%
OU1-SS-SB305-90-91-S	90 - 91'	Arsenic	0.00038 J	7.64E-03	6.8	0.11%
SS-SB306-67-68-SPLP	67 - 68'	Arsenic	0.00011 U	0	11.3	0.00%
SS-SB307-0-1-SPLP	0 - 1'	Arsenic	0.0016	3.20E-02	16.9	0.19%
OU1-SS-SB302-10.5-11	10.5 - 11.5'	Cadmium	0.14	2.76	47.2	5.85%
OU1-SS-SB303-108-109	108 - 109'	Cadmium	0.00011 U	0	4.6	0.00%
OU1-SS-SB303-89-90-S	89 - 90'	Cadmium	0.0014	2.80E-02	737	0.00%
OU1-SS-SB305-90-91-S	90 - 91'	Cadmium	0.2	3.98	38.1	10.45%
SS-SB306-67-68-SPLP	67 - 68'	Cadmium	0.065	1.30	62	2.10%
SS-SB307-0-1-SPLP	0 - 1'	Cadmium	0.00068 J	1.36E-02	13.8	0.10%
OU1-SS-SB302-10.5-11	10.5 - 11.5'	Chromium	0.00080 J	1.60E-02	52.1	0.03%

Table 5.4.1-5
SPLP Mass Summary - Terrestrial Soils and Slag
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Sample Name	Depth	Inorganic COC	SPLP Result (mg/L)	SPLP20 (mg/kg)	Total Result (mg/kg)	Percent Mobile
OU1-SS-SB303-108-109	108 - 109'	Chromium	0.0013 J	2.60E-02	8.6	0.30%
OU1-SS-SB303-89-90-S	89 - 90'	Chromium	0.00071 J	1.42E-02	21	0.07%
OU1-SS-SB305-90-91-S	90 - 91'	Chromium	0.00097 J	1.94E-02	18	0.11%
SS-SB306-67-68-SPLP	67 - 68'	Chromium	0.0012 J	2.40E-02	25.8	0.09%
SS-SB307-0-1-SPLP	0 - 1'	Chromium	0.0021 J	4.20E-02	11.8	0.36%
OU1-SS-SB302-10.5-11	10.5 - 11.5'	Cobalt	0.0032	6.40E-02	11.4	0.56%
OU1-SS-SB303-108-109	108 - 109'	Cobalt	0.00017 J	3.42E-03	5.1	0.07%
OU1-SS-SB303-89-90-S	89 - 90'	Cobalt	0.038	0.760	38.6	1.97%
OU1-SS-SB305-90-91-S	90 - 91'	Cobalt	0.063	1.25	16.2	7.73%
SS-SB306-67-68-SPLP	67 - 68'	Cobalt	0.023	0.466	39.5	1.18%
SS-SB307-0-1-SPLP	0 - 1'	Cobalt	0.00032 J	6.32E-03	6	0.11%
OU1-SS-SB302-10.5-11	10.5 - 11.5'	Copper	0.00063 J	1.25E-02	53.6	0.02%
OU1-SS-SB303-108-109	108 - 109'	Copper	0.0016	3.20E-02	17.4	0.18%
OU1-SS-SB303-89-90-S	89 - 90'	Copper	0.00095 J	1.91E-02	402	0.00%
OU1-SS-SB305-90-91-S	90 - 91'	Copper	0.0024	4.80E-02	50.7	0.09%
SS-SB306-67-68-SPLP	67 - 68'	Copper	0.0014	2.80E-02	31.7	0.09%
SS-SB307-0-1-SPLP	0 - 1'	Copper	0.0045 J	9.00E-02	51.4	0.18%
OU1-SS-SB303-108-109	108 - 109'	Iron	0.18	3.60	24,100	0.01%
OU1-SS-SB303-89-90-S	89 - 90'	Iron	0.013 U	0	60,000	0.00%
OU1-SS-SB305-90-91-S	90 - 91'	Iron	0.055 J	1.10	35,700	0.00%
SS-SB306-67-68-SPLP	67 - 68'	Iron	0.051 J	1.01	26,100	0.00%
SS-SB307-0-1-SPLP	0 - 1'	Iron	1.8	35.0	34,300	0.10%
OU1-SS-SB302-10.5-11	10.5 - 11.5'	Lead	0.00010 J	2.00E-03	68.8	0.00%
OU1-SS-SB303-108-109	108 - 109'	Lead	0.00039 J	7.88E-03	18	0.04%
OU1-SS-SB303-89-90-S	89 - 90'	Lead	0.00025 J	5.00E-03	148	0.00%
OU1-SS-SB305-90-91-S	90 - 91'	Lead	0.00028 J	5.62E-03	161	0.00%
SS-SB306-67-68-SPLP	67 - 68'	Lead	0.00030 J	5.94E-03	30.7	0.02%
SS-SB307-0-1-SPLP	0 - 1'	Lead	0.013	0.260	393	0.07%
OU1-SS-SB302-10.5-11	10.5 - 11.5'	Manganese	0.21	4.20	1,800	0.23%
OU1-SS-SB303-108-109	108 - 109'	Manganese	0.0034 J	6.80E-02	983	0.01%
OU1-SS-SB303-89-90-S	89 - 90'	Manganese	0.98	19.6	371	5.27%
OU1-SS-SB305-90-91-S	90 - 91'	Manganese	2.8	56.8	332	17.11%
SS-SB306-67-68-SPLP	67 - 68'	Manganese	1.1	21.6	1,740	1.24%
SS-SB307-0-1-SPLP	0 - 1'	Manganese	0.02	0.400	332	0.12%
OU1-SS-SB302-10.5-11	10.5 - 11.5'	Mercury	0.000014 U	0	0.13	0.00%
OU1-SS-SB303-108-109	108 - 109'	Mercury	0.000021 J	4.20E-04	0.11	0.38%
OU1-SS-SB303-89-90-S	89 - 90'	Mercury	0.000018 J	3.60E-04	0.48	0.08%
OU1-SS-SB305-90-91-S	90 - 91'	Mercury	0.000029 J	5.80E-04	0.39	0.15%
SS-SB306-67-68-SPLP	67 - 68'	Mercury	0.000014 U	0	0.005	0.00%
SS-SB307-0-1-SPLP	0 - 1'	Mercury	0.00012 J	2.40E-03	1.1	0.22%
OU1-SS-SB303-108-109	108 - 109'	Zinc	0.17	3.48	129	2.70%
OU1-SS-SB303-89-90-S	89 - 90'	Zinc	0.78	15.6	8,890	0.18%
OU1-SS-SB305-90-91-S	90 - 91'	Zinc	33.5	670	9,560	7.01%
SS-SB306-67-68-SPLP	67 - 68'	Zinc	5.4	107	10,300	1.04%
SS-SB307-0-1-SPLP	0 - 1'	Zinc	0.2	3.90	3,110	0.13%

Notes:
1. SPLP 20 - SPLP extraction utilizes a 1:20 dilution. SPLP result in mg/L was multiplied by 20 to estimate the soluble mass in mg/kg.
2. All estimated or "J" values were assumed to be detections.
3. Samples with percent mobile greater than or equal to 1 percent are highlighted in yellow.

Table 5.4.1-6
Sediment SPLP Data Summary
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

	Location ID	**LRS-412**	**LRS-412**	**LRS-413**	**LRS-413**
	Sample ID	**OU1-SS-LRS412S-0908**	**OU1-SS-LRS412T-0908**	**OU1-SS-LRS413S-0908**	**OU1-SS-LRS413T-0908**
	Date	**8/11/2009**	**8/11/2009**	**8/12/2009**	**8/12/2009**
	Units	**mg/L**	**mg/L**	**mg/L**	**mg/L**
	Depth	**0'**	**0'**	**0'**	**0'**
	Matrix	**Submerged Slag Only**	**Submerged Slag and Sediment**	**Submerged Slag Only**	**Submerged Slag and Sediment**
Analyte	**SW_RSL**				
Antimony	0.32 (ILWQC)	**0.0090 J**	0.0030 U	0.0039 U	0.00051 U
Arsenic	0.19 (IWQS)	**0.0080 J**	**0.0080 J**	0.0032 U	**175**
Chromium	0.301**	**0.0010 J**	**0.0010 J**	**0.0033 J**	**0.0021 J**
Iron	1 (NRWQC)	**4.4**	**5.1 J**	0.032 U	**0.011 J**
Lead	0.01935 (IWQS)	**0.043**	**0.015**	0.00089 U	**0.084 J**
Manganese	NA	**0.089**	**0.077**	0.010 U	**0.0050 J**
Zinc	0.02412 (IWQS)	**0.61**	**0.22**	**0.0055 J**	**0.019 J**

Notes:

J	Constituent concentration was estimated .
U	U indicates that constituent concentration was below the indicated detection limit.
NA	Not Available.
	Indicates exceedance of SW_RSL.
1,000	Bold indicates a detection
**	Screening value for Cr VI multiplied by 7 (assuming a Cr VI : CR III ratio of 1:6)

Table 5.4.1-7
Specialized Leachability Procedure Results
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Sample ID	Location	Submerged (LVR)/ Unweathered (Slag Pile)	Extractant	F/NF	Run	Units	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium, Total	Cobalt	Copper	Iron	Lead	Manganese
LRS412S-R-F-1	412	Submerged	River Water	F	1	µg/L	22.7 J	3.9 U	2.5 U	70.5	0.139 U	0.422 J	77,700	13.8 J	0.822 J	30.3	7.7 U	0.851 J	6.8 J
LRS412S-R-F-2	412	Submerged	River Water	F	2	µg/L	21.8 J	3.9 U	2.5 U	71	0.139 U	0.914 J	80,900	20	2.9 J	25.7	17.1 J	0.744 J	36.3
LRS412S-R-F-3	412	Submerged	River Water	F	3	µg/L	20.8 J	3.9 U	3.2 J	72.4	0.139 U	0.478 J	78,400	15.1 J	1.9 J	38.2	9.9 J	0.732 J	10.4
LRS413S-R-F-1	413	Submerged	River Water	F	1	µg/L	20.5 J	3.9 U	2.5 U	70.6	0.139 U	0.72 J	76,500	15 J	2 J	29.1	10.8 J	0.736 J	48.4
LRS413S-R-F-2	413	Submerged	River Water	F	2	µg/L	35.5 J	3.9 U	2.5 U	75.7	0.139 U	0.518 J	80,500	16.4 J	1.1 J	28.3	7.7 U	0.488 J	7.4 J
LRS413S-R-F-3	413	Submerged	River Water	F	3	µg/L	16.4 J	3.9 U	2.5 U	91.2	0.139 U	0.796 J	82,700	16.6 J	6.1 J	33.3	7.7 U	0.443 J	154
LRS414S-R-F-1	414	Submerged	River Water	F	1	µg/L	29.3 J	3.9 U	2.5 U	75.3	0.139 U	1.3 J	79,600	14.9 J	3.8 J	39.8	12.1 J	1.1 J	10.5
LRS414S-R-F-2	414	Submerged	River Water	F	2	µg/L	31.3 J	3.9 U	2.5 U	62.3	0.139 U	1.5 J	79,800	19.5 J	4.1 J	34.5	45.8 J	0.486 J	22.6
LRS414S-R-F-3	414	Submerged	River Water	F	3	µg/L	16.2 J	3.9 U	2.5 U	60.4	0.139 U	0.655 J	78,700	16.1 J	1.5 J	24.2	7.7 U	0.634 J	14.5
LRS412S-R-NF-1	412	Submerged	River Water	NF	1	µg/L	1500	3.9 U	5.4 J	102	0.17 J	1.5 J	81,700	12.4 J	3.9 J	121	4570	27.5	197
LRS412S-R-NF-2	412	Submerged	River Water	NF	2	µg/L	1640	3.9 U	8.5 J	128	0.179 J	2.3 J	90,000	14.7 J	7.7 J	140	5170	45.2	325
LRS412S-R-NF-3	412	Submerged	River Water	NF	3	µg/L	2430	3.9 U	11.6	123	0.387 J	2.2 J	86,700	16.2 J	7.9 J	225	8100	37.1	333
LRS413S-R-NF-1	413	Submerged	River Water	NF	1	µg/L	1650	3.9 U	6.7 J	106	0.175 J	2 J	81,900	15 J	9.2 J	160	5690	19	464
LRS413S-R-NF-2	413	Submerged	River Water	NF	2	µg/L	1880	3.9 U	6.6 J	111	0.195 J	1.8 J	88,600	16 J	6.2 J	144	5800	22.3	393
LRS413S-R-NF-3	413	Submerged	River Water	NF	3	µg/L	1790	3.9 U	15	121	0.207 J	2.1 J	87,400	16 J	15.4	235	9060	22.3	638
LRS414S-R-NF-1	414	Submerged	River Water	NF	1	µg/L	850	3.9 U	7.4 J	98.8	0.139 U	2.9 J	81,400	13.7 J	7.7 J	134	2820	35.7	164
LRS414S-R-NF-2	414	Submerged	River Water	NF	2	µg/L	960	3.9 U	4.3 J	73.8	0.139 U	2.8 J	79,800	17.6 J	8.1 J	138	3450	20.9	186
LRS414S-R-NF-3	414	Submerged	River Water	NF	3	µg/L	1030	3.9 U	7.2 J	89.5	0.139 U	2 J	81,200	16.4 J	5.9 J	137	3200	22.5	216
LRS412S-S-F-1	412	Submerged	SPLP	F	1	µg/L	33.3 J	3.9 U	2.5 U	27.5	0.139 U	0.325 U	13,100	10.7 J	0.684 J	7.3 J	36.9 J	0.71 J	16.8
LRS412S-S-F-2	412	Submerged	SPLP	F	2	µg/L	32.1 J	3.9 U	2.5 U	23.7	0.139 U	0.325 U	12,700	11.1 J	0.758 J	5.3 J	115	0.788 J	33.3
LRS412S-S-F-3	412	Submerged	SPLP	F	3	µg/L	52.7 J	3.9 U	2.5 U	34	0.139 U	0.325 U	15,800	10.2 J	0.486 J	7.2 J	66 J	0.461 J	18.3
LRS413S-S-F-1	413	Submerged	SPLP	F	1	µg/L	22.1 J	3.9 U	2.5 U	32.9	0.139 U	0.325 U	14,500	14.5 J	0.868 J	14.2	43.3 J	0.311 J	55.3
LRS413S-S-F-2	413	Submerged	SPLP	F	2	µg/L	24.8 J	3.9 U	2.5 U	33.7	0.139 U	0.325 U	15,500	11.3 J	0.912 J	7.7 J	35.2 J	0.352 J	23.5
LRS413S-S-F-3	413	Submerged	SPLP	F	3	µg/L	26.6 J	3.9 U	2.5 U	31.6	0.139 U	0.325 U	14,400	11.5 J	0.342 J	7.3 J	46.2 J	0.552 J	18
LRS414S-S-F-1	414	Submerged	SPLP	F	1	µg/L	21.9 J	3.9 U	2.5 U	27.8	0.139 U	8.5 J	13,300	11.2 J	1.6 J	19.2	842	1.6 J	48.5
LRS414S-S-F-2	414	Submerged	SPLP	F	2	µg/L	31.4 J	3.9 U	2.5 U	18.8	0.139 U	0.325 U	11,700	16.7 J	0.376 J	6.1 J	54.4 J	0.777 J	6 J
LRS414S-S-F-3	414	Submerged	SPLP	F	3	µg/L	26.9 J	3.9 U	2.5 U	25.1	0.139 U	0.325 U	13,700	11.6 J	0.803 J	7.9 J	41.6 J	0.599 J	18.4
LRS412S-S-NF-1	412	Submerged	SPLP	NF	1	µg/L	1810	3.9 U	6 J	48.5	0.139 U	2 J	14,600	18.5 J	3.5 J	102	4820	30.2	228
LRS412S-S-NF-2	412	Submerged	SPLP	NF	2	µg/L	1240	3.9 U	5.4 J	50.9	0.175 J	1.6 J	13,600	19 J	3.8 J	94.8	3440	23.6	173
LRS412S-S-NF-3	412	Submerged	SPLP	NF	3	µg/L	2640	3.9 U	2.5 U	21.1	0.139 U	0.325 U	18,400	4.7 J	1.4 J	45	9390	7.8 J	480
LRS413S-S-NF-1	413	Submerged	SPLP	NF	1	µg/L	1530	3.9 U	3.4 J	57.8	0.139 U	1 J	15,800	15.1 J	5.4 J	208	6310	18.9	372
LRS413S-S-NF-2	413	Submerged	SPLP	NF	2	µg/L	2810	3.9 U	8 J	72	0.251 J	1.7 J	19,300	16.4 J	11.3	206	11000	25.4	679
LRS413S-S-NF-3	413	Submerged	SPLP	NF	3	µg/L	1700	3.9 U	4.8 J	64.9	0.184 J	1.9 J	15,000	14.5 J	6.6 J	173	6900	25.4	351
LRS414S-S-NF-1	414	Submerged	SPLP	NF	1	µg/L	1200	3.9 U	8.2 J	45.1	0.139 U	18.1	13,700	13.1 J	6.1 J	156	5450	34.9	276
LRS414S-S-NF-2	414	Submerged	SPLP	NF	2	µg/L	2110	3.9 U	6.4 J	54.4	0.178 J	1.4 J	13,200	20.5	5.3 J	139	8360	62.4	322
LRS414S-S-NF-3	414	Submerged	SPLP	NF	3	µg/L	2230	3.9 U	5.8 J	48.7	0.139 U	2 J	15,800	14.9 J	6.4 J	155	9320	40.3	306
SLP415S-R-F-1	415	Terrestrial	River Water	F	1	µg/L	17.7 J	3.9 U	6.3 J	39.2	0.139 U	18	613,000	11.9 J	1.3 J	30.5	14.6 J	18.8	0.518 J
SLP415S-R-F-2	415	Terrestrial	River Water	F	2	µg/L	14.9 U	3.9 U	3.2 J	33.4	0.139 U	17.5	629,000	11.5 J	1.1 J	32.6	31.7 U	23.2	0.247 U
SLP415S-R-F-3	415	Terrestrial	River Water	F	3	µg/L	14.9 U	3.9 U	2.5 U	31.3	0.139 U	17.2	631,000	12.7 J	1.4 J	23.5	31.7 U	20.1	0.448 J
SLP416S-R-F-1	416	Terrestrial	River Water	F	1	µg/L	27.9 J	3.9 U	2.5 U	87.4	0.139 U	4 J	94,700	9.1 J	1.2 J	11.1	49.4 J	3.7 J	0.44 J
SLP416S-R-F-2	416	Terrestrial	River Water	F	2	µg/L	23.6 J	3.9 U	2.5 U	79.3	0.139 U	3.9 J	97,400	11.1 J	0.298 J	9.4 J	46.6 J	4.8 J	0.247 U
SLP416S-R-F-3	416	Terrestrial	River Water	F	3	µg/L	21.8 J	3.9 U	2.5 U	78	0.139 U	3.7 J	97,000	12.1 J	0.303 J	9.3 J	41 J	2 J	0.247 U
SLP417S-R-F-1	417	Terrestrial	River Water	F	1	µg/L	14.9 U	3.9 U	2.5 U	69.4	0.139 U	12.5	80,600	12 J	3.1 J	359	39.3 J	7.9 J	86.4
SLP417S-R-F-2	417	Terrestrial	River Water	F	2	µg/L	16.2 J	3.9 U	2.5 U	64.3	0.139 U	11.6	82,300	13.2 J	3.5 J	274	39 J	8.9 J	102
SLP417S-R-F-3	417	Terrestrial	River Water	F	3	µg/L	14.9 U	3.9 U	2.5 U	58.2	0.139 U	11.4	83,100	20.8	3.2 J	259	31.7 U	8.6 J	88.5
SLP415S-R-NF-1	415	Terrestrial	River Water	NF	1	µg/L	41400	211	350	2360	8.8 J	105	629,000	74.5	48.8	3780	233000	6750	12200
SLP415S-R-NF-2	415	Terrestrial	River Water	NF	2	µg/L	11200	56.2 J	130	740	3.1 J	52.9	578,000	36.3	18.4	1130	63500	2000	2950
SLP415S-R-NF-3	415	Terrestrial	River Water	NF	3	µg/L	70600	21.2 J	92.2	1510	6.3 J	320	161,000	162	83.7	1330	175000	2680	5940
SLP416S-R-NF-1	416	Terrestrial	River Water	NF	1	µg/L	31700	7.6 J	35.4	457	1.8 J	71.3	111,000	116	20.4	383	67500	991	1340

Table 5.4.1-7
Specialized Leachability Procedure Results
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Sample ID	Location	Submerged (LVR)/ Unweathered (Slag Pile)	Extractant	F/NF	Run	Units	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium, Total	Cobalt	Copper	Iron	Lead	Manganese
SLP416S-R-NF-2	416	Terrestrial	River Water	NF	2	µg/L	34300	10.7 J	43.7	520	2.1 J	74.4	116,000	142	24.7	416	85600	1210	1410
SLP416S-R-NF-3	416	Terrestrial	River Water	NF	3	µg/L	26900	128	246	1510	6.1 J	66.4	661,000	92.4	32.5	1870	155000	3910	6980
SLP417S-R-NF-1	417	Terrestrial	River Water	NF	1	µg/L	10000	140	187	289	0.718 J	22.5	90,400	23.2	30.5	3670	52000	1030	745
SLP417S-R-NF-2	417	Terrestrial	River Water	NF	2	µg/L	13100	257	280	360	0.957 J	25.2	85,400	27.6	46.3	4970	98700	1420	1260
SLP417S-R-NF-3	417	Terrestrial	River Water	NF	3	µg/L	5790	110	159	226	0.598 J	20.5	90,100	20.9	28.2	3020	39600	993	591
SLP415S-S-F-1	415	Terrestrial	SPLP	F	1	µg/L	14.9 U	3.9 U	2.5 U	28.9	0.139 U	25.6	563,000	85.3	2.2 J	13	31.7 U	4.2 J	2.4 J
SLP415S-S-F-2	415	Terrestrial	SPLP	F	2	µg/L	14.9 U	3.9 U	2.5 U	29.3	0.139 U	24.4	582,000	13.3 J	0.917 J	7.5 J	31.7 U	4 J	1 J
SLP415S-S-F-3	415	Terrestrial	SPLP	F	3	µg/L	14.9 U	3.9 U	2.5 U	30.4	0.139 U	23.6	563,000	12.4 J	0.804 J	6.8 J	31.7 U	4.2 J	1.1 J
SLP416S-S-F-1	416	Terrestrial	SPLP	F	1	µg/L	140	3.9 U	2.5 U	14.9	0.139 U	0.936 J	12,500	8.6 J	0.192 J	13	273	7.2 J	5.6 J
SLP416S-S-F-2	416	Terrestrial	SPLP	F	2	µg/L	210	3.9 U	2.5 U	20.6	0.139 U	1.4 J	14,000	17.5 J	0.222 J	10.9	385	9.3 J	6.4 J
SLP416S-S-F-3	416	Terrestrial	SPLP	F	3	µg/L	150	3.9 U	2.5 U	18.9	0.139 U	1.3 J	13,500	18.2 J	3 J	16.3	378	8 J	6.7 J
SLP417S-S-F-1	417	Terrestrial	SPLP	F	1	µg/L	22.1 J	3.9 U	2.5 U	58.9	0.139 U	15.2	17,200	15.9 J	4.1 J	102	99.8 J	3.7 J	125
SLP417S-S-F-2	417	Terrestrial	SPLP	F	2	µg/L	24 J	3.9 U	2.5 U	55.8	0.139 U	12.3	18,300	14.5 J	4.2 J	133	30.8 J	4.2 J	140
SLP417S-S-F-3	417	Terrestrial	SPLP	F	3	µg/L	32.3 J	3.9 U	2.5 U	68.6	0.139 U	12.8	15,800	33.5	3.6 J	123	65.5 J	5.3 J	115
SLP415S-S-NF-1	415	Terrestrial	SPLP	NF	1	µg/L	14400	102	292	826	3.7 J	59.5	585,000	42.4	21.9	1260	95400	2410	3760
SLP415S-S-NF-2	415	Terrestrial	SPLP	NF	2	µg/L	33600	162	300	1870	8.4 J	85.1	642,000	75.9	40.2	3280	188000	5250	8740
SLP415S-S-NF-3	415	Terrestrial	SPLP	NF	3	µg/L	14800	75.7	161	997	4.8 J	65.3	588,000	52.4	24.9	1440	95900	2730	3880
SLP416S-S-NF-1	416	Terrestrial	SPLP	NF	1	µg/L	73500	17.1 J	87.1	1760	8 J	357	90,600	227	114	1440	146000	2500	6780
SLP416S-S-NF-2	416	Terrestrial	SPLP	NF	2	µg/L	59300	10.3 J	58.8	1410	7.3 J	366	84,000	207	69.6	1140	111000	2040	5850
SLP416S-S-NF-3	416	Terrestrial	SPLP	NF	3	µg/L	59100	15.5 J	71.1	1010	5 J	163	42,400	216	44.2	871	130000	2360	3550
SLP417S-S-NF-1	417	Terrestrial	SPLP	NF	1	µg/L	11700	187	349	404	1.2 J	38.2	18,000	36.8	54.2	5830	70400	1930	1030
SLP417S-S-NF-2	417	Terrestrial	SPLP	NF	2	µg/L	6000	88	149	240	0.675 J	23.9	18,700	22.6	31.4	3510	34700	957	654
SLP417S-S-NF-3	417	Terrestrial	SPLP	NF	3	µg/L	6180	120	184	257	0.674 J	25.4	16,900	22.2	33.2	3690	46900	1040	767

Table 5.4.1-7
Specialized Leachability Procedure Results
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LaSalle, Illinois

Sample ID	Location	Submerged (LVR)/ Unweathered (Slag Pile)	Extractant	F/NF	Run	Units	Mercury	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
LRS412S-R-F-1	412	Submerged	River Water	F	1	µg/L	0.093 J	13.3	0.555 U	0.829 U	1 U	5.5 U	108
LRS412S-R-F-2	412	Submerged	River Water	F	2	µg/L	0.118 J	26.2	0.555 U	0.829 U	1 U	5.5 U	88
LRS412S-R-F-3	412	Submerged	River Water	F	3	µg/L	0.088 J	16.4	0.555 U	0.829 U	1 U	5.5 U	110
LRS413S-R-F-1	413	Submerged	River Water	F	1	µg/L	0.096 J	21.1	0.613 J	0.829 U	1 U	5.5 U	137
LRS413S-R-F-2	413	Submerged	River Water	F	2	µg/L	0.032 J	10.6	0.555 U	0.829 U	1 U	5.5 U	122
LRS413S-R-F-3	413	Submerged	River Water	F	3	µg/L	0.298	20.4	0.555 U	0.829 U	1 U	5.5 U	182
LRS414S-R-F-1	414	Submerged	River Water	F	1	µg/L	0.025 J	13.1	0.695 J	0.829 U	1 U	5.5 U	325
LRS414S-R-F-2	414	Submerged	River Water	F	2	µg/L	0.032 J	20.4	0.555 U	0.829 U	1 U	5.5 U	196
LRS414S-R-F-3	414	Submerged	River Water	F	3	µg/L	0.023 J	12.3	0.555 U	0.829 U	1 U	5.5 U	113
LRS412S-R-NF-1	412	Submerged	River Water	NF	1	µg/L	0.019 U	36.3	0.555 U	2 J	1 U	5.5 U	594
LRS412S-R-NF-2	412	Submerged	River Water	NF	2	µg/L	0.019 U	51.9	1.8 J	2.2 J	1 U	5.5 U	610
LRS412S-R-NF-3	412	Submerged	River Water	NF	3	µg/L	0.019 U	55	1.1 J	3.3 J	1 U	5.5 U	1,080
LRS413S-R-NF-1	413	Submerged	River Water	NF	1	µg/L	0.067 J	38	0.663 J	2.5 J	1 U	5.5 U	826
LRS413S-R-NF-2	413	Submerged	River Water	NF	2	µg/L	0.02 J	25.4	0.555 U	2.7 J	1 U	5.5 U	850
LRS413S-R-NF-3	413	Submerged	River Water	NF	3	µg/L	0.019 U	36.1	0.555 U	2.9 J	1 U	5.5 U	999
LRS414S-R-NF-1	414	Submerged	River Water	NF	1	µg/L	0.058 J	22.1	2.4 J	1.5 J	1 U	5.5 U	784
LRS414S-R-NF-2	414	Submerged	River Water	NF	2	µg/L	0.083 J	24.8	0.99 J	1.4 J	1 U	5.5 U	663
LRS414S-R-NF-3	414	Submerged	River Water	NF	3	µg/L	0.078 J	21.4	0.555 U	1.5 J	1 U	5.5 U	687
LRS412S-S-F-1	412	Submerged	SPLP	F	1	µg/L	0.036 J	4.7 J	2 J	0.829 U	1 U	5.5 U	130
LRS412S-S-F-2	412	Submerged	SPLP	F	2	µg/L	0.027 J	5.2 J	0.555 U	0.829 U	1 U	5.5 U	64
LRS412S-S-F-3	412	Submerged	SPLP	F	3	µg/L	0.062 J	3.2 J	0.621 J	0.909 J	1 U	5.5 U	41
LRS413S-S-F-1	413	Submerged	SPLP	F	1	µg/L	0.047 J	5.4 J	0.555 U	0.829 U	1 U	5.5 U	110
LRS413S-S-F-2	413	Submerged	SPLP	F	2	µg/L	0.045 J	3.4 J	0.555 U	0.829 U	1 U	5.5 U	65
LRS413S-S-F-3	413	Submerged	SPLP	F	3	µg/L	0.039 J	2.9 J	0.555 U	0.829 U	1 U	5.5 U	78
LRS414S-S-F-1	414	Submerged	SPLP	F	1	µg/L	0.026 J	5.3 J	0.742 J	0.829 U	1 U	5.5 U	174
LRS414S-S-F-2	414	Submerged	SPLP	F	2	µg/L	0.019 U	52	0.555 U	0.829 U	1 U	5.5 U	36
LRS414S-S-F-3	414	Submerged	SPLP	F	3	µg/L	0.019 U	2.7 J	0.555 U	0.829 U	1 U	5.5 U	66
LRS412S-S-NF-1	412	Submerged	SPLP	NF	1	µg/L	0.034 J	23.8	0.555 U	1.7 J	1 U	5.5 U	933
LRS412S-S-NF-2	412	Submerged	SPLP	NF	2	µg/L	0.063 J	21.4	0.555 U	1.5 J	1 U	5.5 U	512
LRS412S-S-NF-3	412	Submerged	SPLP	NF	3	µg/L	0.02 J	8.7 J	0.776 J	4.8 J	1.5 J	5.5 U	848
LRS413S-S-NF-1	413	Submerged	SPLP	NF	1	µg/L	0.067 J	21.7	1.2 J	2.7 J	1 U	5.5 U	759
LRS413S-S-NF-2	413	Submerged	SPLP	NF	2	µg/L	0.088 J	21	1.3 J	4.5 J	1 U	5.5 U	958
LRS413S-S-NF-3	413	Submerged	SPLP	NF	3	µg/L	0.046 J	23.4	2.1 J	2.9 J	1 U	5.5 U	844
LRS414S-S-NF-1	414	Submerged	SPLP	NF	1	µg/L	0.039 J	11.4	1.5 J	2.3 J	1 U	5.5 U	819
LRS414S-S-NF-2	414	Submerged	SPLP	NF	2	µg/L	0.104 J	9.7 J	1.2 J	2.1 J	1 U	5.5 U	736
LRS414S-S-NF-3	414	Submerged	SPLP	NF	3	µg/L	0.044 J	12.1	1 J	2.8 J	1 U	5.5 U	881
SLP415S-R-F-1	415	Terrestrial	River Water	F	1	µg/L	0.073 J	32.6	10.7 J	1.1 J	1 U	5.5 U	297
SLP415S-R-F-2	415	Terrestrial	River Water	F	2	µg/L	0.07 J	23.2	8.1 J	0.86 J	1.5 J	5.5 U	357
SLP415S-R-F-3	415	Terrestrial	River Water	F	3	µg/L	0.059 J	25.4	8.2 J	0.958 J	1 U	5.5 U	339
SLP416S-R-F-1	416	Terrestrial	River Water	F	1	µg/L	0.048 J	5 J	1.7 J	0.829 U	1 U	5.5 U	125
SLP416S-R-F-2	416	Terrestrial	River Water	F	2	µg/L	0.029 J	6.1 J	1.7 J	0.829 U	1 U	5.5 U	126
SLP416S-R-F-3	416	Terrestrial	River Water	F	3	µg/L	0.039 J	4.4 J	0.994 J	0.829 U	1 U	5.5 U	140
SLP417S-R-F-1	417	Terrestrial	River Water	F	1	µg/L	0.026 J	504	4.4 J	0.829 U	1 U	5.5 U	2,320
SLP417S-R-F-2	417	Terrestrial	River Water	F	2	µg/L	0.05 J	497	3.3 J	0.829 U	1 U	5.5 U	2,310
SLP417S-R-F-3	417	Terrestrial	River Water	F	3	µg/L	0.019 U	460	2.8 J	0.829 U	1 U	5.5 U	2,260
SLP415S-R-NF-1	415	Terrestrial	River Water	NF	1	µg/L	4.8	240	21.6	37.2	1.5 J	206	59,500
SLP415S-R-NF-2	415	Terrestrial	River Water	NF	2	µg/L	2.8	104	11.8 J	10 J	1 U	62.2	16,100
SLP415S-R-NF-3	415	Terrestrial	River Water	NF	3	µg/L	0.167 J	182	27.9 J	15.4	3.7 J	122	67,400
SLP416S-R-NF-1	416	Terrestrial	River Water	NF	1	µg/L	0.15 J	62.7	10.7 J	5.6 J	2 J	71.9	18,800

Table 5.4.1-7
Specialized Leachability Procedure Results
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

Sample ID	Location	Submerged (LVR)/ Unweathered (Slag Pile)	Extractant	F/NF	Run	Units	Mercury	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
SLP416S-R-NF-2	416	Terrestrial	River Water	NF	2	µg/L	0.101 J	61.3	14.1 J	6.7 J	2 J	78.5	20,200
SLP416S-R-NF-3	416	Terrestrial	River Water	NF	3	µg/L	2.9	156	18.3 J	22.8	1.1 J	154	36,400
SLP417S-R-NF-1	417	Terrestrial	River Water	NF	1	µg/L	0.037 J	1670	11.9 J	24.4	1 U	14.4	14,600
SLP417S-R-NF-2	417	Terrestrial	River Water	NF	2	µg/L	0.027 J	2230	14.8 J	40.9	1 U	10.9	21,700
SLP417S-R-NF-3	417	Terrestrial	River Water	NF	3	µg/L	0.03 J	1680	11.7 J	20.4	1 U	5.5 U	13,000
SLP415S-S-F-1	415	Terrestrial	SPLP	F	1	µg/L	0.026 J	96.1	6.2 J	0.829 U	1 U	5.5 U	616
SLP415S-S-F-2	415	Terrestrial	SPLP	F	2	µg/L	0.029 J	24.4	5.2 J	0.829 U	1 U	5.5 U	484
SLP415S-S-F-3	415	Terrestrial	SPLP	F	3	µg/L	0.026 J	23.4	6 J	0.829 U	1 U	5.5 U	549
SLP416S-S-F-1	416	Terrestrial	SPLP	F	1	µg/L	0.043 J	1.5 J	0.742 J	0.829 U	1 U	6.5 J	125
SLP416S-S-F-2	416	Terrestrial	SPLP	F	2	µg/L	0.021 J	1.9 J	0.958 J	0.829 U	1 U	9.2 J	152
SLP416S-S-F-3	416	Terrestrial	SPLP	F	3	µg/L	0.024 J	3 J	0.643 J	0.829 U	1 U	5.5 U	151
SLP417S-S-F-1	417	Terrestrial	SPLP	F	1	µg/L	0.019 U	483	1.5 J	0.829 U	1 U	5.5 U	6,060
SLP417S-S-F-2	417	Terrestrial	SPLP	F	2	µg/L	0.019 U	523	1.3 J	0.829 U	1 U	5.5 U	5,640
SLP417S-S-F-3	417	Terrestrial	SPLP	F	3	µg/L	0.019 U	481	1.3 J	0.829 U	1 U	8.6 J	4,840
SLP415S-S-NF-1	415	Terrestrial	SPLP	NF	1	µg/L	0.867	115	11.6 J	9.8 J	1 U	81.5	24,900
SLP415S-S-NF-2	415	Terrestrial	SPLP	NF	2	µg/L	1.8	187	22.3	27	1.3 J	193	49,800
SLP415S-S-NF-3	415	Terrestrial	SPLP	NF	3	µg/L	2.7	128	12.4 J	11.2	1 U	102	26,600
SLP416S-S-NF-1	416	Terrestrial	SPLP	NF	1	µg/L	0.772	219	28.3 J	16	5.9 J	158	66,400
SLP416S-S-NF-2	416	Terrestrial	SPLP	NF	2	µg/L	2.5	176	18.5 J	11.2	4.3 J	146	57,600
SLP416S-S-NF-3	416	Terrestrial	SPLP	NF	3	µg/L	0.294	109	21.6	13	3.8 J	157	34,700
SLP417S-S-NF-1	417	Terrestrial	SPLP	NF	1	µg/L	0.025 J	2780	15.3 J	34.5	1 U	37.7	22,000
SLP417S-S-NF-2	417	Terrestrial	SPLP	NF	2	µg/L	0.111 J	1780	8.3 J	19.7	1 U	20.9	14,800
SLP417S-S-NF-3	417	Terrestrial	SPLP	NF	3	µg/L	0.109 J	1700	8.4 J	25	1 U	16.8	16,100

Notes:
J Constituent concentration was estimated .
U U indicates that constituent concentration was below the indicated detection limit.

Table 5.4.1-8
Plant Area Soils TCLP Results
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

		Location ID	BH-3	BH-6	C-10	C-10	C-11	C-11	C-11	C-5	C-5	C-7	C-8	C-9	C-9	G-03	G-03
		Sample ID	B3/S1	B6/S1	C-10	C-10	C-11	C-11	C-11	C-5-12	C-5	C-7-6	C-8	C-9	C-9	G-03	G-03
		Date	10/1/1992	10/1/1992	11/10/1993	11/10/1993	11/9/1993	11/9/1993	11/9/1993	11/12/1993	11/11/1993	11/12/1993	11/11/1993	11/9/1993	11/9/1993	11/9/1993	11/9/1993
		Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		Total or Dissolved	0'	0'	0'	7'	0'	10'	15'	12'	3'	6'	0'	0'	7'	15'	5'
Analyte	**CAS #**	**USEPA TCLP Value (mg/L)**															
Arsenic	7440-38-2	5	0.0010 U	0.0010 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Cadmium	7440-43-9	1	**1.2**	**0.62**	**0.016**	**0.083**	**0.45**	**0.13**	**0.0075**	0.0040 U	0.0040 U	0.0040 U	**0.0053**	0.0040 U	**0.11**	0.0040 U	0.0040 U
Chromium	7440-47-3	5	0.010 U	0.010 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	**0.0055**	0.0050 U	0.0050 U
Cobalt	7440-48-4		NM	NM	0.0050 U	0.0050 U	0.0050 U	**0.022 B**	0.0050 U	NM	0.0050 U	NM	**0.014 B**	**0.0072 B**	**0.029 B**	0.0050 U	0.0050 U
Copper	7440-50-8		NM	NM	0.0050 U	**0.0078 B**	**0.012 B**	**0.12**	0.0050 U	NM	**0.011 B**	NM	0.0050 U	0.0050 U	**0.097**	0.0050 U	**0.0091 B**
Iron	7439-89-6		NM	NM	0.075 U	0.075 U	**0.075**	**0.19**	0.075 U	NM	0.075 U	NM	0.075 U	0.075 U	**3.2**	0.075 U	0.075 U
Lead	7439-92-1	5	**0.38**	**0.43**	0.030 U	**0.12**	**1.8**	**0.57**	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Manganese	7439-96-5		NM	NM	**0.035**	**4**	**5.9**	**1.4**	**0.82**	NM	**5.2**	NM	**2.6**	**6.6**	**3**	**6.4**	**1.8**
Mercury	7439-97-6	0	0.0020 U	0.0020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U
Zinc	7440-66-6		NM	NM	**1.6**	**7.4**	**69.1**	**100**	**0.084**	NM	**0.16**	NM	**0.12**	**0.088**	**2.8**	**0.066**	**0.28**

Notes:

	Exceedance of USEPA TCLP Value
1,000	Bold indicates a detection
B	Constituent concentration was estimated
U	U indicates that constituent concentration was below the indicated detection limit.
NM	Not Measured

Table 5.4.1-9
Slag Pile Area Soils TCLP Results
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

		Location ID	BH-12	BH-12	GW1	GW2	P-1	P-15A	P-17	P-17	P-1	P-18	P-19	P-19	P-2	P-21	P-21	P-21	P-21	P-2	P-22
		Sample ID	B12/S1	B12/S2	GW1/S1	GW2/S1	P-1	P-15A	P-17	P-17	P-1	P-18	P-19	P-19	P-2 DP	P-21	P-21	P-21	P-21	P-2	P-22
		Date	10/1/1992	10/1/1992	10/1/1992	10/1/1992	10/3/1994	9/29/1994	9/10/1994	9/10/1994	10/3/1994	9/28/1994	9/29/1994	9/29/1994	10/4/1994	10/3/1994	9/30/1994	9/30/1994	9/30/1994	10/3/1994	10/5/1994
		Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		Total or Dissolved	0'	0'	0'	0'	21'	20'	10'	42'	80'	39'	20'	42'	42'	2.5'	21'	41'	60'	19'	106'
Analyte	**CAS #**	**USEPA TCLP Value (mg/L)**																			
Arsenic	7440-38-2	5	0.0010 U	0.0010 U	0.0010 U	**0.1**	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Cadmium	7440-43-9	1	**0.048**	**0.05**	**0.21**	**0.43**	**0.028**	**0.17**	**0.79**	**0.096**	**0.21**	**0.33**	**0.062**	**1.1**	**0.14**	**0.04**	**0.027**	**0.067**	**0.29**	**0.25**	**0.008**
Chromium	7440-47-3	5	0.010 U	**0.013**	**0.014**	**0.041**	0.0050 U	**0.025**	**0.02**	0.0050 U	**0.013**	**0.0068 B**	**0.0097 B**	0.0050 U	0.0050 U	0.0050 U	**0.0054 B**	0.0050 U	**0.0089 B**	0.0050 U	0.0050 U
Iron	7439-89-6		NM	NM	NM	NM	0.050 U	**0.23**	**0.15**	**0.19**	**5.1**	**0.19**	**0.42**	**0.21**	**0.34**	0.050 U	0.050 U	0.050 U	**1**	0.050 U	0.050 U
Lead	7439-92-1	5	**1.1**	0.10 U	0.10 U	**5.2**	**3.4**	**5.8**	**7.2**	0.020 U	**0.023**	**0.12**	0.020 U	0.020 U	0.020 U	**2.4**	**0.048**	**0.51**	**0.39**	**0.63**	0.020 U
Manganese	7439-96-5		NM	NM	NM	NM	**0.13**	**9.5**	**2.8**	**7.4**	**5.4**	**1.8**	**0.17**	**0.32**	**0.054**	**0.062**	**0.65**	**0.67**	**0.78**	**7.2**	**4.9**
Mercury	7439-97-6	0.2	0.0020 U	0.0020 U	0.0020 U	**0.002**	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U
Zinc	7440-66-6		NM	NM	NM	NM	**1.7**	**6.2**	**7.8**	**4.5**	**662**	**4.9**	**107**	**9.1**	**2.2**	**184**	**4.6**	**1.1**	**6.4**	**7.6**	**1.7**

		Location ID	P-22	P-2
		Sample ID	P-22	P-2
		Date	10/4/1994	10/4/1994
		Units	mg/L	mg/L
		Total or Dissolved	41'	42'
Analyte	**CAS #**	**USEPA TCLP Value (mg/L)**		
Arsenic	7440-38-2	5	NM	NM
Barium	7440-39-3	100	**0.075 B**	**0.078 B**
Cadmium	7440-43-9	1	**0.021**	**0.14**
Chromium	7440-47-3	5	**0.0094 B**	0.0050 U
Iron	7439-89-6		**1.5**	**0.22**
Lead	7439-92-1	5	**0.21**	0.020 U
Manganese	7439-96-5		**0.069**	**0.052**
Mercury	7439-97-6	0.2	0.00020 U	0.00020 U
Nickel	7440-02-0		0.020 U	0.020 U
Selenium	7782-49-2	1	NM	NM
Silver	7440-22-4	5	NM	NM
Zinc	7440-66-6		**6.2**	**2.1**

Notes:

	Exceedance of USEPA TCLP Value
1,000	Bold indicates a detection
B	Constituent concentration was estimated
U	U indicates that constituent concentration was below the indicated detection limit.
NM	Not Measured

Table 5.4.1-10
Sediment TCLP Results
Matthiessen and Hegeler Zinc Company Site - OU1
LaSalle, Illinois

