31FRBCERCLASF10,621

31FRBCERCLASF10,621

Site Name:	SOUTHERN WOOD PIEDMONT
Subsite:	
Site Name: *Do not enter text.*	NCD058517467
Full Site Name (Subject): *Do not enter text.*	SOUTHERN WOOD PIEDMONT
Document Type:	REMEDIAL INVESTIGATION (RI)
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1985

MISSISSIPPI STATE UNIVERSITY

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762
PHONE (601) 325-2116

March 21, 1985

Mr. Charles Burdell
Technical Director
Southern Wood Piedmont Co.
P. O. Box 5447
Spartanburg, SC 29304

Dear Charles:

Enclosed is the analytical data on the soil from the Wilmington Site. The sample identification is listed below:

			SWP
#4 A + B =	Duplicate	samples	#5806
5 A + B =	"	"	#5807
6 A + 6 B =	"	"	#5808
7 A + 7 B =	"	"	#5809
8 A + 8 B =	"	"	#5810
9 A + 9 B =	"	"	#5811

Sincerely,

Gary D. McGinnis
Professor

dn

Enclosure

ENVIRONMENTAL DEPA

SAMPLE NUMBER	LOCATION OF SAMPLE	PLANT SITE	NO. OF BOTT
5797	Spilled Hog Beside Field Canal Between #1 + #5 Tracks 0"-3"	Wilm, NC	1 Bag
5798	" 9"-12"	"	"
5799	" 21"-24"	"	"
5800	Snake Pond Area 0"-3"	"	"
5801	" 9"-12"	"	"
5802	" 21"-24"	"	"
5803	NC Tracks CH Tree Heal Area 0"-3"	"	"
5804	" 9"-12"	"	"
5805	" 21"-24"	"	"
5806	Sandfarm #1 Riverside 0"-3"	"	"
5807	" 9"-12"	"	"
5808	" 21"-24"	"	"
5809	Sandfarm #2 Riverside 0"-3"	"	"
5810	" 9"-12"	"	"
5811	" 21"-24"	"	"
5812	In front of Occ. Cyl.	Spt. Bg.	"
5813	#1 Fogging Field 0"-3"	Waverly	"
5814	#2 " 0"-3"	"	"

PROJECT NO.

SUBJECT

DATE

	Riverside						Office Side			
Sample I.D.	0-3		9-12		21-24		0-3		9-12	
FPL # 850110	4A	4B	5A	5B	6A	6B	7A	7B	8A	8B
Actual weight	10.27g	10.20g	10.03g	10.14g	10.73g	10.06g	10.37g	10.17g	10.32g	10.57g
Moisture content	6.36%	6.36%	7.32%	7.32%	8.77%	8.77%	12.2%	12.2%	15.0%	15.0%
Dry weight	9.62g	9.55g	9.30g	9.40g	9.79g	9.13g	9.10g	8.93g	8.77g	8.98g
2-23-85	Component Concentration in Soil (micrograms/gram--dry weight)									
Naphthalene	—	—	—	—	—	—	—	—	—	—
2-Methylnaphthalene	—	—	—	—	—	—	—	—	—	—
1-Methylnaphthalene	—	—	—	—	—	—	—	—	—	—
Biphenyl	—	—	—	—	—	—	—	—	—	—
Acenaphthylene	—	—	—	—	—	—	—	—	—	—
Acenaphthene	—	—	—	—	—	—	384	372	—	—
Dibenzofuran	—	—	—	—	—	—	47.1	55.1	—	—
Fluorene	—	—	—	—	—	—	231	202	—	—
Phenanthrene	—	—	—	—	—	—	680	634	44.5	—
Anthracene	—	—	—	—	—	—	945	853	77.0	—
Carbazole	—	—	—	—	—	—	25.4	15.9	—	—
Fluoranthene	29.4	50.0	—	—	—	—	2,890	3,150	236	96.7
Pyrene	36.3	51.9	—	—	—	—	2,290	2,500	220	77.4
1,2-Benzanthracene	—	—	—	—	—	—	308	372	—	—
Chrysene	—	—	—	—	—	—	369	481	—	—
Benzo(a)pyrene	—	—	—	—	—	—	—	—	—	—
Benzo(ghi)perylene	—	—	—	—	—	—	—	—	—	—
DPM Recovery	97.2%	106%	88.4%	88.3%	N/A	102%	116%	126%	92.1%	88.2%
3-8-85 Pentachlorophenol	7.93	7.55	2.28	1.81	0.520	0.464	624	721	58.0	37.8
OCDD										

Samp[illegible] I.D.	21-24"	
FPL # 850110	9A	9B
Actual weight	12.99g	11.99g
Moisture content	24.3%	24.3%
Dry weight	9.83g	9.03g
2-23-85	Component Concentration in Soil (micrograms/gram--dry weight)	
Naphthalene	—	—
2-Methylnaphthalene	—	—
1-Methylnaphthalene	—	—
Biphenyl	—	—
Acenaphthylene	—	—
Acenaphthene	—	—
Dibenzofuran	—	—
Fluorene	—	—
Phenanthrene	26.9	17.6
Anthracene	122	36.1
Carbazole	—	—
Fluoranthene	103	45.7
Pyrene	97.3	23.8
1,2-Benzanthracene	—	—
Chrysene	—	—
Benzo(a)pyrene	—	—
Benzo(ghi)perylene	—	—
DPM Recovery 3-8-85	95.4%	110%
Pentachlorophenol	14.0	37.9
OCDD		

Sample I.D.	GWW	Sol. BLK.								
FPL # 850110										
Actual weight										
Moisture content										
Dry weight										
				Total Amount (micrograms)						
Naphthalene	—	—								
2-Methylnaphthalene	—	—								
1-Methylnaphthalene	—	—								
Biphenyl	—	—								
Acenaphthylene	—	—								
Acenaphthene	—	—								
Dibenzofuran	—	—								
Fluorene	—	—								
Phenanthrene	—	—								
Anthracene	—	—								
Carbazole	—	—								
Fluoranthene	—	—								
Pyrene	—	—								
1,2-Benzanthracene	—	—								
Chrysene	—	—								
Benzo(a)pyrene	—	—								
Benzo(ghi)perylene	—	—								
DPM Recovery 3-8-85	—	114%								
Pentachlorophenol	0.551	—								
OCDD										

Sample I.D.	Soil Blank	Spike Level	Recovery	% Recovery		L.O.D.	L.O.Q.			
FPL [illegible]0211-850110										
Actual weight	10.00g	10.00g	10.00g			10.00g	10.00g			
Moisture content										
Dry weight										
	Component Concentration in Soil (micrograms/gram--dry weight)									
Naphthalene	—	158	93.4	59.1%		4.12	12.5			
2-Methylnaphthalene	—	101	70.5	69.8%		4.93	14.8			
1-Methylnaphthalene	—	108	85.5	79.2%		3.57	10.7			
Biphenyl	—	153	138	90.2%		4.09	12.3			
Acenaphthylene	—	104	90.3	86.8%		3.77	11.3			
Acenaphthene	—	150	142	94.7%		3.87	11.6			
Dibenzofuran	—	151	142	94.0%		4.57	13.7			
Fluorene	—	137	128	93.4%		4.09	12.3			
Phenanthrene	—	151	135	89.4%		4.41	13.2			
Anthracene	—	123	136	111 %		3.64	10.9			
Carbazole	—	148	109	73.6%		5.32	16.0			
Fluoranthene	—	119	122	103%		4.17	12.5			
Pyrene	—	155	165	106%		4.12	12.3			
1,2-Benzanthracene	—	107	38.9	36.4%		6.41	19.2			
Chrysene	—	107	93.8	87.7%		4.51	13.5			
Benzo(a)pyrene	—	111	—	0%		9.55	28.6			
Benzo(ghi)perylene	—	66.7	—	0%		13.4	40.3			
DPM Recovery	104%		104%	(100%)		4.37	13.1			
DPM Pentachlorophenol 3-14-85	—	41.3	46.9	114%		0.153	0.511			
OCDD										

PAH: L.O.D. + L.O.Q. Based on 10.00g sample and a dilution factor of 25.

PCP: L.O.D. = 3 x "background", L.O.Q. = 10 x "background", where "background" is Glassware

— Not Detected * Detected but not quantitated.

James W. Andrews, Ph.D.
President
Janette M. Davis
Chief Chemist, VP

SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES, INC.

P.O. Box 13842 • Savannah, Ga. 31406
912/354-7858

REPORT OF ANALYSIS

TO: Southern Wood Piedmont Co.
Attn: Charles Burdell
P. O. Box 5447
Spartanburg, SC 29304

REPORT NO. 8928

DATE RECEIVED 2/27/85

SAMPLED BY Client

IDENTIFICATION: Lysimeters #1 - 3 - & 3, Riverside, Composite No. 6 (Wilmington Plant)

METHODS: "Test Methods for the Evaluation of Solid Waste", EPA SW-846 (2nd Edition), EPA 8100 and EPA 8040 (Varian Model 3700 GC)

K001 Parameters	Results mg/l
phenol	<0.005
pentachlorophenol	0.03
naphthalene	0.03
acenaphthene	<0.008
phenanthrene + anthracene	<0.016
fluoranthene	<0.008
chrysene + benz(a)anthracene	<0.016
benzo(b)fluoranthene + benz (k)fluoranthene	<0.016
benzo(a)pyrene	<0.008
indeno(1,2,3-cd)pyrene + dibenzo(a,h)anthracene	<0.040
acenaphthylene	<0.008
fluorene	<0.008
carbazole	<0.008
pyrene	<0.008
2-methylnaphthalene	<0.008
1-methylnaphthalene	<0.008
biphenyl	<0.008
dibenzofuran	<0.008
pH	6.9

James W. Andrews

James W. Andrews PH.D.

James W. Andrews, Ph.D.
President
Janette M. Davis
Chief Chemist, VP

SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES, INC.

P.O. Box 13842 • Savannah, Ga. 31406
912/354-7858

REPORT OF ANALYSIS

TO: Southern Wood Piedmont Co.
Attn: Charles Burdell
P. O. Box 5447
Spartanburg, SC 29304

REPORT NO. 8928

DATE RECEIVED 2/27/85

SAMPLED BY Client

IDENTIFICATION. Lysimeters #5 & 6, Office side, Composite No. 5 (Wilmington Plant)

METHODS: "Test Methods for the Evaluation of Solid Waste", EPA SW-846 (2nd Edition), EPA 8100 and EPA 8040

K001 Parameters	Results mg/l
phenol	<0.005
pentachlorophenol	<0.020
naphthalene	<0.008
acenaphthene	<0.008
phenanthrene + anthracene	<0.016
fluoranthene	<0.008
chrysene + benz(a)anthracene	<0.016
benzo(b)fluoranthene + benz (k)fluoranthene	<0.016
benzo(a)pyrene	<0.008
indeno(1,2,3-cd)pyrene + dibenzo(a,h)anthracene	<0.040
acenaphthylene	<0.008
fluorene	<0.008
carbazole	<0.008
pyrene	<0.008
2-methylnaphthalene	<0.008
1-methylnaphthalene	<0.008
biphenyl	<0.008
dibenzofuran	<0.008
pH	6.9

James W. Andrews PH.D.

SAVANNAH LAB & ENV. SER.
SAVANNAH, GEORGIA,.

February 26, 1985

8928
2-27-85

TWO WATER SAMPLES FROM : SOUTHERN WOOD PIEDMONT CO.,
P.O. BOX 450
WILMINGTON, N.C.,
28402-0450 PHONE 919=762-9678

LYSIMETER # 1 # 2 & #3 composit Sample No 5 Riverside (Glass Bottle)

LYSIMETER # 5 & # 6 Composit Sample No 6 Office-side (PLASTIC BOTTLE)

MR. C.A. BURDELL WILL CONTACT YOU AS TO WHAT ANALYSES
P.O. BOX 5447 HE WANTS
SPARTANBURG, S.C.,
29304-5447

Phone 803-576-7660

THANKS

H.O. PHILLIPS

J. L. ROGERS & CALLCOTT ENGINEERS, INC.

718 Lowndes Hill Rd.
Greenville, S.C. 29607
(803) 232-1556

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Monitoring Well Analysis
Treatability Studies
Leachate Analysis
Sampling & Pick-up

LABORATORY SERVICES

CLIENT: Southern Wood Piedmont
Spartanburg, S.C.

Wilmington sand

JOB NO: 1297

DATE RECEIVED: 3/22/1985

DATE REPORTED: 4/30/1985

SAMPLE NO	SAMPLE DESCRIPTION	ARSENIC ppm	CHROMIUM ppm
	SWP No		
32536	6068	50	.32
32537	6069	15	.20
32538	6071	5.1	.14
32539	6072	2000	620
32540	6073	24	1.3
32541	6074	26	.40
32542	6075	6.3	<.05
32543	6076	2700	1100
32544	6077	13	1.0
32545	6078	11	.30
32546	6080	19	.07
32547	6081 Soil Sample	71 mg/kg	359 mg/kg

Nos. 6070 and 6079 were broken when received.

received by
Jack E. Trudeman

REPORTED BY: Sam W. Avery
Sam W. Avery, Laboratory Manager

JET
CAB
ELG

P. O. Box 5447
Spartanburg, S. C. 29304

Phone 803/576-7660

Southern Wood Piedmont Company

March 9, 1985

Dr. Gary McGinnis
Mississippi State University
Forest Products Utilization Lab
P. O. Drawer FP
State College, MS 39762

Dear Dr. McGinnis:

Enclosed are 6 soil samples from our Wilmington Plant. Please do K001 (PAH) and penta analysis.

If you have any questions, please call.

Sincerely,
Southern Wood Piedmont

Sandra B. Watson

Sandra B. Watson
Environmental Technician

Note: SWP's ID. #'s - 6008, 6009, 6014 - 6016.
6010

/dm

Rec. 3-21-85
P. Pope

MFPUL#	SWP#
850321-1	6008
850321-2	6009
850321-3	6010
850321-4	6014
850321-5	6015
850321-6	6016

Stored in freezer in front lab

Gary would like for the results to be turned in to him. 4-21-85.

OUTSIDE SAMPLES

Date Received	Results Requested By	Date to be Completed	Actual Date of Completion
3/21/85			

Name Charles Bradell Assigned to Hazard - Land

Sample # (FPUL)	Source Number & Storage Location	Completed By
850321 - 1A, 1B	SWP # 6008 - L/F #1 River 0"-3"	
2A, 2B	6009 - " " " 9"-12"	
3A, 3B	6010 - " " " 21"-24"	
4A, 4B	6014 - " " " 0"-3"	
5A, 5B	6015 - L/F #2 Office 9"-12"	
6A, 6B	6016 - " " " 21"-24"	

Sample Type

1. Sample Source:

Name: Charles Bradell Sandra Hinton

Company: Bethlehem Steel Corporation
Aluminum Plant

Other Information:

2. Analysis Requested:

PAH, PCP

RECEIVED

MAY 20 1985

ENVIRONMENTAL AFFAIRS

3. Analysis Procedure:

1) Mellz Soxhlet
2) Si-gel column clean-up
3) GC-FID

4. Billing:

Date of Report:	Written By:	Date Sent:
5/16/85	D. Stitel	

Soil Sample Preparation History for SWP850321 Analysis

Sample I.D.#	Soil weight (wet)	Extraction solvent volume (ml)	Condensed extract volume (ml)	PAH/PCP 4126185 (Column clean-up) Aliquot volume	Condensed volume	OCDD column cleanups Aliquot volume	Diluted volume	PCP (Serial dilutions) Aliquot volume	Diluted volume	OCDD Dilutions Aliquot volume	Diluted volume
850321-1A	10.50	300	5 ml	1 ml	5 ml			10 µl	10 ml		
850321-1B	10.50	300	5 ml	1 ml	5 ml			10 µl (1:1000)	10 ml		
850321-2A	10.48		5	1 ml	5 ml			10 µl	10 ml		
850321-2B	10.52		5	1 ml	5 ml			10 µl	10 ml		
850321-3A	10.85		5	1 ml	5 ml			10 µl	10 ml		
850321-3B	10.67		5	1 ml	5 ml			10 µl	10 ml		
850321-4A	10.59		5	1 ml	5 ml			10 µl	10 ml		
850321-4B	10.56		5	1 ml	5 ml			10 µl	10 ml		
850321-5A	10.50		5	1 ml	5 ml			10 µl	10 ml		
850321-5B	10.60		5	1 ml	5 ml			10 µl	10 ml		
850321-6A	10.60		5	1 ml	5 ml			10 µl	10 ml		
850321-6B	10.32		5	1 ml	5 ml			10 µl	10 ml		
CB #1 A day 30	12.00		5 in Volumetric	See Next Sheet				See Next Sheet			
CB #1 B day 30	12.00		"								
Recovery	10.00		"								
Soil Blank	10.00		"								
CB #1 A day 0	12.00		"								
CB #1 B day 0	12.0		5 ml	DPM 0.50217							
GWW			5 ml	TBP 0.10033							
Solv BLK			5 ml	PAH std. 841119-1							
				PCP 6/11: 1							

Extraction 4/30/85

P. Beauregard 5/1/85

Paul Beauregard 5/1/85

Paul Beauregard 5/1/85

Hamil

(850424-1) was used

Date 4/26/85 Project SWP 850321 Analyst Hamid

Soil Moisture Content Analysis

1. Weigh the aluminum pan, record the weight.
2. Tare the balance to zero.
3. Add the moist soil and record its weight.
4. Place the soil in a 110 C - 130 C oven overnight.
5. Remove the soil from the oven and allow to cool.
6. Reweigh the dried soil and pan (combined weight).
7. Subtract the pan weight to get the dry soil weight.
8. Subtract the dry soil weight from the moist soil weight to get the moisture weight.
9. Divide the moisture weight by the moist soil weight and multiply by 100 to get the percent moisture.

CB#1 for day 0 A&B are the same

Sample I.D.	Pan weight	Moist soil weight	Dry soil plus pan weight	Dry soil weight	Moisture weight	Percent moisture	
CB#1 A	1.41	5.00	5.61	4.20	0.80	19	
day 0 B	"	"	" Dry soil	"	"	"	
8[redacted]21A	1.41	5.00	6.04	4.63	0.37	8	7.4
850321-1B	1.41	5.00	6.04	4.63	0.37	8	
850321-2A	1.41	5.00	5.93	4.52	0.48	10.6	9.6
50321-2B	1.41	5.00	5.93	4.52	0.48	10.6	
50321-3A	1.40	4.90	5.06	3.66	1.24	33.8	26
50321-3B	1.40	4.90	5.06	3.66	1.24	33.8	
50321-4A	1.40	4.90	5.52	4.12	0.78	18.9	15.9
50321-4B	1.40	4.90	5.52	4.12	0.78	18.9	
50321-5A	1.41	4.90	5.46	4.05	0.85	21	17.3
50321-5B	1.41	4.90	5.46	4.05	0.85	21	
50321-6A	1.40	4.97	5.43	4.03	0.94	23	18.9
50321-6B	1.40	4.97	5.43	4.03	0.94	23	
CB#1A day 30	1.41	5.00	5.59	4.18	0.82	19	
B[redacted]B day 30	1.41	5.00	5.61	4.20	0.80	19	16
ecovery	1.40	5.00	6.39	4.99	0.01	0.002	
oil Blank	1.40	5.00	6.39	4.99	0.01	0.002	

Sample [redacted] SWP	6008		6009 [redacted]		6010		6014		6015 [redacted]	
FPL # 850321	1A	1B	2A	2B	3A	3B	4A	4B	5A	5B
Actual weight	10.50g	10.50g	10.48g	10.52g	10.85g	10.67g	10.59g	10.56g	10.50g	10.60g
Moisture content	7.4%		9.6%		25.3%		15.9%		17.3%	
Dry weight	9.72g	9.72g	9.47g	9.51g	8.10g	7.97g	8.91g	8.88g	8.68g	8.77g
	Component Concentration in Soil (micrograms/gram--dry weight)									
Naphthalene	—	—	—	—	—	—	—	—	—	—
2-Methylnaphthalene	—	—	—	—	—	—	13.1	✱	—	—
1-Methylnaphthalene	—	—	—	—	—	—	✱	—	—	—
Biphenyl	—	—	—	—	—	—	✱	—	—	—
Acenaphthylene	—	—	—	—	—	—	—	—	—	—
Acenaphthene	✱	✱	—	—	—	—	102	14.7	72.8	14.2
Dibenzofuran	—	—	—	—	—	—	16.4	8.77	10.6	31.6
Fluorene	✱	✱	—	—	—	—	124	19.8	37.2	111
Phenanthrene	11.8	11.2	7.99	—	—	17.1	376	75.3	102	190
Anthracene	9.28	7.67	—	—	—	—	435	154	104	578
Carbazole	—	—	—	—	—	—	102	22.2	26.6	212
Fluoranthene	54.0	36.5	19.4	13.9	—	—	1020	613	390	192
Pyrene	75.9	43.6	27.7	21.3	✱	✱	863	546	349	104
1,2-Benzanthracene	12.6	✱	✱	—	—	—	221	128	48.8	17.9
Chrysene	36.6	21.7	12.2	—	—	—	179	133	82.5	35.9
Benzo(a)pyrene	—	—	—	—	—	—	112	63.3	20.4	—
Benzo(ghi)perylene	—	—	—	—	—	—	27.4	30.5	—	—
Pentachlorophenol	✱	✱	—	—	—	—	384	301	165	81.2
ECD 6-27-85	9.23	5.78	1.68	1.75	—	—	199	188	103	61.5
OCDD										

— Not Detected

✱ Detected

Sample I[illegible] SWP	6016			Soil	Recovery	Recovery	%				
FPL # 85[illegible]21	6A	6B		Blank	Level		Recovery				
Actual weight	10.60g	10.32g		10.00g	10.00g	10.00g					
Moisture content	18.9%			0.2%	0.2%	0.2%					
Dry weight	8.60g	8.37g		9.98g	9.98g	9.98g					
	Component Concentration in Soil (micrograms/gram--dry weight)										
Naphthalene	—	—		—	157	84.3	53.7				
2-Methylnaphthalene	—	—		—	101	69.6	68.9				
1-Methylnaphthalene	—	—		—	108	98.7	91.4				
Biphenyl	—	—		—	153	142	92.8				
Acenaphthylene	—	—		—	104	109	105				
Acenaphthene	—	—		—	150	146	97.3				
Dibenzofuran	—	—		—	151	143	94.7				
Fluorene	—	—		—	137	124	90.5				
Phenanthrene	—	✱		—	151	134	88.7				
Anthracene	—	—		—	123	142	115				
Carbazole	—	—		—	148	99.3	67.1				
Fluoranthene	7.76	✱		—	119	115	96.6				
Pyrene	13.2	✱		—	155	180	116				
1,2-Benzanthracene	—	—		—	107	25.9	24.2				
Chrysene	—	—		—	107	115	107				
Benzo(a)pyrene	—	—		—	111	23.1	20.8				
Benzo(ghi)perylene	—	—		—	66.7	—	0				
Pentachlorophenol	—	—		—	41.3	47.7	115				
ECD 6-27-85	—	—		—	41.3	50.3	122				
OCDD											

— Not Detected

✱ Detected

Sample [illegible].	Solvent Blank	Glassware Wash								
FPL # 850321										
Actual weight										
Moisture content										
Dry weight										
	Total Amount (micrograms)									
Naphthalene	—	—								
2-Methylnaphthalene	—	—								
1-Methylnaphthalene	—	—								
Biphenyl	—	—								
Acenaphthylene	—	—								
Acenaphthene	—	—								
Dibenzofuran	—	—								
Fluorene	—	—								
Phenanthrene	—	—								
Anthracene	—	—								
Carbazole	—	—								
Fluoranthene	—	—								
Pyrene	—	—								
1,2-Benzanthracene	—	—								
Chrysene	—	—								
Benzo(a)pyrene	—	—								
Benzo(ghi)perylene	—	—								
Pentachlorophenol	—	—								
ECD 6-27-85	—	—								
OCDD										

— Not Detected

Detected

Sample I.D	L.O.D.	L.O.Q.								
FPL #										
Actual weight	10.00g	10.00g								
Moisture content										
Dry weight										

Component Concentration in Soil (micrograms/gram--dry weight)

Naphthalene	2.01	6.05								
2-Methylnaphthalene	2.61	7.85								
1-Methylnaphthalene	1.77	5.31								
Biphenyl	2.11	6.32								
Acenaphthylene	1.84	5.53								
Acenaphthene	2.03	6.11								
Dibenzofuran	2.42	7.26								
Fluorene	2.19	6.57								
Phenanthrene	2.37	7.13								
Anthracene	2.11	6.35								
Carbazole	4.16	12.5								
Fluoranthene	2.37	7.11								
Pyrene	2.53	7.60								
1,2-Benzanthracene	2.71	8.15								
Chrysene	2.88	8.66								
Benzo(a)pyrene	4.26	12.8								
Benzo(ghi)perylene	8.52	25.6								
Pentachlorophenol	8.36	25.1								
PCDD										

1) Above values are for FID
2) L.O.D. = 3x "background", L.O.Q. = 10 x "background"
3) "background" = instrument noise

P. O. Box 5447
Spartanburg, S. C. 29304

Phone 803/576-7660

Southern Wood Piedmont Company

April 19,1985

Dr. Gary McGinnis
Mississippi State University
Forest Products Utilization Lab
P.O. Drawer FP
State College, MS 39762

Dear Dr. McGinnis:

Enclosed are 6 soil samples from our Wilmington Plant. These samples are from the landfarming area that we have been observing the past few months.

Please do KOO1 (PAH) and Penta analysis. If you have any questions, please call.

Sincerely,

Sandra

Sandra B. Watson
Environmental Technician

NOTE: SWP's ID. #'s - 6094 - 6099

SWP #	FPUL #
6094	850425-1
6095	850425-2
6096	850425-3
6097	850425-4
6098	850425-5
6099	850425-6

Six soil samples from N.C. landfarm units. Sample designations are as follows:

850425-1 = LF#1 0-3" Sample # 6094
" -2 = LF#1 9-12" Sample # 6095
" -3 = LF#1 21-24" Sample # 6096
" -4 = LF#2 0-3" Sample # 6097
" -5 = LF#2 9-12" Sample # 6098
" -6 = LF#2 21-24" Sample # 6099

OUTSIDE SAMPLES

Date Received	Results Requested By	Date to be Completed	Actual Date of Completion
4/25/85		5/10/85	

Name Charles Burrell Assigned to Hamid - Paul

Sample # (FPUL)	Source Number & Storage Location	Completed By
850425-4	SWP # 6097	
850425-5	6098	
850425-6	6099	

Sample Type

Soil Total of 6

1. Sample Source: Name: Charles Burrell Sandra Watson

Company: Southern Wood Piedmont Land Farm site # 2

Other Information:

2. Analysis Requested:

PAH

PCP

3. Analysis Procedure:

4. Billing:

Date of Report: Written By: Date Sent:

Sample I.D.	6094		6095		6096		6098			
FPL # 850425	1A	1B	2A	2B	3A	3B	5A	5B		
Actual weight	10.00g	10.00g	10.00g	10.00g	10.00g	10.00g	10.00g	10.00g		
Moisture content	3.4%		4.4%		4.2%		9.8%			
Dry weight	9.66g	9.66g	9.56	9.56	9.58g	9.58g	9.02g	9.02g		
5-7-85 by FID	Component Concentration in Soil (micrograms/gram--dry weight)									
Naphthalene	—	—	—	—	—	—	—	—		
2-Methylnaphthalene	Δ	Δ	—	—	—	—	—	—		
1-Methylnaphthalene	—	—	—	—	—	—	—	—		
Biphenyl	Δ	—	—	—	—	—	—	—		
Acenaphthylene	—	—	—	—	—	—	—	—		
Acenaphthene	Δ	Δ	—	—	—	—	—	—		
Dibenzofuran	Δ	—	—	—	—	—	—	—		
Fluorene	Δ	—	—	—	—	—	—	—		
Phenanthrene	30.7	13.9	—	—	12.6	Δ	Δ	11.1		
Anthracene	31.6	19.8	—	—	—	—	—	8.47		
Carbazole	—	—	—	—	—	—	—	—		
Fluoranthene	167	104	18.3	Δ	12.0	17.7	30.5	62.6		
Pyrene	168	129	14.6	13.7	21.5	18.7	41.7	66.9		
1,2-Benzanthracene	42.8	31.3	—	—	—	—	Δ	Δ		
Chrysene	58.2	39.9	—	—	—	—	15.0	21.8		
Benzo(a)pyrene	—	—	—	—	—	—	—	—		
Benzo(ghi)perylene	—	—	—	—	—	—	—	—		
Pentachlorophenol	37.2	33.3	—	—	42.3	—	82.7	28.3		
OCDD										

— Not Detected

Δ Detected

Sample I.D.										
FPL # 850425	4A	4B	6A	6B						
Actual weight	10.00g	10.00g	10.00g	10.00g						
Moisture content	9.0%		10.2%							
Dry weight	9.10g	9.10g	8.98g	8.98g						
FID 5-14-85	Component Concentration in Soil (micrograms/gram--dry weight)									
Naphthalene	—	—	—	—						
2-Methylnaphthalene	—	—	—	—						
1-Methylnaphthalene	—	—	—	—						
Biphenyl	—	—	—	—						
Acenaphthylene	—	—	—	—						
Acenaphthene	27.0	69.5	—	—						
Dibenzofuran	—	—	—	—						
Fluorene	28.5	60.3	—	—						
Phenanthrene	58.2	203	12.7	9.75						
Anthracene	139	215	62.1	Δ						
Carbazole	—	—	—	—						
Fluoranthene	668	1010	87.1	92.7						
Pyrene	588	915	81.0	97.6						
1,2-Benzanthracene	68.0	110	—	—						
Chrysene	112	164	—	—						
Benzo(a)pyrene	—	—	—	—						
Benzo(ghi)perylene	—	—	—	—						
Pentachlorophenol	425	514	95.3	108						
OCDD										

— Not Detected

Δ Detected

Sample I.D.	Soil Blank	Recovery Level	Recovery	% Recovery						
FPL # 8[illegible]25										
Actual weight	10.00g	10.00g	10.00g							
Moisture content	0.4%	0.4%	0.4%							
Dry weight	10.00g	10.00g	10.00g							
57-85 by FID	Component Concentration in Soil (micrograms/gram--dry weight)									
Naphthalene	—	158	115	73						
2-Methylnaphthalene	—	101	77.7	77						
1-Methylnaphthalene	—	108	101	94						
Biphenyl	—	153	141	92						
Acenaphthylene	—	104	111	107						
Acenaphthene	—	150	151	101						
Dibenzofuran	—	151	139	92						
Fluorene	—	137	123	90						
Phenanthrene	—	151	126	83						
Anthracene	—	123	137	111						
Carbazole	—	148	111	75						
Fluoranthene	—	119	112	94						
Pyrene	—	155	156	101						
1,2-Benzanthracene	—	107	44.1	41						
Chrysene	—	107	113	106						
Benzo(a)pyrene	—	111	22.1	20						
Benzo(ghi)perylene	—	66.7	—	0						
Pentachlorophenol	—	565	612	108						
OCDD										

— Not Detected

Δ Detected

Sample I.D.	GWW	Solvent								
FPL # 850425		Blank								
Actual weight										
Moisture content										
Dry weight										
5-7-85 by FID	Total Amount (micrograms)									
Naphthalene	—	—								
2-Methylnaphthalene	—	—								
1-Methylnaphthalene	—	—								
Biphenyl	—	—								
Acenaphthylene	—	—								
Acenaphthene	—	—								
Dibenzofuran	—	—								
Fluorene	—	—								
Phenanthrene	—	—								
Anthracene	—	—								
Carbazole	—	—								
Fluoranthene	—	—								
Pyrene	—	—								
1,2-Benzanthracene	—	—								
Chrysene	—	—								
Benzo(a)pyrene	—	—								
Benzo(ghi)perylene	—	—								
Pentachlorophenol	—	—								
OCDD										

Sample I.D.										
FPL # 850425	1A	1B	2A	2B	3A	3B	4A	4B	5A	5B
Actual weight	10.00g	10.00g	10.00g	10.00g	10.00g	10.00g	10.00g	10.00g	10.00g	10.00g
Moisture content	3.4%		4.4%		4.2%		9.0%		9.8%	
Dry weight	9.66g	9.66g	9.56g	9.56g	9.58g	9.58g	9.10g	9.10g	9.02g	9.02g

Component Concentration in Soil (micrograms/gram--dry weight)

Naphthalene										
2-Methylnaphthalene										
1-Methylnaphthalene										
Biphenyl										
Acenaphthylene										
Acenaphthene										
Dibenzofuran										
Fluorene										
Phenanthrene										
Anthracene										
Carbazole										
Fluoranthene										
Pyrene										
1,2-Benzanthracene										
Chrysene										
Benzo(a)pyrene										
Benzo(ghi)perylene										
ECD 6-18-85 DL										
Pentachlorophenol	23.2	12.2	1.72	1.17	2.04	1.46	395	391	98.6	28.0
OCDD										

Sample I.D.										
FPL # 850425	6A	6B								
Actual weight	10.00g	10.00g								
Moisture content	10.2%									
Dry weight	8.98g	8.98g								
	Component Concentration in Soil (micrograms/gram--dry weight)									
Naphthalene										
2-Methylnaphthalene										
1-Methylnaphthalene										
Biphenyl										
Acenaphthylene										
Acenaphthene										
Dibenzofuran										
Fluorene										
Phenanthrene										
Anthracene										
Carbazole										
Fluoranthene										
Pyrene										
1,2-Benzanthracene										
Chrysene										
Benzo(a)pyrene										
Benzo(ghi)perylene										
ECD 6-18-85 D.S. Pentachlorophenol	92.5	99.2								
OCDD										

Sample I.D.	Soil	Recovery	Recovery	%						
FPL # 850425	Blank	Level		Recovery						
Actual weight	10.00g	10.00g	10.00g							
Moisture content	0.4%	0.4%	0.4%							
Dry weight	10.0g	10.0g	10.0g							
	Component Concentration in Soil (micrograms/gram--dry weight)									
Naphthalene										
2-Methylnaphthalene										
1-Methylnaphthalene										
Biphenyl										
Acenaphthylene										
Acenaphthene										
Dibenzofuran										
Fluorene										
Phenanthrene										
Anthracene										
Carbazole										
Fluoranthene										
Pyrene										
1,2-Benzanthracene										
Chrysene										
Benzo(a)pyrene										
Benzo(ghi)perylene										
ECD 6-18-85 Pentachlorophenol	—	565	551	98%						
OCDD										

Sample I.D.	solvent									
FPL # 850425	Blank	GWW								
Actual weight										
Moisture content										
Dry weight										
	Total Amount (micrograms)									
Naphthalene										
2-Methylnaphthalene										
1-Methylnaphthalene										
Biphenyl										
Acenaphthylene										
Acenaphthene										
Dibenzofuran										
Fluorene										
Phenanthrene										
Anthracene										
Carbazole										
Fluoranthene										
Pyrene										
1,2-Benzanthracene										
Chrysene										
Benzo(a)pyrene										
Benzo(ghi)perylene										
ECD 6-18-85 D.S. Pentachlorophenol	—	—								
OCDD										

Soil Sample Preparation His[illegible] for 850425 Analysis

4130185

Sample I.D.#	Soil weight (wet)	Extraction solvent volume (ml)	Condensed extract volume (ml)	PAH/PCP (Column clean-up) Aliquot volume	Condensed volume		PAH/PCP (Serial dilutions) Aliquot volume	Diluted volume	Aliquot volume	Diluted volume	Aliquot volume	Diluted volume
850425-1A	10.00	300	5 ml	1 ml	5 ml							
850425-1B	10.00		5 ml	1 ml	5 ml	Rad Beaumont						
850425-2A	10.00		5 ml	1 ml	5 ml							
850425-2B	10.00		5 ml	1 ml	5 ml							
850425-3A	10.00		5 ml	1 ml	5 ml							
850425-3B	10.00		5 ml	1 ml	5 ml							
850425-4A	10.00		5 ml	* 1 ml	5 ml	5/10/85	* 1 ml	5 ml				
850425-4B	10.00		5 ml	* 1 ml	5 ml		* 1 ml 1:5	5 ml				
850425-5A	10.00		5 ml	1 ml	5 ml	5/13/85	* This dilution was made on 1 ml of soil extract before methylation and before column clean up. 1 ml of 1:5 Dilution was put on to column.					
850425-5B	10.00		5 ml	1 ml	5 ml							
850425-6A	10.00		5 ml	1 ml	5 ml	5/10/85						
850425-6B	10.00		5 ml	1 ml	5 ml							
850425 Recovery	10.00		5 ml	1 ml	5 ml							
850425 Soil Blank	10.00		5 ml	1 ml	5 ml	5/13/85						
850425 Solvent			5 ml	1 ml	5 ml							
GWW			5 ml PAH (841119-1)		5 ml							
			PCP (850430-2)				Instrument DPM 48186					
			OCDD (850425-4)									
			(DPM, TBP, and OCN 850430-1)									
			5205.7	5247.3	35.2							

Hamid 4/30/85

Date 4/30/85 Project 850425 Analyst Hamid

Soil Moisture Content Analysis

1. Weigh the aluminum pan, record the weight.
2. Tare the balance to zero.
3. Add the moist soil and record its weight.
4. Place the soil in a 110 C - 130 C oven overnight.
5. Remove the soil from the oven and allow to cool.
6. Reweigh the dried soil and pan (combined weight).
7. Subtract the pan weight to get the dry soil weight.
8. Subtract the dry soil weight from the moist soil weight to get the moisture weight.
9. Divide the moisture weight by the moist soil weight and multiply by 100 to get the percent moisture.

Sample I.D.	Pan weight	Moist soil weight	Dry soil plus pan weight	Dry soil weight	Moisture weight	Percent moisture	
850425-1A	1.40	5.00	6.23	4.83	.17	3.5	3.4
850425-1B	1.40		6.23	4.83	.17	3.5	
-2A	1.40		6.18	4.78	.22	4.60	4.4
-2B	1.40		6.18	4.78	.22	4.60	
-3A	1.40		6.19	4.79	.21	4.4	4.2
-3B	1.40		6.19	4.79	.21	4.4	
-4A	1.41		5.96	4.55	.45	9.9	9.0
-4B	1.41	5	5.96	4.55	.45	9.9	
-5A	1.40		5.91	4.51	.49	10.8	9.4
-5B	1.40		5.91	4.51	.49	10.8	
-6A	1.40		5.89	4.49	.51	11.4	10.2
-6B	1.40		5.89	4.49	.51	11.4	
Reagent	1.40		6.38	4.98	.02	0.4	0.4
Soil Blank	1.40		6.38	4.98	.02	0.4	

MISSISSIPPI STATE UNIVERSITY

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762
PHONE (601) 325-2116

October 30, 1985

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ENVIRONMENTAL AFFAIRS

June 11
June 25 month
interim data
#5

Mr. Charles Burdell
Southern Wood Piedmont
P. O. Box 5447
Spartanburg, SC 29301

Dear Charles:

Enclosed is the data on soil samples SWP#6192-6197. I have included information on chemical analysis for pentachlorophenol, creosote, bacteria counts, pH, total organic carbon and nitrogen. We are slowly getting all our instrument and data calculation done using an IBM PC.

Table 1 - Sample weights for analysis.

Table 2 - Shows the bacteria count of the different soil.

Samples
PDA count - average bacteria counts.
PDAA counts - average fungi counts.
C counts - average bacteria counts with added creosote.
P counts - average bacteria counts with added pentachlorophenol.
C & P counts - average bacteria counts with added creosote and pentachlorophenol.

These results indicate that all the bacteria are well acclimated to the soil. The major goal should be to maximize the number of bacteria by controlling soil conditions.

Table 3 - Pentachlorophenol content.

Table 4 - Creosote content.

Table 5 - Analysis of soil. This included the soil pH, total organic carbon, and total nitrogen.

Everything seems to be working well we need to watch the pH on the office area and continue to add nitrogen every two months.

