ORIGINAL

DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL
DIVISION OF AIR & WASTE MANAGEMENT
SITE INVESTIGATION & RESTORATION BRANCH

391 LUKENS DRIVE
NEW CASTLE, DE 19720-2774

SDMS DocID 2241235

FAX COVERSHEET

TO: *Paul Davis*

FROM: *Ann Breslin*

COMPANY: *WESTON*

DATE: *August 23, 1999*

FAX NUMBER: *(609) 461-4916*

NUMBER OF PAGES (INCLUDING COVER PAGE): 10

COMMENTS:

Paul -

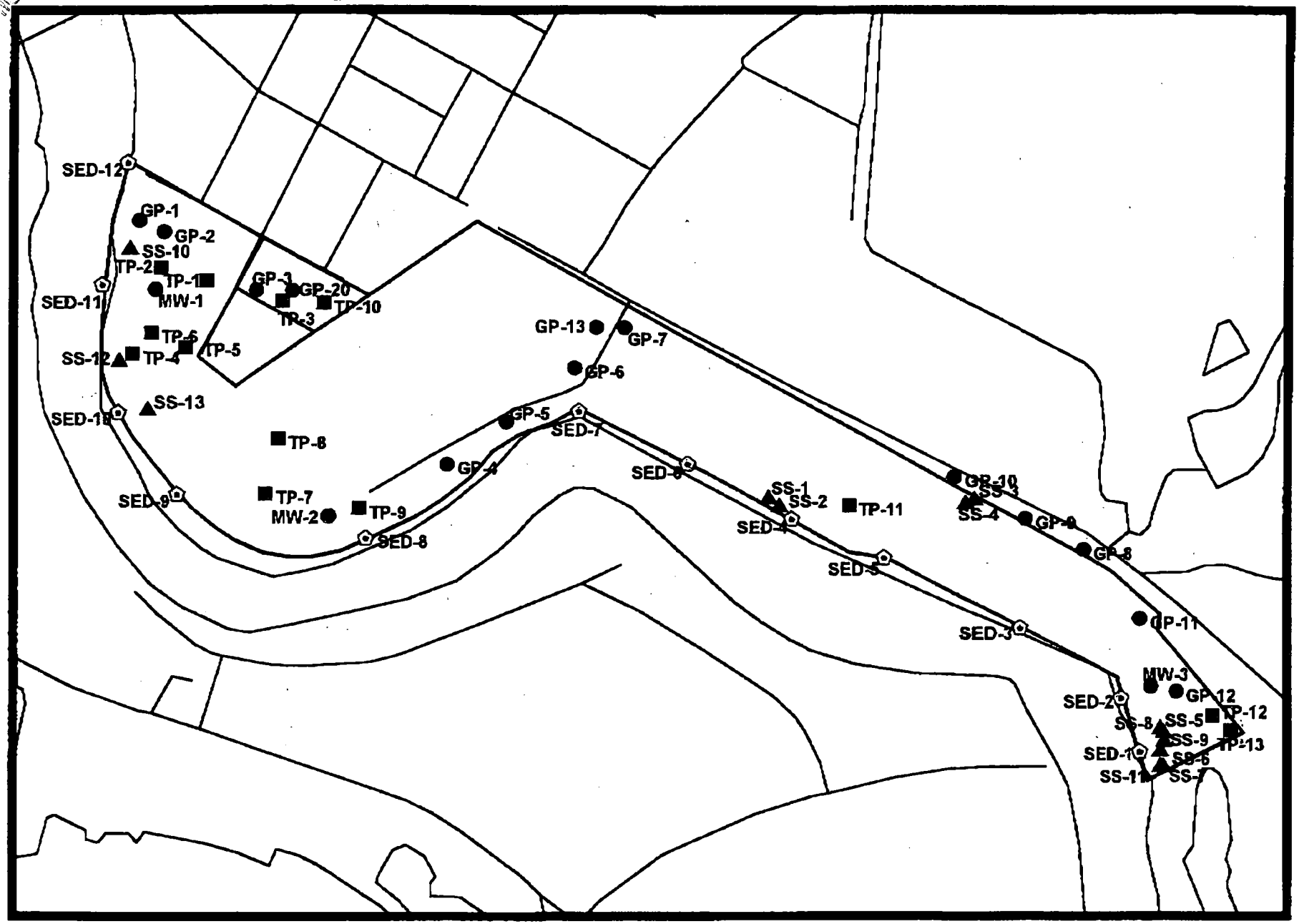
I am sending a copy of the validated data tables (first draft tables, so please excuse any mistakes. The samples in the lower right hand side are at the drum site, specifically SS-7, SED-2, SS-11 (one drum content), and SS-9. Call with questions!