		Location ID	5thSt-05B	S/S1	S/S2	Section_Line_DP	Pond Line 1	Pond Line 1	Pond Line 2	Pond Line 4
		Sample ID	5thSt 05B	S/S1	S/S2	Sctn Line	Pond Line 1 DP	Pond Line 1	Pond Line 2	Pond Line 4
		Date	11/8/1994	10/1/1992	10/1/1992	11/11/1994	11/1/1994	11/1/1994	11/1/1994	11/1/1994
		Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		Total or Dissolved	T	T	T	T	T	T	T	T
		Matrix	LVR	LVR	LVR	LVR	Slag Pile	Slag Pile	Slag Pile	Slag Pile
Analyte	**CAS #**	**USEPA TCLP Value (mg/L)**								
Arsenic	7440-38-2	5	NM	**0.038**	**0.036**	NM	NM	NM	NM	NM
Cadmium	7440-43-9	1	**0.033**	**0.085**	0.0050 U	**0.005**	0.0030 U	**0.0054**	0.0030 U	0.0030 U
Chromium	7440-47-3	5	0.0050 U	**0.029**	**0.022**	0.0050 U	**0.0092 B**	0.0050 U	**0.0080 B**	**0.023**
Iron	7439-89-6		0.050 U	NM	NM	0.050 U	0.050 U	0.050 U	**0.056 B**	0.050 U
Lead	7439-92-1	5	**0.032**	**0.67**	**0.13**	**0.026**	0.020 U	**0.021**	0.020 U	0.020 U
Manganese	7439-96-5		**5**	NM	NM	**4.3**	**147**	**1.8**	**125**	**454**
Mercury	7439-97-6	0.2	0.00020 U	**0.002**	**0.002**	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U
Zinc	7440-66-6		**6.8**	NM	NM	**1.4**	**0.12**	**0.49**	**0.09**	**0.087**

Notes:

1,000	Bold indicates a detection
B	Constituent concentration was estimated
U	U indicates that constituent concentration was below the indicated detection limit.
NM	Not Measured
T	Total

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	SB001A MEQ374 36631 7/16/2007 mg/kg 1 L1 0-2	SB001B ME3Q75 36631 7/16/2007 mg/kg 1 L3 8-10	SB002A ME3Q76 36631 7/16/2007 mg/kg 1 L3, L4 0-2	SB002B ME3Q77 36631 7/16/2007 mg/kg 1 L3, L4 8-10	SB003A ME3Q78 36631 7/16/2007 mg/kg 1 L2, L3, L4 0-2	SB250A ME3Q86 36631 7/16/2007 mg/kg SB003A 1 L2, L3, L4 0-2	SB003B ME3Q79 36631 7/16/2007 mg/kg 1 L1 8-10	SB004A ME3Q87 36631 7/17/2007 mg/kg 1 L1, L2, L3 0-2	SB004B ME3Q88 36631 7/17/2007 mg/kg 1 L2, L3 8-10	SB005A ME3Q80 36631 7/16/2007 mg/kg 1 L1 0-2	SB005B ME3Q81 36631 7/16/2007 mg/kg 1 L2 6-8	SB006A ME3RF4 36631 7/17/2007 mg/kg 1 L3 0-2
Aluminum	55,000	SSL-risk	**12,100 J**	**4,980 J**	**11,100 J**	**3,810 J**	**4,570 J**	**5,880 J**	**13,800 J**	**6,990**	**9,060**	**7,210 J**	**11,200 J**	**7,700**
Antimony	0.006	TACO	**4.6 J**	**6.3 J**	**5.8 J**	**4.2 J**	**5.9 J**	**8.5**	6.9 U	**3.2 J-**	**3.2 J-**	**3.5 J**	**2.3 J**	**3.6 J-**
Arsenic	0.0013	SSL-risk	**24.1 J-**	**99.9 J-**	**32 J-**	**34.5 J-**	**25.1 J-**	**36.2 J-**	**6.1 J-**	**24**	**30.1**	**31.1 J-**	**19.5 J-**	**20.8**
Barium	2	TACO	**150 J**	**248 J**	**360 J**	**315 J**	**273 J**	**32.9 J**	**148 J**	**190 J**	**154 J**	**176 J**	**62 J**	**147 J**
Beryllium	0.004	TACO	**1.5 J+**	**0.34 J+**	**1.2 J+**	**0.34 J+**	**0.55 J+**	**0.78 J+**	**0.9 J+**	**1.2 J+**	**1.6 J+**	**0.88 J+**	**1.4**	**1.1 J+**
Cadmium	0.005	TACO	**71.1**	**14.8**	**86.3**	**9.9**	**46.8**	**59.4**	**1.7 J+**	**78.9**	**20.4**	**6.1**	**39.7**	**16.1**
Calcium	NC	--	**34,500 J**	**4,870 J**	**6,950 J**	**1,830 J**	**2,880 J**	**8,110 J**	**89,500 J**	**12,800**	**4,410**	**1,840 J**	**3,140 J**	**2,510**
Chromium (total)	0.10	TACO	**24.9 J-**	**20.8 J-**	**18.9 J-**	**9 J-**	**11.8 J-**	**15.3 J-**	**23.1 J-**	**13.7 J**	**28.5 J**	**35.7 J-**	**31 J-**	**12.3 J**
Cobalt	0.49	SSL-risk	**20.8**	5.8 U	**21.7**	**3.3 J**	**19.8**	**25.1**	**12.4**	**12.8**	**16.4**	**7.2**	**22.2**	**12.7**
Copper	0.65	TACO	**284**	**132**	**569**	**252**	**554**	**790**	**28.4**	**241**	**641**	**305**	**238**	**415**
Cyanide	0.2	TACO	2.8 U	2.9 U	2.9 U	3 U	**2.9 J**	2.9 U	**22.9**	2.8 U	3.1 U	3 U	2.8 U	3 U
Iron	5	TACO	**41,600**	**45,200**	**60,500**	**15,300**	**29,800**	**40,800**	**22,600**	**47,000**	**77,700**	**81,800**	**101,000**	**32,400**
Lead	0.0075	TACO	**552**	**6,200**	**1,150**	**5,740**	**6,700**	**6,630**	**104**	**920**	**4,650**	**4,980**	**2,680**	**3,510**
Magnesium	NC	--	**10,100 J**	**276 J**	**2,680 J**	**310 J**	**807 J**	**2,900 J**	**22,900 J**	**2,830**	**874**	**981 J**	**343 J**	**1,080**
Manganese	0.15	TACO	**1,500 J**	**27.7 J**	**536 J**	**53.3 J**	**244 J**	**624 J**	**454 J**	**824 J**	**215 J**	**93.8 J**	**96.4 J**	**360 J**
Mercury	0.002	TACO	**0.43**	0.12 U	**0.36**	**0.39**	**0.15 J-**	**0.14 J-**	0.12 U	**0.5 J**	**0.19 J-**	**0.73**	**0.68**	**0.14 J-**
Nickel	0.10	TACO	**42.8**	**2.9 J**	**36.1**	**6.9**	**27.4**	**35.5**	**34.4**	**26.1**	**27.7**	**20.1**	**58.6**	**21.8**
Potassium	NC	--	**1,650 J**	**2,770 J**	**850 J**	**504 J**	**183 J**	**244 J**	**3,090 J**	**839 J**	**789 J**	**1,400 J**	**753 J**	**648 J**
Selenium	0.05	TACO	**2.8 J-**	**8.4 J-**	**3.2 J-**	**2.6 J-**	**3.4 J-**	**4.8 J-**	4.1 UJ	**2 J-**	**3.4 J-**	**18.4 J-**	**5.9 J-**	**2 J-**
Silver	0.05	TACO	**1.9**	**14.7**	**2.9**	**8.2**	**4.9**	**6.9**	1.2 U	**2.6**	**4.8**	**4.9**	**2.6**	**3.3**
Sodium	NC	--	**351 J**	**562 J**	**331 J**	611 U	571 U	571 U	579 U	**247 J**	**323 J**	**207 J**	**308 J**	601 U
Thallium	0.002	TACO	2.8 U	2.9 U	2.9 U	3.1 U	2.9 U	2.9 U	2.9 U	2.8 U	3.1 U	3 U	2.8 U	3 U
Vanadium	0.049	TACO	**35.3**	**41.2**	**27.2**	**13.3**	**148**	**19.1**	**23.9**	**21.7**	**37.7**	**41.6**	**44.9**	**17.2**
Zinc	5	TACO	**16,600**	**1,190**	**28,900**	**4,550**	**24,800**	**31,000**	**853**	**19,200**	**15,400**	**3,950**	**11,000**	**17,700**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	SB006B ME3RF5 36631 7/17/2007 mg/kg 1 L4 4-6	SB007A ME3S07 36664 8/1/2007 mg/kg 1 L1, L2 0-2	SB007B ME3S08 36664 8/1/2007 mg/kg 1 L1 8-10	SB291B ME3S09 36664 8/1/2007 mg/kg SB007B 1 L1 8-10	SB008A ME3Q93 36631 7/17/2007 mg/kg 1 L2, L3 0-2	SB252A ME3Q97 36631 7/17/2007 mg/kg SB008A 1 L2, L3 0-2	SB008B ME3Q94 36631 7/17/2007 mg/kg 1 L1 4-6	SB009A ME3Q98 36631 7/17/2007 mg/kg 1 L1, L3 0-2	SB009B ME3Q99 36631 7/17/2007 mg/kg 1 L1 2-4	SB010A ME3R84 36631 7/20/2007 mg/kg 3 L1 0-2	SB010B ME3R85 36631 7/20/2007 mg/kg 3 L1 8-10	SB011A ME3R86 36631 7/20/2007 mg/kg 3 L1 0-2
Aluminum	55,000	SSL-risk	**11,400**	**12,600**	**9,320**	**7,930**	**3,520**	**898**	**10,600**	**6,180**	**14,000**	**10,800**	**837**	**10,800**
Antimony	0.006	TACO	R	**4.7 J+**	**12.3 J+**	**2 J+**	**6.5 J-**	**5.1 J-**	R	R	R	7.7 UJ	6.5 UJ	8.1 UJ
Arsenic	0.0013	SSL-risk	**5.3**	**8.7**	**5**	**3.2**	**39.5**	**15.9**	**7.6**	**6.2**	**9**	**6.2**	**0.92 J**	**7.8**
Barium	2	TACO	**104 J**	**148**	**249**	**123**	**188 J**	**40.3 J**	**89.4 J**	**176 J**	**126 J**	**191 J**	**8.1 J**	**313 J**
Beryllium	0.004	TACO	**0.38 J+**	**0.87**	**0.86**	**0.69**	**0.92 J+**	**0.47 J**	**0.61 J+**	**0.58 J+**	**0.73 J+**	**0.53 J+**	0.54 U	**0.71 J+**
Cadmium	0.005	TACO	**4.3**	**9**	**6.6**	**2.2 J+**	**133**	**265**	**13**	**42.9**	**18**	**8.9 J**	**0.39 J**	**15.7 J**
Calcium	NC	--	**2,410**	**6,110**	**37,300**	**27,300**	**1,290**	**380 J**	**1,810**	**824**	**2,990**	**3,030 J+**	**1,420 J+**	**5,940 J+**
Chromium (total)	0.10	TACO	**15.1 J**	**18.6**	**19.5**	**14.5**	**11 J**	**3.9 J**	**16.9 J**	**10.5 J**	**18.5 J**	**12.9 J+**	**5 J+**	**14.1 J+**
Cobalt	0.49	SSL-risk	**5.1 J**	**9.8**	**9.9**	**8.3**	**27.5**	**2.5 J**	**5.7 J**	**5.2 J**	**10.2**	**8.4 J+**	5.4 U	**10.2 J+**
Copper	0.65	TACO	**13.9**	**30.4**	**32.5**	**14.2**	**758**	**592**	**46**	**74.4**	**16.2**	**14.4 J+**	**3.1 J+**	**21.9 J+**
Cyanide	0.2	TACO	3.2 U	3.4 U	3 U	2.9 U	2.9 U	3 U	3.1 U	3.1 U	**0.68 J**	3.2 UJ	2.7 UJ	3.3 UJ
Iron	5	TACO	**16,400**	**21,500**	**20,100**	**18,900**	**57,300**	**10,400**	**18,300**	**12,700**	**20,700**	**13,400 J+**	**2,320 J+**	**15,200 J+**
Lead	0.0075	TACO	**11**	**40.5**	**62.9**	**19.7**	**764**	**659**	**41.3**	**116**	**12.5**	**52.1 J**	**3.9 J**	**94.6 J**
Magnesium	NC	--	**2,120**	**3,060**	**5,500**	**5,800**	**781**	**190 J**	**2,480**	**1,300**	**2,430**	**1,440 J+**	**857 J+**	**1,970 J+**
Manganese	0.15	TACO	**250 J**	**364**	**1,180**	**522**	**685 J**	**465 J**	**436 J**	**259 J**	**512 J**	**729 J+**	**28.2 J+**	**1,240 J+**
Mercury	0.002	TACO	0.13 UJ	0.13 U	0.12 U	0.12 U	**0.38 J**	**2 J-**	**0.045 J-**	**0.75 J**	**0.051 J**	**0.2 J+**	0.11 U	**0.25 J+**
Nickel	0.10	TACO	**11.9**	**18**	**32.2**	**28.6**	**23.8**	**4.1 J**	**17.5**	**9.4**	**16.3**	**10.1**	**2.3 J**	**15**
Potassium	NC	--	**830 J**	**792 J**	**1,980 J**	**2,260 J**	**286 J**	**226 J**	**686 J**	**767 J**	**950 J**	**1,070 J**	**138 J**	**1,120 J**
Selenium	0.05	TACO	4.4 UJ	**0.85 J**	4.2 U	4 U	**3.3 J-**	**4.3 J-**	4.4 UJ	4.3 UJ	4.4 UJ	4.5 U	3.8 U	4.7 U
Silver	0.05	TACO	1.3 U	1.4 U	1.2 U	1.1 U	**3.9**	**7.3**	1.3 U	1.2 U	1.3 U	1.3 U	1.1 U	1.4 U
Sodium	NC	--	632 U	676 U	**1,100 J+**	631 U	599 U	599 U	631 U	619 U	633 U	640 U	539 U	676 U
Thallium	0.002	TACO	3.2 U	3.4 U	3 U	2.9 U	3 U	3 U	3.2 U	3.1 U	3.2 U	3.2 U	2.7 U	3.4 U
Vanadium	0.049	TACO	**24.5**	**30.3**	**21.9**	**17.6**	**13**	**16.2**	**21.8**	**20.7**	**33.4**	**24.8**	**2.8 J**	**27.4**
Zinc	5	TACO	**1,290**	**2,280 J**	**1,940 J**	**427 J**	**138,000**	**211,000**	**14,400**	**8,650**	**5,060**	**977 J**	**73.6 J**	**1,850 J**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	Location ID	Sample ID	Case	Sampling date	Unit	Duplicate info	Investigation area	Lithology	Depth (ft bgs)
			SB256A	ME3RB6	36631	7/20/2007	mg/kg	SB011A	3	L1	0-2
			SB011B	ME3R87	36631	7/20/2007	mg/kg		3	L1	8-10
			SB012A	ME3R88	36631	7/20/2007	mg/kg		1	L1	0-2
			SB012B	ME3R89	36631	7/20/2007	mg/kg		1	L1	8-10
			SB013A	ME3Q82	36631	7/16/2007	mg/kg		1	L1	0-2
			SB013B	ME3Q83	36631	7/16/2007	mg/kg		1	L1	8-10
			SB014A	ME3Q89	36631	7/17/2007	mg/kg		1	L2, L3	0-2
			SB014B	ME3Q90	36631	7/17/2007	mg/kg		1	L2, L3, L4	8-10
			SB015A	ME3Q95	36631	7/17/2007	mg/kg		1	L2, L3	0-2
			SB015B	ME3Q96	36631	7/17/2007	mg/kg		1	L3	8-10
			SB016A	ME3RZ5	36664	7/31/2007	mg/kg		1	L2, L4	0-2
			SB016B	ME3RZ6	36664	7/31/2007	mg/kg		1	L2, L3, L4	4-6
Aluminum	55,000	SSL-risk	**12,300**	**4,280**	**13,800**	**10,700**	**8,060 J**	**7,830 J**	**3,450**	**8,630**	**5,180**	**2,240**	**14,200**	**4,970**
Antimony	0.006	TACO	7.6 UJ	6.3 UJ	7.5 UJ	6.8 UJ	6.6 U	6.8 U	**4.8 J-**	**4.2 J-**	**4.7 J-**	**3.7 J-**	**5.9 J**	7.2 U
Arsenic	0.0013	SSL-risk	**5.7**	**8.9**	**2.7 J+**	**7.3**	**15.7 J-**	**31.6 J-**	**26.6**	**46.5**	**35.3**	**46.5**	**22.9 J**	**11.6 J**
Barium	2	TACO	**245 J**	**282 J**	**261 J**	**114 J**	**25.3 J**	**172 J**	**149 J**	**485 J**	**165 J**	**378 J**	**141**	**42.2**
Beryllium	0.004	TACO	**0.61 J+**	**0.28 J+**	**1.2 J+**	**0.75 J+**	**0.51 J+**	**1.1 J+**	**0.63 J+**	**1.5 J+**	**1.1 J+**	**0.44 J+**	**1.4**	**0.79 J+**
Cadmium	0.005	TACO	**3.3 J**	**0.56 J**	**3.3 J**	**0.35 J**	**2 J+**	**5**	**36.7**	**16.2**	**292**	**43.1**	**9 J**	**21.5 J**
Calcium	NC	--	**4,610 J+**	**137,000 J**	**3,630 J**	**41,700 J+**	**6,010 J**	**113,000 J**	**2,130**	**24,600**	**2,480**	**4,430**	**1,050 J**	**6,150 J**
Chromium (total)	0.10	TACO	**15.1 J+**	**9.2 J+**	**17.7 J+**	**16.5 J+**	**20.5 J-**	**15.4 J-**	**10.3 J**	**17.3 J**	**12.1 J**	**12.5 J**	**10.8**	**5.5**
Cobalt	0.49	SSL-risk	**7.5 J+**	**6 J+**	**8.6 J+**	**72.7 J+**	**8**	**13.4**	**19.6**	**14.4**	**17.9**	**12.4**	**10.6 J**	6 UJ
Copper	0.65	TACO	**12.1 J+**	**15.2 J+**	**19.3 J+**	**170 J+**	**34**	**164**	**732**	**565**	**573**	**737**	**766**	**179**
Cyanide	0.2	TACO	3.2 UJ	2.6 UJ	3.1 UJ	2.8 UJ	2.7 U	2.8 U	2.9 U	3 U	3.1 U	2.8 U	**0.11 J**	3 U
Iron	5	TACO	**14,400 J+**	**6,170 J+**	**14,600 J+**	**12,400 J+**	**37,800**	**85,700**	**44,100**	**45,700**	**55,300**	**50,500**	**33,300**	**17,000**
Lead	0.0075	TACO	**17 J**	**7.7 J**	**11.1 J**	**17.9 J**	**46.1**	**26.5**	**1,610**	**5,730**	**1,690**	**2,090**	**14,500 J**	**9,240 J**
Magnesium	NC	--	**1,960 J+**	**2,940 J+**	**2,920 J+**	**5,620 J+**	**2,830 J**	**38,400 J**	**696**	**508 J**	**991**	**391 J**	**347 J**	**330 J**
Manganese	0.15	TACO	**819 J+**	**2,120 J+**	**418 J+**	**602 J+**	**148 J**	**1,150 J**	**369 J**	**153 J**	**488 J**	**104 J**	**82.3 J**	**56.5 J**
Mercury	0.002	TACO	**0.044 J+**	0.1 U	0.13 U	0.11 U	**0.081 J-**	0.11 U	**0.11 J-**	**0.18 J-**	**1.1 J**	**0.53 J**	0.11 U	**0.083 J**
Nickel	0.10	TACO	**14.3**	**14**	**22.9**	**38.2**	**17.6**	**34**	**26.4**	**30**	**23.4**	**20.3**	**12.9 J**	**0.35 J**
Potassium	NC	--	**1,020 J**	**1,200 J**	**3,280 J**	**3,300 J**	**2,080 J**	**1,230 J**	**142 J**	**2,440 J**	**510 J**	**233 J**	575 UJ	**694 J**
Selenium	0.05	TACO	4.4 U	**1.5 J**	4.4 U	4 U	3.8 UJ	**2.1 J-**	**3 J-**	**3.4 J-**	**3.9 J-**	**3.1 J-**	**3.7 J**	**3.9 J**
Silver	0.05	TACO	1.3 U	1 U	1.2 U	1.1 U	1.1 U	**0.45 J**	**2**	**3.2**	**3.4**	**7.9**	**8.2 J**	**3.1 J+**
Sodium	NC	--	632 U	521 U	623 U	**199 J**	**591**	564 U	577 U	**402 J**	613 U	562 U	**792 J+**	**1,610 J+**
Thallium	0.002	TACO	3.2 U	**1.6 J**	3.1 U	2.8 U	2.7 U	2.8 U	2.9 U	3 U	3.1 U	2.8 U	2.9 UJ	R
Vanadium	0.049	TACO	**26.7**	**9.6**	**21.6**	**15.6**	**21.9**	**19.9**	**11**	**35.5**	**15.6**	**13.7**	**12.1**	**9.7 J-**
Zinc	5	TACO	**887 J**	**17.6 J**	**418 J**	**45.7 J**	**386**	**232**	**31,100**	**10,400**	**30,200**	**12,800**	**13,100 J**	**24,100 J**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	Location ID / Sample ID / Case / Sampling date / Unit / Duplicate info / Investigation area / Lithology / Depth (ft bgs)											
			SB017A / ME3S10 / 36664 / 8/1/2007 / mg/kg / / 1 / L2, L3 / 0-2	SB017B / ME3S11 / 36664 / 8/1/2007 / mg/kg / / 1 / L1 / 8-10	SB018A / ME3Q91 / 36631 / 7/17/2007 / mg/kg / / 1 / L2, L3 / 0-2	SB018B / ME3Q92 / 36631 / 7/17/2007 / mg/kg / / 1 / L1, L2, L3 / 8-10	SB019A / ME3Q84 / 36631 / 7/16/2007 / mg/kg / / 1 / L2, L3 / 0-2	SB019B / ME3Q85 / 36631 / 7/16/2007 / mg/kg / / 1 / L2, L3 / 5-7	SB020A / ME3RX4 / 36664 / 7/31/2007 / mg/kg / / 3 / L1 / 0-2	SB020B / ME3RX5 / 36664 / 7/31/2007 / mg/kg / / 3 / L1 / 5-7	SB021A / ME3RX6 / 36664 / 7/31/2007 / mg/kg / / 3 / L1 / 0-2	SB021B / ME3RX7 / 36664 / 7/31/2007 / mg/kg / / 3 / L1 / 4-6	SB022A / ME3RX8 / 36664 / 7/31/2007 / mg/kg / / 3 / L3 / 0-2	SB022B / ME3RX9 / 36664 / 7/31/2007 / mg/kg / / 3 / L1 / 4-6
Aluminum	55,000	SSL-risk	**5,050**	**8,950**	**6,750**	**6,250**	**7,760 J**	**5,590 J**	**291**	**598**	**301**	**353**	**1,470**	**12,700**
Antimony	0.006	TACO	**6.7 J+**	**3.3 J+**	**3.5 J-**	**2.5 J-**	**8.1**	**6.5 J**	**73.5**	**2 J**	**24**	**4.7 J**	**2.9 J**	**2.2 J**
Arsenic	0.0013	SSL-risk	**36.9**	**8.5**	**84.4**	**20.9**	**50.6 J-**	**34.1 J-**	**43.1**	**22.5**	**9.9**	**7**	**4.9**	**10.5**
Barium	2	TACO	**297**	**180**	**485 J**	**157 J**	**354 J**	**195 J**	**861**	**91.9**	**469**	**518**	**213**	**201**
Beryllium	0.004	TACO	**0.86**	**0.79**	**1.4 J+**	**0.92 J+**	**1.2 J+**	**0.77 J+**	0.75 UJ	R	0.67 UJ	0.72 UJ	0.66 UJ	0.63 UJ
Cadmium	0.005	TACO	**53**	**13**	**48.7**	**36.6**	**63.6**	**45.6**	**8.6**	0.65 U	**5.6**	**1.3**	**14.1**	**0.83 J-**
Calcium	NC	--	**10,500**	**42,200**	**13,600**	**8,200**	**29,600 J**	**12,000 J**	749 U	**9,310**	672 U	**3,010**	665 U	**1,590**
Chromium (total)	0.10	TACO	**15.3**	**20**	**27.8 J**	**18.9 J**	**24.8 J-**	**16.3 J-**	**2.8**	**4.2**	**1.5**	**2.5**	**3.9**	**23.2**
Cobalt	0.49	SSL-risk	**15.5**	**11.2**	**33.2**	**16.1**	**25.6**	**17**	**1.3 J**	**1.7 J**	**0.66 J**	**0.62 J**	**0.96 J**	**7.8**
Copper	0.65	TACO	**264**	**58.2**	**247**	**288**	**616**	**453**	**79.9**	**2.2 J**	**18.2**	**7.8**	**31.7**	**27.2**
Cyanide	0.2	TACO	**0.45 J**	3.1 U	2.9 U	2.8 U	2.8 U	**20.3**	3.8 U	3.3 U	3.4 U	3.6 U	3.3 U	3.2 U
Iron	5	TACO	**39,100**	**31,700**	**50,800**	**64,100**	**73,900**	**49,700**	**26,300 J**	**31,800 J**	**3,710 J**	**3,700 J**	**4,330 J**	**24,600 J**
Lead	0.0075	TACO	**815**	**230**	**1,780**	**899**	**2,490**	**3,910**	**19,300**	**35.3**	**21,700**	**4,170**	**691**	**74.7**
Magnesium	NC	--	**4,380**	**6,650**	**2,430**	**1,870**	**8,440 J**	**1,920 J**	749 U	652 U	672 U	722 U	665 U	**2,520**
Manganese	0.15	TACO	**7,640**	**1,360**	**28,400 J**	**3,970 J**	**6,150 J**	**441 J**	**8.3 J**	**8.6 J**	**2.9 J**	**3.3 J**	**23.8 J**	**638 J**
Mercury	0.002	TACO	**0.48**	0.12 U	**0.37 J**	**0.087 J-**	**0.32**	**0.22 J-**	**154 J-**	R	**140 J-**	**49.6 J-**	**1.7 J-**	**2.1 J-**
Nickel	0.10	TACO	**25.5**	**32.4**	**62.3**	**24.8**	**40.5**	**26.4**	**1.3 J**	**0.28 J**	**0.52 J**	**0.44 J**	**1.5 J**	**17.2 J**
Potassium	NC	--	599 UJ	**1,970 J**	**2,040 J**	**708 J**	**1,050 J**	**726 J**	**847 J**	**4,620 J**	**291 J**	**369 J**	**272 J**	**681 J**
Selenium	0.05	TACO	4.2 U	4.3 U	**17 J-**	**4.4 J-**	**6.6 J-**	**2.8 J-**	**526**	**1.5 J**	**347**	**75.2**	**6.8**	4.4 U
Silver	0.05	TACO	**4.5 J+**	**2.5 J+**	**5.4**	**1.6**	**4.6**	**4.1**	**25.7**	1.3 UJ	**4.8**	**0.98 J**	**0.59 J**	1.3 UJ
Sodium	NC	--	**1,560 J+**	758 U	**398 J**	**213 J**	**177 J**	602 U	749 U	**1,010**	672 U	722 U	665 U	631 U
Thallium	0.002	TACO	R	3.1 U	**13.9**	**1.5 J**	**2.5 J**	3 U	3.7 UJ	3.3 UJ	3.4 U	3.6 U	3.3 U	3.2 UJ
Vanadium	0.049	TACO	**22.7**	**21.4**	**42**	**26.1**	**30.6**	**27.4**	**2.9 J**	**9.2**	**1.3 J**	**1.3 J**	**4.6 J**	**33.3**
Zinc	5	TACO	**18,400 J**	**3,580 J**	**16,100**	**20,900**	**20,600**	**17,900**	**1,360**	**55.2**	**412**	**115**	**1,590**	**399**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	Location ID / Sample ID / Case / Sampling date / Unit / Duplicate info / Investigation area / Lithology / Depth (ft bgs)											
			SB023A / ME3RA0 / 36631 / 7/19/2007 / mg/kg / / 3 / L4 / 0-2	SB023B / ME3RA1 / 36631 / 7/19/2007 / mg/kg / / 3 / L4 / 8-10	SB024A / ME3RB1 / 36631 / 7/19/2007 / mg/kg / / 3 / L1, L4 / 0-2	SB024B / ME3RB2 / 36631 / 7/19/2007 / mg/kg / / 3 / L1, L4 / 8-10	SB255B / ME3RB3 / 36631 / 7/19/2007 / mg/kg / SB024B / 3 / L1, L4 / 8-10	SB025A / ME3SH8 / 36697 / 8/10/2007 / mg/kg / / 3 / L1 / 0-2	SB025B / ME3SH9 / 36697 / 8/10/2007 / mg/kg / / 3 / L1 / 8-10	SB026A / ME3RA5 / 36631 / 7/19/2007 / mg/kg / / 3 / L4 / 0-2	SB026B / ME3RA6 / 36631 / 7/19/2007 / mg/kg / / 3 / L1 / 8-10	SB027A / ME3S63 / 36664 / 8/3/2007 / mg/kg / / 3 / L1 / 0-2	SB027B / ME3S64 / 36664 / 8/3/2007 / mg/kg / / 3 / L1 / 6-8	SB028A / ME3S65 / 36664 / 8/3/2007 / mg/kg / / 3 / L1, L2, L3 / 0-2
Aluminum	55,000	SSL-risk	**647**	**14,100**	**154**	**438**	**103**	**303**	**3,330**	**1,820**	**6,250**	**353**	**903**	**9,910**
Antimony	0.006	TACO	7.8 UJ	7.2 UJ	**10.8 J-**	6.8 UJ	7.4 UJ	**10.3**	**3.9 J+**	8.3 UJ	7.9 UJ	**4.8 J**	8.8 U	**18**
Arsenic	0.0013	SSL-risk	**26.4**	**3.2**	**0.79 J**	**0.98 J**	1.2 U	**22.7 J**	**17.5 J**	**12.6**	**5.9**	**3.9**	**3.3**	**57.3**
Barium	2	TACO	**94.9 J**	**181 J**	**191 J**	**56.6 J**	**8.8 J**	**160**	**115**	**59.2 J**	**163 J**	**327**	**657**	**171**
Beryllium	0.004	TACO	**0.36 J+**	**1 J+**	0.79 U	0.56 U	0.61 U	0.6 UJ	**0.048 J+**	**0.39 J+**	**0.4 J+**	0.8 U	0.74 U	0.64 U
Cadmium	0.005	TACO	**3.8**	**0.51 J+**	**6**	**0.87**	**0.34 J**	**1,020**	**21.8**	**11.8**	**4**	**5.7**	**4.9**	**45.2**
Calcium	NC	--	**1,270 J**	**42,700 J**	786 UJ	**1,370 J**	615 UJ	**34,900**	**108,000**	**20,100 J**	**21,900 J**	**9,750**	**8,100**	**4,240**
Chromium (total)	0.10	TACO	**9.6**	**21.6**	1.6 U	**1.2**	**0.39 J**	**2.7**	**16.7**	**6.4**	**13.2**	**1.8 J**	**3.4 J**	**20.4 J**
Cobalt	0.49	SSL-risk	6.5 U	**9.7**	7.9 U	5.6 U	6.1 U	**0.22 J+**	**1.3 J+**	6.9 U	**5.1 J**	**0.41 J**	**1.2 J**	**4.5 J**
Copper	0.65	TACO	**134**	**5.9**	**2.8**	2.8 U	3.1 U	**26.6**	**24.1**	**187**	**15.8**	**11.6**	**16.2**	**297**
Cyanide	0.2	TACO	3.2 U	3 U	4 U	2.8 U	3.1 U	3.1 U	3.5 U	3.5 U	3.3 U	**0.32 J**	3.7 U	**0.44 J**
Iron	5	TACO	**40,600 J**	**21,000 J**	**188 J**	**217 J**	**52.3 J**	**894**	**29,500**	**25,200 J**	**16,400 J**	**8,210**	**320**	**33,600**
Lead	0.0075	TACO	**11,100 J**	**21.6**	**27,100 J**	**48.2**	**15.8**	**209,000**	**3,150**	**826**	**163**	**15,800**	**484**	**12,300**
Magnesium	NC	--	646 U	**14,400**	786 U	564 U	615 U	**1,130**	689 U	**1,120**	**6,530**	796 U	737 U	**1,070**
Manganese	0.15	TACO	**33**	**1,380**	**1.5 J**	**3.3**	**1.5 J**	**30.7**	**69.1**	**15.7**	**315**	**23.3**	**8.6**	**177**
Mercury	0.002	TACO	**5.6 J+**	0.12 U	**1.6 J+**	**0.31 J+**	**0.42 J+**	**79.1**	**1.9**	**5 J+**	0.19 U	**54.9 J+**	**1.7 J+**	**55.2 J+**
Nickel	0.10	TACO	**4.2 J**	**35**	6.3 U	4.5 U	4.9 U	R	**2.3 J+**	**5.8**	**11.4**	**0.39 J**	**2.9 J**	**17.9**
Potassium	NC	--	**982 J**	**4,750 J**	**194 J**	**234 J**	615 UJ	**604 J**	**6,470 J**	**2,380 J**	**2,170 J**	796 UJ	737 UJ	**3,000 J**
Selenium	0.05	TACO	**3.5 J-**	4.2 UJ	5.5 UJ	4 UJ	4.3 UJ	**23.7**	**5.1**	**2.7 J-**	4.5 UJ	**7.3**	**2.2 J**	**26.5**
Silver	0.05	TACO	**10.4 J+**	1.2 U	1.6 U	1.1 U	1.2 U	**55**	**2.3**	**0.62 J+**	1.3 U	1.6 U	1.5 U	**8.4**
Sodium	NC	--	**695**	**348 J**	786 U	564 U	615 U	**1,040 J+**	**903 J+**	**615 J**	**338 J**	796 U	737 U	**1,340 J+**
Thallium	0.002	TACO	3.2 UJ	3 UJ	3.9 UJ	2.8 UJ	3.1 UJ	3 U	3.4 U	**2.8 J-**	3.2 UJ	4 U	3.7 U	3.2 U
Vanadium	0.049	TACO	**19.5**	**21.5**	7.9 U	5.6 U	6.1 U	6 UJ	**17.6 J-**	**8.2**	**17.3**	**1.3 J-**	**7.1 J**	**22.3**
Zinc	5	TACO	**1,010**	**50.7**	**28.8**	**50.3**	**55.7**	**14,100**	**582**	**1,810**	**1,190**	**492 J**	**154 J**	**12,800 J**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	Location ID	SB297A	SB028B	SB029A	SB029B	SB030A	SB030B	SB031A	SB032A	SB033A	SB034A	SB034B	SB035A
			Sample ID	ME3S66	ME3S67	ME3S70	ME3S72	ME3S68	ME3S69	ME3RY2	ME3S75	ME3S73	ME3RY0	ME3RY1	ME3SH3
			Case	36664	36664	36664	36664	36664	36664	36664	36664	36664	36664	36664	36697
			Sampling date	8/3/2007	8/3/2007	8/3/2007	8/3/2007	8/3/2007	8/3/2007	7/31/2007	8/3/2007	8/3/2007	7/31/2007	7/31/2007	8/9/2007
			Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			Duplicate info	SB028A											
			Investigation area	3	3	3	3	3	3	3	3	3	3	3	3
			Lithology	L1, L2, L3	L1	L1	L1	L1, L2	L1	L4	L2, L3, L4	L1, L4	L2, L3	L2, L3, L4	L4
			Depth (ft bgs)	0-2	6-8	0-2	6-8	0-2	5-7	0-2	0-2	0-2	0-2	8-10	0-2
Aluminum	55,000	SSL-risk		**742**	**1,400**	**6,400**	**11,600**	**2,440**	**11,900**	**7,730**	**10,400 J**	**7,260**	**12,300**	**8,500**	**5,530**
Antimony	0.006	TACO		8.1 U	8.9 U	**7.6 J+**	**2.5 J+**	**11.5 J+**	**2.4 J**	**5.4 J**	**8.9**	**3.7 J+**	**1.5 J**	**1.5 J**	**5.9 J**
Arsenic	0.0013	SSL-risk		**2.6**	**7.7**	**15.9**	**5.8**	**246**	**3.8**	**96.9**	**24.2 J**	**70.9**	**12.5**	**15.9**	**14.7**
Barium	2	TACO		**153**	**302**	**140**	**114**	**216**	**123**	**258**	**147**	**236**	**69**	**101**	**133**
Beryllium	0.004	TACO		0.68 U	0.74 U	0.63 U	**0.64 J+**	0.75 U	0.66 U	0.61 UJ	**2**	0.58 U	**1.6 J**	**0.95 J**	0.63 U
Cadmium	0.005	TACO		0.87 U	**2.2**	**33.3**	**2.8 J+**	**185**	**9.7**	**274**	**30.9**	**78.6**	**361**	**127**	**65.8**
Calcium	NC	--		**2,740**	**4,330**	**4,020**	**40,900**	**52,400**	**13,300**	**7,150**	**7,480 J**	**20,800**	**27,200**	**22,400**	**26,400 J**
Chromium (total)	0.10	TACO		1.4 UJ	**3.5 J**	**11.2 J**	**20.9 J**	**20.8 J**	**20.5 J**	**12.4**	**16.9 J**	**9 J**	**16.9**	**15.7**	**11.8 J**
Cobalt	0.49	SSL-risk		**0.36 J**	**0.95 J**	**6 J**	**11.6**	**3.3 J**	**4 J**	**24.3**	**12.1**	**12.8**	**15.1**	**14.4**	**3.2 J**
Copper	0.65	TACO		**6.4**	**16.4**	**112**	**19.2**	**138**	**17.2**	**353**	**210**	**156**	**139**	**203**	**77.1**
Cyanide	0.2	TACO		3.4 U	3.7 U	**0.2 J**	**0.19 J**	3.8 U	3.3 U	**0.18 J**	2.8 U	**0.5 J**	**0.18 J**	3 U	3.2 U
Iron	5	TACO		**2,120**	**1,880**	**18,200**	**19,800**	**24,200**	**11,700**	**33,700 J**	**41,200**	**24,500**	**32,100 J**	**30,500 J**	**21,200 J**
Lead	0.0075	TACO		**64.7**	**523**	**888**	**14**	**8,630**	**31.6**	**1,580**	**968 J**	**679**	**319**	**406**	**11,300**
Magnesium	NC	--		677 U	740 U	**1,540**	**13,300**	753 U	**2,940**	**4,640**	**837**	**5,650**	**776**	**1,620**	**2,800**
Manganese	0.15	TACO		**4**	**14.8**	**123**	**390**	**66.5**	**76.3**	**850 J**	**251**	**245**	**687 J**	**557 J**	**205 J**
Mercury	0.002	TACO		**1.1 J+**	0.15 U	**0.15 J+**	0.12 U	**7 J+**	**0.16 J+**	**3 J-**	**2.1**	**0.18 J+**	**0.28 J-**	**0.13 J-**	**19.5 J-**
Nickel	0.10	TACO		5.4 U	5.9 U	**7.7**	**33.1**	R	**15.2**	**31.4 J**	**31.4 J**	**0.93 J**	**32.4 J**	**26.1 J**	**4.7 J**
Potassium	NC	--		677 UJ	740 UJ	629 UJ	**2,370 J**	753 UJ	**836 J**	**719 J**	**1,530 J**	579 UJ	**1,470 J**	**1,590 J**	**3,340 J**
Selenium	0.05	TACO		**0.85 J**	5.2 U	**2 J**	4.2 U	**32.7**	4.6 U	**2 J**	**1.1 J**	**0.71 J**	4 U	4.2 U	**4.5 J+**
Silver	0.05	TACO		1.4 U	1.5 U	**1.9 J+**	1.2 U	**7.6 J+**	1.3 U	**6.8**	**2.8**	**5.7 J+**	**1.2 J-**	**0.87 J-**	**2.9 J+**
Sodium	NC	--		677 U	740 U	**829 J+**	606 U	**2,410 J+**	661 U	610 U	**604**	**3,570 J+**	**930**	597 U	**1,060**
Thallium	0.002	TACO		3.4 U	3.7 U	3.1 U	3 U	3.8 U	3.3 U	3 UJ	**1.3 J-**	2.9 U	2.9 UJ	3 UJ	**9.1**
Vanadium	0.049	TACO		**2.6 J**	**5.6 J**	**17.5**	**20.4**	**8.9**	**29.5**	**16.9**	**30.1**	**11.2**	**32.5**	**21.4**	**14 J-**
Zinc	5	TACO		**216 J**	**1,250 J**	**8,340 J**	**642 J**	**37,100 J**	**753 J**	**83,200**	**21,100**	**51,200 J**	**32,300**	**22,500**	**5,740 J**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	Location ID / Sample ID / Case / Sampling date / Unit / Duplicate info / Investigation area / Lithology / Depth (ft bgs)											
			SB035B / ME3SH4 / 36697 / 8/9/2007 / mg/kg / / 3 / L1 / 8-10	SB036A / ME3RC4 / 36648 / 7/23/2007 / mg/kg / / 3 / L4 / 0-2	SB036B / ME3RC5 / 36648 / 7/23/2007 / mg/kg / / 3 / L1 / 8-10	SB037A / ME3RC2 / 36631 / 7/20/2007 / mg/kg / / 3 / L1 / 0-2	SB037B / ME3RC3 / 36631 / 7/20/2007 / mg/kg / / 3 / L1 / 8-10	SB038A / ME3RC0 / 36631 / 7/20/2007 / mg/kg / / 3 / L1 / 0-2	SB038B / ME3RC1 / 36631 / 7/20/2007 / mg/kg / / 3 / L2, L3 / 2-4	SB039A / ME3RB8 / 36631 / 7/20/2007 / mg/kg / / 3 / L2, L3 / 0-2	SB039B / ME3RB9 / 36631 / 7/20/2007 / mg/kg / / 3 / L1 / 8-10	SB040A / ME3S15 / 36664 / 8/1/2007 / mg/kg / / 3 / L3, L4 / 0-2	SB040B / ME3S16 / 36664 / 8/1/2007 / mg/kg / / 3 / L1 / 6-8	SB041A / ME3RD8 / 36631 / 7/20/2007 / mg/kg / / 3 / L1 / 0-2
Aluminum	55,000	SSL-risk	**8,900**	**4,580**	**13,100**	**12,400**	**9,230**	**12,900**	**5,030**	**6,310**	**10,800**	**22,100**	**7,840**	**10,100**
Antimony	0.006	TACO	**2.2 J**	**12.2**	**3.1 J**	**14.7 J-**	**6.6 J-**	**8.3 J-**	**87.5 J-**	**72.4 J-**	**2.5 J-**	**8.6**	6.7 U	**138 J-**
Arsenic	0.0013	SSL-risk	**14.2**	**62 J**	**13.4 J**	**50.2**	**22**	**49.4**	**528**	**476**	**46.9**	**106**	**9.3**	**343**
Barium	2	TACO	**69.2**	**129**	**102**	**85.7 J**	**107 J**	**79 J**	**246 J**	**295 J**	**263 J**	**512**	**282**	**869 J**
Beryllium	0.004	TACO	**0.63 J+**	0.69 U	**0.86 J**	**0.59 J+**	**0.84 J+**	**0.62 J+**	**0.69 J+**	**0.71 J+**	**1.1 J+**	**2.2**	**1**	**0.98 J+**
Cadmium	0.005	TACO	**0.54 J-**	**40.8**	**11.7**	**100 J**	**68.6 J**	**91.9 J**	**72 J**	**82.2 J**	**17.4 J**	**17.7**	**3.6 J+**	**298 J**
Calcium	NC	--	**17,500 J**	**30,000**	**24,400**	**1,110 J+**	**24,300 J+**	**3,330 J+**	**4,430 J+**	**6,320 J+**	**15,900 J+**	**3,040**	**5,040**	**16,900 J+**
Chromium (total)	0.10	TACO	**13.3 J**	**29.2**	**20.6**	**14.3 J+**	**16.8 J+**	**12.5 J+**	**21.3 J+**	**15.9 J+**	**14.3 J+**	**11**	**6.8**	**42.1 J+**
Cobalt	0.49	SSL-risk	**40.8 J**	**5 J**	**11**	**16.3 J+**	**12.1 J+**	**11.1 J+**	**34.8 J+**	**29.9 J+**	**15 J+**	**13.2**	5.6 U	**32.2 J+**
Copper	0.65	TACO	**96.4**	**294 J**	**63.9 J**	**922 J+**	**313 J+**	**364 J+**	**2,430 J+**	**1,280 J+**	**167 J+**	**347**	**33.2**	**7,020 J+**
Cyanide	0.2	TACO	2.9 U	**1 J**	3 U	3.2 UJ	3.1 UJ	3.5 UJ	2.9 UJ	3.1 UJ	3.1 UJ	**0.17 J**	2.8 U	3.5 UJ
Iron	5	TACO	**16,400 J**	**55,000**	**28,600**	**19,500 J+**	**17,500 J+**	**13,700 J**	**63,100 J**	**61,000 J**	**30,300 J**	**40,800**	**23,000**	**61,200 J+**
Lead	0.0075	TACO	**55**	**16,200**	**1,130**	**1,030 J**	**3,990 J**	**922 J**	**3,090 J**	**2,880 J**	**206 J**	**1,320**	**34.5 J**	R
Magnesium	NC	--	**5,300**	**486 J**	**4,440**	**1,150 J+**	**2,860 J+**	**2,380 J+**	**793 J+**	**1,190 J+**	**5,480 J+**	**1,220**	**2,500**	**1,280 J+**
Manganese	0.15	TACO	**225 J**	**140**	**258**	**447 J+**	**463 J+**	**349 J+**	**1,930 J+**	**1,660 J+**	**391 J+**	**189**	**166**	**1,680 J+**
Mercury	0.002	TACO	**0.37 J-**	**13.9**	**0.48**	**0.8 J+**	**0.43 J+**	**0.2 J+**	**0.32 J+**	**0.46 J+**	0.12 U	0.22 U	0.11 U	**9.9 J+**
Nickel	0.10	TACO	**45.9 J**	**17.1**	**36.2**	**236**	**103**	**33.1**	**62.1**	**107**	**49.7**	**17.4**	**29.2**	**462**
Potassium	NC	--	**2,790 J**	**2,270 J**	**2,460 J**	**1,150 J**	**1,930 J**	**1,360 J**	**353 J**	**519 J**	**2,680 J**	683 UJ	557 UJ	**913 J**
Selenium	0.05	TACO	**1.3 J+**	**10.7**	4.2 U	**1.4 J**	**2.4 J**	4.8 U	**6.7**	**5.7**	**1.5 J**	**2.8 J**	**0.79 J**	**15.4**
Silver	0.05	TACO	**1.1 J+**	**2.7**	1.2 UJ	**17.6 J+**	**4.5 J+**	**4.7 J+**	**51.7 J+**	**44.9 J+**	**2.1 J+**	**6.4 J+**	**1.2 J+**	**34.4 J+**
Sodium	NC	--	**1,710**	688 UJ	600 UJ	**809**	**232 J**	**776**	**908**	**643**	**599 J**	**1,210 J+**	557 U	**589 J**
Thallium	0.002	TACO	2.9 U	3.4 U	3 U	3.2 U	3.1 U	3.5 U	2.9 U	3.1 U	3.1 U	3.4 U	2.8 U	**1.3 J**
Vanadium	0.049	TACO	**11.3 J-**	**35.4**	**33.3**	**15.5**	**20.4**	**17.1**	**20.4**	**16.7**	**12.9**	**15.4**	**14.3**	**22.7**
Zinc	5	TACO	**49.3 J**	**7,540**	**3,200**	**27,900 J**	**16,100 J**	**29,900 J**	**23,900 J**	**25,100 J**	**12,100 J**	**10,000 J**	**2,660 J**	**55,200 J**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	Location ID / Sample ID / Case / Sampling date / Unit / Duplicate info / Investigation area / Lithology / Depth (ft bgs)											
			SB041B / ME3RD9 / 36631 / 7/20/2007 / mg/kg / / 3 / L1 / 9-11	SB042A / ME3RD4 / 36631 / 7/20/2007 / mg/kg / / 3 / L4 / 0-2	SB042B / ME3RD5 / 36631 / 7/20/2007 / mg/kg / / 3 / L1 / 8-10	SB043A / ME3RF0 / 36648 / 7/23/2007 / mg/kg / / 3 / L4 / 0-2	SB043B / ME3RF1 / 36648 / 7/23/2007 / mg/kg / / 3 / L2, L3 / 4-5	SB044A / ME3RE8 / 36648 / 7/23/2007 / mg/kg / / 3 / L4 / 0-2	SB044B / ME3RE9 / 36648 / 7/23/2007 / mg/kg / / 3 / L2, L3, L4 / 8-10	SB261B / ME3RF3 / 36648 / 7/23/2007 / mg/kg / SB044B / 3 / L2, L3, L4 / 8-10	SB045A / ME3RE6 / 36648 / 7/23/2007 / mg/kg / / 3 / L4 / 0-2	SB045B / ME3RE7 / 36648 / 7/23/2007 / mg/kg / / 3 / L1 / 8-10	SB046A / ME3RE4 / 36648 / 7/23/2007 / mg/kg / / 3 / L3, L4 / 0-2	SB046B / ME3RE5 / 36648 / 7/23/2007 / mg/kg / / 3 / L1 / 8-10
Aluminum	55,000	SSL-risk	**2,160**	**8,770**	**8,250**	**5,620**	**3,850**	**5,870**	**6,040**	**16,000**	**5,150**	**13,200**	**8,860**	**10,300**
Antimony	0.006	TACO	6.9 UJ	**11.4 J-**	7.5 UJ	**47**	**26.4**	**106**	**14.3**	7.5 U	**26.8**	**1.5 J**	**40.1**	**2.8 J**
Arsenic	0.0013	SSL-risk	**3**	**75.8**	**15.5**	**206 J**	**34.6 J**	**410 J**	**22.6 J**	**5.3 J**	**141 J**	**23.8 J**	**126 J**	**8.9 J**
Barium	2	TACO	**26.3 J**	**321 J**	**1,000 J**	**146**	**159**	**201**	**101**	**237**	**391**	**101**	**224**	**229**
Beryllium	0.004	TACO	**0.17 J+**	**0.7 J+**	**1.1 J+**	0.58 UJ	0.61 UJ	0.58 UJ	**0.67 J**	**1.2 J**	0.59 UJ	**0.73 J**	**2.2 J**	0.63 UJ
Cadmium	0.005	TACO	**2.6 J**	**45.1 J**	**2.5 J**	**87.1**	**173**	**59.7**	**297**	**618**	**234**	0.61 U	**121**	**8.8**
Calcium	NC	--	**606 J+**	**693 J+**	**61,600 J+**	**18,100**	**62,300**	**1,800**	**34,400**	**26,400**	**17,000**	**10,000**	**19,600**	**25,900**
Chromium (total)	0.10	TACO	**3.6 J+**	**10.6 J+**	**19.9 J+**	**11.8**	**30.1**	**39.3**	**18**	**21.8**	**12.5**	**26.6**	**20.8**	**22.3**
Cobalt	0.49	SSL-risk	**5 J+**	**37 J+**	**21.2 J+**	**33.9**	**6.3**	**56.8**	**10.6**	**14.3**	**138**	**8.2**	**54.4**	**6 J**
Copper	0.65	TACO	**17.8 J+**	**522 J+**	**69.1 J+**	**1,270 J**	**211 J**	**4,160 J**	**199 J**	**16.4 J**	**1,400 J**	**4.9 J**	**1,190 J**	**25.5 J**
Cyanide	0.2	TACO	2.9 UJ	3.2 UJ	3.1 UJ	**0.71 J**	**0.3 J**	**0.88 J**	**1 J**	**4.2**	**4.2**	**0.15 J**	**2.2 J**	**0.12 J**
Iron	5	TACO	**5,030 J+**	**20,400 J+**	**35,400 J+**	**37,400**	**22,800**	**71,300**	**17,300**	**20,300**	**42,800**	**21,200**	**66,500**	**30,200**
Lead	0.0075	TACO	R	R	R	**11,700**	**62,600**	**5,140**	**851**	**26**	**5,480**	**12.8**	**2,520**	**122**
Magnesium	NC	--	**543 J+**	**713 J+**	**17,700 J+**	**4,610**	**3,120**	**565 J**	**1,090**	**3,730**	**5,040**	**4,960**	**856**	**2,480**
Manganese	0.15	TACO	**155 J+**	**949 J+**	**5,740 J+**	**1,770**	**363**	**2,110**	**2,510**	**3,900**	**4,570**	**249**	**1,650**	**169**
Mercury	0.002	TACO	**0.058 J+**	**0.58 J+**	0.12 U	**77.5**	**145**	**1.3**	**8.8**	**0.15**	**5.8**	**0.14**	**4.6**	0.13 U
Nickel	0.10	TACO	**8**	**159**	**53.3**	**25.2**	**17.6**	**1,030**	**55.1**	**60**	**48.1**	**40.6**	**78.4**	**20.2**
Potassium	NC	--	**298 J**	**781 J**	**1,920 J**	**709 J**	**821 J**	585 UJ	**1,040 J**	**2,010 J**	593 UJ	**3,070 J**	**990 J**	**3,530 J**
Selenium	0.05	TACO	4 U	**1.7 J**	**2.7 J**	**11.8**	**72.3**	**4.7**	**2.6 J**	4.4 U	4.2 U	4.3 U	4.2 U	4.4 U
Silver	0.05	TACO	1.2 U	**6 J+**	**0.55 J+**	**22.6**	**6.1**	**54.3**	**2.3 J-**	1.2 UJ	**13**	1.2 UJ	**11.5**	1.3 UJ
Sodium	NC	--	576 U	**545 J**	**198 J**	575 UJ	606 UJ	**743 J**	607 UJ	623 UJ	593 UJ	612 UJ	604 UJ	**758 J**
Thallium	0.002	TACO	2.9 U	3.2 U	**2.6 J**	2.9 U	3 U	2.9 U	3 U	3.1 U	3 U	3.1 U	3 U	3.2 U
Vanadium	0.049	TACO	**6.4**	**13.2**	**28.9**	**17.4**	**17.2**	**12.8**	**15.9**	**19.6**	**14.8**	**21.6**	**30.2**	**26.5**
Zinc	5	TACO	**708 J**	**27,800 J**	**1,060 J**	**33,600**	**24,100**	**68,300**	**18,700**	**18,900**	**117,000**	**988**	**33,600**	**2,320**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	Location ID	Sample ID	Case	Sampling date	Unit	Duplicate info	Investigation area	Lithology	Depth (ft bgs)
			SB047A	ME3RD6	36631	7/20/2007	mg/kg		3	L2, L3	0-2
			SB258A	ME3RE0	36631	7/20/2007	mg/kg	SB047A	3	L2, L3	0-2
			SB047B	ME3RD7	36631	7/20/2007	mg/kg		3	L1	9-11
			SB048A	ME3RE1	36631	7/20/2007	mg/kg		3	L1, L2, L3	0-2
			SB048B	ME3RE2	36631	7/20/2007	mg/kg		3	L1	9-11
			SB049A	ME3S17	36664	8/1/2007	mg/kg		3	L1, L3	0-2
			SB049B	ME3S18	36664	8/1/2007	mg/kg		3	L1	5-7
			SB050A	ME3S19	36664	8/1/2007	mg/kg		3	L1, L2	0-2
			SB050B	ME3S20	36664	8/1/2007	mg/kg		3	L1	8-10
			SB051A	ME3S21	36664	8/1/2007	mg/kg		3	L1	0-2
			SB051B	ME3S22	36664	8/1/2007	mg/kg		3	L1	4-6
			SB052A	ME3S40	36664	8/2/2007	mg/kg		3	L1	0-2
Aluminum	55,000	SSL-risk	**5,230**	**6,890**	**3,600**	**6,220**	**13,800**	**545**	**7,320**	**2,370**	**7,480**	**11,800**	**962**	**19,500**
Antimony	0.006	TACO	**66.6 J-**	7.2 UJ	7.1 UJ	**100 J-**	7.4 UJ	**91.9**	**12.1 J+**	**51.9**	7 U	**3.6 J**	**1.6 J**	**5.6 J+**
Arsenic	0.0013	SSL-risk	**812**	**14.1**	**8.9**	**304 J-**	**14.9 J-**	**191**	**9.6**	**155**	**2.8**	**8.4**	**5.6**	**11.6**
Barium	2	TACO	**115 J**	**54.4 J**	**43.8 J**	**202 J**	**172 J**	**198**	**129**	**115**	**137**	**171**	**119**	**267**
Beryllium	0.004	TACO	**1.1 J+**	**2.9 J+**	**0.32 J+**	**1.5**	**1.2**	0.61 U	**0.67**	0.65 U	**0.63**	0.66 U	0.6 U	**0.84**
Cadmium	0.005	TACO	**109 J**	**29.7 J**	**2.5 J**	**111 J-**	**5.6**	**14.6**	**20.8**	**17.8**	0.59 U	**8.9**	**6.6**	**19.4**
Calcium	NC	--	**10,800 J+**	**6,560 J+**	**1,190 J+**	**11,200**	**31,600**	**557 J**	**43,700**	**14,400**	**36,200**	**1,590**	**636**	**2,820**
Chromium (total)	0.10	TACO	**10.5 J+**	**13.1 J+**	**6 J+**	**27 J-**	**23 J-**	**4.7**	**14.7**	**6**	**15**	**17.3**	**2.1**	**23.7 J**
Cobalt	0.49	SSL-risk	**103 J+**	**59.1 J+**	**2.9 J+**	**48.4**	**6.9**	**7.8**	**19**	**13.2**	**9.2**	**11.4**	6 U	**31.2**
Copper	0.65	TACO	**4,710 J+**	**197 J+**	**133 J+**	**4,140 J-**	**36.5 J-**	**362**	**46.7**	**873**	**9.7**	**17.2**	**5.3**	**44**
Cyanide	0.2	TACO	3.1 UJ	3 UJ	3 UJ	3 UJ	3.1 UJ	**0.3 J**	3.3 U	3.3 U	3 U	3.3 U	3 U	**0.86 J**
Iron	5	TACO	**61,200 J+**	**19,100 J+**	**7,150 J+**	**57,100 J**	**33,900 J**	**31,400**	**27,300**	**29,000**	**19,200**	**20,400**	**8,400**	**37,100**
Lead	0.0075	TACO	R	R	R	**3,620 J**	**109 J**	**10,700**	**795 J**	**862 J**	**22.5 J**	**21.8**	**18.6**	**738**
Magnesium	NC	--	**531 J+**	**466 J+**	**566 J+**	**652 J**	**7,600 J**	614 U	**10,700**	651 U	**5,610**	**2,400**	601 U	**3,390**
Manganese	0.15	TACO	**2,970 J+**	**991 J+**	**115 J+**	**1,380**	**273**	**292**	**1,310**	**561**	**1,240**	**664**	**16.1**	**7,110**
Mercury	0.002	TACO	**0.39 J+**	**4.3 J+**	**0.042 J+**	**6.9 J**	0.12 UJ	**8.2**	0.12 U	**0.44**	0.12 U	0.13 U	0.12 U	**0.49 J+**
Nickel	0.10	TACO	**135**	**64.9**	**27.1**	**380 J-**	**25.1 J-**	**0.67 J**	**39.6**	5.2 U	**35.4**	**16.5**	**0.86 J**	**26.4**
Potassium	NC	--	**260 J**	**533 J**	**288 J**	**521 J**	**3,770 J**	**1,200 J**	**1,650 J**	**1,660 J**	**2,120 J**	**819 J**	**1,140 J**	**1,680 J**
Selenium	0.05	TACO	**11**	**1.6 J**	4.1 U	**8.5 J-**	4.3 UJ	**60.4**	**4 J**	**2.1 J**	4.1 U	4.6 U	**0.7 J**	4.8 U
Silver	0.05	TACO	**124 J+**	**1.4 J+**	**0.75 J+**	**41.3**	1.2 U	**264**	**5.6 J+**	**13.6**	1.2 U	1.3 U	1.2 U	**2.5 J+**
Sodium	NC	--	**584 J**	**218 J**	590 U	**622**	**169 J**	**981 J+**	**1,480 J+**	**2,310 J+**	587 U	**934 J+**	601 U	680 U
Thallium	0.002	TACO	**2 J**	3 U	3 U	3.1 U	3.1 U	3.1 U	3.3 U	3.3 U	2.9 U	3.3 U	3 U	3.4 U
Vanadium	0.049	TACO	**11.2**	**31**	**9.2**	**16.9**	**40.3**	**7.9**	**15.7**	**16.5**	**18.5**	**27.2**	6 U	**33.4**
Zinc	5	TACO	**66,800 J**	**10,300 J**	**2,090 J**	**23,600 J**	**1,580 J**	**3,230 J**	**8,240 J**	**23,800 J**	**121 J**	**2,260 J**	**1,170 J**	**4,330 J**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	Location ID / Sample ID / Case / Sampling date / Unit / Duplicate info / Investigation area / Lithology / Depth (ft bgs)											
			SB052B / ME3S41 / 36664 / 8/2/2007 / mg/kg / / 3 / L1 / 8-10	SB053A / ME3RZ7 / 36664 / 8/1/2007 / mg/kg / / 3 / L4 / 0-2	SB053B / ME3RZ8 / 36664 / 8/1/2007 / mg/kg / / 3 / L1 / 6-8	SB054A / ME3RZ9 / 36664 / 8/1/2007 / mg/kg / / 3 / L4 / 0-2	SB054B / ME3S01 / 36664 / 8/1/2007 / mg/kg / / 3 / L1 / 4-6	SB055A / ME3S02 / 36664 / 8/1/2007 / mg/kg / / 3 / L4 / 0-2	SB055B / ME3S03 / 36664 / 8/1/2007 / mg/kg / / 3 / L1, L2, L4 / 4-6	SB056A / ME3S04 / 36664 / 8/1/2007 / mg/kg / / 3 / L2, L3 / 0-2	SB056B / ME3S05 / 36664 / 8/1/2007 / mg/kg / / 3 / L1, L2, L3 / 8-10	SB290B / ME3S06 / 36664 / 8/1/2007 / mg/kg / SB056B / 3 / L1, L2, L3 / 8-10	SB057A / ME3S42 / 36664 / 8/2/2007 / mg/kg / / 3 / L4 / 0-2	SB057B / ME3S43 / 36664 / 8/2/2007 / mg/kg / / 3 / L4 / 4-6
Aluminum	55,000	SSL-risk	**15,700**	**10,900**	**9,520**	**10,500**	**13,500**	**9,310**	**9,310**	**3,900**	**13,000**	**5,240**	**7,700**	**11,500**
Antimony	0.006	TACO	**3 J+**	**24.1**	**2.1 J**	**84.4**	**3.5 J**	**9.5**	6.9 U	**7.5**	**4.6 J+**	**1.2 J+**	**5.4 J+**	**2.1 J+**
Arsenic	0.0013	SSL-risk	2 U	**90.7 J**	**5.1 J**	**222 J**	**14.1 J**	**42.5 J**	**4.4 J**	**32.3 J**	**13.3 J**	**4.8**	**18.7**	**14.9**
Barium	2	TACO	**122**	**140**	**44.1**	**265**	**89.7**	**112**	**42**	**150**	**164**	22.1 U	**101**	**42.1**
Beryllium	0.004	TACO	**0.94 J+**	**0.88 J+**	**0.69 J+**	**1**	**0.97 J+**	**0.67 J+**	**0.86 J+**	0.6 U	**0.97 J+**	0.55 U	0.68 UJ	**0.73 J+**
Cadmium	0.005	TACO	**0.59 J+**	**175 J**	**93.2 J**	**624 J**	**127 J**	**208 J**	**770 J**	**182 J**	**290 J**	**0.76 J+**	**6.1**	**324**
Calcium	NC	--	**28,200 J**	**2,220 J**	**174,000 J**	**2,860 J**	**44,500 J**	**29,100 J**	**179,000 J**	**1,660 J**	**3,940 J**	**191,000**	**28,200 J**	**10,600 J**
Chromium (total)	0.10	TACO	**25.4 J**	**21.6**	**23.6**	**30.7**	**24.8**	**22.3**	**14.5**	**12.6**	**21.9**	**14.5**	**20.2 J**	**18.5 J**
Cobalt	0.49	SSL-risk	**11.3 J**	**9.5 J+**	**23.7 J**	**17.2 J**	**19.1 J**	**22.4 J**	**14.5 J**	**22 J**	**22.5 J**	**17.5**	6.8 UJ	**23.4 J**
Copper	0.65	TACO	**7.3**	**245**	**32.7**	**803**	**65.4**	**332**	**101**	**710**	**252**	**31.2**	**57.2**	**96.6**
Cyanide	0.2	TACO	2.9 U	3.1 U	**0.43 J**	**0.28 J**	3.9 U	**0.16 J**	**0.1 J**	**0.17 J**	3.1 U	2.8 U	3.4 U	3.1 U
Iron	5	TACO	**28,300**	**28,600**	**12,900**	**59,600**	**24,500**	**57,300**	**14,400**	**49,800**	**34,300**	**10,400**	**23,400**	**20,600**
Lead	0.0075	TACO	**6.8**	**8,310 J**	**15.1 J**	**10,100 J**	**345 J**	**1,310 J**	**79 J**	**4,600 J**	**1,840 J**	**12**	**2,080**	**154**
Magnesium	NC	--	**7,530**	**2,010**	**5,950**	**2,070**	**5,240**	**14,400**	**4,640**	**940**	**5,200**	**4,610**	**1,870**	**5,130**
Manganese	0.15	TACO	**449 J**	**240 J**	**2,660 J**	**559 J**	**1,020 J**	**638 J**	**4,280 J**	**245 J**	**417 J**	**3,420**	**64.6 J**	**1,520 J**
Mercury	0.002	TACO	0.12 U	**0.77**	0.11 U	**22**	0.16 U	**0.096 J**	**0.078 J**	**5.2**	**0.79**	0.11 U	0.13 U	**0.19 J-**
Nickel	0.10	TACO	**41.2 J**	4.8 UJ	**41.4 J**	**129 J**	**36.6 J**	**36.7 J**	**68.7 J**	**5.5 J**	**26.3 J**	**37.2**	**14.9 J**	**41.4 J**
Potassium	NC	--	**2,260 J**	**2,670 J**	**2,920 J**	**1,280 J**	**2,860 J**	**1,500 J**	**1,850 J**	596 UJ	**1,850 J**	**1,410 J**	**2,300 J**	**2,270 J**
Selenium	0.05	TACO	4.1 U	**2 J**	3.9 U	**11.7**	**0.74 J**	**1.4 J**	4 U	**4.4**	**1.2 J**	3.9 U	**2.4 J**	4.3 U
Silver	0.05	TACO	**1.6 J+**	**5.2 J+**	**0.73 J+**	**31.5 J**	**2.2 J+**	**7.1 J+**	**0.94 J+**	**10.6 J**	**3.5 J+**	1.1 U	**3.1 J+**	1.2 U
Sodium	NC	--	**336 J**	**4,210 J+**	**954 J+**	**6,940 J+**	**983 J+**	**2,660 J+**	**2,520 J+**	**2,810 J+**	**2,970 J+**	**825 J+**	**300 J**	**2,150 J+**
Thallium	0.002	TACO	2.9 U	3 UJ	2.8 UJ	3.1 UJ	3.9 UJ	2.9 UJ	2.9 UJ	3 UJ	3.1 UJ	2.8 U	3.4 U	3.1 U
Vanadium	0.049	TACO	**15.2 J**	**24.9**	**15**	**19.9**	**19.5**	**14.1**	**11.1**	**23.3**	**19.2**	**9**	**18.6 J**	**10.8 J-**
Zinc	5	TACO	**60.8 J**	**62,500 J**	**2,880 J**	**107,000 J**	**7,910 J**	**41,900 J**	**33,800 J**	**46,100 J**	**45,000 J**	**1,460 J**	**1,350 J**	**30,000 J**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	Location ID	Sample ID	Case	Sampling date	Unit	Duplicate info	Investigation area	Lithology	Depth (ft bgs)
			SB058A	ME3S44	36664	8/2/2007	mg/kg		3	L1	0-2
			SB058B	ME3S45	36664	8/2/2007	mg/kg		3	L1	4-6
			SB293B	ME3S46	36664	8/2/2007	mg/kg	SB058B	3	L1	4-6
			SB059A	ME3S25	36664	8/1/2007	mg/kg		3	L1, L4	0-2
			SB059B	ME3S26	36664	8/1/2007	mg/kg		3	L1	8-10
			SB060A	ME3S23	36664	8/1/2007	mg/kg		3	L1	0-2
			SB060B	ME3S24	36664	8/1/2007	mg/kg		3	L1	8-10
			SB061A	ME3SC1	36697	8/7/2007	mg/kg		3	L1, L2	0-2
			SB061B	ME3SC2	36697	8/7/2007	mg/kg		3	L1	8-10
			SB062A	ME3SC6	36697	8/7/2007	mg/kg		3	L4	0-2
			SB063A	ME3SB7	36697	8/7/2007	mg/kg		3	L1	0-2
			SB063B	ME3SB8	36697	8/7/2007	mg/kg		3	L1	4-6
Aluminum	55,000	SSL-risk	**9,980**	**10,200**	**10,200**	**6,300**	**13,000**	**8,190**	**24,200**	**9,680**	**9,740**	**2,080**	**5,910**	**7,750**
Antimony	0.006	TACO	**51.6**	**1.5 J+**	**2.9 J+**	**13.1**	**2.8 J**	**3.8 J**	**2.2 J**	**1.9 J**	**2.2 J**	**14**	**4.2 J**	**2.2 J**
Arsenic	0.0013	SSL-risk	**97.8**	**4.7**	**6.9**	**65.4**	**4**	**11.1**	**2**	**4.5**	**10.1**	**28.2**	**14.5**	**4.9**
Barium	2	TACO	**153**	23.8 UJ	**98.6**	**182**	**149**	**166**	**118**	**204**	**204**	**84.8**	**148**	**234**
Beryllium	0.004	TACO	**0.83 J+**	**0.85 J+**	**0.8 J+**	**0.74**	**0.83**	0.63 U	**1.1**	**0.62 J+**	0.59 U	0.59 U	0.6 U	0.6 U
Cadmium	0.005	TACO	**96.4**	**0.83 J+**	**7.7**	**299**	**18.4**	**3 J+**	**6.6**	**1.4 J-**	**1.3 J-**	**94.6**	**16.6**	**1.9 J-**
Calcium	NC	--	**2,900 J**	**20,600 J**	**15,700 J**	**23,800**	**19,400**	**1,880**	**36,700**	**54,200 J**	**69,700**	**1,370 J**	**2,450**	**85,500**
Chromium (total)	0.10	TACO	**24.8 J**	**15.8 J**	**15.8 J**	**20.5**	**21.1**	**23.6**	**27.8**	**20.7 J**	**17.5**	**4.8 J**	**16.8**	**13.6**
Cobalt	0.49	SSL-risk	**22.6 J**	**9.4 J**	**23.3 J**	**14.3**	**12.3**	**17**	**8.2**	**14 J**	**21.8 J**	**3.8 J**	6 UJ	**12.7 J**
Copper	0.65	TACO	**1,140**	**10.6**	**129**	**512**	**28.9**	**48.2**	**56**	**17.4**	**23.1 J**	**146**	**32.5 J**	**26.9 J**
Cyanide	0.2	TACO	**0.13 J**	3 U	3 U	2.6 U	3 U	3.1 U	3.2 U	3 U	3 U	**0.12 J**	3 U	**0.5 J**
Iron	5	TACO	**44,700**	**14,600**	**20,500**	**35,300**	**24,500**	**27,000**	**25,800**	**25,500 J**	**16,600**	**6,730 J**	**29,000**	**21,700**
Lead	0.0075	TACO	**11,900**	**61.9**	**40.6**	**3,830**	**137**	**274**	**8**	**11.9**	**15.7**	**27,100**	**1,060**	**11.1**
Magnesium	NC	--	**1,690**	**5,100**	**4,970**	**12,200**	**7,580**	**1,770**	**2,830**	**7,900 J**	**4,810**	**335 J**	**1,460**	**16,400**
Manganese	0.15	TACO	**1,220 J**	**295 J**	**613 J**	**812**	**648**	**904**	**528**	**1,800 J**	**1,990 J**	**255 J**	**284 J**	**7,550 J**
Mercury	0.002	TACO	**13.7**	**0.17 J-**	**0.3**	**2.6**	0.12 U	**1.3**	0.17 U	0.12 U	**0.2 J-**	**2**	**6**	**0.035 J-**
Nickel	0.10	TACO	**160 J**	**32 J**	**43 J**	**12.7**	**39.2**	**12.6**	**47**	**35 J**	**43.9**	4.7 UJ	**10.2**	**42.7**
Potassium	NC	--	**1,170 J**	**2,170 J**	**1,880 J**	**555 J**	**1,660 J**	**885 J**	**1,270 J**	**2,240 J**	**1,550 J**	**234 J**	**1,730 J**	**1,710 J**
Selenium	0.05	TACO	**7.7**	**6**	4.2 U	**3.2 J**	4.3 U	**4.3 J**	4.4 U	4.3 U	4.1 U	**105**	**1.7 J+**	4.2 U
Silver	0.05	TACO	**16**	1.2 UJ	**1.3 J+**	**7.7**	**1.4 J+**	**1.4 J+**	1.2 U	**1.4 J+**	**0.93 J+**	**3.9**	**1.6 J+**	**1.6 J+**
Sodium	NC	--	**4,160 J+**	**372 J**	**561 J**	**5,890 J+**	608 U	626 U	623 U	**138 J-**	**228 J-**	**1,060**	**355 J-**	**277 J-**
Thallium	0.002	TACO	3 U	3 U	3 U	2.6 U	3 U	3.1 U	3.1 U	3 U	2.9 U	2.9 U	3 U	3 U
Vanadium	0.049	TACO	**23.6 J**	**18.6 J**	**8.4 J-**	**27.5**	**18.5**	**27.4**	**10.3**	**16.4 J-**	**12.4 J-**	**6.6 J-**	**41.3**	**16.3 J-**
Zinc	5	TACO	**63,600 J**	**94 J**	**1,440 J**	**76,100 J**	**3,030 J**	**690 J**	**2,790 J**	**76 J**	**96.7**	**18,600 J**	**1,910**	**291**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	SB064A ME3SC7 36697 8/7/2007 mg/kg 3 L1, L4 0-2	SB064B ME3SC8 36697 8/7/2007 mg/kg 3 L1 8-10	SB065A ME3SC9 36697 8/7/2007 mg/kg 3 L1, L4 0-2	SB065B ME3SD0 36697 8/7/2007 mg/kg 3 L1, L4 8-10	SB066A ME3SA7 36697 8/7/2007 mg/kg 3 L1 0-2	SB299A ME3SA9 36697 8/7/2007 mg/kg SB066A 3 L1 0-2	SB066B ME3SA8 36697 8/7/2007 mg/kg 3 L1 8-10	SB067A ME3RY6 36664 7/31/2007 mg/kg 3 L1, L4 0-2	SB067B ME3RY7 36664 7/31/2007 mg/kg 3 L1 4-6	SB068A ME3RY8 36664 7/31/2007 mg/kg 3 L1 0-2	SB068B ME3RY9 36664 7/31/2007 mg/kg 3 L1 10-12	SB283B ME3RZ0 36664 7/31/2007 mg/kg SB068B 3 L1 10-12
Aluminum	55,000	SSL-risk	**6,090**	**7,870**	**4,030**	**8,310**	**6,210**	**8,390**	**9,140**	**1,010**	**13,500**	**11,900**	**6,670**	**12,300**
Antimony	0.006	TACO	**2.8 J**	6.9 U	**2.1 J**	**3.1 J**	**1.9 J+**	**2.7 J+**	**3.1 J+**	9.7 U	**1.6 J**	**2.9 J**	**5.2 J**	7.3 U
Arsenic	0.0013	SSL-risk	**2.3**	**3.1**	**2.4**	**6.7**	**4 J+**	**3.9 J+**	**12.4**	**3.6**	**6.8**	**17.6**	**76.7**	**7.1**
Barium	2	TACO	**219**	**28.5**	**159**	**61.3**	**74.1**	**130**	**82.8**	**164**	**126**	**148**	**380**	**668**
Beryllium	0.004	TACO	**0.94**	0.58 U	**0.73**	**0.89**	**1**	**1.1**	0.61 U	0.81 UJ	0.63 UJ	0.66 UJ	**0.77 J**	**0.65 J**
Cadmium	0.005	TACO	**1.1 J-**	**0.31 J-**	**14.5**	**0.58 J-**	**3.5**	**2.5**	**2.4**	**3.4**	**0.21 J**	**8.4**	**3.1**	**1.6**
Calcium	NC	--	**2,530 J**	**31,300 J**	**7,200 J**	**25,300 J**	**5,420**	**14,000**	**1,300**	**40,000**	**48,900**	**1,920**	**39,600**	**47,600**
Chromium (total)	0.10	TACO	**22.5 J**	**12 J**	**10.8 J**	**15.4 J**	**12.5**	**14.9**	**21.5**	**1.9**	**24.5**	**50.7**	**13.6**	**20.1**
Cobalt	0.49	SSL-risk	5.9 UJ	**12.8 J**	5.7 UJ	**8.7 J**	**7.8 J**	**8.8 J**	6.1 UJ	**0.68 J**	**12.7**	**7.3**	**14.8**	**17.4**
Copper	0.65	TACO	**15.6**	**10.6**	**19.7**	**4.6**	**15.9 J**	**13.8 J**	**15 J**	**5.7**	**18.7**	**30.7**	**90.1**	**27.1**
Cyanide	0.2	TACO	3 U	2.9 U	2.8 U	2.8 U	2.9 U	**0.12 J**	3.1 U	4 U	3.1 U	3.3 U	3.1 U	3 U
Iron	5	TACO	**19,400 J**	**8,120 J**	**7,020 J**	**24,400 J**	**17,000**	**19,000**	**22,100**	**1,490 J**	**23,700 J**	**44,600 J**	**81,500 J**	**24,600 J**
Lead	0.0075	TACO	**8.3**	**6.5**	**32**	**6**	**19**	**9.9**	**15.1**	**182**	**13.9**	**62.6**	**145**	**14**
Magnesium	NC	--	**2,380 J**	**5,700 J**	**1,680 J**	**5,240 J**	**2,710**	**3,820**	**2,200**	809 U	**18,800**	**3,650**	**23,500**	**19,100**
Manganese	0.15	TACO	**57.1 J**	**426 J**	**35.8 J**	**350 J**	**113 J**	**316 J**	**111 J**	**7 J**	**704 J**	**247 J**	**718 J**	**4,380 J**
Mercury	0.002	TACO	0.12 U	0.12 U	**0.064 J-**	0.11 U	**0.034 J**	0.12 U	**0.074 J**	**1.7 J-**	0.12 UJ	**0.21 J-**	0.12 UJ	0.12 UJ
Nickel	0.10	TACO	**20 J**	**29.5 J**	**9.4 J**	**31.3 J**	**34.1**	**35.9**	**12.4**	**0.32 J**	**34.5 J**	**23.4 J**	**35.9**	**53.1**
Potassium	NC	--	**928 J**	**2,590 J**	**1,020 J**	**2,350 J**	**1,370 J**	**1,980 J**	**807 J**	**731 J**	**3,060 J**	**1,460 J**	**1,390 J**	**2,190 J**
Selenium	0.05	TACO	**0.91 J**	4 U	4 U	**0.69 J**	**0.62 J+**	**0.58 J+**	**1.1 J+**	**3.8 J**	4.4 U	4.6 U	4.3 U	4.3 U
Silver	0.05	TACO	1.2 U	1.2 U	1.1 U	**1.2 J+**	**0.87 J+**	**1 J+**	**1.1 J+**	**0.66 J-**	1.3 UJ	1.3 UJ	R	1.2 UJ
Sodium	NC	--	**95 J-**	**198 J-**	**254 J-**	**122 J-**	**179 J-**	**254 J-**	**155 J-**	809 U	629 U	655 U	616 U	610 U
Thallium	0.002	TACO	2.9 U	2.9 U	2.8 U	2.8 U	2.9 U	2.9 U	3 U	4 UJ	3.1 UJ	3.3 UJ	R	3 UJ
Vanadium	0.049	TACO	**25**	**10.9 J-**	**13.6**	**30**	**21.3**	**21.6**	**45.8**	**2.5 J**	**25.9**	**58.4**	**43.3**	**24.4**
Zinc	5	TACO	**42.2 J**	**32.7 J**	**1,250 J**	**39.1 J**	**380**	**211**	**199**	**131**	**68.4**	**1,490**	**534**	**167**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	SB069A ME3RY4 36664 7/31/2007 mg/kg 3 L1 0-2	SB069B ME3RY5 36664 7/31/2007 mg/kg 3 L1 8-10	SB070A ME3RY3 36664 7/31/2007 mg/kg 3 L1, L4 0-2	SB071A ME3S54 36664 8/2/2007 mg/kg 3 L2, L3 0-2	SB071B ME3S55 36664 8/2/2007 mg/kg 3 L1 6-8	SB072A ME3S52 36664 8/2/2007 mg/kg 3 L4 0-2	SB072B ME3S53 36664 8/2/2007 mg/kg 3 L1 6-8	SB073A ME3S56 36664 8/2/2007 mg/kg 3 L2 0-2	SB074A ME3S57 36664 8/2/2007 mg/kg 3 L2, L3 0-2	SB074B ME3S58 36664 8/2/2007 mg/kg 3 L1, L2, L3 4-6	SB075A ME3S50 36664 8/2/2007 mg/kg 3 L2 0-2	SB075B ME3S51 36664 8/2/2007 mg/kg 3 L1 8-10
Aluminum	55,000	SSL-risk	1,010	2,530	6,310	6,200	11,400	8,440	6,760	7,870	4,240	4,660	4,900	10,400
Antimony	0.006	TACO	8.1 U	7 U	3.6 J	19	3 J+	16.5	3.3 J+	16.5	16.8	12.2 J+	14	6.3 J+
Arsenic	0.0013	SSL-risk	12.7	11.2	27.9	30.9	7.7	36.4	23.4	32.5	31.3	29.2	9.5	7.5
Barium	2	TACO	259	99.2	170	403	62.2	294	141	193	240	185	65.9	26.3
Beryllium	0.004	TACO	0.68 UJ	0.58 UJ	0.64 UJ	0.73 J+	1.5 J	1.2 J	0.75 UJ	1.1 J	0.67 J+	0.69 J+	0.79 J+	1.4 J
Cadmium	0.005	TACO	5	1.3	6.8	73	55.1	114	41.3	133	65.3	35.6	33.1	0.78 J+
Calcium	NC	--	1,120	4,130	36,900	2,660 J	25,500 J	8,200 J	19,800 J	4,480 J	3,110 J	3,390 J	3,000 J	6,330 J
Chromium (total)	0.10	TACO	3.8	6.1	13.1	19 J	14 J	22.7 J	111 J	20.8 J	11 J	14.6 J	22.5 J	20.6 J
Cobalt	0.49	SSL-risk	0.73 J	0.96 J	8.6	15.6 J	13.6 J	21.2 J	7.5 UJ	26.9 J	24.5 J	18.5 J	9.1 J	12.9 J
Copper	0.65	TACO	19	9.6	53.1	387	29.7	361	457	556	650	630	154	32.1
Cyanide	0.2	TACO	3.4 U	3 U	3.2 U	0.24 J	0.45 J	0.22 J	0.27 J	0.22 J	0.12 J	0.12 J	0.15 J	3 U
Iron	5	TACO	3,780 J	15,800 J	33,200 J	66,800	30,300	67,700	14,800	79,300	43,600	43,200	79,500	53,100
Lead	0.0075	TACO	79.7	74.8	1,020	3,920	149	1,740	614	1,390	1,330	2,550	419	32.9
Magnesium	NC	--	676 U	934	2,670	1,380	2,630	1,770	1,540	1,920	489 J	639	631	4,570
Manganese	0.15	TACO	4 J	31.8 J	413 J	432 J	933 J	800 J	39.1 J	514 J	163 J	141 J	193 J	328 J
Mercury	0.002	TACO	0.091 J-	0.42 J-	2.4 J-	4.5	0.12 U	3.5	0.2 J-	3.3	0.33	0.13 J-	0.43	0.12 U
Nickel	0.10	TACO	0.4 J	2.4 J	22.7 J	12.3 J	18.8 J	21.8 J	13.2 J	23 J	12 J	6.9 J	13.4 J	40.6 J
Potassium	NC	--	293 J	892 J	1,360 J	994 J	1,280 J	1,390 J	1,420 J	1,020 J	132 J	287 J	719 J	1,160 J
Selenium	0.05	TACO	4.7 U	1.6 J	71.8	4.2 J	4.3 U	2.2 J	6.2	2.5 J	4.2	4.1	3.2 J	4.2 U
Silver	0.05	TACO	0.25 J	1.2 UJ	0.98 J-	5.6 J+	1.7 J+	6.6 J+	2.1 J+	5.7 J+	5.2 J+	6.2 J+	4.9 J+	3.1 J+
Sodium	NC	--	676 U	581 U	640 U	1,520 J+	1,300 J+	1,680 J+	689 J	2,340 J+	1,990 J+	1,880 J+	648 J	352 J
Thallium	0.002	TACO	3.4 U	2.9 UJ	3.2 UJ	3.2 U	3 U	3.1 U	3.7 U	3.2 U	2.7 U	2.8 U	2.9 U	3 U
Vanadium	0.049	TACO	3.2 J	10.1	12.2	19.4 J	20.2 J	32.2 J	51.2 J	23.3 J	12.7 J	15.8 J	27.1 J	156 J
Zinc	5	TACO	124	187	2,710	20,700 J	18,500 J	24,200 J	5,700 J	32,600 J	29,200 J	32,100 J	6,380 J	42.5 J