Sincerely,

Gary D. McGinnis
Professor

GDM/jr

Enclosures

Table I

Land Farming Group
Forest Products Laboratory
Miss. State University

Date: 10/23/85
Time: 10:54:11p

Weight and Moisture Content Data

Site I.D.	Suffix	Day	Load	Sub.	Moist soil Wt.	% Moisture	Dry Weight
850711-2	1	-0-	-0-	A	10.0000	2.64000	9.73600
850711-2	1	-0-	-0-	B	10.0000	2.64000	9.73600
850711-2	2	-0-	-0-	A	10.0000	7.31000	9.26900
850711-2	2	-0-	-0-	B	10.0000	7.31000	9.26900
850711-2	3	-0-	-0-	A	10.0000	6.10000	9.39000
850711-2	3	-0-	-0-	B	10.0000	6.10000	9.39000
850711-2	4	-0-	-0-	A	10.0000	6.67000	9.33300
850711-2	4	-0-	-0-	B	10.0000	6.67000	9.33300
850711-2	5	-0-	-0-	A	10.0000	12.0500	8.79500
850711-2	5	-0-	-0-	B	10.0000	12.0500	8.79500
850711-2	6	-0-	-0-	A	10.0000	12.9600	8.70400
850711-2	6	-0-	-0-	B	10.0000	12.9600	8.70400

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Tab 2

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 5:22:39p
Date: 10/25/85

[illegible]. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS
850711	1	-0-	-0-	A	-0-	74750	13250	124375	95000	103621	-0-
850711	2	-0-	-0-	A	-0-	117650	27277	172575	133750	141250	-0-
850711	3	-0-	-0-	A	-0-	81750	13000	95125	90500	85500	-0-
850711	4	-0-	-0-	A	-0-	101875	11500	191750	147375	168125	-0-
850711	5	-0-	-0-	A	-0-	166250	27500	240125	226500	265375	-0-
850711	6	-0-	-0-	A	-0-	271750	34500	379806	332250	326500	-0-

First Reviewer: Barry Alair Date: 10/25/85

Second Reviewer: Donald Stuart Date: 10/25/85

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ENVIRONMENTAL AFFAIRS

Land Farming Group
Forest Products Laboratory
Miss. State University

Date: 10/21/85
Time: 11:38:33a

table 3

PCP Analysis Results in UG per G

SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP
850711-2	1	-0-	-0-	A	10.212
850711-2	1	-0-	-0-	B	10.830
850711-2	2	-0-	-0-	A	4.5440
850711-2	2	-0-	-0-	B	4.4451
850711-2	3	-0-	-0-	A	3.3515
850711-2	3	-0-	-0-	B	5.6105
850711-2	4	-0-	-0-	A	276.41
850711-2	4	-0-	-0-	B	293.95
850711-2	5	-0-	-0-	A	45.250
850711-2	5	-0-	-0-	B	54.626
850711-2	6	-0-	-0-	A	17.531
850711-2	6	-0-	-0-	B	16.785

First Reviewer: Paul R. Beauregard

Second Reviewer: David A. Strobel

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ENVIRONMENTAL AFFAIRS

Table 4

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 11:16:55a
Date: 10/23/85

Analyses Results of Site Batch Samples in UG per G

Site ID	Suffix	Day	Ld.	Sb	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bz-phi
850711-2	1	6192	-0-	-0-	A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	11.13	7.797	0.000	63.13	61.80	50.51	33.86	0.000	0.000
850711-2	1	[illegible]	-0-	-0-	B	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	12.07	8.290	0.000	59.92	61.03	51.96	37.83	0.000	0.000
850711-2	2	[illegible]	-0-	-0-	A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	9.913	5.309	0.000	40.00	38.59	14.97	21.94	0.000	0.000
850711-2	2	[illegible]	-0-	-0-	B	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	9.065	4.103	0.000	25.64	29.18	11.43	17.77	0.000	0.000
850711-2	3	[illegible]	-0-	-0-	A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	28.63	4.269	0.000	45.90	45.63	7.066	7.761	0.000	0.000
850711-2	3	[illegible]	-0-	-0-	B	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	6.763	5.203	0.000	30.52	32.27	7.439	4.251	0.000	0.000
850711-2	4	[illegible]	-0-	-0-	A	6.953	5.535	1.423	1.497	3.584	5.679	5.116	6.816	39.47	41.29	9.504	607.1	639.1	298.1	204.0	0.000	0.000
850711-2	4	[illegible]	-0-	-0-	B	10.30	6.996	1.971	1.646	3.483	6.637	6.845	9.666	43.62	72.95	10.86	705.6	674.8	338.7	229.0	0.000	0.000
850711-2	5	[illegible]	-0-	-0-	A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	20.77	36.03	1.911	163.0	153.2	66.52	47.29	0.000	0.000
850711-2	5	[illegible]	-0-	-0-	B	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	18.74	67.46	0.000	170.1	158.8	57.91	41.22	0.000	0.000
850711-2	6	[illegible]	-0-	-0-	A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.059	4.092	0.000	54.57	65.94	13.27	18.64	0.000	0.000
850711-2	6	[illegible]	-0-	-0-	B	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.933	5.396	0.000	58.19	77.46	6.861	25.53	0.000	0.000

First Reviewer: David A. Stratford

Second Reviewer: Paul R. Beauregard

SWP
6192-
6197

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Table 5 Analysis of Soil

MFPL	Sample #		Soil pH	total organic carbon	total Nitrogen
850711-1	SWP-9192	(River area)	8.2	4.51	0.082
850711-2	SWP-9193	(River area)	7.8	3.52	0.113
850711-3	SWP-9194	(River area)	7.5	2.35	0.063
850711-4	SWP-9195	(office area)	6.8	10.61	0.139
850711-5	SWP-9196	(office area)	6.3	3.1	0.082
850711-6	SWP-9197	(office area)	6.6	1.45	0.076

Also enclosed are computer printouts of the amounts

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Six soil sample from Wilmington N.C.
Land farm units received on 7/11/85

MFPL #		SWP #
850711-1	=	9192
" -2	=	9193
" -3	=	9194
" -4	=	9195
" -5	=	9196
" -6	=	9197

Sample Number	Sample Name	Number of Colonies/g of Soil on Different Media				
		PDA	PDAA	P	C	C + P
1	SWP-850711-1	74750	10750	95000	124000	103250
2	SWP-850711-2	117500	27250	133750	172250	141250
3	SWP-850711-3	81625	14000	90500	95000	85500
4	SWP-850711-4	101750	11500	147500	191500	168250
5	SWP-850711-5	166250	27500	202250	240125	250250
6	SWP-850711-6	278600	34500	338250	374750	326250
7						
8		Each figure represents an average of four				
9		replications. Figures under PDAA show the				
10		number of fungi/g of soil				
11						
12						
13						
14						
15						
16						
17						
18						

P. O. Box 5447
Spartanburg, S. C. 29304

Phone 803/576-7660

Southern Wood Piedmont Company

August 8, 1985

Mississippi State University
Forest Products Utilization Laboratories
P. O. Drawer FP
Mississippi State, Mississippi 39762

ATTNETION; Dr. Gary McGinnis

Dear Dr. McGinnis:

Enclosed are 12 soil samples from our Wilmington, NC Plant. The areas where they were taken are as follows: #6269A, C- in front of cylinder, north end: #6271 A,C- in front of cylinder, south end; #6272 A,C-State Ports Area by 8, 9. and 10 tracks; #6273 A,C - Spilled area by filled canal between #4 and 5 tracks and #6274 A,C - ABC tracks to old tee head.

These samples are to be analyzed for Penta and PAH (KOOl Constituents). If you have any questions, please call.

Sincerely,

Sandra B. Watson

Sandra B. Watson
Environmental Technician

cc: ELG
CAB ✓

NOTE: The A and C in SWP id number represent depths. A= 0 to 3 inches
C= 21 to 24 inches

Ten soil samples received on 8/13/85 for PCP and PAH analysis. No PAH data was found on these samples. Sample identifications are:

MFPL #		SWP ID
850813-1	=	6269A 0-3"
" -2	=	6269C 21-24"
" -3	=	6271A 0-3"
" -4	=	6271C 21-24"
" -5	=	6272A 0-3"
" -6	=	6272C 21-24"
" -7	=	6273A 0-3"
" -8	=	6273C 21-24"
" -9	=	6274A 0-3"
" -10	=	6274C 21-24"

850513

SAMPLE WORK SHEET

Initials

Date Received: August 12 (Chicago August 9, 1985) [illegible]

FPUL Number(s): [illegible] — [illegible]

Description: 10 Soil samples from Wilmington, N.C. Plant

Source: Southern Wood Piedmont

#6 267A + C - front of cellulose (Morrow)
6271 A+C " " " (Commerce)
6272 A+C Stack Port Area [illegible]
6273 A+C - [illegible]
6274 A+C - A&C [illegible]

Where Stored:

Do PAH, PCP analysis on Samples.

Date Weighed (balances used):

Date Extracted:

Extraction Procedure:

Clean-up Step:

Derivatization:

Date Analyzed:

Instrument:

Means of Verification:

Total Glassware Rinse: _____ µg

Recoveries (attached): _____ yes _____ no

Spiked-Reference Material (attached) _____ yes _____ no

Received by _____ Assigned to _____

Received by _____ Assigned to _____

Received by _____ Assigned to _____

Received by _____ Assigned to _____

Date of Report _____ by _____

Land Farming Group
Forest Products Laboratory
Miss. State University

Date: 10/23/85
Time: 9:28:22p

Weight and Moisture Content Data

Site I.D. (date received)	Suffix	Day	Load	Sub.	Moist soil Wt.	% Moisture	Dry Weight
850813	01	-0-	-0-	A	5.00000	2.15000	4.89250
850813	01	-0-	-0-	B	5.00000	2.15000	4.89250
850813	02	-0-	-0-	A	5.00000	15.5300	4.22350
850813	02	-0-	-0-	B	5.00000	15.5300	4.22350
850813	03	-0-	-0-	A	5.00000	0.86000	4.95700
850813	03	-0-	-0-	B	5.00000	0.86000	4.95700
850813	04	-0-	-0-	A	5.00000	15.2200	4.23900
850813	04	-0-	-0-	B	5.00000	15.2200	4.23900
850813	05	-0-	-0-	A	5.00000	1.64000	4.91800
850813	05	-0-	-0-	B	5.00000	1.64000	4.91800
850813	06	-0-	-0-	A	5.00000	16.0000	4.20000
850813	06	-0-	-0-	B	5.00000	16.0000	4.20000
850813	07	-0-	-0-	A	5.00000	1.69000	4.91550
850813	07	-0-	-0-	B	5.00000	1.69000	4.91550
850813	08	-0-	-0-	A	5.00000	13.7000	4.31500
850813	08	-0-	-0-	B	5.00000	13.7000	4.31500
850813	09	-0-	-0-	A	5.00000	0.79000	4.96050
850813	09	-0-	-0-	B	5.00000	0.79000	4.96050
850813	10	-0-	-0-	A	5.00000	6.77000	4.66150
850813	10	-0-	-0-	B	5.00000	6.77000	4.66150

SWP 6269 Sample 7-9
see 7-12

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Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 4:52:12p
Date: 10/25/85

Micro. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS
850813	01	-0-	-0-	A	-0-	380000	76666	110000	33333	18333	-0-
850813	02	-0-	-0-	A	-0-	1816666	200000	316666	135000	153333	-0-
850813	03	-0-	-0-	A	-0-	350000	125000	66666	566666	76666	-0-
850813	04	-0-	-0-	A	-0-	113333	56666	60000	35000	25000	-0-
850813	05	-0-	-0-	A	-0-	536666	75000	401666	186666	200000	-0-
850813	06	-0-	-0-	A	-0-	736666	17666	650000	583333	450000	-0-
850813	07	-0-	-0-	A	-0-	200000	30000	220000	55000	41666	-0-
850813	08	-0-	-0-	A	-0-	360000	28333	100000	111666	75000	-0-
850813	09	-0-	-0-	A	-0-	250000	50000	213333	65000	60000	-0-
850813	10	-0-	-0-	A	-0-	140000	153333	240000	61666	48333	-0-

First Reviewer: Bonny Albert Date: 10/25/85

Second Reviewer: David Stratel Date: 10-25-85

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Land Farming Group
Forest Products Laboratory
Miss. State University

Date: 10/25/85
Time: 3:40:21p

PCP Analysis Results in UG per G

SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP
850813	01	-0-	-0-	A	1.3220
850813	01	-0-	-0-	B	0.9333
850813	02	-0-	-0-	A	0.6748
850813	02	-0-	-0-	B	0.8581
850813	03	-0-	-0-	A	192.61
850813	03	-0-	-0-	B	173.40
850813	04	-0-	-0-	A	6.2734
850813	04	-0-	-0-	B	7.5725
850813	05	-0-	-0-	A	30.712
850813	05	-0-	-0-	B	19.632
850813	07	-0-	-0-	A	10.338
850813	07	-0-	-0-	B	10.032
850813	08	-0-	-0-	A	1.6596
850813	08	-0-	-0-	B	1.6334
850813	10	-0-	-0-	A	1.9740
850813	10	-0-	-0-	B	1.7108

David
Could you get a printout of PAH's
Thanks
Gary

First Reviewer: Paul R. Beauregard

Second Reviewer: David Stuthel

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MISSISSIPPI STATE UNIVERSITY

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762
PHONE (601) 325-2116

October 30, 1985

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ENVIRONMENTAL AFFAIRS

Mr. Charles Burdell
Southern Wood Piedmont
P. O. Box 5447
Spartanburg, SC 29301

sampled 7-9 received 7-12
Sandra-vac letter Aug 8

Dear Charles:

Enclosed is the information on the samples we received on August 23, 1985. We changed the number system on the samples.

SWP#	MFPL#		
LF#1 0"-3"	850823-1	6270	Entered sheet 6
LF#1 9"-12"	850823-2		
LF#1 21"-24"	850823-3		
LF#2 0"-3"	850823-4	0268	
LF#2 9"-12"	850823-5		
LF#2 21"-24"	850823-6		

Enclosed are the sample weights for the analysis (Table 1), total creosote components (Table 2), pentachlorophenol (Table 3), and a comparison between the data on the last two sampling periods. The pH and the carbon nitrogen ratio's look fine. I am concerned about the bacteria results and about sample #4. It appears that this area is not degrading very well. It looks like you need to make one more addition to the riverside area if weather will permit. You might want to remove some soil around site 4 and move it to the riverside area.

Sincerely,

Gary

Gary D. McGinnis
Professor

GDM/jr

Enclosures

Table I

Land Farming Group
Forest Products Laboratory
Miss. State University

Date: 10/23/85
Time: 0:30:18a

Weight and Moisture Content Data

Site I.D.	Suffix	Day	Load	Sub.	Moist soil Wt.	% Moisture	Dry Weight
850823	1 0-3"	-0-	-0-	A	10.0000	6.67000	9.33300
850823	1	-0-	-0-	B	10.0000	6.67000	9.33300
850823	2 9-12"	-0-	-0-	A	10.0000	6.67000	9.33300
850823	2	-0-	-0-	B	10.0000	6.67000	9.33300
850823	3 21-24"	-0-	-0-	A	10.0000	6.65000	9.33500
850823	3	-0-	-0-	B	10.0000	6.65000	9.33500
850823	4	-0-	-0-	A	10.0000	11.2000	8.88000
850823	4	-0-	-0-	B	10.0000	11.2000	8.88000
850823	5	-0-	-0-	A	10.0000	10.0600	8.99400
850823	5	-0-	-0-	B	10.0000	10.0600	8.99400
850823	6	-0-	-0-	A	10.0000	16.5600	8.34400
850823	6	-0-	-0-	B	10.0000	16.5600	8.34400

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Table 2

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 9:22:36p
Date: 10/24/85

Analyses Results of Site Batch Samples in UG per G ppm

Site ID	Suffix	Day	Ld.	Sb	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bz-ghi
850823	1	-0-	-0-	A	0.000	0.000	0.000	0.000	0.000	4.202	0.000	0.000	2.351	8.596	0.000	15.20	16.30	0.000	0.000	0.000	0.000
850823	1	-0-	-0-	B	0.000	0.000	0.000	0.000	0.000	3.311	0.000	0.000	1.645	4.954	0.000	24.44	22.74	0.000	0.000	0.000	0.000
850823	2	-0-	-0-	A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.295	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
850823	2	-0-	-0-	B	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.745	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
850823	3	-0-	-0-	A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.981	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
850823	4	-0-	-0-	A	0.000	0.000	2.410	0.000	3.826	159.7	20.14	36.16	75.76	177.4	26.45	922.9	846.1	177.6	173.5	56.94	0.000
850823	4	-0-	-0-	B	0.000	0.000	0.000	0.000	3.999	182.7	28.84	38.30	62.97	98.42	20.10	833.3	704.0	166.2	159.1	57.06	0.000
850823	5	-0-	-0-	A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	8.157	17.58	0.000	108.0	105.4	8.958	39.04	9.832	0.000
850823	5	-0-	-0-	B	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	9.958	8.470	0.000	63.95	61.17	4.694	29.82	10.88	0.000
850823	6	-0-	-0-	A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	19.37	21.68	0.000	7.064	0.000	0.000

First Reviewer: David A. Stuebel

Second Reviewer: Paul R. Beauregard

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Land Farming Group
Forest Products Laboratory
Miss. State University

Date: 10/23/85
Time: 8:19:06a

Table 3

Analysis Results in UG per G ppm

SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP
850823	1	-0-	-0-	A	10.850
850823	1	-0-	-0-	B	10.319
850823	2	-0-	-0-	A	3.0826
850823	2	-0-	-0-	B	3.0995
850823	3	-0-	-0-	A	2.9540
850823	3	-0-	-0-	B	2.9540
850823	4	-0-	-0-	A	461.51
850823	4	-0-	-0-	B	456.18
850823	5	-0-	-0-	A	100.47
850823	5	-0-	-0-	B	92.405
850823	6	-0-	-0-	A	20.833
850823	6	-0-	-0-	B	19.368

Rever

Ffic

First Reviewer: Paul R. Beauregard

Second Reviewer: David A. Schmitt

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Table 4

Results of Wilmington Land Farming Site (River area) from two sampling dates 7/11/85 VS. 8/23/85

Trts	PH		% C		% N		C/N		Cl
	7/11	8/23	7/11	8/23	7/11	8/23	7/11	8/23	
1	8.2	7.1	4.51	4	.082	.088	55	45.5	
2	7.8	7.6	3.52	1.5	.113	.063	31.15	24.00	
3	7.5	6.9	2.35	.5	.063	.076	37.30	18.00	
4	6.8	6.5	10.61	6.5	.139	.120	76.33	54.00	
5	6.3	6.2	3.1	3.5	.082	.101	37.80	34.60	
6	6.6	6.6	1.45	2	.076	.076	19.08	26.30	

Micro Results

Trts	PDA		PDAA		P		C		C+P	
	7/11	8/23	7/11	8/23	7/11	8/23	7/11	8/23	7/11	8/23
1	74750	200,000	10750	70,000	95000	58000	124000	270,000	103250	8800[illegible]
2	117500	235,000	27250	15,000	133750	60,000	172250	250,000	141250	450[illegible]
3	81625	91,000	14000	10,000	90500	37,000	95000	80,000	85500	30,0[illegible]
4	101750	125,000	11500	15,000	147500	113,000	191500	130,000	168250	100,[illegible]
5	166250	183000	27500	33,000	202250	270,000	240125	250,000	250250	200[illegible]
6	278600	175,000	34500	10,000	332250	175,000	379750	183000	326250	250[illegible]

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Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 9:51:06a
Date: 10/29/85

Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS
850823	1	-0-	-0-	a	-0-	300000	70000	236666	56666	86666	675000
850823	2	-0-	-0-	a	-0-	236666	15000	250000	60000	45000	375000
850823	3	-0-	-0-	a	-0-	91666	10000	80000	33666	30000	125000
850823	4	-0-	-0-	a	-0-	125000	15000	130000	113333	100000	205000
850823	5	-0-	-0-	a	-0-	193333	33333	250000	270000	200000	260000
850823	6	-0-	-0-	a	-0-	211666	10000	183333	175000	250000	325000

First Reviewer: Bonnie Albert Date: 10/29/85

Second Reviewer: David A. Stittel Date: 11-29-85

James W. Andrews, Ph.D.
President
Janette M. Davis
Chief Chemist, LP

SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES, INC.

P.O. Box 13842 • Savannah, Ga. 31406
912/354-7858

CAB

REPORT OF ANALYSIS

TO: Mr. Charles Burdell
Southern Wood Piedmont
P.O. Box 5447
Spartanburg, S.C. 29304

REPORT NO. 50912182

DATE RECEIVED 9/12/85

SAMPLED BY Client

IDENTIFICATION: Composite sample from Lysimeter No. 5 & 6 Office side. Land Farm No. 2.

METHODS: "Test Methods for the Evaluation of Solid Waste", EPA SW-846 (2nd Edition), EPA 8100 and EPA 8040

Wilson

K001 Parameters	Results mg/l
phenol	ND
pentachlorophenol	ND
naphthalene	ND
acenaphthene	ND
phenanthrene + anthracene	ND
fluoranthene	ND
chrysene + benz(a)anthracene	ND
benzo(b)fluoranthene + benz (k)fluoranthene	ND
benzo(a)pyrene	ND
indeno(1,2,3-cd)pyrene + dibenzo(a,h)anthracene	ND
acenaphthylene	ND
fluorene	ND
carbazole	ND
pyrene	ND
2-methylnaphthalene	ND
1-methylnaphthalene	ND
biphenyl	ND
dibenzofuran	ND
pH	7.1

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OCT 18 1985
ENVIRONMENTAL AFFAIRS

James W. Andrews
James W. Andrews PH.D.

James W. Andrews, Ph.D.
President
Janette M. Davis
Chief Chemist, LP

SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES, INC.

P.O. Box 13842 • Savannah, Ga. 31406
912/354-7858

REPORT OF ANALYSIS

TO: Mr. Charles Burdell
Southern Wood Piedmont
P.O. Box 5447
Spartanburg, S.C. 29304

REPORT NO. 50912182

DATE RECEIVED 9/12/85

SAMPLED BY Client

IDENTIFICATION: Detection Limits for report #50912182.

METHODS: "Test Methods for the Evaluation of Solid Waste", EPA SW-846 (2nd Edition), EPA 8100 and EPA 8040

Wilson

K001 Parameters	Detection Limits
phenol	0.01
pentachlorophenol	0.01
naphthalene	0.01
acenaphthene	0.01
phenanthrene + anthracene	0.01
fluoranthene	0.01
chrysene + benz(a)anthracene	0.02
benzo(b)fluoranthene + benz (k)fluoranthene	0.02
benzo(a)pyrene	0.02
indeno(1,2,3-cd)pyrene + dibenzo(a,h)anthracene	0.04
acenaphthylene	0.01
fluorene	0.01
carbazole	0.01
pyrene	0.01
2-methylnaphthalene	0.01
1-methylnaphthalene	0.01
biphenyl	0.01
dibenzofuran	0.01
pH	

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OCT 18 1985
ENVIRONMENTAL AFFAIRS

James W. Andrews
James W. Andrews PH.D.

James W. Andrews, Ph.D.
President
Janette M. Davis
Chief Chemist, VP

SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES, INC.

P.O. Box 13842 • Savannah, Ga. 31416-0842
(912) 354-7858

REPORT OF ANALYSIS

TO: Mr. Charles Burdell
Southern Wood Piedmont
P.O. Box 5447
Spartanburg, SC 29304

REPORT NO. 85-0425

DATE RECEIVED 10-15-85

SAMPLED BY Client

IDENTIFICATION: Composite sample from Lysimeter No. 5&6 Office side (Wilmington) SAV85-0425

METHODS: "Test Methods for the Evaluation of Solid Waste", EPA SW-846 (2nd Edition), EPA 8100 and EPA 8040.

---

entered and reported 11-15

K001 Parameters	Results mg/l
phenol	ND
pentachlorophenol	ND
naphthalene	ND
acenaphthene	ND
phenanthrene + anthracene	ND
fluoranthene	ND
chrysene + benz(a)anthracene	ND
benzo(b)fluoranthene + benz (k)fluoranthene	ND
benzo(a)pyrene	ND
indeno(1,2,3-cd)pyrene + dibenzo(a,h)anthracene	ND
acenaphthylene	ND
fluorene	ND
carbazole	ND
pyrene	ND
2-methylnaphthalene	ND
1-methylnaphthalene	ND
biphenyl	ND
dibenzofuran	ND
pH	6.8

RECEIVED
NOV 15 1985
ENVIRONMENTAL AFFAIRS

ND = Not Detected

James W. Andrews
James W. Andrews PH.D.

James W. Andrews, Ph.D.
President
Janette M. Davis
Chief Chemist, VP

SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES, INC.

P.O. Box 13842 • Savannah, Ga. 31416-0842
(912) 354-7858

REPORT OF ANALYSIS

TO: Mr. Charles Burdell
Southern Wood Piedmont
P.O. Box 5447
Spartanburg, SC 29304

REPORT NO. 85-0425

DATE RECEIVED 10-15-85

SAMPLED BY Client

IDENTIFICATION: Detection Limits for report #85-0425

METHODS: "Test Methods for the Evaluation of Solid Waste", EPA SW-846 (2nd Edition), EPA 8100 and EPA 8040.

K001 Parameters	Detection Limits
phenol	0.01
pentachlorophenol	0.01
naphthalene	0.01
acenaphthene	0.01
phenanthrene + anthracene	0.01
fluoranthene	0.01
chrysene + benz(a)anthracene	0.01
benzo(b)fluoranthene + benz (k)fluoranthene	0.01
benzo(a)pyrene	0.01
indeno(1,2,3-cd)pyrene + dibenzo(a,h)anthracene	0.01
acenaphthylene	0.01
fluorene	0.01
carbazole	0.01
pyrene	0.01
2-methylnaphthalene	0.01
1-methylnaphthalene	0.01
biphenyl	0.01
dibenzofuran	0.01

RECEIVED
NOV 15 1985
ENVIRONMENTAL AFFAIRS

James W. Andrews

James W. Andrews PH.D.

P. O. Box 5447
Spartanburg, S. C. 29304

Phone 803/576-7660

Southern Wood Piedmont Company

September 16, 1985

Forest Products Utilization Laboratory
Receiving Station, Mill Street
State College, Mississippi 39762
Attn: Dr. Gary McGinnis

Dear Dr. McGinnis,

Please analyze the enclosed samples from Wilmington, NC, for K001 (PAH's) and Pentachlorophenol. The samples are identified as follows:

		MFPL #
#6303 - filled in ditch approximately 4 feet deep		= 851115-1
#6304a - Landfarm #2	0" - 3"	= 851115-2
#6304b - Landfarm #2	9" - 12"	= 851115-3
#6304c - Landfarm #2	21" - 24"	= 851115-4

If you have any questions please contact me.

Sincerely,
Southern Wood Piedmont

Sandra B. Watson

Sandra B. Watson
Environmental Chemist

SBW/ms

cc: M. D. Pruett
E. L. Gibbs
C. A. Burdell

85/115

SAMPLE WORK SHEET

FPUL Date = 11/15/85

Initials

Date Received: Sept 16, 1985 (GM

FPUL Number(s): #6303 = 851115-1 6304B = 851115-3
#6304A = 851115-2 6304C = 851115-4

Description: Soil Samples Do PAH, PCB, and Bacteria count

Source: Southern Wood Piedmont #6303, 6304A, 63046, 6304C
6303 — filled in ditch approximately 4 ft deep
6304A · Landfarm #2 0"-3"
6304B landfarm #2 9"-12"
6304C landfarm #2 21"-24"

Where Stored:

Date Weighed (balances used):

Date Extracted:

Extraction Procedure:

Clean-up Step:

Derivatization:

Date Analyzed:

Instrument:

Means of Verification:

Total Glassware Rinse: _____ µg

Recoveries (attached): _____ yes _____ no

Spiked-Reference Material (attached) _____ yes _____ no

Received by _____ Assigned to _____

Received by _____ Assigned to _____

Received by _____ Assigned to _____

Received by _____ Assigned to _____

Date of Report _____ by _____

Sample I.D.										
FPL # 850715 1-4	1A	1B	2A	2B	3A	3B	4A	4B		
Actual weight	2.55g	2.27g	2.60g	3.65g	3.50g	2.13g	3.80g	2.75g		
Moisture content	–	–	–	–	–	–	–	–		
Dry weight										
FID 7-15-85	Component Concentration in Soil (micrograms/gram--dry weight)									
Naphthalene	–	–	–	–	–	–	–	–		
2-Methylnaphthalene	–	–	–	–	–	–	–	–		
1-Methylnaphthalene	–	–	–	–	–	–	–	–		
Biphenyl	–	–	–	–	–	–	–	–		
Acenaphthylene	–	–	–	–	–	–	–	–		
Acenaphthene	–	–	–	–	–	–	–	–		
Dibenzofuran	–	–	–	–	–	–	–	–		
Fluorene	–	–	–	–	–	–	–	–		
Phenanthrene	–	–	–	–	–	–	–	–		
Anthracene	–	–	–	–	–	–	–	–		
Carbazole	–	–	–	–	–	–	–	–		
Fluoranthene	–	–	–	–	–	–	–	–		
Pyrene	–	–	–	–	–	–	–	–		
1,2-Benzanthracene	–	–	–	–	–	–	–	–		
Chrysene	–	–	–	–	–	–	–	–		
Benzo(a)pyrene	–	–	–	–	–	–	–	–		
Benzo(ghi)perylene	–	–	–	–	–	–	–	–		
ECD 8-5-85										
Pentachlorophenol	–	–	–	–	–	–	–	–		
ECD 7-29-85										
OCDD	–	–	–	–	–	–	–	–		

Sample I.D.	Soil Blank	Recovery Level	Recovery	% Recovery
FPL # 850715 1-4				
Actual weight	10.00g	10.00g	10.00g	
Moisture content				
Dry weight				
ECD 7-15-85	Component Concentration in Soil (micrograms/gram--dry weight)			
Naphthalene	–	99.5	68.0	68
2-Methylnaphthalene	–	101	82.0	81
1-Methylnaphthalene	–	102	102	100
Biphenyl	–	101	90.3	89
Acenaphthylene	–	104	116	112
Acenaphthene	–	103	111	108
Dibenzofuran	–	100	101	101
Fluorene	–	98.5	89.8	91
Phenanthrene	–	104	88.9	86
Anthracene	–	102	102	100
Carbazole	–	109	60.1	55
Fluoranthene	–	108	97.2	90
Pyrene	–	100	89.1	89
1,2-Benzanthracene	–	101	12.0	12
Chrysene	–	100	57.1	57
Benzo(a)pyrene	–	99.8	–	–
Benzo(ghi)perylene	–	88.4	–	–
ECD 8-8-85				
Pentachlorophenol	–	499	405	81
ECD 7-29-85				
OCDD	–	328	332	101

Sample I.D.		SOLV								
FPL # [redacted]0715 1-4	GWW	BLANK								
Actual weight										
Moisture content										
Dry weight										
	Total Amount (micrograms)									
Naphthalene	–	–								
2-Methylnaphthalene	–	–								
1-Methylnaphthalene	–	–								
Biphenyl	–	–								
Acenaphthylene	–	–								
Acenaphthene	–	–								
Dibenzofuran	–	–								
Fluorene	–	–								
Phenanthrene	–	–								
Anthracene	–	–								
Carbazole	–	–								
Fluoranthene	–	–								
Pyrene	–	–								
1,2-Benzanthracene	–	–								
Chrysene	–	–								
Benzo(a)pyrene	–	–								
Benzo(ghi)perylene	–	–								
ECD 8-8-85 Pentachlorophenol	–	–								
ECD 7-29-85 OCDD	–	–								

-ERROR- Column HWERE is not in the table SITEMICR

Land Farming Group
Forest Products Laboratory
State University

Time: 10:31:56a
Date: 12/13/85

Micro. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS
851115	1	-0-	-0-	A	198333	167666	3333	278333	6666	6666	-0-
851115	2	-0-	-0-	A	108333	100000	5000	113333	150000	111666	-0-
851115	3	-0-	-0-	A	113333	155000	18333	108333	185000	117666	-0-
851115	4	-0-	-0-	A	117666	115000	32500	160000	201666	95000	-0-

First Reviewer: Bonny Alvi Date: 12-13-85

Second Reviewer: Angie Dunnam Date: 12-13-85

P. O. Box 5447
Spartanburg, S. C. 29304

Phone 803/576-7660

Southern Wood Piedmont Company

November 19, 1985

Forest Products Utilization Laboratory
Receiving Station, Mill Street
State College, Mississippi 39762
Attn: Dr. Gary McGinnis

Dear Dr. McGinnis:

Please analyze the enclosed samples from Wilmington, North Carolina, for K001 parameters (PAH) and Pentachlorophenol. The samples are identified as follows:

MFPL #

#6369A - Landfarm #1 Riverside, 0" - 3" = 851126-1
#6369B - Landfarm #1 Riverside, 9" - 12" = 851126-2
#6369C - Landfarm #1 Riverside, 21" - 24" = 851126-3
#6370A - Landfarm #2 Office Side, 0" - 3" = 851126-4
#6370B - Landfarm #2 Office Side, 9" - 12" = 851126-5
#6370C - Landfarm #2 Office Side, 21" - 24" = 851126-6

If you have any questions, feel free to call.

Sincerely,
Southern Wood Piedmont

Sandra B. Watson

Sandra B. Watson
Environmental Chemist

2141T/ms

cc: C. A. Burdell
E. L. Gibbs
M. D. Pruett

Land Farming Group Time: 11:18:53a
Forest Products Laboratory Date: 01/20/86
Miss. State University

PAH Analyses Results of Site Batch Samples in UG per G

Site ID	Suffix	Day	Ld	Sb	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bz-gh
851126	1	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
851126	1	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
851126	2	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	16.24	12.80	0.000	0.000	0.000	0.000
851126	2	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.91	12.38	0.000	0.000	0.000	0.000
851126	3	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
851126	3	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
851126	4	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	67.14	0.000	295.5	424.1	86.52	204.3	50.59	0.000
851126	4	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	86.48	0.000	384.3	480.4	116.8	167.8	60.52	0.000
851126	5	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	68.02	52.34	0.000	197.8	186.5	43.35	63.41	35.51	0.000
851126	5	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	12.54	0.000	100.3	157.7	27.58	72.40	17.87	0.000
851126	6	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
851126	6	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
851126	REC	-0-	-0-	-0	76.215	97.912	110.0	102.7	141.0	120.3	106.0	114.7	93.67	117.5	57.33	72.59	61.95	47.29	69.68	47.29	57.83
851126	RECLEV	-0-	-0-	-0	99.930	101.15	102.7	101.4	104.1	103.1	100.8	98.91	104.1	101.9	109.1	108.5	100.6	101.1	100.8	100.2	88.77
851126	SOILBL	-0-	-0-	-0	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Key:

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bz-ghi = Benzo-ghi-perylene
UG = microgram
Soilbl = Soil Blank
Reclev = Recovery Levels
G = Gram
UG per G = Parts per Million

First Reviewer: David A. Stuebel

Second Reviewer: Paul R. Beauregard

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 10:38:41a
Date: 12/13/85

. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS
851126	1	-0-	-0-	A	195000	396666	18333	246666	171666	178333	-0-
851126	4	-0-	-0-	A	171666	430000	15000	875000	898333	703333	-0-

First Reviewer: Bonnie Hamil Date: 12-13-85

Second Reviewer: Angie Dunnam Date: 12-13-85

Land Farming Group
Forest Products Laboratory
Miss. State University

Date: 02/14/86
Time: 4:29:17p

PCP Analysis Results in UG per G

SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP
851126	1	-0-	-0-	A	0.0000
851126	1	-0-	-0-	B	0.0000
851126	2	-0-	-0-	A	0.0000
851126	2	-0-	-0-	B	0.0000
851126	3	-0-	-0-	A	0.0000
851126	3	-0-	-0-	B	0.0000
851126	4	-0-	-0-	A	326.37
851126	4	-0-	-0-	B	327.97
851126	5	-0-	-0-	A	363.38
851126	5	-0-	-0-	B	90.120
851126	6	-0-	-0-	A	0.0000
851126	6	-0-	-0-	B	0.0000
851126	RED	-0-	-0-	-0-	528.21
851126	REDLEV	-0-	-0-	-0-	499.30
851126	SOILBL	-0-	-0-	-0-	0.0000

First Reviewer: Paul R. Beauregard

Second Reviewer: David Stoffel

Date: 11/20/85

Wilmington, N.C. Soil Samples

Samples taken 11/13/85

Received 11/15/85

SAMPLE #'s	Location	DEPTH	TOTAL phenol	TOLUENE EXTRACTION %		
				% H_2O	% OIL	% INSOL
6369 A	Land Farm #1 Riverside Composite	Sifted 1/4 + 1/2 0"-3"	0.5198	7.48	1.9	90.6
6369 B	"	" 9"-12"	0.7701	7.35	1.3	91.3
6369 C	"	" 21"-24"	0.1305	13.33	1.02	85.6
6370 A	Land Farm #2 office side Composite	Sifted 1/4 + 1/2 0"-3"	2.2470	15.85	ND	84.39 ✓
6370 B	"	" 9"-12"	0.8775	12.9	1.15	85.92 ✓
6370 C	"	" 21"-24"	0.1626	18.35	1.08	80.56 ✓

Yvette Gault / SBW
ANALYST

cc: CAB

P. O. Box 5447
Spartanburg, S. C. 29304

Phone 803/576-7660

Southern Wood Piedmont Company

December 11, 1985

Forest Products Utilization Laboratory
Receiving Station, Mill Street
State College, Mississippi 39762

Attn: Dr. Gary McGinnis

Dear Dr. McGinnis:

Please analyze the enclosed samples from Wilmington, NC for K001 (PAH's) and Pentachlorophenol. These samples are identified as follows:

			FPUL #s
#6378A - L/F #1 Riverside Composite	0" - 3"		851216-1
#6378B - L/F #1 Riverside Composite	9" - 12"		851216-2
#6378C - L/F #1 Riverside Composite	21" - 24"		851216-3
#6379A - L/F #2 Office Composite	0" - 3"		851216-4
#6379B - L/F #2 Office Composite	9" - 12"		851216-5
#6379C - L/F #2 Office Composite	21" - 24"		851216-6

When reporting the data, please use SWP ID# in addition to your identification.

If you have questions, feel free to call.

Sincerely,
Southern Wood Piedmont

Sandra B. Watson

Sandra B. Watson
Environmental Chemist

2205T/ms

cc: M. D. Pruett
E. L. Gibbs
C. A. Burdell

Land Farming Group Time: 8:10:46p
Forest Products Laboratory Date: 01/16/96
Miss. State University

PAH Analyses Results of Site Batch Samples in UG per G

Site ID	Suffix	Day	Ld	Sb	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bz-oh
851216	1	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	24.63	62.25	0.000	0.000	0.000	0.000	0.000	0.000	42.05	23.10
851216	1	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	10.43	42.51	0.000	0.000	207.1	209.0	0.000	0.000	35.07	160.3
851216	2	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	24.62	0.000	0.000	54.97	0.000	0.000	0.000	0.000	0.000	0.000	31.06	37.59
851216	2	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	21.78	0.000	0.000	46.83	0.000	0.000	0.000	0.000	0.000	0.000	24.32	46.83
851216	3	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	11.18	0.000	0.000	15.79	0.000	0.000	0.000	0.000	0.000	0.000	6.199	0.000
851216	3	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	10.17	0.000	0.000	22.52	0.000	0.000	0.000	0.000	0.000	0.000	9.288	0.000
851216	4	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	21.52	0.000	0.000	22.46	28.27	0.000	617.9	778.9	37.95	84.97	18.64	100.7
851216	4	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	34.41	0.000	0.000	33.19	44.26	0.000	637.3	834.3	38.73	88.52	29.25	94.60
851216	5	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	30.97	0.000	0.000	53.03	0.000	0.000	165.8	146.1	0.000	0.000	20.22	34.61
851216	5	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	55.73	0.000	0.000	84.04	0.000	0.000	220.2	214.8	0.000	0.000	26.61	75.06
851216	6	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	15.37	0.000	0.000	0.000	0.000	0.000	0.000	4.514	17.60
851216	6	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	17.01	0.000	0.000	0.000	0.000	0.000	0.000	7.150	4.799
851216	REC	-0-	-0-	-0	101.60	88.230	99.14	90.90	144.2	109.4	88.90	79.40	76.10	80.50	52.90	65.80	55.70	50.73	114.3	59.62	44.02
851216	RECLEV	-0-	-0-	-0	99.530	100.75	102.3	101.0	103.7	102.7	100.4	98.51	103.7	101.5	106.7	108.1	100.2	100.7	100.4	99.82	88.41
851216	SOILBL	-0-	-0-	-0	0.0000	0.0000	0.000	0.000	0.000	7.200	0.000	0.000	17.80	0.000	0.000	0.000	0.000	0.000	0.000	6.900	8.900

Key:

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bz-ohi = Benzo-ohi-perylene
UG = microgram
Soilbl = Soil Blank
Reclev = Recovery Levels
G = Gram
UG per G = Parts per Million

First Reviewer: David Stitzel

Second Reviewer: Paul R. Beauregard

Land Farming Group
Forest Products Laboratory
Miss. State University

Date: 01/21/86
Time: 5:43:49p

PCP Analysis Results in UG per G

SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP
851216	1	-0-	-0-	A	40.655
851216	1	-0-	-0-	B	37.027
851216	2	-0-	-0-	A	33.821
851216	2	-0-	-0-	B	29.269
851216	3	-0-	-0-	A	4.7591
851216	3	-0-	-0-	B	0.0000
851216	4	-0-	-0-	A	350.90
851216	4	-0-	-0-	B	363.87
851216	5	-0-	-0-	A	184.91
851216	5	-0-	-0-	B	123.75
851216	6	-0-	-0-	A	12.964
851216	6	-0-	-0-	B	7.8636

First Reviewer: Paul R. Beauregard

Second Reviewer: David A. Stuckel

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 3:28:10a
Date: 01/13/86

Micro. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS
851216	1	-0-	-0-	A	338333	800000	90000	731666	226666	193333	-0-
851216	4	-0-	-0-	A	135000	333333	8333	805000	783333	660000	-0-

First Reviewer: Bonnie Alford Date: 1/13/86

Second Reviewer: Dina M Kennedy Date: 1/13/86

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

03/26/85

METALS
DATA REPORTING SHEET
WATER

SAMPLE NO.: 85C6274 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH. WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-GW-1
STORET STATION NO:

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MAW
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: D4646 INORG SAMPLE NO.: MDA415
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB SAMPLE DATA VERIFIED BY: MAW

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	ELEMENT
10U	UG/L	SILVER
20U	UG/L	ARSENIC
NA	UG/L	BORON
200U	UG/L	BARIUM
3U	UG/L	BERYLLIUM
2U	UG/L	CADMIUM
30U	UG/L	COBALT
10U	UG/L	CHROMIUM
10U	UG/L	COPPER
NA	UG/L	MOLYBDENUM
20U	UG/L	NICKEL
14	UG/L	LEAD
60U	UG/L	ANTIMONY
6U	UG/L	SELENIUM
40U	UG/L	TIN
NA	UG/L	STRONTIUM
NA	UG/L	TELLURIUM
NA	UG/L	TITANIUM
70U	UG/L	THALLIUM
10U	UG/L	VANADIUM
NA	UG/L	YTTRIUM
40	UG/L	ZINC
NA	UG/L	ZIRCONIUM
0.2U	UG/L	MERCURY
4800	UG/L	ALUMINUM
2000	UG/L	MANGANESE
80	MG/L	CALCIUM
48	MG/L	MAGNESIUM
91	MG/L	IRON
230	MG/L	SODIUM
14	MG/L	POTASSIUM

****

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS THE MINIMUM DETECTION LIMIT.

OK
P.C.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	PARAMETER	STORET
/0.010	MG/L	CYANIDE	00720

03/26/85

SPECIFIED ANALYSIS
DATA REPORTING SHEET
WATER

SAMPLE NO.: 8506274 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-GW-1
STORET STATION NO:

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MAW CHEMIST:
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: D4646 INORG SAMPLE NO.: MDA415
CONTRACT LABORATORY(ORGANIC): UOTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: MAW

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
DATA SHOULD BE LIMITED TO SITE SCREENING.