Ann

TELEPHONE: (302) 395-2600 *FAX: (302) 395-2601*

direct 395-2610

ORIGINAL


SED-12
GP-1
GP-2
SS-10
TP-2
TP-1
MW-1
SED-11
GP-3
GP-20
TP-3
TP-10
TP-6
TP-5
SS-12
TP-4
SS-13
SED-10
TP-8
GP-13
GP-7
GP-6
GP-5
SED-7
GP-4
SED-9
TP-7
MW-2
TP-9
SED-8
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SS-1
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TP-11
SED-4
SED-5
GP-10
SS-3
SS-4
GP-9
GP-8
SED-3
GP-11
MW-3
GP-12
SED-2
SS-8
SS-5
TP-12
SS-9
TP-13
SED-1
SS-6
SS-11
SS-7

ORIGINAL

Site Name: Diamond State Foundry/
Pullman Palace Carworks
Sampling Date: 6/14, 6/15, 6/16/99

DATA SUMMARY FORM: INORGANICS
Surface Soil Samples
mg/kg

Sample Number Sample Location Analyte	SS-2	SS-4	SS-7	SS-12	RBC* Industrial mg/Kg 10/1/98		RBC* Residential mg/Kg 10/1/98		HSCA** (Shallow Soils) mg/Kg 2/1/98	
Aluminum	15,400	6,250	10,100	11,800	2,044,000	N	78,214	N	20,000	
Antimony	UJ	UJ	UJ	UJ	818	N	31	N	3	
Arsenic	13.3	56.2	72.4	11.2	^610/3.8	N/C	^23/0.43	N/C	2/0.4	N/C
Barium	170	239	184	192	143,080	N	5,475	N	550	
Beryllium					4,100	N	160	N	0.5	
Cadmium	1.7	12.5	3.3	2.0	2,044	N	78	N	4	
Calcium	7,030	6,800	13,600	4,570	NL		NL		NL	
Chromium	39.3 J	48.8 J	317 J	48.9 J	3,066,000/6,132	III/VI	117,321/235	III/VI	1,000/270	III/VI
Cobalt		13.5	57.4	16.0	122,640	N	4,693	N	470	
Copper	382 J	853 J	316 J	418 J	81,760	N	3,129	N	1,000	
Iron	49,900	23,800	57,800	25,900	613,200	N	23,464	N	23,000	
Lead	36,700 J	5,700 J	41,900 J	808 J	**1,000		**400		400	
Magnesium	1,980 J	3,940 J	3,270 J	3,270 J	NL		NL		NL	
Manganese	252 J	277 J	511 J	562 J	40,880	N	1,564	N	180	
Mercury	0.30	0.29	0.45	1.0	^610	N	^23	N	10	
Nickel	33.8	39.1	46.6	41.4	40,880	N	1,564	N	160	
Potassium					NL		NL		NL	
Selenium	4.3	3.9	12.3	2.8	10,220	N	391	N	39	
Silver					10,220	N	391	N	39	
Sodium					NL		NL		NL	
Thallium					143	N	5.5	N	18	
Vanadium	87.0	83.7	39.2	64.2	14,308	N	548	N	55	
Zinc	2,000	5,360	1,930	672	613,200	N	23,464	N	1,000	
Cyanide					40,880	N	1,564	N	160	