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	Location ID	Sample ID	Case	Sampling date	Unit	Duplicate info	Investigation area	Lithology	Depth (ft bgs)
			SB076A	ME3S59	36664	8/2/2007	mg/kg		3	L2, L3	0-2
			SB295A	ME3S60	36664	8/2/2007	mg/kg	SB076A	3	L2, L3	0-2
			SB076B	ME3S61	36664	8/2/2007	mg/kg		3	L2, L3	4-6
			SB077A	ME3RH1	36648	7/24/2007	mg/kg		3		0-2
			SB077B	ME3RH2	36648	7/24/2007	mg/kg		3	L1	4-6
			SB264B	ME3RH3	36648	7/24/2007	mg/kg	SB077B	3	L1	4-6
			SB078A	ME3RJ0	36648	7/24/2007	mg/kg		3	L2, L3	0-2
			SB078B	ME3RJ1	36648	7/24/2007	mg/kg		3	L1	8-10
			SB079A	ME3RJ4	36648	7/24/2007	mg/kg		3	L3	0-2
			SB079B	ME3RJ5	36648	7/24/2007	mg/kg		3	L2	6-8
			SB080A	ME3RJ6	36648	7/24/2007	mg/kg		3	L1	0-2
			SB080B	ME3RJ7	36648	7/24/2007	mg/kg		3	L1	8-10
Aluminum	55,000	SSL-risk	7,270	4,190	14,100	4,190	21,300	20,600	15,300	16,200	7,960	9,690	18,500	16,700
Antimony	0.006	TACO	20.8	22.4	8 J+	9.8 J+	4.4 J+	5.5 J+	7.7 J+	7.6 J+	64.6	8.7 J+	3.9 J+	7.3 J+
Arsenic	0.0013	SSL-risk	24.6	29.6	11.6	21.5	4 J-	7.7 J-	17.5	5.1	101	7.1	16.2	5.3
Barium	2	TACO	205	204	125	113 J	78.5 J	69 J	222 J	75.3 J	291 J	62	128	40.2
Beryllium	0.004	TACO	1 J+	0.59 UJ	0.94 J+	0.77 J	1.6 J	1.8 J	1.8 J	1.1 J	0.92 J	1.3 J+	1.3 J+	0.91 J+
Cadmium	0.005	TACO	50.6	41.8	7.2	14.3	5.6	3.2	39.7	5	223	48.2 J	25.3 J	3.8 J
Calcium	NC	--	4,410 J	5,580 J	4,120 J	759 J	43,400 J	26,300 J	25,900 J	25,500 J	31,500 J	4,090 J	8,000 J	2,460 J
Chromium (total)	0.10	TACO	20.3 J	11.4 J	28.5 J	9.9 J	29 J	32.4 J	27.2 J	39.7 J	18.8 J	26.8	21.8	42.6
Cobalt	0.49	SSL-risk	15.2 J	8.2 J	8.4 J	10.4 J	10.7 J	11.3 J	19.4 J	15 J	21 J	15	16.1	18
Copper	0.65	TACO	199	163	95.3	185	11	1	68.6	5.2	792	52.5	53.8	1.8 J
Cyanide	0.2	TACO	0.22 J	0.15 J	0.12 J	0.75 J	0.31 J	3.2 U	1.1 J	0.54 J	0.93 J	0.93 J	0.8 J	2.9 U
Iron	5	TACO	47,700	36,400	61,600	29,300 J	32,600 J	36,700 J	39,000 J	55,600 J	41,100 J	82,500	27,300	60,300
Lead	0.0075	TACO	2,500	14,300	380	1,540	90.6	26.6	9,940	76.8	4,010	173 J	373 J	12.5 J
Magnesium	NC	--	1,650	1,830	2,530	242 J	8,190 J	9,010 J	4,200 J	7,130 J	11,800 J	660	5,020	8,040
Manganese	0.15	TACO	402 J	329 J	127 J	157 J	497 J	271 J	1,370 J	695 J	1,020 J	309	345	220
Mercury	0.002	TACO	6.8	53.3	0.56	0.57	0.13 U	0.13 U	67.9	0.12 U	24.8	0.1 J	0.15 J	0.12 UJ
Nickel	0.10	TACO	19.5 J	9.3 J	34.4 J	7.1 J	40.3 J	42.2 J	36.4 J	46.6 J	32.4 J	24.3	28.4	48.2
Potassium	NC	--	1,350 J	1,190 J	1,550 J	583 UJ	3,460 J	3,800 J	2,600 J	1,800 J	901 J	955 J	1,460 J	2,210 J
Selenium	0.05	TACO	7.2	25.7	2.9 J	5.2	4.4 U	4.4 U	42.1	0.89 J	5	4.4 U	4.7 U	4.1 U
Silver	0.05	TACO	4.5 J+	6.4 J+	3.7 J+	3.9 J+	2.5 J+	2.6 J+	5.5 J+	3.9 J+	20.9	6.8 J+	2.8 J+	4.2 J+
Sodium	NC	--	794 J	787 J	381 J	583 U	478 J-	524 J-	639 U	134 J-	R	460 J	603 J	60.1 J
Thallium	0.002	TACO	3.2 U	3 U	3.4 U	2.9 U	3.1 U	3.2 U	3.2 U	3 U	3.2 U	R	3.3 UJ	R
Vanadium	0.049	TACO	22.4 J	15.2 J	37.4 J	9.9 J-	38.9	35.9	31	66	22.7	40.3 J	21.3 J	84.2 J
Zinc	5	TACO	7,570 J	7,030 J	1,990 J	2,920	423	63	15,800	150	94,300	3,780 J	8,200 J	237 J