****

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
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*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

03/26/85

METALS
DATA REPORTING SHEET
WATER

SAMPLE NO.: 85C6275 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-GW-2
STORET STATION NO:

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MAW
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: D4647 INORG SAMPLE NO.: MDA416
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB SAMPLE DATA VERIFIED BY: MAW

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
DATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	ELEMENT
10U	UG/L	SILVER
22	UG/L	ARSENIC
NA	UG/L	BORON
200U	UG/L	BARIUM
3U	UG/L	BERYLLIUM
2U	UG/L	CADMIUM
30U	UG/L	COBALT
20	UG/L	CHROMIUM
10U	UG/L	COPPER
NA	UG/L	MOLYBDENUM
20U	UG/L	NICKEL
12	UG/L	LEAD
60U	UG/L	ANTIMONY
6U	UG/L	SELENIUM
40U	UG/L	TIN
NA	UG/L	STRONTIUM
NA	UG/L	TELLURIUM
NA	UG/L	TITANIUM
70U	UG/L	THALLIUM
10U	UG/L	VANADIUM
NA	UG/L	YTTRIUM
60	UG/L	ZINC
NA	UG/L	ZIRCONIUM
0.2U	UG/L	MERCURY
7100	UG/L	ALUMINUM
1100	UG/L	MANGANESE
35	MG/L	CALCIUM
8	MG/L	MAGNESIUM
46	MG/L	IRON
9	MG/L	SODIUM
6	MG/L	POTASSIUM

****

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS THE MINIMUM DETECTION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	PARAMETER	STORET
0.010	MG/L	CYANIDE	00720

03/26/85

SPECIFIED ANALYSIS
DATA REPORTING SHEET
WATER

SAMPLE NO.: 85C6275 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, 4000 PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-GW-2
STORET STATION NO:

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MAW CHEMIST:
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: D4647 INORG SAMPLE NO.: MDA416
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: MAW

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

****

FOOTNOTES
*A=AVERAGE VALUE *NA=NOT ANALYZED *NAI=INTERFERENCES
*J=ESTIMATED VALUE *N=PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K=ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L=ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U=MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

03/26/85

METALS
DATA REPORTING SHEET
WATER

SAMPLE NO.: 85C6276 SAMPLE TYPE: MONWL

PROJECT NO.: 85-046 PROGRAM ELEMENT: NSF
SOURCE: SOUTH. WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SMP-GW-4
STORET STATION NO:

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MAW
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: D4648 INORG SAMPLE NO.: MDA417
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB SAMPLE DATA VERIFIED BY: MAW

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	ELEMENT
10U	UG/L	SILVER
44	UG/L	ARSENIC
NA	UG/L	BORON
200U	UG/L	BARIUM
3U	UG/L	BERYLLIUM
2U	UG/L	CADMIUM
30U	UG/L	COBALT
10U	UG/L	CHROMIUM
10U	UG/L	COPPER
NA	UG/L	MOLYBDENUM
20U	UG/L	NICKEL
16	UG/L	LEAD
60U	UG/L	ANTIMONY
6U	UG/L	SELENIUM
40U	UG/L	TIN
NA	UG/L	STRONTIUM
NA	UG/L	TELLURIUM
NA	UG/L	TITANIUM
70U	UG/L	THALLIUM
10U	UG/L	VANADIUM
NA	UG/L	YTTRIUM
40	UG/L	ZINC
NA	UG/L	ZIRCONIUM
0.2U	UG/L	MERCURY
3500	UG/L	ALUMINUM
300	UG/L	MANGANESE
66	MG/L	CALCIUM
160	MG/L	MAGNESIUM
17	MG/L	IRON
1400	MG/L	SODIUM
49	MG/L	POTASSIUM

****

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

03/26/85

SPECIFIED ANALYSIS
DATA REPORTING SHEET
WATER

SAMPLE NO.: 85C6276 SAMPLE TYPE: MONWI

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH. WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: S-P-GW-4
STORET STATION NO:

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: R BENSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:
CHEMIST: MAW CHEMIST:
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: D4648 INORG SAMPLE NO.: MDA417
CONTRACT LABORATORY(ORGANIC): UATL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: MAW

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	PARAMETER	STORET
0.010	MG/L	CYANIDE	00720

****

FOOTNOTES
*A=AVERAGE VALUE *NA=NOT ANALYZED *NAI=INTERFERENCES
*J=ESTIMATED VALUE *N=PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K=ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L=ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U=MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

03/26/85

METALS
DATA REPORTING SHEET
WATER

SAMPLE NO.: H5C6273 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-GW-5
STORET STATION NO:

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MAW
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: D4645 INORG SAMPLE NO.: MDA414
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLH SAMPLE DATA VERIFIED BY: MAW

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	ELEMENT
10U	UG/L	SILVER
20U	UG/L	ARSENIC
NA	UG/L	BORON
200U	UG/L	BARIUM
3U	UG/L	BERYLLIUM
2U	UG/L	CADMIUM
30U	UG/L	COBALT
20	UG/L	CHROMIUM
10U	UG/L	COPPER
NA	UG/L	MOLYBDENUM
20U	UG/L	NICKEL
4U	UG/L	LEAD
60U	UG/L	ANTIMONY
6U	UG/L	SELENIUM
40U	UG/L	TIN
NA	UG/L	STRONTIUM
NA	UG/L	TELLURIUM
NA	UG/L	TITANIUM
70U	UG/L	THALLIUM
10U	UG/L	VANADIUM
NA	UG/L	YTTRIUM
20U	UG/L	ZINC
NA	UG/L	ZIRCONIUM
0.2U	UG/L	MERCURY
5700	UG/L	ALUMINUM
15U	UG/L	MANGANESE
42	MG/L	CALCIUM
2U	MG/L	MAGNESIUM
5.3	MG/L	IRON
1U	MG/L	SODIUM
2U	MG/L	POTASSIUM

****

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS THE MINIMUM DETECTION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

03/26/85

SPECIFIED ANALYSIS
DATA REPORTING SHEET
WATER

SAMPLE NO.: 85C6273 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH. WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-GW-5
STORET STATION NO:

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: R HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MAW CHEMIST:
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: D4645 INORG SAMPLE NO.: MDA414
CONTRACT LABORATORY(ORGANIC): UNTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLH DATA VERIFIED BY: MAW

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	PARAMETER	STORET
0.01U	MG/L	CYANIDE	00720

****

FOOTNOTES
*A=AVERAGE VALUE *NA=NOT ANALYZED *NAI=INTERFERENCES
*J=ESTIMATED VALUE *N=PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K=ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L=ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U=MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

03/26/85

METALS
DATA REPORTING SHEET
WATER

SAMPLE NO.: 85C6270 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH. WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-AW-01
STORET STATION NO:

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MAW
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: DA657 INORG SAMPLE NO.: MDA419
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB SAMPLE DATA VERIFIED BY: MAW

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	ELEMENT
10U	UG/L	SILVER
20U	UG/L	ARSENIC
NA	UG/L	BORON
200U	UG/L	BARIUM
3U	UG/L	BERYLLIUM
2U	UG/L	CADMIUM
30U	UG/L	COBALT
10U	UG/L	CHROMIUM
10U	UG/L	COPPER
NA	UG/L	MOLYBDENUM
20U	UG/L	NICKEL
4U	UG/L	LEAD
60U	UG/L	ANTIMONY
6U	UG/L	SELENIUM
40U	UG/L	TIN
NA-	UG/L	STRONTIUM
NA-	UG/L	TELLURIUM
NA-	UG/L	TITANIUM
70U	UG/L	THALLIUM
10U	UG/L	VANADIUM
NA-	UG/L	YTTRIUM
20U	UG/L	ZINC
NA-	UG/L	ZIRCONIUM
0.2U	UG/L	MERCURY
200U	UG/L	ALUMINUM
15U	UG/L	MANGANESE
43-	MG/L	CALCIUM
2U	MG/L	MAGNESIUM
0.1U	MG/L	IRON
6.0-	MG/L	SODIUM
2U	MG/L	POTASSIUM

****

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

03/26/85

SPECIFIED ANALYSIS
DATA REPORTING SHEET
WATER

SAMPLE NO.: B5C6270 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-AW-01
STORET STATION NO:

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MAW CHEMIST:
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: DA657 INORG SAMPLE NO.: MDA419
CONTRACT LABORATORY(ORGANIC): UATL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: MAW

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	PARAMETER	STORET
0.010	MG/L	CYANIDE	00720

****

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM DETECTION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

03/26/85

METALS
DATA REPORTING SHEET
WATER

SAMPLE NO.: H5C6269 SAMPLE TYPE: 100ML

PROJECT NO.: H5-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH. WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: S4P-RB-6
STORET STATION NO:

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: H HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MAW
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: DA656 INORG SAMPLE NO.: MDA418
CONTRACT LABORATORY(ORGANIC): UNTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB SAMPLE DATA VERIFIED BY: MAW

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	ELEMENT
10U	UG/L	SILVER
20U	UG/L	ARSENIC
NA	UG/L	BORON
200U	UG/L	BARIUM
3U	UG/L	BERYLLIUM
2U	UG/L	CADMIUM
30U	UG/L	COBALT
10U	UG/L	CHROMIUM
10U	UG/L	COPPER
NA	UG/L	MOLYBDENUM
20U	UG/L	NICKEL
4U	UG/L	LEAD
60U	UG/L	ANTIMONY
6U	UG/L	SELENIUM
40U	UG/L	TIN
NA	UG/L	STRONTIUM
NA	UG/L	TELLURIUM
NA	UG/L	TITANIUM
14U	UG/L	THALLIUM
10U	UG/L	VANADIUM
NA	UG/L	YTTRIUM
20U	UG/L	ZINC
NA	UG/L	ZIRCONIUM
0.2U	UG/L	MERCURY
1000-	UG/L	ALUMINUM
130 -	UG/L	MANGANESE
41 -	MG/L	CALCIUM
100-	MG/L	MAGNESIUM
2.4	MG/L	IRON
930	MG/L	SODIUM
36	MG/L	POTASSIUM

****

FOOTNOTES
*A=AVERAGE VALUE *NA=NOT ANALYZED *NAI=INTERFERENCES
*J=ESTIMATED VALUE *N=PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K=ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L=ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U=MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM DETECTION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

03/26/85

SPECIFIED ANALYSIS
DATA REPORTING SHEET
WATER

SAMPLE NO.: 85C6269 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-RR-W
STORET STATION NO:

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MAW CHEMIST:
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: DA656 INORG SAMPLE NO.: MDA418
CONTRACT LABORATORY(ORGANIC): UNTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: MAW

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	PARAMETER	STORET
0.010	MG/L	CYANIDE	00720

****

FOOTNOTES
*A=AVERAGE VALUE *NA=NOT ANALYZED *NAI=INTERFERENCES
*J=ESTIMATED VALUE *N=PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K=ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L=ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U=MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM DETECTION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

03/26/85

METALS
DATA REPORTING SHEET
WATER

SAMPLE NO.: H5C67oB SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-BK-W1
STORET STATION NO:

SAMPLE COLLECTION: START DATE/TIME 01/08/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: H HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MAW
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: D4494 INORG SAMPLE NO.: MDA470
CONTRACT LABORATORY(ORGANIC): UNTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB SAMPLE DATA VERIFIED BY: MAW

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
DATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	ELEMENT
10U	UG/L	SILVER
20U	UG/L	ARSENIC
NA	UG/L	BORON
200U	UG/L	BARIUM
3U	UG/L	BERYLLIUM
2U	UG/L	CADMIUM
30U	UG/L	COBALT
10U	UG/L	CHROMIUM
10U	UG/L	COPPER
NA	UG/L	MOLYBDENUM
20U	UG/L	NICKEL
4U	UG/L	LEAD
60U	UG/L	ANTIMONY
6U	UG/L	SELENIUM
40U	UG/L	TIN
NA	UG/L	STRONTIUM
NA	UG/L	TELLURIUM
NA	UG/L	TITANIUM
70U	UG/L	THALLIUM
10U	UG/L	VANADIUM
NA	UG/L	YTTRIUM
20U	UG/L	ZINC
NA	UG/L	ZIRCONIUM
0.2U	UG/L	MERCURY
50U	UG/L	ALUMINUM
20	UG/L	MANGANESE
23	MG/L	CALCIUM
2U	MG/L	MAGNESIUM
0.68	MG/L	IRON
1U	MG/L	SODIUM
2U	MG/L	POTASSIUM

****

FOOTNOTES
*A=AVERAGE VALUE *NA=NOT ANALYZED *NA1=INTERFERENCES
*J=ESTIMATED VALUE *N=PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K=ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L=ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U=MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-FSD,REG IV
ATHENS GEORGIA

03/26/85

SPECIFIED ANALYSIS
DATA REPORTING SHEET
WATER

SAMPLE NO.: 85C6268 SAMPLE TYPE: NORML

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH. WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-BK-W1
STORET STATION NO:

SAMPLE COLLECTION: START DATE/TIME 01/08/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MAW CHEMIST:
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: DA494 INORG SAMPLE NO.: MDA420
CONTRACT LABORATORY(ORGANIC): DBTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: MAW

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	PARAMETER	STORET
0.04	MG/L	CYANIDE	00720

****

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-FSD,REG IV
ATHENS GEORGIA

06/14/85 PURGEABLE ORGANICS ANALYSIS
WATER

SAMPLE NO.: 85C6274 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: BWP-GW-1
STORET STATION NO: 370230C

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MHR
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: D4646 INORG SAMPLE NO.: MDA415
CONTRACT LABORATORY(ORGANIC): URTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB SAMPLE DATA VERIFIED BY: JWT

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
NA	UG/L	ACROLEIN
NA	UG/L	ACRYLONITRILE
5U	UG/L	CHLOROMETHANE
5U	UG/L	BROMOMETHANE
5U	UG/L	VINYL CHLORIDE
5U	UG/L	CHLOROETHANE
5U	UG/L	METHYLENE CHLORIDE
5U	UG/L	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
10U	UG/L	1,1-DICHLOROETHANE
5U	UG/L	TRANS-1,2-DICHLOROETHENE
5U	UG/L	CHLOROFORM
5U	UG/L	1,2-DICHLOROETHANE
5U	UG/L	1,1,1-TRICHLOROETHANE
5U	UG/L	CARBON TETRACHLORIDE
5U	UG/L	BROMODICHLOROMETHANE
5U	UG/L	1,2-DICHLOROPROPANE
5U	UG/L	TRANS-1,3-DICHLOROPROPENE
5U	UG/L	TRICHLOROETHENE(TRICHLOROETHYLENE)
0.3J	UG/L	BENZENE
10U	UG/L	DIBROMOCHLOROMETHANE
5U	UG/L	1,1,2-TRICHLOROETHANE
5U	UG/L	CIS-1,3-DICHLOROPROPENE
10U	UG/L	2-CHLOROETHYLVINYL ETHER
5U	UG/L	BROMOFORM
5U	UG/L	1,1,2,2-TETRACHLOROETHANE
10U	UG/L	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
10U	UG/L	TOLUENE
10U	UG/L	CHLOROBENZENE
3J	UG/L	ETHYL BENZENE
5U	UG/L	M-XYLENE
5U	UG/L	O&P-XYLENE(MIXED)

****

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS
THE ESTIMATED MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

06/14/85 PURGEABLE ORGANICS ANALYSIS, MISC
WATER

SAMPLE NO.: 85C6274 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-GW-1
STORET STATION NO: 370230C

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE,/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST:
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: D4646 INORG SAMPLE NO.: MDA415
CONTRACT LABORATORY(ORGANIC): URTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS IN: UG/L	COMPOUND NAME
15U	ACETONE
5U	METHYL ETHYL KETONE
5U	CARBON DISULFIDE
7J	METHYL BUTYL KETONE
5J	METHYL ISOBUTYL KETONE
5U	STYRENE
5U	VINYL ACETATE
NA	DICHLORODIFLUOROMETHANE
NA	FLUOROTRICHLOROMETHANE
800JN	PROPENE
4J	1 UNIDENTIFIED COMPOUND

****

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

06/14/85 PURGEABLE ORGANICS ANALYSIS
WATER

SAMPLE NO.: 85C6275 SAMPLE TYPE: NONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: 800TH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-GW-2
STORET STATION NO: 370230D

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MHB
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: D4647 INORG SAMPLE NO.: MDA416
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB SAMPLE DATA VERIFIED BY: JWT

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
DATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
NA	UG/L	ACROLEIN
NA	UG/L	ACRYLONITRILE
5U	UG/L	CHLOROMETHANE
5U	UG/L	BROMOMETHANE
5U	UG/L	VINYL CHLORIDE
5U	UG/L	CHLOROETHANE
5U	UG/L	METHYLENE CHLORIDE
5U	UG/L	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
10U	UG/L	1,1-DICHLOROETHANE
5U	UG/L	TRANS-1,2-DICHLOROETHENE
5U	UG/L	CHLOROFORM
5U	UG/L	1,2-DICHLOROETHANE
5U	UG/L	1,1,1-TRICHLOROETHANE
5U	UG/L	CARBON TETRACHLORIDE
5U	UG/L	BROMODICHLOROMETHANE
5U	UG/L	1,2-DICHLOROPROPANE
5U	UG/L	TRANS-1,3-DICHLOROPROPENE
5U	UG/L	TRICHLOROETHENE(TRICHLOROETHYLENE)
0.3J	UG/L	BENZENE
10U	UG/L	DIBROMOCHLOROMETHANE
5U	UG/L	1,1,2-TRICHLOROETHANE
5U	UG/L	CIS-1,3-DICHLOROPROPENE
10U	UG/L	2-CHLOROETHYLVINYL ETHER
5U	UG/L	BROMOFORM
5U	UG/L	1,1,2,2-TETRACHLOROETHANE
10U	UG/L	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
5.1	UG/L	TOLUENE
10U	UG/L	CHLOROBENZENE
5.1	UG/L	ETHYL BENZENE
30	UG/L	M-XYLENE
5U	UG/L	O&P-XYLENE(MIXED)

****

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE ESTIMATED MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

06/14/85 PURGEABLE ORGANICS ANALYSIS, NIBC
WATER

SAMPLE NO.: 85C6275 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-GW-2
STORET STATION NO: 370230D

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE,/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST:
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: D4647 INORG SAMPLE NO.: MDA416
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

****

*FOOTNOTES***
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

*****ANALYTICAL RESULTS*****

RESULTS IN: UG/L	COMPOUND NAME
500	ACETONE
5U	METHYL ETHYL KETONE
5U	CARBON DISULFIDE
7J	METHYL BUTYL KETONE
5U	METHYL ISOBUTYL KETONE
5U	STYRENE
5U	VINYL ACETATE
NA	DICHLORODIFLUOROMETHANE
NA	FLUOROTRICHLOROMETHANE
3JN	CHLOROMETHYLPROPANE
100JN	PROPENE

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

)6/14/85 PURGEABLE ORGANICS ANALYSIS
WATER

SAMPLE NO.: 85C6276 SAMPLE TYPE: MONWL

(OJECT NO.: 85-048 PROGRAM ELEMENT: NSF
)URCE: SOOTH, WOOD PIEDMONT
ITY: WILMINGTON STATE: NC

:TATION I.D.: SWP-GW-4
:TORET STATION NO: 370230E

:AMPLE COLLECTION: START DATE/TIME 01/07/85
:AMPLE COLLECTION: STOP DATE/TIME 00/00/00

)LLECTED BY: B HANSEN RECEIVED FROM:
AMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
:ALED:

IEMIST: MHR
NALYTICAL METHOD:

ASE NO.: 3454 ORG SAMPLE NO: D4648 INORG SAMPLE NO.: MDA417
ONTRACT LABORATORY(ORGANIC): UBTL
ONTRACT LABORATORY(INORGANIC): WILSON

EMARK:
EMARK:

AMPLE LOG VERIFIED BY: PLB SAMPLE DATA VERIFIED BY: JWT

REMARKS*:
HIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
ATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
NA	UG/L	ACROLEIN
NA	UG/L	ACRYLONITRILE
5U	UG/L	CHLOROMETHANE
5U	UG/L	BROMOMETHANE
5U	UG/L	VINYL CHLORIDE
5U	UG/L	CHLOROETHANE
5U	UG/L	METHYLENE CHLORIDE
5U	UG/L	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
10U	UG/L	1,1-DICHLOROETHANE
5U	UG/L	TRANS-1,2-DICHLOROETHENE
5U	UG/L	CHLOROFORM
5U	UG/L	1,2-DICHLOROETHANE
5U	UG/L	1,1,1-TRICHLOROETHANE
5U	UG/L	CARBON TETRACHLORIDE
5U	UG/L	BROMODICHLOROMETHANE
5U	UG/L	1,2-DICHLOROPROPANE
5U	UG/L	TRANS-1,3-DICHLOROPROPENE
5U	UG/L	TRICHLOROETHENE(TRICHLOROETHYLENE)
5U	UG/L	BENZENE
10U	UG/L	DIBROMOCHLOROMETHANE
5U	UG/L	1,1,2-TRICHLOROETHANE
5U	UG/L	CIS-1,3-DICHLOROPROPENE
10U	UG/L	2-CHLOROETHYLVINYL ETHER
5U	UG/L	BROMOFORM
5U	UG/L	1,1,2,2-TETRACHLOROETHANE
10U	UG/L	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
16	UG/L	TOLUENE
10U	UG/L	CHLOROBENZENE
5U	UG/L	ETHYL BENZENE
5U	UG/L	M-XYLENE
5U	UG/L	O&P-XYLENE(MIXED)

:**********

-*FOOTNOTES***
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS
THE ESTIMATED MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

06/14/85 PURGEABLE ORGANICS ANALYSIS, MISC
WATER

SAMPLE NO.: 85C6276 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-GW-4
STORET STATION NO: 370230F

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE,/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST:
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: D4648 INORG SAMPLE NO.: MDA417
CONTRACT LABORATORY(ORGANIC): URTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS IN: UG/L	COMPOUND NAME
1000	ACETONE
30	METHYL ETHYL KETONE
5U	CARBON DISULFIDE
10U	METHYL BUTYL KETONE
10U	METHYL ISOBUTYL KETONE
5U	STYRENE
5U	VINYL ACETATE
NA	DICHLORODIFLUOROMETHANE
NA	FLUOROTRICHLOROMETHANE
90JN	PROPENE
30JN	1 UNIDENTIFIED AROMATIC COMPOUND

****

FOOTNOTES*
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

)6/14/85 PURGEABLE ORGANICS ANALYSIS
WATER

SAMPLE NO.: 85C6273 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: 800TH, WOOD PIEDMONT
:ITY: WILMINGTON STATE: NC

IATION I.D.: SWP-GW-5
.IORET STATION NO: 370230F

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

'HEMIST: MHB
NALYTICAL METHOD:

'ASE NO.: 3454 ORG SAMPLE NO: D4645 INORG SAMPLE NO.: MDA414
ONTRACT LABORATORY(ORGANIC): URTL
:ONTRACT LABORATORY(INORGANIC): WILSON

:EMARK:
:EMARK:

AMPLE LOG VERIFIED BY: PLB SAMPLE DATA VERIFIED BY: JWT

-AREMARKS***
.IS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
ATA SHOULD BE LIMITED TO SITE SCREENING.

****

FOOTNOTES*
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*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS
THE ESTIMATED MINIMUM QUANTITATION LIMIT.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
NA	UG/L	ACROLEIN
NA	UG/L	ACRYLONITRILE
5U	UG/L	CHLOROMETHANE
5U	UG/L	BROMOMETHANE
5U	UG/L	VINYL CHLORIDE
5U	UG/L	CHLOROETHANE
5U	UG/L	METHYLENE CHLORIDE
10U	UG/L	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
5U	UG/L	1,1-DICHLOROETHANE
5U	UG/L	TRANS-1,2-DICHLOROETHENE
5U	UG/L	CHLOROFORM
5U	UG/L	1,2-DICHLOROETHANE
5U	UG/L	1,1,1-TRICHLOROETHANE
5U	UG/L	CARBON TETRACHLORIDE
5U	UG/L	BROMODICHLOROMETHANE
5U	UG/L	1,2-DICHLOROPROPANE
5U	UG/L	TRANS-1,3-DICHLOROPROPENE
5U	UG/L	TRICHLOROETHENE(TRICHLOROETHYLENE)
5U	UG/L	BENZENE
10U	UG/L	DIBROMOCHLOROMETHANE
5U	UG/L	1,1,2-TRICHLOROETHANE
5U	UG/L	CIS-1,3-DICHLOROPROPENE
10U	UG/L	2-CHLOROETHYLVINYL ETHER
5U	UG/L	BROMOFORM
5U	UG/L	1,1,2,2-TETRACHLOROETHANE
10U	UG/L	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
10U	UG/L	TOLUENE
10U	UG/L	CHLOROBENZENE
5U	UG/L	ETHYL BENZENE
5U	UG/L	M-XYLENE
5U	UG/L	O&P-XYLENE(MIXED)

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

06/14/85 PURGEABLE ORGANICS ANALYSIS, MISC
WATER

SAMPLE NO.: 85C6273 SAMPLE TYPE: MONWL

ROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
OURCE: SOUTH. WOOD PIEDMONT
ITY: WILMINGTON STATE: NC

TATION I.D.: SWP-GW-5
TORET STATION NO: 370230F

AMPLE COLLECTION: START DATE/TIME 01/07/85
MPLE COLLECTION: STOP DATE/TIME 00/00/00

OLLECTED BY: B HANSEN RECEIVED FROM:
AMPLE REC'D: DATE,/TIME 00/00/00 REC'D BY:
EALED:

HEMIST:
NALYTICAL METHOD:

ASE NO.: 3454 ORG SAMPLE NO: D4645 INORG SAMPLE NO.: MDA414
ONTRACT LABORATORY(ORGANIC): URTL
ONTRACT LABORATORY(INORGANIC): WILSON

EMARK:
EMARK:

AMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS*
HIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
ATA SHOULD BE LIMITED TO SITE SCREENING.

****

FOOTNOTES*
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

*****ANALYTICAL RESULTS*****

RESULTS IN: UG/L	COMPOUND NAME
15U	ACETONE
5U	METHYL ETHYL KETONE
5U	CARBON DISULFIDE
23	METHYL BUTYL KETONE
26	METHYL ISOBUTYL KETONE
5U	STYRENE
5U	VINYL ACETATE
NA	DICHLORODIFLUOROMETHANE
NA	FLUOROTRICHLOROMETHANE

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-FSD,REG IV
ATHENS GEORGIA

06/14/85 PURGEABLE ORGANICS ANALYSIS
WATER

SAMPLE NO.: 85C6270 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-AW-01
STORET STATION NO: 370230A

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MHR
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: DA657 INORG SAMPLE NO.: MDA419
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB SAMPLE DATA VERIFIED BY: JWT

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
NA	UG/L	ACROLEIN
NA	UG/L	ACRYLONITRILE
5U	UG/L	CHLOROMETHANE
5U	UG/L	BROMOMETHANE
5U	UG/L	VINYL CHLORIDE
5U	UG/L	CHLOROETHANE
37	UG/L	METHYLENE CHLORIDE
6.6	UG/L	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
10U	UG/L	1,1-DICHLOROETHANE
5U	UG/L	TRANS-1,2-DICHLOROETHENE
63	UG/L	CHLOROFORM
55	UG/L	1,2-DICHLOROETHANE
14	UG/L	1,1,1-TRICHLOROETHANE
38	UG/L	CARBON TETRACHLORIDE
60	UG/L	BROMODICHLOROMETHANE
5U	UG/L	1,2-DICHLOROPROPANE
5U	UG/L	TRANS-1,3-DICHLOROPROPENE
15	UG/L	TRICHLOROETHENE(TRICHLOROETHYLENE)
5U	UG/L	BENZENE
38	UG/L	DIBROMOCHLOROMETHANE
5U	UG/L	1,1,2-TRICHLOROETHANE
5U	UG/L	CIS-1,3-DICHLOROPROPENE
10U	UG/L	2-CHLOROETHYLVINYL ETHER
14	UG/L	BROMOFORM
5U	UG/L	1,1,2,2-TETRACHLOROETHANE
81	UG/L	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
10U	UG/L	TOLUENE
26	UG/L	CHLOROBENZENE
5U	UG/L	ETHYL BENZENE
5U	UG/L	M-XYLENE
5U	UG/L	O&P-XYLENE(MIXED)

****

FOOTNOTES*
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE ESTIMATED MINIMUM QUANTITATION LIMIT.

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

06/14/85 PURGEABLE ORGANICS ANALYSIS, MISC
WATER

SAMPLE NO.: 85C6270 SAMPLE TYPE: MONWL

ROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
OURCE: SOUTH, WOOD PIEDMONT
ITY: WILMINGTON STATE: NC

TATION I.D.: SWP-AW-01
TORET STATION NO: 370230A

AMPLE COLLECTION: START DATE/TIME 01/07/85
AMPLE COLLECTION: STOP DATE/TIME 00/00/00

OLLECTED BY: B HANSEN RECEIVED FROM:
AMPLE REC'D: DATE,/TIME 00/00/00 REC'D BY:
EALED:

HEMIST:
NALYTICAL METHOD:

ASE NO.: 3454 ORG SAMPLE NO: DA657 INORG SAMPLE NO.: MDA419
ONTRACT LABORATORY(ORGANIC): UBTL
ONTRACT LABORATORY(INORGANIC): WILSON

ARK:
ARK:

AMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS*
HIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
ATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS IN: UG/L	COMPOUND NAME
15U	ACETONE
5U	METHYL ETHYL KETONE
10U	CARBON DISULFIDE
10U	METHYL BUTYL KETONE
5U	METHYL ISOBUTYL KETONE
5U	STYRENE
5U	VINYL ACETATE
NA	DICHLORODIFLUOROMETHANE
NA	FLUOROTRICHLOROMETHANE

****

FOOTNOTES*
*A=AVERAGE VALUE *NA=NOT ANALYZED *NAI=INTERFERENCES
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THE MINIMUM DETECTION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-FSD,REG IV
ATHENS GEORGIA

'6/14/85 PURGEABLE ORGANICS ANALYSIS
WATER

SAMPLE NO.: 85C6269 SAMPLE TYPE: MONWL

'ROJECT NO.: '85-048 PROGRAM ELEMENT: NSF
:OURCE: SOUTH, WOOD PIEDMONT
'ITY: WILMINGTON STATE: NC

'ATION I.D.: SWP-RB-W
:DRET STATION NO: 370230G

AMPLE COLLECTION: START DATE/TIME 01/07/85
AMPLE COLLECTION: STOP DATE/TIME 00/00/00

OLLECTED BY: B HANSEN RECEIVED FROM:
AMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
EALED:

HEMIST: MHB
NALYTICAL METHOD:

ASE NO.: 3454 ORG SAMPLE NO: DA656 INORG SAMPLE NO.: MDA418
ONTRACT LABORATORY(ORGANIC): URTL
ONTRACT LABORATORY(INORGANIC): WILSON

EMARK:
EMARK:

AMPLE LOG VERIFIED BY: PLB SAMPLE DATA VERIFIED BY: JWT

REMARKS*
'IS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
'TA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
NA	UG/L	ACROLEIN
NA	UG/L	ACRYLONITRILE
5U	UG/L	CHLOROMETHANE
5U	UG/L	BROMOMETHANE
5U	UG/L	VINYL CHLORIDE
5U	UG/L	CHLOROETHANE
5U	UG/L	METHYLENE CHLORIDE
5U	UG/L	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
10U	UG/L	1,1-DICHLOROETHANE
5U	UG/L	TRANS-1,2-DICHLOROETHENE
5U	UG/L	CHLOROFORM
5U	UG/L	1,2-DICHLOROETHANE
5U	UG/L	1,1,1-TRICHLOROETHANE
5U	UG/L	CARBON TETRACHLORIDE
10U	UG/L	BROMODICHLOROMETHANE
5U	UG/L	1,2-DICHLOROPROPANE
5U	UG/L	TRANS-1,3-DICHLOROPROPENE
5U	UG/L	TRICHLOROETHENE(TRICHLOROETHYLENE)
5U	UG/L	BENZENE
5U	UG/L	DIBROMOCHLOROMETHANE
5U	UG/L	1,1,2-TRICHLOROETHANE
5U	UG/L	CIS-1,3-DICHLOROPROPENE
10U	UG/L	2-CHLOROETHYLVINYL ETHER
5U	UG/L	BROMOFORM
5U	UG/L	1,1,2,2-TETRACHLOROETHANE
10U	UG/L	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
10U	UG/L	TOLUENE
10U	UG/L	CHLOROBENZENE
5U	UG/L	ETHYL BENZENE
5U	UG/L	M-XYLENE
5U	UG/L	O&P-XYLENE(MIXED)

****

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THE ESTIMATED MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

06/14/85 PURGEABLE ORGANICS ANALYSIS, MISC
WATER

SAMPLE NO.: 85C6269 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-RB-W
STORET STATION NO: 370230G

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE,/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST:
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: DA656 INORG SAMPLE NO.: MDA418
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
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*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

*****ANALYTICAL RESULTS*****

RESULTS IN: UG/L	COMPOUND NAME
15U	ACETONE
5U	METHYL ETHYL KETONE
5U	CARBON DISULFIDE
10U	METHYL BUTYL KETONE
10U	METHYL ISOBUTYL KETONE
5U	STYRENE
5U	VINYL ACETATE
NA	DICHLORODIFLUOROMETHANE
NA	FLUOROTRICHLOROMETHANE

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

06/14/85 PURGEABLE ORGANICS ANALYSIS
WATER

SAMPLE NO.: 85C6268 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-BK-W1
STORET STATION NO: 370230B

SAMPLE COLLECTION: START DATE/TIME 01/08/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MHB
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: DA494 INORG SAMPLE NO.: MDA420
CONTRACT LABORATORY(ORGANIC): URTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB SAMPLE DATA VERIFIED BY: JWT

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
NA	UG/L	ACROLEIN
NA	UG/L	ACRYLONITRILE
5U	UG/L	CHLOROMETHANE
5U	UG/L	BROMOMETHANE
5U	UG/L	VINYL CHLORIDE
5U	UG/L	CHLOROETHANE
5U	UG/L	METHYLENE CHLORIDE
5U	UG/L	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
5U	UG/L	1,1-DICHLOROETHANE
5U	UG/L	TRANS-1,2-DICHLOROETHENE
5U	UG/L	CHLOROFORM
5U	UG/L	1,2-DICHLOROETHANE
5U	UG/L	1,1,1-TRICHLOROETHANE
5U	UG/L	CARBON TETRACHLORIDE
10U	UG/L	BROMODICHLOROMETHANE
5U	UG/L	1,2-DICHLOROPROPANE
5U	UG/L	TRANS-1,3-DICHLOROPROPENE
5U	UG/L	TRICHLOROETHENE(TRICHLOROETHYLENE)
5U	UG/L	BENZENE
5U	UG/L	DIBROMOCHLOROMETHANE
5U	UG/L	1,1,2-TRICHLOROETHANE
5U	UG/L	CIS-1,3-DICHLOROPROPENE
10U	UG/L	2-CHLOROETHYLVINYL ETHER
5U	UG/L	BROMOFORM
5U	UG/L	1,1,2,2-TETRACHLOROETHANE
10U	UG/L	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
5U	UG/L	TOLUENE
10U	UG/L	CHLOROBENZENE
5U	UG/L	ETHYL BENZENE
5U	UG/L	M-XYLENE
5U	UG/L	O&P-XYLENE(MIXED)

****

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

06/14/85 PURGEABLE ORGANICS ANALYSIS, MISC
WATER

SAMPLE NO.: 85C6268 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-BK-W1
STORET STATION NO: 3702308

SAMPLE COLLECTION: START DATE/TIME 01/08/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE,/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST:
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: DA494 INORG SAMPLE NO.: MDA420
CONTRACT LABORATORY(ORGANIC): URTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
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****

FOOTNOTES
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THE MINIMUM DETECTION LIMIT.

*****ANALYTICAL RESULTS*****

RESULTS IN: UG/L	COMPOUND NAME
15U	ACETONE
10U	METHYL ETHYL KETONE
5U	CARBON DISULFIDE
10U	METHYL BUTYL KETONE
10U	METHYL ISOBUTYL KETONE
5U	STYRENE
5U	VINYL ACETATE
NA	DICHLORODIFLUOROMETHANE
NA	FLUOROTRICHLOROMETHANE

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

06/14/85 EXTRACTABLE ORGANIC ANALYSIS
WATER

SAMPLE NO.: 85C6274 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-GW-1
STORET STATION NO: 370230C

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MHB
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: D4646 INORG SAMPLE NO.: MDA415
CONTRACT LABORATORY(ORGANIC): URTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
DATA SHOULD BE LIMITED TO SITE SCREENING.

****

FOOTNOTES*
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE ESTIMATED MINIMUM QUANTITATION LIMIT.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
10U	UG/L	N-NITROSODIMETHYLAMINE
NA	UG/L	1,2-DIPHENYLHYDRAZINE/AZOBENZENE
11U	UG/L	BENZIDINE
5U	UG/L	1,3-DICHLOROBENZENE
5U	UG/L	1,4-DICHLOROBENZENE
5U	UG/L	1,2-DICHLOROBENZENE
5U	UG/L	BIS(2-CHLOROETHYL) ETHER
5U	UG/L	HEXACHLOROETHANE
10U	UG/L	BIS(2-CHLOROISOPROPYL) ETHER
10U	UG/L	N-NITROSODI-N-PROPYLAMINE
5U	UG/L	NITROBENZENE
5U	UG/L	HEXACHLOROBUTADIENE
5U	UG/L	1,2,4-TRICHLOROBENZENE
5U	UG/L	NAPHTHALENE
5U	UG/L	BIS(2-CHLOROETHOXY) METHANE
5U	UG/L	ISOPHORONE
10U	UG/L	HEXACHLOROCYCLOPENTADIENE (HCCP)
5U	UG/L	2-CHLORONAPHTHALENE
5U	UG/L	ACENAPHTHYLENE
5U	UG/L	ACENAPHTHENE
5U	UG/L	DIMETHYL PHTHALATE
5U	UG/L	2,4-DINITROTOLUENE
5U	UG/L	2,6-DINITROTOLUENE
5U	UG/L	4-CHLOROPHENYL PHENYL ETHER
5U	UG/L	FLUORENE
5U	UG/L	DIETHYL PHTHALATE
5U	UG/L	N-NITROSODIPHENLYAMINE/DIPHENYLAMINE
5U	UG/L	HEXACHLOROBENZENE (HCB)
5U	UG/L	4-BROMOPHENYL PHENYL ETHER
5U	UG/L	PHENANTHRENE
5U	UG/L	ANTHRACENE
10U	UG/L	DI-N-BUTYLPHTHALATE
10U	UG/L	FLUORANTHENE
10U	UG/L	PYRENE
10U	UG/L	BENZYL BUTYL PHTHALATE
10U	UG/L	BIS(2-ETHYLHEXYL) PHTHALATE
5U	UG/L	BENZO(A)ANTHRACENE
5U	UG/L	CHRYSENE
18U	UG/L	3,3'-DICHLOROBENZIDINE
10U	UG/L	DI-N-OCTYLPHTHALATE
5U	UG/L	BENZO(B AND/OR K)FLUORANTHENE
5U	UG/L	BENZO(B AND/OR K)FLUORANTHENE
5U	UG/L	BENZO-A-PYRENE
10U	UG/L	INDENO (1,2,3-CD) PYRENE
10U	UG/L	DIBENZO(A,H)ANTHRACENE
10U	UG/L	BENZO(GHI)PERYLENE
5U	UG/L	2-CHLOROPHENOL
5U	UG/L	2-NITROPHENOL
5U	UG/L	PHENOL
5U	UG/L	2,4-DIMETHYLPHENOL
5U	UG/L	2,4-DICHLOROPHENOL
5U	UG/L	2,4,6-TRICHLOROPHENOL
5U	UG/L	4-CHLORO-3-METHYLPHENOL
10U	UG/L	2,4-DINITROPHENOL
5U	UG/L	2-METHYL-4,6-DINITROPHENOL
5U	UG/L	PENTACHLOROPHENOL
11U	UG/L	4-NITROPHENOL

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

06/14/85 EXTRACTABLE ORGANIC ANALYSIS, MISC
WATER

SAMPLE NO.: 85C6274 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: 800TH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-GW-1
STORET STATION NO: 370230C

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE,/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST:
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: D4646 INORG SAMPLE NO.: MDA415
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
DATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS IN: UG/L	COMPOUND NAME
10U	BENZOIC ACID
10U	2-METHYLPHENOL
10U	4-METHYLPHENOL
5U	2,4,5-TRICHLOROPHENOL
10U	ANILINE
5U	BENZYL ALCOHOL
10U	4-CHLOROANILINE
5U	DIBENZOFURAN
10U	2-METHYL NAPHTHALENE
5U	2-NITROANILINE
21U	3-NITROANILINE
5U	4-NITROANILINE
8JN	PROTECT
50JN	PROMETON
20JN	TETRAHYDRODIMETHYLPYRANONE
10JN	METHYLHEPTANOL
7JN	C5 ALKYL-BENZENE
100J	8 UNIDENTIFIED COMPOUNDS

****

FOOTNOTES
*A=AVERAGE VALUE *NA=NOT ANALYZED *NAI=INTERFERENCES
*J=ESTIMATED VALUE *N=PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K=ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L=ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U=MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-FSD,REG IV
ATHENS GEORGIA

:2/14/85 EXTRACTABLE ORGANIC ANALYSIS
WATER

SAMPLE NO.: 85C6275 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: BWP-GW-2
STORET STATION NO: 370230D

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN. RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MHB
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: D4647 INORG SAMPLE NO.: MDA416
CONTRACT LABORATORY(ORGANIC): URTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS*
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

****

FOOTNOTES*
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE ESTIMATED MINIMUM QUANTITATION LIMIT.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
10U	UG/L	N-NITROSODIMETHYLAMINE
NA	UG/L	1,2-DIPHENYLHYDRAZINE/AZOBENZENE
11U	UG/L	BENZIDINE
5U	UG/L	1,3-DICHLOROBENZENE
5U	UG/L	1,4-DICHLOROBENZENE
5U	UG/L	1,2-DICHLOROBENZENE
5U	UG/L	BIS(2-CHLOROETHYL) ETHER
5U	UG/L	HEXACHLOROETHANE
10U	UG/L	BIS(2-CHLOROISOPROPYL) ETHER
10U	UG/L	N-NITROSODI-N-PROPYLAMINE
5U	UG/L	NITROBENZENE
5U	UG/L	HEXACHLOROBUTADIENE
5U	UG/L	1,2,4-TRICHLOROBENZENE
290	UG/L	NAPHTHALENE
5U	UG/L	BIS(2-CHLOROETHOXY) METHANE
5U	UG/L	ISOPHORONE
10U	UG/L	HEXACHLOROCYCLOPENTADIENE (HCCP)
5U	UG/L	2-CHLORONAPHTHALENE
5U	UG/L	ACENAPHTHYLENE
40	UG/L	ACENAPHTHENE
5U	UG/L	DIMETHYL PHTHALATE
5U	UG/L	2,4-DINITROTOLUENE
5U	UG/L	2,6-DINITROTOLUENE
5U	UG/L	4-CHLOROPHENYL PHENYL ETHER
15	UG/L	FLUORENE
5U	UG/L	DIETHYL PHTHALATE
5U	UG/L	N-NITROSODIPHENLYAMINE/DIPHENYLAMINE
5U	UG/L	HEXACHLOROBENZENE (HCB)
5U	UG/L	4-BROMOPHENYL PHENYL ETHER
7.8	UG/L	PHENANTHRENE
5U	UG/L	ANTHRACENE
10U	UG/L	DI-N-BUTYLPHTHALATE
10U	UG/L	FLUORANTHENE
10U	UG/L	PYRENE
10U	UG/L	BENZYL BUTYL PHTHALATE
10U	UG/L	BIS(2-ETHYLHEXYL) PHTHALATE
5U	UG/L	BENZO(A)ANTHRACENE
5U	UG/L	CHRYSENE
18U	UG/L	3,3'-DICHLOROBENZIDINE
10U	UG/L	DI-N-OCTYLPHTHALATE
5U	UG/L	BENZO(B AND/OR K)FLUORANTHENE
5U	UG/L	BENZO(B AND/OR K)FLUORANTHENE
5U	UG/L	BENZO-A-PYRENE
10U	UG/L	INDENO (1,2,3-CD) PYRENE
10U	UG/L	DIBENZO(A,H)ANTHRACENE
10U	UG/L	BENZO(GHI)PERYLENE
5U	UG/L	2-CHLOROPHENOL
5U	UG/L	2-NITROPHENOL
5U	UG/L	PHENOL
5U	UG/L	2,4-DIMETHYLPHENOL
5U	UG/L	2,4-DICHLOROPHENOL
5U	UG/L	2,4,6-TRICHLOROPHENOL
5U	UG/L	4-CHLORO-3-METHYLPHENOL
10U	UG/L	2,4-DINITROPHENOL
5U	UG/L	2-METHYL-4,6-DINITROPHENOL
5U	UG/L	PENTACHLOROPHENOL
11U	UG/L	4-NITROPHENOL

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

06/14/85 EXTRACTABLE ORGANIC ANALYSIS, MISC
WATER

SAMPLE NO.: 85C6275 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-GW-2
STORET STATION NO: 3702300

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN. RECEIVED FROM:
SAMPLE REC'D: DATE,/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST:
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: D4647 INORG SAMPLE NO.: MDA416
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
DATA SHOULD BE LIMITED TO SITE SCREENING.