^ = EPA Region III Risk-Based Concentration Tables. E. W. Johnson, 10/22/97
* = EPA Region III Risk-Based Concentration Tables. J. Hubbard, 4/12/99
** = HSCA Uniform Risk Based Remediation Standards for noncritical unrestricted land use, 2/1/98
(III & VI) = Chromium III, Chromium VI values

NL = Not Listed
C = Carcinogenic
N = Non Carcinogenic
ND = Not Detected

alb99062

Original

Site Name: Diamond State Foundry/
Pullman Palace Carworks
Sampling Dates: 6/14, 6/15, 6/16/99

DATA SUMMARY FORM: INORGANICS
Sediment Samples
mg/kg

Sample Number / Analyte	SED-2	SED-6	RBC* INDUSTRIAL mg/Kg 4/12/99		RBC* RESIDENTAL mg/Kg 4/12/99		NOAA** ER-L mg/Kg 1990
Aluminum	8,330	4,380	2,044,000	N	78,214	N	NL
Antimony	UJ	UJ	818	N	31	N	NL
Arsenic	14.8	5.8	610/3.8	N/C	23/0.43	N/C	8.2
Barium	183	108	143,080	N	5,475	N	NL
Beryllium			4100	N	160	N	NL
Cadmium		9.7	2,044	N	78	N	1.2
Calcium	6,720	1,500	NL		NL		NL
Chromium	250 J	50.2 J	3,066,000/6,132	III/VI	117,321/235	III/VI	81
Cobalt			122,640	N	4,693	N	NL
Copper	90.3 J	198 J	81,760	N	3,129	N	34
Iron	28,300	22,700	613,200	N	23,464	N	NL
Lead	4,420 J	1,160 J	***1,000		***400		46.7
Magnesium	2,800 J	UJ	NL		NL		NL
Manganese	264 J	122 J	40,880	N	1,564	N	NL
Mercury		0.21	610	N	23	N	0.15
Nickel	34.5	27.3	40,880	N	1,564	N	20.9
Potassium			NL		NL		NL
Selenium	4.8	2.2	10,220	N	391	N	NL
Silver		8.2	10,220	N	391	N	1.0
Sodium			NL		NL		NL
Thallium			143	N	5.5	N	NL
Vanadium	27.6	14.8	14,308	N	548	N	NL
Zinc	3,750	408	613,200	N	23,464	N	150
Cyanide			40,880	N	1,564	N	NL

* = EPA Region III Risk-Based Concentration Tables. J. Hubbard, 4/12/99
** = NOAA Effects Range-Low, Long and Morgan, 1990, Tech Memo NOS OMA 52
*** = HSCA Uniform Risk Based Remediation Standards for critical water resource area / restricted and unrestricted land use, 5/1/99
(+) = Chromium III, Chromium VI values

NL = Not Listed
C = Carcinogenic
N = Non Carcinogenic
ND = Not Detected
J = analyte Present. Reported value may not be accurate or precise.

alb99063

Site Name Diamond State Foundry
Sampling Date(s): 6/14,15,16/99

DATA SUMMARY FORM: VOLATILES (1)

Soil
(Media) SAMPLES
(UNITS) ug/Kg

Sample Number / Dilution Factor / Sample Location	GP55		SS4		* S11		SW1 (ug/L)		SW2 ug/L		TP7D		TP7S		TP9S		TP10S		TP16S
Chloromethane					580	J													
Bromomethane																			
Vinyl Chloride																			
Chloroethane																			
Methylene Chloride																			
Acetone							37												
Carbon Disulfide					670	J													
1,1-Dichloroethene																			
1,1-Dichloroethane															530	J			
1,2-Dichloroethene (total)																			
Chloroform																			
1,2-Dichloroethane																			
2-Butanone							45						530						
1,1,1-Trichloroethane	220	J											1100		13000				
Carbon Tetrachloride																			
Vinyl Acetate																			
Bromodichloromethane																			