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB265B ME3RJ8 36648 7/24/2007 mg/kg SB080B 3 L1 8-10	SB081A ME3RH7 36648 7/24/2007 mg/kg 3 L2, L3 0-2	SB081B ME3RH8 36648 7/24/2007 mg/kg 3 L4 4-5	SB082A ME3RH5 36648 7/24/2007 mg/kg 3 L1, L2 0-2	SB082B ME3RH6 36648 7/24/2007 mg/kg 3 L4 10-12	SB083A ME3RJ2 36648 7/24/2007 mg/kg 3 L2, L3 0-2	SB083B ME3RJ3 36648 7/24/2007 mg/kg 3 L4 8-10	SB084A ME3RJ9 36648 7/24/2007 mg/kg 3 L1 0-2	SB084B ME3RK0 36648 7/24/2007 mg/kg 3 L1 8-10	SB085A ME3RK4 36648 7/25/2007 mg/kg 3 L4 0-2	SB085B ME3RK5 36648 7/25/2007 mg/kg 3 L1 8-10	SB086A ME3RK7 36648 7/25/2007 mg/kg 3 L4 0-2
Aluminum	55,000	SSL-risk		**15,100**	**7,770**	**13,000**	**2,560**	**12,300**	**5,350**	**5,660**	**12,400**	**15,100**	**6,250**	**16,100**	**13,100**
Antimony	0.006	TACO		**6.7 J+**	**16.5**	**19.7**	**11.9 J+**	**14.9 J+**	**26.8**	**21.9**	**16.4**	**4 J**	**110**	**4 J+**	**7.6 J+**
Arsenic	0.0013	SSL-risk		**5.7**	**34.1**	**83.2**	**13.2**	**35.1**	**51**	**48.7**	**46.6 J**	**6.1 J**	**45.6**	**4.2**	**13.7**
Barium	2	TACO		**41.5**	**158 J**	**293 J**	**204 J**	**164 J**	**443 J**	**300 J**	**424**	**37.3**	**141**	**28.8**	**91.5**
Beryllium	0.004	TACO		**0.82 J+**	**1.6 J**	**2.4 J**	0.61 UJ	**2.3 J**	**0.74 J**	**0.67 J+**	**1.2 J**	**1.1 J**	**1 J+**	**0.73 J+**	**1 J+**
Cadmium	0.005	TACO		**4.3 J**	**63.6**	**42.1**	**24.2**	**18.1**	**148**	**132**	**147**	R	**159 J**	**2.6 J**	**43 J**
Calcium	NC	--		**2,710 J**	**7,470 J**	**12,800 J**	**1,560 J**	**23,800 J**	**4,530 J**	**57,700 J**	**9,620**	**20,000**	**30,700 J**	**4,460 J**	**23,800 J**
Chromium (total)	0.10	TACO		**42.4**	**17.1 J**	**14.1 J**	**8.6 J**	**30.7 J**	**15 J**	**17.1 J**	**22.1**	**51**	**19.6**	**44.4**	**31.1**
Cobalt	0.49	SSL-risk		**16.3**	**27.9 J**	**36.8 J**	6.1 UJ	**10.7 J**	**38.1 J**	**31.9 J**	**30.5**	**16.8**	**13.9**	**16.2**	**15.4**
Copper	0.65	TACO		**4.2**	**238**	**270**	**64.5**	**64.4**	**357**	**206**	**414 J**	**5.9 J**	**339**	**2.1 J**	**44.9**
Cyanide	0.2	TACO		2.8 U	**0.56 J**	**0.43 J**	**2.1 J**	**0.17 J**	**0.84 J**	**0.8 J**	**2.2 J**	2.9 U	**0.33 J**	2.8 U	**0.28 J**
Iron	5	TACO		**53,500**	**57,600 J**	**51,200 J**	**14,300 J**	**79,100 J**	**67,000 J**	**53,600 J**	**47,200**	**71,600**	**48,100**	**43,500**	**50,300**
Lead	0.0075	TACO		**19.8 J**	**7,390**	**7,690**	**7,010**	**2,230**	**8,610**	**8,870**	**3,790**	**13.1**	**1,350 J**	**10 J**	**763 J**
Magnesium	NC	--		**7,450**	**2,600 J**	**913 J**	**511 J**	**591 J**	**1,640 J**	**3,290 J**	**2,990**	**7,230**	**14,800**	**7,730**	**9,070**
Manganese	0.15	TACO		**225**	**629 J**	**406 J**	**29 J**	**141 J**	**604 J**	**904 J**	**1,310**	**292**	**571**	**217**	**513**
Mercury	0.002	TACO		0.11 UJ	**10.8**	**4.5**	**92.9**	**0.69**	**0.19**	**4.7**	**1.5**	0.12 U	**0.38 J**	0.11 UJ	**0.16 J**
Nickel	0.10	TACO		**44.9**	**21.5 J**	**94 J**	**5.2 J**	**33.1 J**	**16.8 J**	**13.3 J**	**58.1**	**47.2**	**25.4**	**47.1**	**32.2**
Potassium	NC	--		**1,930 J**	**690 J**	**829 J**	**848 J**	**3,830 J**	595 UJ	**628 J**	**2,060 J**	**1,940 J**	**967 J**	**2,330 J**	**5,050 J**
Selenium	0.05	TACO		3.9 U	**7.4**	**4.6**	**57**	**4.6**	**4 J**	**2.7 J**	4.6 U	4.1 U	4.1 U	3.9 U	4.4 U
Silver	0.05	TACO		**3.7 J+**	**14.3**	**21.7**	**11.1**	**6.7 J+**	**14.8**	**17.7**	**6.1**	R	**8.4 J+**	**3 J+**	**5.6 J+**
Sodium	NC	--		**133 J**	R	R	612 U	**427 J-**	R	R	660 UJ	**873 J**	**2,410 J+**	**147 J**	**3,110 J+**
Thallium	0.002	TACO		R	R	R	3.1 U	R	R	3 U	3.3 U	2.9 U	R	R	R
Vanadium	0.049	TACO		**73.8 J**	**26.8**	**30.2**	**10.2 J-**	**58.5**	**18.9**	**16.9**	**27.1**	**90.8**	**23.4 J**	**53.3 J**	**54 J**
Zinc	5	TACO		**863 J**	**35,300**	**26,800**	**3,230**	**3,940**	**66,900**	**60,800**	**64,200**	**139**	**50,200 J**	**113 J**	**7,110 J**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB086B ME3RK8 36648 7/25/2007 mg/kg 3 L1 8-10	SB087A ME3RK9 36648 7/25/2007 mg/kg 3 L1, L2 0-2	SB088A ME3RL0 36648 7/25/2007 mg/kg 3 L1 0-2	SB089A ME3RL1 36648 7/25/2007 mg/kg 3 L1, L2 0-2	SB090A ME3RL2 36648 7/25/2007 mg/kg 3 L4 0-2	SB091A ME3RL4 36648 7/25/2007 mg/kg 3 L1, L4 0-2	SB266A ME3RL5 36648 7/25/2007 mg/kg SB091A 3 L1, L4 0-2	SB092A ME3RM1 36648 7/25/2007 mg/kg 3 L2, L3 0-2	SB092B ME3RM2 36648 7/25/2007 mg/kg 3 L1 4-6	SB093A ME3RM3 36648 7/25/2007 mg/kg 3 L4 0-2	SB094A ME3RM6 36648 7/25/2007 mg/kg 3 L4 0-2	SB094B ME3RM7 36648 7/25/2007 mg/kg 3 L1 6-8
Aluminum	55,000	SSL-risk		12,300	9,300	11,900	8,330	9,390	8,870	9,550	8,940	1,050	4,410	6,090	23,300
Antimony	0.006	TACO		10.5 J+	48.3	23.1 J+	27.8	15.3	8.4 J+	8.4	25.3	21.8	74.6	14.5 J+	4.3 J+
Arsenic	0.0013	SSL-risk		33.1	85.6	46.4	45	20	24.9	30.2	67.5	11.9	37.3	50.9	2.8 U
Barium	2	TACO		269	460	462	306	182	216	203	169 J	207 J	93.3 J	332 J	136 J
Beryllium	0.004	TACO		0.98 J+	1.4 J+	1 J+	1.3 J+	1 J+	0.91 J+	0.96 J+	0.6 U	0.61 U	0.54 U	0.56 U	1.1
Cadmium	0.005	TACO		28.8 J	226 J	231 J	302 J	115 J	104 J	167 J	172 J	25 J	233 J	26.2 J	3.5 J
Calcium	NC	--		39,000 J	9,540 J	18,900 J	16,800 J	22,800 J	32,100 J	32,800 J	28,900 J	37,300 J	25,400 J	37,600 J	19,800 J
Chromium (total)	0.10	TACO		27.4	34.2	71.5	32.5	19.9	27.4	31.6	19.5 J	8.4 J	24.7 J	37.4 J	38.7 J
Cobalt	0.49	SSL-risk		23.7	33	13.5	22.6	14.4	13.3	11.8	8.1	1.8 J+	51	22.2	12.7
Copper	0.65	TACO		119	718	775	621	266	289	188	282 J	86.5 J	2,360 J	635 J	8 J
Cyanide	0.2	TACO		3.3 U	4	2.7 J	4.2	3.2	0.47 J	0.36 J	3 U	3.1 U	2.8 U	2.8 U	2.8 U
Iron	5	TACO		33,200	90,500	59,800	54,700	30,600	38,800	52,500	35,400 J	30,000 J	94,600 J	62,500 J	37,600 J
Lead	0.0075	TACO		3,650 J	6,700 J	2,380 J	3,190 J	1,920 J	1,180 J	850 J	33,700 J	49,100 J	4,000 J	192 J	8.9 J
Magnesium	NC	--		5,190	4,130	8,880	5,930	7,960	14,300	14,100	5,220 J	1,340 J	9,000 J	2,670 J	8,720 J
Manganese	0.15	TACO		1,380	658	780	623	608	1,270	1,050	514 J	37.4 J	1,290 J	1,210 J	265 J
Mercury	0.002	TACO		0.13 UJ	3.1 J	7 J	2.2 J	1.1 J	2.9 J	0.84 J	93.6	106	25	0.5	0.11 U
Nickel	0.10	TACO		44.4	50.9	38.9	35.2	32.3	22.9	26.8	20.4	1.5 J	278	25.3	50.8
Potassium	NC	--		6,320 J	2,110 J	3,240 J	2,850 J	1,740 J	5,370 J	1,950 J	1,610 J	2,570 J	595 J	1,740 J	6,080 J
Selenium	0.05	TACO		4.6 U	5.9	7.9	5.9	4 U	3.9 U	0.84 J+	118	211	9.7	1.5 J	4 U
Silver	0.05	TACO		13.7	27	14.6	14	7.3 J+	5.9 J+	6.7 J+	19.4	5.8 J+	21.7	6.7 J+	2.9 J+
Sodium	NC	--		4,780 J+	4,210 J+	3,470 J+	3,930 J+	1,290 J+	4,280 J+	1,050 J+	1,310	804	1,810	897	407 J-
Thallium	0.002	TACO		R	R	R	R	R	R	R	3 U	3.1 U	R	R	2.8 U
Vanadium	0.049	TACO		28.7 J	29.9 J	30.8 J	29.5 J	23.9 J+	29.9 J	30 J	17.2	11.7	20.1	24.8	26.1
Zinc	5	TACO		10,600 J	66,300 J	27,300 J	43,700 J	22,000 J	14,300 J	13,400 J	18,300	1,620 J	41,900 J	20,800 J	76.4 J