/**********

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

*****ANALYTICAL RESULTS*****

RESULTS IN: UG/L	COMPOUND NAME
5U	BENZOIC ACID
10U	2-METHYLPHENOL
10U	4-METHYLPHENOL
5U	2,4,5-TRICHLOROPHENOL
10U	ANILINE
5U	BENZYL ALCOHOL
10U	4-CHLOROANILINE
14	DIBENZOFURAN
18	2-METHYL NAPHTHALENE
5U	2-NITROANILINE
21U	3-NITROANILINE
5U	4-NITROANILINE
100JN	C3 ALKYLBENZENE
20JN	BENZOTHIOPHENE
10JN	NITROCARBAZOLE
30J	3 UNIDENTIFIED COMPOUNDS

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-FSD,REG IV
ATHENS GEORGIA

06/14/85 EXTRACTABLE ORGANIC ANALYSIS
WATER

SAMPLE NO.: 85C6276 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH. WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-GW-4
STORET STATION NO: 370230E

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

OLLECTED BY: B HANSEN RECEIVED FROM:
AMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
EALED:

CHEMIST: MHR
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: D4648 INORG SAMPLE NO.: MDA417
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

EMARK:
EMARK:

AMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

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FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
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*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE ESTIMATED MINIMUM QUANTITATION LIMIT.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
10U	UG/L	N-NITROSODIMETHYLAMINE
NA	UG/L	1,2-DIPHENYLHYDRAZINE/AZOBENZENE
11U	UG/L	BENZIDINE
5U	UG/L	1,3-DICHLOROBENZENE
5U	UG/L	1,4-DICHLOROBENZENE
5U	UG/L	1,2-DICHLOROBENZENE
5U	UG/L	BIS(2-CHLOROETHYL) ETHER
5U	UG/L	HEXACHLOROETHANE
10U	UG/L	BIS(2-CHLOROISOPROPYL) ETHER
10U	UG/L	N-NITROSODI-N-PROPYLAMINE
5U	UG/L	NITROBENZENE
5U	UG/L	HEXACHLOROBUTADIENE
5U	UG/L	1,2,4-TRICHLOROBENZENE
5U	UG/L	NAPHTHALENE
5U	UG/L	BIS(2-CHLOROETHOXY) METHANE
5U	UG/L	ISOPHORONE
10U	UG/L	HEXACHLOROCYCLOPENTADIENE (HCCP)
5U	UG/L	2-CHLORONAPHTHALENE
0.9J	UG/L	ACENAPHTHYLENE
32	UG/L	ACENAPHTHENE
5U	UG/L	DIMETHYL PHTHALATE
5U	UG/L	2,4-DINITROTOLUENE
5U	UG/L	2,6-DINITROTOLUENE
5U	UG/L	4-CHLOROPHENYL PHENYL ETHER
0.7J	UG/L	FLUORENE
5U	UG/L	DIETHYL PHTHALATE
5U	UG/L	N-NITROSODIPHENLYAMINE/DIPHENYLAMINE
5U	UG/L	HEXACHLOROBENZENE (HCB)
5U	UG/L	4-BROMOPHENYL PHENYL ETHER
0.5	UG/L	PHENANTHRENE
2.1	UG/L	ANTHRACENE
10U	UG/L	DI-N-BUTYLPHTHALATE
7.8	UG/L	FLUORANTHENE
10J	UG/L	PYRENE
10U	UG/L	BENZYL BUTYL PHTHALATE
10U	UG/L	BIS(2-ETHYLHEXYL) PHTHALATE
5U	UG/L	BENZO(A)ANTHRACENE
5U	UG/L	CHRYSENE
18U	UG/L	3,3'-DICHLOROBENZIDINE
10U	UG/L	DI-N-OCTYLPHTHALATE
5U	UG/L	BENZO(B AND/OR K)FLUORANTHENE
5U	UG/L	BENZO(B AND/OR K)FLUORANTHENE
5U	UG/L	BENZO-A-PYRENE
10U	UG/L	INDENO (1,2,3-CD) PYRENE
10U	UG/L	DIBENZO(A,H)ANTHRACENE
10U	UG/L	BENZO(GHI)PERYLENE
5U	UG/L	2-CHLOROPHENOL
5U	UG/L	2-NITROPHENOL
5U	UG/L	PHENOL
5U	UG/L	2,4-DIMETHYLPHENOL
5U	UG/L	2,4-DICHLOROPHENOL
5U	UG/L	2,4,6-TRICHLOROPHENOL
5U	UG/L	4-CHLORO-3-METHYLPHENOL
10U	UG/L	2,4-DINITROPHENOL
5U	UG/L	2-METHYL-4,6-DINITROPHENOL
5U	UG/L	PENTACHLOROPHENOL
11U	UG/L	4-NITROPHENOL

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

06/14/85 EXTRACTABLE ORGANIC ANALYSIS, MISC
WATER

SAMPLE NO.: 85C6276 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-GW-4
STORET STATION NO: 370230E

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE,/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST:
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: D4648 INORG SAMPLE NO.: MDA417
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
DATA SHOULD BE LIMITED TO SITE SCREENING.

****

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

*****ANALYTICAL RESULTS*****

RESULTS IN: UG/L	COMPOUND NAME
5U	BENZOIC ACID
10U	2-METHYLPHENOL
10U	4-METHYLPHENOL
10U	2,4,5-TRICHLOROPHENOL
10U	ANILINE
5U	BENZYL ALCOHOL
10U	4-CHLOROANILINE
8.0	DIBENZOFURAN
10U	2-METHYL NAPHTHALENE
5U	2-NITROANILINE
21U	3-NITROANILINE
5U	4-NITROANILINE

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

5/14/85 EXTRACTABLE ORGANIC ANALYSIS
WATER

SAMPLE NO.: 85C6273 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-GW-5
STORET STATION NO: 370230F

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MHR
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: D4645 INORG SAMPLE NO.: MDA414
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

****

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
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*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS
THE ESTIMATED MINIMUM QUANTITATION LIMIT.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
10U	UG/L	N-NITROSODIMETHYLAMINE
NA	UG/L	1,2-DIPHENYLHYDRAZINE/AZOBENZENE
11U	UG/L	BENZIDINE
5U	UG/L	1,3-DICHLOROBENZENE
5U	UG/L	1,4-DICHLOROBENZENE
5U	UG/L	1,2-DICHLOROBENZENE
5U	UG/L	BIS(2-CHLOROETHYL) ETHER
5U	UG/L	HEXACHLOROETHANE
10U	UG/L	BIS(2-CHLOROISOPROPYL) ETHER
10U	UG/L	N-NITROSODI-N-PROPYLAMINE
5U	UG/L	NITROBENZENE
5U	UG/L	HEXACHLOROBUTADIENE
5U	UG/L	1,2,4-TRICHLOROBENZENE
5U	UG/L	NAPHTHALENE
5U	UG/L	BIS(2-CHLOROETHOXY) METHANE
5U	UG/L	ISOPHORONE
10U	UG/L	HEXACHLOROCYCLOPENTADIENE (HCCP)
5U	UG/L	2-CHLORONAPHTHALENE
5U	UG/L	ACENAPHTHYLENE
5U	UG/L	ACENAPHTHENE
5U	UG/L	DIMETHYL PHTHALATE
5U	UG/L	2,4-DINITROTOLUENE
5U	UG/L	2,6-DINITROTOLUENE
5U	UG/L	4-CHLOROPHENYL PHENYL ETHER
5U	UG/L	FLUORENE
5U	UG/L	DIETHYL PHTHALATE
5U	UG/L	N-NITROSODIPHENLYAMINE/DIPHENYLAMINE
5U	UG/L	HEXACHLOROBENZENE (HCB)
5U	UG/L	4-BROMOPHENYL PHENYL ETHER
5U	UG/L	PHENANTHRENE
5U	UG/L	ANTHRACENE
5U	UG/L	DI-N-BUTYLPHTHALATE
10U	UG/L	FLUORANTHENE
10U	UG/L	PYRENE
10U	UG/L	BENZYL BUTYL PHTHALATE
10U	UG/L	BIS(2-ETHYLHEXYL) PHTHALATE
5U	UG/L	BENZO(A)ANTHRACENE
5U	UG/L	CHRYSENE
18U	UG/L	3,3'-DICHLOROBENZIDINE
10U	UG/L	DI-N-OCTYLPHTHALATE
5U	UG/L	BENZO(B AND/OR K)FLUORANTHENE
5U	UG/L	BENZO(B AND/OR K)FLUORANTHENE
5U	UG/L	BENZO-A-PYRENE
10U	UG/L	INDENO (1,2,3-CD) PYRENE
10U	UG/L	DIBENZO(A,H)ANTHRACENE
10U	UG/L	BENZO(GHI)PERYLENE
5U	UG/L	2-CHLOROPHENOL
5U	UG/L	2-NITROPHENOL
5U	UG/L	PHENOL
5U	UG/L	2,4-DIMETHYLPHENOL
5U	UG/L	2,4-DICHLOROPHENOL
5U	UG/L	2,4,6-TRICHLOROPHENOL
5U	UG/L	4-CHLORO-3-METHYLPHENOL
10U	UG/L	2,4-DINITROPHENOL
5U	UG/L	2-METHYL-4,6-DINITROPHENOL
5U	UG/L	PENTACHLOROPHENOL
11U	UG/L	4-NITROPHENOL

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
FPA-ESD,REG IV
ATHENS GEORGIA

06/14/85 EXTRACTABLE ORGANIC ANALYSIS, MISC
WATER

SAMPLE NO.: 85C6273 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: 60OTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-GW-5
STORET STATION NO: 370230F

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE,/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST:
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: D4645 INORG SAMPLE NO.: MDA414
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS*
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

****

FOOTNOTES*
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

√ *****ANALYTICAL RESULTS*****

RESULTS IN: UG/L	COMPOUND NAME
5U	BENZOIC ACID
10U	2-METHYLPHENOL
10U	4-METHYLPHENOL
5U	2,4,5-TRICHLOROPHENOL
10U	ANILINE
5U	BENZYL ALCOHOL
10U	4-CHLOROANILINE
5U	DIBENZOFURAN
10U	2-METHYL NAPHTHALENE
5U	2-NITROANILINE
21U	3-NITROANILINE
5U	4-NITROANILINE
10J	2 UNIDENTIFIED COMPOUNDS

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

06/14/85 EXTRACTABLE ORGANIC ANALYSIS
WATER

SAMPLE NO.: 85C6270 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-AW-01
STORET STATION NO: 370230A

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MHR
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: DA657 INORG SAMPLE NO.: MDA419
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
DATA SHOULD BE LIMITED TO SITE SCREENING.

****

FOOTNOTES*
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE ESTIMATED MINIMUM QUANTITATION LIMIT.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
10U	UG/L	N-NITROSODIMETHYLAMINE
NA	UG/L	1,2-DIPHENYLHYDRAZINE/AZOBENZENE
11U	UG/L	BENZIDINE
5U	UG/L	1,3-DICHLOROBENZENE
5U	UG/L	1,4-DICHLOROBENZENE
5U	UG/L	1,2-DICHLOROBENZENE
5U	UG/L	BIS(2-CHLOROETHYL) ETHER
5U	UG/L	HEXACHLOROETHANE
10U	UG/L	BIS(2-CHLOROISOPROPYL) ETHER
10U	UG/L	N-NITROSODI-N-PROPYLAMINE
5U	UG/L	NITROBENZENE
5U	UG/L	HEXACHLOROBUTADIENE
5U	UG/L	1,2,4-TRICHLOROBENZENE
5U	UG/L	NAPHTHALENE
5U	UG/L	BIS(2-CHLOROETHOXY) METHANE
5U	UG/L	ISOPHORONE
10U	UG/L	HEXACHLOROCYCLOPENTADIENE (HCCP)
5U	UG/L	2-CHLORONAPHTHALENE
5U	UG/L	ACENAPHTHYLENE
5U	UG/L	ACENAPHTHENE
5U	UG/L	DIMETHYL PHTHALATE
5U	UG/L	2,4-DINITROTOLUENE
5U	UG/L	2,6-DINITROTOLUENE
5U	UG/L	4-CHLOROPHENYL PHENYL ETHER
5U	UG/L	FLUORENE
5U	UG/L	DIETHYL PHTHALATE
5U	UG/L	N-NITROSODIPHENLYAMINE/DIPHENYLAMINE
5U	UG/L	HEXACHLOROBENZENE (HCB)
5U	UG/L	4-BROMOPHENYL PHENYL ETHER
5U	UG/L	PHENANTHRENE
5U	UG/L	ANTHRACENE
10U	UG/L	DI-N-BUTYLPHTHALATE
10U	UG/L	FLUORANTHENE
10U	UG/L	PYRENE
10U	UG/L	BENZYL BUTYL PHTHALATE
10U	UG/L	BIS(2-ETHYLHEXYL) PHTHALATE
5U	UG/L	BENZO(A)ANTHRACENE
5U	UG/L	CHRYSENE
18U	UG/L	3,3'-DICHLOROBENZIDINE
5U	UG/L	DI-N-OCTYLPHTHALATE
5U	UG/L	BENZO(B AND/OR K)FLUORANTHENE
5U	UG/L	BENZO(B AND/OR K)FLUORANTHENE
5U	UG/L	BENZO-A-PYRENE
10U	UG/L	INDENO (1,2,3-CD) PYRENE
10U	UG/L	DIBENZO(A,H)ANTHRACENE
10U	UG/L	BENZO(GHI)PERYLENE
5U	UG/L	2-CHLOROPHENOL
5U	UG/L	2-NITROPHENOL
5U	UG/L	PHENOL
5U	UG/L	2,4-DIMETHYLPHENOL
5U	UG/L	2,4-DICHLOROPHENOL
5U	UG/L	2,4,6-TRICHLOROPHENOL
5U	UG/L	4-CHLORO-3-METHYLPHENOL
10U	UG/L	2,4-DINITROPHENOL
5U	UG/L	2-METHYL-4,6-DINITROPHENOL
5U	UG/L	PENTACHLOROPHENOL
11U	UG/L	4-NITROPHENOL

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

06/14/85 EXTRACTABLE ORGANIC ANALYSIS, MISC
WATER

SAMPLE NO.: 85C6270 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-AW-01
STORET STATION NO: 370230A

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE,/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST:
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: DA657 INORG SAMPLE NO.: MDA419
CONTRACT LABORATORY(ORGANIC): URTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

****

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

*****ANALYTICAL RESULTS*****

RESULTS IN: UG/L	COMPOUND NAME
5U	BENZOIC ACID
10U	2-METHYLPHENOL
10U	4-METHYLPHENOL
5U	2,4,5-TRICHLOROPHENOL
10U	ANILINE
5U	BENZYL ALCOHOL
10U	4-CHLOROANILINE
5U	DIBENZOFURAN
10U	2-METHYL NAPHTHALENE
5U	2-NITROANILINE
21U	3-NITROANILINE
5U	4-NITROANILINE
10JN	TRIBROMOPHENOL
20J	2 UNIDENTIFIED COMPOUNDS

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

06/14/85 EXTRACTABLE ORGANIC ANALYSIS
WATER

SAMPLE NO.: 85C6269 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-RB-W
STORET STATION NO: 370230G

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MHR
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: DA656 INORG SAMPLE NO.: MDA418
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
DATA SHOULD BE LIMITED TO SITE SCREENING.

****

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE ESTIMATED MINIMUM QUANTITATION LIMIT.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
10U	UG/L	N-NITROSODIMETHYLAMINE
NA	UG/L	1,2-DIPHENYLHYDRAZINE/AZOBENZENE
11U	UG/L	BENZIDINE
10U	UG/L	1,3-DICHLOROBENZENE
10U	UG/L	1,4-DICHLOROBENZENE
10U	UG/L	1,2-DICHLOROBENZENE
10U	UG/L	BIS(2-CHLOROETHYL) ETHER
10U	UG/L	HEXACHLOROETHANE
10U	UG/L	BIS(2-CHLOROISOPROPYL) ETHER
10U	UG/L	N-NITROSODI-N-PROPYLAMINE
10U	UG/L	NITROBENZENE
10U	UG/L	HEXACHLOROBUTADIENE
10U	UG/L	1,2,4-TRICHLOROBENZENE
10U	UG/L	NAPHTHALENE
10U	UG/L	BIS(2-CHLOROETHOXY) METHANE
10U	UG/L	ISOPHORONE
10U	UG/L	HEXACHLOROCYCLOPENTADIENE (HCCP)
10U	UG/L	2-CHLORONAPHTHALENE
10U	UG/L	ACENAPHTHYLENE
10U	UG/L	ACENAPHTHENE
10U	UG/L	DIMETHYL PHTHALATE
10U	UG/L	2,4-DINITROTOLUENE
10U	UG/L	2,6-DINITROTOLUENE
10U	UG/L	4-CHLOROPHENYL PHENYL ETHER
10U	UG/L	FLUORENE
10U	UG/L	DIETHYL PHTHALATE
10U	UG/L	N-NITROSODIPHENLYAMINE/DIPHENYLAMINE
10U	UG/L	HEXACHLOROBENZENE (HCB)
10U	UG/L	4-BROMOPHENYL PHENYL ETHER
10U	UG/L	PHENANTHRENE
10U	UG/L	ANTHRACENE
10U	UG/L	DI-N-BUTYLPHTHALATE
10U	UG/L	FLUORANTHENE
10U	UG/L	PYRENE
10U	UG/L	BENZYL BUTYL PHTHALATE
10U	UG/L	BIS(2-ETHYLHEXYL) PHTHALATE
10U	UG/L	BENZO(A)ANTHRACENE
10U	UG/L	CHRYSENE
10U	UG/L	3,3'-DICHLOROBENZIDINE
10U	UG/L	DI-N-OCTYLPHTHALATE
10U	UG/L	BENZO(B AND/OR K)FLUORANTHENE
10U	UG/L	BENZO(B AND/OR K)FLUORANTHENE
10U	UG/L	BENZO-A-PYRENE
10U	UG/L	INDENO (1,2,3-CD) PYRENE
10U	UG/L	DIBENZO(A,H)ANTHRACENE
10U	UG/L	BENZO(GHI)PERYLENE
10U	UG/L	2-CHLOROPHENOL
10U	UG/L	2-NITROPHENOL
10U	UG/L	PHENOL
10U	UG/L	2,4-DIMETHYLPHENOL
10U	UG/L	2,4-DICHLOROPHENOL
10U	UG/L	2,4,6-TRICHLOROPHENOL
10U	UG/L	4-CHLORO-3-METHYLPHENOL
10U	UG/L	2,4-DINITROPHENOL
10U	UG/L	2-METHYL-4,6-DINITROPHENOL
10U	UG/L	PENTACHLOROPHENOL
11U	UG/L	4-NITROPHENOL

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

06/14/85 EXTRACTABLE ORGANIC ANALYSIS, MISC
WATER

SAMPLE NO.: 85C6269 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH. WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-RB-W
STORET STATION NO: 370230G

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE,/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST:
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: DA656 INORG SAMPLE NO.: MDA418
CONTRACT LABORATORY(ORGANIC): URTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS*
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS IN: UG/L	COMPOUND NAME
5U	BENZOIC ACID
10U	2-METHYLPHENOL
10U	4-METHYLPHENOL
5U	2,4,5-TRICHLOROPHENOL
10U	ANILINE
5U	BENZYL ALCOHOL
10U	4-CHLOROANILINE
5U	DIBENZOFURAN
10U	2-METHYL NAPHTHALENE
5U	2-NITROANILINE
21U	3-NITROANILINE
5U	4-NITROANILINE
30J	3 UNIDENTIFIED COMPOUNDS

****

FOOTNOTES*
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

06/14/85 EXTRACTABLE ORGANIC ANALYSIS
WATER

SAMPLE NO.: 85C6268 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-BK-W1
STORET STATION NO: 370230B

SAMPLE COLLECTION: START DATE/TIME 01/08/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MHB
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: DA494 INORG SAMPLE NO.: MDA420
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

****

FOOTNOTES*
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE ESTIMATED MINIMUM QUANTITATION LIMIT.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
10U	UG/L	N-NITROSODIMETHYLAMINE
NA	UG/L	1,2-DIPHENYLHYDRAZINE/AZOBENZENE
11U	UG/L	BENZIDINE
5U	UG/L	1,3-DICHLOROBENZENE
5U	UG/L	1,4-DICHLOROBENZENE
5U	UG/L	1,2-DICHLOROBENZENE
10U	UG/L	BIS(2-CHLOROETHYL) ETHER
5U	UG/L	HEXACHLOROETHANE
5U	UG/L	BIS(2-CHLOROISOPROPYL) ETHER
5U	UG/L	N-NITROSODI-N-PROPYLAMINE
5U	UG/L	NITROBENZENE
5U	UG/L	HEXACHLOROBUTADIENE
5U	UG/L	1,2,4-TRICHLOROBENZENE
5U	UG/L	NAPHTHALENE
5U	UG/L	BIS(2-CHLOROETHOXY) METHANE
5U	UG/L	ISOPHORONE
10U	UG/L	HEXACHLOROCYCLOPENTADIENE (HCCP)
5U	UG/L	2-CHLORONAPHTHALENE
5U	UG/L	ACENAPHTHYLENE
5U	UG/L	ACENAPHTHENE
5U	UG/L	DIMETHYL PHTHALATE
5U	UG/L	2,4-DINITROTOLUENE
5U	UG/L	2,6-DINITROTOLUENE
5U	UG/L	4-CHLOROPHENYL PHENYL ETHER
5U	UG/L	FLUORENE
5U	UG/L	DIETHYL PHTHALATE
5U	UG/L	N-NITROSODIPHENLYAMINE/DIPHENYLAMINE
5U	UG/L	HEXACHLOROBENZENE (HCB)
5U	UG/L	4-BROMOPHENYL PHENYL ETHER
5U	UG/L	PHENANTHRENE
5U	UG/L	ANTHRACENE
10U	UG/L	DI-N-BUTYLPHTHALATE
10U	UG/L	FLUORANTHENE
10U	UG/L	PYRENE
10U	UG/L	BENZYL BUTYL PHTHALATE
10U	UG/L	BIS(2-ETHYLHEXYL) PHTHALATE
5U	UG/L	BENZO(A)ANTHRACENE
5U	UG/L	CHRYSENE
20U	UG/L	3,3'-DICHLOROBENZIDINE
5U	UG/L	DI-N-OCTYLPHTHALATE
5U	UG/L	BENZO(B AND/OR K)FLUORANTHENE
5U	UG/L	BENZO(B AND/OR K)FLUORANTHENE
5U	UG/L	BENZO-A-PYRENE
10U	UG/L	INDENO (1,2,3-CD) PYRENE
10U	UG/L	DIBENZO(A,H)ANTHRACENE
10U	UG/L	BENZO(GHI)PERYLENE
5U	UG/L	2-CHLOROPHENOL
5U	UG/L	2-NITROPHENOL
5U	UG/L	PHENOL
5U	UG/L	2,4-DIMETHYLPHENOL
5U	UG/L	2,4-DICHLOROPHENOL
5U	UG/L	2,4,6-TRICHLOROPHENOL
5U	UG/L	4-CHLORO-3-METHYLPHENOL
10U	UG/L	2,4-DINITROPHENOL
5U	UG/L	2-METHYL-4,6-DINITROPHENOL
5U	UG/L	PENTACHLOROPHENOL
11U	UG/L	4-NITROPHENOL

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

06/14/85 EXTRACTABLE ORGANIC ANALYSIS, MISC
WATER

SAMPLE NO.: 85C6268 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-BK-W1
TORET STATION NO: 370230B

SAMPLE COLLECTION: START DATE/TIME 01/08/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE,/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST:
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: DA494 INORG SAMPLE NO.: MDA420
CONTRACT LABORATORY(ORGANIC): URTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS*
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
AND SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS IN: UG/L	COMPOUND NAME
5U	BENZOIC ACID
10U	2-METHYLPHENOL
10U	4-METHYLPHENOL
5U	2,4,5-TRICHLOROPHENOL
10U	ANILINE
5U	BENZYL ALCOHOL
10U	4-CHLOROANILINE
5U	DIBENZOFURAN
5U	2-METHYL NAPHTHALENE
5U	2-NITROANILINE
30U	3-NITROANILINE
5U	4-NITROANILINE
100J	5 UNIDENTIFIED COMPOUNDS

****

FOOTNOTES*
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-FSD,REG IV
ATHENS GEORGIA

/14/85 PESTICIDES/PCB'S AND OTHER CHLORINATED COMPOUNDS
WATER

SAMPLE NO.: 85C6274 SAMPLE TYPE: MONWL

ROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
OURCE: SOUTH, WOOD PIEDMONT
ITY: WILMINGTON STATE: NC

TATION I.D.: SWP-GW-1
TORET STATION NO: 370230C

AMPLE COLLECTION: START DATE/TIME 01/07/85
AMPLE COLLECTION: STOP DATE/TIME 00/00/00

OLLECTED BY: B HANSEN RECEIVED FROM:
AMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
ALED:

EMIST: MHB
NALYTICAL METHOD:

ASE NO.: 3454 ORG SAMPLE NO: D4646 INORG SAMPLE NO.: MDA415
ONTRACT LABORATORY(ORGANIC): UBTL
ONTRACT LABORATORY(INORGANIC): WILSON

EMARK:
EMARK:

AMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS*
HIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
ATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
0.01U	UG/L	ALDRIN
0.01U	UG/L	HEPTACHLOR
0.01U	UG/L	HEPTACHLOR EPOXIDE
0.01U	UG/L	ALPHA-BHC
0.01U	UG/L	BETA-BHC
0.01U	UG/L	GAMMA-BHC (LINDANE)
0.01U	UG/L	DELTA-BHC
0.01U	UG/L	ENDOSULFAN I (ALPHA)
0.01U	UG/L	DIELDRIN
0.1U	UG/L	4,4'-DDT (P,P'-DDT)
0.01U	UG/L	4,4'-DDE (P,P'-DDE)
0.01U	UG/L	4,4'-DDD (P,P'-DDD)
0.01U	UG/L	ENDRIN
0.01U	UG/L	ENDOSULFAN II (BETA)
0.3U	UG/L	ENDOSULFAN SULFATE
0.1U	UG/L	CHLORDANE (TECH. MIXTURE) /1
0.3U	UG/L	PCB-1242 (AROCLOR 1242)
0.3U	UG/L	PCB-1254 (AROCLOR 1254)
0.3U	UG/L	PCB-1221 (AROCLOR 1221)
0.3U	UG/L	PCB-1232 (AROCLOR 1232)
0.3U	UG/L	PCB-1248 (AROCLOR 1248)
0.3U	UG/L	PCB-1260 (AROCLOR 1260)
0.3U	UG/L	PCB-1016 (AROCLOR 1016)
0.1U	UG/L	TOXAPHENE
0.1U	UG/L	ENDRIN ALDEHYDE
NA	UG/L	2,3,7,8 TCDD(DIOXIN)
--	UG/L	CHLORDENE /2
--	UG/L	ALPHA-CHLORDENE /2
--	UG/L	GAMMA-CHLORDENE /2
--	UG/L	1-HYDROXYCHLORDENE /2
--	UG/L	GAMMA-CHLORDANE /2
--	UG/L	TRANS-NONACHLOR /2
--	UG/L	ALPHA-CHLORDANE /2
--	UG/L	CIS-NONACHLOR /2
0.1U	UG/L	METHOXYCHLOR
0.1U	UG/L	ENDRIN KETONE

****

FOOTNOTES*
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS
THE ESTIMATED MINIMUM QUANTITATION LIMIT.
1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.
2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

06/14/85 PESTICIDES/PCB'S AND OTHER CHLORINATED COMPOUNDS
WATER

SAMPLE NO.: 85C6275 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-GW-2
STORET STATION NO: 370230D

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MHB
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: D4647 INORG SAMPLE NO.: MDA416
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
0.01U	UG/L	ALDRIN
0.01U	UG/L	HEPTACHLOR
0.01U	UG/L	HEPTACHLOR EPOXIDE
0.01U	UG/L	ALPHA-BHC
0.01U	UG/L	BETA-BHC
0.01U	UG/L	GAMMA-BHC (LINDANE)
0.01U	UG/L	DELTA-BHC
0.01U	UG/L	ENDOSULFAN I (ALPHA)
0.01U	UG/L	DIELDRIN
0.1U	UG/L	4,4'-DDT (P,P'-DDT)
0.01U	UG/L	4,4'-DDE (P,P'-DDE)
0.01U	UG/L	4,4'-DDD (P,P'-DDD)
0.01U	UG/L	ENDRIN
0.01U	UG/L	ENDOSULFAN II (BETA)
0.3U	UG/L	ENDOSULFAN SULFATE
0.1U	UG/L	CHLORDANE (TECH. MIXTURE) /1
0.3U	UG/L	PCB-1242 (AROCLOR 1242)
0.3U	UG/L	PCB-1254 (AROCLOR 1254)
0.3U	UG/L	PCB-1221 (AROCLOR 1221)
0.3U	UG/L	PCB-1232 (AROCLOR 1232)
0.3U	UG/L	PCB-1248 (AROCLOR 1248)
0.3U	UG/L	PCB-1260 (AROCLOR 1260)
0.3U	UG/L	PCB-1016 (AROCLOR 1016)
0.3U	UG/L	TOXAPHENE
0.02U	UG/L	ENDRIN ALDEHYDE
NA	UG/L	2,3,7,8 TCDD(DIOXIN)
--	UG/L	CHLORDENE /2
--	UG/L	ALPHA-CHLORDENE /2
--	UG/L	GAMMA-CHLORDENE /2
--	UG/L	1-HYDROXYCHLORDENE /2
--	UG/L	GAMMA-CHLORDANE /2
--	UG/L	TRANS-NONACHLOR /2
--	UG/L	ALPHA-CHLORDANE /2
--	UG/L	CIS-NONACHLOR /2
0.1U	UG/L	METHOXYCHLOR
0.1U	UG/L	ENDRIN KETONE

****

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE ESTIMATED MINIMUM QUANTITATION LIMIT.
1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.
2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

:6/14/85 PESTICIDES/PCB'S AND OTHER CHLORINATED COMPOUNDS
WATER

SAMPLE NO.: 85C6276 SAMPLE TYPE: MONWL

ROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-GW-4
STORET STATION NO: 370230E

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
AMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
EALED:

CHEMIST: MHB
ANALYTICAL METHOD:

ASE NO.: 3454 ORG SAMPLE NO: D4648 INORG SAMPLE NO.: MDA417
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

EMARK:
EMARK:

AMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS
HIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
0.01U	UG/L	ALDRIN
0.01U	UG/L	HEPTACHLOR
0.01U	UG/L	HEPTACHLOR EPOXIDE
0.01U	UG/L	ALPHA-BHC
0.01U	UG/L	BETA-BHC
0.01U	UG/L	GAMMA-BHC (LINDANE)
0.01U	UG/L	DELTA-BHC
0.01U	UG/L	ENDOSULFAN I (ALPHA)
0.01U	UG/L	DIELDRIN
0.1U	UG/L	4,4'-DDT (P,P'-DDT)
0.01U	UG/L	4,4'-DDE (P,P'-DDE)
0.01U	UG/L	4,4'-DDD (P,P'-DDD)
0.01U	UG/L	ENDRIN
0.01U	UG/L	ENDOSULFAN II (BETA)
0.3U	UG/L	ENDOSULFAN SULFATE
0.1U	UG/L	CHLORDANE (TECH. MIXTURE) /1
0.3U	UG/L	PCB-1242 (AROCLOR 1242)
0.3U	UG/L	PCB-1254 (AROCLOR 1254)
0.3U	UG/L	PCB-1221 (AROCLOR 1221)
0.3U	UG/L	PCB-1232 (AROCLOR 1232)
0.3U	UG/L	PCB-1248 (AROCLOR 1248)
0.3U	UG/L	PCB-1260 (AROCLOR 1260)
0.3U	UG/L	PCB-1016 (AROCLOR 1016)
0.3U	UG/L	TOXAPHENE
0.1U	UG/L	ENDRIN ALDEHYDE
NA	UG/L	2,3,7,8 TCDD(DIOXIN)
--	UG/L	CHLORDENE /2
--	UG/L	ALPHA-CHLORDENE /2
--	UG/L	GAMMA-CHLORDENE /2
--	UG/L	1-HYDROXYCHLORDENE /2
--	UG/L	GAMMA-CHLORDANE /2
--	UG/L	TRANS-NONACHLOR /2
--	UG/L	ALPHA-CHLORDANE /2
--	UG/L	CIS-NONACHLOR /2
0.1U	UG/L	METHOXYCHLOR
0.1U	UG/L	ENDRIN KETONE

****

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS
THE ESTIMATED MINIMUM QUANTITATION LIMIT.
1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.
2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
FPA-ESD,REG IV
ATHENS GEORGIA

06/14/85 PESTICIDES/PCB'S AND OTHER CHLORINATED COMPOUNDS
WATER

SAMPLE NO.: 85C6273 SAMPLE TYPE: MONWL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-GW-5
STORET STATION NO: 370230F

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MHH
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: D4645 INORG SAMPLE NO.: MDA414
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

COMMENT:
COMMENT:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS*
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
DATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
0.01U	UG/L	ALDRIN
0.01U	UG/L	HEPTACHLOR
0.01U	UG/L	HEPTACHLOR EPOXIDE
0.01U	UG/L	ALPHA-BHC
0.01U	UG/L	BETA-BHC
0.01U	UG/L	GAMMA-BHC (LINDANE)
0.01U	UG/L	DELTA-BHC
0.01U	UG/L	ENDOSULFAN I (ALPHA)
0.01U	UG/L	DIELDRIN
0.1U	UG/L	4,4'-DDT (P,P'-DDT)
0.01U	UG/L	4,4'-DDE (P,P'-DDE)
0.01U	UG/L	4,4'-DDD (P,P'-DDD)
0.01U	UG/L	ENDRIN
0.01U	UG/L	ENDOSULFAN II (BETA)
0.3U	UG/L	ENDOSULFAN SULFATE
0.1U	UG/L	CHLORDANE (TECH. MIXTURE) /1
0.1U	UG/L	PCB-1242 (AROCLOR 1242)
0.3U	UG/L	PCB-1254 (AROCLOR 1254)
0.3U	UG/L	PCB-1221 (AROCLOR 1221)
0.1U	UG/L	PCB-1232 (AROCLOR 1232)
0.1U	UG/L	PCB-1248 (AROCLOR 1248)
0.1U	UG/L	PCB-1260 (AROCLOR 1260)
0.3U	UG/L	PCB-1016 (AROCLOR 1016)
0.1U	UG/L	TOXAPHENE
0.1U	UG/L	ENDRIN ALDEHYDE
NA	UG/L	2,3,7,8 TCDD(DIOXIN)
--	UG/L	CHLORDENE /2
--	UG/L	ALPHA-CHLORDENE /2
--	UG/L	GAMMA-CHLORDENE /2
--	UG/L	1-HYDROXYCHLORDENE /2
--	UG/L	GAMMA-CHLORDANE /2
--	UG/L	TRANS-NONACHLOR /2
--	UG/L	ALPHA-CHLORDANE /2
--	UG/L	CIS-NONACHLOR /2
0.1U	UG/L	METHOXYCHLOR
0.1U	UG/L	ENDRIN KETONE

****

FOOTNOTES*
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE ESTIMATED MINIMUM QUANTITATION LIMIT.
1, WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.
2, CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

/14/85 PESTICIDES/PCB'S AND OTHER CHLORINATED COMPOUNDS
WATER

SAMPLE NO.: 85C6270 SAMPLE TYPE: MONWL

ROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
OURCE: SOUTH, WOOD PIEDMONT
ITY: WILMINGTON STATE: NC

TATION I.D.: SWP-AW-01
IORET STATION NO: 370230A

AMPLE COLLECTION: START DATE/TIME 01/07/85
AMPLE COLLECTION: STOP DATE/TIME 00/00/00

OLLECTED BY: B HANSEN RECEIVED FROM:
AMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
ALED:

EMIST: MHR
NALYTICAL METHOD:

ASE NO.: 3454 ORG SAMPLE NO: DA657 INORG SAMPLE NO.: MDA419
ONTRACT LABORATORY(ORGANIC): URTL
ONTRACT LABORATORY(INORGANIC): WILSON

EMARK:
EMARK:

MPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

*REMARKS***
IS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
TA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
0.01U	UG/L	ALDRIN
0.01U	UG/L	HEPTACHLOR
0.01U	UG/L	HEPTACHLOR EPOXIDE
0.01U	UG/L	ALPHA-BHC
0.01U	UG/L	BETA-BHC
0.01U	UG/L	GAMMA-BHC (LINDANE)
0.01U	UG/L	DELTA-BHC
0.01U	UG/L	ENDOSULFAN I (ALPHA)
0.01U	UG/L	DIELDRIN
0.1U	UG/L	4,4'-DDT (P,P'-DDT)
0.01U	UG/L	4,4'-DDE (P,P'-DDE)
0.01U	UG/L	4,4'-DDD (P,P'-DDD)
0.01U	UG/L	ENDRIN
0.01U	UG/L	ENDOSULFAN II (BETA)
0.3U	UG/L	ENDOSULFAN SULFATE
0.1U	UG/L	CHLORDANE (TECH. MIXTURE) /1
0.1U	UG/L	PCB-1242 (AROCLOR 1242)
0.3U	UG/L	PCB-1254 (AROCLOR 1254)
0.3U	UG/L	PCB-1221 (AROCLOR 1221)
0.1U	UG/L	PCB-1232 (AROCLOR 1232)
0.1U	UG/L	PCB-1248 (AROCLOR 1248)
0.1U	UG/L	PCB-1260 (AROCLOR 1260)
0.3U	UG/L	PCB-1016 (AROCLOR 1016)
0.1U	UG/L	TOXAPHENE
0.1U	UG/L	ENDRIN ALDEHYDE
NA	UG/L	2,3,7,8 TCDD(DIOXIN)
--	UG/L	CHLORDENE /2
--	UG/L	ALPHA-CHLORDENE /2
--	UG/L	GAMMA-CHLORDENE /2
--	UG/L	1-HYDROXYCHLORDENE /2
--	UG/L	GAMMA-CHLORDANE /2
--	UG/L	TRANS-NONACHLOR /2
--	UG/L	ALPHA-CHLORDANE /2
--	UG/L	CIS-NONACHLOR /2
0.1U	UG/L	METHOXYCHLOR
0.1U	UG/L	ENDRIN KETONE

****

*FOOTNOTES***
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS
THE ESTIMATED MINIMUM QUANTITATION LIMIT.
1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.
2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

6/14/85 PESTICIDES/PCB'S AND OTHER CHLORINATED COMPOUNDS
WATER

SAMPLE NO.: 85C6269 SAMPLE TYPE: MONWL

ROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
OURCE: SOUTH, WOOD PIEDMONT
ITY: WILMINGTON STATE: NC

TATION I.D.: SWP-RB-W
TORET STATION NO: 370230G

AMPLE COLLECTION: START DATE/TIME 01/07/85
AMPLE COLLECTION: STOP DATE/TIME 00/00/00

OLLECTED BY: B HANSEN RECEIVED FROM:
AMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
ALED:

HEMIST: MHB
NALYTICAL METHOD:

ASE NO.: 3454 ORG SAMPLE NO: DA656 INORG SAMPLE NO.: MDA418
NTRACT LABORATORY(ORGANIC): URTL
NTRACT LABORATORY(INORGANIC): WILSON

MARK:
MARK:

MPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

*REMARKS***
IS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
TA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
0.01U	UG/L	ALDRIN
0.01U	UG/L	HEPTACHLOR
0.01U	UG/L	HEPTACHLOR EPOXIDE
0.01U	UG/L	ALPHA-BHC
0.01U	UG/L	BETA-BHC
0.01U	UG/L	GAMMA-BHC (LINDANE)
0.01U	UG/L	DELTA-BHC
0.01U	UG/L	ENDOSULFAN I (ALPHA)
0.01U	UG/L	DIELDRIN
0.01U	UG/L	4,4'-DDT (P,P'-DDT)
0.01U	UG/L	4,4'-DDE (P,P'-DDE)
0.01U	UG/L	4,4'-DDD (P,P'-DDD)
0.01U	UG/L	ENDRIN
0.01U	UG/L	ENDOSULFAN II (BETA)
0.3U	UG/L	ENDOSULFAN SULFATE
0.1U	UG/L	CHLORDANE (TECH. MIXTURE) /1
0.3U	UG/L	PCB-1242 (AROCLOR 1242)
0.3U	UG/L	PCB-1254 (AROCLOR 1254)
0.3U	UG/L	PCB-1221 (AROCLOR 1221)
0.3U	UG/L	PCB-1232 (AROCLOR 1232)
0.3U	UG/L	PCB-1248 (AROCLOR 1248)
0.3U	UG/L	PCB-1260 (AROCLOR 1260)
0.3U	UG/L	PCB-1016 (AROCLOR 1016)
0.1U	UG/L	TOXAPHENE
0.06U	UG/L	ENDRIN ALDEHYDE
NA	UG/L	2,3,7,8 TCDD(DIOXIN)
**	UG/L	CHLORDENE /2
**	UG/L	ALPHA-CHLORDENE /2
**	UG/L	GAMMA-CHLORDENE /2
**	UG/L	1-HYDROXYCHLORDENE /2
**	UG/L	GAMMA-CHLORDANE /2
**	UG/L	TRANS-NONACHLOR /2
**	UG/L	ALPHA-CHLORDANE /2
**	UG/L	CIS-NONACHLOR /2
0.06U	UG/L	METHOXYCHLOR
0.06U	UG/L	ENDRIN KETONE