Site Name: Diamond State Foundry
Sampling Date(s): 6/14, 15, 16/99

DATA SUMMARY FORM: VOLATILES (2)

Soil
(Media) SAMPLES
(UNITS) ug/Kg

Sample Number / Dilution Factor / Sample Location	GP5S		SS4		* S11		SW1 (ug/L)		SW2 (ug/L)		TP7D		TP7S		TP9S		TP10S		TP10S
1,2-Dichloropropane																			
cis-1,3-Dichloropropene																			
Trichloroethene																			
Dibromochloromethane																			
1,1,2-Trichloroethane																			
Benzene																			
trans-1,3-Dichloropropene																			
Bromoform																			
4-Methyl-2-Pentanone																			
2-Hexanone							5	5											
Tetrachloroethene																			
1,1,2,2-Tetrachloroethane																			
Toluene	87	J			280000														
Chlorobenzene			63	J															
Ethylbenzene			~~490~~	~~J~~	490	J													
Styrene																			
Xylene (total)			~~670~~	~~J~~	670	J													

E - Exceeds Linear Range of Instrument - Report result "DL" analysis.

FAX NO.
AUG-23-99 MON 02:54 PM

Site Name: Diamond State Foundry
Sampling Date(s): 6/14, 15, 16/99

DATA SUMMARY FORM: SEMIVOLATILE (1)

Soil
(Media) SAMPLES
(UNITS) ug/Kg

Sample Number / Dilution Factor / Sample Location	~~REUSE~~ GP13D		GP2D		GP5S		GP7D		GP9S		SS12		SS4		* SS9	
Phenol																
bis(2-Chloroethyl)ether																
2-Chlorophenol																
1,3-Dichlorobenzene																
1,4-Dichlorobenzene																
1,2-Dichlorobenzene																
2-Methylphenol																
2,2'-oxybis(1-Chloropropane)																
4-Methylphenol																
N-Nitroso-di-n-propylamine																
Hexachloroethane																
Nitrobenzene																
Isophorone																
2-Nitrophenol																
2,4-Dimethylphenol																
bis(2-Chloroethoxy)methane																
2,4-Dichlorophenol													560D			
1,2,4-Trichlorobenzene																
Naphthalene	600,000				150	J	40	J	1200	J	54	J	560	J	62	J
4-Chloroaniline																

SW2 (ug/L)

Original

Site Name: Diamond State Foundry
Sample Date(s): 6/14, 15, 16/95

DATA SUMMARY FORM: SEMIVOLATILE (2)
Soils
(Media) SAMPLES
(UNITS) ug/Kg

Sample Number / Dilution Factor / Sample Location	GP13D		GP2D		GP5S		GP7D		GP9S		SS12		SS4		* SS9		SW2 (ug/L)	
Hexachlorobutadiene																		
4-Chloro-3-methylphenol																		
2-Methylnaphthalene	340,000				140	J			570	J	40	J	730	J	61	J		
Hexachlorocyclopentadiene																		
2,4,6-Trichlorophenol																		
2,4,5-Trichlorophenol																		
2-Chloronaphthalene																		
2-Nitroaniline																		
Dimethylphthalate																		
Acenaphthylene	55000				160	J	64	J			200	J	180	J	93	J		
2,6-Dinitrotoluene																		
3-Nitroaniline																		
Acenaphthene	1,300,000				170	J	31	J			170	J	430	J	26	J		
2,4-Dinitrophenol																		
4-Nitrophenol																		
Dibenzofuran	720,000				140	J	26	J	1400	J	48	J	300	J	38	J		
2,4-Dinitrotoluene																		
Diethylphthalate			21	J	19	J									17	J		
4-Chlorophenyl-phenyl ether							16	J										
Fluorene	1,200,000				180	J	42	J	1600	J	120	J	270	J	31	J		
4-Nitroaniline																		
4,6-Dinitro-2-methylphenol																		