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	SB095A ME3RN0 36648 7/26/2007 mg/kg 3 L2, L4 0-2	SB095B ME3RN1 36648 7/26/2007 mg/kg 3 L4 8-10	SB096A ME3RN2 36648 7/26/2007 mg/kg 3 L4 0-2	SB096B ME3RN3 36648 7/26/2007 mg/kg 3 L4 8-10	SB097A ME3RN7 36648 7/26/2007 mg/kg 3 L1, L4 0-2	SB097B ME3RN8 36648 7/26/2007 mg/kg 3 L1, L4 8-10	SB098A ME3RN9 36648 7/26/2007 mg/kg 3 L4 0-2	SB099A ME3RP5 36648 7/26/2007 mg/kg 3 L4 0-2	SB099B ME3RP6 36648 7/26/2007 mg/kg 3 L1 4-6	SB100A ME3RF8 36648 7/23/2007 mg/kg 3 L2, L3 0-2	SB262 ME3RG0 36648 7/23/2007 mg/kg SB100A 3 L2, L3 0-2	SB100B ME3RF9 36648 7/23/2007 mg/kg 3 L1 6-8
Aluminum	55,000	SSL-risk	**9,490**	**2,820**	**6,560**	**4,140**	**6,100**	**9,370**	**8,540**	**8,850**	**10,700**	**8,220**	**9,090**	**15,600**
Antimony	0.006	TACO	**15.4 J+**	**8.2 J+**	**11.3 J+**	**13.8 J+**	**12.1 J+**	**8.1 J+**	**17.3 J**	**30.6**	7 U	**15**	**14.9**	**3.1 J**
Arsenic	0.0013	SSL-risk	**82.9**	**27.2**	**32.5**	**45.8**	**37.9**	**15.8**	**31.8**	**90.6**	**6.4**	**42.3 J**	**37.8 J**	**6.2 J**
Barium	2	TACO	**301 J**	**392 J**	**209 J**	**119 J**	**366 J**	**227 J**	**530 J**	**1,010**	**95.7**	**188**	**191**	**42.9**
Beryllium	0.004	TACO	**0.58 J+**	0.56 U	**0.58 J+**	0.6 U	0.59 U	**0.77 J+**	**0.77 J+**	**1.5**	**0.65 J+**	**1 J**	**1.1 J**	**0.95 J**
Cadmium	0.005	TACO	**105 J**	**25.5 J**	**120 J**	**118 J**	**126 J**	**101 J**	**114 J**	**143 J**	**1.8 J**	**103**	**94**	R
Calcium	NC	--	**14,400 J**	**9,650 J**	**3,270 J**	**5,570 J**	**5,820 J**	**35,400 J**	**6,420 J**	**15,800 J**	**174,000 J**	**26,300**	**9,950**	**3,140**
Chromium (total)	0.10	TACO	**159 J**	**16.8 J**	**58.6 J**	**12.3 J**	**15.8 J**	**19.1 J**	**38.8 J**	**34.6 J**	**20 J**	**17.5**	**18.3**	**41.9**
Cobalt	0.49	SSL-risk	**13.6**	**11.3**	**19.8**	**20.7**	**32.5**	**20.1**	**32.2**	**41.7 J**	**13.1 J**	**16.6**	**17.4**	**15.9**
Copper	0.65	TACO	**319 J**	**457 J**	**418 J**	**334 J**	**314 J**	**191 J**	**353 J**	**523**	**62.1**	**559 J**	**528 J**	**3.2 J**
Cyanide	0.2	TACO	**0.27 J**	2.9 U	2.9 U	3 U	3 U	3 U	3 U	**0.13 J**	2.9 U	**0.47 J**	**0.9 J**	2.9 U
Iron	5	TACO	**29,700 J**	**19,000 J**	**25,000 J**	**33,000 J**	**25,800 J**	**31,800 J**	**37,500 J**	**75,200 J**	**15,900 J**	**34,200**	**34,700**	**43,100**
Lead	0.0075	TACO	**1,520 J**	**7,430 J**	**8,240 J**	**9,940 J**	**6,580 J**	**4,660 J**	**7,290 J**	**6,860 J**	**19.1 J**	**1,080**	**1,190**	**8.1 J-**
Magnesium	NC	--	**3,720 J**	**721 J**	**1,210 J**	**1,150 J**	**2,550 J**	**3,400 J**	**1,290 J**	**2,710**	**4,340**	**7,320**	**4,020**	**8,400**
Manganese	0.15	TACO	**2,370 J**	**2,570 J**	**371 J**	**625 J**	**1,570 J**	**1,290 J**	**2,220 J**	**2,080 J**	**3,350 J**	**1,390**	**939**	**260**
Mercury	0.002	TACO	**1.8**	**0.14**	**0.38**	**0.12**	**0.15**	**0.073 J**	**0.26**	**0.12 J**	0.12 U	**0.74**	**0.37**	0.12 U
Nickel	0.10	TACO	**71.6**	**1.9 J**	**9**	**6.9**	**23**	**12.1 J**	**26.5**	**57.9**	**36.7**	**56.5**	**69.8**	**48.6**
Potassium	NC	--	**1,390 J**	**387 J**	**650 J**	**286 J**	**855 J**	**2,090 J**	**877 J**	**2,060 J**	**4,170 J**	**1,150 J**	**1,220 J**	**2,030 J**
Selenium	0.05	TACO	3.9 U	**0.82 J**	**2.9 J**	**4.5**	**1.5 J**	**0.73 J**	**0.9 J**	**3.3 J**	4.1 U	4.1 U	**1.1 J**	4 U
Silver	0.05	TACO	**6.1 J+**	**4.8 J+**	**5.9 J+**	**10.8**	**10**	**7.1 J+**	**14.7**	**34.6**	**1.4 J+**	**4.3**	**2.9 J-**	1.1 UJ
Sodium	NC	--	**1,940 J**	**2,020**	**4,180**	**3,600**	**2,680**	**2,350**	**3,330**	**2,400 J+**	**467 J+**	584 UJ	611 UJ	574 UJ
Thallium	0.002	TACO	2.8 U	2.8 U	2.9 U	3 U	2.9 U	2.9 U	R	R	R	2.9 U	3.1 U	2.9 U
Vanadium	0.049	TACO	**149**	**26.8**	**18.9**	**13.2**	**16.9**	**22.5**	**32.4**	**35.1 J**	**16.6 J**	**24.8**	**24.9**	**57.2**
Zinc	5	TACO	**38,900 J**	**48,800 J**	**105,000 J**	**84,700 J**	**69,200 J**	**54,700 J**	**13,300 J**	**64,900 J**	**82.4 J**	**32,300**	**44,100**	**81**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	SB101A ME3RK2 36648 7/25/2007 mg/kg 3 L4 0-2	SB101B ME3RK3 36648 7/25/2007 mg/kg 3 L1 8-10	SB102A ME3RF6 36648 7/23/2007 mg/kg 3 L1 0-2	SB102B ME3RF7 36648 7/23/2007 mg/kg 3 L1 4-6	SB103A ME3RG1 36648 7/23/2007 mg/kg 3 L4 0-2	SB103B ME3RG2 36648 7/23/2007 mg/kg 3 L1 6-8	SB104A ME3RG3 36648 7/24/2007 mg/kg 4 L1 0-2	SB104B ME3RG4 36648 7/24/2007 mg/kg 4 L1 8-10	SB105A ME3RG5 36648 7/24/2007 mg/kg 4 L1, L2 0-2	SB105B ME3RG6 36648 7/24/2007 mg/kg 4 L4 4-6	SB106A ME3RG7 36648 7/24/2007 mg/kg 4 L2, L3 0-2	SB106B ME3RG8 36648 7/24/2007 mg/kg 4 L1 8-10
Aluminum	55,000	SSL-risk	**13,200**	**14,200**	**2,860**	**4,880**	**5,880**	**13,000**	**4,930**	**19,100**	**15,200**	**7,270**	**3,670**	**23,100**
Antimony	0.006	TACO	**15.6 J+**	**3 J+**	**12**	**1.7 J**	**16.6**	**3.4 J**	**10 J+**	**8.4 J+**	**4.5 J+**	**6.7 J+**	**10.7 J**	**7.5 J+**
Arsenic	0.0013	SSL-risk	**36.1**	**8**	**35 J**	**6.8 J**	**34.5 J**	**6 J**	**17.6**	**8.8**	**6.7 J-**	**6.4 J-**	**61.4**	**5.4 J-**
Barium	2	TACO	**199**	**36.3**	**325**	**64.6**	**83.9**	**20.1 J**	**63.2 J**	**75.8 J**	**91.5 J**	**74.8 J**	**45 J**	**247 J**
Beryllium	0.004	TACO	**1.5 J**	**1.2 J+**	0.61 UJ	0.57 UJ	**0.9 J**	0.57 UJ	**1.1 J**	**1.5 J**	**0.92 J**	**0.93 J**	0.55 UJ	**1.7 J**
Cadmium	0.005	TACO	**145 J**	**6.6 J**	**56.2**	**4.6**	**87.8**	**1.8**	**23.9**	**3.5**	**8**	**7.1**	**6.9**	**4.5**
Calcium	NC	--	**18,800 J**	**14,600 J**	**155,000**	**17,200**	**28,500**	**6,180**	**27,500 J**	**37,700 J**	**42,400 J**	**35,600 J**	**33,500 J**	**38,700 J**
Chromium (total)	0.10	TACO	**26.1**	**46.5**	**11.7**	**9.9**	**21.6**	**35.9**	**13.9 J**	**32.8 J**	**23.5 J**	**14.4 J**	**11.4 J**	**37.9 J**
Cobalt	0.49	SSL-risk	**16.8**	**15.6**	**9.7**	**4.6 J**	**9.5**	**14.3**	**9.8 J**	**10.8 J**	**13.4 J**	**8.2 J**	**5.5 J**	**12.1 J**
Copper	0.65	TACO	**277**	**9.7**	**208 J**	**31.7 J**	**232 J**	**9.2 J**	**65.9**	2.8 U	**36**	**42.1**	**74.6**	**8.1**
Cyanide	0.2	TACO	**0.33 J**	2.7 U	**0.3 J**	**2.1 J**	**0.47 J**	2.8 U	**0.37 J**	2.8 U	**0.45 J**	**0.38 J**	**0.2 J**	**0.15 J**
Iron	5	TACO	**43,000**	**66,000**	**30,700**	**14,300**	**36,000**	**50,700**	**39,400 J**	**37,500 J**	**25,800 J**	**30,000 J**	**30,200 J**	**47,000 J**
Lead	0.0075	TACO	**1,040 J**	**35.9 J**	**459**	**59.2**	**650**	**31.1**	**133**	**16.7**	**26.8**	**50.7**	**72.4**	**16**
Magnesium	NC	--	**5,110**	**7,090**	**67,800**	**9,560**	**12,400**	**7,290**	**13,500 J**	**9,760 J**	**9,760 J**	**11,700 J**	**16,200 J**	**10,300 J**
Manganese	0.15	TACO	**562**	**594**	**828**	**389**	**474**	**259**	**398 J**	**326 J**	**1,170 J**	**649 J**	**293 J**	**327 J**
Mercury	0.002	TACO	**1.4 J**	0.11 UJ	**0.25**	0.12 U	**1.1**	**0.21**	**0.11 J-**	0.11 U	**0.066 J-**	**0.067 J-**	**0.13 J-**	0.12 U
Nickel	0.10	TACO	**15.8**	**41.6**	**29.9**	**18.6**	**23.4**	**43.6**	**20.3 J**	**39.6 J**	**37.6 J**	**21.9 J**	**23.9 J**	**46.8 J**
Potassium	NC	--	**2,310 J**	**2,040 J**	**464 J**	**1,010 J**	**1,060 J**	**1,870 J**	**928 J**	**4,720 J**	**6,100 J**	**2,560 J**	**577 J**	**6,310 J**
Selenium	0.05	TACO	4.2 U	3.8 U	4.2 U	4 U	4.3 U	4 U	**1.6 J**	3.9 U	3.9 U	**1.1 J**	3.8 U	**0.83 J**
Silver	0.05	TACO	**7.1 J+**	**4.7 J+**	**2.1 J-**	1.1 UJ	**2.8 J-**	1.1 UJ	**3 J+**	**2.7 J+**	**2.1 J+**	**2.2 J+**	**2.1 J+**	**3.4 J+**
Sodium	NC	--	**2,180 J+**	**349 J**	605 UJ	574 UJ	608 UJ	**605 J**	**539 J**	**1,130**	**383 J**	**387 J**	**177 J-**	**350 J**
Thallium	0.002	TACO	R	R	3 U	2.9 U	3 U	2.8 U	R	2.8 U	2.8 U	2.8 U	2.7 U	2.9 U
Vanadium	0.049	TACO	**38.7 J**	**93.2 J**	**10.3**	**17.3**	**23.1**	**58**	**20.8**	**49**	**27.2**	**23.3**	**19**	**39.5**
Zinc	5	TACO	**39,300 J**	**700 J**	**15,000**	**990**	**13,900**	**474**	**3,160**	**47.7**	**819**	**774**	**833**	**86.7**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	Location ID / Sample ID / Case / Sampling date / Unit / Duplicate info / Investigation area / Lithology / Depth (ft bgs)											
			SB107A / ME3SD1 / 36697 / 8/8/2007 / mg/kg / / 3 / L4 / 0-2	SB107B / ME3SD2 / 36697 / 8/8/2007 / mg/kg / / 3 / L3 / 8-10	SB108A / ME3SD3 / 36697 / 8/8/2007 / mg/kg / / 3 / L4 / 0-2	SB302A / ME3SD4 / 36697 / 8/8/2007 / mg/kg / SB108A / 3 / L4 / 0-2	SB108B / ME3SD5 / 36697 / 8/8/2007 / mg/kg / / 3 / L1 / 8-10	SB109A / ME3SD6 / 36697 / 8/8/2007 / mg/kg / / 3 / L1 / 0-2	SB109B / ME3SD7 / 36697 / 8/8/2007 / mg/kg / / 3 / L1 / 8-10	SB110A / ME3SE0 / 36697 / 8/8/2007 / mg/kg / / 3 / L1 / 0-2	SB110B / ME3SE1 / 36697 / 8/8/2007 / mg/kg / / 3 / L1 / 8-10	SB111A / ME3SD8 / 36697 / 8/8/2007 / mg/kg / / 3 / L4 / 0-2	SB111B / ME3SD9 / 36697 / 8/8/2007 / mg/kg / / 3 / L1 / 8-10	SB112A / ME3RZ2 / 36664 / 7/31/2007 / mg/kg / / 4 / L1 / 0-2
Aluminum	55,000	SSL-risk	**30,500**	**4,920**	**12,200**	**9,840**	**12,300**	**11,200**	**17,200**	**15,200**	**14,600**	**10,300**	**16,000**	**9,150**
Antimony	0.006	TACO	**4.1 J**	**2.2 J**	**2.2 J**	7 U	**1.9 J**	**1.9 J**	**2.4 J**	**1.7 J**	**2.1 J**	**5.6 J**	**1.8 J**	7.2 U
Arsenic	0.0013	SSL-risk	**32.9**	**17.5**	**5.9**	**5.5**	**11**	**5.9**	**12.8**	**7.9**	**9.6**	**14.4**	**4.4**	**5**
Barium	2	TACO	**73.7**	**18.4 J**	**52.6**	**41.9**	**75.5**	**80.2**	**84.9**	**90.6**	**60**	**128**	**38.4**	**58.2**
Beryllium	0.004	TACO	**1.6 J**	**0.8 J+**	**0.85 J**	**0.75 J+**	**1.1 J**	**0.64 J+**	**1.2 J**	**1.2 J**	**1.3 J**	**0.6 J+**	**1.3 J**	0.6 UJ
Cadmium	0.005	TACO	**2 J+**	**2.5 J+**	**6.7**	**2.2 J+**	**31.8**	**11.3**	**44.9**	**4.3**	**0.93 J+**	**54.8**	**0.69 J+**	**0.11 J**
Calcium	NC	--	**4,290**	**16,500**	**36,200**	**60,300**	**64,600**	**63,000**	**9,960**	**10,500**	**5,720**	**13,200**	**8,760**	**57,900**
Chromium (total)	0.10	TACO	**62.5**	**19.4**	**29.8**	**16.6**	**17.7**	**22.3**	**32.1**	**28.8**	**29.2**	**17.9**	**28.4**	**17.9**
Cobalt	0.49	SSL-risk	**9.9**	**1.7 J**	**14.4**	**10.5**	**18**	**9.9**	**15.3**	**11.3**	**15.6**	**9**	**10.8**	**11.3**
Copper	0.65	TACO	**49.9 J**	**43.5 J**	**30.2 J**	**27.9 J**	**56.9 J**	**33.4 J**	**40.6 J**	**28.9 J**	**39.2 J**	**116 J**	**31.2 J**	**17.7**
Cyanide	0.2	TACO	3.2 U	3.1 U	3 U	3 U	3.2 U	3 U	3.5 U	**0.15 J**	3.1 U	3 U	3.3 U	3 U
Iron	5	TACO	**47,500**	**38,000**	**35,500**	**14,900**	**19,500**	**21,000**	**44,600**	**34,600**	**32,800**	**22,300**	**26,600**	**19,100 J**
Lead	0.0075	TACO	**104**	**62.5**	**53.1**	**20.9**	**175**	**149**	**168**	**28.4**	**28.9**	**446**	**14.3**	**11.3**
Magnesium	NC	--	**1,810 J**	**332 J**	**4,600 J**	**4,430 J**	**4,260 J**	**8,690 J**	**5,300 J**	**4,710 J**	**5,680 J**	**5,040 J**	**5,510 J**	**28,600**
Manganese	0.15	TACO	**218**	**29.9**	**590**	**481**	**1,730**	**807**	**454**	**419**	**191**	**356**	**412**	**402 J**
Mercury	0.002	TACO	0.13 U	0.12 U	**0.19 J-**	**0.14 J-**	**0.079 J-**	**1.4**	**0.065 J**	0.13 U	0.12 U	**1.6**	0.13 U	**0.085 J-**
Nickel	0.10	TACO	**74.3**	**8.5**	**43.7 J**	**25.5 J**	**34.2**	**34.5 J**	**48.8 J**	**34.6 J**	**40.3 J**	**28.1 J**	**39.1 J**	**26.7**
Potassium	NC	--	**8,090 J**	**3,430 J**	**2,660 J**	**2,680 J**	**2,030 J**	**2,910 J**	**2,680 J**	**2,360 J**	**1,940 J**	**1,580 J**	**2,800 J**	**2,740 J**
Selenium	0.05	TACO	**3.1 J**	**0.87 J**	4.2 U	4.1 U	4.3 U	4.1 U	4.9 U	4.4 U	4.4 U	**1.6 J**	4.6 U	4.2 U
Silver	0.05	TACO	**0.51 J**	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.4 U	1.3 U	1.3 U	**1.4**	1.3 U	1.2 UJ
Sodium	NC	--	**2,200**	**2,120**	374 U	586 U	618 U	592 U	706 U	627 U	628 U	598 U	653 U	**4,190**
Thallium	0.002	TACO	3.2 UJ	3.1 UJ	3 UJ	2.9 UJ	3.1 UJ	3 UJ	3.5 UJ	3.1 UJ	3.1 UJ	3 UJ	3.3 UJ	3 UJ
Vanadium	0.049	TACO	**47.3**	**26**	**30.9**	**13.6**	**26**	**23.5**	**43.4**	**40.4**	**39.8**	**24.7**	**33.9**	**18.8**
Zinc	5	TACO	**297**	**61.5**	**1,440**	**350**	**3,310**	**1,720**	**4,910**	**660**	**143**	**8,520**	**72.9**	**52.9**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	Location ID / Sample ID / Case / Sampling date / Unit / Duplicate info / Investigation area / Lithology / Depth (ft bgs)											
			SB112B / ME3RZ3 / 36664 / 7/31/2007 / mg/kg / 4 / L1 / 8-10	SB113A / ME3RZ4 / 36664 / 7/31/2007 / mg/kg / 4 / L1 / 0-2	SB114A / ME3SE8 / 36697 / 8/8/2007 / mg/kg / 4 / L1 / 0-2	SB114B / ME3SE9 / 36697 / 8/8/2007 / mg/kg / 4 / L1, L4 / 8-10	SB115A / ME3SE6 / 36697 / 8/8/2007 / mg/kg / 4 / L1 / 0-2	SB115B / ME3SE7 / 36697 / 8/8/2007 / mg/kg / 4 / L1 / 8-10	SB116A / ME3RL7 / 36648 / 7/25/2007 / mg/kg / 3 / L1, L4 / 0-2	SB116B / ME3RL8 / 36648 / 7/25/2007 / mg/kg / 3 / L2 / 8-10	SB118A / ME3RT3 / 36720 / 8/15/2007 / mg/kg / 3 / L2 / 0-2	SB119A / ME3RT4 / 36720 / 8/15/2007 / mg/kg / 3 / L2, L3 / 0-2	SB120A / ME3SH2 / 36697 / 8/9/2007 / mg/kg / 3 / L4 / 0-2	SB121A / ME3SH0 / 36697 / 8/9/2007 / mg/kg / 3 / L1 / 0-2
Aluminum	55,000	SSL-risk	**8,130**	**14,500**	**17,000**	**5,860**	**10,800**	**7,810**	**8,330**	**2,560**	**3,950**	**6,400**	**3,100**	**11,600**
Antimony	0.006	TACO	**1.6 J**	7 U	**2 J**	**1.6 J**	**1.6 J**	6.8 U	**13.5**	**5.7 J-**	**2.6 J-**	**448 J**	6.8 U	**1.9 J**
Arsenic	0.0013	SSL-risk	**5.9**	**0.57 J**	**9.4**	**4.3**	**12.4**	**61.4**	**187**	**40.3**	**32 J**	**76.5**	**3**	**1.6**
Barium	2	TACO	**32.2**	**45.3**	**144**	**54.8**	**89.6**	**124**	**227**	**203**	**397**	**540 J-**	**29.1**	**30.3**
Beryllium	0.004	TACO	0.59 UJ	**0.86 J**	**0.58 J+**	**0.77 J+**	**0.96 J**	**1.6 J**	0.74 UJ	0.57 U	**0.55 J+**	**0.93 J+**	0.57 U	**0.9 J+**
Cadmium	0.005	TACO	**0.26 J**	0.58 U	**4.5**	**5.7**	**9.9**	**18.1**	**607 J**	**322 J**	**102**	**206**	**146**	**64.8**
Calcium	NC	--	**60,100**	**22,600**	**2,580**	**3,540**	**3,980**	**5,360**	**5,250 J**	**5,670**	**1,660**	**2,380 J**	**75,700 J**	**7,620 J**
Chromium (total)	0.10	TACO	**18.4**	**21.7**	**22.2**	**18.1**	**24.9**	**19.6**	**13.8**	**11.2**	**12.3 J**	**16.3**	**6.1 J**	**17.7 J**
Cobalt	0.49	SSL-risk	**11.7**	**10.3**	**7.3**	**3.8 J**	**10.1**	**21**	**19.4**	**20.7**	**19.5**	**33.2**	**2.5 J**	**35.5 J**
Copper	0.65	TACO	**17.3**	**30.6**	**21.8 J**	**16 J**	**43.8 J**	**304 J**	**663**	**554 J**	**712 J**	**895**	**6.5**	**26.4**
Cyanide	0.2	TACO	3 U	2.9 U	3.1 U	3 U	2.9 U	2.8 U	2.9 U	2.9 U	3.7 UJ	3.6 UJ	2.8 U	2.9 U
Iron	5	TACO	**18,600 J**	**20,300 J**	**23,900**	**14,500**	**26,000**	**24,900**	**46,700**	**59,500**	**48,600**	**43,500**	**7,440 J**	**14,300 J**
Lead	0.0075	TACO	**15.9**	**3.6**	**13.6**	**41**	**62**	**168**	**1,080 J**	**545 J**	**2,180 J**	**2,920**	**16.9**	**63.8**
Magnesium	NC	--	**31,200**	**9,370**	**3,430 J**	**1,370 J**	**2,290 J**	**2,910 J**	**1,510**	**779**	**513 J**	**1,290**	**8,320**	**9,180 J**
Manganese	0.15	TACO	**449 J**	**355 J**	**314**	**72.3**	**153**	**130**	**1,330**	**87.3**	**170**	**1,390**	**354 J**	**333 J**
Mercury	0.002	TACO	**0.22 J-**	**0.17 J-**	0.13 U	0.12 U	0.11 U	0.11 U	**4.5 J**	0.11 U	**1**	**2.2**	0.11 UJ	0.12 U
Nickel	0.10	TACO	**24.9**	**36**	**18.6 J**	**10.1 J**	**24.6 J**	**42.2 J**	**7.8**	**32.2**	**28.9**	**50.6**	**1.8 J**	**47.4 J**
Potassium	NC	--	**2,530 J**	**2,580 J**	**1,340 J**	**1,740 J**	**2,040 J**	**2,350 J**	**982 J**	**114 J**	739 U	723 U	**331 J**	**2,480 J**
Selenium	0.05	TACO	4.1 U	4.1 U	4.4 U	4.2 U	4 U	4 U	**24.6**	**4.5**	**4.7 J-**	**2.6 J**	4 U	4.1 U
Silver	0.05	TACO	1.2 UJ	1.2 UJ	1.3 U	**0.36 J**	1.1 U	**0.81 J**	**14.1**	**1 J**	**6.4 J+**	**14.2 J**	**0.22 J**	**0.76 J+**
Sodium	NC	--	**5,150**	583 U	627 U	605 U	566 U	**889**	**2,290 J+**	574 UJ	739 U	R	**338 J-**	**739 J-**
Thallium	0.002	TACO	3 UJ	2.9 UJ	3.1 UJ	3 UJ	2.8 UJ	2.8 UJ	3.2 UJ	2.9 U	3.7 U	3.6 U	2.8 U	2.9 U
Vanadium	0.049	TACO	**16.8**	**17.6**	**39.4**	**22.5**	**32.3**	**39.4**	**17.2 J+**	**13.7**	**12.5**	**19.7**	**8.1 J-**	**10.3 J-**
Zinc	5	TACO	**57**	**50.2**	**714**	**1,280**	**6,040**	**41,000**	**46,400 J**	**43,500**	**38,200**	**88,400**	**3,790 J**	**8,330 J**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	Location ID / Sample ID / Case / Sampling date / Unit / Duplicate info / Investigation area / Lithology / Depth (ft bgs)											
			SB122A / ME3SG9 / 36697 / 8/9/2007 / mg/kg / / 3 / L1, L4 / 0-2	SB308A / ME3SH1 / 36697 / / mg/kg / SB122A / 3 / L1, L4 / 0-2	SB123A / ME3SG5 / 36697 / 8/9/2007 / mg/kg / / 3 / L1, L4 / 0-2	SB123B / ME3SG6 / 36697 / 8/9/2007 / mg/kg / / 3 / L1 / 8-10	SB124A / ME3SG2 / 36697 / 8/9/2007 / mg/kg / / 3 / L1, L4 / 0-2	SB124B / ME3SG3 / 36697 / 8/9/2007 / mg/kg / / 3 / L1 / 4-6	SB125A / ME3SJ8 / 36697 / 8/10/2007 / mg/kg / / 3 / L4 / 0-2	SB125B / ME3SJ9 / 36697 / 8/10/2007 / mg/kg / / 3 / L1 / 6-8	SB126A / ME3SJ6 / 36697 / 8/10/2007 / mg/kg / / 3 / L4 / 0-2	SB126B / ME3SJ7 / 36697 / 8/10/2007 / mg/kg / / 3 / L4 / 4-6	SB127A / ME3RX2 / 36664 / 7/30/2007 / mg/kg / / 3 / L4 / 0-2	SB127B / ME3RX3 / 36664 / 7/30/2007 / mg/kg / / 3 / L1, L4 / 8-10
Aluminum	55,000	SSL-risk	**9,850**	**12,000**	**13,200**	**13,200**	**22,700**	**9,560**	**9,710**	**1,950**	**12,400**	**15,800**	**11,400**	**9,570**
Antimony	0.006	TACO	**1.5 J**	**1.6 J**	**3.2 J**	**3.2 J**	**12.4**	7.1 U	**9.6 J+**	**3 J+**	**11.7**	**6.5 J+**	**4.8 J**	**7.2**
Arsenic	0.0013	SSL-risk	**3.4**	**4.1**	**3.7**	**2.3**	**3.1**	**4.9**	**38.7 J**	**26.5 J**	**48.2 J**	**26 J**	**9.6 J**	**16.7 J**
Barium	2	TACO	**12.5 J**	**21.5 J**	**17.3 J**	**38.1**	**14.3 J**	**103**	**173**	29.9 U	**206**	**187**	**46.1**	**114**
Beryllium	0.004	TACO	**0.65 J+**	**0.9 J+**	**0.77 J+**	**0.81**	**0.87 J+**	**0.6 J+**	**2.1 J**	0.75 UJ	**1.8 J**	**1.3 J**	0.57 U	**0.59 J+**
Cadmium	0.005	TACO	**0.55 J-**	**70.7**	**1.8 J-**	**0.73 J-**	**33.3**	**22.2**	**164**	**36.2**	**345**	**28.4**	**83.8 J**	**103 J**
Calcium	NC	--	**13,200 J**	**9,610 J**	**25,100 J**	**28,700 J**	**27,900 J**	**75,400 J**	**18,400**	**19,500**	**10,600**	**26,400**	**1,640 J**	**4,360 J**
Chromium (total)	0.10	TACO	**14.8 J**	**18.7 J**	**22 J**	**24.2 J**	**23.9 J**	**27.2 J**	**146**	**11.8**	**27.8**	**23.9**	**39.3**	**20.1**
Cobalt	0.49	SSL-risk	**31.6 J**	**27 J**	**9.9 J**	**8.7 J**	**8.2 J**	**17.7 J**	**15.3**	**2.1 J+**	**17.3**	**26.2**	**6.9 J**	**11.5 J**
Copper	0.65	TACO	**159**	**21.5**	**9.6**	**13.3**	**51.4**	**75.4**	**445**	**21.6**	**330**	**188**	**72.1**	**259**
Cyanide	0.2	TACO	2.8 U	3 U	2.8 U	2.8 U	3.1 U	2.9 U	**0.21 J**	**0.14 J**	**0.15 J**	2.9 U	**0.15 J**	**0.12 J**
Iron	5	TACO	**16,100 J**	**16,200 J**	**27,000 J**	**25,300 J**	**25,200 J**	**18,300 J**	**50,700**	**34,900**	**59,600**	**40,100**	**9,010**	**20,400**
Lead	0.0075	TACO	**17.7**	**38.2**	**58.7**	**6.4**	**185**	**474**	**1,670**	**1,210**	**1,010**	**1,840**	**450 J**	**1,040 J**
Magnesium	NC	--	**6,560 J**	**9,540**	**8,120 J**	**8,440**	**6,030 J**	**6,680 J**	**3,480**	747 U	**2,180**	**3,180**	**758**	**1,140**
Manganese	0.15	TACO	**148 J**	**326 J**	**387 J**	**486 J**	**104 J**	**1,570 J**	**677**	**26.2**	**619**	**712**	**154 J**	**203 J**
Mercury	0.002	TACO	0.11 U	**0.054 J-**	**0.057 J-**	0.11 UJ	**0.48 J-**	**0.42 J-**	**3**	**2**	**0.31**	0.12 U	**0.42**	**0.36**
Nickel	0.10	TACO	**66.5 J**	**55.2 J**	**37 J**	**36 J**	**39.3 J**	**42.3 J**	**33.7**	**6.2**	**11**	**33.2**	R	R
Potassium	NC	--	**2,700 J**	**2,740 J**	**3,730 J**	**3,370 J**	**2,020 J**	**3,480 J**	**1,370 J**	**2,410 J**	**907 J**	**1,960 J**	**1,240 J**	**940 J**
Selenium	0.05	TACO	**51.8**	4.2 U	**0.58 J**	3.9 U	**1.6 J**	**6**	**6.6**	**11.8**	**3.7 J**	**1.7 J**	**0.79 J**	**1.5 J**
Silver	0.05	TACO	**0.92 J+**	**0.82 J+**	**1.6 J+**	**1.2 J+**	**1.2 J+**	**2.2 J+**	**6.6 J+**	**1.9 J+**	**4.8 J+**	**4.7 J+**	**2.3 J**	**2.6 J+**
Sodium	NC	--	**243 J-**	**481 J-**	**304 J-**	**360 J-**	**405 J-**	**559 J-**	**2,580 J+**	**2,020 J+**	**3,190 J+**	**920 J+**	**4,280 J+**	**3,970 J+**
Thallium	0.002	TACO	2.8 U	3 U	2.8 U	2.8 U	3.1 U	2.9 U	R	3.7 U	3 U	2.9 U	2.8 UJ	2.9 UJ
Vanadium	0.049	TACO	**11.5 J-**	**9.7 J-**	**15.2 J-**	**14.5 J-**	**14.1 J-**	**13.2 J-**	**31.5**	**10.7 J-**	**29**	**39.3**	**14.6**	**16.9**
Zinc	5	TACO	**48.2 J**	**5,110 J**	**451 J**	**54.7 J**	**6,320 J**	**2,160 J**	**42,000**	**6,450**	**45,700**	**16,400**	**57,000 J**	**56,200 J**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	SB128A ME3RW2 36664 7/30/2007 mg/kg 3 L4 0-2	SB281A ME3RW6 36664 7/30/2007 mg/kg SB128A 3 L4 0-2	SB128B ME3RW3 36664 7/30/2007 mg/kg 3 L4 8-10	SB129A ME3RX0 36664 7/30/2007 mg/kg 2 L4 0-2	SB129B ME3RX1 36664 7/30/2007 mg/kg 2 L1 4-6	SB130A ME3RW7 36664 7/30/2007 mg/kg 2 L1 0-2	SB130B ME3RW8 36664 7/30/2007 mg/kg 2 L4 8-10	SB282B ME3RW9 36664 7/30/2007 mg/kg SB130B 2 L4 8-10	SB131A ME3RS9 36664 7/30/2007 mg/kg 2 L4 0-2	SB131B ME3RT0 36664 7/30/2007 mg/kg 2 L4 4-6	SB132A ME3RT1 36664 7/30/2007 mg/kg 2 L4 0-2	SB132B ME3RT2 36664 7/30/2007 mg/kg 2 L4 8-10
Aluminum	55,000	SSL-risk	**8,400**	**8,770**	**6,240**	**6,450**	**11,900**	**12,200**	**5,390**	**3,680**	**10,400**	**5,840**	**10,500**	**11,900**
Antimony	0.006	TACO	**4.2 J**	**7 J**	**2.5 J**	**17.1**	**2.3 J**	**2.2 J**	**2.8 J**	**6.9 J**	**4.8 J**	**10.4**	**1.9 J**	**4 J**
Arsenic	0.0013	SSL-risk	**35.9**	**45.1**	**37.1**	**48.7 J**	**4.3 J**	**17.1**	**25.4**	**29.1 J**	**32.6**	**30.6**	**22.1**	**8.7**
Barium	2	TACO	**213**	**246**	**181**	**270**	**50.8**	**159**	**296**	**471**	**199**	**85.2**	**771**	**181**
Beryllium	0.004	TACO	**1.7**	**1.2**	0.59 U	**0.96**	**0.75 J+**	**1.1**	**0.6**	0.59 U	**1.6**	**0.84**	**0.75**	**0.71**
Cadmium	0.005	TACO	**111**	**147**	**70**	**197 J**	**6.1 J**	**43.4**	**117**	**133 J**	**38.9**	**31.6**	**34.3**	**48.7**
Calcium	NC	--	**8,090**	**9,690**	**4,070**	**52,100 J**	**32,900 J**	**5,010**	**12,300**	**2,130 J**	**2,360**	**1,010**	**4,800**	**3,410**
Chromium (total)	0.10	TACO	**19.6**	**29.9**	**22.5**	**19.5**	**24.2**	**21**	**14.8**	**16.1**	**17.1**	**9.3**	**21.2**	**29.2**
Cobalt	0.49	SSL-risk	**20.1**	**23.1**	**28.5**	**14 J**	**22.6 J**	**30.7**	**19.7**	**16.9 J**	**19.1**	**13.4**	**16.9**	**21.5**
Copper	0.65	TACO	**435**	**512**	**482**	**335**	**32.9**	**179**	**790**	**395**	**460**	**383**	**257**	**86.6**
Cyanide	0.2	TACO	**0.12 J**	**0.29 J**	**0.11 J**	**1.2 J**	2.9 U	**0.19 J**	**0.13 J**	**0.13 J**	**0.54 J**	**0.16 J**	3.2 U	**0.2 J**
Iron	5	TACO	**54,900**	**63,800**	**71,800**	**51,900**	**26,600**	**35,200**	**49,400**	**46,900**	**50,600**	**21,800**	**31,400**	**76,300**
Lead	0.0075	TACO	**930**	**1,800**	**5,030**	**1,210 J**	**17 J**	**1,350**	**2,370**	**2,340 J**	**2,570**	**6,260**	**4,020**	**1,230**
Magnesium	NC	--	**2,090**	**3,260**	**921**	**7,400**	**6,070**	**3,670**	**917**	**512 J**	585 U	644 U	**2,470**	**2,010**
Manganese	0.15	TACO	**430**	**1,600**	**305**	**1,330 J**	**347 J**	**571**	**293**	**92.2 J**	**138**	**193**	**307**	**540**
Mercury	0.002	TACO	**0.49**	**1.5**	**0.22**	**0.95**	**0.11**	0.13 U	**0.061 J**	0.11 U	**0.062 J-**	**0.26 J-**	**0.24 J-**	**0.088 J-**
Nickel	0.10	TACO	**46.1**	**53.4**	**51.5**	**11.4 J**	**39.6 J**	**44.9**	**31.3**	**10.2 J**	**35.2**	**77.7**	**31.9**	**44.9**
Potassium	NC	--	**1,050 J**	**1,080 J**	**465 J**	**788 J**	**3,470 J**	**2,930 J**	**548 J**	592 UJ	**314 J**	**321 J**	**1,460 J**	**2,940 J**
Selenium	0.05	TACO	**2.4 J**	**2.3 J**	**1.8 J**	**1.4 J**	4 U	4.5 U	**1.1 J**	**2.9 J**	**2.9 J**	**1.1 J**	**2.4 J**	**1.1 J**
Silver	0.05	TACO	**3**	**5.2**	**6.7**	**7.4 J+**	**1.2 J+**	**1.7**	**4.7**	**7.4 J+**	**4.7**	**11**	**2.1 J-**	**1.4 J-**
Sodium	NC	--	577 UJ	587 UJ	588 UJ	**2,620 J+**	**428 J**	643 UJ	583 UJ	**1,690 J+**	585 UJ	644 UJ	644 UJ	656 UJ
Thallium	0.002	TACO	2.9 UJ	2.9 UJ	2.9 UJ	3 UJ	2.9 UJ	3.2 UJ	2.9 UJ	3 UJ	2.9 UJ	3.2 UJ	3.2 UJ	3.3 UJ
Vanadium	0.049	TACO	**26.7**	**31.2**	**37.3**	**21.1**	**11.3**	**33.3**	**18.2**	**15.8**	**21.6**	**12.7**	**26.6**	**39.1**
Zinc	5	TACO	**34,200 J**	**34,700 J**	**66,900 J**	**35,100 J**	**541 J**	**26,800 J**	**26,200 J**	**26,700 J**	**21,900 J**	**39,600 J**	**38,500 J**	**12,000 J**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	SB133A ME3RR2 36648 7/27/2007 mg/kg 2 L1, L4 0-2	SB133B ME3RR3 36648 7/27/2007 mg/kg 2 L1 8-10	SB134A ME3RQ7 36648 7/26/2007 mg/kg 2 L1 0-2	SB269A ME3RQ9 36648 7/26/2007 mg/kg SB134A 2 L1 0-2	SB134B ME3RQ8 36648 7/26/2007 mg/kg 2 L2, L3 4-6	SB135A ME3RW0 36664 7/30/2007 mg/kg 3 L4 0-2	SB135B ME3RW1 36664 7/30/2007 mg/kg 3 L4 8-10	SB136A ME3RT8 36664 7/30/2007 mg/kg 3 L4 0-2	SB136B ME3RT9 36664 7/30/2007 mg/kg 3 L4 4-6	SB137A ME3RT6 36664 7/30/2007 mg/kg 3 L4 0-2	SB137B ME3RT7 36664 7/30/2007 mg/kg 3 L4 4-6	SB138A ME3RW4 36664 7/30/2007 mg/kg 3 L4 0-2
Aluminum	55,000	SSL-risk	**11,900**	**10,900**	**14,500**	**6,930**	**5,590**	**7,380**	**15,800**	**7,560**	**10,800**	**5,520**	**6,980**	**7,880**
Antimony	0.006	TACO	**12.1 J+**	**6 J+**	**8.3 J+**	**9.2 J+**	**8.9 J+**	**4.3 J**	6.6 U	**5.2 J**	**3.9 J**	7.2 U	**21.8**	**7.6**
Arsenic	0.0013	SSL-risk	**12.7**	**5.3**	**8.6**	**11.7**	**29.1**	**22.4**	**13.1**	**49.5**	**24.3**	**22.2**	**137**	**38.1**
Barium	2	TACO	**194**	**74.6**	**1,160**	**1,050**	**588**	**165**	**95.1**	**302**	**193**	**124**	**415**	**260**
Beryllium	0.004	TACO	**0.99**	0.6 U	0.56 U	**0.62 J+**	**0.85**	**0.88**	**1.7**	**0.83**	**1.3**	0.6 U	**0.61**	**0.92**
Cadmium	0.005	TACO	**47.6 J**	**23.1 J**	**43.9 J**	**41.5 J**	**72.1 J**	**777**	**79.4**	**79.8**	**59.9**	**106**	**41.1**	**123**
Calcium	NC	--	**15,400 J**	**73,000 J**	**18,400 J**	**33,600 J**	**7,940 J**	**4,260**	**12,300**	**6,400**	**7,760**	**3,060**	**4,070**	**3,330**
Chromium (total)	0.10	TACO	**25.7 J**	**18.6 J**	**35.1 J**	**35.9 J**	**17.7 J**	**17.7**	**8.1**	**19.9**	**16.9**	**14.9**	**15.6**	**31.4**
Cobalt	0.49	SSL-risk	**14.9 J**	**9.9 J**	5.6 UJ	**7.1 J**	**22.6 J**	**9.3**	**6.2**	**12.8**	**8.6**	**25.3**	**19.6**	**14.1**
Copper	0.65	TACO	**426**	**178**	**1,780**	**1,060**	**641**	**263**	**86.9**	**417**	**258**	**393**	**392**	**395**
Cyanide	0.2	TACO	**0.4 J**	**0.13 J**	**3.6**	**2.2 J**	**0.56 J**	**0.31 J**	2.7 U	2.9 U	2.9 U	**0.7 J**	2.8 U	**0.18 J**
Iron	5	TACO	**49,000 J**	**32,800 J**	**12,400 J**	**35,100 J**	**43,900 J**	**31,500**	**14,800**	**55,400**	**38,000**	**25,700**	**53,800**	**71,100**
Lead	0.0075	TACO	**533 J**	**279 J**	**301 J**	**301 J**	**424 J**	**2,500**	**393**	**2,350**	**1,010**	**4,360**	**18,000**	**2,490**
Magnesium	NC	--	**6,820**	**9,050**	**6,850**	**13,000**	**2,080**	**682**	**745**	**1,100**	**897**	**2,330**	556 U	**703**
Manganese	0.15	TACO	**520 J**	**1,930 J**	**323 J**	**511 J**	**457 J**	**422**	**314**	**444**	**275**	**509**	**113**	**797**
Mercury	0.002	TACO	**0.66**	0.11 U	**0.18**	**0.29**	**0.14**	**0.22**	**0.18**	**0.34**	**0.22**	**0.12**	**0.18**	**0.38**
Nickel	0.10	TACO	**26.4**	**25.2**	R	**21.8**	**22.3**	**19.7**	**12.3**	**25.2**	**18.2**	**38.2**	**54.7**	**26.8**
Potassium	NC	--	**880 J**	**4,590 J**	**508 J**	**734 J**	**440 J**	**628 J**	**370 J**	**1,340 J**	**1,070 J**	**605 J**	**1,690 J**	**3,180 J**
Selenium	0.05	TACO	**2.4 J**	4.2 U	**3.9**	**3.6 J**	**2.4 J**	**2 J**	3.8 U	**4.9**	**1.6 J**	**3.8 J**	**18.4**	**3.1 J**
Silver	0.05	TACO	**5 J+**	**3.1 J+**	**0.66 J+**	**3.1 J+**	**4.7 J+**	**2.5 J-**	**0.83 J-**	**2.7 J-**	**1.4 J-**	**3.1 J-**	**8.8**	**2.9 J-**
Sodium	NC	--	**784 J+**	**659 J+**	**4,430 J+**	**3,160 J+**	**1,390 J+**	**604 J**	**1,160 J**	581 UJ	**921 J**	598 UJ	556 UJ	**738 J**
Thallium	0.002	TACO	R	R	2.8 U	R	R	3 UJ	2.7 UJ	2.9 UJ	2.8 UJ	3 UJ	**6**	3 UJ
Vanadium	0.049	TACO	**24.6 J**	**16.6 J**	**11.4 J**	**14.1 J**	**16.5 J**	**37.1**	**27.6**	**38.2**	**41.9**	**15.6**	**23.3**	**46.8**
Zinc	5	TACO	**20,000 J**	**5,350 J**	**129,000 J**	**84,700 J**	**36,100 J**	**14,600 J**	**20,800 J**	**21,300 J**	**12,000 J**	**97,600 J**	**13,000 J**	**19,600 J**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	SB138B ME3RW5 36664 7/30/2007 mg/kg 3 L4 8-10	SB139A ME3SQ1 36720 8/14/2007 mg/kg 3 L2 0-2	SB139B ME3SQ2 36720 8/14/2007 mg/kg 3 L2 8-10	SB140A ME3RP0 36648 7/26/2007 mg/kg 2 L1, L2, L3 0-2	SB140B ME3RQ3 36648 7/19/2007 mg/kg 2 L1 8-10	SB141A ME3SP9 36720 8/14/2007 mg/kg 2 L1 0-2	SB141B ME3SQ0 36720 8/14/2007 mg/kg 2 L1 8-10	SB142A ME3SP4 36720 8/14/2007 mg/kg 2 L1 0-2	SB318A ME3SP5 36720 8/14/2007 mg/kg SB142A 2 L1 0-2	SB142B ME3SP6 36720 8/14/2007 mg/kg 2 L1 6-8	SB143A ME3RS1 36648 7/27/2007 mg/kg 2 L1 0-2	SB143B ME3RS2 36648 7/27/2007 mg/kg 2 L1 8-10
Aluminum	55,000	SSL-risk	**5,730**	**5,650**	**12,500**	**4,760**	**14,900**	**8,860**	**15,600**	**10,400**	**9,010**	**5,200**	**8,790**	**7,730**
Antimony	0.006	TACO	7.2 U	**8.4 J-**	**2.8 J**	**13.5 J+**	**3.6 J+**	**1.7 J-**	7.5 UJ	7.3 UJ	6.9 UJ	6.8 UJ	**3.8 J+**	7.2 UJ
Arsenic	0.0013	SSL-risk	**6.8**	**52.2 J**	**10.2 J**	**39.3**	**5.3**	**15 J**	**1.2 J+**	**6.5 J-**	**4.1 J-**	**3.8 J-**	**10**	1.2 U
Barium	2	TACO	**141**	**273**	**87.4**	**138 J**	**254**	**298**	**134**	**134**	**176**	**53.5**	**132**	**271**
Beryllium	0.004	TACO	**0.8**	**0.79 J+**	**2**	0.58 U	**0.84 J+**	**0.76 J+**	**1.1**	**0.62 J+**	**0.64 J+**	0.57 UJ	0.56 U	0.6 U
Cadmium	0.005	TACO	**4.2**	**43.8**	**35.4**	**128 J**	**3.1 J**	**33**	**2.5 J+**	**9.3 J**	**8 J**	**1.8 J**	**13.1 J**	0.6 U
Calcium	NC	--	**3,660**	**2,930**	**16,600**	**15,800 J**	**32,800 J**	**11,700**	**5,780**	**17,800 J**	**13,200 J**	**1,550 J**	**16,600 J**	**151,000**
Chromium (total)	0.10	TACO	**9.1**	**10.3 J**	**6.4 J**	**10.7 J**	**22.6**	**12.3 J**	**21.1 J**	**13 J**	**14.6 J**	**7.9 J**	**13.9 J**	**12.4**
Cobalt	0.49	SSL-risk	**2.8 J**	**7.9**	**2.8 J**	**12**	**9**	**11.5**	**8.6**	**6.9 J**	**9.4 J**	5.7 UJ	**7.6 J**	**7**
Copper	0.65	TACO	**27**	**485 J**	**44.3 J**	**368 J**	**28.7**	**80.7 J**	**24.8 J**	**24.1 J**	**23.1 J**	**11.5 J**	**293**	**3.5 J**
Cyanide	0.2	TACO	3 U	3 UJ	2.9 UJ	2.9 U	**0.68 J**	3 UJ	3.1 UJ	3 U	2.9 U	2.8 U	**0.16 J**	3 U
Iron	5	TACO	**13,200**	**38,000**	**6,820**	**34,300 J**	**30,200**	**16,500**	**17,900**	**15,300**	**22,400**	**10,200**	**15,800 J**	**18,600**
Lead	0.0075	TACO	**97.5**	**6,000 J**	**634 J**	**4,490 J**	**26.8 J**	**479 J**	**21.6 J**	**66.4 J**	**60.8 J**	**6 J**	**141 J**	**4.8 J**
Magnesium	NC	--	602 U	**661**	**567 J**	**6,400 J**	**7,440**	**4,310**	**5,450**	**7,400**	**5,530**	**1,070**	**7,170**	**6,280**
Manganese	0.15	TACO	**128**	**222**	**124**	**422 J**	**725**	**2,650**	**332**	**396**	**5,190**	**230**	**660 J**	**3,700**
Mercury	0.002	TACO	**0.055 J**	**0.31**	0.12 U	**0.23**	0.11 UJ	**0.24**	**0.16**	0.12 U	**0.072 J**	0.11 U	**0.069 J**	0.12 U
Nickel	0.10	TACO	**8**	**18.4**	**6.8**	R	**28.5**	**17.3**	**37.8**	**14.3 J**	**14.2 J**	**10.5 J**	**0.53 J**	**16.8**
Potassium	NC	--	**613 J**	**965**	589 U	**617 J**	**9,830 J**	**1,150**	**2,720**	**1,290**	**957**	**633**	**1,250 J**	**1,410 J**
Selenium	0.05	TACO	4.2 U	**8.3 J-**	4.1 UJ	**2.5 J**	4 U	**1.6 J-**	4.4 UJ	4.3 U	4 U	4 U	3.9 U	4.2 U
Silver	0.05	TACO	1.2 UJ	**5.5 J+**	1.2 U	**7.4 J+**	**2.2 J+**	**2.8 J+**	**0.32 J**	**3 J+**	**4.7 J+**	**2.2**	**2 J+**	1.2 U
Sodium	NC	--	**714 J**	R	R	**2,440**	**3,780 J+**	R	**307 J**	609 U	574 U	569 U	**1,070 J+**	597 UJ
Thallium	0.002	TACO	3 UJ	3 U	2.9 U	2.9 U	R	3 U	3.1 U	3 U	2.9 U	2.8 U	2.8 U	3 U
Vanadium	0.049	TACO	**30.2**	**21.8**	**20.8**	**13.7**	**28 J**	**30.6**	**16.6**	**25.7**	**22.2**	**14.3**	**22.3 J**	**14**
Zinc	5	TACO	**1,530 J**	**13,200**	**14,200**	**64,200 J**	**688 J**	**5,790**	**402**	**1,270**	**1,740**	**265**	**26,200 J**	**53**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	Location ID / Sample ID / Case / Sampling date / Unit / Duplicate info / Investigation area / Lithology / Depth (ft bgs)											
			SB272 / ME3RS3 / 36648 / 7/27/2007 / mg/kg / SB143B / 2 / L1 / 8-10	SB144A / ME3RR9 / 36648 / 7/20/2007 / mg/kg / 2 / L1, L4 / 0-2	SB144B / ME3RS0 / 36648 / 7/27/2007 / mg/kg / 2 / L1 / 8-10	SB145A / ME3SP7 / 36720 / 8/14/2007 / mg/kg / 2 / L1 / 0-2	SB145B / ME3SP8 / 36720 / 8/14/2007 / mg/kg / 2 / L1 / 6-8	SB153A / ME3S76 / 36664 / 8/3/2007 / mg/kg / 3 / L1 / 0-2	SB154A / ME3SF0 / 36697 / 8/8/2007 / mg/kg / 4 / L1 / 0-2	SB154B / ME3SF1 / 36697 / 8/8/2007 / mg/kg / 4 / L1 / 6-8	SB155A / ME3SQ8 / 36720 / 8/14/2007 / mg/kg / 3 / L1, L4 / 0-2	SB155B / ME3SQ9 / 36720 / 8/14/2007 / mg/kg / 3 / L4 / 8-10	SB156A / ME3SJ0 / 36697 / 8/10/2007 / mg/kg / 3 / L1, L4 / 0-2	SB156B / ME3SJ1 / 36697 / 8/10/2007 / mg/kg / 3 / L1 / 8-10
Aluminum	55,000	SSL-risk	**9,010**	**11,000**	**14,900**	**7,240**	**11,600**	**10,300 J**	**13,800**	**11,500**	**13,800**	**11,400**	**8,090**	**14,600**
Antimony	0.006	TACO	**4.1 J-**	**5 J+**	**3.3 J+**	**1.5 J**	7.1 UJ	**7.9**	6.8 U	**1.5 J**	7.1 UJ	6.6 UJ	**13.8**	**2.4 J+**
Arsenic	0.0013	SSL-risk	**25.3**	**6.2**	**9.2**	**5.3 J-**	**2.4 J+**	**26.4 J**	**3.7**	**3.2**	**24.1 J**	**3.5 J**	**66 J**	**2.8 J+**
Barium	2	TACO	**141**	**180**	**244**	**159**	**170**	**75.2**	**129**	**79.1**	**240**	**56.3**	**263**	**358**
Beryllium	0.004	TACO	**0.68**	**1**	**0.8 J+**	0.66 UJ	**0.74 J+**	**0.73**	**1.1 J**	**0.76 J+**	**3.2**	**1.1**	**0.76 J+**	**0.99 J+**
Cadmium	0.005	TACO	R	**2.4 J**	**4.2 J**	**21.6 J**	**0.85 J+**	**129**	**0.58 J+**	**0.78 J+**	**123**	**10.9**	**77.3**	**1.7**
Calcium	NC	--	**22,700**	**8,720 J**	**59,900 J**	**20,400 J**	**74,700**	**26,700 J**	**24,700**	**50,600**	**16,800**	**11,200**	**2,830**	**74,000**
Chromium (total)	0.10	TACO	**15.7**	**21 J**	**20.8 J**	**11.2 J**	**18.2 J**	**15.8 J**	**19.9**	**17.4**	**33.9 J**	**3.2 J**	**17.2**	**24.8**
Cobalt	0.49	SSL-risk	**18.8**	**12.2 J**	**9 J**	6.6 UJ	**9.6**	**13.8**	**11.9**	**8.7**	**11.7**	**1.7 J**	**25.2**	**11.1**
Copper	0.65	TACO	**21.5 J**	**87**	**29.6**	**36.4 J**	**58.8 J**	**235**	**32.1 J**	**7.9 J**	**333 J**	**30.3 J**	**596**	**23**
Cyanide	0.2	TACO	3 U	3.2 U	3.3 U	3.3 U	2.9 UJ	**0.098 J**	**0.11 J**	2.8 U	2.9 UJ	2.7 UJ	2.9 U	3 U
Iron	5	TACO	**67,000**	**25,000 J**	**24,600 J**	**12,500**	**21,700**	**30,600**	**18,800**	**22,700**	**57,200**	**6,000**	**25,200**	**23,200**
Lead	0.0075	TACO	**12.5 J**	**44.2 J**	**31.8 J**	**238 J**	**11.1 J**	**3,380 J**	**7.6**	**5.1**	**2,340 J**	**114 J**	**830**	**15.4**
Magnesium	NC	--	**6,940**	**3,950**	**38,100**	**10,700**	**31,200**	**12,300**	**6,260 J**	**15,300 J**	**1,370**	**653**	**1,510**	**9,660**
Manganese	0.15	TACO	**705**	**317 J**	**930 J**	**281**	**1,080**	**708**	**444**	**2,490**	**644**	**112**	**724**	**2,230**
Mercury	0.002	TACO	0.12 U	**0.085 J**	0.13 U	**0.25**	0.12 U	**6.6**	0.12 U	0.11 U	**0.38**	0.11 U	**0.97**	0.12 U
Nickel	0.10	TACO	**45.4**	**41.3**	**24.1**	**15.1 J**	**27.8**	**49.3 J**	**45.7 J**	**30.1 J**	**30.7**	**3.7 J**	**7.6**	**39.7**
Potassium	NC	--	**2,400 J**	**2,680 J-**	**1,990 J**	**1,300**	**3,070**	**898 J**	**5,390 J**	**4,980 J**	**1,830**	549 U	**918 J**	**4,710 J**
Selenium	0.05	TACO	4.1 U	4.5 U	4.6 U	**1.1 J**	**1.2 J-**	**4.1**	4 U	4 U	**4.7 J-**	3.8 UJ	**1.2 J**	4.2 U
Silver	0.05	TACO	R	**1.9 J+**	**2.7 J+**	**3.2 J+**	**0.31 J**	**2.8**	1.1 U	1.1 U	**2.9 J+**	**0.26 J-**	**10.4**	**1.3 J+**
Sodium	NC	--	592 UJ	**891 J+**	**393 J+**	R	**43.8 J**	**445 J**	568 U	566 U	590 U	**490 J**	**1,630 J+**	**608 J+**
Thallium	0.002	TACO	3 U	3.2 U	3.3 U	3.3 U	2.9 U	2.8 UJ	2.8 UJ	2.8 UJ	2.9 U	2.7 U	2.9 U	3 U
Vanadium	0.049	TACO	**22.5**	**38.3 J**	**28.6 J**	**21.9**	**17.7**	**16.5**	**23**	**19.6**	**36.2**	**12.5**	**22.2**	**21.9**
Zinc	5	TACO	**222**	**3,440 J**	**821 J**	**5,990**	**137**	**67,400**	**43.7**	**27.2**	**23,900**	**1,630**	**23,700**	**203**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	Location ID / Sample ID / Case / Sampling date / Unit / Duplicate info / Investigation area / Lithology / Depth (ft bgs)											
			SB157A / ME3SJ2 / 36697 / 8/10/2007 / mg/kg / / 3 / L1 / 0-2	SB157B / ME3SJ3 / 36697 / 8/10/2007 / mg/kg / / 3 / L1 / 8-10	SB312B / ME3SJ4 / 36697 / 8/10/2007 / mg/kg / SB157B / 3 / L1 / 8-10	SB158A / ME3SW3 / 36720 / 8/16/2007 / mg/kg / / 3 / L1, L2 / 0-2	SB158B / ME3SW4 / 36720 / 8/16/2007 / mg/kg / / 3 / L2 / 8-10	SB160A / ME3RP7 / 36648 / 7/26/2007 / mg/kg / / 3 / L4 / 0-2	SB160B / ME3RP8 / 36648 / 7/26/2007 / mg/kg / / 3 / L1, L4 / 8-10	SB161A / ME3RP1 / 36648 / 7/26/2007 / mg/kg / / 3 / L2, L3 / 0-2	SB161B / ME3RP2 / 36648 / 7/26/2007 / mg/kg / / 3 / L2, L3, L4 / 4-6	SB162A / ME3RL9 / 36648 / 7/25/2007 / mg/kg / / 3 / L2, L3 / 0-2	SB162B / ME3RM0 / 36648 / 7/25/2007 / mg/kg / / 3 / L2, L3 / 4-6	SB163A / ME3RP3 / 36648 / 7/26/2007 / mg/kg / / 3 / L2, L3 / 0-2
Aluminum	55,000	SSL-risk	**5,590**	**16,100**	**17,900**	**19,200**	**12,000**	**11,000**	**11,300**	23.2 U	**3,740**	**7,150**	**16,900**	**8,510**
Antimony	0.006	TACO	**5 J+**	**1.6 J+**	**3.1 J+**	**2.5 J**	**5.6 J**	**11.8 J+**	**20.8**	7 U	**16.2 J+**	**7.5 J**	**17.8**	**15.3 J+**
Arsenic	0.0013	SSL-risk	**23.8 J**	**13.2 J**	**6.4 J**	**18.9**	**18**	**8.5**	**46.8**	1.2 U	**43.8**	**24.5**	**65.1**	**29.5**
Barium	2	TACO	23.4 U	**108**	**217**	**62.4 J-**	**69.7 J-**	**99.4**	**226**	23.2 UJ	**178**	**189**	**148 J**	**144**
Beryllium	0.004	TACO	**0.4 J+**	**0.59 J+**	**0.66 J+**	**1.2**	**0.93 J+**	**1.5**	**1.1 J+**	0.58 U	0.62 U	**1.8 J+**	**1.2**	**1.4**
Cadmium	0.005	TACO	**83.5**	**1 J+**	**0.77 J+**	**47.4**	**8.1**	**17.3 J**	**20 J**	0.58 UJ	**46.4 J**	**50.7 J**	**15.9 J**	**77.6 J**
Calcium	NC	--	**130,000**	**3,590**	**2,070**	**57,500 J**	**10,000 J**	**8,160 J**	**13,100 J**	**108 J**	**2,670 J**	**23,200 J**	**13,900 J**	**15,200 J**
Chromium (total)	0.10	TACO	**19.2**	**20.4**	**23.1**	**32.3**	**21**	**39.3 J**	**16.2**	1.2 UJ	**8.7 J**	**15**	**19.8 J**	**33.8 J**
Cobalt	0.49	SSL-risk	**2.9 J**	**16.3**	**19.2**	**12.7**	6.3 U	**18 J**	**31.8**	5.8 U	**40.5 J**	**15.5**	**21.1**	**20.5 J**
Copper	0.65	TACO	**89.1**	**15.3**	**19.3**	**161 J**	**207 J**	**138**	**166**	**1.3 J**	**447**	**201**	**501 J**	**327**
Cyanide	0.2	TACO	2.9 U	3.3 U	3.3 U	3.1 UJ	3.2 UJ	**0.15 J**	**0.47 J**	2.9 U	3.1 U	3.2 U	3 U	**0.26 J**
Iron	5	TACO	**32,700**	**12,800**	**17,600**	**25,100**	**54,100**	**97,300 J**	**73,900**	**12.4**	**37,900 J**	**57,400**	**73,700 J**	**83,200 J**
Lead	0.0075	TACO	**60.7**	**30.9**	**28.7**	**755**	**485**	**193 J**	**9,270 J**	**1.2 J-**	**8,390 J**	**1,510 J**	**4,330 J**	**809 J**
Magnesium	NC	--	**16,600**	**2,970**	**3,190**	**5,070**	**1,120**	**716**	**1,410**	**9.7 J**	**1,130**	**1,110**	**1,480 J**	**5,620**
Manganese	0.15	TACO	**243**	**81.9**	**82.2**	**2,470**	**63.7**	**241 J**	**471**	**0.33 J**	**490 J**	**438**	**193 J**	**844 J**
Mercury	0.002	TACO	**1.6**	0.13 U	0.13 U	**2.5**	**0.48**	0.12 U	0.12 UJ	**0.67**	0.12 U	**0.8 J**	**0.099 J**	**0.43**
Nickel	0.10	TACO	**5**	**22.1**	**20.1**	**35.5**	**6.8**	**49.1**	**35.1**	4.6 U	**18.2**	**23.4**	**41.3**	**48.8**
Potassium	NC	--	**753 J**	**1,000 J**	**1,140 J**	**3,370**	**2,360**	**1,860 J**	**1,010 J**	**4.6 J**	**266 J**	**2,090 J**	**1,240 J**	**1,660 J**
Selenium	0.05	TACO	**6.2**	**0.75 J**	4.6 U	**0.81 J**	4.4 U	**3.5 J**	4.1 U	4.1 U	**4.5**	**3.7 J+**	**3.7 J**	**4.1 J**
Silver	0.05	TACO	**1.7 J+**	**0.68 J+**	**0.85 J+**	**3.4 J+**	**3.6 J+**	**6.9 J+**	**29.7**	1.2 U	**19.1**	**6.5 J+**	**15.6**	**9.2 J+**
Sodium	NC	--	**871 J+**	**216 J**	**269 J**	R	635 U	**1,110 J+**	**1,610 J+**	**341 J**	**1,800 J+**	**998 J+**	**454 J-**	**1,630 J+**
Thallium	0.002	TACO	2.9 U	3.3 U	3.3 U	3.1 U	3.2 U	R	R	2.9 U	3.1 U	R	41.3 U	R
Vanadium	0.049	TACO	**23.4**	**73.1**	**40.5**	**19.1**	**45.5**	**54.9 J**	**28.3 J**	5.8 U	**11.4 J**	**27.1 J+**	**23.4**	**38.6 J**
Zinc	5	TACO	**13,300**	**1,820**	**648**	**11,100**	**2,740**	**1,720 J**	**28,000 J**	**22.1 J**	**48,800 J**	**7,950 J**	**7,810 J**	**17,900 J**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	Location ID / Sample ID / Case / Sampling date / Unit / Duplicate info / Investigation area / Lithology / Depth (ft bgs)											
			SB163B / ME3RP4 / 36648 / 7/26/2007 / mg/kg / / 3 / L2, L3 / 4-6	SB164A / ME3RT4 / 36664 / 7/30/2007 / mg/kg / / 2 / L4 / 0-2	SB164B / ME3RT5 / 36664 / 7/30/2007 / mg/kg / / 2 / L4 / 8-10	SB165A / ME3SQ3 / 36720 / 8/14/2007 / mg/kg / / 3 / L1 / 0-2	SB165B / ME3SQ4 / 36720 / 8/14/2007 / mg/kg / / 3 / L1 / 8-10	SB319B / ME3SQ5 / 36720 / 8/14/2007 / mg/kg / SB165B / 3 / L1 / 8-10	SB166A / ME3SE3 / 36697 / 8/8/2007 / mg/kg / / 3 / L1 / 0-2	SB166B / ME3SE4 / 36697 / 8/8/2007 / mg/kg / / 3 / L1 / 8-10	SB303B / ME3SE5 / 36697 / 8/8/2007 / mg/kg / SB166B / 3 / L1 / 8-10	SB167A / ME3SC4 / 36697 / 8/7/2007 / mg/kg / / 3 / L1 / 0-2	SB167B / ME3SC5 / 36697 / 8/7/2007 / mg/kg / / 3 / L1 / 8-10	SB168A / ME3RA9 / 36631 / 7/19/2007 / mg/kg / / 3 / L3 / 0-2
Aluminum	55,000	SSL-risk	**5,600**	**5,720**	**7,060 J**	**13,000**	**15,000**	**12,300**	**15,000**	**10,600**	**11,800**	**11,300**	**10,500**	**10,800**
Antimony	0.006	TACO	**15.9 J+**	7.1 U	**2.9 J**	6.8 UJ	**1.5 J-**	7.4 UJ	**1.7 J**	7.1 U	7.1 U	**2.4 J**	**4.8 J**	**14.1 J-**
Arsenic	0.0013	SSL-risk	**39**	**29.4**	**33.4 J**	**7.3 J**	**12.7 J**	**13.3 J**	**4.9**	**1.3**	**0.91 J**	**3.9**	**3.9**	**27.2**
Barium	2	TACO	**73.8**	**199**	**127**	**116**	**142**	**67.7**	**69.4**	**34.7**	**35.4**	**154**	**127**	**51.7 J**
Beryllium	0.004	TACO	**1.3**	0.59 U	**0.8 J+**	**0.86**	**0.99**	**0.83 J+**	**0.96 J**	**0.64 J+**	**0.64 J**	**0.72 J+**	**0.73 J+**	**0.52 J+**
Cadmium	0.005	TACO	**53.3 J**	**77.3**	**121**	**10.8**	**25.3**	**6.9**	**1 J+**	**0.92 J+**	**0.75**	**3.4**	**4.8**	**156**
Calcium	NC	--	**2,880 J**	**5,320**	**3,860 J**	**50,700**	**11,500**	**13,100**	**41,500**	**147,000**	**117,000**	**52,100**	**54,000 J**	**817 J**
Chromium (total)	0.10	TACO	**14.7 J**	**14**	**16.5 J**	**19.8 J**	**23.7 J**	**21.4 J**	**27.1**	**22.1**	**23.2**	**18.1**	**28.6 J**	**10.4**
Cobalt	0.49	SSL-risk	**23 J**	**23**	**31.4**	**12.7**	**27.5**	**11.9**	**12.4**	**8.1**	**8.2**	**11.5 J**	**9.5 J**	**8.3**
Copper	0.65	TACO	**426**	**694**	**497**	**76.5 J**	**109 J**	**115 J**	**26.2 J**	**13.6 J**	**9.1 J**	**18.9 J**	**6.4**	**439**
Cyanide	0.2	TACO	**0.23 J**	**0.42 J**	3.2 U	2.8 UJ	3.1 UJ	3.1 UJ	3.1 U	3 U	3 U	2.9 U	3 U	3 U
Iron	5	TACO	**47,200 J**	**41,000**	**37,100**	**23,900**	**37,300**	**36,300**	**28,700**	**20,400**	**19,100**	**21,000**	**43,600 J**	**11,500 J**
Lead	0.0075	TACO	**6,060 J**	**4,470**	**3,310 J**	**383 J**	**371 J**	**523 J**	**11.7**	**7.9**	**5.4**	**26.7**	**10.9**	**971**
Magnesium	NC	--	**846**	**2,600**	**3,060**	**20,500**	**7,530**	**5,120**	**5,740 J**	**7,670 J**	**7,570 J**	**10,800**	**4,770 J**	**964**
Manganese	0.15	TACO	**240 J**	**615**	**579**	**956**	**1,320**	**413**	**642**	**1,140**	**853**	**1,790 J**	**905 J**	**264**
Mercury	0.002	TACO	**0.12 J**	**0.12 J-**	**0.13**	**0.17**	**0.21**	**0.19**	0.12 U	0.11 U	0.11 U	**0.038 J-**	0.12 U	**0.43 J+**
Nickel	0.10	TACO	**21.5**	**45.8**	**52.5 J**	**31.8**	**55.4**	**34**	**40.1 J**	**41.2 J**	**40.3 J**	**33.6**	**30.5 J**	**41.1**
Potassium	NC	--	**386 J**	**459 J**	**1,070 J**	**3,020**	**2,450**	**3,090**	**2,770 J**	**3,720 J**	**4,040 J**	**2,350 J**	**1,900 J**	**979 J**
Selenium	0.05	TACO	**3.5 J**	**2.9 J**	**1.7 J**	**1.3 J-**	**1.6 J-**	**2 J-**	4.3 U	4.1 U	4.1 U	4.1 U	**1.2 J+**	4.2 UJ
Silver	0.05	TACO	**10.8**	**6.2**	**3.6**	**0.58 J+**	**1.3 J+**	**1.3 J+**	1.2 U	1.2 U	1.2 U	**1.2 J+**	**2.4 J+**	**7.4 J+**
Sodium	NC	--	**2,740 J+**	594 UJ	**216 J**	567 U	R	**148 J**	612 U	**651**	**622**	**271 J-**	**306 J-**	**457 J**
Thallium	0.002	TACO	R	3 UJ	3.2 UJ	2.8 U	3.1 U	3.1 U	3.1 UJ	3 UJ	3 UJ	2.9 U	3 U	3 UJ
Vanadium	0.049	TACO	**21.1 J**	**17.3**	**17.4**	**24.7**	**28**	**31**	**33.5**	**19.8**	**18.1**	**15.9 J-**	**36.5**	**13.7**
Zinc	5	TACO	**70,500 J**	**82,400 J**	**68,700**	**3,980**	**9,110**	**3,960**	**80**	**59.7**	**59.3**	**758**	**3,950 J**	**25,400 J**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	SB168B ME3RB0 36631 7/19/2007 mg/kg 3 L1 8-10	SB169A ME3RA7 36631 7/19/2007 mg/kg 3 L4 0-2	SB169B ME3RA8 36631 7/19/2007 mg/kg 3 L1 8-10	SB170A ME3SA5 36697 8/7/2007 mg/kg 3 L1 0-2	SB170B ME3SA6 36697 8/7/2007 mg/kg 3 L1 8-10	SB171A ME3SB9 36697 8/7/2007 mg/kg 3 L1 0-2	SB171B ME3SC0 36697 8/7/2007 mg/kg 3 L1 8-10	SB172A ME3SB2 36697 8/7/2007 mg/kg 3 L1 0-2	SB172B ME3SB3 36697 8/7/2007 mg/kg 3 L1 8-10	SB173A ME3SB4 36697 8/7/2007 mg/kg 3 L1, L4 0-2	SB173B ME3SB5 36697 8/7/2007 mg/kg 3 L1 8-10	SB300B ME3SB6 36697 8/7/2007 mg/kg SB173B 3 L1 8-10
Aluminum	55,000	SSL-risk	**16,900**	**9,340**	**407**	**11,200**	**9,610**	**9,060**	**25,200**	**9,790**	**6,990**	**20,800**	**7,050**	**8,640**
Antimony	0.006	TACO	**6.9 J-**	**8 J-**	7.1 UJ	**3 J+**	**1.8 J+**	**4.5 J**	**2.9 J**	**2.5 J+**	**6.6 J+**	**2.9 J+**	**1.5 J+**	**2.8 J**
Arsenic	0.0013	SSL-risk	**34.1**	**22.3**	**0.76 J**	**12**	**4.2 J+**	**3.7**	**4.4**	**7.4**	**2.7 J+**	**8.4**	**3.5 J+**	**5**
Barium	2	TACO	**152 J**	**198 J**	**29.9 J**	**134**	**191**	**61.6**	**72.2**	**109**	**30.4**	**73.7**	**353**	**117**
Beryllium	0.004	TACO	**0.87 J+**	**0.75 J+**	0.59 U	**0.68 J+**	**0.91 J+**	**1.1**	**1.2**	0.58 U	**0.73 J+**	**1.6**	**0.93 J+**	**0.76 J+**
Cadmium	0.005	TACO	**15.4**	**53.1**	0.59 U	**54.8**	**92.1**	**4**	**6.4**	**1.9**	**8.5**	**36.3**	**2.3**	**1.2 J-**
Calcium	NC	--	**1,950 J**	**19,900 J**	**7,320 J**	**7,000**	**29,400**	**23,700**	**27,800**	**46,300**	**50,700**	**21,800**	**107,000**	**41,100**
Chromium (total)	0.10	TACO	**33**	**24.7**	**1.4 J**	**19.7**	**15.6**	**30.8**	**70.9**	**18.2**	**12.1**	**14.5**	**12**	**16.6**
Cobalt	0.49	SSL-risk	**4.7 J**	**12.1**	5.9 U	**11.4 J**	**12.1 J**	**8.6 J**	**8.9 J**	**10.4 J**	**18.7 J**	**29.3 J**	**8 J**	**9.4 J**
Copper	0.65	TACO	**151**	**221**	**3.7**	**55.7 J**	**5.7 J**	**41.9 J**	**112 J**	**18.3 J**	**3.7 J**	**96.8 J**	**7.1 J**	**4.7 J**
Cyanide	0.2	TACO	3.2 U	3.1 U	3 U	3.1 U	3.2 U	2.9 U	3.3 U	3 U	3.4 U	3.1 U	**0.13 J**	**0.1 J**
Iron	5	TACO	**18,600 J**	**22,700 J**	**1,580 J**	**23,700**	**20,500**	**41,600**	**22,900**	**21,000**	**61,100**	**19,300**	**17,900**	**22,000**
Lead	0.0075	TACO	**205**	**6,600 J**	**8.7**	**99.9663**	**6.3**	**14.2**	**9.4**	**17.1**	**4.5**	**75.2**	**8**	**5**
Magnesium	NC	--	**2,330**	**11,200**	591 U	**5,060**	**6,050**	**7,660**	**3,850**	**24,700**	**3,780**	**6,120**	**29,400**	**5,500**
Manganese	0.15	TACO	**101**	**532**	**5.4**	**621 J**	**1,860 J**	**190 J**	**118 J**	**366 J**	**3,020 J**	**1,090 J**	**4,790 J**	**829 J**
Mercury	0.002	TACO	0.18 U	**5.1 J+**	0.15 U	**0.27**	**0.068 J**	0.11 U	0.13 U	**0.046 J**	**0.056 J-**	**0.099 J-**	0.12 U	0.12 U
Nickel	0.10	TACO	**24.4**	**34.4**	4.7 U	**20.8**	**26**	**23.4**	**50.6**	**28.6**	**32**	**28.2**	**27.5**	**35.4**
Potassium	NC	--	**1,350 J**	**1,530 J**	**401 J**	**1,420 J**	**2,650 J**	**1,930 J**	**4,640 J**	**1,940 J**	**2,630 J**	**1,060 J**	**2,780 J**	**2,930 J**
Selenium	0.05	TACO	4.4 UJ	**6.9 J-**	4.1 UJ	**1.3 J+**	4.4 U	**0.73 J+**	**0.91 J+**	4.1 U	4.7 U	4.3 U	4.3 U	4.1 U
Silver	0.05	TACO	**2.6 J+**	**3.7 J+**	1.2 U	**1.3 J+**	**0.93 J+**	**2.1 J+**	**1.2 J+**	**1.2 J+**	**3.3 J+**	**0.94 J+**	**1.2 J+**	**1.2 J+**
Sodium	NC	--	**243 J**	**172 J**	591 U	**621**	**1,330**	**163 J-**	**298 J-**	**142 J-**	**1,040**	**515 J-**	**397 J-**	**209 J-**
Thallium	0.002	TACO	3.2 UJ	**0.97 J-**	3 UJ	3.1 U	3.2 U	2.9 U	3.3 U	2.9 U	3.4 U	3.1 U	3.1 U	2.9 U
Vanadium	0.049	TACO	**53.7**	**22.3**	**1.9 J**	**24.2**	**13.8 J-**	**38.8**	**57.7**	**16.8 J-**	**11.3 J-**	**16.2 J-**	**22.7**	**19.1**
Zinc	5	TACO	**7,370 J**	**10,600 J**	**36.4**	**10,700**	**22,300**	**1,310**	**2,040**	**961**	**13,900**	**6,820**	**147**	**41.9**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	Location ID	SB174A	SB174B	SB175A	SB175B	SB176A	SB306A	SB176B	SB177A	SB177B	SB178A	SB178B	SB179A
			Sample ID	ME3SB0	ME3SB1	ME3SF6	ME3SF7	ME3SF9	ME3SG0	ME3SG1	ME3RR5	ME3RR6	ME3RR7	ME3RR8	ME3RS7
			Case	36697	36697	36697	36697	36697	36697	36697	36648	36648	36648	36648	36664
			Sampling date	8/7/2007	8/7/2007	8/9/2007	8/9/2007	8/9/2007	8/9/2007	8/9/2007	7/27/2007	7/27/2007	7/27/2007	7/27/2007	7/30/2007
			Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			Duplicate info						SB176A						
			Investigation area	3	3	2	2	2	2	2	3	3	2	2	2
			Lithology	L1	L1	L1	L1	L1, L4	L1, L4	L1, L4	L1	L1		L4	L4
			Depth (ft bgs)	0-2	8-10	0-2	8-10	0-2	0-2	8-10	0-2	8-10	0-2	8-10	0-2
Aluminum	55,000	SSL-risk		3,190	10,500	10,200	11,500	7,410	8,400	4,760	13,900	10,800	5,050	6,550	6,190
Antimony	0.006	TACO		6.8 U	3.9 J+	3.6 J	2.3 J	2.6 J	3 J	1.9 J	4.3 J+	3.3 J+	11.9 J+	7.4 J+	3.2 J
Arsenic	0.0013	SSL-risk		1.3	5 J+	7.5	7	4.2	6.7	7.7	8.1	7.3	30.4	93.7	43.8
Barium	2	TACO		40.3	124	240	158	74.6	79.4	102	117	244	172	139	251
Beryllium	0.004	TACO		0.73	0.84 J+	1.2	0.67 J+	4.9	0.7 J+	0.59 U	0.6 U	0.74 J+	0.62 J+	0.88 J+	0.58 U
Cadmium	0.005	TACO		1	1.3 J-	7	3.5 J-	26.3	9.5	0.93 J-	14.7 J	2.5 J	68.9 J	62.2 J	83.9
Calcium	NC	--		2,550	34,900	7,630 J	55,100 J	19,400 J	32,000 J	124,000 J	4,540 J	52,800 J	31,100 J	36,300 J	1,780
Chromium (total)	0.10	TACO		6.8	19	23.9 J	18.2 J	15.6 J	15.1 J	7.6 J	19.3 J	31.4 J	12.5 J	13.3 J	14
Cobalt	0.49	SSL-risk		1.2 J	10.3 J	8.8 J	7.2 J	13 J	9.3 J	5.9 UJ	8.9 J	10.8 J	20.8 J	27.2 J	20.8
Copper	0.65	TACO		5.1 J	5.3 J	47.6	57	60.4	318	16.2	19.7	40.7	877	165	786
Cyanide	0.2	TACO		2.8 U	0.11 J	3.1 U	0.11 J	3.1 U	3.1 U	3.0 U	3 U	2.9 U	0.48 J	0.11 J	0.18 J
Iron	5	TACO		5,210	23,600	28,200 J	20,200 J	17,600 J	18,600 J	16,600 J	21,400 J	26,500 J	32,500 J	25,000 J	40,900
Lead	0.0075	TACO		8.9	6.9	346	34.7	22.4	105	96.6	31.4 J	13.2 J	1,850 J	2,920 J	9,410
Magnesium	NC	--		1,690	6,680	3,650 J	31,700 J	3,700 J	8,560 J	30,400 J	2,980	18,100	18,000	11,300	816
Manganese	0.15	TACO		11.5 J+	546 J	316 J	569 J	856 J	462 J	847 J	765 J	374 J	411 J	456 J	248
Mercury	0.002	TACO		0.11 U	0.11 U	0.40 J-	0.11 U	0.054 J-	0.12 U	0.11 U	0.66	0.11 U	0.12 U	0.095 J	0.42
Nickel	0.10	TACO		3.1 J	37.7	39.1 J	16.8 J	32.3 J	5 UJ	12.6 J	16.4	32.5	13	11.3	40.2
Potassium	NC	--		1,080 J	2,920 J	1,790 J	1,310 J	2,030 J	2,070 J	819 J	1,010 J	2,880 J	700 J	2,030 J	376 J
Selenium	0.05	TACO		0.52 J	4.1 U	1.1 J	4.3 U	5	0.78 J	4.2 U	4.2 U	4 U	2.6 J	2.4 J	2.3 J
Silver	0.05	TACO		1.1 U	1.2 J+	1.8 J+	1.3 J+	1.2 U	1.2 U	0.78 J+	1.6 J+	2.1 J+	5.6 J+	3.8 J+	6.4
Sodium	NC	--		179 J-	213 J-	499 J-	380 J-	722 J-	4,590	171 J-	197 J	371 J+	1,620 J+	2,250 J+	582 UJ
Thallium	0.002	TACO		2.8 U	2.9 U	3.1 U	3 U	3.1 U	3.1 U	3 U	3 U	2.9 U	3 U	R	2.9 UJ
Vanadium	0.049	TACO		4.2 J	18.6	34.6	20.8 J-	29	22.6	9.9 J-	33.2 J	24.9 J	16.1 J	25 J	19
Zinc	5	TACO		109	61.1	3,700 J	2,710 J	4,250 J	71,900 J	453 J	1,340 J	111 J	44,400 J	39,500 J	32,800 J