****

*FOOTNOTES***
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE ESTIMATED MINIMUM QUANTITATION LIMIT.
1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.
2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG.IV
ATHENS GEORGIA

.6/14/85 PESTICIDES/PCB'S AND OTHER CHLORINATED COMPOUNDS
WATER

SAMPLE NO.: 85C6268 SAMPLE TYPE: MONWL

ROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
OURCE: SOUTH. WOOD PIEDMONT
ITY: WILMINGTON STATE: NC

STATION I.D.: SWP-BK-W1
STORET STATION NO: 3702308

SAMPLE COLLECTION: START DATE/TIME 01/08/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MHB
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: DA494 INORG SAMPLE NO.: MDA420
CONTRACT LABORATORY(ORGANIC): URTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS*
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND	
0.01U	UG/L	ALDRIN	
0.01U	UG/L	HEPTACHLOR	
0.01U	UG/L	HEPTACHLOR EPOXIDE	
0.01U	UG/L	ALPHA-BHC	
0.01U	UG/L	BETA-BHC	
0.01U	UG/L	GAMMA-BHC (LINDANE)	
0.01U	UG/L	DELTA-BHC	
0.01U	UG/L	ENDOSULFAN I (ALPHA)	
0.01U	UG/L	DIELDRIN	
0.03U	UG/L	4,4'-DDT (P,P'-DDT)	
0.01U	UG/L	4,4'-DDE (P,P'-DDE)	
0.01U	UG/L	4,4'-DDD (P,P'-DDD)	
0.01U	UG/L	ENDRIN	
0.01U	UG/L	ENDOSULFAN II (BETA)	
0.3U	UG/L	ENDOSULFAN SULFATE	
0.1U	UG/L	CHLORDANE (TECH. MIXTURE)	/1
0.3U	UG/L	PCB-1242 (AROCLOR 1242)	
0.3U	UG/L	PCB-1254 (AROCLOR 1254)	
0.3U	UG/L	PCB-1221 (AROCLOR 1221)	
0.3U	UG/L	PCB-1232 (AROCLOR 1232)	
0.3U	UG/L	PCB-1248 (AROCLOR 1248)	
0.3U	UG/L	PCB-1260 (AROCLOR 1260)	
0.3U	UG/L	PCB-1016 (AROCLOR 1016)	
0.1U	UG/L	TOXAPHENE	
0.1U	UG/L	ENDRIN ALDEHYDE	
NA	UG/L	2,3,7,8 TCDD(DIOXIN)	
--	UG/L	CHLORDENE	/2
--	UG/L	ALPHA-CHLORDENE	/2
--	UG/L	GAMMA-CHLORDENE	/2
--	UG/L	1-HYDROXYCHLORDENE	/2
--	UG/L	GAMMA-CHLORDANE	/2
--	UG/L	TRANS-NONACHLOR	/2
--	UG/L	ALPHA-CHLORDANE	/2
--	UG/L	CIS-NONACHLOR	/2
0.1U	UG/L	METHOXYCHLOR	
0.1U	UG/L	ENDRIN KETONE	

****

FOOTNOTES*
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS
THE ESTIMATED MINIMUM QUANTITATION LIMIT.
1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.
2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

/26/85

METALS
DATA REPORTING SHEET
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6279 SAMPLE TYPE: SOIL

UBJECT NO.: 85-048 PROGRAM ELEMENT: NSF
URCE: SOUTH, WOOD PIEDMONT
TY: WILMINGTON STATE: NC

ATION I.D.: SWP-JA-C1
ORET STATION NO:

MPLE COLLECTION: START DATE/TIME 01/07/85
MPLE COLLECTION: STOP DATE/TIME 00/00/00

OLLECTED BY: B HANSEN RECEIVED FROM:
MPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
ALED:

EMIST: MAW
ALYTICAL METHOD:

SE NO.: 3454 ORG SAMPLE NO: DA497 INORG SAMPLE NO.: MDA423
NTRACT LABORATORY(ORGANIC): URTL
NTRACT LABORATORY(INORGANIC): WILSON

MARK:
MARK:

MPLE LOG VERIFIED BY: PLB SAMPLE DATA VERIFIED BY: MAW

*REMARKS***
IS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
TA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	ELEMENT
6U	MG/KG	SILVER
10	MG/KG	ARSENIC
NA	MG/KG	BORON
100U	MG/KG	BARIUM
2U	MG/KG	BERYLLIUM
1U	MG/KG	CADMIUM
20U	MG/KG	COBALT
6U	MG/KG	CHROMIUM
40	MG/KG	COPPER
NA	MG/KG	MOLYBDENUM
10U	MG/KG	NICKEL
12	MG/KG	LEAD
40U	MG/KG	ANTIMONY
4U	MG/KG	SELENIUM
20U	MG/KG	TIN
NA	MG/KG	STRONTIUM
NA	MG/KG	TELLURIUM
NA	MG/KG	TITANIUM
9U	MG/KG	THALLIUM
6U	MG/KG	VANADIUM
NA	MG/KG	YTTRIUM
10U	MG/KG	ZINC
NA	MG/KG	ZIRCONIUM
0.06U	MG/KG	MERCURY
2600	MG/KG	ALUMINUM
40	MG/KG	MANGANESE
4000	MG/KG	CALCIUM
1000U	MG/KG	MAGNESIUM
4800	MG/KG	IRON
3000U	MG/KG	SODIUM
1000U	MG/KG	POTASSIUM
20	%	MOISTURE

****

*FOOTNOTES***
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	PARAMETER	STORET
0.88	MG/KG	CYANIDE	00721

03/26/85

SPECIFIED ANALYSIS
DATA REPORTING SHEET
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6279 SAMPLE TYPE: SOIL

ROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
OURCE: SOUTH, WOOD PIEDMONT
ITY: WILMINGTON STATE: NC

ATION I.D.: SWP-JA-C1
ORET STATION NO:

AMPLE COLLECTION: START DATE/TIME 01/07/85
AMPLE COLLECTION: STOP DATE/TIME 00/00/00

OLLECTED BY: B HANSEN RECEIVED FROM:
AMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
EALED:

HEMIST: MAW CHEMIST:
NALYTICAL METHOD:

ASE NO.: 3454 ORG SAMPLE NO: DA497 INORG SAMPLE NO.: MDA423
ONTRACT LABORATORY(ORGANIC): DATL
ONTRACT LABORATORY(INORGANIC): WILSON

EMARK:
EMARK:

AMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: MAW

REMARKS*
.IS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
.TA SHOULD BE LIMITED TO SITE SCREENING.

****

FOOTNOTES*
*A=AVERAGE VALUE *NA=NOT ANALYZED *NAI=INTERFERENCES
*J=ESTIMATED VALUE *N=PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K=ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L=ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U=MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-FSD,REG IV
ATHENS GEORGIA

/26/85

METALS
DATA REPORTING SHEET
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6280 SAMPLE TYPE: SOIL

OJECT NO.: 85-048 PROGRAM ELEMENT: NSF
URCE: SOUTH, WOOD PIEDMONT
TY: WILMINGTON STATE: NC

ATION I.D.: SWP-LA-C2
URET STATION NO:

MPLE COLLECTION: START DATE/TIME 01/07/85
MPLE COLLECTION: STOP DATE/TIME 00/00/00

LLECTED BY: H HANSEN RECEIVED FROM:
MPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
ALED:

EMIST: MAW
ALYTICAL METHOD:

SE NO.: 3454 ORG SAMPLE NO: DA498 INORG SAMPLE NO.: MDA424
NTRACT LABORATORY(ORGANIC): UBTL
NTRACT LABORATORY(INORGANIC): WILSON

MARK:
MARK:

MPLE LOG VERIFIED BY: PLH SAMPLE DATA VERIFIED BY: MAW

*REMARKS***
IS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW;
IA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	ELEMENT
7U	MG/KG	SILVER
610	MG/KG	ARSENIC
NA	MG/KG	BORON
100U	MG/KG	BARIUM
2U	MG/KG	BERYLLIUM
1U	MG/KG	CADMIUM
20U	MG/KG	COBALT
390	MG/KG	CHROMIUM
670	MG/KG	COPPER
NA	MG/KG	MOLYBDENUM
10U	MG/KG	NICKEL
150	MG/KG	LEAD
40U	MG/KG	ANTIMONY
4U	MG/KG	SELENIUM
30U	MG/KG	TIN
NA	MG/KG	STRONTIUM
NA	MG/KG	TELLURIUM
NA	MG/KG	TITANIUM
9U	MG/KG	THALLIUM
20	MG/KG	VANADIUM
NA	MG/KG	YTTRIUM
75	MG/KG	ZINC
NA	MG/KG	ZIRCONIUM
0.48	MG/KG	MERCURY
4300	MG/KG	ALUMINUM
100	MG/KG	MANGANESE
12000	MG/KG	CALCIUM
1000U	MG/KG	MAGNESIUM
12000	MG/KG	IRON
3000U	MG/KG	SODIUM
1000U	MG/KG	POTASSIUM
27	%	MOISTURE

****

*FOOTNOTES***
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-FSD,REG IV
ATHENS GEORGIA

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	PARAMETER	STORET
0.41	MG/KG	CYANIDE	00721

'3/26/85

SPECIFIED ANALYSIS
DATA REPORTING SHEET
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6280 SAMPLE TYPE: SOIL

ROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
OURCE: SOUTH. WOOD PIEDMONT
ITY: WILMINGTON STATE: NC

TATION I.D.: SWP-LA-C2
TORET STATION NO:

AMPLE COLLECTION: START DATE/TIME 01/07/85
AMPLE COLLECTION: STOP DATE/TIME 00/00/00

OLLECTED BY: B HANSEN RECEIVED FROM:
AMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
EALED:

HEMIST: MAW CHEMIST:
NALYTICAL METHOD:

ASE NO.: 3454 ORG SAMPLE NO: DA498 INORG SAMPLE NO.: MDA474
ONTRACT LABORATORY(ORGANIC): ORTL
ONTRACT LABORATORY(INORGANIC): WILSON

MARK:
MARK:

AMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: MAW

REMARKS*
HIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
ATA SHOULD BE LIMITED TO SITE SCREENING.

****

FOOTNOTES*
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

/26/85

METALS
DATA REPORTING SHEET
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6281 SAMPLE TYPE: SOIL

OJECT NO.: 85-048 PROGRAM ELEMENT: NSF
URCE: SOUTH, WOOD PIEDMONT
TY: WILMINGTON STATE: NC

ATION I.D.: SWP-LB-C3
URET STATION NO:

MPLE COLLECTION: START DATE/TIME 01/07/85
MPLE COLLECTION: STOP DATE/TIME 00/00/00

LLECTED BY: B HANSEN RECEIVED FROM:
MPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
ALED:

EMIST: MAW
ALYTICAL METHOD:

SE NO.: 3454 ORG SAMPLE NO: DA499 INORG SAMPLE NO.: MDA425
NTRACT LABORATORY(ORGANIC): ORTL
NTRACT LABORATORY(INORGANIC): WILSON

MARK:
MARK:

MPLE LOG VERIFIED BY: PLB SAMPLE DATA VERIFIED BY: MAW

*REMARKS***
IS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
TA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	ELEMENT
50	MG/KG	SILVER
10	MG/KG	ARSENIC
NA	MG/KG	BORON
1000	MG/KG	BARIUM
20	MG/KG	BERYLLIUM
10	MG/KG	CADMIUM
200	MG/KG	COBALT
50	MG/KG	CHROMIUM
30	MG/KG	COPPER
NA	MG/KG	MOLYBDENUM
100	MG/KG	NICKEL
33	MG/KG	LEAD
300	MG/KG	ANTIMONY
30	MG/KG	SELENIUM
200	MG/KG	TIN
NA	MG/KG	STRONTIUM
NA	MG/KG	TELLURIUM
NA	MG/KG	TITANIUM
70	MG/KG	THALLIUM
50	MG/KG	VANADIUM
NA	MG/KG	YTTRIUM
20	MG/KG	ZINC
NA	MG/KG	ZIRCONIUM
0.050	MG/KG	MERCURY
2100	MG/KG	ALUMINUM
52	MG/KG	MANGANESE
6300	MG/KG	CALCIUM
10000	MG/KG	MAGNESIUM
5800	MG/KG	IRON
30000	MG/KG	SODIUM
10000	MG/KG	POTASSIUM
5	%	MOISTURE

****

*FOOTNOTES***
*A=AVERAGE VALUE *NA=NOT ANALYZED *NAI=INTERFERENCES
*J=ESTIMATED VALUE *N=PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K=ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L=ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U=MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

3/26/85

SPECIFIED ANALYSIS
DATA REPORTING SHEET
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6281 SAMPLE TYPE: SOIL

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	PARAMETER	STORET
0.11	MG/KG	CYANIDE	00721

ROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
OURCE: SOUTH, WOOD PIEDMONT
ITY: WILMINGTON STATE: NC

ATION I.D.: SWP-LB-C3
TORET STATION NO:

AMPLE COLLECTION: START DATE/TIME 01/07/85
AMPLE COLLECTION: STOP DATE/TIME 00/00/00

OLLECTED BY: B HANSEN RECEIVED FROM:
AMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
EALED:

HEMIST: MAW CHEMIST:
ALYTICAL METHOD:

ASE NO.: 3454 ORG SAMPLE NO: DA499 INORG SAMPLE NO.: NDA425
ONTRACT LABORATORY(ORGANIC): ORTL
ONTRACT LABORATORY(INORGANIC): WILSON

EMARK:
EMARK:

AMPLE LOG VERIFIED BY: PDB DATA VERIFIED BY: MAW

REMARKS***
IS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
TA SHOULD BE LIMITED TO SITE SCREENING.

****

FOOTNOTES***
*A=AVERAGE VALUE *NA=NOT ANALYZED *NAI=INTERFERENCES
*J=ESTIMATED VALUE *M=PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K=ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L=ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U=MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-FSD,REG IV
ATHENS GEORGIA

'/26/85

METALS
DATA REPORTING SHEET
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C62H1 SAMPLE TYPE: SOIL

OJECT NO.: 85-048 PROGRAM ELEMENT: NSF
URCE: SOUTH, WOOD PIEDMONT
TY: WILMINGTON STATE: NC

ATION I.D.: SWP-LC-C4
URET STATION NO:

MPLE COLLECTION: START DATE/TIME 01/07/85
MPLE COLLECTION: STOP DATE/TIME 00/00/00

LLECTED BY: B HANSEN RECEIVED FROM:
MPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
ALED:

EMIST: MAW
ALYTICAL METHOD:

SE NO.: 3454 ORG SAMPLE NO: D4644 INORG SAMPLE NO.: MDA413
NTRACT LABORATORY(ORGANIC): UBTL
NTRACT LABORATORY(INORGANIC): WILSON

MARK:
MARK:

MPLE LOG VERIFIED BY: PLM SAMPLE DATA VERIFIED BY: MAW

*REMARKS***
IS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
TA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	ELEMENT
60	MG/KG	SILVER
20	MG/KG	ARSENIC
NA	MG/KG	BORON
1000	MG/KG	BARIUM
20	MG/KG	BERYLLIUM
10	MG/KG	CADMIUM
200	MG/KG	COBALT
10	MG/KG	CHROMIUM
60	MG/KG	COPPER
NA	MG/KG	MOLYBDENUM
100	MG/KG	NICKEL
61	MG/KG	LEAD
400	MG/KG	ANTIMONY
40	MG/KG	SELENIUM
200	MG/KG	TIN
NA	MG/KG	STRONTIUM
NA	MG/KG	TELLURIUM
NA	MG/KG	TITANIUM
90	MG/KG	THALLIUM
60	MG/KG	VANADIUM
NA	MG/KG	YTTRIUM
87	MG/KG	ZINC
NA	MG/KG	ZIRCONIUM
0.45	MG/KG	MERCURY
1700	MG/KG	ALUMINUM
50	MG/KG	MANGANESE
2000	MG/KG	CALCIUM
1000U	MG/KG	MAGNESIUM
6600	MG/KG	IRON
3000U	MG/KG	SODIUM
1000U	MG/KG	POTASSIUM
20	%	MOISTURE

****

*FOOTNOTES***
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

3/26/85

SPECIFIED ANALYSIS
DATA REPORTING SHEET
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6284 SAMPLE TYPE: SOIL

ROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
OURCE: SOUTH. WOOD PIEDMONT
ITY: WILMINGTON STATE: NC

TATION I.D.: SWP-LC-C4
UPET STATION NO:

AMPLE COLLECTION: START DATE/TIME 01/07/85
AMPLE COLLECTION: STOP DATE/TIME 00/00/00

OLLECTED BY: B HANSEN RECEIVED FROM:
AMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
EALED:

HEMIST: MAW CHEMIST:
NALYTICAL METHOD:

SE NO.: 3454 ORG SAMPLE NO: D4644 INORG SAMPLE NO.: MDA413
NTRACT LABORATORY(ORGANIC): UBTL
NTRACT LABORATORY(INORGANIC): WILSON

MARK:
MARK:

AMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: MAW

REMARKS*
IS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
IA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	PARAMETER	STORET
0.13U	MG/KG	CYANIDE	00721

****

FOOTNOTES*
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

/26/85

METALS
DATA REPORTING SHEET
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: H5C6278 SAMPLE TYPE: SOIL

OJECT NO.: H5-048 PROGRAM ELEMENT: NSF
URCE: SOUTH, WOOD PIEDMONT
TY: WILMINGTON STATE: NC

ATION I.D.: SWP-RB-S
DRET STATION NO:

MPLE COLLECTION: START DATE/TIME 01/07/85
MPLE COLLECTION: STOP DATE/TIME 00/00/00

LLECTED BY: H HANSEN RECEIVED FROM:
MPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
ALED:

EMIST: MAW
ALYTICAL METHOD:

SE NO.: 3454 ORG SAMPLE NO: DA496 INORG SAMPLE NO.: MDA422
NTRACT LABORATORY(ORGANIC): UBTL
NTRACT LABORATORY(INORGANIC): WILSON

MARK:
MARK:

MPLE LOG VERIFIED BY: PLR SAMPLE DATA VERIFIED BY: MAW

*REMARKS***
IS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
TA SHOULD BE LIMITED TO STEP SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	ELEMENT
50	MG/KG	SILVER
100	MG/KG	ARSENIC
NA	MG/KG	BORON
1000	MG/KG	BARIUM
20	MG/KG	BERYLLIUM
10	MG/KG	CADMIUM
200	MG/KG	COBALT
50	MG/KG	CHROMIUM
50	MG/KG	COPPER
NA	MG/KG	MOLYBDENUM
100	MG/KG	NICKEL
15	MG/KG	LEAD
300	MG/KG	ANTIMONY
30	MG/KG	SELENIUM
200	MG/KG	TIN
NA	MG/KG	STRONTIUM
NA	MG/KG	TELLURIUM
NA	MG/KG	TITANIUM
70	MG/KG	THALLIUM
50	MG/KG	VANADIUM
NA	MG/KG	YTTRIUM
100	MG/KG	ZINC
NA	MG/KG	ZIRCONIUM
0.050	MG/KG	MERCURY
750	MG/KG	ALUMINUM
20	MG/KG	MANGANESE
5000	MG/KG	CALCIUM
10000	MG/KG	MAGNESIUM
1400	MG/KG	IRON
30000	MG/KG	SODIUM
10000	MG/KG	POTASSIUM
7	%	MOISTURE

****

*FOOTNOTES***
*A=AVERAGE VALUE *NA=NOT ANALYZED *NAI=INTERFERENCES
*J=ESTIMATED VALUE *N=PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K=ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L=ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U=MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	PARAMETER	STORET
0.22	MG/KG	CYANIDE	00721

03/26/85

SPECIFIED ANALYSIS
DATA REPORTING SHEET
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6278 SAMPLE TYPE: SOIL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH. WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-RR-S
STORET STATION NO:

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: R HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MAW CHEMIST:
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: DA496 INORG SAMPLE NO.: MDA422
CONTRACT LABORATORY(ORGANIC): DATL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: MAW

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

****

FOOTNOTES*
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

9/26/85

METALS
DATA REPORTING SHEET
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6277 SAMPLE TYPE: SOIL

ROJECT NO.: 85-046 PROGRAM ELEMENT: NSF
OURCE: SOUTH, ADOD PIEDMONT
ITY: WILMINGTON STATE: NC

TATION I.D.: SWP-BK-S1
TORET STATION NO:

MPLE COLLECTION: START DATE/TIME 01/07/85
MPLE COLLECTION: STOP DATE/TIME 00/00/00

OLLECTED BY: B HANSEN RECEIVED FROM:
MPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
ALED:

HEMIST: MAW
NALYTICAL METHOD:

SE NO.: 3454 ORG SAMPLE NO: DA495 INORG SAMPLE NO.: MDA421
NTRACT LABORATORY(ORGANIC): UNTL
NTRACT LABORATORY(INORGANIC): WILSON

MARK:
MARK:

MPLE LOG VERIFIED BY: PLH SAMPLE DATA VERIFIED BY: MAW

*REMARKS***
IS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
TA SHOULD BE LIMITED TO SITE SCREENING,

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	ELEMENT
7U	MG/KG	SILVER
10U	MG/KG	ARSENIC
NA	MG/KG	BORON
1000	MG/KG	BARIUM
2U	MG/KG	BERYLLIUM
1U	MG/KG	CADMIUM
20U	MG/KG	COBALT
7U	MG/KG	CHROMIUM
7U	MG/KG	COPPER
NA	MG/KG	MOLYBDENUM
10U	MG/KG	NICKEL
6	MG/KG	LEAD
40U	MG/KG	ANTIMONY
4U	MG/KG	SELENIUM
30U	MG/KG	TIN
NA	MG/KG	STRONTIUM
NA	MG/KG	TELLURIUM
NA	MG/KG	TITANIUM
10U	MG/KG	THALLIUM
7U	MG/KG	VANADIUM
NA	MG/KG	YTTRIUM
10U	MG/KG	ZINC
NA	MG/KG	ZIRCONIUM
0.07U	MG/KG	MERCURY
1700	MG/KG	ALUMINUM
10U	MG/KG	MANGANESE
7000	MG/KG	CALCIUM
10000	MG/KG	MAGNESIUM
930	MG/KG	IRON
40000	MG/KG	SODIUM
1000U	MG/KG	POTASSIUM
31	%	MOISTURE

****

*FOOTNOTES***
*A=AVERAGE VALUE *NA=NOT ANALYZED *NAI=INTERFERENCES
*J=ESTIMATED VALUE *N=PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K=ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L=ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U=MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE MINIMUM DETECTION LIMIT,

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-FSD,REG IV
ATHENS GEORGIA

03/26/85

SPECIFIED ANALYSIS
DATA REPORTING SHEET
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: B5C6277 SAMPLE TYPE: SOIL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-BK-51
STORET STATION NO:

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MAW CHEMIST:
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: DA495 INORG SAMPLE NO.: MDA421
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: MAW

REMARKS*
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
DATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	PARAMETER	STORET
0.43	MG/KG	CYANIDE	00721

****

FOOTNOTES*
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

>/14/85 PURGEABLE ORGANICS ANALYSIS
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6279 SAMPLE TYPE: SOIL

ROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
OURCE: SOUTH, WOOD PIEDMONT
ITY: WILMINGTON STATE: NC

ATION I.D.: SWP-JA-C1
ORET STATION NO:

MPLE COLLECTION: START DATE/TIME 01/07/85
MPLE COLLECTION: STOP DATE/TIME 00/00/00

OLLECTED BY: B HANSEN RECEIVED FROM:
MPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
ALED:

EMIST: MHB
ALYTICAL METHOD:

SE NO.: 3454 ORG SAMPLE NO: DA497 INORG SAMPLE NO.: MDA423
NTRACT LABORATORY(ORGANIC): UBTL
NTRACT LABORATORY(INORGANIC): WILSON

MARK:
MARK:

MPLE LOG VERIFIED BY: PLB SAMPLE DATA VERIFIED BY: JWT

*REMARKS***
IS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
TA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
NA	UG/KG	ACROLEIN
NA	UG/KG	ACRYLONITRILE
5U	UG/KG	CHLOROMETHANE
5U	UG/KG	BROMOMETHANE
10U	UG/KG	VINYL CHLORIDE
5U	UG/KG	CHLOROETHANE
5U	UG/KG	METHYLENE CHLORIDE
5U	UG/KG	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
10U	UG/KG	1,1-DICHLOROETHANE
5U	UG/KG	TRANS-1,2-DICHLOROETHENE
5U	UG/KG	CHLOROFORM
5U	UG/KG	1,2-DICHLOROETHANE
5U	UG/KG	1,1,1-TRICHLOROETHANE
5U	UG/KG	CARBON TETRACHLORIDE
5U	UG/KG	BROMODICHLOROMETHANE
5U	UG/KG	1,2-DICHLOROPROPANE
5U	UG/KG	TRANS-1,3-DICHLOROPROPENE
5U	UG/KG	TRICHLOROETHENE(TRICHLOROETHYLENE)
5U	UG/KG	BENZENE
10U	UG/KG	DIBROMOCHLOROMETHANE
5U	UG/KG	1,1,2-TRICHLOROETHANE
5U	UG/KG	CIS-1,3-DICHLOROPROPENE
10U	UG/KG	2-CHLOROETHYLVINYL ETHER
5U	UG/KG	BROMOFORM
5U	UG/KG	1,1,2,2-TETRACHLOROETHANE
11U	UG/KG	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
10U	UG/KG	TOLUENE
10U	UG/KG	CHLOROBENZENE
5U	UG/KG	ETHYL BENZENE
5U	UG/KG	M-XYLENE
5U	UG/KG	O&P-XYLENE(MIXED)
7.7	%	MOISTURE

****

*FOOTNOTES***
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS
THE ESTIMATED MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

6/14/85 PURGEABLE ORGANICS ANALYSIS, MISC
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6279 SAMPLE TYPE: SOIL

OJECT NO.: 85-048 PROGRAM ELEMENT: NSF
URCE: SOUTH, WOOD PIEDMONT
TY: WILMINGTON STATE: NC

ATION I.D.: SWP-JA-C1
ORET STATION NO:

MPLE COLLECTION: START DATE/TIME 01/07/85
MPLE COLLECTION: STOP DATE/TIME 00/00/00

LLECTED BY: B HANSEN RECEIVED FROM:
MPLE REC'D: DATE,/TIME 00/00/00 REC'D BY:
ALED:

EMIST:
ALYTICAL METHOD:

SE NO.: 3454 ORG SAMPLE NO: DA497 INORG SAMPLE NO.: MDA423
NTRACT LABORATORY(ORGANIC): UBTL
NTRACT LABORATORY(INORGANIC): WILSON

MARK:
MARK:

MPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

*REMARKS***
IS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
TA SHOULD BE LIMITED TO SITE SCREENING.

****

*FOOTNOTES***
*A=AVERAGE VALUE *NA=NOT ANALYZED *NAI=INTERFERENCES
*J=ESTIMATED VALUE *N=PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K=ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L=ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U=MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

*****ANALYTICAL RESULTS*****

RESULTS IN: UG/KG	COMPOUND NAME
16U	ACETONE
10U	METHYL ETHYL KETONE
5U	CARBON DISULFIDE
10U	METHYL BUTYL KETONE
10U	METHYL ISOBUTYL KETONE
5U	STYRENE
5U	VINYL ACETATE
NA	DICHLORODIFLUOROMETHANE
NA	FLUOROTRICHLOROMETHANE

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

5/14/85 PURGEABLE ORGANICS ANALYSIS
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6280 SAMPLE TYPE: SOIL

OJECT NO.: 85-048 PROGRAM ELEMENT: NSF
URCE: SOUTH, WOOD PIEDMONT
TY: WILMINGTON STATE: NC

ATION I.D.: SWP-LA-C2
ORET STATION NO:

MPLE COLLECTION: START DATE/TIME 01/07/85
MPLE COLLECTION: STOP DATE/TIME 00/00/00

LLECTED BY: B HANSEN RECEIVED FROM:
MPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
ALED:

EMIST: MHB
ALYTICAL METHOD:

SE NO.: 3454 ORG SAMPLE NO: DA498 INORG SAMPLE NO.: MDA424
NTRACT LABORATORY(ORGANIC): UBTL
NTRACT LABORATORY(INORGANIC): WILSON

MARK:
MARK:

MPLE LOG VERIFIED BY: PLB SAMPLE DATA VERIFIED BY: JWT

*REMARKS***
IS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
TA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
NA	UG/KG	ACROLEIN
NA	UG/KG	ACRYLONITRILE
5U	UG/KG	CHLOROMETHANE
5U	UG/KG	BROMOMETHANE
10U	UG/KG	VINYL CHLORIDE
5U	UG/KG	CHLOROETHANE
5U	UG/KG	METHYLENE CHLORIDE
5U	UG/KG	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
10U	UG/KG	1,1-DICHLOROETHANE
5U	UG/KG	TRANS-1,2-DICHLOROETHENE
5U	UG/KG	CHLOROFORM
5U	UG/KG	1,2-DICHLOROETHANE
5U	UG/KG	1,1,1-TRICHLOROETHANE
5U	UG/KG	CARBON TETRACHLORIDE
5U	UG/KG	BROMODICHLOROMETHANE
10U	UG/KG	1,2-DICHLOROPROPANE
5U	UG/KG	TRANS-1,3-DICHLOROPROPENE
5U	UG/KG	TRICHLOROETHENE(TRICHLOROETHYLENE)
5U	UG/KG	BENZENE
10U	UG/KG	DIBROMOCHLOROMETHANE
5U	UG/KG	1,1,2-TRICHLOROETHANE
5U	UG/KG	CIS-1,3-DICHLOROPROPENE
10U	UG/KG	2-CHLOROETHYLVINYL ETHER
5U	UG/KG	BROMOFORM
12U	UG/KG	1,1,2,2-TETRACHLOROETHANE
5U	UG/KG	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
10U	UG/KG	TOLUENE
10U	UG/KG	CHLOROBENZENE
5U	UG/KG	ETHYL BENZENE
10U	UG/KG	M-XYLENE
10U	UG/KG	O&P-XYLENE(MIXED)
16	%	MOISTURE

****

*FOOTNOTES***
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS
THE ESTIMATED MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

/14/85 PURGEABLE ORGANICS ANALYSIS, MISC
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6280 SAMPLE TYPE: SOIL

OJECT NO.: 85-048 PROGRAM ELEMENT: NSF
URCE: SOUTH, WOOD PIEDMONT
TY: WILMINGTON STATE: NC

ATION I.D.: SWP-LA-C2
ORET STATION NO:

MPLE COLLECTION: START DATE/TIME 01/07/85
MPLE COLLECTION: STOP DATE/TIME 00/00/00

LLECTED BY: B HANSEN RECEIVED FROM:
MPLE REC'D: DATE,/TIME 00/00/00 REC'D BY:
ALED:

EMIST:
ALYTICAL METHOD:

SE NO.: 3454 ORG SAMPLE NO: DA498 INORG SAMPLE NO.: MDA424
NTRACT LABORATORY(ORGANIC): UBTL
NTRACT LABORATORY(INORGANIC): WILSON

MARK:
MARK:

MPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

*REMARKS***
IS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
TA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS IN: UG/KG	COMPOUND NAME
20UJ	ACETONE
10U	METHYL ETHYL KETONE
5U	CARBON DISULFIDE
10U	METHYL BUTYL KETONE
10U	METHYL ISOBUTYL KETONE
10U	STYRENE
5U	VINYL ACETATE
NA	DICHLORODIFLUOROMETHANE
10JN	FLUOROTRICHLOROMETHANE

****

*FOOTNOTES***
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

/14/85 PURGEABLE ORGANICS ANALYSIS
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6281 SAMPLE TYPE: SOIL

JECT NO.: 85-048 PROGRAM ELEMENT: NSF
RCE: SOUTH, WOOD PIEDMONT
TY: WILMINGTON STATE: NC

ATION I.D.: SWP-LB-C3
ORET STATION NO:

MPLE COLLECTION: START DATE/TIME 01/07/85
MPLE COLLECTION: STOP DATE/TIME 00/00/00

LLECTED BY: B HANSEN RECEIVED FROM:
MPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
LED:

EMIST: MHR
LYTICAL METHOD:

SE NO.: 3454 ORG SAMPLE NO: DA499 INORG SAMPLE NO.: MDA425
NTRACT LABORATORY(ORGANIC): UATL
NTRACT LABORATORY(INORGANIC): WILSON

ARK:
ARK:

MPLE LOG VERIFIED BY: PLB SAMPLE DATA VERIFIED BY: JWT

REMARKS***
IS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
A SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
NA	UG/KG	ACROLEIN
NA	UG/KG	ACRYLONITRILE
5U	UG/KG	CHLOROMETHANE
5U	UG/KG	BROMOMETHANE
10U	UG/KG	VINYL CHLORIDE
5U	UG/KG	CHLOROETHANE
5U	UG/KG	METHYLENE CHLORIDE
5U	UG/KG	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
10U	UG/KG	1,1-DICHLOROETHANE
5U	UG/KG	TRANS-1,2-DICHLOROETHENE
5U	UG/KG	CHLOROFORM
5U	UG/KG	1,2-DICHLOROETHANE
5U	UG/KG	1,1,1-TRICHLOROETHANE
5U	UG/KG	CARBON TETRACHLORIDE
5U	UG/KG	BROMODICHLOROMETHANE
5U	UG/KG	1,2-DICHLOROPROPANE
5U	UG/KG	TRANS-1,3-DICHLOROPROPENE
5U	UG/KG	TRICHLOROETHENE(TRICHLOROETHYLENE)
5U	UG/KG	BENZENE
10U	UG/KG	DIBROMOCHLOROMETHANE
5U	UG/KG	1,1,2-TRICHLOROETHANE
5U	UG/KG	CIS-1,3-DICHLOROPROPENE
10U	UG/KG	2-CHLOROETHYLVINYL ETHER
5U	UG/KG	BROMOFORM
5U	UG/KG	1,1,2,2-TETRACHLOROETHANE
11U	UG/KG	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
10U	UG/KG	TOLUENE
10U	UG/KG	CHLOROBENZENE
5U	UG/KG	ETHYL BENZENE
5U	UG/KG	M-XYLENE
5U	UG/KG	O&P-XYLENE(MIXED)
5.8	%	MOISTURE

****

FOOTNOTES***
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE ESTIMATED MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

/14/85 PURGEABLE ORGANICS ANALYSIS, MISC
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C628: SAMPLE TYPE: SOIL

OJECT NO.: 85-048 PROGRAM ELEMENT: NSF
URCE: SOUTH, WOOD PIEDMONT
TY: WILMINGTON STATE: NC

ATION I.D.: SWP-LB-C3
ORET STATION NO:

MPLE COLLECTION: START DATE/TIME 01/07/85
MPLE COLLECTION: STOP DATE/TIME 00/00/00

LLECTED BY: B HANSEN RECEIVED FROM:
MPLE REC'D: DATE,/TIME 00/00/00 REC'D BY:
ALED:

EMIST:
ALYTICAL METHOD:

SE NO.: 3454 ORG SAMPLE NO: DA499 INORG SAMPLE NO.: MDA425
NTRACT LABORATORY(ORGANIC): UBTL
NTRACT LABORATORY(INORGANIC): WILSON

ARK:
ARK:

MPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

*REMARKS***
IS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
TA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS IN: UG/KG	COMPOUND NAME
16U	ACETONE
10U	METHYL ETHYL KETONE
5U	CARBON DISULFIDE
10U	METHYL BUTYL KETONE
10U	METHYL ISOBUTYL KETONE
5U	STYRENE
5U	VINYL ACETATE
NA	DICHLORODIFLUOROMETHANE
10JN	FLUOROTRICHLOROMETHANE

****

FOOTNOTES***
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

5/14/85

PURGEABLE ORGANICS ANALYSIS
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6284 SAMPLE TYPE: SOIL

ROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
OURCE: SOUTH, WOOD PIEDMONT
ITY: WILMINGTON STATE: NC

TATION I.D.: SWP-LC-C4
ORET STATION NO:

AMPLE COLLECTION: START DATE/TIME 01/07/85
AMPLE COLLECTION: STOP DATE/TIME 00/00/00

OLLECTED BY: B HANSEN RECEIVED FROM:
AMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
EALED:

HEMIST: MHB
NALYTICAL METHOD:

ASE NO.: 3454 ORG SAMPLE NO: D4644 INORG SAMPLE NO.: MDA413
NTRACT LABORATORY(ORGANIC): UHTL
NTRACT LABORATORY(INORGANIC): WILSON

MARK:
MARK:

AMPLE LOG VERIFIED BY: PLB SAMPLE DATA VERIFIED BY: JWT

REMARKS*
HIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
TA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
NA	UG/KG	ACROLEIN
NA	UG/KG	ACRYLONITRILE
5U	UG/KG	CHLOROMETHANE
5U	UG/KG	BROMOMETHANE
10U	UG/KG	VINYL CHLORIDE
5U	UG/KG	CHLOROETHANE
5U	UG/KG	METHYLENE CHLORIDE
10U	UG/KG	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
5U	UG/KG	1,1-DICHLOROETHANE
5U	UG/KG	TRANS-1,2-DICHLOROETHENE
5U	UG/KG	CHLOROFORM
5U	UG/KG	1,2-DICHLOROETHANE
5U	UG/KG	1,1,1-TRICHLOROETHANE
5U	UG/KG	CARBON TETRACHLORIDE
10U	UG/KG	BROMODICHLOROMETHANE
5U	UG/KG	1,2-DICHLOROPROPANE
5U	UG/KG	TRANS-1,3-DICHLOROPROPENE
5U	UG/KG	TRICHLOROETHENE(TRICHLOROETHYLENE)
5U	UG/KG	BENZENE
5U	UG/KG	DIBROMOCHLOROMETHANE
5U	UG/KG	1,1,2-TRICHLOROETHANE
5U	UG/KG	CIS-1,3-DICHLOROPROPENE
10U	UG/KG	2-CHLOROETHYLVINYL ETHER
5U	UG/KG	BROMOFORM
5U	UG/KG	1,1,2,2-TETRACHLOROETHANE
11U	UG/KG	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
5U	UG/KG	TOLUENE
5U	UG/KG	CHLOROBENZENE
5U	UG/KG	ETHYL BENZENE
5U	UG/KG	M-XYLENE
5U	UG/KG	O&P-XYLENE(MIXED)
8.3	%	MOISTURE

****

*FOOTNOTES***
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS
THE ESTIMATED MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

6/14/85 PURGEABLE ORGANICS ANALYSIS, MISC
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6284 SAMPLE TYPE: SOIL

ROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
OURCE: SOUTH, WOOD PIEDMONT
ITY: WILMINGTON STATE: NC

TATION I.D.: SWP-LC-C4
TORET STATION NO:

AMPLE COLLECTION: START DATE/TIME 01/07/85
AMPLE COLLECTION: STOP DATE/TIME 00/00/00

OLLECTED BY: B HANSEN RECEIVED FROM:
AMPLE REC'D: DATE,/TIME 00/00/00 REC'D BY:
CALED:

EMIST:
ALYTICAL METHOD:

SE NO.: 3454 ORG SAMPLE NO: D4644 INORG SAMPLE NO.: MDA413
ONTRACT LABORATORY(ORGANIC): UBTL
ONTRACT LABORATORY(INORGANIC): WILSON

EMARK:
EMARK:

MPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

*REMARKS***
IS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
TA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS IN: UG/KG	COMPOUND NAME
16U	ACETONE
10U	METHYL ETHYL KETONE
5U	CARBON DISULFIDE
10U	METHYL BUTYL KETONE
10U	METHYL ISOBUTYL KETONE
5U	STYRENE
5U	VINYL ACETATE
NA	DICHLORODIFLUOROMETHANE
NA	FLUOROTRICHLOROMETHANE
7JN	PINENE
6JN	TRIMETHYLCYCLOHEXANONE

****

*FOOTNOTES***
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-FSD,REG IV
ATHENS GEORGIA

5/14/85 PURGEABLE ORGANICS ANALYSIS
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6278 SAMPLE TYPE: SOIL

OJECT NO.: 85-048 PROGRAM ELEMENT: NSF
URCE: SOUTH, WOOD PIEDMONT
TY: WILMINGTON STATE: NC

ATION I.D.: SWP-RB-S
URET STATION NO:

MPLE COLLECTION: START DATE/TIME 01/07/85
MPLE COLLECTION: STOP DATE/TIME 00/00/00

LLECTED BY: B HANSEN RECEIVED FROM:
MPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
ALED:

EMIST: MHB
ALYTICAL METHOD:

SE NO.: 3454 ORG SAMPLE NO: DA496 INORG SAMPLE NO.: MDA422
NTRACT LABORATORY(ORGANIC): UBTL
NTRACT LABORATORY(INORGANIC): WILSON

MARK:
MARK:

MPLE LOG VERIFIED BY: PLB SAMPLE DATA VERIFIED BY: JWT

*REMARKS***
IS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
TA SHOULD BE LIMITED TO SITE SCREENING.