Site Name: Diamond State Foundry
Sample Date(s): 6/14, 15, 16/99

DATA SUMMARY FORM: SEMIVOLATILE (3)

Soil
(Media) SAMPLES
(UNITS) ug/Kg

Sample Number / Dilution Factor / Sample Location	GP13D		GP2D		GP5S		GP7D		GP9S		SS12		SS4		* SS9		SW2 (ug/L)	
N-Nitrosodiphenylamine (1)																		
4-Bromophenyl-phenylether																		
Hexachlorobenzene													12000					
Pentachlorophenol																		
Phenanthrene	5,600,000		39	J	1500		600		8500		1200		3200	J	380	J		
Anthracene	1,900,000		11	J	450		170		2700		390	J	650		110	J		
Carbazole	640,000				220	J	82	J	1100		160		360	J	47			
Di-n-butylphthalate					40	J					47							
Fluoranthene	4,300,000		53	J	1900		800		9900		1900		4500	J	620			
Pyrene	4,000,000		48	J	1700		2000		8500		1600		4000		520			
Butylbenzylphthalate					100	J			2000		170				75	J		
3,3'-Dichlorobenzidine													1900	J				
Benzo(a)anthracene	1,600,000		35	J	950		580		2500	J	1100		2100		370	J		
Chrysene	1,400,000		39	J	930		610		2500	J	1300		2200		370			
bis(2-Ethylhexyl)phthalate			56	J	320	J	170	J	300,000									
Di-n-octylphthalate							210	J	620									
Benzo(b)fluoranthene	2,000,000		49	J	1800		1000		7700	J	2200		3500	J	530			
Benzo(k)fluoranthene	330,000		14		460		900		650		550		1400		140	J		
Benzo(a)pyrene	1,400,000		36		840		550		970		1200		2400		340			
Indeno(1,2,3-cd)Pyrene	440,000		19		320	J	380	J	510		500		2000		280			
Dibenz(a,h)anthracene	120,000				130		95		200		160	J	490		75			
Benzo(g,h,i)perylene	370,000		19	J	270		390		610	J	520		2100		270			

ORIGINAL

Site Name: Diamond State Foundry
Sampling Date(s): 6/14,15,16/99

acute GH	Chronic GH
108.79	4.24
acute KH	Chronic
53.36	2.08

DATA SUMMARY FORM: PESTICIDES AND PCB's

Soil
(Media) SAMPLES
(UNITS) ug/Kg

Sample Number / Dilution Factor / Sample Location	GP13D		SS2		SS4 *		SW2 (ug/L)		TP10S		TP16S		TP7D					
alpha-BHC																		
beta-BHC																		
delta-BHC																		
gamma-BHC(Lindane)																		
Heptachlor																		
Aldrin											2.4	P						
Heptachlor epoxide									2.6		3.0							
Endosulfan I																		
Dieldrin																		
4,4'-DDE			19															
Endrin																		
Endosulfan II																		
4,4'-DDD			18	P														
Endosulfan sulfate																		
4,4'-DDT			47	P														
Methoxychlor																		
Endrin ketone																		
Endrin aldehyde																		
alpha-Chlordane			4.0		270	RS												
gamma-Chlordane																		
Toxaphene																		
Aroclor-1016																		
Aroclor-1221																		
Aroclor-1232																		
Aroclor-1242																		
Aroclor-1248																		
Aroclor-1254			240	S	670,000													
Aroclor-1260			210	P	1,300,000													

* PCB's EXCEED TSCA LEVELS.

P- Laboratory quality control criteria between primary and secondary columns. EXCEEDED