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	Location ID / Sample ID / Case / Sampling date / Unit / Duplicate info / Investigation area / Lithology / Depth (ft bgs)											
			SB179B / ME3RS8 / 36664 / 7/30/2007 / mg/kg / 2 / L4 / 8-10	SB180A / ME3RS4 / 36648 / 7/27/2007 / mg/kg / 2 / L4 / 0-2	SB180B / ME3RS5 / 36648 / 7/27/2007 / mg/kg / 2 / L4 / 8-10	SB181A / ME3SN1 / 36720 / 8/13/2007 / mg/kg / 3 / L4 / 0-2	SB181B / ME3SN2 / 36720 / 8/13/2007 / mg/kg / 3 / L1 / 8-10	SB182A / ME3SN3 / 36720 / 8/13/2007 / mg/kg / 3 / L2, L3 / 0-2	SB182B / ME3SN4 / 36720 / 8/13/2007 / mg/kg / 3 / L1 / 8-10	SB183A / ME3SK3 / 36697 / 8/10/2007 / mg/kg / 3 / L4 / 0-2	SB183B / ME3SK4 / 36697 / 8/10/2007 / mg/kg / 3 / L1 / 8-10	SB184A / ME3SN5 / 36720 / 8/13/2007 / mg/kg / 3 / L1, L2 / 0-2	SB184B / ME3SN6 / 36720 / 8/13/2007 / mg/kg / 3 / L1, L2 / 8-10	SB185A / ME3SK0 / 36697 / 8/10/2007 / mg/kg / 3 / L4 / 0-2
Aluminum	55,000	SSL-risk	**12,200**	**6,440**	**14,900**	**6,860**	**11,100**	**3,860**	**7,490**	**3,180**	**9,550**	**5,180**	**4,110**	**12,400**
Antimony	0.006	TACO	7.2 U	**2.2 J-**	7.3 UJ	7.4 UJ	**621 J**	**660 J**	7 UJ	**26.9**	7.4 U	**577 J**	**571 J**	**22.1**
Arsenic	0.0013	SSL-risk	**13.4**	**50.3**	**22.6**	**74.4 J-**	**12.7 J-**	**37.5 J-**	**20.4 J-**	**234 J**	**4.2 J**	**99.3 J-**	**88.2 J-**	**97.3 J**
Barium	2	TACO	**138**	**176**	**176**	**227**	**252**	**332**	**319**	**84.1**	**86.9**	**1,050**	**705**	**4,900**
Beryllium	0.004	TACO	**1.3**	0.58 U	**0.8**	**0.87 J+**	**0.96 J+**	0.64 UJ	**0.94 J+**	0.55 UJ	**0.66 J+**	**1 J+**	**0.72 J+**	**2.1 J**
Cadmium	0.005	TACO	**69.6**	**94.7 J**	**19.2 J**	**29.4 J**	**31.4 J**	**49 J**	**15.3 J**	**29.6**	**6.3**	**82.2 J**	**93.9 J**	**141**
Calcium	NC	--	**28,800**	**4,550**	**21,000**	**3,120 J**	**61,000 J**	**30,700 J**	**106,000 J**	**2,230**	**3,310**	**2,760 J**	**19,700 J**	**41,000**
Chromium (total)	0.10	TACO	**24**	**12.9**	**20.2**	**30.8 J**	**19.3 J**	**18.9 J**	**18 J**	**9.1**	**20.3**	**38.2 J**	**14.8 J**	**34.1**
Cobalt	0.49	SSL-risk	**16.9**	**18.6**	**17.7**	6.1 UJ	**10.1 J**	**24.5 J**	**13.4 J**	**190**	**5.8 J**	**44.2 J**	**30 J**	**78.2**
Copper	0.65	TACO	**402**	**495 J**	**93.7 J**	**221 J**	**176 J**	**568 J**	**84.1 J**	**443**	**16**	**1,160 J**	**674 J**	**591**
Cyanide	0.2	TACO	3 U	**0.3 J**	3 U	3.1 U	3 U	3.2 U	2.9 U	2.7 U	3.1 U	**0.29 J**	2.8 U	3.7 U
Iron	5	TACO	**49,100**	**42,000**	**23,400**	**76,300**	**31,300**	**35,400**	**62,700**	**96,600**	**15,100**	**84,700**	**64,700**	**48,900**
Lead	0.0075	TACO	**8,940**	**3,550 J**	**6,420 J**	**8,060 J**	**5,150 J**	**9,510 J**	**1,140 J**	**9,320**	**24.2**	**324 J**	**234 J**	**1,280**
Magnesium	NC	--	**2,060**	**2,230**	**2,450**	**1,450**	**3,730**	**12,000**	**3,690**	**871**	**2,200**	**2,990**	**3,500**	**4,810**
Manganese	0.15	TACO	**303**	**487**	**696**	**451**	**1,940**	**1,890**	**2,480**	**1,910**	**212**	**415**	**1,350**	**43,500**
Mercury	0.002	TACO	0.12 U	**0.54**	0.12 U	**1**	**0.32**	**0.32**	**0.079 J**	0.1 U	0.12 U	**0.21**	**0.058 J**	**1.3**
Nickel	0.10	TACO	**37.1**	**39.7**	**29.7**	**11.7 J**	**34.1 J**	**39.1 J**	**32.6 J**	**239**	**16.3**	**71.1 J**	**45.4 J**	**228**
Potassium	NC	--	**2,170 J**	**583 J**	**2,540 J**	**1,680**	**1,720**	642 UJ	**1,420**	**355 J**	**1,190 J**	613 UJ	565 UJ	**1,910 J**
Selenium	0.05	TACO	**2.4 J**	**2.6 J**	4.3 U	**3.4 J**	4.2 U	**2.1 J**	4.1 U	**3.6 J**	4.3 U	**2.4 J**	**2.2 J**	5.2 U
Silver	0.05	TACO	**12**	**4.9**	**1.1 J**	**3.9 J+**	**2.9 J+**	**8.4**	1.9 U	**35.3**	**0.73 J+**	**6.7**	**17 J+**	**12.8**
Sodium	NC	--	603 UJ	580 UJ	608 UJ	R	R	R	R	**1,770 J+**	**242 J**	R	R	**2,020 J+**
Thallium	0.002	TACO	3 UJ	2.9 U	3 U	3.1 U	3 U	3.2 U	2.9 U	2.7 U	3.1 U	3.1 U	2.8 U	**4.5**
Vanadium	0.049	TACO	**31.2**	**17.2**	**35**	**23.5**	**19.7**	**15.4**	**40.8**	**10.1 J-**	**24.8**	**12.9**	**15**	**222**
Zinc	5	TACO	**24,900 J**	**53,500**	**48,000**	**21,100**	**46,200**	**56,200**	**21,400**	**31,000**	**2,120**	**96,500**	**59,800**	**40,700**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	Location ID / Sample ID / Case / Sampling date / Unit / Duplicate info / Investigation area / Lithology / Depth (ft bgs)											
			SB185B / ME3SK1 / 36697 / 8/10/2007 / mg/kg / / 3 / L2, L4 / 8-10	SB313B / ME3SK2 / 36697 / 8/10/2007 / mg/kg / SB185B / 3 / L2, L4 / 8-10	SB186A / ME3SN7 / 36720 / 8/13/2007 / mg/kg / / 3 / L4 / 0-2	SB186B / ME3SN8 / 36720 / 8/13/2007 / mg/kg / / 3 / L1, L2 / 8-10	SB187A / ME3SN9 / 36720 / 8/13/2007 / mg/kg / / 3 / L1 / 0-2	SB187B / ME3SP0 / 36720 / 8/13/2007 / mg/kg / / 3 / L1 / 6-8	SB188A / ME3SP1 / 36720 / 8/13/2007 / mg/kg / / 3 / L1 / 0-2	SB188B / ME3SP2 / 36720 / 8/13/2007 / mg/kg / / 3 / L1 / 8-10	SB317B / ME3SP3 / 36720 / 8/13/2007 / mg/kg / SB188B / 3 / L1 / 8-10	SB189A / ME3SQ6 / 36720 / 8/14/2007 / mg/kg / / 3 / L1, L4 / 0-2	SB189B / ME3SQ7 / 36720 / 8/14/2007 / mg/kg / / 3 / L1, L4 / 8-10	SB190A / ME3RM4 / 36648 / 7/25/2007 / mg/kg / / 3 / L4 / 0-2
Aluminum	55,000	SSL-risk	**3,450**	**4,950**	**9,820**	**15,600**	**10,100**	**10,800**	**13,500**	**1,720**	**13,700**	**10,900**	**10,900**	**4,650**
Antimony	0.006	TACO	**16.4**	**17.2**	**2.3 J-**	**1.9 J-**	6.7 UJ	6.7 UJ	7.1 UJ	6.4 UJ	7.2 UJ	6.9 UJ	**2.7 J-**	**18.9**
Arsenic	0.0013	SSL-risk	**73 J**	**77 J**	**41.4 J-**	**15.5 J-**	**15.7 J-**	1.1 UJ	**5 J-**	**1.8 J-**	**5.9 J-**	**8.1 J**	**15.7 J**	**69.7**
Barium	2	TACO	**324**	**434**	**195**	**254**	**57.1**	**40.2**	**150**	21.4 U	**106**	**116**	**147**	**226 J**
Beryllium	0.004	TACO	0.6 UJ	0.6 UJ	**1.3 J**	**1.1 J**	**0.95 J+**	**0.64 J+**	0.59 UJ	0.54 UJ	0.6 UJ	**0.75 J+**	**0.91**	0.58 U
Cadmium	0.005	TACO	**79.2**	**105**	**79.5 J**	**20.5 J**	**24.4 J**	**0.83 J+**	0.59 UJ	**0.86 J+**	0.6 UJ	**7.7**	**28.7**	**91.6 J**
Calcium	NC	--	**3,800**	**3,130**	**21,800 J**	**12,200 J**	**106,000 J**	**81,200 J**	**66,600 J**	**165,000 J**	**56,800 J**	**90,700**	**41,200**	**6,680 J**
Chromium (total)	0.10	TACO	**13.6**	**15.6**	**16.5 J**	**22.1 J**	**14.2 J**	**16.4 J**	**18.7 J**	**8.5 J**	**19.8 J**	**20 J**	**16.1 J**	**15.4 J**
Cobalt	0.49	SSL-risk	**211**	**40.9**	**18.2 J**	**20 J**	**16.2 J**	**8.8 J**	**11 J**	5.4 UJ	**11 J**	**9.1**	**9.9**	**28.5**
Copper	0.65	TACO	**1,860**	**1,110**	**361 J**	**94.6 J**	**74.9 J**	**71.9 J**	**6.9 J**	**10.3 J**	**4.9 J**	**62 J**	**143 J**	**563 J**
Cyanide	0.2	TACO	**0.24 J**	**0.12 J**	3 U	3 U	2.8 U	**0.48 J**	3 U	2.7 U	3 U	2.9 UJ	3 UJ	**0.18 J**
Iron	5	TACO	**74,000**	**76,700**	**33,500**	**30,600**	**20,700**	**13,100**	**23,400**	**5,800**	**23,300**	**21,400**	**23,200**	**42,700 J**
Lead	0.0075	TACO	**3,830**	**3,390**	**2,800 J**	**1,370 J**	**165 J**	**6.2 J**	**5.9 J**	**10.5 J**	**6.6 J**	**95.8 J**	**2,470 J**	**8,350 J**
Magnesium	NC	--	**1,180**	**4,100**	**2,640**	**5,660**	**5,830**	**5,840**	**8,500**	**84,900**	**12,200**	**24,300**	**7,070**	**2,290 J**
Manganese	0.15	TACO	**6,890**	**2,770**	**1,380**	**580**	**2,590**	**1,050**	**2,270**	**338**	**1,950**	**990**	**966**	**1,250 J**
Mercury	0.002	TACO	0.11 U	0.11 U	**0.18**	0.12 U	**0.069 J**	**0.057 J**	0.12 U	**0.087 J**	0.12 U	**0.067 J**	**1.2**	**0.67**
Nickel	0.10	TACO	**85**	**42.9**	**45.2 J**	**52.7 J**	**31.5 J**	**25.7 J**	**36.8 J**	**7.3 J**	**38 J**	**28.4**	**26.9**	**40.6**
Potassium	NC	--	**194 J**	**306 J**	**1,690**	**2,360**	**1,930**	**2,290**	**2,560**	**1,020**	**2,650**	**3,070**	**2,030**	**482 J**
Selenium	0.05	TACO	**2.5 J**	**2.7 J**	4.2 U	4.2 U	3.9 U	3.9 U	4.1 U	3.7 U	4.2 U	**1.3 J-**	**4.3 J-**	**3.7 J**
Silver	0.05	TACO	**21.5**	**12.8**	**15.1 J+**	**10.8 J+**	**4.4 J+**	**2.1 J+**	**4.3 J+**	**1.6 J+**	**3.8 J+**	1.2 U	**1.8 J+**	**12.3**
Sodium	NC	--	**3,390 J+**	**4,000 J+**	R	R	R	**87.9 J**	**183 J**	**219 J**	**198 J**	577 U	R	**2,700**
Thallium	0.002	TACO	R	3 U	3 U	3 U	2.8 U	2.8 U	3 U	2.7 U	3 U	2.9 U	3 U	2.9 U
Vanadium	0.049	TACO	**14.2 J-**	**15.8 J-**	**19.9**	**17.5**	**15.9**	**13.4**	**12.7**	**15.5**	**13.4**	**21.5**	**22.3**	**17.2**
Zinc	5	TACO	**60,800**	**71,500**	**21,200**	**8,410**	**7,540**	**174**	**49.8**	**258**	**65.1**	**2,110**	**9,800**	**69,000**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	SB190B ME3RM5 36648 7/25/2007 mg/kg 3 L1 8-10	SB191A ME3RM8 36648 7/26/2007 mg/kg 3 L1, L4 0-2	SB191B ME3RM9 36648 7/26/2007 mg/kg 3 L1 6-8	SB192A ME3RN4 36648 7/26/2007 mg/kg 3 L1 0-2	SB192B ME3RN5 36648 7/26/2007 mg/kg 3 L1 4-6	SB270B ME3RN6 36648 7/26/2007 mg/kg SB192B 3 L1 4-6	SB193A ME3RL3 36648 7/25/2007 mg/kg 3 L4 0-2	SB194A ME3RG9 36648 7/24/2007 mg/kg 3 L2 0-2	SB194B ME3RH0 36648 7/24/2007 mg/kg 3 L1 4-5_5	SB195A ME3RT5 36720 8/15/2007 mg/kg 3 L1 0-2	SB195B ME3RT6 36720 8/15/2007 mg/kg 3 L1 6-8	SB196A ME3RT7 36720 8/15/2007 mg/kg 3 L1, L2 0-2
Aluminum	55,000	SSL-risk	5,090	8,580	16,500	6,530	19,200	17,900	8,460	7,600	4,410	11,700	22,200	8,640
Antimony	0.006	TACO	20.8	3.7 J-	1.7 J-	33.7	2.6 J+	2.5 J+	4.6 J-	32.8	9 J+	275 J	1.8 J	418 J
Arsenic	0.0013	SSL-risk	76.7	99.6	1.1 U	71.4	2.7	1.2 U	34.4	59.5	18.6	80.4	1.6 U	12
Barium	2	TACO	252 J	1,700	105	381 J	142 J	124 J	246	190 J	73.6 J	143 J-	36.9 J-	198 J-
Beryllium	0.004	TACO	0.57 U	0.84	1.1	0.67 J+	0.98	0.97	0.85	0.82 J	0.54 UJ	0.85 J+	1.2	0.55 J+
Cadmium	0.005	TACO	106 J	169 J	0.56 U	88.9 J	12.5 J	2.4 J+	195 J	70.6	57.2	252	2.2 J+	99.5309
Calcium	NC	--	6,470 J	33,600	21,900	8,270 J	37,800 J	41,800 J	12,100	2,900 J	183,000 J	10,500 J	20,000 J	1,530 J
Chromium (total)	0.10	TACO	17.2 J	92.5	25.1	19.8 J	30.6 J	28.8 J	27.6	15.7 J	11.1 J	30.3	33.6	12.5
Cobalt	0.49	SSL-risk	30.5	37.7	10.9	24.2	15.6	13.1	15.2	14.5 J	11.8 J	14.3	9.5	33.2
Copper	0.65	TACO	550 J	311 J	3.5 J	767 J	14 J	5.5 J	576 J	459	95.6	1,250 J	16.4 J	163 J
Cyanide	0.2	TACO	2.9 U	0.45 J	2.8 U	2.9 U	2.8 U	2.8 U	2.4 J	2.1 J	0.46 J	3.2 UJ	2.8 UJ	2.8 UJ
Iron	5	TACO	51,700 J	44,500	23,700	38,200 J	21,500 J	20,500 J	38,400	40,500 J	20,800 J	55,600	26,700	14,300
Lead	0.0075	TACO	7,370 J	625 J	6 J	2,040 J	20.1 J	6.3 J	2,540 J	2,980	1,630	4,250	37.4	400
Magnesium	NC	--	2,390 J	2,770	7,900	1,670 J	7,710 J	7,600 J	4,930	920 J	2,300 J	3,610	10,400	1,350
Manganese	0.15	TACO	1,150 J	18,200	249	1,230 J	528 J	577 J	543	596 J	757 J	1,000	364	2,090
Mercury	0.002	TACO	0.66	0.43	0.11 U	0.27	0.11 U	0.11 U	2.3	4.1	5.3	55.9	0.11 U	1.8
Nickel	0.10	TACO	32.1	134	42.3	12.6	42.4	38	107	41.1 J	21 J	72.2	40	14.8
Potassium	NC	--	526 J	1,980 J	3,400 J	969 J	5,580 J	5,220 J	941 J	1,060 J	1,350 J	1,960	6,360	898
Selenium	0.05	TACO	4.2	4.3 U	4 U	2.2 J	3.9 U	3.9 U	3.6 J	5.7	2.3 J	20.9	1.8 J	3.9 U
Silver	0.05	TACO	16	2.1	1.1 U	12.3	1.8 J+	1.7 J+	6.8	8.6	3.6 J+	29.9 J	1.4 J	2.2 J+
Sodium	NC	--	2,950	617 UJ	564 UJ	1,800	364 J-	368 J-	631 UJ	R	541 U	R	556 U	R
Thallium	0.002	TACO	R	4.1	2.8 U	2.9 U	2.8 U	2.8 U	3.2 U	2.9 U	2.7 U	3.2 U	2.8 U	2.8 U
Vanadium	0.049	TACO	18.1	109	17.7	21.4	17.1	15.5	22.7	19	16.9	18.2	23.4	22.1
Zinc	5	TACO	68,600 J	50,700	66.7	37,500 J	1,420 J	136 J	48,300	18,000	4,830	149,000	508	13,400

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	SB196B ME3RT8 36720 8/15/2007 mg/kg 3 L1 6-8	SB197A ME3RA2 36631 7/19/2007 mg/kg 3 L2, L3 0-2	SB197B ME3RA3 36631 7/19/2007 mg/kg 3 L1 8-10	SB198A ME3RB4 36631 7/19/2007 mg/kg 3 L1, L3 0-2	SB198B ME3RB5 36631 7/19/2007 mg/kg 3 L1 4-6	SB199A ME3S13 36664 8/1/2007 mg/kg 3 L1 0-2	SB199B ME3S14 36664 8/1/2007 mg/kg 3 L1 6-8	SB200A ME3S47 36664 8/2/2007 mg/kg 3 L4 0-2	SB200B ME3S48 36664 8/2/2007 mg/kg 3 L1 8-10	SB201A ME3SK9 36720 8/13/2007 mg/kg 2 L1 0-2	SB201B ME3SL0 36720 8/13/2007 mg/kg 2 L1 6-8	SB316B ME3SN0 36720 8/13/2007 mg/kg SB201B 2 L1 6-8
Aluminum	55,000	SSL-risk	**18,900**	**8,150**	**14,500**	**9,610**	**2,440**	**7,970**	**5,360**	**10,700**	**1,810**	**6,800**	**14,000**	**14,200**
Antimony	0.006	TACO	**2.3 J**	**3.2 J-**	6.9 UJ	7.2 UJ	**23.9 J-**	**3.9 J+**	7.4 U	**22.1**	8.6 U	7.3 UJ	6.8 UJ	6.9 UJ
Arsenic	0.0013	SSL-risk	1.6 U	**25.1**	**5.5**	**7.9**	**97.4**	**60.2**	**1.7**	**31.9**	1.9 U	**0.41 J-**	**0.75 J-**	1.1 UJ
Barium	2	TACO	**34.1 J-**	**133 J**	**180 J**	**197 J**	**153 J**	**202**	**137**	**125**	**84.3**	**95.4**	**68.5**	**57.6**
Beryllium	0.004	TACO	**0.99**	**0.87 J+**	**1.2 J+**	**0.59 J+**	**0.58 J+**	0.7 U	0.62 U	**2.9 J**	0.72 UJ	**0.64 J**	**1 J**	**0.93 J+**
Cadmium	0.005	TACO	**10.1**	**27.4**	**0.52 J**	**11.2**	**123**	**114**	**12.1**	**102**	**2.4 J+**	0.61 UJ	0.56 UJ	0.57 UJ
Calcium	NC	--	**28,800 J**	**4,340 J**	**19,800 J**	**2,000 J**	**1,140 J**	**4,630**	**24,000**	**33,100 J**	**59,800 J**	**9,130 J**	**42,200 J**	**47,700 J**
Chromium (total)	0.10	TACO	**28.1**	**16.9**	**25.1**	**15.1**	**8**	**14.1**	**11.7**	**20.1 J**	**2.8 J**	**13.6 J**	**18.5 J**	**19.2 J**
Cobalt	0.49	SSL-risk	**13.5**	**8.3**	**12.7**	**3.4 J**	**7.5**	**10.6**	**7**	**7.8 J**	7.2 UJ	6.1 UJ	**9.2 J**	**8.8 J**
Copper	0.65	TACO	**30.4 J**	**258**	**9.6**	**39.8**	**1,090**	**74.1**	**16.3**	**258**	**3.2 J**	**12 J**	**9 J**	**8.2 J**
Cyanide	0.2	TACO	2.9 UJ	3.1 U	2.9 U	3 U	3.2 U	**0.17 J**	3.1 U	**0.16 J**	3.6 U	3.1 U	2.8 U	2.9 U
Iron	5	TACO	**19,900**	**41,200 J**	**25,100 J**	**16,400 J**	**37,600 J**	**15,600**	**7,980**	**41,200**	**4,310**	**10,000**	**15,000**	**14,600**
Lead	0.0075	TACO	**41.5**	**2,320**	**13**	**77.4**	**3,050**	**408**	**20.4**	**2,660**	**60.4**	**5.2 J**	**7.7 J**	**5.3 J-**
Magnesium	NC	--	**8,230**	**1,550**	**8,580**	**2,470**	**445 J**	**2,930**	**12,900**	**1,080**	**444 J**	**4,920**	**7,120**	**9,890**
Manganese	0.15	TACO	**354**	**276**	**782**	**104**	**97.9**	**292**	**143**	**838 J**	**68.7 J**	**311**	**429**	**567**
Mercury	0.002	TACO	**0.067 J**	**3.1 J+**	0.12 U	**11 J+**	**0.4 J+**	**3.3**	0.12 U	**12.7**	**0.25 J-**	**0.073 J**	**0.89**	**0.17**
Nickel	0.10	TACO	**36.1**	**20.2**	**45.7**	**11.8**	**16.9**	**10.9**	**12.9**	**36.6 J**	**0.43 J**	**11.1 J**	**37.4 J**	**35.8 J**
Potassium	NC	--	**5,910**	**1,240 J**	**4,410 J**	**971 J**	**695 J**	**919 J**	**732 J**	**1,810 J**	**1,170 J**	**1,930**	**4,920**	**5,170**
Selenium	0.05	TACO	4 U	**10 J-**	4 UJ	4.2 UJ	**12.8 J-**	**4.7 J**	4.3 U	**4.4**	5 U	4.3 U	3.9 U	4 U
Silver	0.05	TACO	**1.1 J**	**3.6 J+**	1.1 U	1.2 U	**18.3**	**1.8 J+**	1.2 U	**7 J+**	1.4 U	1.2 U	1.1 U	1.1 U
Sodium	NC	--	575 U	**728 J**	**235 J**	598 U	**218 J**	**1,340 J+**	615 U	**1,500 J+**	**118 J**	**201 J**	**312 J**	**335 J**
Thallium	0.002	TACO	2.9 U	3 UJ	2.9 UJ	3 UJ	3.1 UJ	3.5 U	3.1 U	2.7 U	3.6 U	3.1 U	2.8 U	2.9 U
Vanadium	0.049	TACO	**18.7**	**27.8**	**28.6**	**27.3**	**8.5**	**24.4**	**11.1**	**31 J**	7.2 UJ	**11.2**	**16.9**	**13.9**
Zinc	5	TACO	**2,560**	**9,000 J**	**58.4**	**3,820 J**	**17,700 J**	**16,500 J**	**1,870 J**	**16,700 J**	**391 J**	**37.7**	**35.4**	**44.8**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	SB211A ME3SR0 36720 8/14/2007 mg/kg 1 L1 0-2	SB211B ME3SR1 36720 8/14/2007 mg/kg 1 L1 8-10	SB212A ME3SR2 36720 8/14/2007 mg/kg 3 L2, L3 0-2	SB212B ME3SR3 36720 8/14/2007 mg/kg 3 L1, L2 8-10	SB213A ME3SR4 36720 8/14/2007 mg/kg 3 L2, L3 0-2	SB213B ME3SR5 36720 8/14/2007 mg/kg 3 L2 8-10	SB214A ME3ST9 36720 8/16/2007 mg/kg 3 L1 0-2	SB214B ME3SW0 36720 8/16/2007 mg/kg 3 L2, L4 6-8	SB215A ME3SW1 36720 8/16/2007 mg/kg 3 L1, L2 0-2	SB215B ME3SW2 36720 8/16/2007 mg/kg 3 L1, L4 8-10	SB323B ME3SW5 36720 8/16/2007 mg/kg SB215B 3 L1, L4 8-10	SB322A ME3RT1 36720 8/15/2007 mg/kg SB215A 3 L1, L2 0-2
Aluminum	55,000	SSL-risk	**210**	**8,720**	**469**	**18,300**	**4,380**	**4,540**	**10,300**	**3,950**	**599**	**4,650**	**9,930**	**11,000**
Antimony	0.006	TACO	**8.4 J**	**9.9 J-**	**4.3 J-**	7.3 UJ	**7.1 J-**	**2.4 J-**	**488 J**	**374 J**	**8.5 J**	**2.3 J**	**477 J**	**652 J**
Arsenic	0.0013	SSL-risk	1.3 UJ	**257 J**	**28.6 J**	R	**39 J**	**15.6 J**	**14.2**	**35.1**	**50.2**	4.3 U	**17.3**	**156 J**
Barium	2	TACO	**363**	**126**	**98.1**	**214**	**235**	**105**	**202 J-**	**208 J-**	**145 J-**	**40.8 J-**	**187 J-**	**111**
Beryllium	0.004	TACO	**0.35 J**	**1.4**	**0.46 J+**	**1.2**	**0.57 J+**	**0.46 J+**	**0.67 J+**	0.56 U	0.67 U	0.3 U	**0.85 J+**	**1.9**
Cadmium	0.005	TACO	**3.9**	**31.9**	**2.2 J+**	**5.6**	**8.6**	**11.3**	**123**	**49.2**	**2.3 J+**	**24.7**	**67.8**	**755**
Calcium	NC	--	**88.1 J**	**23,400**	**163 J**	**11,200**	**4,650**	**8,160**	**2,620 J**	**1,350 J**	**1,030 J**	**125,000 J**	**42,500 J**	**1,900**
Chromium (total)	0.10	TACO	**3.1 J**	**24.1 J**	**4.8 J**	**28.2 J**	**20 J**	**17.9 J**	**15**	**13.3**	**4.8**	**7.8**	**16.7**	**37.1 J**
Cobalt	0.49	SSL-risk	**0.31 J**	**4.4 J**	6.8 U	**13.1**	**7.9**	**3.5 J**	**32.6**	**24.9**	6.7 U	5.7 U	**38**	**13.5**
Copper	0.65	TACO	**69.5 J**	**138 J**	**107 J**	**9.3 J**	**634 J**	**289 J**	**205 J**	**850**	**93.2 J**	**39.2 J**	**45.6 J**	**2,480 J**
Cyanide	0.2	TACO	3.4 UJ	3 UJ	3.4 UJ	3 UJ	3.2 UJ	2.9 UJ	3.2 UJ	2.8 UJ	3.3 UJ	2.9 UJ	3.1 UJ	3.6 UJ
Iron	5	TACO	**1,240**	**63,500**	**16,900**	**26,700**	**47,200**	**63,100**	**17,600**	**37,000**	**20,200**	**11,300**	**35,100**	**107,000**
Lead	0.0075	TACO	**1,980 J**	**4,850 J**	**2,010 J**	**21 J**	**3,160 J**	**2,570 J**	**503**	**13,700**	**5,930**	**19.5**	**98.6**	**48,700 J**
Magnesium	NC	--	**21.4 J**	**246 J**	**38.6 J**	**9,140**	**345 J**	**207 J**	**2,150**	**629**	666 U	**59,300**	**21,300**	**792**
Manganese	0.15	TACO	**0.99 J**	**60.5**	**3**	**509**	**51.8**	**40.4**	**1,660**	**264**	**12.9**	**1,340**	**2,100**	**838**
Mercury	0.002	TACO	**1.9**	**0.42**	**0.69**	**0.14**	**0.86**	**1.4**	**1.1**	**0.32**	**24.1**	0.11 U	**0.1 J**	**60.3**
Nickel	0.10	TACO	**0.93 J**	**23.4**	**1.9 J**	**50.4**	**13**	**8.3**	**17.5**	**34.4**	5.3 U	**17.9**	**42.1**	**82.1**
Potassium	NC	--	675 U	**3,570**	**1,210**	**2,880**	648 U	**1,350**	**1,060**	563 U	666 U	**1,940**	**2,250**	715 U
Selenium	0.05	TACO	**1.2 J-**	**62.5 J-**	**2.4 J-**	4.3 UJ	**6.2 J-**	**4.2 J-**	4.5 U	**3 J**	**9.4**	4 U	4.3 U	**81.9 J-**
Silver	0.05	TACO	**5.5**	**6.2 J+**	**4.8 J+**	**0.32 J**	**10.1**	**3.9 J+**	**2.8 J+**	**16.3 J**	**6.6 J+**	1.1 UJ	**2 J+**	**62.7**
Sodium	NC	--	675 U	**63.9 J**	**550 J**	609 U	R	579 U	R	R	666 U	R	R	R
Thallium	0.002	TACO	3.4 U	3 U	**1.3 J**	3 U	3.2 U	2.9 U	3.2 U	2.8 U	3.3 U	2.9 U	3.1 U	**1.9 J**
Vanadium	0.049	TACO	**2.2 J**	**41.9**	**4.6 J-**	**16.1**	**13.6**	**30.5**	**27.7**	**16.5**	**26.9**	**10.7**	**26.9**	**6.6 J**
Zinc	5	TACO	**794**	**4,160**	**286**	**2,130**	**8,310**	**5,150**	**18,400**	**46,300**	**1,020**	**9,360**	**15,200**	**218,000**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	SB401A-08 ME3XS0 37920 10/9/2008 mg/kg 1 L1 0-2	SB401B-08 ME3XS1 37920 10/9/2008 mg/kg 1 L1 14-16	SB402A-08 ME3XS2 37920 10/9/2008 mg/kg 1 L1, L2 0-2	SB402B-08 ME3XS3 37920 10/9/2008 mg/kg 1 L1 10-12	SB403A-08 ME3XS4 37920 10/9/2008 mg/kg 1 L1, L2 0-2	SB403B-08 ME3XS5 37920 10/9/2008 mg/kg 1 L1 13-15	SB404A-08 ME3XS6 37920 10/9/2008 mg/kg 1 L2, L3, L4 0-2	SB404B-08 ME3XS7 37920 10/9/2008 mg/kg 1 L1 16-18	SB405A-08 ME3XS8 37920 10/9/2008 mg/kg 1 L2, L3, L4 0-2	SB405B-08 ME3XS9 37920 10/9/2008 mg/kg 1 L1 22-24	SB406A-08 ME3XT0 37920 10/15/2008 mg/kg 1 L1 2-4	SB500A-08 ME3Y60 37920 10/15/2008 mg/kg SB406A-08 1 L1 2-4
Aluminum	55,000	SSL-risk	**9,550**	**10,700**	**4,300**	**10,300**	**15,200**	**8,240**	**11,200**	**6,850**	**1,890**	**7,680**	**8,700**	**8,950**
Antimony	0.006	TACO	7.9 UJ	8.7 UJ	6.8 UJ	6.9 UJ	8.6 UJ	6.6 UJ	7.3 UJ	6.7 UJ	**12.6 J**	**2.1 J-**	6.7 UJ	R
Arsenic	0.0013	SSL-risk	**5.4**	**1.1 J**	**20.7**	**5.3**	**12.2**	**1.1 J+**	**16.4**	**4.3 J+**	**14.7**	**7**	**9.5**	**8.9 J**
Barium	2	TACO	**220**	**34.6**	**136**	**56**	**193**	**31.3**	**130**	**115**	**749**	**109**	**175**	**124**
Beryllium	0.004	TACO	**0.66 J+**	**1.2**	**0.64**	**0.63**	**0.93**	**0.54 J+**	**1.6**	**0.55 J+**	**0.27 J+**	**0.47 J+**	**0.54 J+**	**0.56 J+**
Cadmium	0.005	TACO	**1.8**	0.73 U	**39.9**	0.57 U	**1.1 J+**	0.55 U	**38.6**	0.56 U	**25.8**	**247**	**70.1**	**20.4**
Calcium	NC	--	**4,770**	**20,900**	**37,700**	**51,000**	**5,560**	**41,900**	**10,800**	**59,000**	**968**	**73,200**	**81,400**	**79,600**
Chromium (total)	0.10	TACO	**12.8**	**14.9**	**8.9**	**17.4**	**21.7**	**12**	**14.6**	**9.5**	**3 J-**	**11.4**	**15**	**13.1**
Cobalt	0.49	SSL-risk	**9.7**	**10.4**	**15.5**	**10.9**	**15.8**	**7.4**	**12.5**	**22.2**	5.9 UJ	**29.2**	**14.4**	**15.2**
Copper	0.65	TACO	**11.9**	**23.9**	**282**	**17.1**	**27.7**	**19.4**	**208**	**31.2**	**43**	**4.1**	**125**	**85.3**
Cyanide	0.2	TACO	3.3 UJ	3.6 UJ	2.8 UJ	2.9 UJ	3.6 UJ	2.8 UJ	3 UJ	2.8 UJ	2.9 UJ	3 UJ	2.8 UJ	2.9 U
Iron	5	TACO	**13,500**	**12,200**	**35,800**	**18,700**	**26,500**	**10,400**	**47,700**	**8,740**	**11,900**	**14,900**	**24,600**	**23,100**
Lead	0.0075	TACO	**15.1**	**8.5**	**1,390**	**13.4**	**20.1**	**4.6 J-**	**1,320**	**13**	**2,010**	**31.1**	**353**	**290 J**
Magnesium	NC	--	**1,620**	**5,970**	**19,200**	**23,300**	**3,220**	**8,050**	**854**	**9,610**	**121 J**	**30,400**	**19,400**	**14,700**
Manganese	0.15	TACO	**987 J**	**211 J**	**682 J**	**363 J**	**1,380 J**	**1,430 J**	**385 J**	**852 J**	**15.2 J**	**670 J**	**2,470 J**	**2,820**
Mercury	0.002	TACO	0.13 U	0.15 U	0.11 U	0.12 U	0.14 U	0.12 U	**0.13**	0.11 U	**7**	0.12 U	**1.2**	**0.23**
Nickel	0.10	TACO	**16.1**	**49.2**	**29**	**30.4**	**50.2**	**25.7**	**26**	**29.6**	**1.1 J**	**47**	**31.4**	**34.7**
Potassium	NC	--	**885**	**3,220**	**555 J**	**2,070**	**757**	**2,440**	**1,410**	**2,050**	**504 J**	**1,300**	**1,460**	**1,520**
Selenium	0.05	TACO	4.6 UJ	5.1 U	**0.79 J+**	4 UJ	5 UJ	3.8 UJ	**1.1 J-**	3.9 UJ	**1.4 J-**	4.3 UJ	**0.34 J-**	4.1 U
Silver	0.05	TACO	1.3 U	1.5 U	**4.4**	1.1 U	1.4 U	1.1 U	**2.5 J+**	1.1 U	**4.8**	1.2 U	**3.5 J+**	**1.7 J+**
Sodium	NC	--	**22.9 J**	**282 J**	**97.6 J**	**159 J**	**57.4 J**	**260 J**	**532 J**	**184 J**	**207 J**	**86.1 J**	**321 J**	**289 J**
Thallium	0.002	TACO	3.3 UJ	3.6 U	2.8 UJ	2.9 UJ	3.6 UJ	**0.34 J-**	3 UJ	2.8 UJ	2.9 UJ	3 UJ	**0.28 J-**	**0.66 J-**
Vanadium	0.049	TACO	**25.1**	**11.6**	**12.5**	**17.1**	**31.7**	**9.1**	**30.8**	**12.1**	**7.3**	**15.5**	**13.6**	**12.1**
Zinc	5	TACO	**482**	**36.6**	**14,500**	**78.2**	**296**	**31.5**	**11,900**	**27.3**	**3,360**	**49,600**	**11,300**	**7,030**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	SB406B-08 ME3XT1 37920 10/15/2008 mg/kg 1 L1 26-28	SB500B-08 ME3Y61 37920 10/15/2008 mg/kg SB406B-08 1 L1 26-28	SB407A-08 ME3XT2 37920 10/9/2008 mg/kg 1 L2, L3 0-2	SB407B-08 ME3XT3 37920 10/9/2008 mg/kg 1 L2, L3, L4 14-16	SB408A-08 ME3XT4 37920 10/14/2008 mg/kg 1 L2, L4 0-2	SB408B-08 ME3XT5 37920 10/14/2008 mg/kg 1 L2, L4 34-36	SB409A-08 ME3XT6 37920 10/7/2008 mg/kg 1 L2, L3, L4 0-2	SB409B-08 ME3XT7 37920 10/8/2008 mg/kg 1 L1 20-21	SB410A-08 ME3XT8 37920 10/9/2008 mg/kg 1 L2, L3, L4 0-2	SB410B-08 ME3XT9 37920 10/9/2008 mg/kg 1 L2, L4 18-20	SB411A-08 ME3XW0 37920 10/6/2008 mg/kg 3 L2, L3, L4 0-2	SB411B-08 ME3XW1 37920 10/6/2008 mg/kg 3 L2, L4 10-12
Aluminum	55,000	SSL-risk	**7,320**	**6,710**	**3,030**	**5,120**	**10,100**	**11,700**	**7,980**	**8,620**	**2,720**	**9,090**	**7,730**	**12,400**
Antimony	0.006	TACO	7 UJ	R	6.9 UJ	7 UJ	7.4 UJ	7.7 UJ	**1.1 J-**	8.7 UJ	**3.4 J**	9.8 UJ	**0.66 J-**	6.6 UJ
Arsenic	0.0013	SSL-risk	**16.7**	**18 J**	**40.7**	**6.3**	**10.5**	**9.6**	**52.6**	**12.1**	**217**	**45.8**	**25.6**	**6.7 J+**
Barium	2	TACO	**65.2**	**74.1**	**236**	**144**	**166**	**189**	**432**	**190**	**252**	**267**	**141**	**61.2**
Beryllium	0.004	TACO	**0.54 J+**	**0.58 J**	**0.44 J+**	**0.58 J**	**0.9**	**0.97**	**1.2**	**1**	**0.3 J+**	**1.2**	**1.1**	**1.4**
Cadmium	0.005	TACO	0.58 U	0.6 U	**40.4**	**24.5**	**56.2**	**2.4**	**119**	**6.4**	**161**	**16**	**85.7 J**	**17.2 J**
Calcium	NC	--	**184,000**	**205,000**	**4,330**	**18,100**	**28,300**	**7,180**	**25,000**	**20,000**	840 U	**48,100**	**33,100 J**	**7,940 J**
Chromium (total)	0.10	TACO	**15.4**	**12.1**	**11.7**	**2.9**	**12.4**	**18.4**	**15.3**	**11**	**9.4**	**12.3**	**8.9**	**7.5**
Cobalt	0.49	SSL-risk	**14.7**	**12**	**18.4**	5.9 U	**26.8**	**14.8**	**30**	7.2 U	8.4 UJ	8.2 U	**9**	**15.8**
Copper	0.65	TACO	**18.3**	**16.5**	**722**	**85.2**	**70.4**	**29.8**	**801**	**136**	**1,340**	**427**	**280**	**43.7**
Cyanide	0.2	TACO	2.9 UJ	3 U	2.9 UJ	2.9 UJ	3.1 UJ	3.2 UJ	3.8 UJ	3.6 UJ	4.2 UJ	4.1 UJ	2.9 UJ	2.7 UJ
Iron	5	TACO	**20,500**	**25,700**	**52,100**	**5,330**	**18,100**	**19,500**	**60,100**	**16,000**	**77,400**	**23,700**	**31,800**	**41,100**
Lead	0.0075	TACO	**11.7**	**9.7 J-**	**3,290**	**682**	**144**	**29.2**	**4,750**	**13,200**	**4,780**	**2,190**	**2,540**	**45.5**
Magnesium	NC	--	**11,400**	**17,900**	**1,440**	**157 J**	**5,180**	**4,720**	**4,150**	723 U	840 U	**266 J**	**3,980 J**	**142 J**
Manganese	0.15	TACO	**2,830 J**	**5,220**	**887 J**	**42.2 J**	**2,520 J**	**1,700 J**	**2,390 J**	**377 J**	**532 J**	**100 J**	**1,280**	**87.4**
Mercury	0.002	TACO	0.12 U	**0.016 J**	**2.2**	**0.14**	0.12 U	0.13 U	**0.97 J-**	0.14 U	**5.8**	0.16 U	**0.95**	0.12 U
Nickel	0.10	TACO	**44**	**37**	**25.2**	**6.7**	**46.1**	**44.9**	**40.7**	**7.3**	**27.6**	**14.5**	**19.8**	**27.8**
Potassium	NC	--	**1,340**	**1,320**	**425 J**	**316 J**	**2,200**	**1,610**	**712 J**	**3,620**	**1,600**	**4,540**	**1,520**	**3,220**
Selenium	0.05	TACO	4.1 UJ	4.2 U	**5.2 J-**	4.1 U	4.3 UJ	4.5 UJ	**3.1 J-**	**0.8 J-**	**21 J**	**1.1 J-**	**3 J-**	**0.7 J-**
Silver	0.05	TACO	1.2 U	1.2 U	**9.8**	**1.3**	**1.4 J+**	1.3 U	**7.3**	**1.8 J+**	**29.5**	**3.7 J+**	**4.4**	**0.89 J**
Sodium	NC	--	**446 J**	**368 J**	**70.9 J**	**335 J**	**175 J**	**355 J**	**176 J**	**424 J**	**447 J**	**363 J**	**384 J**	**633**
Thallium	0.002	TACO	**0.36 J-**	**2.1 J-**	2.9 UJ	2.9 U	**0.95 J-**	**0.57 J-**	3.8 UJ	3.6 UJ	4.2 UJ	4.1 UJ	2.9 UJ	2.7 UJ
Vanadium	0.049	TACO	**11.1**	**9.7**	**15.5**	**11.4**	**16.5**	**17**	**25.3**	**37.4**	**23.5**	**24**	**25.5**	**22.6**
Zinc	5	TACO	**50**	**58.7**	**23,200**	**2,430**	**24,100**	**543**	**88,100**	**2,320**	**89,200**	**5,260**	**16,400**	**1,340**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	Location ID	Sample ID	Case	Sampling date	Unit	Duplicate info	Investigation area	Lithology	Depth (ft bgs)
Aluminum	55,000	SSL-risk	SB412A-08	ME3XW2	37920	10/14/2008	mg/kg		3	L1	0-2
Antimony	0.006	TACO	SB501A-08	ME3Y62	37920	10/14/2008	mg/kg	SB412A-08	3	L1	0-2
Arsenic	0.0013	SSL-risk	SB412B-08	ME3XW3	37920	10/14/2008	mg/kg		3	L1	8-10
Barium	2	TACO	SB501B-08	ME3Y63	37920	10/14/2008	mg/kg	SB412B-08	3	L1	8-10
Beryllium	0.004	TACO	SB413A-08	ME3XW4	37920	10/6/2008	mg/kg		2	L3, L4	0-2
Cadmium	0.005	TACO	SB413B-08	ME3XW5	37920	10/6/2008	mg/kg		2	L3, L4	8-10
Calcium	NC	--	SB414A-08	ME3XW6	37920	10/6/2008	mg/kg		2	L2, L4	0-2
Chromium (total)	0.10	TACO	SB414B-08	ME3XW7	37920	10/6/2008	mg/kg		2	L2, L4	6-8
Cobalt	0.49	SSL-risk	SB415A-08	ME3XW8	37920	10/6/2008	mg/kg		2	L2, L4	0-2
Copper	0.65	TACO	SB415B-08	ME3XW9	37920	10/6/2008	mg/kg		2	L1	4-6
Cyanide	0.2	TACO	SB416A-08	ME3XX0	37920	10/6/2008	mg/kg		2	L2, L3, L4	0-2
Iron	5	TACO	SB416B-08	ME3XX1	37920	10/6/2008	mg/kg		2	L1	8-10
Lead	0.0075	TACO									
Magnesium	NC	--									
Manganese	0.15	TACO									
Mercury	0.002	TACO									
Nickel	0.10	TACO									
Potassium	NC	--									
Selenium	0.05	TACO									
Silver	0.05	TACO									
Sodium	NC	--									
Thallium	0.002	TACO									
Vanadium	0.049	TACO									
Zinc	5	TACO									