****

*FOOTNOTES***
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS
THE ESTIMATED MINIMUM QUANTITATION LIMIT.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
NA	UG/KG	ACROLEIN
NA	UG/KG	ACRYLONITRILE
5U	UG/KG	CHLOROMETHANE
5U	UG/KG	BROMOMETHANE
10U	UG/KG	VINYL CHLORIDE
5U	UG/KG	CHLOROETHANE
5U	UG/KG	METHYLENE CHLORIDE
5U	UG/KG	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
10U	UG/KG	1,1-DICHLOROETHANE
5U	UG/KG	TRANS-1,2-DICHLOROETHENE
5U	UG/KG	CHLOROFORM
5U	UG/KG	1,2-DICHLOROETHANE
5U	UG/KG	1,1,1-TRICHLOROETHANE
5U	UG/KG	CARBON TETRACHLORIDE
5U	UG/KG	BROMODICHLOROMETHANE
10U	UG/KG	1,2-DICHLOROPROPANE
5U	UG/KG	TRANS-1,3-DICHLOROPROPENE
5U	UG/KG	TRICHLOROETHENE(TRICHLOROETHYLENE)
5U	UG/KG	BENZENE
10U	UG/KG	DIBROMOCHLOROMETHANE
5U	UG/KG	1,1,2-TRICHLOROETHANE
5U	UG/KG	CIS-1,3-DICHLOROPROPENE
10U	UG/KG	2-CHLOROETHYLVINYL ETHER
5U	UG/KG	BROMOFORM
5U	UG/KG	1,1,2,2-TETRACHLOROETHANE
11U	UG/KG	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
10U	UG/KG	TOLUENE
10U	UG/KG	CHLOROBENZENE
10U	UG/KG	ETHYL BENZENE
5U	UG/KG	M-XYLENE
5U	UG/KG	O&P-XYLENE(MIXED)
12	%	MOISTURE

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-FSD,REG IV
ATHENS GEORGIA

/14/85 PURGEABLE ORGANICS ANALYSIS, MISC
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6278 SAMPLE TYPE: SOIL

OJECT NO.: 85-048 PROGRAM ELEMENT: NSF
URCE: SOUTH, WOOD PIEDMONT
TY: WILMINGTON STATE: NC

ATION I.D.: SWP-RB-S
ORET STATION NO:

MPLE COLLECTION: START DATE/TIME 01/07/85
MPLE COLLECTION: STOP DATE/TIME 00/00/00

LECTED BY: B HANSEN RECEIVED FROM:
MPLE REC'D: DATE,/TIME 00/00/00 REC'D BY:
ALED:

EMIST:
ALYTICAL METHOD:

SE NO.: 3454 ORG SAMPLE NO: DA496 INORG SAMPLE NO.: MDA422
XTRACT LABORATORY(ORGANIC): UBTL
XTRACT LABORATORY(INORGANIC): WILSON

ARK:
ARK:

PLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS***
IS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
A SHOULD BE LIMITED TO SITE SCREENING.

****

FOOTNOTES***
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

*****ANALYTICAL RESULTS*****

RESULTS IN: UG/KG	COMPOUND NAME
20U	ACETONE
10U	METHYL ETHYL KETONE
5U	CARBON DISULFIDE
10U	METHYL BUTYL KETONE
10U	METHYL ISOBUTYL KETONE
10U	STYRENE
5U	VINYL ACETATE
NA	DICHLORODIFLUOROMETHANE
NA	FLUOROTRICHLOROMETHANE

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

6/14/85 PURGEABLE ORGANICS ANALYSIS
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6277 SAMPLE TYPE: SOIL

ROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
OURCE: SOOTH, WOOD PIEDMONT
ITY: WILMINGTON STATE: NC

TATION I.D.: SWP-BK-S1
TORET STATION NO:

AMPLE COLLECTION: START DATE/TIME 01/07/85
AMPLE COLLECTION: STOP DATE/TIME 00/00/00

OLLECTED BY: B HANSEN. RECEIVED FROM:
AMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
EALED:

HEMIST: MHB
ALYTICAL METHOD:

ASE NO.: 3454 ORG SAMPLE NO: DA495 INORG SAMPLE NO.: MDA421
ONTRACT LABORATORY(ORGANIC): URTL
ONTRACT LABORATORY(INORGANIC): WILSON

EMARK:
EMARK:

MPLE LOG VERIFIED BY: PLB SAMPLE DATA VERIFIED BY: JWT

REMARKS*
HIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
ATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
NA	UG/KG	ACROLEIN
NA	UG/KG	ACRYLONITRILE
5U	UG/KG	CHLOROMETHANE
5U	UG/KG	BROMOMETHANE
5U	UG/KG	VINYL CHLORIDE
5U	UG/KG	CHLOROETHANE
5U	UG/KG	METHYLENE CHLORIDE
5U	UG/KG	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
10U	UG/KG	1,1-DICHLOROETHANE
5U	UG/KG	TRANS-1,2-DICHLOROETHENE
5U	UG/KG	CHLOROFORM
5U	UG/KG	1,2-DICHLOROETHANE
10U	UG/KG	1,1,1-TRICHLOROETHANE
5U	UG/KG	CARBON TETRACHLORIDE
5U	UG/KG	BROMODICHLOROMETHANE
10U	UG/KG	1,2-DICHLOROPROPANE
5U	UG/KG	TRANS-1,3-DICHLOROPROPENE
5U	UG/KG	TRICHLOROETHENE(TRICHLOROETHYLENE)
5U	UG/KG	BENZENE
10U	UG/KG	DIBROMOCHLOROMETHANE
5U	UG/KG	1,1,2-TRICHLOROETHANE
5U	UG/KG	CIS-1,3-DICHLOROPROPENE
11U	UG/KG	2-CHLOROETHYLVINYL ETHER
5U	UG/KG	BROMOFORM
5U	UG/KG	1,1,2,2-TETRACHLOROETHANE
25U	UG/KG	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
10U	UG/KG	TOLUENE
10U	UG/KG	CHLOROBENZENE
5U	UG/KG	ETHYL BENZENE
10U	UG/KG	M-XYLENE
10U	UG/KG	O&P-XYLENE(MIXED)
32	%	MOISTURE

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*FOOTNOTES***
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS
THE ESTIMATED MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

5/14/85 PURGEABLE ORGANICS ANALYSIS, MISC
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6277 SAMPLE TYPE: SOIL

OJECT NO.: 85-048 PROGRAM ELEMENT: NSF
URCE: SOUTH, WOOD PIEDMONT
TY: WILMINGTON STATE: NC

ATION I.D.: SWP-BK-S1
ORET STATION NO:

MPLE COLLECTION: START DATE/TIME 01/07/85
MPLE COLLECTION: STOP DATE/TIME 00/00/00

LLECTED BY: B HANSEN RECEIVED FROM:
MPLE REC'D: DATE,/TIME 00/00/00 REC'D BY:
ALED:

EMIST:
ALYTICAL METHOD:

SE NO.: 3454 ORG SAMPLE NO: DA495 INORG SAMPLE NO.: MDA421
NTRACT LABORATORY(ORGANIC): UBTL
NTRACT LABORATORY(INORGANIC): WILSON

MARK:
MARK:

MPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

*REMARKS***
IS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
TA SHOULD BE LIMITED TO SITE SCREENING.

****

*FOOTNOTES***
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

*****ANALYTICAL RESULTS*****

RESULTS IN: UG/KG	COMPOUND NAME
25U	ACETONE
10U	METHYL ETHYL KETONE
5U	CARBON DISULFIDE
10U	METHYL BUTYL KETONE
10U	METHYL ISOBUTYL KETONE
10U	STYRENE
5U	VINYL ACETATE
NA	DICHLORODIFLUOROMETHANE
NA	FLUOROTRICHLOROMETHANE

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

6/14/85 EXTRACTABLE ORGANIC ANALYSIS
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6279 SAMPLE TYPE: SOIL

ROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
OURCE: SOUTH, WOOD PIEDMONT
ITY: WILMINGTON STATE: NC

TATION I.D.: SWP-JA-C1
:ORET STATION NO:

AMPLE COLLECTION: START DATE/TIME 01/07/85
AMPLE COLLECTION: STOP DATE/TIME 00/00/00

OLLECTED BY: B HANSEN RECEIVED FROM:
AMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
EALED:

HEMIST: MHB
NALYTICAL METHOD:

ASE NO.: 3454 ORG SAMPLE NO: DA497 INORG SAMPLE NO.: MDA423
ONTRACT LABORATORY(ORGANIC): URTL
ONTRACT LABORATORY(INORGANIC): WILSON

EMARK:
EMARK:

AMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS*
HIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
ATA SHOULD BE LIMITED TO SITE SCREENING.

****

FOOTNOTES*
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE ESTIMATED MINIMUM QUANTITATION LIMIT.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
100000U	UG/KG	N-NITROSODIMETHYLAMINE
NA	UG/KG	1,2-DIPHENYLHYDRAZINE/AZOBENZENE
20000U	UG/KG	BENZIDINE
1000U	UG/KG	1,3-DICHLOROBENZENE
1000U	UG/KG	1,4-DICHLOROBENZENE
1000U	UG/KG	1,2-DICHLOROBENZENE
5000U	UG/KG	BIS(2-CHLOROETHYL) ETHER
5000U	UG/KG	HEXACHLOROETHANE
100000U	UG/KG	BIS(2-CHLOROISOPROPYL) ETHER
100000U	UG/KG	N-NITROSODI-N-PROPYLAMINE
2000U	UG/KG	NITROBENZENE
2000U	UG/KG	HEXACHLOROBUTADIENE
2000U	UG/KG	1,2,4-TRICHLOROBENZENE
1000U	UG/KG	NAPHTHALENE
5000U	UG/KG	BIS(2-CHLOROETHOXY) METHANE
2000U	UG/KG	ISOPHORONE
11000U	UG/KG	HEXACHLOROCYCLOPENTADIENE (HCCP)
400J	UG/KG	2-CHLORONAPHTHALENE
1000U	UG/KG	ACENAPHTHYLENE
5000U	UG/KG	ACENAPHTHENE
1000U	UG/KG	DIMETHYL PHTHALATE
1000U	UG/KG	2,4-DINITROTOLUENE
3000U	UG/KG	2,6-DINITROTOLUENE
1000U	UG/KG	4-CHLOROPHENYL PHENYL ETHER
1000U	UG/KG	FLUORENE
3000U	UG/KG	DIETHYL PHTHALATE
2000U	UG/KG	N-NITROSODIPHENLYAMINE/DIPHENYLAMINE
3000U	UG/KG	HEXACHLOROBENZENE (HCB)
3000U	UG/KG	4-BROMOPHENYL PHENYL ETHER
4400	UG/KG	PHENANTHRENE
2000J	UG/KG	ANTHRACENE
5000U	UG/KG	DI-N-BUTYLPHTHALATE
15000	UG/KG	FLUORANTHENE
12000	UG/KG	PYRENE
4000U	UG/KG	BENZYL BUTYL PHTHALATE
3000U	UG/KG	BIS(2-ETHYLHEXYL) PHTHALATE
2700	UG/KG	BENZO(A)ANTHRACENE
3000U	UG/KG	CHRYSENE
20000U	UG/KG	3,3'-DICHLOROBENZIDINE
100000U	UG/KG	DI-N-OCTYLPHTHALATE
5600	UG/KG	BENZO(B AND/OR K)FLUORANTHENE
5600	UG/KG	BENZO(B AND/OR K)FLUORANTHENE
4600	UG/KG	BENZO-A-PYRENE
11000U	UG/KG	INDENO (1,2,3-CD) PYRENE
11000U	UG/KG	DIBENZO(A,H)ANTHRACENE
10000U	UG/KG	BENZO(GHI)PERYLENE
1000U	UG/KG	2-CHLOROPHENOL
2000U	UG/KG	2-NITROPHENOL
5000U	UG/KG	PHENOL
4000U	UG/KG	2,4-DIMETHYLPHENOL
2000U	UG/KG	2,4-DICHLOROPHENOL
1000U	UG/KG	2,4,6-TRICHLOROPHENOL
3000U	UG/KG	4-CHLORO-3-METHYLPHENOL
11000U	UG/KG	2,4-DINITROPHENOL
4000U	UG/KG	2-METHYL-4,6-DINITROPHENOL
4000U	UG/KG	PENTACHLOROPHENOL
12000U	UG/KG	4-NITROPHENOL
7.7	%	MOISTURE

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

06/14/85 EXTRACTABLE ORGANIC ANALYSIS, MISC
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6279 SAMPLE TYPE: SOIL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH. WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-JA-C1
STORET STATION NO:

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE,/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST:
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: DA497 INORG SAMPLE NO.: MDA423
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

****

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

*****ANALYTICAL RESULTS*****

RESULTS IN: UG/KG	COMPOUND NAME
2000U	BENZOIC ACID
10000U	2-METHYLPHENOL
10000U	4-METHYLPHENOL
5000U	2,4,5-TRICHLOROPHENOL
10000U	ANILINE
2000U	BENZYL ALCOHOL
11000U	4-CHLOROANILINE
300J	DIBENZOFURAN
6000U	2-METHYL NAPHTHALENE
2000U	2-NITROANILINE
23000U	3-NITROANILINE
5000U	4-NITROANILINE
7000JN	TETRAHYDRODIMETHYLPYRANONE
3000JN	BENZO(J)FLUORANTHENE

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

06/14/85 EXTRACTABLE ORGANIC ANALYSIS
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6280 SAMPLE TYPE: SOIL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-LA-C2
STORET STATION NO:

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MHB
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: DA498 INORG SAMPLE NO.: MDA424
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

****

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE ESTIMATED MINIMUM QUANTITATION LIMIT.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
8000U	UG/KG	N-NITROSODIMETHYLAMINE
NA	UG/KG	1,2-DIPHENYLHYDRAZINE/AZOBENZENE
13000U	UG/KG	BENZIDINE
1000U	UG/KG	1,3-DICHLOROBENZENE
1000U	UG/KG	1,4-DICHLOROBENZENE
1000U	UG/KG	1,2-DICHLOROBENZENE
5000U	UG/KG	BIS(2-CHLOROETHYL) ETHER
4000U	UG/KG	HEXACHLOROETHANE
8000U	UG/KG	BIS(2-CHLOROISOPROPYL) ETHER
8000U	UG/KG	N-NITROSODI-N-PROPYLAMINE
2000U	UG/KG	NITROBENZENE
4000U	UG/KG	HEXACHLOROBUTADIENE
2000U	UG/KG	1,2,4-TRICHLOROBENZENE
1200	UG/KG	-NAPHTHALENE
2000U	UG/KG	BIS(2-CHLOROETHOXY) METHANE
2000U	UG/KG	ISOPHORONE
12000U	UG/KG	HEXACHLOROCYCLOPENTADIENE (HCCP)
500J	UG/KG	-2-CHLORONAPHTHALENE
1500	UG/KG	-ACENAPHTHYLENE
5000U	UG/KG	ACENAPHTHENE
1000U	UG/KG	DIMETHYL PHTHALATE
2000U	UG/KG	2,4-DINITROTOLUENE
3000U	UG/KG	2,6-DINITROTOLUENE
1000U	UG/KG	4-CHLOROPHENYL PHENYL ETHER
1000U	UG/KG	FLUORENE
3000U	UG/KG	DIETHYL PHTHALATE
2000U	UG/KG	N-NITROSODIPHENLYAMINE/DIPHENYLAMINE
3000U	UG/KG	HEXACHLOROBENZENE (HCB)
3000U	UG/KG	4-BROMOPHENYL PHENYL ETHER
5400	UG/KG	-PHENANTHRENE
5200	UG/KG	-ANTHRACENE
8000U	UG/KG	DI-N-BUTYLPHTHALATE
25000	UG/KG	-FLUORANTHENE
22000	UG/KG	-PYRENE
4000U	UG/KG	BENZYL BUTYL PHTHALATE
3000U	UG/KG	BIS(2-ETHYLHEXYL) PHTHALATE
11000	UG/KG	-BENZO(A)ANTHRACENE
4000U	UG/KG	CHRYSENE
21000U	UG/KG	3,3'-DICHLOROBENZIDINE
10000U	UG/KG	DI-N-OCTYLPHTHALATE
14000	UG/KG	-BENZO(B AND/OR K)FLUORANTHENE
12000	UG/KG	-BENZO(B AND/OR K)FLUORANTHENE
11000	UG/KG	-BENZO-A-PYRENE
12000U	UG/KG	INDENO (1,2,3-CD) PYRENE
12000U	UG/KG	DIBENZO(A,H)ANTHRACENE
7000U	UG/KG	BENZO(GHI)PERYLENE
1000U	UG/KG	2-CHLOROPHENOL
2000U	UG/KG	2-NITROPHENOL
3000U	UG/KG	PHENOL
4000U	UG/KG	2,4-DIMETHYLPHENOL
2000U	UG/KG	2,4-DICHLOROPHENOL
1000U	UG/KG	2,4,6-TRICHLOROPHENOL
3000U	UG/KG	4-CHLORO-3-METHYLPHENOL
12000U	UG/KG	2,4-DINITROPHENOL
4000U	UG/KG	2-METHYL-4,6-DINITROPHENOL
4000J	UG/KG	-PENTACHLOROPHENOL
13000U	UG/KG	4-NITROPHENOL
16	%	MOISTURE

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

06/14/85 EXTRACTABLE ORGANIC ANALYSIS, MISC
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6280 SAMPLE TYPE: SOIL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: 800TH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-LA-C2
STORET STATION NO:

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE,/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST:
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: DA498 INORG SAMPLE NO.: MDA424
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

****

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

*****ANALYTICAL RESULTS*****

RESULTS IN: UG/KG	COMPOUND NAME
2000U	BENZOIC ACID
8000U	2-METHYLPHENOL
8000U	4-METHYLPHENOL
3000U	2,4,5-TRICHLOROPHENOL
11000U	ANILINE
2000U	BENZYL ALCOHOL
12000U	4-CHLOROANILINE
900J	DIBENZOFURAN
7000U	2-METHYL NAPHTHALENE
2000U	2-NITROANILINE
25000U	3-NITROANILINE
5000U	4-NITROANILINE
8000JN	DIMETHYLTETRAHYDROPYRAN-2-ONE
6000JN	BENZO(J)FLUORANTHENE
4000JN	BENZO(GHI)FLUORANTHENE
5000J	2 UNIDENTIFIED POLYNUCLEAR AROMATICS

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

06/14/85 EXTRACTABLE ORGANIC ANALYSIS
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: R5C6281 SAMPLE TYPE: SOIL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-LR-C3
STORET STATION NO:

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MHR
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: DA499 INORG SAMPLE NO.: MDA425
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS*
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

****

*FOOTNOTES***
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS
THE ESTIMATED MINIMUM QUANTITATION LIMIT.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
70000U	UG/KG	N-NITROSODIMETHYLAMINE
NA	UG/KG	1,2-DIPHENYLHYDRAZINE/AZOBENZENE
120000U	UG/KG	BENZIDINE
1000U	UG/KG	1,3-DICHLOROBENZENE
1000U	UG/KG	1,4-DICHLOROBENZENE
1000U	UG/KG	1,2-DICHLOROBENZENE
4000U	UG/KG	BIS(2-CHLOROETHYL) ETHER
4000U	UG/KG	HEXACHLOROETHANE
7000U	UG/KG	BIS(2-CHLOROISOPROPYL) ETHER
6000U	UG/KG	N-NITROSODI-N-PROPYLAMINE
2000U	UG/KG	NITROBENZENE
5000U	UG/KG	HEXACHLOROBUTADIENE
2000U	UG/KG	1,2,4-TRICHLOROBENZENE
1000U	UG/KG	NAPHTHALENE
3000U	UG/KG	BIS(2-CHLOROETHOXY) METHANE
2000U	UG/KG	ISOPHORONE
100000U	UG/KG	HEXACHLOROCYCLOPENTADIENE (HCCP)
400J	UG/KG	2-CHLORONAPHTHALENE
1000J	UG/KG	ACENAPHTHYLENE
5000U	UG/KG	ACENAPHTHENE
1000U	UG/KG	DIMETHYL PHTHALATE
1000U	UG/KG	2,4-DINITROTOLUENE
3000U	UG/KG	2,6-DINITROTOLUENE
1000U	UG/KG	4-CHLOROPHENYL PHENYL ETHER
1000U	UG/KG	FLUORENE
3000U	UG/KG	DIETHYL PHTHALATE
2000U	UG/KG	N-NITROSODIPHENLYAMINE/DIPHENYLAMINE
2000U	UG/KG	HEXACHLOROBENZENE (HCB)
3000U	UG/KG	4-BROMOPHENYL PHENYL ETHER
1400	UG/KG	PHENANTHRENE
2000J	UG/KG	ANTHRACENE
100000U	UG/KG	DI-N-BUTYLPHTHALATE
10000	UG/KG	FLUORANTHENE
10000J	UG/KG	PYRENE
4000U	UG/KG	BENZYL BUTYL PHTHALATE
3000U	UG/KG	BIS(2-ETHYLHEXYL) PHTHALATE
3900	UG/KG	BENZO(A)ANTHRACENE
7100	UG/KG	CHRYSENE
200000U	UG/KG	3,3'-DICHLOROBENZIDINE
100000U	UG/KG	DI-N-OCTYLPHTHALATE
7300	UG/KG	BENZO(B AND/OR K)FLUORANTHENE
6600	UG/KG	BENZO(B AND/OR K)FLUORANTHENE
5800	UG/KG	BENZO-A-PYRENE
200000U	UG/KG	INDENO (1,2,3-CD) PYRENE
100000U	UG/KG	DIBENZO(A,H)ANTHRACENE
100000U	UG/KG	BENZO(GHI)PERYLENE
1000U	UG/KG	2-CHLOROPHENOL
2000U	UG/KG	2-NITROPHENOL
3000U	UG/KG	PHENOL
4000U	UG/KG	2,4-DIMETHYLPHENOL
2000U	UG/KG	2,4-DICHLOROPHENOL
1000U	UG/KG	2,4,6-TRICHLOROPHENOL
3000U	UG/KG	4-CHLORO-3-METHYLPHENOL
11000U	UG/KG	2,4-DINITROPHENOL
4000U	UG/KG	2-METHYL-4,6-DINITROPHENOL
4000U	UG/KG	PENTACHLOROPHENOL
12000U	UG/KG	4-NITROPHENOL
5.8	%	MOISTURE

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-FSD,REG IV
ATHENS GEORGIA

06/14/85 EXTRACTABLE ORGANIC ANALYSIS, MISC
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6281 SAMPLE TYPE: SOIL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-LB-C3
STORET STATION NO:

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE,/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST:
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: DA499 INORG SAMPLE NO.: MDA425
CONTRACT LABORATORY(ORGANIC): URTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
DATA SHOULD BE LIMITED TO SITE SCREENING.

****

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

*****ANALYTICAL RESULTS*****

RESULTS IN: UG/KG	COMPOUND NAME
2000U	BENZOIC ACID
7000U	2-METHYLPHENOL
7000U	4-METHYLPHENOL
2000U	2,4,5-TRICHLOROPHENOL
10000U	ANILINE
2000U	BENZYL ALCOHOL
12000U	4-CHLOROANILINE
300J	DIBENZOFURAN
6000U	2-METHYL NAPHTHALENE
2000U	2-NITROANILINE
22000U	3-NITROANILINE
4000U	4-NITROANILINE
4000JN	BENZO[J]FLUORANTHENE

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

06/14/85

EXTRACTABLE ORGANIC ANALYSIS
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6284 SAMPLE TYPE: SOIL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-LC-C4
STORET STATION NO:

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MHB
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: D4644 INORG SAMPLE NO.: MDA413
CONTRACT LABORATORY(ORGANIC): URTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
DATA SHOULD BE LIMITED TO SITE SCREENING.

****

FOOTNOTES
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*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS
THE ESTIMATED MINIMUM QUANTITATION LIMIT.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
100000U	UG/KG	N-NITROSODIMETHYLAMINE
NA	UG/KG	1,2-DIPHENYLHYDRAZINE/AZOBENZENE
12000U	UG/KG	BENZIDINE
1000U	UG/KG	1,3-DICHLOROBENZENE
1000U	UG/KG	1,4-DICHLOROBENZENE
1000U	UG/KG	1,2-DICHLOROBENZENE
4000U	UG/KG	BIS(2-CHLOROETHYL) ETHER
4000U	UG/KG	HEXACHLOROETHANE
7000U	UG/KG	BIS(2-CHLOROISOPROPYL) ETHER
7000U	UG/KG	N-NITROSODI-N-PROPYLAMINE
2000U	UG/KG	NITROBENZENE
5000U	UG/KG	HEXACHLOROBUTADIENE
2000U	UG/KG	1,2,4-TRICHLOROBENZENE
1000U	UG/KG	NAPHTHALENE
3000U	UG/KG	BIS(2-CHLOROETHOXY) METHANE
2000U	UG/KG	ISOPHORONE
11000U	UG/KG	HEXACHLOROCYCLOPENTADIENE (HCCP)
1000U	UG/KG	2-CHLORONAPHTHALENE
6300	UG/KG	ACENAPHTHYLENE
170000	UG/KG	ACENAPHTHENE
1000U	UG/KG	DIMETHYL PHTHALATE
1000U	UG/KG	2,4-DINITROTOLUENE
3000U	UG/KG	2,6-DINITROTOLUENE
1000U	UG/KG	4-CHLOROPHENYL PHENYL ETHER
170000	UG/KG	FLUORENE
4000U	UG/KG	DIETHYL PHTHALATE
4000U	UG/KG	N-NITROSODIPHENLYAMINE/DIPHENYLAMINE
4000U	UG/KG	HEXACHLOROBENZENE (HCB)
4000U	UG/KG	4-BROMOPHENYL PHENYL ETHER
390000	UG/KG	PHENANTHRENE
170000	UG/KG	ANTHRACENE
6500	UG/KG	DI-N-BUTYLPHTHALATE
29000	UG/KG	FLUORANTHENE
220000	UG/KG	PYRENE
4000U	UG/KG	BENZYL BUTYL PHTHALATE
4000U	UG/KG	BIS(2-ETHYLHEXYL) PHTHALATE
130000	UG/KG	BENZO(A)ANTHRACENE
120000	UG/KG	CHRYSENE
200000U	UG/KG	3,3'-DICHLOROBENZIDINE
100000U	UG/KG	DI-N-OCTYLPHTHALATE
48000	UG/KG	BENZO(B AND/OR K)FLUORANTHENE
45000	UG/KG	BENZO(B AND/OR K)FLUORANTHENE
37000	UG/KG	BENZO-A-PYRENE
10000J	UG/KG	INDENO (1,2,3-CD) PYRENE
11000U	UG/KG	DIBENZO(A,H)ANTHRACENE
9000	UG/KG	BENZO(GHI)PERYLENE
1000U	UG/KG	2-CHLOROPHENOL
2000U	UG/KG	2-NITROPHENOL
4000U	UG/KG	PHENOL
4000U	UG/KG	2,4-DIMETHYLPHENOL
2000U	UG/KG	2,4-DICHLOROPHENOL
2000U	UG/KG	2,4,6-TRICHLOROPHENOL
4000U	UG/KG	4-CHLORO-3-METHYLPHENOL
110000U	UG/KG	2,4-DINITROPHENOL
4000U	UG/KG	2-METHYL-4,6-DINITROPHENOL
150000	UG/KG	PENTACHLOROPHENOL
120000U	UG/KG	4-NITROPHENOL
8.3	%	MOISTURE

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

06/14/85 EXTRACTABLE ORGANIC ANALYSIS, MISC
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6284 SAMPLE TYPE: SOIL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-LC-C4
STORET STATION NO:

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE,/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST:
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: D4644 INORG SAMPLE NO.: MDA413
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
DATA SHOULD BE LIMITED TO SITE SCREENING.

****

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

*****ANALYTICAL RESULTS*****

RESULTS IN: UG/KG	COMPOUND NAME
2000U	BENZOIC ACID
10000U	2-METHYLPHENOL
10000U	4-METHYLPHENOL
3000U	2,4,5-TRICHLOROPHENOL
10000U	ANILINE
2000U	BENZYL ALCOHOL
11000U	4-CHLOROANILINE
110000	DIBENZOFURAN
16000	2-METHYL NAPHTHALENE
2000U	2-NITROANILINE
23000U	3-NITROANILINE
5000U	4-NITROANILINE
10000JN	ETHYLIDENEINDENE
50000JN	DIMETHYLNAPHTHALENE
20000JN	TRIMETHYLNAPHTHALENES
20000JN	XANTHENE
40000JN	METHYLDIBENZOFURAN
20000JN	METHYLFLUORENE
8000JN	DIHYDRONAPHTHOFURAN
70000J	2 UNIDENTIFIED METHYLPHENANTHRENES
70000JN	CYCLOPENTAPHENANTHRENE
100000J	2 UNIDENTIFIED BENZOFLUORENE COMPOUNDS
40000JN	BENZO[B]NAPHTHOTHIOPHENE
40000JN	BENZO[J]FLUORANTHENE
60000J	3 UNIDENTIFIED METHYLPYRENES

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

06/14/85

EXTRACTABLE ORGANIC ANALYSIS
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6278 SAMPLE TYPE: SOIL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-RB-S
STORET STATION NO:

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MHB
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: DA496 INORG SAMPLE NO.: MDA422
CONTRACT LABORATORY(ORGANIC): URTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
DATA SHOULD BE LIMITED TO SITE SCREENING.

****

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
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*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE ESTIMATED MINIMUM QUANTITATION LIMIT.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
400U	UG/KG	N-NITROSODIMETHYLAMINE
NA	UG/KG	1,2-DIPHENYLHYDRAZINE/AZOBENZENE
500U	UG/KG	BENZIDINE
100U	UG/KG	1,3-DICHLOROBENZENE
100U	UG/KG	1,4-DICHLOROBENZENE
100U	UG/KG	1,2-DICHLOROBENZENE
400U	UG/KG	BIS(2-CHLOROETHYL) ETHER
200U	UG/KG	HEXACHLOROETHANE
400U	UG/KG	BIS(2-CHLOROISOPROPYL) ETHER
400U	UG/KG	N-NITROSODI-N-PROPYLAMINE
100U	UG/KG	NITROBENZENE
200U	UG/KG	HEXACHLOROBUTADIENE
100U	UG/KG	1,2,4-TRICHLOROBENZENE
100U	UG/KG	NAPHTHALENE
100U	UG/KG	BIS(2-CHLOROETHOXY) METHANE
60J	UG/KG	ISOPHORONE
400U	UG/KG	HEXACHLOROCYCLOPENTADIENE (HCCP)
19	UG/KG	2-CHLORONAPHTHALENE
30J	UG/KG	ACENAPHTHYLENE
200U	UG/KG	ACENAPHTHENE
100U	UG/KG	DIMETHYL PHTHALATE
100U	UG/KG	2,4-DINITROTOLUENE
100U	UG/KG	2,6-DINITROTOLUENE
100U	UG/KG	4-CHLOROPHENYL PHENYL ETHER
100U	UG/KG	FLUORENE
100U	UG/KG	DIETHYL PHTHALATE
100U	UG/KG	N-NITROSODIPHENLYAMINE/DIPHENYLAMINE
100U	UG/KG	HEXACHLOROBENZENE (HCB)
100U	UG/KG	4-BROMOPHENYL PHENYL ETHER
70	UG/KG	PHENANTHRENE
70J	UG/KG	ANTHRACENE
200U	UG/KG	DI-N-BUTYLPHTHALATE
350	UG/KG	FLUORANTHENE
300J	UG/KG	PYRENE
200U	UG/KG	BENZYL BUTYL PHTHALATE
100U	UG/KG	BIS(2-ETHYLHEXYL) PHTHALATE
78	UG/KG	BENZO(A)ANTHRACENE
160	UG/KG	CHRYSENE
700U	UG/KG	3,3'-DICHLOROBENZIDINE
400U	UG/KG	DI-N-OCTYLPHTHALATE
110	UG/KG	BENZO(B AND/OR K)FLUORANTHENE
100J	UG/KG	BENZO(B AND/OR K)FLUORANTHENE
90J	UG/KG	BENZO-A-PYRENE
400U	UG/KG	INDENO (1,2,3-CD) PYRENE
400U	UG/KG	DIBENZO(A,H)ANTHRACENE
400U	UG/KG	BENZO(GHI)PERYLENE
100U	UG/KG	2-CHLOROPHENOL
100U	UG/KG	2-NITROPHENOL
100U	UG/KG	PHENOL
200U	UG/KG	2,4-DIMETHYLPHENOL
100U	UG/KG	2,4-DICHLOROPHENOL
100U	UG/KG	2,4,6-TRICHLOROPHENOL
100U	UG/KG	4-CHLORO-3-METHYLPHENOL
400U	UG/KG	2,4-DINITROPHENOL
200U	UG/KG	2-METHYL-4,6-DINITROPHENOL
200U	UG/KG	PENTACHLOROPHENOL
500U	UG/KG	4-NITROPHENOL
12	%	MOISTURE

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-FSD,REG IV
ATHENS GEORGIA

6/14/85 EXTRACTABLE ORGANIC ANALYSIS, MISC
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6278 SAMPLE TYPE: SOIL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
ITY: WILMINGTON STATE: NC

STATION I.D.: SWP-RB-S
STORET STATION NO:

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE,/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST:
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: DA496 INORG SAMPLE NO.: MDA422
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS*
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

****

FOOTNOTES*
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
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*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

*****ANALYTICAL RESULTS*****

RESULTS IN: UG/KG	COMPOUND NAME
100U	BENZOIC ACID
400U	2-METHYLPHENOL
400U	4-METHYLPHENOL
100U	2,4,5-TRICHLOROPHENOL
400U	ANILINE
100U	BENZYL ALCOHOL
400U	4-CHLOROANILINE
100U	DIBENZOFURAN
200U	2-METHYL NAPHTHALENE
100U	2-NITROANILINE
800U	3-NITROANILINE
200U	4-NITROANILINE
2000JN	-ACETYLOXYHEXANONE
5000JN	-DIMETHYLFURANONE
10000J	-3 UNIDENTIFIED HYDROCARBONS
30000JN	-1 UNIDENTIFIED BROMINATED COMPOUND

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-FSD,REG IV
ATHENS GEORGIA

06/14/85 EXTRACTABLE ORGANIC ANALYSIS
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6277 SAMPLE TYPE: SOIL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-BK-S:
STORET STATION NO:

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MHB
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: DA495 INORG SAMPLE NO.: MDA421
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

****

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE ESTIMATED MINIMUM QUANTITATION LIMIT.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
400U	UG/KG	N-NITROSODIMETHYLAMINE
NA	UG/KG	1,2-DIPHENYLHYDRAZINE/AZOBENZENE
600U	UG/KG	BENZIDINE
100U	UG/KG	1,3-DICHLOROBENZENE
100U	UG/KG	1,4-DICHLOROBENZENE
100U	UG/KG	1,2-DICHLOROBENZENE
200U	UG/KG	BIS(2-CHLOROETHYL) ETHER
200U	UG/KG	HEXACHLOROETHANE
400U	UG/KG	BIS(2-CHLOROISOPROPYL) ETHER
400U	UG/KG	N-NITROSODI-N-PROPYLAMINE
100U	UG/KG	NITROBENZENE
400U	UG/KG	HEXACHLOROBUTADIENE
100U	UG/KG	1,2,4-TRICHLOROBENZENE
100U	UG/KG	NAPHTHALENE
200U	UG/KG	BIS(2-CHLOROETHOXY) METHANE
80J	UG/KG	ISOPHORONE
500U	UG/KG	HEXACHLOROCYCLOPENTADIENE (HCCP)
24	UG/KG	2-CHLORONAPHTHALENE
100U	UG/KG	ACENAPHTHYLENE
200U	UG/KG	ACENAPHTHENE
100U	UG/KG	DIMETHYL PHTHALATE
100U	UG/KG	2,4-DINITROTOLUENE
100U	UG/KG	2,6-DINITROTOLUENE
100U	UG/KG	4-CHLOROPHENYL PHENYL ETHER
100U	UG/KG	FLUORENE
100U	UG/KG	DIETHYL PHTHALATE
100U	UG/KG	N-NITROSODIPHENLYAMINE/DIPHENYLAMINE
100U	UG/KG	HEXACHLOROBENZENE (HCB)
200U	UG/KG	4-BROMOPHENYL PHENYL ETHER
100U	UG/KG	PHENANTHRENE
100U	UG/KG	ANTHRACENE
200U	UG/KG	DI-N-BUTYLPHTHALATE
300J	UG/KG	FLUORANTHENE
500J	UG/KG	PYRENE
200U	UG/KG	BENZYL BUTYL PHTHALATE
200U	UG/KG	BIS(2-ETHYLHEXYL) PHTHALATE
100U	UG/KG	BENZO(A)ANTHRACENE
200U	UG/KG	CHRYSENE
1000U	UG/KG	3,3'-DICHLOROBENZIDINE
500U	UG/KG	DI-N-OCTYLPHTHALATE
100U	UG/KG	BENZO(B AND/OR K)FLUORANTHENE
200U	UG/KG	BENZO(B AND/OR K)FLUORANTHENE
200U	UG/KG	BENZO-A-PYRENE
500U	UG/KG	INDENO (1,2,3-CD) PYRENE
500U	UG/KG	DIBENZO(A,H)ANTHRACENE
500U	UG/KG	BENZO(GHI)PERYLENE
100U	UG/KG	2-CHLOROPHENOL
100U	UG/KG	2-NITROPHENOL
200U	UG/KG	PHENOL
200U	UG/KG	2,4-DIMETHYLPHENOL
100U	UG/KG	2,4-DICHLOROPHENOL
100U	UG/KG	2,4,6-TRICHLOROPHENOL
200U	UG/KG	4-CHLORO-3-METHYLPHENOL
500U	UG/KG	2,4-DINITROPHENOL
200U	UG/KG	2-METHYL-4,6-DINITROPHENOL
200U	UG/KG	PENTACHLOROPHENOL
600U	UG/KG	4-NITROPHENOL
32	%	MOISTURE

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

)6/14/85 EXTRACTABLE ORGANIC ANALYSIS, MISC
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6277 SAMPLE TYPE: SOIL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-BK-S1
STORET STATION NO:

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE,/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST:
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: DA495 INORG SAMPLE NO.: MDA471
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS*
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

****

FOOTNOTES*
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS
THE MINIMUM DETECTION LIMIT.

*****ANALYTICAL RESULTS*****

RESULTS IN: UG/KG	COMPOUND NAME
100U	BENZOIC ACID
400U	2-METHYLPHENOL
300U	4-METHYLPHENOL
100U	2,4,5-TRICHLOROPHENOL
500U	ANILINE
100U	BENZYL ALCOHOL
500U	4-CHLOROANILINE
100U	DIBENZOFURAN
300U	2-METHYL NAPHTHALENE
100U	2-NITROANILINE
1000U	3-NITROANILINE
200U	4-NITROANILINE
200000J	11 UNIDENTIFIED COMPOUNDS
5000J	1 UNIDENTIFIED BROMINATED COMPOUND
10000JN	DIMETHYLHEPTANONE
20JN	HEXADECANOIC ACID
2000JN	ACETYLOXYHEXANONE
8000JN	DIMETHYLFURANONE

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

06/14/85 PESTICIDES/PCB'S AND OTHER CHLORINATED COMPOUNDS
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6279 SAMPLE TYPE: SOIL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-JA-C1
STORET STATION NO:

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MHB
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: DA497 INORG SAMPLE NO.: MDA423
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS*
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
DATA SHOULD BE LIMITED TO SITE SCREENING,
DATA REPORTED ON DRY WEIGHT BASIS

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
0.5U	UG/KG	ALDRIN
0.5U	UG/KG	HEPTACHLOR
1.0U	UG/KG	HEPTACHLOR EPOXIDE
0.5U	UG/KG	ALPHA-BHC
1.0U	UG/KG	BETA-BHC
0.5U	UG/KG	GAMMA-BHC (LINDANE)
1.0U	UG/KG	DELTA-BHC
0.5U	UG/KG	ENDOSULFAN I (ALPHA)
1.0U	UG/KG	DIELDRIN
1.0U	UG/KG	4,4'-DDT (P,P'-DDT)
2.0U	UG/KG	4,4'-DDE (P,P'-DDE)
4.0U	UG/KG	4,4'-DDD (P,P'-DDD)
0.5U	UG/KG	ENDRIN
1.0U	UG/KG	ENDOSULFAN II (BETA)
33U	UG/KG	ENDOSULFAN SULFATE
10U	UG/KG	CHLORDANE (TECH. MIXTURE) /1
11U	UG/KG	PCB-1242 (AROCLOR 1242)
21U	UG/KG	PCB-1254 (AROCLOR 1254)
33U	UG/KG	PCB-1221 (AROCLOR 1221)
11U	UG/KG	PCB-1232 (AROCLOR 1232)
11U	UG/KG	PCB-1248 (AROCLOR 1248)
11U	UG/KG	PCB-1260 (AROCLOR 1260)
33U	UG/KG	PCB-1016 (AROCLOR 1016)
11U	UG/KG	TOXAPHENE
2.2U	UG/KG	ENDRIN ALDEHYDE
NA	UG/KG	2,3,7,8 TCDD(DIOXIN)
--	UG/KG	CHLORDENE /2
--	UG/KG	ALPHA-CHLORDENE /2
--	UG/KG	GAMMA-CHLORDENE /2
--	UG/KG	1-HYDROXYCHLORDENE /2
--	UG/KG	GAMMA-CHLORDANE /2
--	UG/KG	TRANS-NONACHLOR /2
--	UG/KG	ALPHA-CHLORDANE /2
--	UG/KG	CIS-NONACHLOR /2
10U	UG/KG	METHOXYCHLOR
10U	UG/KG	ENDRIN KETONE
7.7	%	MOISTURE

****

FOOTNOTES*
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*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE ESTIMATED MINIMUM QUANTITATION LIMIT.
1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.
2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

06/14/85 PESTICIDES/PCB'S AND OTHER CHLORINATED COMPOUNDS
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6280 SAMPLE TYPE: SOIL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-LA-C2
STORET STATION NO:

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MHR
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: DA498 INORG SAMPLE NO.: MDA424
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
DATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
0.2U	UG/KG	ALDRIN
0.7U	UG/KG	HEPTACHLOR
0.7U	UG/KG	HEPTACHLOR EPOXIDE
0.4U	UG/KG	ALPHA-BHC
0.7U	UG/KG	BETA-BHC
0.1U	UG/KG	GAMMA-BHC (LINDANE)
0.8U	UG/KG	DELTA-BHC
0.2U	UG/KG	ENDOSULFAN I (ALPHA)
1.1U	UG/KG	DIELDRIN
4U	UG/KG	4,4'-DDT (P,P'-DDT)
0.7U	UG/KG	4,4'-DDE (P,P'-DDE)
1.2U	UG/KG	4,4'-DDD (P,P'-DDD)
0.2U	UG/KG	ENDRIN
6U	UG/KG	ENDOSULFAN II (BETA)
36U	UG/KG	ENDOSULFAN SULFATE
12U	UG/KG	CHLORDANE (TECH. MIXTURE) /1
12U	UG/KG	PCB-1242 (AROCLOR 1242)
24U	UG/KG	PCB-1254 (AROCLOR 1254)
36U	UG/KG	PCB-1221 (AROCLOR 1221)
12U	UG/KG	PCB-1232 (AROCLOR 1232)
12U	UG/KG	PCB-1248 (AROCLOR 1248)
12U	UG/KG	PCB-1260 (AROCLOR 1260)
36U	UG/KG	PCB-1016 (AROCLOR 1016)
12U	UG/KG	TOXAPHENE
7U	UG/KG	ENDRIN ALDEHYDE
NA	UG/KG	2,3,7,8 TCDD(DIOXIN)
--	UG/KG	CHLORDENE /2
--	UG/KG	ALPHA-CHLORDENE /2
--	UG/KG	GAMMA-CHLORDENE /2
--	UG/KG	1-HYDROXYCHLORDENE /2
--	UG/KG	GAMMA-CHLORDANE /2
--	UG/KG	TRANS-NONACHLOR /2
--	UG/KG	ALPHA-CHLORDANE /2
--	UG/KG	CIS-NONACHLOR /2
7U	UG/KG	METHOXYCHLOR
7U	UG/KG	ENDRIN KETONE
16	%	MOISTURE

****

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE ESTIMATED MINIMUM QUANTITATION LIMIT.
1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.
2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

06/14/85 PESTICIDES/PCB'S AND OTHER CHLORINATED COMPOUNDS
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6281 SAMPLE TYPE: SOIL

ROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
OURCE: SOUTH, WOOD PIEDMONT
ITY: WILMINGTON STATE: NC

TATION I.D.: SWP-LR-C3
TORET STATION NO:

AMPLE COLLECTION: START DATE/TIME 01/07/85
AMPLE COLLECTION: STOP DATE/TIME 00/00/00

OLLECTED BY: B HANSEN RECEIVED FROM:
AMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
EALED:

HEMIST: MHB
NALYTICAL METHOD:

ASE NO.: 3454 ORG SAMPLE NO: DA499 INORG SAMPLE NO.: MDA425
ONTRACT LABORATORY(ORGANIC): URTL
ONTRACT LABORATORY(INORGANIC): WILSON

EMARK:
EMARK:

AMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS*
HIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
ATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
0.5U	UG/KG	ALDRIN
0.5U	UG/KG	HEPTACHLOR
1U	UG/KG	HEPTACHLOR EPOXIDE
0.5U	UG/KG	ALPHA-BHC
1U	UG/KG	BETA-BHC
0.5U	UG/KG	GAMMA-BHC (LINDANE)
1U	UG/KG	DELTA-BHC
0.5U	UG/KG	ENDOSULFAN I (ALPHA)
1U	UG/KG	DIELDRIN
5U	UG/KG	4,4'-DDT (P,P'-DDT)
1U	UG/KG	4,4'-DDE (P,P'-DDE)
2U	UG/KG	4,4'-DDD (P,P'-DDD)
0.5U	UG/KG	ENDRIN
1U	UG/KG	ENDOSULFAN II (BETA)
32U	UG/KG	ENDOSULFAN SULFATE
10U	UG/KG	CHLORDANE (TECH. MIXTURE) /1
10U	UG/KG	PCB-1242 (AROCLOR 1242)
30U	UG/KG	PCB-1254 (AROCLOR 1254)
40U	UG/KG	PCB-1221 (AROCLOR 1221)
20U	UG/KG	PCB-1232 (AROCLOR 1232)
20U	UG/KG	PCB-1248 (AROCLOR 1248)
20U	UG/KG	PCB-1260 (AROCLOR 1260)
40U	UG/KG	PCB-1016 (AROCLOR 1016)
20U	UG/KG	TOXAPHENE
3U	UG/KG	ENDRIN ALDEHYDE
NA	UG/KG	2,3,7,8 TCDD(DIOXIN)
--	UG/KG	CHLORDENE /2
--	UG/KG	ALPHA-CHLORDENE /2
--	UG/KG	GAMMA-CHLORDENE /2
--	UG/KG	1-HYDROXYCHLORDENE /2
--	UG/KG	GAMMA-CHLORDANE /2
--	UG/KG	TRANS-NONACHLOR /2
--	UG/KG	ALPHA-CHLORDANE /2
--	UG/KG	CIS-NONACHLOR /2
10U	UG/KG	METHOXYCHLOR
10U	UG/KG	ENDRIN KETONE
5.8	%	MOISTURE

****

FOOTNOTES*
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS
THE ESTIMATED MINIMUM QUANTITATION LIMIT.
1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.
2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-FSD,REG IV
ATHENS GEORGIA

:6/14/85 PESTICIDES/PCB'S AND OTHER CHLORINATED COMPOUNDS
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6284 SAMPLE TYPE: SOIL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-LC-C4
STORET STATION NO:

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MHR
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: D4644 INORG SAMPLE NO.: MDA413
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS*
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW.
DATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
0.5U	UG/KG	ALDRIN
0.5U	UG/KG	HEPTACHLOR
1.0U	UG/KG	HEPTACHLOR EPOXIDE
0.5U	UG/KG	ALPHA-BHC
1.0U	UG/KG	BETA-BHC
0.5U	UG/KG	GAMMA-BHC (LINDANE)
1.0U	UG/KG	DELTA-BHC
0.5U	UG/KG	ENDOSULFAN I (ALPHA)
1.0U	UG/KG	DIELDRIN
5U	UG/KG	4,4'-DDT (P,P'-DDT)
1U	UG/KG	4,4'-DDE (P,P'-DDE)
5U	UG/KG	4,4'-DDD (P,P'-DDD)
0.5U	UG/KG	ENDRIN
1.0U	UG/KG	ENDOSULFAN II (BETA)
33U	UG/KG	ENDOSULFAN SULFATE
10U	UG/KG	CHLORDANE (TECH. MIXTURE) /1
33U	UG/KG	PCB-1242 (AROCLOR 1242)
33U	UG/KG	PCB-1254 (AROCLOR 1254)
33U	UG/KG	PCB-1221 (AROCLOR 1221)
33U	UG/KG	PCB-1232 (AROCLOR 1232)
33U	UG/KG	PCB-1248 (AROCLOR 1248)
33U	UG/KG	PCB-1260 (AROCLOR 1260)
33U	UG/KG	PCB-1016 (AROCLOR 1016)
33U	UG/KG	TOXAPHENE
3U	UG/KG	ENDRIN ALDEHYDE
NA	UG/KG	2,3,7,8 TCDD(DIOXIN)
--	UG/KG	CHLORDENE /2
--	UG/KG	ALPHA-CHLORDENE /2
--	UG/KG	GAMMA-CHLORDENE /2
--	UG/KG	1-HYDROXYCHLORDENE /2
--	UG/KG	GAMMA-CHLORDANE /2
--	UG/KG	TRANS-NONACHLOR /2
--	UG/KG	ALPHA-CHLORDANE /2
--	UG/KG	CIS-NONACHLOR /2
10U	UG/KG	METHOXYCHLOR
10U	UG/KG	ENDRIN KETONE
8.3%	%	MOISTURE

****

FOOTNOTES*
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS
THE ESTIMATED MINIMUM QUANTITATION LIMIT.
1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.
2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

06/14/85 PESTICIDES/PCB'S AND OTHER CHLORINATED COMPOUNDS
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6278 SAMPLE TYPE: SOIL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH. WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-RB-S
STORET STATION NO:

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MHR
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: DA496 INORG SAMPLE NO.: MDA422
CONTRACT LABORATORY(ORGANIC): UBTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
DATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
0.04U	UG/KG	ALDRIN
0.08U	UG/KG	HEPTACHLOR
0.1U	UG/KG	HEPTACHLOR EPOXIDE
0.08U	UG/KG	ALPHA-BHC
0.1U	UG/KG	BETA-BHC
0.04U	UG/KG	GAMMA-BHC (LINDANE)
0.1U	UG/KG	DELTA-BHC
0.04U	UG/KG	ENDOSULFAN I (ALPHA)
0.2U	UG/KG	DIELDRIN
0.6U	UG/KG	4,4'-DDT (P,P'-DDT)
0.1U	UG/KG	4,4'-DDE (P,P'-DDE)
0.2U	UG/KG	4,4'-DDD (P,P'-DDD)
0.04U	UG/KG	ENDRIN
0.1U	UG/KG	ENDOSULFAN II (BETA)
10U	UG/KG	ENDOSULFAN SULFATE
5U	UG/KG	CHLORDANE (TECH. MIXTURE) /1
5U	UG/KG	PCB-1242 (AROCLOR 1242)
5U	UG/KG	PCB-1254 (AROCLOR 1254)
10U	UG/KG	PCB-1221 (AROCLOR 1221)
5U	UG/KG	PCB-1232 (AROCLOR 1232)
5U	UG/KG	PCB-1248 (AROCLOR 1248)
5U	UG/KG	PCB-1260 (AROCLOR 1260)
10U	UG/KG	PCB-1016 (AROCLOR 1016)
5U	UG/KG	TOXAPHENE
0.4U	UG/KG	ENDRIN ALDEHYDE
NA	UG/KG	2,3,7,8 TCDD(DIOXIN)
--	UG/KG	CHLORDENE /2
--	UG/KG	ALPHA-CHLORDENE /2
--	UG/KG	GAMMA-CHLORDENE /2
--	UG/KG	1-HYDROXYCHLORDENE /2
--	UG/KG	GAMMA-CHLORDANE /2
--	UG/KG	TRANS-NONACHLOR /2
--	UG/KG	ALPHA-CHLORDANE /2
--	UG/KG	CIS-NONACHLOR /2
2U	UG/KG	METHOXYCHLOR
2U	UG/KG	ENDRIN KETONE
12	%	MOISTURE

****

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE ESTIMATED MINIMUM QUANTITATION LIMIT.
1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.
2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-ESD,REG IV
ATHENS GEORGIA

06/14/85 PESTICIDES/PCB'S AND OTHER CHLORINATED COMPOUNDS
SEDIMENT/SOIL/SLUDGE(DRY WT)

SAMPLE NO.: 85C6277 SAMPLE TYPE: SOIL

PROJECT NO.: 85-048 PROGRAM ELEMENT: NSF
SOURCE: SOUTH, WOOD PIEDMONT
CITY: WILMINGTON STATE: NC

STATION I.D.: SWP-BK-S1
STORET STATION NO:

SAMPLE COLLECTION: START DATE/TIME 01/07/85
SAMPLE COLLECTION: STOP DATE/TIME 00/00/00

COLLECTED BY: B HANSEN RECEIVED FROM:
SAMPLE REC'D: DATE/TIME 00/00/00 REC'D BY:
SEALED:

CHEMIST: MHR
ANALYTICAL METHOD:

CASE NO.: 3454 ORG SAMPLE NO: DA495 INORG SAMPLE NO.: MDA421
CONTRACT LABORATORY(ORGANIC): URTL
CONTRACT LABORATORY(INORGANIC): WILSON

REMARK:
REMARK:

SAMPLE LOG VERIFIED BY: PLB DATA VERIFIED BY: JWT

REMARKS
THIS DATA HAS NOT BEEN SUBJECTED TO A QC REVIEW,
DATA SHOULD BE LIMITED TO SITE SCREENING.

*****ANALYTICAL RESULTS*****

RESULTS	UNITS	COMPOUND
0.05U	UG/KG	ALDRIN
0.1U	UG/KG	HEPTACHLOR
0.1U	UG/KG	HEPTACHLOR EPOXIDE
0.1U	UG/KG	ALPHA-BHC
0.1U	UG/KG	BETA-BHC
0.1U	UG/KG	GAMMA-BHC (LINDANE)
0.2U	UG/KG	DELTA-BHC
0.05U	UG/KG	ENDOSULFAN I (ALPHA)
0.2U	UG/KG	DIELDRIN
0.7U	UG/KG	4,4'-DDT (P,P'-DDT)
7.4	UG/KG	4,4'-DDE (P,P'-DDE)
5.9	UG/KG	4,4'-DDD (P,P'-DDD)
0.05U	UG/KG	ENDRIN
0.1U	UG/KG	ENDOSULFAN II (BETA)
1U	UG/KG	ENDOSULFAN SULFATE
2.2U	UG/KG	CHLORDANE (TECH. MIXTURE) /1
2.2U	UG/KG	PCB-1242 (AROCLOR 1242)
5.9U	UG/KG	PCB-1254 (AROCLOR 1254)
7.4U	UG/KG	PCB-1221 (AROCLOR 1221)
2.5U	UG/KG	PCB-1232 (AROCLOR 1232)
2.5U	UG/KG	PCB-1248 (AROCLOR 1248)
2.5U	UG/KG	PCB-1260 (AROCLOR 1260)
7.4U	UG/KG	PCB-1016 (AROCLOR 1016)
2.5U	UG/KG	TOXAPHENE
0.5U	UG/KG	ENDRIN ALDEHYDE
NA	UG/KG	2,3,7,8 TCDD(DIOXIN)
--	UG/KG	CHLORDENE /2
--	UG/KG	ALPHA-CHLORDENE /2
--	UG/KG	GAMMA-CHLORDENE /2
--	UG/KG	1-HYDROXYCHLORDENE /2
--	UG/KG	GAMMA-CHLORDANE /2
--	UG/KG	TRANS-NONACHLOR /2
--	UG/KG	ALPHA-CHLORDANE /2
--	UG/KG	CIS-NONACHLOR /2
1.5U	UG/KG	METHOXYCHLOR
1.5U	UG/KG	ENDRIN KETONE
39	%	MOISTURE

****

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES
*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS
THE ESTIMATED MINIMUM QUANTITATION LIMIT.
1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.
2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

1986

P. O. Box 5447
Spartanburg, S. C. 29304

Phone 803/576-7660

Southern Wood Piedmont Company

January 9, 1986

Forest Products Utlization Laboratory
Receiving Station, Mill Street
State College, Mississippi, 39762

Attention: Dr. Gary McGinnis

Dear Dr. McGinnis:

Please analyse the enclosed samples from Wilmington, N.C. for PAH's and Pentachlorophenol. These samples are identified as follows: FPUL#

#6402A----------L/F #1 Riverside Composite	0" - 3"	860120-1	2 g
#6402B----------L/F #1 Riverside Composite	9" - 12"	860120-2	3 g
#6402C----------L/F #1 Riverside Composite	21" - 24"	860120-3	6 g
#6403A----------L/F #2 Officeside Composite	0" - 3"	860120-4	2 g
#6403B----------L/F #2 Officeside Composite	9" - 12"	860120-5	3 g
#6403C----------L/F #2 Officeside Composite	21" - 24"	860120-6	6 g

When reporting the data, please use Southern Wood Piedmont's Identification number in addition to your identification.

If you have any questions, please call.

Sincerely,
Southern Wood Piedmont

Sandra B. Watson

Sandra B. Watson
Environmental Chemist

2298T/SBW/dt

Encl.

CC: M. D. Pruett
C. A. Burdell
E. L. Gibbs

Land Farming Group Time: 1:08:16a
Forest Products Laboratory Date: 02/26/86
Miss. State University

PAH Analyses Results of Site Batch Samples in UG per G

Site ID	Suffix	Day	Ld	Sb	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bz-gh
860120	1	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	29.82	54.541	66.19	0.000	0.000	0.000	0.000	0.000	0.000	0.000
860120	1	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
860120	2	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	72.39	31.35	0.000	0.000	0.000	0.000
860120	2	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
860120	3	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
860120	3	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
860120	4	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	25.32	73.081	229.6	0.000	580.0	842.2	59.01	105.2	0.000	0.000
860120	4	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	34.33	228.41	118.9	0.000	973.3	1106.	262.6	478.8	92.54	0.000
860120	5	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	89.02	154.9	0.000	0.000	0.000	0.000
860120	5	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	79.21	83.48	0.000	0.000	0.000	0.000
860120	6	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	147.3	136.2	0.000	0.000	0.000	0.000
860120	6	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	55.51	110.8	0.000	0.000	0.000	0.000
860120	REC	-0-	-0-	-0	82.800	92.900	111.7	119.9	108.0	112.6	94.30	107.4	134.90	128.4	147.2	148.6	147.2	101.3	99.10	103.0	0.000
860120	RECLEV	-0-	-0-	-0	97.610	106.67	114.5	123.7	107.4	107.9	106.1	106.6	96.220	94.48	122.9	101.6	95.53	95.84	91.60	96.11	16.19
860120	SOILBL	-0-	-0-	-0	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Key:

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bz-ghi = Benzo-ghi-perylene
UG = microgram
Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million

First Reviewer: David A. Stuckel

Second Reviewer: Paul R. Beauregard

Land Farming Group Date: 02/14/84
Forest Products Laboratory Time: 3:00:30p
Miss. State University

PCP Analysis Results in UG per G

SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP
860120	1	-0-	-0-	A	0.0000
860120	1	-0-	-0-	B	0.0000
860120	2	-0-	-0-	A	0.0000
860120	2	-0-	-0-	B	0.0000
860120	3	-0-	-0-	A	0.0000
860120	3	-0-	-0-	B	0.0000
860120	4	-0-	-0-	A	307.64
860120	4	-0-	-0-	B	363.70
860120	5	-0-	-0-	A	35.229
860120	5	-0-	-0-	B	23.979
860120	6	-0-	-0-	A	33.525
860120	6	-0-	-0-	B	27.504
860120	RED	-0-	-0-	-0-	541.97
860120	REDLEV	-0-	-0-	-0-	499.30
860120	SOILBL	-0-	-0-	-0-	0.0000

First Reviewer: Paul R. Beauregard

Second Reviewer: David A. Stetler

[illegible] Forensic Group Time: [illegible]
[illegible] Forensic Laboratory Date: 02/17/86
[illegible] State University

Final Analysis Results for Site or Site-Patch Samples

SITE ID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. D COUNTS	AVG. F COUNTS	AVG. D+F COUNTS	AVG. SBA COUNTS
860103	1	-0-	-0-	A	323333	600000	33333	461666	333333	173000	-0-
860103	5	-0-	-0-	B	320000	473333	13333	211565	416666	425000	-0-

First Reviewer: [signature] Date: 2/17/86

Second Reviewer: [signature] Date: 2/17/86

SOUTHERN WOOD PIEDMONT CO.,
P.O. BOX 450
WILMINGTON, N.C.,
28402--0450

January 21 1986

TO: DR. GARY McGINNIS
MISSISSIPPI STATE UNIVERSITY
FOREST PRODUCT UTILIZATION LAB
P.O. DRAWER FP
STATE COLLEGE
MISSISSIPPI
39762

CREO/SOIL SAMPLES FROM LAND FARM No 1 (riverside) & No 2 (officeside)
Split Composite Samples with Mr C A Burdell SWP Spartanburg, S.C.
Sifted through ¼" & ½" screen C" to 3" -- 9" to 12" -- 21" to 24"
New Application Soil & Fertilizer
SWP Wilmington, N.C. Plant SAMPLES NO 2-3-4-5-6-&7

Contact. Mr. C.A. Burdell
P.O. Box 5447
Spartanburg, S.C.
29304-5447
Phone (803) 576-7660

PHONE (919) 762-9678
HENRY O. PHILLIPS
WILMINGTON, N.C.,

Extraction Procedure:

Clean-up Step:

Derivatization:

Date Analyzed:

Instrument:

Means of Verification:

Total Glassware Rinse: _____ µg

Recoveries (attached): _____ yes _____ no

Spiked-Reference Material (attached) _____ yes _____ no

Received by _____ Assigned to _____

Received by _____ Assigned to _____

Received by _____ Assigned to _____

Received by _____ Assigned to _____

Date of Report _____ by _____

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 0:35:27a
Date: 03/05/96

PAH Analyses Results of Site Batch Samples in UG per G

Site ID	Suffix	Day	Ld	Sb	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bz-ghi
860125	1	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	123.15	335.1	0.000	532.5	395.0	0.000	0.000	0.000	0.000
860125	1	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	173.0	425.23	857.1	0.000	478.5	368.5	0.000	0.000	0.000	0.000
860125	2	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	80.93	0.000	93.38	290.38	427.7	0.000	479.0	369.5	0.000	0.000	0.000	0.000
860125	2	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	34.421	57.86	0.000	391.1	177.9	0.000	0.000	0.000	0.000
860125	3	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	18.92	69.631	88.43	0.000	229.9	135.0	0.000	0.000	0.000	0.000
860125	3	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	31.39	101.17	13.50	0.000	271.1	136.2	0.000	0.000	0.000	0.000
860125	4	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	225.9	696.80	1361.	466.3	375.1	167.6	0.000	0.000	0.000	0.000
860125	4	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	96.46	319.37	493.5	170.3	268.5	171.2	0.000	0.000	0.000	0.000
860125	5	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
860125	5	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	66.00	60.64	0.000	0.000	0.000	0.000
860125	6	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
860125	6	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
860125	REC	-0-	-0-	-0	57.470	84.130	77.90	122.8	77.58	112.4	86.44	100.2	130.00	98.40	92.29	136.9	109.5	78.90	74.90	64.50	0.000
860125	RECLEV	-0-	-0-	-0	97.610	106.67	114.5	123.7	107.4	107.9	106.1	106.6	96.220	94.48	122.9	101.6	95.53	95.84	91.60	96.11	16.19
860125	SOILBL	-0-	-0-	-0	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Key:

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bz-ghi = Benzo-ghi-perylene
UG = microgram
Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million

First Reviewer: David A. Stotler

Second Reviewer: Paul R. Beauregard

Land Farming Group
Forest Products Laboratory
Miss. State University

Date: 02/14/86
Time: 3:22:50p

PCP Analysis Results in UG per G

SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP
860125	1	-0-	-0-	A	20.996
860125	1	-0-	-0-	B	49.802
860125	2	-0-	-0-	A	18.425
860125	2	-0-	-0-	B	21.592
860125	3	-0-	-0-	A	22.621
860125	3	-0-	-0-	B	22.057
860125	4	-0-	-0-	A	0.0000
860125	4	-0-	-0-	B	0.0000
860125	5	-0-	-0-	A	0.0000
860125	5	-0-	-0-	B	0.0000
860125	6	-0-	-0-	A	0.0000
860125	6	-0-	-0-	B	0.0000
860125	REC	-0-	-0-	-0-	462.90
860125	REDLEV	-0-	-0-	-0-	499.30
860125	SOILBL	-0-	-0-	-0-	0.0000

First Reviewer: Paul R. Bennegard

Second Reviewer: David A. Stickel

School of Forest Resources • Division of Agriculture, Forestry, and Veterinary Medicine
MISSISSIPPI STATE UNIVERSITY

DEPARTMENT OF WOOD SCIENCE & TECHNOLOGY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762
PHONE (601) 325-2116

February 18, 1986

Dr. McGinnis:

Results of pH, carbon-to-nitrogen ratio, and total organic carbon, nitrogen, and phosphorus from Wilmington, N.C. are listed below.

SWP#	FPUL#	TOTAL C (μg/g)	TOTAL N (μg/g)	C/N RATIO	TOTAL P (μg/g)	pH
6417A	860125-1	24082	1198	20:10	410	6.61
6416A	860125-4	33385	1905	17:52	712	7.38
6417A	860129-1	28060	1697	16:53	583	6.56
6416A	860129-4	26030	1500	17:35	693	7.43

NOTES:

1. All data reported on oven-dry basis.
2. Samples for nitrogen and phosphorus were digested using micro-Kjeldahl digestion.
3. Nitrogen was determined colorimetrically using nesslerization.
4. Phosphorus was determined colorimetrically using Fiske-Subarrow reagent.
5. Total carbon was determined by acid hydrolysis of soil organic matter and quantification of evolved CO_2.
6. Samples 860125-1 and 860129-1 are identical, as well as 860125-4 and 860129-4.

Sincerely,

Hamid Borazjani

Six soil samples received on 1/25/86.
Sample identifications are:

MFPL #		SWP #	
860125-1	=	LF#2	0-3"
" -2	=	LF#2	9-12"
" -3	=	LF#2	21-24"
" -4	=	LF#1	0-3"
" -5	=	LF#1	9-12"
" -6	=	LF#1	21-24"

Spartanburg, S. C. 29304

Phone 803/576-7660

Southern Wood Piedmont Company

January 27, 1986

Dr. Gary McGinnis
Forest Products Utilization Lab
Receiving Station, Mill Street
State College, MS 39762

Dear Mr. McGinnis:

Enclosed are split soil samples from our Wilmington, N.C. plant site. Please perform analysis for PAH's and Pentachlorophenol. Identify the samples using both our designate and your number system. Sampls are as follows:

Sample #	Description	Sample Depth	FPUL #
6417A	L/F #2 office side - composite sample	0" - 3"	860129-1
6417B	L/F #2 office side - composite sample	9" - 12"	860129-2
6417C	L/F #2 office side - composite sample	21" - 24"	860129-3
	New application of soil and fertilizer		
6416A	L/F #1 Riverside - Composite sample	0" - 3"	860129-4
6416B	L/F #1 Riverside - Composite sample	9" - 12"	860129-5
6416C	L/F #1 Riverside - Composite sample	21" - 24"	860129-6
	New application of soil and fertilizer		

Sincerely
Southern Wood Piedmont

Jack E. Treadman, II
Manager Research and Development

OT/JET/dm

M. D. Pruett
C. A. Burdell
E. L. Gibbs

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 0:04:46a
Date: 02/14/86

PAH Analyses Results of Site Batch Samples in UG per G

Site ID	Suffix	Day	Ld	Sb	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bz-gh
860129	1	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	280.5	630.00	1119.	494.2	515.3	595.3	64.74	63.16	0.000	0.000
860129	1	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	71.579	91.58	0.000	241.1	313.7	0.000	0.000	0.000	0.000
860129	2	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	32.59	130.73	45.77	0.000	414.1	286.0	0.000	0.000	0.000	0.000
860129	2	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	19.19	133.29	115.5	0.000	486.7	350.8	0.000	0.000	0.000	0.000
860129	3	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	32.18	101.12	54.24	0.000	227.2	219.2	20.59	34.57	0.000	0.000
860129	3	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	35.48	174.11	106.5	0.000	392.7	264.4	35.85	92.11	0.000	0.000
860129	4	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	83.253	311.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
860129	4	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	239.55	309.4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
860129	5	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
860129	5	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
860129	6	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
860129	6	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
860129	REC	-0-	-0-	-0	84.830	91.410	117.4	121.6	121.0	109.7	82.73	91.22	104.10	108.7	115.7	127.7	123.8	90.86	95.95	71.23	0.000
860129	RECLEV	-0-	-0-	-0	97.610	106.67	114.5	123.7	107.4	107.9	106.1	106.6	96.220	94.48	122.9	101.6	95.53	95.84	91.60	96.11	16.19
860129	SOILBL	-0-	-0-	-0	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Key:

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bz-ghi = Benzo-ghi-perylene
UG = microgram
Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million

First Reviewer: David Stratch

Second Reviewer: Paul R. Beauregard

Land Farming Group
Forest Products Laboratory
Miss. State University

Date: 02/14/86
Time: 3:08:11a

PCP Analysis Results in UG per G

SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP
860127	1	-0-	-0-	A	73.174
860127	1	-0-	-0-	B	71.732
860127	2	-0-	-0-	A	24.774
860127	2	-0-	-0-	B	27.132
860127	3	-0-	-0-	A	23.821
860127	3	-0-	-0-	B	33.285
860127	4	-0-	-0-	A	0.0000
860127	4	-0-	-0-	B	0.0000
860127	5	-0-	-0-	A	0.0000
860127	5	-0-	-0-	B	0.0000
860127	6	-0-	-0-	A	0.0000
860127	6	-0-	-0-	B	0.0000
860127	REC	-0-	-0-	-0-	457.53
860127	RECLEV	-0-	-0-	-0-	499.30
860127	SOILBL	-0-	-0-	-0-	0.0000

First Reviewer: Paul R. Beauregard

Second Reviewer: David A. Stirtel

Land Farming Group Time: 1:59:46p
Forest Products Laboratory Date: 02/10/86
Miss. State University

Micro. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. FDA COUNTS	AVG. FDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SSA COUNTS
850129	1	-0-	-0-	A	616666	1100000	15000	716666	465333	360000	-0-
850129	4	-0-	-0-	A	2033333	1983333	93333	876666	325000	331666	-0-

First Reviewer: Barry M. Alert Date: 2/10/86

Second Reviewer: Dina M. Kennedy Date: 2/10/86

FROM SOUTHERN WOOD DIEDMONT CO,
P.O. BOX 450
WILMINGTON, N.C.,
28402-0450

February 11-1986

TO: DR. GARY McGINNIS
MISSISSIPPI STATE UNIVERSITY
FOREST PRODUCT UTILIZATION LAB
P.O. DRAWER FP
STATE COLLEGE,
MISSISSIPPI

39762

CREO/SOIL SAMPLES FROM LAND FARM No 1 (Riverside) & No. 2 (Office side)
Split Composite samples with Mr. C.A. Burdell, SWP Spartanburg, S.C.
Sifted through ½" & ½" screen 0" to 3"--9" to 12" --- 21" to 24"
SWP Plant Wilmington, N.C. Samples No 8-9-10-11-12-13

Contact: MR. C.A. BURDELL
P.O. BOX 5447
SPARTANBURG, S.C
29304-5447
Phone 803-576-7660

HENRY O. PHILLIPS
WILMINGTON, N.C., PLANT
Phone 919-762-9678

Six soil samples received on 2/18/86
Sample identifications are:

MFPL#		SWP#
860218-1	=	LF#1 0-3"
" -2	=	LF#1 9-12"
" -3	=	LF#1 21-24"
" -4	=	LF#2 0-3"
" -5	=	LF#2 9-12"
" -6	=	LF#2 21-24"

NO PCP data found

Land Farming Group Time: 1:14:32a
Forest Products Laboratory Date: 03/05/86
Miss. State University

AH Analyses Results of Site Batch Samples in UG per G

Site ID	Suffix	Day	Ld	Sb	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bz-gh
B6021B	1	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	82.037	113.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000
B6021B	1	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	86.323	195.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
B6021B	2	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
B6021B	2	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
B6021B	3	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
B6021B	3	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
B6021B	4	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	94.305	330.1	0.000	992.1	877.9	89.34	129.7	0.000	0.000
B6021B	4	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	86.239	153.2	0.000	784.8	732.7	76.93	96.79	0.000	0.000
B6021B	5	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
B6021B	5	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
B6021B	6	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
B6021B	6	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
B6021B	REC	-0-	-0-	-0	44.600	82.200	104.8	118.2	127.3	116.9	90.30	109.3	138.70	147.1	162.6	173.2	171.9	111.7	133.0	94.30	0.000
B6021B	RECLEV	-0-	-0-	-0	97.610	106.67	114.5	123.7	107.4	107.9	106.1	106.6	96.220	94.48	122.9	101.6	93.53	98.54	91.60	96.11	16.19
B6021B	SOILBL	-0-	-0-	-0	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Key:

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
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Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bz-ghi = Benzo-ghi-perylene
UG = microgram
Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million

First Reviewer: David A. Stirlet

Second Reviewer: Paul R. Beauregard

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 9:41:20a
Date: 03/10/86

Micro. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. FDA COUNTS	AVG. FDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS
860218	1	-0-	-0-	A	1916666	1966666	50000	1300000	255000	221666	-0-
860218	4	-0-	-0-	A	1083333	966666	16666	615000	298333	316666	-0-

First Reviewer: Bonny Alcorn Date: 3/11/86

Second Reviewer: Date:

MISSISSIPPI STATE UNIVERSITY

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762
PHONE (601) 325-2116

March 11, 1986

Dr. McGinnis,

Listed below are the cloride ion concentrations, pH, c/n ratio, and total organic carbon, nitrogen, and phosphorus from Wilmington, NC.

	C g/g	N g/g	P g/g	C/N	CL µg/g	pH
860218 - 1	41040	1125	222.1	36.48	22	7.41
860218 - 4	53760	1503	244.6	35.77	49	7.36

Thanks,

Boreny Hamid

Hamid

Phone 803/576-766

Southern Wood Piedmont Company

March 7, 1986

Dr. Gary McGinnis
Forest Products Utilization Lab
Receiving Station, Mill Street
State College, MS 39762

Dear Mr. McGinnis:

Enclosed are split soil samples from our Wilmington, N.C. plant site. Please perform analysis for PAH's and Pentachlorophenol. Identify the samples using both our designate and your number system. Sampls are as follows:

	Sample #	Description	Sample Depth
860318-1	6495A & ~~6463A~~	L/F #2 office side - composite sample	0" - 3"
860318-2	6495B & ~~6463B~~	L/F #2 office side - composite sample	9" - 12"
860318-3	6495C & 6463C	L/F #2 office side - composite sample	21" - 24"
860318-4	6494A & ~~6462~~A	L/F #1 Riverside - Composite sample	0" - 3"
860318-5	6494B & ~~6462~~B	L/F #1 Riverside - Composite sample	9" - 12"
860318-6	6494C & ~~6462~~C	L/F #1 Riverside - Composite sample	21" - 24"

NO PCP data enclosed

Sincerely
Southern Wood Piedmont

Jack E. Treadman, II
Manager Research and Development

2380T/JET/cag

CC: M. D. Pruett
C. A. Burdell
E. L. Gibbs

Land Farming Group Time: 6:45:46p
Forest Products Laboratory Date: 04/21/86
Mi[illegible] State University

PAH Analyses Results of Site Batch Samples in UG per G

Site ID	Suffix	Day	Ld	Sb	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bz-gh
860318	1	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	49.13	80.406	255.2	7.201	236.3	250.6	49.93	124.9	40.09	0.000
860318	1	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	11.89	0.000	20.73	78.803	79.12	9.862	474.3	391.2	96.28	232.4	49.69	0.000
860318	2	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	10.03	26.768	101.5	0.000	155.9	206.3	28.58	64.80	28.53	0.000
860318	3	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
860318	3	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	17.53	13.04	0.000	0.000	0.000	0.000
860318	4	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	61.10	129.45	470.3	114.4	247.1	247.9	0.000	33.23	0.000	0.000
860318	4	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	18.82	63.246	321.7	91.68	191.0	235.5	0.000	17.98	0.000	0.000
860318	5	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	15.272	110.1	0.000	51.18	28.59	0.000	0.000	0.000	0.000
860318	5	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	35.75	20.69	0.000	0.000	0.000	0.000
860318	6	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	6.557	0.000	15.11	2.611	5.543	16.33	0.000	0.000
860318	6	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
860318	REC	-0-	-0-	-0	69.800	81.800	100.7	107.9	102.4	100.9	115.8	103.5	90.900	107.4	107.8	101.7	105.6	81.00	80.60	85.90	0.000
860318	RECLEV	-0-	-0-	-0	97.610	106.67	114.5	123.7	107.4	107.9	106.1	106.6	96.220	94.48	122.9	101.6	95.53	95.84	91.60	96.11	16.19
860318	SOILBL	-0-	-0-	-0	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Key:

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1[illegible] = 1-Methylnaphthalene
B[illegible] = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bz-ghi = Benzo-ghi-perylene
UG = microgram
Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million

First Reviewer: David A. Stakel

Second Reviewer:

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 3:34:16p
Date: 03/24/86

Micro. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS
860318	1	-0-	-0-	A	380000	630000	15000	943333	890000	740000	-0-
860318	4	-0-	-0-	A	557500	1773333	50000	680000	490000	625000	-0-

First Reviewer: Barry A Cook Date: 3/26/86

Second Reviewer: Diane M Kennedy Date: 3/26/86

School of Forest Resources • Division of Agriculture, Forestry, and Veterinary Medicine
MISSISSIPPI STATE UNIVERSITY

DEPARTMENT OF WOOD SCIENCE & TECHNOLOGY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762
PHONE (601) 325-2116

March 26, 1986

Dr. McGinnis,

Listed below are the chloride ion concentration, pH, c/n ratio, and total organic carbon, nitrogen, and phosphorus from Wilmington Landfarming units.

Sample ID	Total C $\mu g/g$	Total N $\mu g/g$	C/N Ratio
860318 - 1	36475	1002	36.4
860318 - 4	35957	1175	30.6

Total P $\mu g/g$	cl $\mu g/g$	pH
290.0	34	7.02
397.5	30	7.41

Thanks,
Hamid

MISSISSIPPI STATE UNIVERSITY

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762
PHONE (601) 325-2116

May 23, 1986

Mr. Charles Burdell
Southern Wood Piedmont
P. O. Box 5447
Spartanburg, SC 29304

Dear Charles:

Please find enclosed the information on soil samples from your Wilmington facility. The sample designations are as follows:

860415 - (1-3) = LF#1, 6523 (A-C)
860415 - (4-6) = LF#2, 6524 (A-C)

In comparison with results from previous samples (6494 A-C and 6495 A-C), there appears to have been significant PAH reduction, particularly in LF#1. For LF#2, PAH reduction appears to be significant in the upper layer for most components except for Fluoranthene and Pyrene. Increased levels of some PAH's have been detected in the second and third levels of LF#2. For LF#1, the second and third levels show major reductions in PAH's that were previously present. The third level of LF#1 produced very few detectable PAH's and appears relatively clear.

PCP analysis indicates major reduction of pentachlorophenol in LF#1, 0-3". Although PCP was detected at 9-12" and 21-24" in LF#1, the levels are similar to previous values. It appears that you have loaded PCP sludge onto LF#2 for this set of samples.

Bacteria counts for LF#1 (0-3") are up for ACA, PDA, PDAA, and creosote amended agar. Interestingly, bacteria counts are down for media amended with PCP or PCP + creosote (PCP amended bacteria may be starving out due to reduced levels of PCP).

Bacteria counts for LF#2 (0-3") are up for creosote amended media; relatively unchanged for ACA and PCP amended media, and down for PDA, PDAA, and C + P media (possibly due to initial toxicity of PCP sludge addition).

The C/N ratio for both units has been reduced significantly due primarily to a jump in nitrogen content (I'm assuming that you added more fertilizer). Phosphorous levels are about the same. Chlorine levels are down significantly for LF#1; and up slightly for LF#2 (again possibly due to PCP sludge addition).

The pH levels are up for LF#1 and down slightly for LF#2.

I hope that this information is helpful to you. We apologize for the slight delay. Further results (6586 and 6587) are getting priority treatment and will be finalized shortly. Please call if you have any questions about these results.

Sincerely,

David A. Strobel

David A. Strobel
Research Assistant II

/sl

enclosure

cc: Dr. G. D. McGinnis

Land Farming Group Time: 0:03:55a
Forest Products Laboratory Date: 05/14/86
Miss. State University

PAH Analyses Results of Site Batch Samples in UG per G

Site ID	Suffix	Day	Ld	Sb	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bz-gh
860415	1	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	26.50	47.556	238.0	0.000	52.53	54.49	15.87	26.45	0.000	0.000
860415	1	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	31.634	154.5	0.000	108.4	86.23	14.49	18.51	0.000	0.000
860415	2	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	2.498	0.000	24.39	24.58	2.567	15.80	0.000	0.000
860415	2	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	4.873	0.000	22.94	25.75	4.150	13.17	0.000	0.000
860415	3	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	4.9564	30.89	0.000	0.000	0.000	0.000	0.000	0.000	0.000
860415	3	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
860415	4	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	24.42	54.377	219.7	62.53	202.8	224.6	41.98	95.16	42.52	0.000
860415	4	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	30.23	67.972	239.8	61.45	233.3	212.6	51.82	116.4	63.08	0.000
860415	5	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	10.47	26.130	138.3	44.19	52.20	64.36	10.19	29.83	22.76	0.000
860415	5	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	3.149	9.0598	25.22	0.000	38.67	47.78	12.62	28.17	16.02	0.000
860415	6	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	4.6903	21.23	0.000	15.91	19.30	3.031	9.652	7.548	0.000
860415	6	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	3.726	9.5359	30.11	0.000	40.15	40.54	5.598	12.76	7.548	0.000
860415	REC	-0-	-0-	-0	3.7700	3.8600	11.00	11.00	12.50	13.80	14.70	15.60	16.600	15.30	10.40	20.80	24.80	20.60	17.90	13.80	0.000
860415	RECLEV	-0-	-0-	-0	9.7610	10.667	11.45	12.37	10.74	10.79	10.61	10.66	9.6220	9.448	12.28	10.16	9.553	9.584	9.160	9.611	1.619
860415	SOILBL	-0-	-0-	-0	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Key:

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bz-ghi = Benzo-ghi-perylene
UG = micrograms
Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million

First Reviewer: David A. Stokel

Second Reviewer:

Land Farming Group
Forest Products Laboratory
Miss. State University

Date: 05/13/86
Time: 8:34:08p

PCP Analysis Results in UG per G

SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP
860415	1	-0-	-0-	A	40.436
860415	1	-0-	-0-	B	42.674
860415	2	-0-	-0-	A	23.222
860415	2	-0-	-0-	B	20.524
860415	3	-0-	-0-	A	13.447
860415	3	-0-	-0-	B	14.176
860415	4	-0-	-0-	A	161.72
860415	4	-0-	-0-	B	213.60
860415	5	-0-	-0-	A	46.506
860415	5	-0-	-0-	B	40.217
860415	6	-0-	-0-	A	23.338
860415	6	-0-	-0-	B	32.820
860415	REC	-0-	-0-	-0-	79.565
860415	RECLEV	-0-	-0-	-0-	56.791
860415	SOILBL	-0-	-0-	-0-	0.0000

First Reviewer: Paul R. Beauregard

Second Reviewer: David A. Stratel

Land Farming Group
Forest Products Laboratory
Miss. State University

Date: 05/13/86
Time: 8:44:01p

Weight and Moisture Content Data

Site I.D.	Suffix	Day	Load	Sub.	Moist soil Wt.	% Moisture	Dry Weight
860415	1	-0-	-0-	A	2.00000	5.48000	1.89040
860415	1	-0-	-0-	B	2.00000	5.48000	1.89040
860415	2	-0-	-0-	A	4.00000	6.62000	3.73520
860415	2	-0-	-0-	B	4.00000	6.62000	3.73520
860415	3	-0-	-0-	A	6.00000	7.19000	5.56860
860415	3	-0-	-0-	B	6.00000	7.19000	5.56860
860415	4	-0-	-0-	A	2.00000	8.05000	1.83900
860415	4	-0-	-0-	B	2.00000	8.05000	1.83900
860415	5	-0-	-0-	A	4.00000	9.49000	3.62040
860415	5	-0-	-0-	B	4.00000	9.49000	3.62040
860415	6	-0-	-0-	A	6.00000	13.6600	5.18040
860415	6	-0-	-0-	B	6.00000	13.6600	5.18040
860415	REC	-0-	-0-	-0-	10.0000	0.00000	10.0000
860415	RECLEV	-0-	-0-	-0-	10.0000	0.00000	10.0000
860415	SOILBL	-0-	-0-	-0-	10.0000	0.00000	10.0000

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 2:33:12p
Date: 04/21/86

Micro. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS
860415	1	-0-	-0-	A	1361666	1683333	33333	1863333	440000	425000	-0-
860415	4	-0-	-0-	A	570000	1016666	8333	900000	435000	533333	-0-

First Reviewer: [illegible] Date: 4/21/86

Second Reviewer: [illegible] Date: 4/21/86

MISSISSIPPI STATE UNIVERSITY

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762
PHONE (601) 325-2116

April 24, 1986

Dr. Gary McGinnis
Forest Products Laboratory
Starkville, MS 39762

Dear Dr. McGinnis

Listed below are the chloride ion concentration, PH, C/N ratio, and total organic carbon, nitrogen and phosphorus results from Wilmington N.C.