Analyte	SB412A-08 ME3XW2 37920 10/14/2008 mg/kg 3 L1 0-2	SB501A-08 ME3Y62 37920 10/14/2008 mg/kg SB412A-08 3 L1 0-2	SB412B-08 ME3XW3 37920 10/14/2008 mg/kg 3 L1 8-10	SB501B-08 ME3Y63 37920 10/14/2008 mg/kg SB412B-08 3 L1 8-10	SB413A-08 ME3XW4 37920 10/6/2008 mg/kg 2 L3, L4 0-2	SB413B-08 ME3XW5 37920 10/6/2008 mg/kg 2 L3, L4 8-10	SB414A-08 ME3XW6 37920 10/6/2008 mg/kg 2 L2, L4 0-2	SB414B-08 ME3XW7 37920 10/6/2008 mg/kg 2 L2, L4 6-8	SB415A-08 ME3XW8 37920 10/6/2008 mg/kg 2 L2, L4 0-2	SB415B-08 ME3XW9 37920 10/6/2008 mg/kg 2 L1 4-6	SB416A-08 ME3XX0 37920 10/6/2008 mg/kg 2 L2, L3, L4 0-2	SB416B-08 ME3XX1 37920 10/6/2008 mg/kg 2 L1 8-10
Aluminum	**3,200**	**2,230**	**7,970**	**2,350**	**4,030**	**3,940**	**9,330**	**10,300**	**10,200**	**16,400**	**8,170**	**9,950**
Antimony	R	R	R	R	6.6 UJ	7 UJ	7.2 UJ	7.8 UJ	**1 J-**	7.5 UJ	**0.59 J-**	6.9 UJ
Arsenic	**17.2 J**	**16.6 J**	**20.2 J**	**16.4 J**	**9.4 J+**	**11.8**	**14.6**	**10.4 J+**	**23.4**	**10.8 J+**	**20**	**2.2 J+**
Barium	**21.9 J**	**16.4 J**	**76.6**	**18.5 J**	**55.1**	**41.1**	**196**	**232**	**202**	**149**	**213**	**84.6**
Beryllium	0.56 U	0.51 U	0.63 U	0.57 U	0.55 U	0.58 U	**0.86**	**0.83**	**0.97**	**0.79**	**1**	**0.76**
Cadmium	**6 J**	**3.5 J**	**1.2 J+**	**4.2 J**	**13.5 J**	**1.6 J+**	**52.3 J**	**13.6 J**	**94.1 J**	**0.63 J+**	**40.4 J**	**0.87 J+**
Calcium	**10,000**	**3,060**	**11,700**	**4,030**	**86,900 J**	**66,200 J**	**15,900 J**	**7,910 J**	**24,800 J**	**3,310 J**	**26,700 J**	**36,800 J**
Chromium (total)	**8.8**	**6.7 J-**	**19.9**	**7.6 J-**	**6.7**	**7.6**	**13.3**	**15.7**	**14.4**	**20.2**	**12.8**	**13.4**
Cobalt	5.6 UJ	5.1 UJ	6.3 UJ	5.7 UJ	**9.8**	**8.1**	**10.3**	**9**	**15.1**	**11**	**15.3**	**7.8**
Copper	**32.6**	**21.8**	**71.1**	**25.9**	**28.8**	**28.4**	**73.4**	**71.1**	**111**	**20.8**	**144**	**17.2**
Cyanide	2.8 UJ	2.5 UJ	3.1 UJ	2.8 UJ	2.8 UJ	2.9 UJ	3 UJ	3.2 UJ	3.1 UJ	3.1 UJ	3 UJ	2.9 UJ
Iron	**26,900**	**28,500**	**44,300**	**28,900**	**17,300**	**19,900**	**22,200**	**21,900**	**23,400**	**23,100**	**35,900**	**13,700**
Lead	**111**	**128**	**179**	**141**	**66.2**	**29.4**	**287**	**146**	**491**	**13.7**	**1,920**	**7.8**
Magnesium	**913**	**481 J**	**1,780**	**479 J**	**45,900 J**	**40,000 J**	**6,740 J**	**3,350 J**	**5,600 J**	**3,270 J**	**8,960 J**	**6,520 J**
Manganese	**79.7**	**36.9**	**103**	**38.4**	**683**	**601**	**1,150**	**523**	**1,260**	**436**	**793**	**550**
Mercury	**0.22**	**0.36**	**0.22**	**0.22**	**0.12**	**0.021 J**	**0.39**	**0.044 J**	**0.11 J**	**0.055 J**	**0.095 J**	**0.019 J**
Nickel	**7**	**2.9 J**	**12.2**	**3.6 J**	**20**	**20.1**	**30.7**	**23.5**	**33.3**	**20.3**	**26.2**	**32**
Potassium	**1,570**	**2,150**	**2,340**	**2,000**	**720**	**784**	**1,180**	**1,000**	**1,430**	**747**	**1,040**	**2,560**
Selenium	**1.1 J-**	**0.81 J-**	**1.1 J-**	**1.1 J-**	**0.55 J-**	4.1 UJ	**0.59 J-**	4.5 UJ	**0.95 J-**	4.4 UJ	**1.6 J-**	4.1 UJ
Silver	**1.2 J+**	**0.82 J+**	**1.3 J+**	**0.78 J+**	**0.86 J**	**0.85 J**	**1.6 J+**	**1 J**	**9.1**	**0.55 J**	**5.6**	**0.59 J**
Sodium	**411 J**	**746**	**316 J**	**746**	**159 J**	**92.9 J**	**108 J**	**129 J**	**319 J**	**180 J**	**310 J**	**233 J**
Thallium	**0.37 J-**	**3.1 J-**	3.2 UJ	**1.1 J-**	2.8 UJ	2.9 UJ	**0.25 J-**	3.2 UJ	3.1 UJ	3.1 UJ	3 UJ	2.9 UJ
Vanadium	**13.1**	**7.2**	**18.9**	**8**	**14.4**	**12.2**	**21**	**28.8**	**25.8**	**34.3**	**27.2**	**8.1**
Zinc	**663 J**	**385 J**	**370 J**	**407 J**	**1,740**	**1,180**	**7,640**	**2,040**	**13,300**	**168**	**33,200**	**116**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	Location ID / Sample ID / Case / Sampling date / Unit / Duplicate info / Investigation area / Lithology / Depth (ft bgs)											
			SB417A-08 ME3XX2 37920 10/6/2008 mg/kg 2 L2, L3, L4 0-2	SB417B-08 ME3XX3 37920 10/6/2008 mg/kg 2 L1 6-8	SB418A-08 ME3XX4 37920 10/6/2008 mg/kg 2 L2, L3, L4 0-2	SB418B-08 ME3XX5 37920 10/6/2008 mg/kg 2 L1 8-10	SB419A-08 ME3XX6 37920 10/14/2008 mg/kg 2 L2, L3, L4 0-2	SB419B-08 ME3XX7 37920 10/14/2008 mg/kg 2 L2, L4 8-10	SB420A-08 ME3XX8 37920 10/6/2008 mg/kg 2 L2, L3, L4 0-2	SB420B-08 ME3XX9 37920 10/6/2008 mg/kg 2 L2, L3, L4 10-12	SB421A-08 ME3XY0 37920 10/8/2008 mg/kg 4 L2, L4 0-2	SB421B-08 ME3XY1 37920 10/8/2008 mg/kg 4 L1 6-8	SB422A-08 ME3XY2 37920 10/16/2008 mg/kg 4 L1, L2 0-2	SB422B-08 ME3XY3 37920 10/16/2008 mg/kg 4 L1 8-10
Aluminum	55,000	SSL-risk	**10,700**	**13,100**	**7,360**	**14,300**	**7,140**	**8,650**	**5,770**	**4,770**	**8,480**	**12,400**	**7,370**	**5,920**
Antimony	0.006	TACO	6.7 UJ	7.6 UJ	6 UJ	9.1 UJ	**7.3 J-**	**3 J-**	6.4 UJ	**2.5 J-**	R	R	7.1 UJ	6.8 UJ
Arsenic	0.0013	SSL-risk	**8.6 J+**	**14.8**	**16.1**	**14.6**	**66 J**	**24.4 J**	**26.9**	**34.8**	**18.7 J**	**7.7 J**	**99.1**	**7.8 J+**
Barium	2	TACO	**119**	**271**	**241**	**174**	**208**	**96.5**	**113**	**442**	**153**	**68.8**	**159**	**25.7**
Beryllium	0.004	TACO	**0.64**	**0.82**	**1.1**	**0.95**	**0.7**	**0.78**	**1.4**	**1.7**	0.62 U	**0.63**	**0.74**	**0.32 J+**
Cadmium	0.005	TACO	**28 J**	**1.1 J+**	**76.5 J**	**22.8 J**	**93.7 J**	**57 J**	**66.6 J**	**56.1 J**	**52.6**	0.21 U	**93.4 J**	**0.39 J+**
Calcium	NC	--	**3,030 J**	**4,560 J**	**18,900 J**	**52,000 J**	**7,350**	**26,000**	**3,150 J**	**18,000 J**	**4,820**	**54,200**	**6,100**	**73,300**
Chromium (total)	0.10	TACO	**14.9**	**18**	**16.1**	**20.7**	**10.2**	**14.7**	**15.7**	**8.6**	**12.2**	**19.2**	**23.9**	**12**
Cobalt	0.49	SSL-risk	**6.5**	**18.5**	**8.5**	**16.4**	**28.1**	**18.6**	**31.1**	**20.3**	**9**	**19.2**	**15.5**	**8.5**
Copper	0.65	TACO	**18.1**	**19.6**	**214**	**30.9**	**563**	**520**	**555**	**425**	**76**	**17.4**	**480 J**	**182 J**
Cyanide	0.2	TACO	2.8 UJ	3.2 UJ	2.5 UJ	3.8 UJ	3 UJ	2.9 UJ	2.7 UJ	3.1 UJ	3.1 U	2.8 U	3 U	2.9 U
Iron	5	TACO	**15,700**	**22,500**	**34,000**	**32,200**	**34,700**	**36,400**	**62,200**	**26,900**	**19,800**	**22,800**	**27,300**	**16,500**
Lead	0.0075	TACO	**76.6**	**19.8**	**520**	**23**	**3,610**	**1,260**	**601**	**3,860**	**322**	**11.5**	**555 J**	**13.4 J**
Magnesium	NC	--	**2,010 J**	**2,950 J**	**6,620 J**	**24,000 J**	**4,520**	**9,790**	**603 J**	**382 J**	**3,050**	**24,400**	**1,830**	**41,400**
Manganese	0.15	TACO	**184**	**1,250**	**1,310**	**1,040**	**980**	**632**	**299**	**220**	**658 J**	**657 J**	**430**	**359**
Mercury	0.002	TACO	**0.039 J**	**0.051 J**	**0.21**	**0.026 J**	**0.25**	0.12 U	**0.048 J**	**0.038 J**	**0.032 J**	0.11 U	**0.23**	**0.024 J**
Nickel	0.10	TACO	**13.5**	**29.2**	**34.3**	**35.9**	**69.7**	**50.9**	**38.4**	**31.3**	**20.7**	**39.4**	**30.8**	**22**
Potassium	NC	--	**867**	**1,010**	**726**	**2,280**	**551 J**	**1,060**	**346 J**	**507 J**	**1,050**	**2,130**	**809**	**1,310**
Selenium	0.05	TACO	**0.3 J-**	4.5 UJ	**1.2 J-**	5.3 UJ	**3.2 J-**	**2.1 J-**	**2.9 J**	**0.48 J-**	**0.67 J-**	R	**2.1 J-**	4 UJ
Silver	0.05	TACO	**0.4 J**	**0.92 J**	**2.2 J+**	**1.3 J**	**8.1**	**4.2 J+**	**2.9**	**2.6 J+**	**2.1 J+**	1 U	**4.2**	**0.6 J**
Sodium	NC	--	**46.2 J**	**89.8 J**	**116 J**	**138 J**	**166 J**	**243 J**	**154 J**	**190 J**	**41.4 J**	**104 J**	**170 J**	**116 J**
Thallium	0.002	TACO	2.8 UJ	**0.26 J-**	2.5 UJ	3.8 UJ	3 UJ	2.9 UJ	2.7 U	3.1 UJ	0.38 UJ	2.8 UJ	3 UJ	2.8 UJ
Vanadium	0.049	TACO	**26.4**	**32.6**	**15.4**	**27.6**	**15.8**	**22.2**	**25.5**	**27.9**	**20.7**	**19.2**	**24.9**	**12.3**
Zinc	5	TACO	**2,790**	**317**	**24,200**	**2,090**	**85,300 J**	**66,300 J**	**17,700**	**31,300**	**7,920**	**76.3**	**31,100 J**	**156 J**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	SB423A-08 ME3XY4 37920 10/16/2008 mg/kg 3 L2, L3, L4 0-2	SB502A-08 ME3Y64 37920 10/16/2008 mg/kg SB423A-08 3 L2, L3, L4 0-2	SB423B-08 ME3XY5 37920 10/16/2008 mg/kg 3 L1 8-10	SB502B-08 ME3Y65 37920 10/16/2008 mg/kg SB423B-08 3 L1 8-10	SB424A-08 ME3XY6 37920 10/16/2008 mg/kg 4 L1, L2 0-2	SB424B-08 ME3XY7 37920 10/16/2008 mg/kg 4 L1 8-10	SB425A-08 ME3XY8 37920 10/8/2008 mg/kg 4 L1 0-2	SB425B-08 ME3XY9 37920 10/8/2008 mg/kg 4 L1 8-10	SB426A-08 ME3XZ0 37920 10/16/2008 mg/kg 4 L1, L2 0-2	SB426B-08 ME3XZ1 37920 10/16/2008 mg/kg 4 L1 8-10	SB427A-08 ME3XZ2 37920 10/16/2008 mg/kg 4 L1 0-2	SB427B-08 ME3XZ3 37920 10/16/2008 mg/kg 4 L1 8-10
Aluminum	55,000	SSL-risk	**6,420**	**10,400**	**5,770**	**13,600**	**15,400**	**5,810**	**8,530**	**9,680**	**11,900**	**4,780**	**5,880**	**7,530**
Antimony	0.006	TACO	7.5 UJ	R	7.1 UJ	R	7.5 UJ	6.6 UJ	R	R	7.4 UJ	7.1 UJ	7.4 UJ	6.9 UJ
Arsenic	0.0013	SSL-risk	**29.1**	**31 J**	**9.4 J+**	**9.3 J**	**13.2**	**8.2 J+**	**8.1 J**	**6 J**	**9.6 J+**	**8 J+**	**10.7**	**1.6 J+**
Barium	2	TACO	**165**	**222 J**	**30.6**	**52.6 J**	**199**	**69.5**	**165**	**32.5**	**159**	**27.3**	**160**	**30.8**
Beryllium	0.004	TACO	**0.62**	**1.1**	**0.31 J+**	**0.72 J**	**0.89**	**0.34 J+**	0.58 U	0.5 U	**0.68**	**0.28 J+**	**0.61 J**	**0.63**
Cadmium	0.005	TACO	**127 J**	**87.9**	**2.6 J**	0.61 U	**1.7 J**	**0.3 J+**	**7.7**	0.2 U	**1.4 J**	**0.18 J+**	**44 J**	**0.12 J+**
Calcium	NC	--	**11,800**	**14,000 J**	**62,100**	**58,400 J**	**4,410**	**68,200**	**2,380**	**70,100**	**2,550**	**103,000**	**3,660**	**1,830**
Chromium (total)	0.10	TACO	**10.3**	**20.2**	**12.1**	**22.1**	**17.5**	**11.8**	**11.2**	**16.2**	**15.7**	**10**	**8.9**	**20.3**
Cobalt	0.49	SSL-risk	**18.8**	**13**	**10.4**	**10.8**	**19.4**	**7.8**	**14.3**	**11.3**	**13**	**10**	**9.8**	**8**
Copper	0.65	TACO	**642 J**	**458 J**	**17.9 J**	**20 J**	**17.1 J**	**17.3 J**	**10**	**18.3**	**13.5 J**	**16.9 J**	**45.6 J**	**5 J**
Cyanide	0.2	TACO	3.1 U	3.2 UJ	2.9 U	3.1 U	3.1 U	2.8 U	2.9 U	2.9 U	3.1 U	2.9 U	3.1 U	2.8 U
Iron	5	TACO	**35,900**	**42,400 J**	**18,000**	**24,600 J**	**22,000**	**16,700**	**15,000**	**20,200**	**18,700**	**15,500**	**11,900**	**19,100**
Lead	0.0075	TACO	**3,190 J**	**1,240 J**	**14.6 J**	**12.8 J**	**25.6 J**	**11.2 J**	**20.1**	**14.9**	**16.5 J**	**12 J**	**232 J**	**1.9 J-**
Magnesium	NC	--	**3,750**	**3,650**	**35,500**	**29,000**	**3,030**	**33,200**	**1,700**	**33,700**	**2,530**	**54,600**	**1,180**	**3,340**
Manganese	0.15	TACO	**422**	**1,240 J**	**444**	**351 J**	**942**	**294**	**1,370 J**	**444 J**	**882**	**400**	**1,080**	**71.9**
Mercury	0.002	TACO	**2.9**	**0.19**	**0.027 J**	0.12 U	**0.052 J**	**0.014 J**	0.12 U	0.11 U	**0.055 J**	**0.041 J**	**0.035 J**	**0.02 J**
Nickel	0.10	TACO	**23.4**	**36.7**	**24.4**	**32.3**	**23.1**	**19.8**	**11.3**	**30.4**	**15.5**	**20**	**13.4**	**36**
Potassium	NC	--	**851**	**1,200**	**1,130**	**2,800**	**898**	**1,110**	**517 J**	**1,990**	**725**	**1,230**	**777**	**1,570**
Selenium	0.05	TACO	**1.6 J-**	**1.1 J**	4.1 UJ	4.3 UJ	4.4 UJ	3.9 UJ	**0.34 J-**	R	4.3 UJ	4.1 UJ	**0.48 J-**	4 UJ
Silver	0.05	TACO	**4.6**	**3.6 J+**	**0.73 J**	1.2 U	**0.59 J**	**0.52 J**	0.76 U	1 U	**0.43 J**	**0.44 J**	**1.2 J**	**0.35 J**
Sodium	NC	--	**318 J**	**163 J**	**87.2 J**	**126 J**	**28.4 J**	**111 J**	**25.4 J**	**105 J**	**36.6 J**	**112 J**	**55.7 J**	**112 J**
Thallium	0.002	TACO	3.1 UJ	3.1 U	3 UJ	3.1 U	3.1 UJ	2.8 UJ	0.67 UJ	2.9 UJ	3.1 UJ	2.9 UJ	3.1 UJ	2.9 UJ
Vanadium	0.049	TACO	**12.7**	**26.1**	**10.8**	**22.2**	**31.5**	**12.5**	**26.9**	**16.8**	**28.9**	**9.2**	**19.4**	**19.7**
Zinc	5	TACO	**49,100 J**	**32,700 J**	**375 J**	**95.3 J**	**970 J**	**59.5 J**	**1,090**	**61.9**	**330 J**	**54.6 J**	**5,450 J**	**54.6 J**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	SB428A-08 ME3XZ4 37920 10/16/2008 mg/kg 4 L1, L2 0-2	SB428B-08 ME3XZ5 37920 10/16/2008 mg/kg 4 L1 8-10	SB429A-08 ME3XZ6 37920 10/16/2008 mg/kg 4 L1 0-2	SB429B-08 ME3XZ7 37920 10/16/2008 mg/kg 4 L1 4-6	SB430A-08 ME3XZ8 37920 10/8/2008 mg/kg 4 L1, L2, L3, L4 0-2	SB430B-08 ME3XZ9 37920 10/8/2008 mg/kg 4 L1 6-8	SB431A-08 ME3Y00 37920 10/15/2008 mg/kg 2 L2, L3, L4 0-4	SB431B-08 ME3Y01 37920 10/15/2008 mg/kg 2 L1 8-10	SB432A-08 ME3Y02 37920 10/15/2008 mg/kg 2 L2, L3, L4 0-2	SB432B-08 ME3Y03 37920 10/15/2008 mg/kg 2 L1 12-14	SB433A-08 ME3Y04 37920 10/15/2008 mg/kg 2 L2, L3, L4 0-2
Aluminum	55,000	SSL-risk	**5,060**	**8,520**	**6,330**	**8,830**	**3,660**	**13,000**	**6,670**	**11,200**	**4,130**	**9,400**	**2,730**
Antimony	0.006	TACO	6.9 UJ	7.1 UJ	R	R	R	R	7.3 UJ	R	6.7 UJ	7.5 UJ	6.4 UJ
Arsenic	0.0013	SSL-risk	**9.8**	**2.6 J+**	**3.1 J+**	**3.3 J+**	**38.1 J-**	**3.5 J**	**26.9**	**4.6 J+**	**34**	**3.1 J+**	**28.2**
Barium	2	TACO	**180**	**78.8**	**45.1**	**104**	**50.4**	22.2 U	**425**	**118 J**	**576**	**20.7 J**	**207**
Beryllium	0.004	TACO	**0.68**	**0.95**	**1.1**	**0.52 J**	**0.94**	**1.1**	**0.8**	**0.73**	**0.56**	**0.45 J+**	**0.33 J+**
Cadmium	0.005	TACO	**34.7 J**	**0.22 J+**	**2.1**	**0.6 J+**	**12.3**	0.16 U	**39.6 J**	0.61 U	**30 J**	**1.2 J+**	**24.3 J**
Calcium	NC	--	**2,480**	**2,700**	**4,090**	**79,200**	**35,000**	**53,500**	**30,400**	**31,600 J**	**4,810**	**100,000**	**9,350**
Chromium (total)	0.10	TACO	**7.5**	**25.5**	**24.4**	**18**	**8.3 J-**	**15.9**	**12**	**16.5**	**9.8**	**15.2**	**8.7**
Cobalt	0.49	SSL-risk	**12.9**	**29**	**4 J**	**6.1**	5.3 UJ	**10.2**	**11**	**11.7**	**21.7**	**16.7**	**15**
Copper	0.65	TACO	**25.3 J**	**42.9 J**	**12**	**4.4**	**557**	**3.6**	**217 J**	**17.3 J**	**809 J**	**7.5 J**	**598 J**
Cyanide	0.2	TACO	2.9 U	3 U	3 U	2.9 U	3 U	2.8 U	3 U	3.1 UJ	2.8 U	3.1 U	2.7 U
Iron	5	TACO	**10,400**	**35,200**	**18,900**	**19,700**	**24,000**	**20,500**	**38,000**	**17,600 J**	**37,900**	**15,000**	**33,200**
Lead	0.0075	TACO	**137 J**	**3.3 J-**	**18**	**9**	**105**	**4.9 J-**	**2,200 J**	**6.7 J-**	**1,820 J**	**7.7 J**	**2,790 J**
Magnesium	NC	--	**1,070**	**2,930**	**1,810 J**	**15,100 J**	**17,000**	**9,250**	**10,300**	**9,150**	**1,150**	**9,860**	**3,180**
Manganese	0.15	TACO	**1,310**	**205**	**149**	**2,980**	**343 J**	**822 J**	**457**	**499 J**	**108**	**1,470**	**72.9**
Mercury	0.002	TACO	**0.085 J**	0.12 U	0.015 U	**0.031 J**	**0.046 J**	0.11 U	**0.17**	**0.06 J**	**0.1 J**	**0.039 J**	**0.044 J**
Nickel	0.10	TACO	**12.6**	**79.2**	**15.8**	**24.8**	**16.3**	**38.5**	**19.5**	**32.9**	**31.7**	**38.2**	**20.3**
Potassium	NC	--	**889**	**1,560**	**1,470**	**2,140**	**641**	**2,420**	**1,100**	**1,610**	**328 J**	**1,900**	**218 J**
Selenium	0.05	TACO	**0.37 J**	4.1 UJ	4.2 UJ	4.1 UJ	**0.74 J-**	R	**1.5 J-**	4.3 UJ	**3.1 J-**	4.4 UJ	**2.4 J-**
Silver	0.05	TACO	**0.59 J-**	**0.67 J**	**0.49 J-**	1.2 UJ	**1.4 J+**	0.95 U	**5.6**	**0.76 J+**	**7.4**	**0.64 J**	**4.3**
Sodium	NC	--	**30.5 J**	**86.7 J**	**70.6 J**	**205 J**	**212 J**	**257 J**	**395 J**	**194 J**	**136 J**	**230 J**	**69.7 J**
Thallium	0.002	TACO	2.9 U	3 UJ	3 UJ	2.9 UJ	3 UJ	2.8 UJ	3 UJ	3.1 U	2.8 UJ	3.1 UJ	2.7 UJ
Vanadium	0.049	TACO	**16.3**	**48.8**	**25.3**	**15.1**	**13.6**	**17.1**	**18.3**	**17.7**	**12.4**	**10.4**	**8.9**
Zinc	5	TACO	**4,500 J**	**65.9 J**	**265 J**	**54 J**	**1,600**	**42.9**	**17,900 J**	**130 J**	**56,300 J**	**2,890 J**	**28,800 J**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	Location ID / Sample ID / Case / Sampling date / Unit / Duplicate info / Investigation area / Lithology / Depth (ft bgs)											
			SB433B-08 / ME3Y05 / 37920 / 10/15/2008 / mg/kg / / 2 / L1 / 10-12	SB434A-08 / ME3Y06 / 37920 / 10/15/2008 / mg/kg / / 2 / L1, L2, L4 / 0-2	SB503A-08 / ME3Y66 / 37920 / 10/15/2008 / mg/kg / SB434A-08 / 2 / L1, L2, L4 / 0-2	SB434B-08 / ME3Y07 / 37920 / 10/15/2008 / mg/kg / / 2 / L1 / 8-10	SB503B-08 / ME3Y67 / 37920 / 10/15/2008 / mg/kg / SB434B-08 / 2 / L1 / 8-10	SB435A-08 / ME3Y08 / 37920 / 10/15/2008 / mg/kg / / 2 / L4 / 2-4	SB435B-08 / ME3Y09 / 37920 / 10/15/2008 / mg/kg / / 2 / L1 / 8-10	SB436A-08 / ME3Y10 / 37920 / 10/17/2008 / mg/kg / / 2 / L1, L4 / 0-2	SB436B-08 / ME3Y11 / 37920 / 10/17/2008 / mg/kg / / 2 / L1 / 8-10	SB437B1-08 / ME3Y13 / 37920 / 10/9/2008 / mg/kg / / 2 / L1 / 2-4	SB437B2-08 / ME3Y83 / 37920 / 10/9/2008 / mg/kg / / 2 / L1 / 6-8	SB438A-08 / ME3Y14 / 37920 / 10/17/2008 / mg/kg / / 2 / L1, L4 / 0-2
Aluminum	55,000	SSL-risk	**13,500**	**10,700**	**11,000**	**9,650**	**11,000**	**3,990**	**11,400**	**5,320**	**9,790**	**10,900**	**6,470**	**5,390**
Antimony	0.006	TACO	7.7 UJ	7.5 UJ	R	6.9 UJ	R	7 UJ	R	R	R	R	R	**1.8 J-**
Arsenic	0.0013	SSL-risk	**6.8 J+**	**7.7 J+**	**9.5 J**	**2.3 J+**	**4.4 J**	**5.3 J+**	**2.2 J**	**1.5**	**1.8 J+**	**1.7 J**	**2.5 J**	**8.2 J+**
Barium	2	TACO	**112**	**219**	**260 J**	**131**	**240 J**	**18.4 J**	**80.8 J**	**60.1**	**128**	**45.2**	**57.5**	**110**
Beryllium	0.004	TACO	**0.99**	**0.67**	**0.67 J**	**0.68**	**0.76 J**	**0.21 J+**	**0.79**	**0.67**	**0.71**	**1.3**	**1**	**0.91**
Cadmium	0.005	TACO	**3.8 J**	**1.8 J**	**1.6**	**0.27 J+**	**0.23 J**	**0.75 J+**	0.57 U	**0.14 J**	**0.24 J+**	0.071 U	0.13 U	**35.4**
Calcium	NC	--	**1,860**	**6,220**	**4,560 J**	**42,800**	**39,100 J**	**160,000**	**49,400 J**	**4,080**	**50,500**	**4,830**	**56,500**	**6,740**
Chromium (total)	0.10	TACO	**15.3**	**17.2**	**17.3**	**13.7**	**14.2**	**9.6**	**16.1**	**13.8**	**15.8**	**13.9**	**26.6**	**8.4**
Cobalt	0.49	SSL-risk	**20.3**	**7.1**	**9.7**	**8.9**	**13.9**	5.8 UJ	**9.9**	**1.8 J**	**7.6**	**11.8**	4.8 UJ	**1.5 J**
Copper	0.65	TACO	**26.5 J**	**33.4 J**	**38.7 J**	**69.6 J**	**75.6 J**	**13.3 J**	**16.8 J**	**8.6**	**6.7**	**167**	**57.4**	**163**
Cyanide	0.2	TACO	3.2 U	3.1 U	3.1 UJ	2.9 U	2.9 UJ	3 U	2.8 UJ	3 U	2.9 U	3 U	3 U	**2,840**
Iron	5	TACO	**17,500**	**18,800**	**21,000 J**	**11,000**	**13,500 J**	**9,100**	**17,200 J**	**9,880**	**12,000**	**13,800**	**31,400**	**19,800**
Lead	0.0075	TACO	**24.5 J**	**62.4 J**	**28.7 J**	**8.8 J**	**9.5 J**	**13.9 J**	**4.3 J-**	**9.3**	**7.2**	**3.3 J-**	**13.6**	**695**
Magnesium	NC	--	**4,730**	**4,230**	**4,310**	**9,250**	**8,190**	**68,900**	**12,200**	**2,290 J**	**14,100 J**	**6,870**	**4,670**	**3,340 J**
Manganese	0.15	TACO	**486**	**634**	**746 J**	**740**	**800 J**	**468**	**428 J**	**22.3**	**1,270**	**89.3 J**	**64.2 J**	**197**
Mercury	0.002	TACO	**0.063 J**	**0.048 J**	**0.027 J**	0.11 U	**0.052 J**	**0.017 J**	0.11 U	**0.023 J**	**0.017 J**	0.12 U	0.12 U	**0.051 J**
Nickel	0.10	TACO	**27.3**	**28.8**	**27.8**	**28.9**	**32.8**	**9.9**	**39.2**	**6.5**	**29.3**	**55.5**	**17.8**	**1.7 J**
Potassium	NC	--	**3,650**	**942**	**982**	**2,900**	**3,430**	**847**	**2,530**	**1,760**	**3,010**	**2,450**	**1,610**	**12,100**
Selenium	0.05	TACO	4.5 UJ	4.4 UJ	4.4 UJ	4 UJ	4 UJ	4.1 UJ	4 UJ	4.2 U	4 UJ	R	R	**16.1**
Silver	0.05	TACO	**0.44 J**	**0.53 J**	1.3 U	**0.49 J**	0.73 UJ	**0.15 J**	1.1 U	**0.25 J**	1.1 UJ	0.64 U	1.1 U	1.2 UJ
Sodium	NC	--	**776**	**634**	**599 J**	**370 J**	**372 J**	**161 J**	**268 J**	**351 J**	**301 J**	**319 J**	**255 J**	**3,080**
Thallium	0.002	TACO	3.2 UJ	3.1 UJ	3.2 U	2.9 UJ	2.9 U	2.9 UJ	2.8 U	3 U	2.9 UJ	3 UJ	3 UJ	3.1 UJ
Vanadium	0.049	TACO	**13**	**21.2**	**27.2**	**8.1**	**14.7**	**15.1**	**12.5**	**8.6**	**9.3**	**19.6**	**44.6**	**10.7**
Zinc	5	TACO	**1,770 J**	**889 J**	**880 J**	**139 J**	**65 J**	**241 J**	**61.6 J**	**16.6 J**	**37.4 J**	**48.6**	**32.9**	**34,100 J**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs)	SB438B-08 ME3Y15 37920 10/17/2008 mg/kg 2 L1 6-8	SB439A-08 ME3Y16 37920 10/17/2008 mg/kg 2 L2, L3, L4 0-4	SB439B-08 ME3Y17 37920 10/17/2008 mg/kg 2 L1 10-12	SB440A-08 ME3Y18 37920 10/15/2008 mg/kg 2 L2, L3, L4 0-2	SB440B-08 ME3Y19 37920 10/15/2008 mg/kg 2 L2, L4 8-10	SB441A-08 ME3Y20 37920 10/17/2008 mg/kg 4 L1 0-2	SB441B-08 ME3Y21 37920 10/17/2008 mg/kg 4 L1 6-8	SB442A-08 ME3Y22 37920 10/16/2008 mg/kg 4 L1, L3 0-2	SB442B-08 ME3Y23 37920 10/16/2008 mg/kg 4 L1 8-10	SB443A-08 ME3Y24 37920 10/16/2008 mg/kg 4 L1 0-2	SB443B-08 ME3Y25 37920 10/16/2008 mg/kg 4 L1 4-6	SB444A-08 ME3Y26 37920 10/16/2008 mg/kg 4 L2, L4 0-2
Aluminum	55,000	SSL-risk		**10,200**	**7,890**	**10,900**	**2,590**	**7,770**	**13,800**	**9,300**	**5,500**	**14,600**	**10,000**	**10,400**	**11,800**
Antimony	0.006	TACO		R	R	R	R	R	R	R	R	R	R	R	R
Arsenic	0.0013	SSL-risk		**2.9 J+**	**7.9 J+**	**3 J+**	**34.3 J**	**38.5 J**	**6.5 J+**	**58.5**	**8.8**	**4 J+**	**13**	**12.4**	**7.5**
Barium	2	TACO		**76.4**	**175**	**149**	**324 J**	**61.4 J**	**137**	23.9 U	**92.4**	**31.1**	**130**	**82.2**	**43.1**
Beryllium	0.004	TACO		**0.91**	**0.61 J**	**0.74**	**0.43 J+**	**0.6 J**	**0.95**	**0.49 J+**	**0.65**	**0.87**	**0.94**	**0.94**	**1.5**
Cadmium	0.005	TACO		**0.37 J+**	**11.2**	**0.23 J+**	**76.7**	**81.6**	**15.3**	**0.92 J+**	**50.7**	**0.29 J+**	**1.3 J+**	**0.75 J+**	**4.5**
Calcium	NC	--		**73,800**	**11,300**	**42,400**	**7,870 J**	**40,300 J**	**23,700**	**5,880**	**14,600**	**4,170**	**28,200**	**54,800**	**28,500**
Chromium (total)	0.10	TACO		**19.6**	**13.6**	**18.6**	**7.3**	**9.4**	**26.6**	**22.8**	**10.8**	**37.9**	**24.1**	**19.5**	**16.7**
Cobalt	0.49	SSL-risk		**8**	**7.7**	**7.4**	**24.7**	**27.2**	**14.6**	**17.1**	**8.5**	**15.8**	**20.7**	**15.9**	**14**
Copper	0.65	TACO		**2,270**	**92.2**	**13.6**	**797 J**	**189 J**	**24.3**	**52.5**	**56**	**6.6**	**95.1**	**35.9**	**65.6**
Cyanide	0.2	TACO		**1,230**	3.1 U	2.9 U	2.6 UJ	3.1 UJ	3 U	3 U	3.1 U	2.8 U	3.1 U	3 U	3.1 U
Iron	5	TACO		**15,900**	**15,200**	**16,200**	**44,900 J**	**29,700 J**	**25,800**	**29,200**	**12,500**	**37,100**	**23,100**	**18,800**	**22,500**
Lead	0.0075	TACO		**5.7**	**432**	**5.8**	**101 J**	**10,700 J**	**56**	**47.8**	**182**	**5.1**	**31.3**	**25.4**	**19.7**
Magnesium	NC	--		**18,200 J**	**2,990 J**	**8,800 J**	**2,380**	**6,220**	**6,510 J**	**5,720 J**	**2,320 J**	**8,350 J**	**5,240 J**	**8,000 J**	**4,080 J**
Manganese	0.15	TACO		**2,780**	**342**	**1,180**	**188 J**	**1,090 J**	**764**	**171**	**669**	**268**	**840**	**1,130**	**370 J**
Mercury	0.002	TACO		0.12 U	**0.068 J**	**0.018 J**	0.11 U	**0.036 J**	**0.044 J**	**0.056 J**	**0.13**	0.11 U	**0.042 J**	**0.047 J**	**0.018 J**
Nickel	0.10	TACO		**29.2**	**12.3**	**28**	**47.5**	**43.4**	**45.2**	**33.7**	**18.9**	**47.6**	**35.3**	**38.6**	**41**
Potassium	NC	--		**6,080**	**1,020**	**3,650**	**261 J**	**1,670**	**2,090**	**2,960**	**1,670**	**1,540**	**2,080**	**1,810**	**2,000**
Selenium	0.05	TACO		**3.2 J-**	**0.67 J-**	4.1 UJ	**2.7 J**	**1.6 J**	4.2 UJ	4.2 UJ	**1.4 J-**	3.9 UJ	4.3 UJ	**1.3 J+**	**0.59 J**
Silver	0.05	TACO		1.2 UJ	1.2 UJ	1.2 UJ	**3.6 J+**	**22.7**	1.2 UJ	1.2 UJ	1.2 UJ	1.1 UJ	1.2 UJ	1.2 UJ	0.35 UJ
Sodium	NC	--		**1,500**	**74.7 J**	**399 J**	**97.3 J**	**253 J**	**151 J**	**1,040**	**98.9 J**	**481 J**	**142 J**	**258 J**	**144 J**
Thallium	0.002	TACO		2.9 UJ	3.1 UJ	2.9 UJ	2.6 UJ	3.1 UJ	3 UJ	3 UJ	3.1 UJ	2.8 UJ	3.1 UJ	3 UJ	3.1 U
Vanadium	0.049	TACO		**19.2**	**27.8**	**12.6**	**6.4**	**12.6**	**26.2**	**10.4**	**13.1**	**45.2**	**22.2**	**16.2**	**20.1**
Zinc	5	TACO		**34.5 J**	**4,490 J**	**34.8 J**	**34,900 J**	**56,900 J**	**1,600 J**	**105 J**	**4,560 J**	**78 J**	**145 J**	**124 J**	**634 J**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	SB504A-08 ME3Y68 37920 10/16/2008 mg/kg 4 L2, L4 0-2	SB444B-08 ME3Y27 37920 10/16/2008 mg/kg 4 L2, L4 8-10	SB504B-08 ME3Y69 37920 10/16/2008 mg/kg SB444B-08 4 L2, L4 8-10	SB445A-08 ME3Y28 37920 10/16/2008 mg/kg 4 L1 0-2	SB445B-08 ME3Y29 37920 10/16/2008 mg/kg 4 L1 6-8	SB446A-08 ME3Y30 37920 10/14/2008 mg/kg 4 L1 0-2	SB446B-08 ME3Y31 37920 10/14/2008 mg/kg 4 L1 8-10	SB447A-08 ME3Y32 37920 10/14/2008 mg/kg 4 L1 0-2	SB447B-08 ME3Y33 37920 10/14/2008 mg/kg 4 L1 6-8	SB448A-08 ME3Y34 37920 10/14/2008 mg/kg 4 L1 0-2	SB448B-08 ME3Y35 37920 10/14/2008 mg/kg 4 L1 8-10	SB449A-08 ME3Y36 37920 10/14/2008 mg/kg 4 L1 0-2
Aluminum	55,000	SSL-risk	**10,900**	**8,630**	**11,400**	**9,760**	**10,200**	**9,930**	**10,300**	**8,990**	**11,800**	**7,580**	**9,060**	**9,350**
Antimony	0.006	TACO	R	R	R	R	R	R	R	R	R	R	R	R
Arsenic	0.0013	SSL-risk	**6.3**	**8.5**	**7.2**	**11.7**	**5.7**	**7.8 J+**	**6.4 J+**	**13 J**	**2.5 J+**	**4.4 J+**	**14.7 J**	**7.2 J+**
Barium	2	TACO	**40.9**	**105**	**101**	**100**	**106**	**163**	**152**	**119**	**22.2 J**	**128**	**278**	**98.9**
Beryllium	0.004	TACO	**1.2**	**1.2**	**0.89**	**0.92**	**0.77**	**0.98**	**0.85**	**1**	**0.61**	**0.8**	**0.71**	**1.1**
Cadmium	0.005	TACO	**5**	**8.7**	**2.8**	**21.9**	**0.73**	**0.71 J+**	0.62 UJ	0.63 UJ	0.56 UJ	0.58 UJ	**1.4 J**	**0.67 J+**
Calcium	NC	--	**29,300**	**45,700**	**35,800**	**49,400**	**22,100**	**58,200**	**29,100**	**24,200**	**24,400**	**3,330**	**30,200**	**38,000**
Chromium (total)	0.10	TACO	**13.8**	**15.3**	**21.1**	**17.6**	**20.6**	**12.3**	**14.1**	**11.1**	**17.6**	**14.5**	**14.8**	**7.4 J-**
Cobalt	0.49	SSL-risk	**15.6**	**13.9**	**12.7**	**17.1**	**14.6**	**19.5**	**12.8**	**23.1**	**13.3**	**10.5**	**79.5**	**14**
Copper	0.65	TACO	**51.7**	**62.1**	**24.4**	**54.1**	**20.6**	**36.1**	**42.5**	**29.2**	**5.3**	**108**	**29.4**	**17.4**
Cyanide	0.2	TACO	3.6 U	2.9 U	3 U	3.2 U	3.1 U	3.2 UJ	3.1 UJ	3.2 UJ	2.8 UJ	2.9 UJ	3 UJ	3.3 UJ
Iron	5	TACO	**17,500**	**23,700**	**21,900**	**18,200**	**20,300**	**15,500**	**17,100**	**17,200**	**21,100**	**15,600**	**21,000**	**14,600**
Lead	0.0075	TACO	**19.1**	**113**	**25.5**	**103**	**9.8**	**23.1**	**14.2**	**36**	**2.7 J-**	**12**	**159**	**17.1**
Magnesium	NC	--	**4,010 J**	**6,860 J**	**7,630 J**	**7,990 J**	**5,510 J**	**5,730**	**6,000**	**4,060**	**6,800**	**2,270**	**5,430**	**3,490**
Manganese	0.15	TACO	**472 J**	**1,150 J**	**1,200 J**	**1,400 J**	**1,090 J**	**1,050**	**498**	**575**	**384**	**243**	**2,000**	**322**
Mercury	0.002	TACO	**0.015 J**	**0.051 J**	**0.15**	**0.074 J**	0.12 U	0.13 U	0.12 U	0.13 U	0.11 U	0.11 U	0.13 U	0.13 U
Nickel	0.10	TACO	**41.1**	**29.3**	**36.6**	**40.1**	**32.7**	**45**	**35.1**	**40.6**	**42.5**	**25.9**	**91.6**	**32.8**
Potassium	NC	--	**1,940**	**1,830**	**2,160**	**2,320**	**1,960**	**1,440**	**1,870**	**1,230**	**1,410**	**1,370**	**1,760**	**666**
Selenium	0.05	TACO	4.2 U	4.1 UJ	**1.1 J**	4.4 UJ	4.3 U	4.5 UJ	4.3 UJ	4.4 UJ	3.9 UJ	4 UJ	**1.4 J-**	4.5 UJ
Silver	0.05	TACO	0.27 UJ	0.35 UJ	0.28 UJ	0.45 UJ	0.42 UJ	1.3 U	1.2 U	1.3 U	**0.71 J+**	**0.49 J**	**1.3 J+**	**0.63 J**
Sodium	NC	--	**92.1 J**	**304 J**	**252 J**	**236 J**	**266 J**	**223 J**	**515 J**	**119 J**	**198 J**	**48.4 J**	**203 J**	**59.5 J**
Thallium	0.002	TACO	3 U	2.9 U	3 U	3.2 U	3.1 U	3.2 UJ	3.1 UJ	3.1 UJ	2.8 UJ	2.9 UJ	**1 J-**	3.2 UJ
Vanadium	0.049	TACO	**16.1**	**17.3**	**16.1**	**18.2**	**17.9**	**14.2**	**11.8**	**11.2**	**18.4**	**20.5**	**13.2**	**7.4**
Zinc	5	TACO	**727 J**	**1,350 J**	**423 J**	**2,610 J**	**95.2 J**	**443 J**	**135 J**	**145 J**	**66.6 J**	**69.4 J**	**462 J**	**90.7 J**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	SB449B-08 ME3Y37 37920 10/14/2008 mg/kg 4 L1 8-10	SB450A-08 ME3Y38 37920 10/14/2008 mg/kg 4 L3, L4 0-2	SB450B-08 ME3Y39 37920 10/14/2008 mg/kg 4 L1 8-10	SB451A-08 ME3Y40 37920 10/7/2008 mg/kg 3 L1, L3, L4 0-2	SB451B-08 ME3Y41 37920 10/7/2008 mg/kg 3 L1 10-12	SB452A-08 ME3Y42 37920 10/7/2008 mg/kg 3 L1, L3, L4 0-2	SB505A-08 ME3Y70 37920 10/7/2008 mg/kg SB452A-08 3 L1, L3, L4 0-2	SB452B-08 ME3Y43 37920 10/7/2008 mg/kg 3 L1 6-8	SB505B-08 ME3Y71 37920 10/7/2008 mg/kg SB452B-08 3 L1 6-8	SB453A-08 ME3Y44 37920 10/7/2008 mg/kg 3 L1, L2, L3, L4 0-2	SB453B-08 ME3Y45 37920 10/7/2008 mg/kg 3 L1 10-12
Aluminum	55,000	SSL-risk	**11,900**	**8,950**	**8,110**	**6,200**	**9,030**	**11,500**	**8,640**	**10,500**	**12,000**	**10,500**	**10,600**
Antimony	0.006	TACO	R	R	R	7.4 UJ	6.8 UJ	7.3 UJ	7 UJ	7.2 UJ	7.2 UJ	**5.9 J-**	7.2 UJ
Arsenic	0.0013	SSL-risk	**2.7 J+**	**129 J**	**10.8 J**	**6.2**	**6.7 J+**	**9.2 J+**	**9 J+**	**8.3 J+**	**8.6 J+**	**159**	**4.9**
Barium	2	TACO	**36.9**	**50.8**	**80.1**	**106**	**86.6**	**101**	**59.4**	**58.4**	**70.3**	**158**	**246**
Beryllium	0.004	TACO	**1.6**	**1.5**	**1**	0.61 U	0.57 U	0.61 U	0.58 UJ	0.6 U	**0.63**	**0.94**	**0.68**
Cadmium	0.005	TACO	0.58 UJ	**1.9 J**	0.54 UJ	**15 J**	**2.8 J**	0.61 UJ	0.58 UJ	0.6 UJ	0.21 UJ	**34.3 J**	0.6 UJ
Calcium	NC	--	**42,400**	**46,100**	**13,200**	**1,590**	**66,700**	**53,600**	**52,600**	**57,000**	**56,200**	**2,500**	**36,600**
Chromium (total)	0.10	TACO	**13.1**	**11**	**8.5 J-**	**8.9**	**16.2**	**19.4**	**14.9**	**18.7**	**21.2**	**16.1**	**14.6**
Cobalt	0.49	SSL-risk	**8.7**	**51.1**	**14.1**	**7**	**10.5**	**12.1**	**11.5**	**12**	**11**	**22**	**7.9**
Copper	0.65	TACO	**17.2**	**55.2**	**47.6**	**16**	**17.4**	**19.4**	**17.8**	**18.9**	**21.2**	**1,820**	**53.5**
Cyanide	0.2	TACO	2.9 UJ	3.1 UJ	2.7 UJ	3.1 UJ	2.8 UJ	3 UJ	2.9 UJ	3 UJ	3 U	3.1 UJ	3 UJ
Iron	5	TACO	**13,600**	**31,100**	**15,100**	**9,810 J**	**18,900 J**	**22,300 J**	**19,700 J**	**21,300 J**	**22,500**	**41,200 J**	**12,700 J**
Lead	0.0075	TACO	**3.7 J-**	**122**	**19.8**	**80.6**	**12.3**	**13.9**	**13.9**	**13.1**	**13.7**	**1,650**	**46.9**
Magnesium	NC	--	**8,560**	**4,030**	**2,660**	**1,370**	**34,400**	**30,100**	**33,000**	**28,800**	**28,800**	**1,240**	**5,410**
Manganese	0.15	TACO	**329**	**671**	**308**	**319**	**448**	**421**	**443 J+**	**469**	**327**	**1,090**	**730 J+**
Mercury	0.002	TACO	0.11 U	0.12 U	0.11 U	0.12 U	0.11 U	0.12 U	**0.12**	0.12 U	0.13 U	**2.8**	0.11 U
Nickel	0.10	TACO	**36.3**	**60.1**	**22.9**	**8.1**	**29.2**	**32.5**	**28**	**32.4**	**29.8**	**20.5**	**30**
Potassium	NC	--	**1,870**	**1,630**	**1,300**	**592 J**	**1,790**	**1,460**	**1,180**	**1,570**	**1,900**	**611 J**	**3,140**
Selenium	0.05	TACO	4.1 UJ	**1.8 J-**	3.8 UJ	**0.39 J**	4 UJ	4.3 UJ	4.1 UJ	4.2 U	4.2 UJ	**1.8 J-**	4.2 U
Silver	0.05	TACO	**0.61 J**	**1.9 J+**	**0.59 J**	**0.3 J-**	**0.61 J**	**0.83 J**	**0.76 J**	**0.75 J**	**0.81 J**	**18.4**	**1.2**
Sodium	NC	--	**763**	**502 J**	**122 J**	**50.5 J**	**145 J**	**95.3 J**	**91.6 J**	**103 J**	**113 J**	**235 J**	**191 J**
Thallium	0.002	TACO	2.9 UJ	3.1 UJ	2.7 UJ	3.1 U	2.8 UJ	3 UJ	2.9 UJ	3 UJ	3 UJ	3.1 UJ	3 U
Vanadium	0.049	TACO	**13.6**	**17.9**	**11.7**	**15.4**	**15.7**	**18.6**	**14.2**	**17**	**20**	**17.2**	**6.3 J**
Zinc	5	TACO	**26.3 J**	**428 J**	**48.2 J**	**1,150 J**	**108 J**	**1,110 J**	**260 J**	**62.9 J**	**84.1 J**	**23,000 J**	**676 J**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Source[a]	SB454A-08 ME3Y46 37920 10/7/2008 mg/kg 3 L2, L3, L4 0-2	SB454B-08 ME3Y47 37920 10/7/2008 mg/kg 3 L2, L3 6-8	SB455A-08 ME3Y48 37920 10/7/2008 mg/kg 3 L1, L4 0-2	SB455B-08 ME3Y49 37920 10/7/2008 mg/kg 3 L2, L3, L4 10-12	SB456A-08 ME3Y50 37920 10/6/2008 mg/kg 3 L2, L3, L4 0-2	SB456B-08 ME3Y51 37920 10/6/2008 mg/kg 3 L2, L3, L4 6-8	SB457A-08 ME3Y52 37920 10/6/2008 mg/kg 3 L2, L4 0-2	SB457B-08 ME3Y53 37920 10/6/2008 mg/kg 3 L2, L3, L4 10-12	SB458A-08 ME3Y54 37920 10/7/2008 mg/kg 3 L2, L3, L4 0-2	SB458B-08 ME3Y55 37920 10/7/2008 mg/kg 3 L1 10-12	SB459A-08 ME3Y56 37920 10/14/2008 mg/kg 3 L2, L4 0-2	SB459B-08 ME3Y57 37920 10/14/2008 mg/kg 3 L4 4-6
Aluminum	55,000	SSL-risk	**5,340**	**1,650**	**11,400**	**7,380**	**7,970**	**5,150**	**9,410**	**6,810**	**7,000**	**11,800**	**9,950**	**2,870**
Antimony	0.006	TACO	**15.6 J**	7 UJ	7.2 UJ	**0.46 J-**	**3.8 J-**	**5 J**	6.2 UJ	**1.9 J-**	7.5 UJ	7.5 UJ	**3.5 J-**	**2.8 J-**
Arsenic	0.0013	SSL-risk	**176**	**36**	**10 J+**	**29.9**	**59.8**	**48.8**	**5.4 J+**	**43.6**	**23.8**	**17.3**	**21.6 J**	**4.2 J+**
Barium	2	TACO	**220**	**108**	**108**	**205**	**327**	**306**	**40.1**	**283**	**169**	24.9 UJ	**265**	**43.7**
Beryllium	0.004	TACO	**0.6**	0.58 UJ	**0.66**	**1.3**	**1.2**	**0.69**	0.52 U	**1**	**1.2**	**0.81**	**2.5**	0.51 U
Cadmium	0.005	TACO	**98.3 J**	**5.8 J**	**13.2 J**	**14.8**	**305 J**	**85.8 J**	**15.6 J**	**426 J**	**60.8 J**	**3.7 J**	**64.8 J**	**38.9 J**
Calcium	NC	--	**19,400**	**5,210**	**21,600**	**4,800**	**39,800 J**	**5,720 J**	**46,400 J**	**20,000 J**	**6,270**	**52,400**	**92,500**	**167,000**
Chromium (total)	0.10	TACO	**10.7 J-**	**14.8**	**14.9**	**7.8**	**15.9**	**12.4**	**13.4**	**12.2**	**27.2 J-**	**19.9 J-**	**19.8**	**3.9 J-**
Cobalt	0.49	SSL-risk	**27.4**	**7.8**	**11.8**	**25.8**	**30.4**	**25.4**	**13.4**	**43.8**	**13.9**	**15.5**	**20.7**	**6.8**
Copper	0.65	TACO	**1,710**	**375**	**41.8**	**259**	**679**	**656**	**29.1**	**382**	**314**	**22.7 J-**	**265**	**49.7**
Cyanide	0.2	TACO	2.9 UJ	2.9 UJ	3 UJ	3.1 UJ	3.4 UJ	3 UJ	2.6 UJ	3.6 UJ	3.1 UJ	3.1 UJ	**2.2 J**	2.6 UJ
Iron	5	TACO	**49,200 J**	**38,900 J**	**17,200**	**15,300 J**	**52,900**	**44,400**	**13,500**	**47,400**	**87,000 J**	**20,500 J**	**32,600**	**4,660**
Lead	0.0075	TACO	**6,330**	**5,120**	**287**	**1,800**	**2,410**	**3,590**	**180**	**3,720**	**2,240**	**52.6**	**1,480**	**129**
Magnesium	NC	--	**1,390**	582 U	**4,670**	**1,030**	**2,250 J**	**988 J**	**7,820 J**	**2,850 J**	**781**	**5,680**	**38,700**	**112,000**
Manganese	0.15	TACO	**1,300 J+**	**45**	**637 J+**	**211**	**5,720**	**361**	**1,090**	**661**	**233 J+**	**504**	**996**	**122**
Mercury	0.002	TACO	**10.7**	**0.18**	**0.31**	0.12 U	**2.3**	**1.5**	**0.043 J**	**1.2**	**0.16**	0.12 UJ	**1.5**	0.11 U
Nickel	0.10	TACO	**58**	**9.4**	**22.3**	**40.6**	**62.7**	**45.4**	**43.7**	**47.1**	**29.4**	**50.9**	**45.7**	**9.6**
Potassium	NC	--	**733**	**336 J**	**1,570**	**1,440**	**860**	**283 J**	**1,560**	**710 J**	**1,220**	**1,970**	**1,570**	**361 J**
Selenium	0.05	TACO	**8.4**	**2.7 J-**	4.2 U	**2.5 J-**	**5.4**	**4.9**	3.6 UJ	**3.8 J-**	**3 J**	**0.72 J**	**0.9 J-**	3.6 UJ
Silver	0.05	TACO	**32.3**	**10**	**0.86 J**	**1.7**	**9.4**	**6.5**	**0.93 J**	**11**	**3.9**	**0.91 J+**	**6.3**	**0.49 J**
Sodium	NC	--	**341 J**	**135 J**	**81.9 J**	**700**	**298 J**	**60.7 J**	**150 J**	**107 J**	**264 J**	**215 J**	**262 J**	**146 J**
Thallium	0.002	TACO	2.9 UJ	2.9 UJ	3 U	**3 J**	**0.97 J-**	3 UJ	2.6 UJ	3.6 UJ	3.1 U	3.1 UJ	4.8 UJ	2.6 UJ
Vanadium	0.049	TACO	**14.5**	**13**	**18.9**	**24.3**	**20.5**	**12.6**	**9.8**	**20.5**	**47**	**13.4**	**31.4**	**10**
Zinc	5	TACO	**50,100 J**	**3,790 J**	**4,990 J**	**17,400 J**	**64,500**	**98,100**	**3,080**	**60,500**	**13,300**	**736**	**20,300 J**	**9,850 J**

Table 5.5.1-1
Soil-to-Groundwater Comparison Results
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

Analyte	Soil-to-groundwater basis value (mg/kg)	Location ID Sample ID Case Sampling date Unit Duplicate info Investigation area Lithology Depth (ft bgs) Source[a]	SB460A-08 ME3Y58 37920 10/7/2008 mg/kg 3 L2, L3, L4 0-2	SB460B-08 ME3Y59 37920 10/7/2008 mg/kg 3 L1 6-8
Aluminum	55,000	SSL-risk	**9,060**	**14,600**
Antimony	0.006	TACO	7.7 UJ	6.7 UJ
Arsenic	0.0013	SSL-risk	**21.9**	**3.5 J+**
Barium	2	TACO	**149**	**28.8**
Beryllium	0.004	TACO	**1.1**	**0.74**
Cadmium	0.005	TACO	**73.5 J**	0.56 UJ
Calcium	NC	--	**26,000**	**7,810**
Chromium (total)	0.10	TACO	**13.3 J-**	**30.9 J-**
Cobalt	0.49	SSL-risk	**19.8**	**13.9**
Copper	0.65	TACO	**56.3**	**6.1 J-**
Cyanide	0.2	TACO	3.2 UJ	2.8 UJ
Iron	5	TACO	**36,200 J**	**34,500 J**
Lead	0.0075	TACO	**1,210**	**5.4 J-**
Magnesium	NC	--	**11,900**	**8,470**
Manganese	0.15	TACO	**528 J+**	**304 J+**
Mercury	0.002	TACO	0.12 UJ	0.11 U
Nickel	0.10	TACO	**42.3**	**46.2**
Potassium	NC	--	**1,060**	**1,620**
Selenium	0.05	TACO	**1 J-**	3.9 UJ
Silver	0.05	TACO	**6.9**	**0.8 J+**
Sodium	NC	--	**145 J**	**356 J**
Thallium	0.002	TACO	3.2 UJ	2.8 UJ
Vanadium	0.049	TACO	**18.5**	**36.4**
Zinc	5	TACO	**20,500**	**91.2**

Section 5.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 5.5.1-1

Notes:

Bold values indicate a detection

Red shaded cells indicate an exceedance of the soil-to-groundwater basis value

mg/L	Milligram per liter
A	Indicates surface soil sample
B	Indicates subsurface soil sample
bgs	Below ground surface
ft	Foot
ID	Identification
info	Information
J	Estimated result
J-	Underestimated result
J+	Overestimated result
MCL	Maximum contaminant level (EPA)
mg/kg	Milligram per kilogram
NC	No criterion
R	Rejected result
SB	Soil boring
SSL	Soil screening level
SV	Screening value
TACO	"Proposed Amendments to Tiered Approach to Corrective Action Objectives"
U	Non-detect result

a	Source of soil-to-groundwater basis value. Selected soil-to-groundwater screening criteria for soil is the minimum of the risk-based SSL (SSL-risk), MCL-based SSL (SSL-mcl), and TACO values.

Lithology Definitions:

L1	Native soils
L2	Slag
L3	Sinter
L4	Fill materials

Table 5.5.1-2
Comparison of Soil-to-Groundwater Basis Values and SPLP Values
Matthiessen and Hegler Zinc Company Site - Operable Unit 2

Soil boring ID or SPLP sample ID[a]	Depth (ft bgs)	Soil result exceeds soil-to-groundwater basis value	SPLP result exceeds GWSV	Contaminants with results exceeding both values[b]
SB451A-08	0-2	X	--	--
SB451B-08	10-12	X	--	--
SB452A-08	0-2	X	X	--
SB505A-08	0-2	X	X	Zinc
SB452B-08	6-8	X	X	--
SB505B-08	6-8	X	--	--
SB453A-08	0-2	X	X	Antimony, Cadmium, Zinc
SB453B-08	10-12	X	--	--
SB454A-08	0-2	X	X	Antimony, Cadmium, Lead
SB454B-08	6-8	X	X	Cadmium, Lead, Zinc
SB455A-08	0-2	X	--	--
SB455B-08	10-12	X	X	Antimony, Cadmium
SB456A-08	0-2	X	X	Cadmium
SB456B-08	6-8	X	X	Antimony, Cadmium, Lead, Zinc
SB457A-08	0-2	X	X	Cadmium
SB457B-08	10-12	X	X	Antimony, Cadmium
SB458A-08	0-2	X	X	Cadmium
SB458B-08	10-12	X	--	--
SB459A-08	0-2	X	X	Lead
SB459B-08	4-6	X	--	--
SB460A-08	0-2	X	X	Cadmium
SB460B-08	6-8	X	--	--

Section 5.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 5.5.1-2

Notes:
Bold values indicate a detection
Red shading indicates an exceedance of both basis value and GWSV for the same contaminant(s)

'--	Does not exceed value
A	Indicates surface soil sample
B	Indicates subsurface soil sample
bgs	Below ground surface
ft	Foot
GWSV	Groundwater screening value
ID	Identification
SB	Soil boring
SPLP	Synthetic precipitation leaching procedure

a	All listed boring IDs are for SPLP sampling locations.
b	Only contaminants that exceed both the basis value and GWSV are listed.

Table 5.5.2-1
OU2 Average Groundwater Geochemistry Values
Matthiessen and Hegeler Zinc Company Site - Operable Unit 2

WBZ	Well ID	Oxidation-Reduction Potential (mV)	pH (SU)	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
WBZ1	MW01	143.86	7.19	0.98	12.99	30.34	4.76
WBZ1	MW02S	150.14	6.84	1.20	12.93	61.54	5.87
WBZ1	MW03	147.95	6.83	1.00	14.47	165.18	4.03
WBZ1	MW04	173.90	6.84	3.05	14.19	30.15	4.29
WBZ1	MW06	114.96	7.01	1.20	13.24	18.20	3.47
WBZ1	MW07	-28.10	6.81	2.25	13.21	104.06	6.94
WBZ1	MW08	128.82	6.91	1.42	12.02	35.98	9.87
WBZ1	MW09	83.80	7.01	1.42	12.04	58.41	4.07
WBZ1	MW10	-70.53	6.95	10.68	14.04	117.71	5.50
WBZ1	MW11	162.07	6.72	2.48	12.40	35.87	5.14
WBZ1	MW12	-22.74	6.58	2.98	13.15	39.38	4.36
WBZ1	MW15	-24.18	6.89	2.12	11.59	136.15	3.07
WBZ1	MW16	177.06	6.59	20.21	13.39	64.56	3.84
WBZ1	MW17	10.07	6.21	2.91	13.99	41.26	4.83
WBZ1	MW21	-39.40	7.10	3.60	12.56	81.32	2.09
WBZ1	MW24	169.60	5.75	2.79	14.05	82.88	2.50
WBZ1	MW25	57.20	5.95	2.58	13.46	98.10	2.30
WBZ1	MW26	147.88	6.32	2.19	11.75	133.75	4.83
WBZ1	MW27	149.00	6.62	1.21	13.13	16.50	8.28
WBZ1	MW29	39.80	7.04	1.43	13.29	155.26	3.96
WBZ1	MW30	135.60	7.01	1.33	13.14	16.72	4.15
WBZ1	MW31	145.20	6.32	2.60	13.70	9.60	2.60
WBZ1	MW35	10.40	6.98	1.99	224.11	98.50	1.72
WBZ1	Maximum	177.06	7.19	20.21	224.11	165.18	9.87
WBZ1	Minimum	-70.53	5.75	0.98	11.59	9.60	1.72
WBZ1	Average	85.32	6.72	3.20	22.30	70.93	4.46
WBZ1	Median	128.82	6.84	2.19	13.21	61.54	4.15
WBZ2	MW02D	121.40	6.81	1.12	11.17	235.62	5.42
WBZ2	MW05	64.10	7.74	2.75	13.31	27.33	2.86
WBZ2	MW13	135.35	6.97	3.03	13.45	16.46	5.53
WBZ2	MW14	103.54	7.69	0.90	13.84	97.75	5.03
WBZ2	MW18	146.16	6.76	1.67	11.94	124.59	0.75
WBZ2	MW19	133.24	6.76	3.30	14.68	95.03	4.01
WBZ2	MW20	-25.04	8.42	2.39	12.23	111.88	2.34
WBZ2	MW22	50.00	8.30	2.75	12.93	274.92	3.09
WBZ2	MW23	24.67	6.69	2.81	13.84	196.85	2.39
WBZ2	MW28	140.80	7.33	2.95	14.77	110.08	5.30
WBZ2	MW32	152.75	7.13	1.67	13.29	104.25	4.08
WBZ2	MW33	200.60	7.19	2.28	15.08	43.16	5.46
WBZ2	MW34	3.60	7.30	10.62	14.86	322.40	4.11
WBZ2	Maximum	200.60	8.42	10.62	15.08	322.40	5.53
WBZ2	Minimum	-25.04	6.69	0.90	11.17	16.46	0.75
WBZ2	Average	96.24	7.31	2.94	13.49	135.41	3.87
WBZ2	Median	121.40	7.19	2.75	13.45	110.08	4.08

Section 5.0
Table Notes
Matthiessen and Hegeler Zinc Company Site – Operable Unit 2

Table 5.5.2-1

Notes:

°C	Degrees Celsius
ID	Identification
mg/L	Milligram per liter
mV	Millivolt
mS/cm	Millisiemen per centimeter
MW	Monitoring well
NTU	Nephelometric turbidity units
SU	Standard unit
WBZ	Water bearing zone

Table 9.5.1-1
OU1 Data Limitations and Uncertainties
Matthiessen and Hegeler Zinc Company Site
LaSalle, Illinois

Matrix	**Plant Area**	**Slag Pile**	**Little Vermilion River**
Soil	For the purposes of the RI, the analytes investigated are adequately characterized and delineated in OU1 surface and subsurface soils within the Plant Area, with the following limitations: • Data are limited regarding the extent to which mercury is present as elemental mercury, methyl mercury or inorganic mercury. (In the risk assessment (RA), most conservative form assumed for each pathway evaluated). • Data are limited regarding the extent to which chromium is present as Cr(III) or Cr(VI). (In the RA, Cr (VI) was conservatively assumed in all samples at 1:6 with Cr(III • Data are limited regarding certain soil chemistry properties including redox, pH, TOC, CEC, metal oxides, etc. • Detection limits on SVOCs were above the screening values for some compounds.	For the purposes of the RI, the analytes investigated are adequately characterized and delineated in OU1 surface and subsurface soils within the Slag Pile Area with the following limitations: • Data are limited regarding the extent to which mercury is present as elemental mercury, methyl mercury or inorganic mercury. (In the RA, most conservative form assumed for each pathway evaluated). • Data are limited regarding the extent to which chromium is present as Cr(III) or Cr(VI). (In the RA, Cr (VI) was conservatively assumed in all samples at 1:6 with Cr(III).) • Data are limited regarding certain soil chemistry properties including redox, pH, TOC, CEC, metal oxides, etc. • Detection limits on SVOCs were above the screening values for some compounds.	NA
Groundwater	For the purposes of the RI, the analytes investigated are adequately characterized and delineated in OU1 for WBZ1 and WBZ2 within the Plant Area with the following limitations: • Data are limited to wells within the eastern half of the Plant Area for WBZ1. This is primarily due to the absence of WBZ1 in the western half of the Plant Area.	For the purposes of the RI, the analytes investigated are adequately characterized and delineated in OU1 for WBZ1 and WBZ2 within the Slag Pile Area with the following limitations: • Information regarding the aquifer properties of the slag is limited due to lack of water in slag wells and inability to run slug tests. • Groundwater infiltration rate is not known. (Supplemental groundwater modeling work as part of the FS is in progress to seek to address this limitation.)	Due to physical limitations in the field and safety concerns, groundwater flow information in relation to the LVR is limited. Groundwater flow information relating to the LVR is generally adequately characterized with the following limitations: • Base flow contribution to the LVR is not known. (Supplemental groundwater modeling work as part of the FS is in progress to seek to address this limitation.)
Sediment	NA	For the purposes of the RI, the analytes investigated are adequately characterized and delineated in OU1 sediments within the Slag Pile Area, with the following limitations: • Erosion rate of slag into the LVR is not known. (Supplemental work as part of the FS is in progress to seek to address this limitation.)	For the purposes of the RI, the analytes investigated are adequately characterized and delineated in sediments within the OU1 portion of the LVR.
Surface Water	NA	NA	For the purposes of the RI, the analytes investigated are adequately characterized and delineated in surface water within the OU1 portion of the LVR, with the following limitations: • Flow quantities from the ASO and CSO into the LVR are not known outside of two weeks of data collected during 2009 field effort. (Supplemental field data collection as part of the FS is in progress to seek to address this limitation.) • Data are limited regarding the flow in the LVR during normal and flood events. (Supplemental hydraulic and hydrologic modeling of flows in the LVR as part of the FS is in progress to seek to address this limitation.)

Table 9.1.5-2
OU2 Data Limitations and Potential Future Field Investigation Recommendations
Matthiessen and Hegeler Zinc Company - Operable Unit 2

Matrix	Investigation Area 1 Building 100	Investigation Area 2 Rolling Mill	Investigation Area 3 Former Main Industrial Area	Investigation Area 4 North Area / Northeast Periphery Area	Investigation Area 5 Residential Area / Off-Site Area
Soil	For the purposes of the RI, all presented analytes are adequately characterized and delineated in OU2 surface and subsurface soils within Investigation Area 1.	For the purposes of the RI, all presented analytes are adequately characterized and delineated in OU2 surface and subsurface soils within Investigation Area 2.	For the purposes of the RI, all presented analytes are adequately characterized and delineated in OU2 surface and subsurface soils within Investigation Area 3 with the following data limitations: • Zinc in surface and subsurface soils within OU2 Investigation Area 3 have been delineated except for the southeastern corner of OU2, which borders OU1. Horizontally, subsurface soils may need further delineation east of Building 1943 next to the OU1 slag pile in Investigation Area 3. • For the purposes of this RI, SVOCs in surface and subsurface soils are adequately delineated. However, soils may need further delineation in the northeastern area of Investigation Area 3 northeast of SB075 prior to remediation.	For the purposes of the RI, all presented analytes are adequately characterized and delineated in OU2 surface and subsurface soils within Investigation Area 4 with the following data limitations: • During the remedial design (RD) phase, lead in subsurface soils may need further investigation in areas where surface soil sample results exceeded the RSLs, mainly in the "Polygon 2" area to verify that impacts are solely confined to the surface. • SVOCs in surface soils may need further investigation north of the northernmost property border at OU2 because samples from SB106 contained	For the purposes of the RI, metals have been adequately delineated in Investigation Area 5 to calculate risk for the Residential Area/Off-Site Area. However, the nature of the residential areas is such that each yard may have to be individually evaluated if unacceptable levels of risk are present as discussed below. • Arsenic concentrations exceeded the BTV and RSL in a large portion of Investigation Area 5. • Further delineation may be necessary to define the full extent of cadmium, lead, and manganese exceedances east of the LVR and in the residential area to the west. Also, zinc concentrations exceeded the residential RSL in the off-site area east of the LVR and may need further delineation.
Building Materials	For the purposes of the RI, all presented analytes are adequately characterized and delineated in OU2 building materials with the following data limitations: • The specific sample material type for five samples (BM005 through BM010) was not noted. • No quantity estimates were made during building material sampling. • Asbestos in brick and concrete samples could be in the material matrix (for example, firebrick) or could be present as fibers on the outside of the material. Washed samples could be analyzed to determine the source of asbestos fibers.				NA
Piles	For the purposes of the RI, all presented analytes are adequately characterized and delineated in the OU2 piles with the following data limitations: • All pile samples were collected as surface grab samples. Some composite samples could be collected to determine average pile contaminant concentrations. • No dimensions nor volume estimates were made for any of the debris piles.				NA
Groundwater	For the purposes of the RI, all presented analytes are adequately characterized and delineated in OU2 groundwater with the following data limitations: • Samples collected between November 2007 and December 2008 were analyzed using the ICP-AES method. This method yields CRQLs that exceed the RSLs. • Samples collected during the March 2009 sampling round were not analyzed for nutrient metals (aluminum, calcium, iron, magnesium, potassium, and sodium) • Total oxygen demand (TOD) and total organic carbon (TOC) results could be collected to provide a deeper understanding of groundwater geochemistry. • During the RD phase, additional monitoring wells could be installed within the Rolling Mill (if permission is granted by the active building owner) to further delineate the source and extent of VOC contamination. • During the RD phase, additional monitoring wells could be installed in the northern section of OU2 near MW15 to determine if MW15 is being impacted by an off-site source.				The City of LaSalle uses municipal water as mandated by a groundwater ordinance. In light of this statement, • No residential or off-site monitoring wells were installed or sampled to determine background or upgradient groundwater conditions. • No monitoring wells are located in the off-site area across the LVR. Monitoring wells in this area could be used to determine if the LVR acts as a hydraulic barrier to Site groundwater and to determine if Site contaminants are traveling beneath the LVR.
Surface Water	For the purposes of the RI, all presented analytes are adequately characterized and delineated in OU2 surface water with the following data limitations: • The CRQL exceeds the SWSV for many analytes. • No surface water geochemical data was collected at the time of sample collection.				NA
OU2 - All Media	No sample collected (for all media) was analyzed for speciated chromium.				

Notes:

AES	Atomic Emission Spectroscopy
BM	Building material
BTV	Background threshold value
CRQL	Contract required quantitation limit
ICP	Inductively Coupled Plasma
LVR	Little Vermilion River
MW	Monitoring well
NA	Not applicable
OU	Operable unit
RI	Remedial investigation
RD	Remedial design
RSL	Regional screening level
SB	Soil boring
SVOC	Semivolatile organic compound
SWSV	Surface water screening value
TOC	Total organic carbon
TOD	Total oxygen demand

Table 6.3.5-1[a]
Summary of COI Exceedances for OU1 and OU2
Matthiessen and Hegeler Zinc Company Site

Matrix[b]			OU1 Plant Area	OU1 Slag Pile	Little Vermilion River	Investigation Area 1 Building 100	Investigation Area 2 Rolling Mill	Investigation Area 3 Former Main Industrial Area	Investigation Area 4 North Area/Northeast Periphery Area	Investigation Area 5 Residential Area / Off-Site Area
Soil/Solid	Soil[c]	Surface	**Metals:** Arsenic, Iron, Lead, Manganese, Mercury, Zinc **SVOCs:** Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Dibenzo(a,h)anthracene, Indeno(1,2,3-cd)pyrene **PCBs:** Aroclor 1254, Aroclor 1260	**Metals:** Arsenic, Cadmium, Cobalt, Copper, Lead, Manganese, Mercury, Vanadium, Zinc **SVOCs:** Benzo(a)pyrene, Hexachlorobenzene	**NA**	**Metals:** Arsenic, Cadmium, Cobalt, Manganese, Mercury, Lead, Zinc **SVOCs:** Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Dibenzo(a,h)anthracene, Indeno(1,2,3-cd)pyrene **PCBs:** Aroclor-1260 **Asbestos:** Asbestos fibers detected above detection limit	**Metals:** Arsenic, Cadmium, Cobalt, Manganese, Lead, Zinc **SVOCs:** Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Benzo(k)fluoranthene, Chrysene, Dibenzo(a,h)anthracene, Indeno(1,2,3-cd)pyrene **PCBs:** Aroclor-1254	**Metals:** Antimony, Arsenic, Cadmium, Cobalt, Copper, Lead, Manganese, Mercury, Zinc **SVOCs:** Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Benzo(k)fluoranthene, Chrysene, Dibenzo(a,h)anthracene, Indeno(1,2,3-cd)pyrene, Naphthalene **PCBs:** Aroclor-1254, Aroclor-1260 **Asbestos:** Asbestos fibers detected above detection limit **TCLP Metals:** Cadmium, Lead **SPLP Metals:** Anitmony, Cadmium, Lead, Zinc	**Metals:** Arsenic, Cadmium, Cobalt, Lead, Zinc **SVOCs:** Benzo(a)pyrene	**Metals:** Arsenic, Cadmium, Lead, Zinc
		Subsurface	**Metals:** Arsenic, Cobalt, Lead, Manganese	**Metals:** Antimony, Arsenic, Cadmium, Cobalt, Iron, Lead, Manganese, Mercury, Zinc **SVOCs:** Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Dibenzo(a,h)anthracene, Indeno(1,2,3-cd)pyrene	**NA**	**Metals:** Arsenic, Cobalt, Manganese, Lead, Zinc **SVOCs:** Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Indeno(1,2,3-cd)pyrene **PCBs:** Aroclor-1260	**Metals:** Arsenic, Cadmium, Cobalt, Manganese, Lead, Zinc **SVOCs:** Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Indeno(1,2,3-cd)pyrene	**Metals:** Antimony, Arsenic, Cadmium, Cobalt, Lead, Manganese, Mercury, Zinc **SVOCs:** Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Benzo(k)fluoranthene, Chrysene, Dibenzo(a,h)anthracene, Indeno(1,2,3-cd)pyrene **SPLP Metals:** Antimony, Cadmium, Lead, Zinc	**Metals:** Arsenic, Cobalt, Manganese	NA
	Building Materials[d]		**NA**	**NA**	**NA**	**Metals:** Arsenic	**Metals:** Arsenic	**Metals:** Antimony, Arsenic, Cadmium, Chromium, Lead, Mercury, Zinc **SVOCs:** Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Benzo(k)fluoranthene, Chrysene, Dibenzo(a,h)anthracene, Indeno(1,2,3-cd)pyrene **Asbestos:** Asbestos fibers detected above detection limit	NA	NA

Table 6.3.5-1[a]
Summary of COI Exceedances for OU1 and OU2
Matthiessen and Hegeler Zinc Company Site

Matrix [b]		OU1 Plant Area	OU1 Slag Pile	Little Vermilion River	Investigation Area 1 Building 100	Investigation Area 2 Rolling Mill	Investigation Area 3 Former Main Industrial Area	Investigation Area 4 North Area/Northeast Periphery Area	Investigation Area 5 Residential Area / Off-Site Area
Soil/Solid	Piles[e]	**NA**	**NA**	**NA**	**Metals:** Arsenic, Cadmium, Lead, Zinc **SVOCs:** Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Dibenzo(a,h)anthracene, Indeno(1,2,3-cd)pyrene	**Metals:** Arsenic **SVOCs:** Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Dibenzo(a,h)anthracene, Indeno(1,2,3-cd)pyrene	**Metals:** Antimony, Arsenic, Cadmium, Cobalt, Copper, Iron, Lead, Manganese, Mercury, Thallium, Zinc **SVOCs:** Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-cd)pyrene **PCBs:** Aroclor-1260, Aroclor-1254, Aroclor-1248 **Pesticides:** Dieldrin **Asbestos:** Asbestos fibers detected above detection limit	NA	NA
	Sediment	**NA**	**Metals:** Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Silver, Zinc **VOCs:** Acetone **SVOCs:** Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(g,h,i)perylene, Benzo(k)fluoranthene, Bis(2-ethylhexyl)phthalate, Carbazole, Chrysene, Dibenzo(a,h)anthracene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, Pyrene **PCBs:** Aroclor 1254, Aroclor 1260	**Metals:** Arsenic, Cadmium, Cobalt, Copper, Syanide, Lead, Mercury, Nickel , Silver, Zinc Cyanide **VOCs:** 2-Butone(MEK), Acetone **SVOCs:** Benzo(a)anthracene, Benzo(a)pyrene, Bis(2-ethylhexyl)phthalate, Chrysene, Fluoranthene, Phenanthrene, Pyrene **PCBs:** Aroclor 1242, Aroclor 1254, Aroclor 1260 **Pesticides:** 4,4'-DDD, 4,4'-DDT, alpha-Chlordane, Dieldrin, Endrin, Endrin Aldehyde, gamma-Chlordane	**NA**	**NA**	**NA**	**NA**	**NA**
	Groundwater[f]	**Metals:** Aluminum, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Iron, Lead, Manganese, Mercury, Vanadium, Zinc **VOCs:** 1,2-dichloroethane, Vinyl chloride **SVOCs:** Bis(2-ethylhexyl)phthalate	**Metals:** Arsenic, Cadmium, Cobalt, Copper, Iron, Lead, Manganese, Mercury, Nickel, Zinc	**NA**	**Total Metals:** Arsenic, Cadmium, Cobalt, Iron, Lead, Manganese, Mercury, Selenium, Thallium, Zinc **Dissolved Metals:** Arsenic, Cadmium, Cobalt, Iron, Lead, Manganese, Selenium, Zinc **VOCs:** Chloroform, Trichloroethene, Vinyl Chloride **SVOCs:** Bis(2-ethylhexyl)phthalate, Naphthalene **Pesticides:** delta-BHC, Heptachlor epoxide			**NA**
	Surface Water[g]	**NA**	**NA**	**Metals:** Aluminum, Cadmium, Chromium, Copper, Iron, Lead, Nickel, Selenium, Silver, Zinc, Cyanide	**Metals:** Arsenic, Cadmium, Cobalt, Iron, Lead, Mercury, Silver, Zinc **Pesticides:** Heptachlor				**NA**

Notes:

a Data limitation and uncertainties are presented on Table 9.5.1-1.

b This table summarizes contaminants detected at concentrations exceeding the screening values in more than one sample per medium.

c Soil sample results were compared to the EPA residential and industrial Regional Screening Levels (RSL). TCLP metals results were compared to the regulatory levels in Title 40 of the *Code of Federal Regulations* (40 CFR), Section 261.24. SPLP metals results were compared to both the 40 CFR Section 261.24 regulatory levels and the EPA groundwater maximum contaminant levels (MCL) or the EPA Tap Water RSLs if no MCLs existed.

d Building material sample results were compared to the EPA residential and industrial RSLs.

e Pile sample results were compared to the EPA residential and industrial RSLs.

f Groundwater sample results were compared to the EPA groundwater MCLs and EPA Tap Water RSLs.

g Surface water sample results were compared to the surface water screening values, which were chosen from the Human Health Surface Water Medium-Specific Screening Criteria as agreed upon and presented in Attachment 4, Revision 1, of the "Technical Approach Consensus Document, Human Health and Ecological Risk Assessments" (Geosyntec and SulTRAC 2008) (see Appendix RA).