Sample ID	C ug/g	N ug/g	P ug/g	C/N	CL ug/g	PH
860415-1	31697	1933	283.3	16.39	4	7.54
860415-2	----	----	----	----	3.6	8.26
860415-3	----	----	----	----	3.2	7.63
860415-4	44775	1792	354.1	24.98	38	7.08
860415-5	----	----	----	----	22	6.80
860415-6	----	----	----	----	11.6	6.64

Boraz Alcut

BY: Hamid Borazjani

/sjl

860509

MISSISSIPPI STATE UNIVERSITY

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762
PHONE (601) 325-2116

June 12, 1986

Mr. Charles Burdell
Southern Wood Piedmont
P. O. Box 5447
Spartanburg, SC 29304

Dear Mr. Burdell:

Please find enclosed the information on soil samples from your Wilmington facility. The sample designations are as follows:

860509 - (1-3) = LF#1, 6586 (A-C)
860509 - (4-6) = LF#2, 6587 (A-C)

In comparison with previous samples (6523 A-C and 6524 A-C), PAH levels are up for all three levels of LF#1, up for the top two levels of LF#2, and down or unchanged for the third level of LF#2. If all sample identifications are correct, then there appears to have been significant PAH migration into the second levels of both sites, particularly for LF#2. The first eight PAH's in our screening list are higher in concentration in the second level of LF#2 than in the first level. Since these compounds are slightly more water soluble when compared to the higher molecular weight PAH's, migration is a possible explanation. The latter nine PAH's in our list are present in the second level of LF#2 in concentrations equal to or slightly less than those in the first level. Heavy rainfall and/or over-tillage could explain this phenomena.

Pentachlorophenol analysis indicates further reduction of existing levels of PCP at all three levels of LF#1. For LF#2, PCP levels are down for the first and third levels, and up by a factor of ten in the second level. Again, if the sample ID's are correct, then significant migration has occurred into the 2nd level of LF#2.

For LF#1, top level, bacteria counts are up significantly for creosote, PCP, and creosote + PCP amended media. Bacteria counts are up slightly for PDA and PDAA media and about the same for ACA media.

For LF#2, top level, bacteria counts are up for creosote, PCP, creosote + PCP, PDA, and PDAA media. Bacteria counts are about the same for ACA media.

The C/N ratio has risen above 30 for the upper levels of both sites. Carbon is down slightly for LF#1 and down significantly for LF#2. Nitrogen is down significantly for both sites. Phosphorous is down for both sites by a factor of two or better. Chloride levels are

up for both sites by a factor of five or better. The pH levels for both sites are relatively unchanged.

I hope that this information is helpful. Future samples will receive priority treatment and should reduce the turnaround time. Please call if you have any questions about these results.

Sincerely,

David A. Strobel

David A. Strobel
Research Assistant II

/sl

enclosure

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 0:18:08a
Date: 06/13/86

PAH Analyses Results of Site Batch Samples in UG per G

Site ID	Suffix	Day	Ld	Sb	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
860509	1	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	18.70	13.40	51.62	167.55	391.85	160.0	249.7	219.4	46.37	41.73	21.51	0.00
860509	1	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	18.27	10.86	35.13	118.53	230.25	97.83	273.5	227.5	63.24	72.42	26.92	0.00
860509	2	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	2.310	2.690	0.000	18.023	8.5528	0.000	53.15	50.99	3.696	21.15	3.022	0.00
860509	2	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	15.54	14.38	23.12	47.216	144.88	22.20	294.6	224.7	45.06	52.34	10.79	0.00
860509	3	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	3.658	3.498	17.169	34.267	13.17	24.68	25.57	6.995	12.54	5.202	0.00
860509	3	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	3.338	8.061	30.716	57.349	23.79	23.44	23.79	5.948	11.98	5.025	0.00
860509	4	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	25.67	12.21	32.73	77.608	114.51	44.18	222.0	232.3	77.61	93.35	26.76	0.00
860509	4	-0-	-0-	B	0.0000	13.785	0.000	0.000	0.000	26.97	36.90	92.80	234.99	340.82	156.8	289.8	297.9	98.77	116.7	29.41	0.00
860509	5	-0-	-0-	A	4.9673	16.539	10.27	1.715	20.78	108.2	52.45	129.3	173.16	87.690	31.64	316.4	263.9	64.66	65.49	16.37	0.00
860509	5	-0-	-0-	B	2.6085	15.707	8.797	1.923	20.51	112.4	89.91	113.5	238.10	182.32	49.95	320.5	264.5	67.71	71.32	17.65	0.00
860509	6	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	3.4074	3.0000	0.000	19.81	21.30	10.00	9.815	3.704	0.00
860509	6	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	6.3704	4.4074	0.000	21.67	27.59	4.333	4.093	3.926	0.00
860509	REC	-0-	-0-	-0	8.6400	9.1200	13.10	15.90	16.80	17.70	18.10	19.10	19.900	17.900	22.60	21.70	20.70	9.360	12.40	14.20	0.00
860509	RECLEV	-0-	-0-	-0	9.7610	10.667	11.45	12.37	10.74	10.79	10.61	10.66	9.6220	9.4480	12.28	10.16	9.553	9.584	9.160	9.611	1.62
860509	SOILBL	-0-	-0-	-0	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.00

Key:

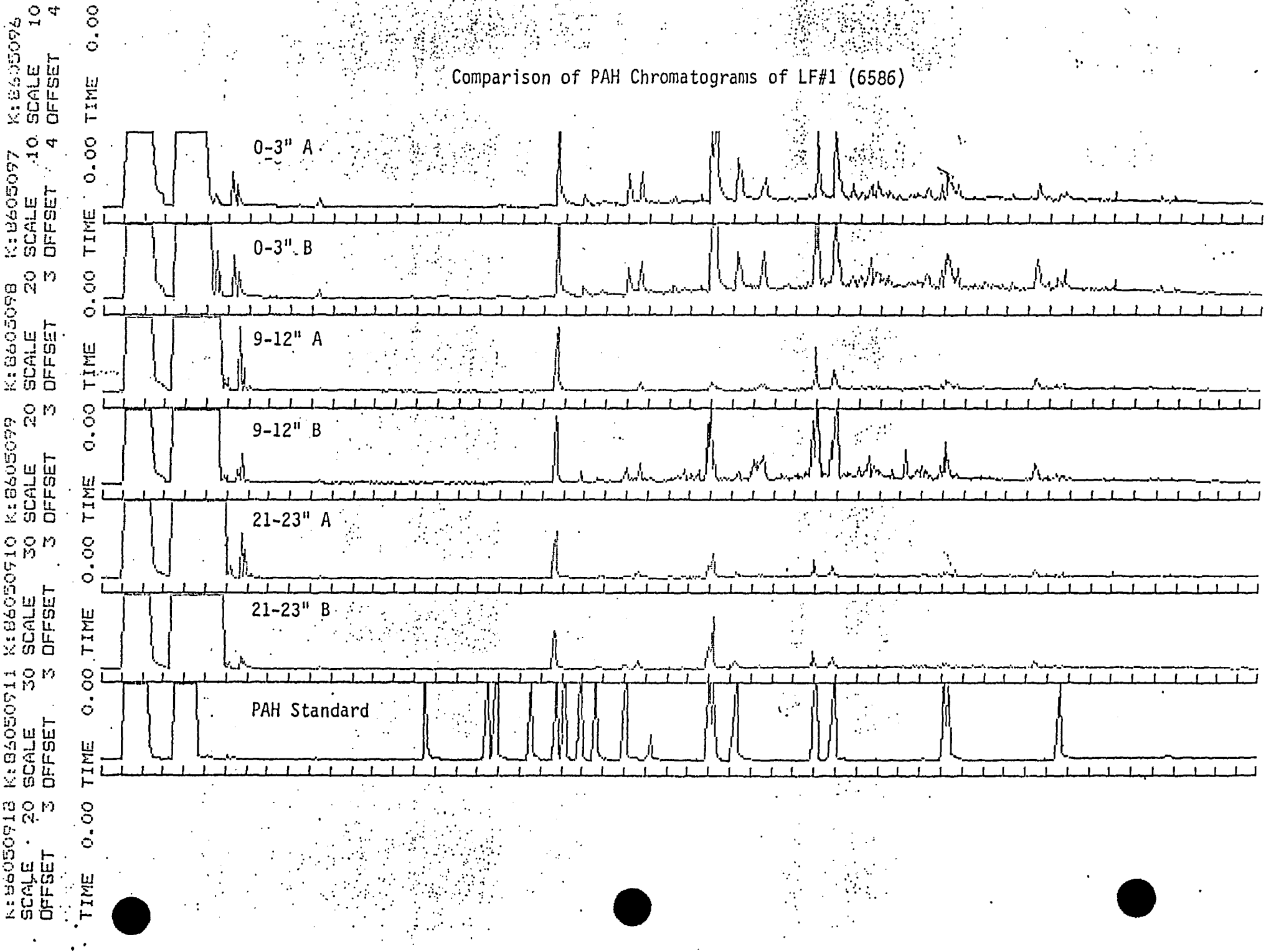
Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit

Note: Values of 0.000 indicate None Detected down to the specified Method Detection Limit (MDL)

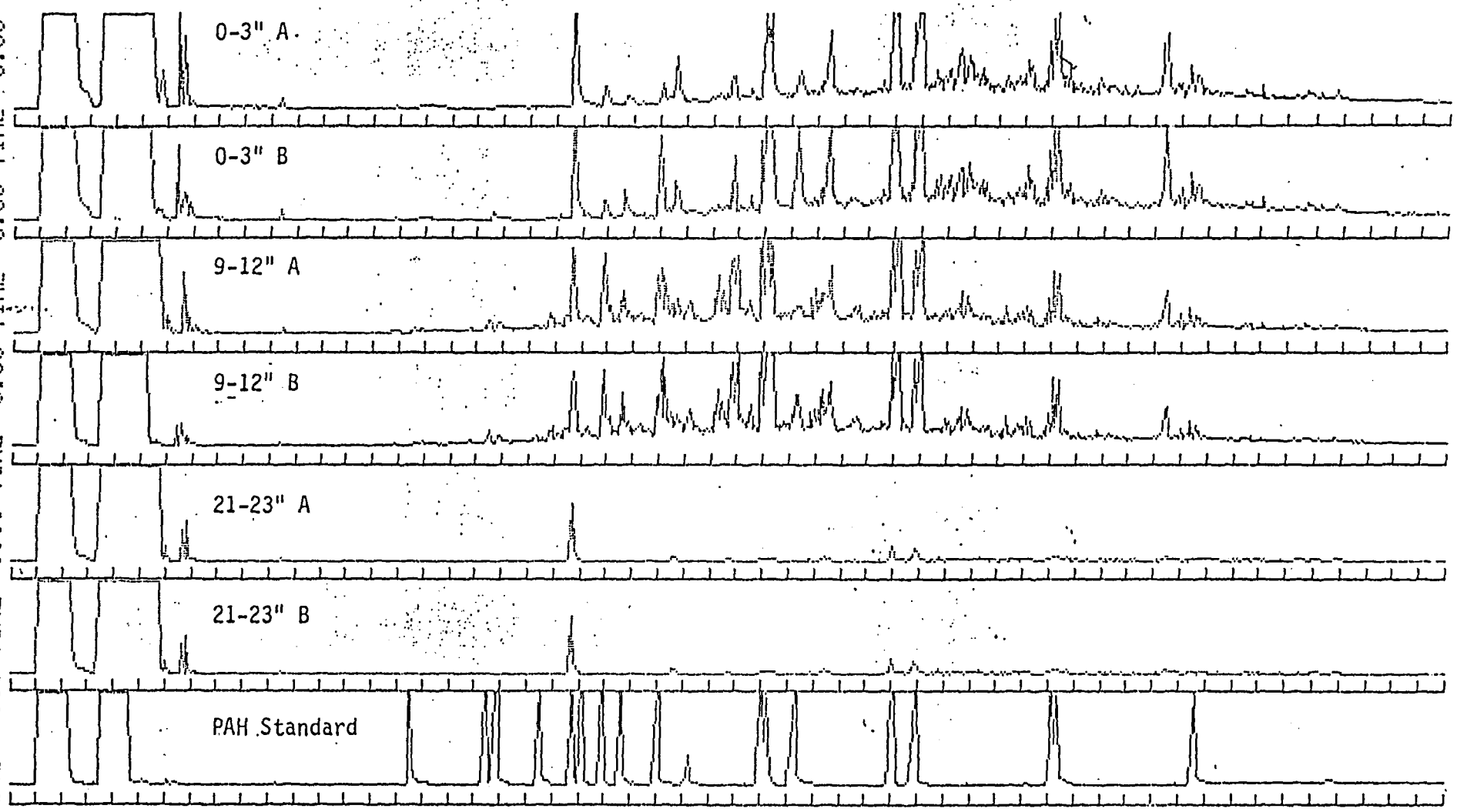
First Reviewer: David A. Stokel

Second Reviewer:

Comparison of PAH Chromatograms of LF#1 (6586)



Comparison of PAH Chromatograms of LF#2 (6587)



Land Farming Group
Forest Products Laboratory
Miss. State University

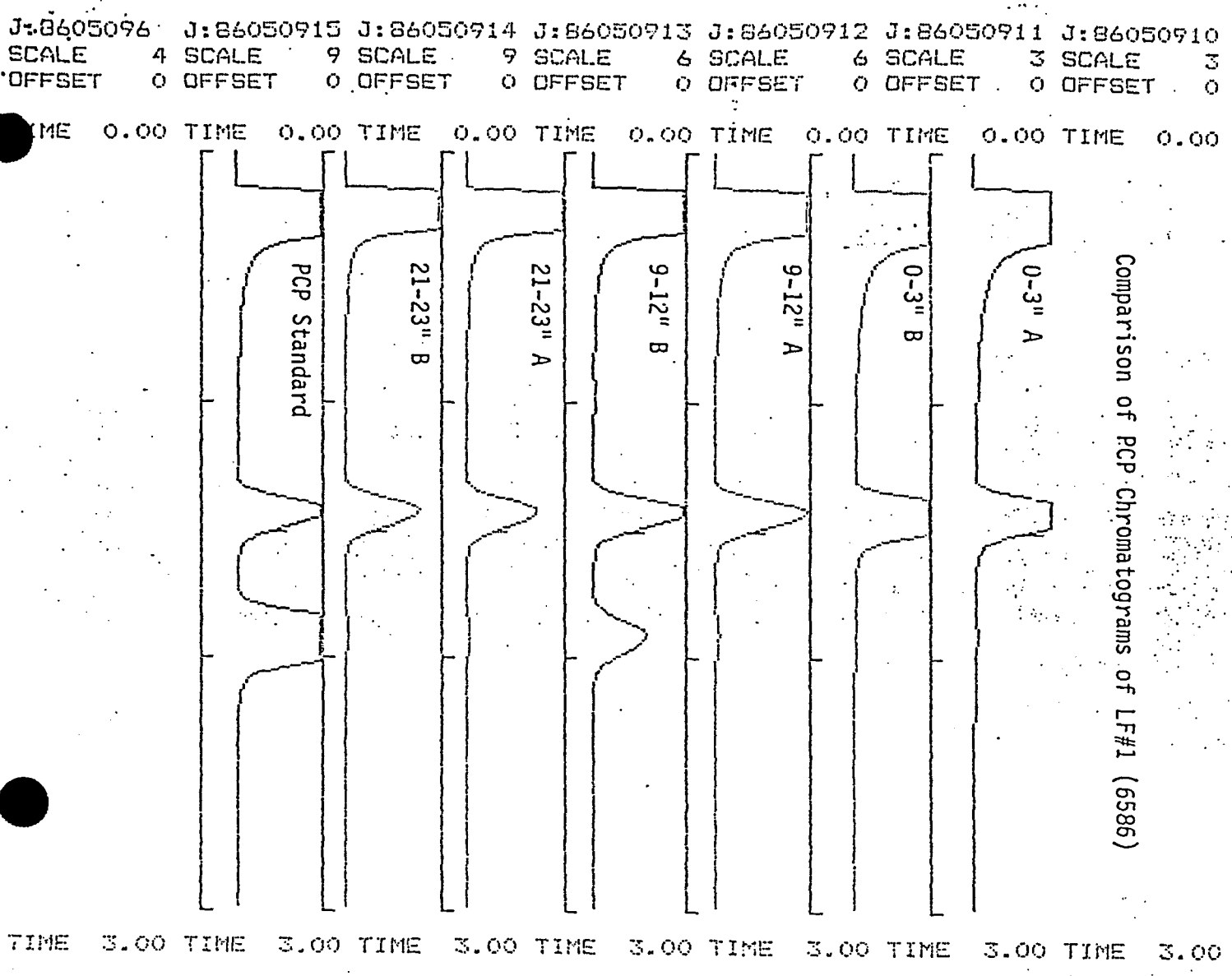
Date: 06/10/86
Time: 10:59:31p

Analysis Results in UG per G

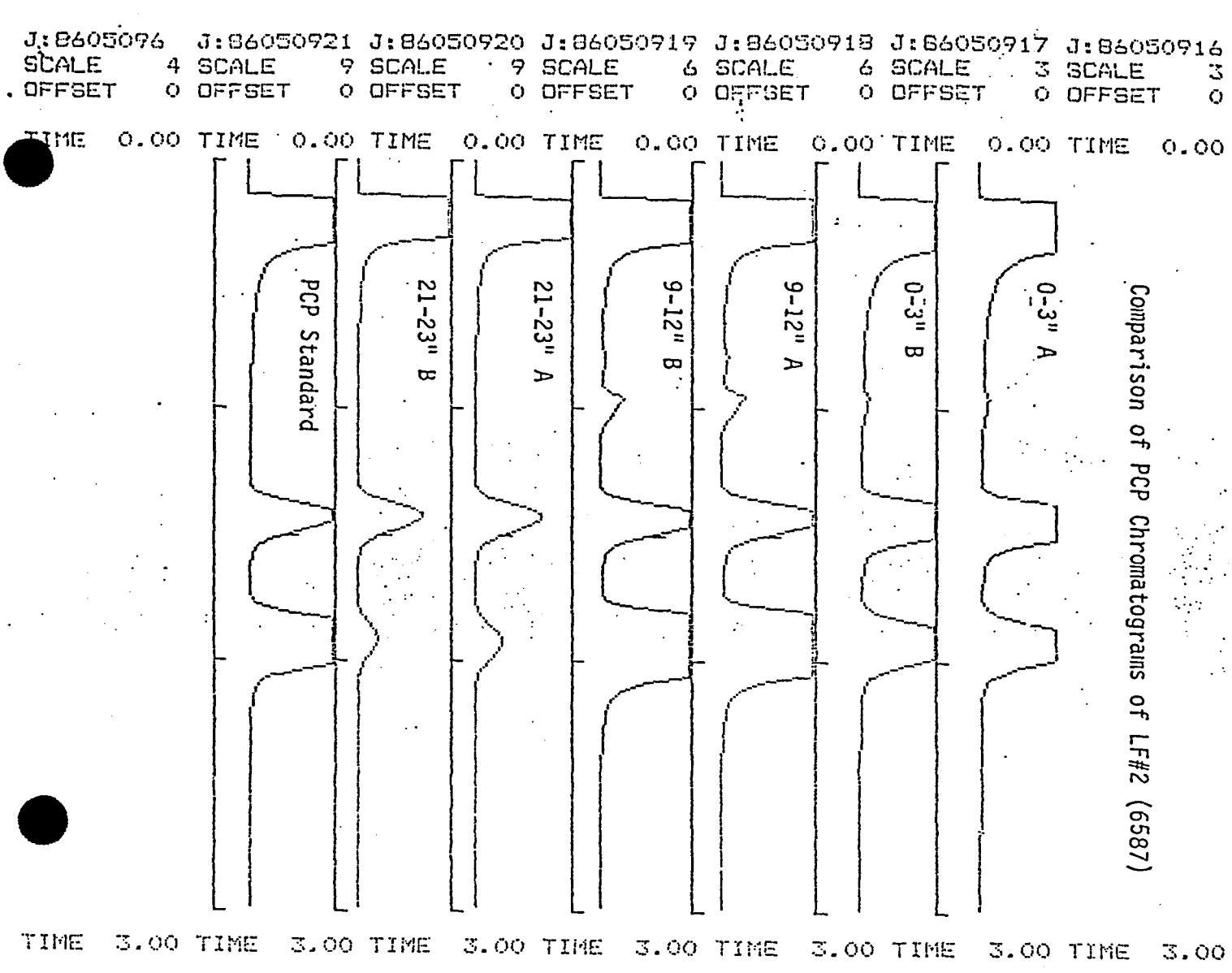
SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP
860509	1	-0-	-0-	A	25.138
860509	1	-0-	-0-	B	16.090
860509	2	-0-	-0-	A	11.610
860509	2	-0-	-0-	B	45.561
860509	3	-0-	-0-	A	6.8392
860509	3	-0-	-0-	B	6.6120
860509	4	-0-	-0-	A	91.501
860509	4	-0-	-0-	B	101.47
860509	5	-0-	-0-	A	452.81
860509	5	-0-	-0-	B	458.29
860509	6	-0-	-0-	A	24.707
860509	6	-0-	-0-	B	19.839
860509	REC	-0-	-0-	-0-	75.045
860509	RECLEV	-0-	-0-	-0-	56.791
860509	SOILBL	-0-	-0-	-0-	0.0000

First Reviewer:

Second Reviewer:



Comparison of PCP Chromatograms of LF#1 (6586)



Comparison of PCP Chromatograms of LF#2 (6587)

Land Farming Group
Forest Products Laboratory
Miss. State University

Date: 06/10/86
Time: 10:43:59p

Weight and Moisture Content Data

Site I.D.	Suffix	Day	Load	Sub.	Moist soil Wt.	% Moisture	Dry Weight
860509	1	-0-	-0-	A	2.00000	7.49000	1.85020
860509	1	-0-	-0-	B	2.00000	7.49000	1.85020
860509	2	-0-	-0-	A	4.00000	7.34000	3.70640
860509	2	-0-	-0-	B	4.00000	7.34000	3.70640
860509	3	-0-	-0-	A	6.00000	6.13000	5.63220
860509	3	-0-	-0-	B	6.00000	6.13000	5.63220
860509	4	-0-	-0-	A	2.00000	7.87000	1.84260
860509	4	-0-	-0-	B	2.00000	7.87000	1.84260
860509	5	-0-	-0-	A	4.00000	9.91000	3.60360
860509	5	-0-	-0-	B	4.00000	9.91000	3.60360
860509	6	-0-	-0-	A	6.00000	10.0000	5.40000
860509	6	-0-	-0-	B	6.00000	10.0000	5.40000
860509	REC	-0-	-0-	-0-	10.0000	0.00000	10.0000
860509	RECLEV	-0-	-0-	-0-	10.0000	0.00000	10.0000
860509	SOILBL	-0-	-0-	-0-	10.0000	0.00000	10.0000

MISSISSIPPI STATE UNIVERSITY

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762
PHONE (601) 325-2116

May 30, 1986

Dear Dr. McGinnis:

Listed below are the chloride ion concentrations, pH, C/N ratios, and the total organic carbon, nitrogen, and phosphorus results from Wilmington, N.C.

Sample ID	C(ug/g)	N(ug/g)	P(ug/g)	C/N	Cl(ug/g)	pH
860509-1	29906	833	123.4	35.90	28	7.47
860509-4	34231	1042	134.8	32.85	180	7.15

Sincerely,

Hamid Borazjani

HB/ald

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 2:14:04p
Date: 05/29/86

Micro. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS
860509	01	-0-	-0-	A	1400000	2216666	56666	3333333	766666	2100000	-0-
860509	04	-0-	-0-	A	600000	1416666	31666	1400000	1010000	1366666	-0-

First Reviewer: Angie Dunnam Date: 5/29/86

Second Reviewer: Barry J. Crist Date: 5/30/86

DAS

MISSISSIPPI STATE UNIVERSITY

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762
PHONE (601) 325-2116

August 6, 1986

Mr. Charles Burdell
Southern Wood Piedmont
P. O. Box 5447
Spartanburg, SC 29304

Dear Charles:

Please find enclosed the information on soil samples from your Wilmington facility. The sample designations are as follows:

860620-(1-3) = LF#1, 6649 (A-C)
860620-(4-6) = LF#2, 6650 (A-C)

PAH's: For LF#1 (0"-3"), reduction is moderate to extensive for most compounds except for dibenzofuran, anthracene, and benzo-a-pyrene. For LF#1 (9"-12"), significant reduction is evident for the lower molecular weight PAH's up to carbazole. Fluoranthene through chrysene show little or no change, although there appears to be a gradient of higher concentrations of fluoranthene and pyrene in one of the replicates which has been reduced by about 60% over the last sampling. Some accumulation appears to occur for benzo-a-pyrene and benzo-ghi-perylene. For LF#1 (21"-24"), significant reduction is evident up to carbazole, while fluoranthene through benzo-a-pyrene show little or no change. LF#2 (0"-3") indicates that more creosote sludge has been incorporated since all PAH levels are significantly higher. Please note that some of the concentration levels for certain compounds differ between replicates by a factor of 3 or better. Although many other factors may affect these results, it is possible that more mixing is needed to later assure the fastest degradation. For LF#2 (9"-12"), reduction is quite significant for all compounds up to chrysene, with little or no change for benzo-a-pyrene. For LF#2 (21"-24"), concentrations for all PAH's have increased significantly indicating possible migration into the third level of this site.

PCP: For LF#1, concentrations are significantly down for all three levels. For LF#2, concentrations are significantly down for the upper two levels; while 21"-24" samples indicate an increase in PCP concentration--again possibly indicating migration into the third level of LF#2.

Nutrients: For LF#1, carbon is down slightly while nitrogen is up significantly--yielding a lower C/N ratio of around 25. Phosphorous is also up significantly. For LF#2, carbon is unchanged while nitrogen is up slightly--also yielding a slightly lower C/N ratio of 29. Phosphorous is up significantly.

Chloride and pH: LF#1 chloride levels are unchanged while the pH has increased to above 8. LF#2 chloride levels are dramatically lower while the pH has also increased to above 8.

Bacteria Counts: For LF#1, populations are significantly down for ACA, creosote amended, PCP amended, and C+P medias. Populations are unchanged for PDA media and up significantly for PDAA media. It appears that the general population is again shifting back to a more "normal" diet since PCP and PAH's are becoming scarce. For LF#2, populations are significantly down for PCP amended and C+P medias. Populations are relatively unchanged for PDA and creosote amended medias and significantly up for ACA and PDAA medias. Again, there appears to be a shift in the PCP amended bacteria back to other food sources due to significantly reduced levels of PCP.

I again apologize for the delay in getting these results to you (our data system was down for 3 1/2 weeks). If you have any questions, Dr. Hamid Borazjani is around during the day and I am presently working during the evenings. Hamid is our pathologist and can answer any questions that you have on the bacteria counts, nutrients, or Cl^- and pH. If you wish to contact me during the evenings, I am usually at 601/325-3108 (-3107 or -1613).

Sincerely,

David A. Strobel

David A. Strobel
Research Assistant II

/sl

enclosures

cc: Gary D. McGinnis
William T. Nearn

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 7:50:52a
Date: 07/31/86

PAH Analyses Results of Site Batch Samples in UG per G

Site ID	Suffix	Day	Ld	Sb	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
860620	01	-0-	-0-	A	4.4341	6.0160	0.884	2.979	3.416	1.996	13.12	22.63	36.166	227.21	69.23	56.37	53.16	16.72	27.78	22.08	10.4
860620	01	-0-	-0-	B	6.0503	8.3991	0.812	3.608	3.532	2.462	16.84	34.81	53.272	353.57	116.2	59.13	58.12	19.07	34.46	23.35	10.9
860620	02	-0-	-0-	A	1.6966	2.0969	1.127	1.546	3.928	5.435	5.197	6.015	19.412	23.661	6.356	112.0	100.7	34.87	57.24	19.76	11.6
860620	02	-0-	-0-	B	2.1976	1.8984	0.620	1.418	2.723	1.076	4.012	2.518	11.389	16.132	4.636	48.88	49.71	14.37	28.20	14.09	8.65
860620	03	-0-	-0-	A	0.9645	1.3190	0.247	0.636	1.679	0.673	3.293	3.982	7.4123	24.494	7.101	31.06	29.67	8.945	18.82	8.216	4.42
860620	03	-0-	-0-	B	0.9504	0.9884	0.367	0.592	1.018	0.400	1.990	1.378	3.8575	11.500	3.583	16.99	19.36	5.062	12.22	5.327	3.19
860620	04	-0-	-0-	A	14.354	16.061	1.677	4.556	5.890	5.630	29.48	55.42	89.931	845.65	203.6	107.5	113.8	39.72	145.4	37.64	15.9
860620	04	-0-	-0-	B	12.500	24.664	1.944	7.849	8.126	13.92	66.84	202.5	414.59	1312.1	382.5	425.3	386.7	112.5	159.9	60.32	25.8
860620	05	-0-	-0-	A	2.0430	1.7177	0.543	0.809	2.387	1.225	3.987	3.675	11.680	34.958	9.722	40.60	48.95	16.94	26.81	17.23	9.77
860620	05	-0-	-0-	B	2.9067	2.4568	0.830	1.234	2.437	3.758	5.795	6.491	19.130	66.430	13.92	51.99	60.50	17.68	29.35	15.44	7.40
860620	06	-0-	-0-	A	1.5228	1.4832	0.409	0.616	1.620	1.676	3.477	5.146	13.038	40.129	14.26	69.29	63.00	17.00	25.34	13.43	6.17
860620	06	-0-	-0-	B	1.9163	1.7909	0.551	1.317	1.490	1.769	3.687	4.402	15.108	33.849	11.69	48.01	46.82	13.92	20.04	11.79	6.24
860620	REC	-0-	-0-	-0	10.011	11.077	11.73	13.49	11.61	12.05	12.46	12.16	11.447	11.590	14.14	12.82	12.34	11.98	11.39	12.17	2.29
860620	RECLEV	-0-	-0-	-0	9.7610	10.667	11.45	12.37	10.74	10.79	10.61	10.66	9.6220	9.4480	12.28	10.16	9.553	9.584	9.160	9.611	1.62
860620	SOILBL	-0-	-0-	-0	0.3015	0.0000	0.000	0.000	0.000	0.000	0.855	0.000	0.0000	0.0000	0.000	0.000	0.314	0.000	0.000	0.000	0.00

Key:

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Pyren = Pyrene
12-bz = 1.2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit

Note: Values of 0.000 indicate None Detected down to the specified Method Detection Limit (MDL)

First Reviewer: David A. Strobel

Second Reviewer:

Land Farming Group
Forest Products Laboratory
Miss. State University

Date: 08/04/86
Time: 11:03:28a

PCP Analysis Results in UG per G

SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP
860620	01	-0-	-0-	A	9.6995
860620	01	-0-	-0-	B	8.7585
860620	02	-0-	-0-	A	9.4697
860620	02	-0-	-0-	B	7.8265
860620	03	-0-	-0-	A	3.5758
860620	03	-0-	-0-	B	2.7502
860620	04	-0-	-0-	A	41.651
860620	04	-0-	-0-	B	41.501
860620	05	-0-	-0-	A	25.901
860620	05	-0-	-0-	B	22.399
860620	06	-0-	-0-	A	45.461
860620	06	-0-	-0-	B	51.858
860620	REC	-0-	-0-	-0-	64.012
860620	RECLEV	-0-	-0-	-0-	56.791
860620	SOILBL	-0-	-0-	-0-	0.0000

First Reviewer: Paul R. Beauregard

Second Reviewer: [illegible]

MISSISSIPPI STATE UNIVERSITY

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762
PHONE (601) 325-2116

August 1, 1986

Dr. McGinnis:

The results of chloride ion concentration, pH, C/N ratio, and total organic carbon, nitrogen, and phosphorus from land farming units in Wilmington, N.C. are as follows:

SWP #	FPUL #	Total (C) (ug/g)	Total (N) (ug/g)	Total (P) (ug/g)	C/N	Cl^- (ug/g)	pH
6649A	860620-1	26008	1100	271.24	25.46	34	8.18
6649B	860620-2	-----	----	------	-----	20	8.10
6649C	860620-3	-----	----	------	-----	12.8	8.11
6650A	860620-4	34177	1175	320.03	29.09	48	8.11
6650B	860620-5	-----	----	------	-----	40	7.95
6650C	860620-6	-----	----	------	-----	45	7.90

Sincerely,

Hamid Borazjani

HB/ad

[illegible] Permit Data Time: [illegible]
Street Address Information Date: [illegible]
Area, Block Information

Total Maximum Results for Site or Site-Water Groups

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Prepared by: Angie Dunnam Date: 7-23-86

Reviewed by: Boraqi Alvis Date: 7-23-86

Land Farming Group
Forest Products Laboratory
Miss. State University

Date: 08/04/86
Time: 11:16:24a

Weight and Moisture Content Data

Site I.D.	Suffix	Day	Load	Sub.	Moist soil Wt.	% Moisture	Dry Weight
860620	01	-0-	-0-	A	2.00000	11.8000	1.76400
860620	01	-0-	-0-	B	2.00000	11.8000	1.76400
860620	02	-0-	-0-	A	4.00000	9.21000	3.63160
860620	02	-0-	-0-	B	4.00000	9.21000	3.63160
860620	03	-0-	-0-	A	6.00000	7.34000	5.55960
860620	03	-0-	-0-	B	6.00000	7.34000	5.55960
860620	04	-0-	-0-	A	2.00000	16.7000	1.66600
860620	04	-0-	-0-	B	2.00000	16.7000	1.66600
860620	05	-0-	-0-	A	4.00000	10.3400	3.58640
860620	05	-0-	-0-	B	4.00000	10.3400	3.58640
860620	06	-0-	-0-	A	6.00000	13.9700	5.16180
860620	06	-0-	-0-	B	6.00000	13.9700	5.16180
860620	REC	-0-	-0-	-0-	10.0000	0.00000	10.0000
860620	RECLEV	-0-	-0-	-0-	10.0000	0.00000	10.0000
860620	SOILBL	-0-	-0-	-0-	10.0000	0.00000	10.0000

FROM: SOUTHERN WOOD PIEDMONT CO.,
P.O. BOX 450
WILMINGTON, N.C.,
28402-0450

JUNE 16 1986

COPIES: C.A. BURDELL
SANDRA WATSON

TO: DR. GARY McGINNIS
MISSISSIPPI STATE UNIVERSITY
FOREST PRODUCT UTILIZATION LAB
P.O. DRAWER FP
STATE COLLEGE
MISSISSIPPI

39762

Creo/soil samples from Land FarMS #1(Riverside) & # 2 (Officeside)
Composite samples No 32-33-34-35-36-37 "A: 0"-3" "B" 9"-12" "C" 21"-24"
Depths- Sifted through 1/4" & 1/2" Screen Mesh

Hop

Contact: MR. C.A. BURDELL
P.O. BOX 5447
SPARTANBURG, S.C.,
29304
PHONE (803) 576-7660

HENRY O. PHILLIPS
WILMINGTON, N.C, PLANT
PHONE(919) 762-9678

LOG # 6649 Land Farm No 1
"A" 0"-3" Sample # 32 = 860620-1
"B" 9"-12" " # 33 = 860620-2
"C" 21"-24" " # 34 = 860620-3

LOG NO 6650 LAND FARM #2
"A" 0"-3" Sample # 35 = 860620-4
"B" 9"-12" " # 36 = 860620-5
"C" 21"-24" " # 37 = 860620-6

Log Nos from

Randy

MISSISSIPPI STATE UNIVERSITY

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762
PHONE (601) 325-2116

September 18, 1986

Mr. Charles Burdell
Southern Wood Piedmont
P. O. Box 5447
Spartanburg, SC 29304

Dear Charles:

Enclosed is the information on soil samples from your Wilmington facility. The sample designations are as follows:

860811 (1-3) = Land Farm #1/#6746A-C
860811 (4-6) = Land Farm #2/#6747A-C

PAH's: For LF#1 (0-3"), further reduction has occurred for most of the PAH's monitored. One of the replicates, however, shows an increase for fluorene, phenanthrene, anthracene, and carbazole. This may be due to a nonhomogenous sample containing "pockets" of higher concentrated material. For LF#1 (9-12"), reduction is slight or insignificant for the lower m.w. PAH's through carbazole. The higher m.w. PAH's (above carbazole) have shown significant reduction since the last sampling. For LF#1 (21-24"), all PAH's have reduced concentrations, particularly the higher m.w. compounds. For LF#2 (0-3"), concentrations for all PAH'S monitored have decreased significantly. For LF#2 (9-12"), many of the lower m.w. PAH's up through fluoranthene show a significant increase in concentration. Pyrene and higher PAH's show no significant change. For LF#2 (21-24"), significant reductions have occurred since the last sampling for most PAH's up through chrysene; benzo-o-pyrene and benzo-ghi-pyrylene show no significant change.

PCP: For LF#1, concentrations are lower, particularly for 0-3" and 21-24" samples. For LF#2, concentrations are also down significantly, particularly for the 21-24" sample.

Bacteria Counts and Elementary Analysis: For both LF#1 and LF#2, the bacteria counts are up significantly, especially for creosote, PCP, and creosote and PCP amended media. The significant increase in total number of bacteria for both units is a good indication of an increase in

biodegradation of PCP and creosote. In comparison to previous samples the C/N ratio is correct and no more manure should be added. The only problem is the relatively high pH which should be corrected.

Recommendations

1) You will need to add 2 lbs of sulfur per 100 square feet to decrease your pH to 6.9 – 7.0 as soon as possible.

2) Because of the relatively high groundwater at this site, no additions of creosote or PCP should occur unless the third zone is completely clear of PCP and creosote and the 2nd zone is below 10-100 ppm total PCP and creosote.

Sincerely,

Gary

Gary D. McGinnis
Professor

/sl
enclosures

Land Farms Drum Time: 4:10:05p
Great Western Laboratory Date: 08/26/86
Iowa State University

Form - Microbe Results for Site or Site-Batch Samples

SITE ID	SUFFIX	DAY	LOAD	SLD.	AVG. ACP COUNTS	AVG. TCH COUNTS	AVG. FCHP COUNTS	AVG. E COUNTS	AVG. P COUNTS	AVG. S+P COUNTS	AVG. SEP COUNTS
860811	01	-0-	-0-	A	950000	1983333	50333	1500000	1600000	1300000	-0-
860811	04	-0-	-0-	B	850000	1518666	50000	1100000	1150000	1300000	-0-

First Reviewer: Angie Durham Date: 8-26-86

Second Reviewer: Bonnie Alcott Date: 8-26-86

Land Farming Group Time: 10:27:09a
Forest Products Laboratory Date: 09/05/86
Miss. State University

PAH Analyses Results of Site Batch Samples in UG per G

Site ID	Suffix	Day	Ld	Sb	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
860811	01	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	6.980	5.476	10.049	37.971	8.064	10.35	12.76	9.628	5.356	6.920	6.86
860811	01	-0-	-0-	B	7.4016	11.674	0.000	5.897	0.000	0.000	22.81	55.78	77.025	767.84	215.4	14.92	18.65	11.37	13.60	12.04	12.0
860811	02	-0-	-0-	A	3.7394	2.7479	0.000	0.000	0.000	0.000	5.184	6.176	14.901	28.329	5.949	19.38	22.32	8.187	10.23	6.799	5.07
860811	02	-0-	-0-	B	2.4929	1.8697	0.000	0.000	0.000	0.000	3.683	1.558	8.3853	9.3201	2.691	21.56	23.60	11.81	13.80	10.82	7.79
860811	03	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	1.356	0.000	1.4123	1.1298	0.000	2.391	3.502	2.090	1.601	0.000	0.00
860811	03	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	1.8642	1.2993	0.000	2.994	3.992	3.521	2.128	0.000	0.00
860811	04	-0-	-0-	A	8.3891	11.368	0.000	4.462	0.000	0.000	15.74	31.98	52.267	215.64	54.65	31.98	38.78	20.55	21.52	18.91	12.8
860811	04	-0-	-0-	B	5.8967	7.5380	0.000	0.000	0.000	0.000	16.84	27.17	50.152	261.88	63.22	49.67	54.83	23.95	26.69	22.86	18.4
860811	05	-0-	-0-	A	3.0491	3.9580	0.000	2.023	0.000	2.337	10.47	18.65	40.841	206.87	37.79	68.49	65.29	21.90	32.75	18.15	9.50
860811	05	-0-	-0-	B	12.197	29.025	0.000	6.743	0.000	2.615	44.27	130.5	177.08	1812.3	556.2	46.62	43.98	18.44	25.80	15.63	9.53
860811	06	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	3.204	2.143	7.5937	17.809	4.036	26.32	27.75	11.21	14.15	9.612	5.99
860811	06	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	3.246	1.644	9.0501	9.8922	2.538	35.08	34.72	13.32	15.81	10.80	6.24
860811	REC	-0-	-0-	-0	8.4393	9.6908	10.59	11.98	10.36	10.95	11.43	11.89	11.801	11.366	11.73	10.13	9.753	9.008	8.272	10.29	2.29
860811	RECLEV	-0-	-0-	-0	10.095	11.032	11.84	12.80	11.11	11.16	10.98	11.03	9.9514	9.7714	12.71	10.50	9.880	9.912	9.474	9.940	1.67
860811	SOILBL	-0-	-0-	-0	0.0000	0.0000	0.000	0.000	0.000	0.000	0.951	0.000	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.00

Key:

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit

Note: Values of 0.000 indicate None Detected down to the specified Method Detection Limit (MDL)

First Reviewer: David A. Stroebel

Second Reviewer:

Land Farming Group
Forest Products Laboratory
Miss. State Univerisity

Date: 09/05/86
Time: 10:13:02a

Group and Total PAH Results of Soil Samples in UG per G

Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
860811	01	-0-	-0-	A	0.00000	68.5401	38.0912	13.7802	120.412
860811	01	-0-	-0-	B	24.9729	1138.89	58.5510	24.0703	1246.46
								Average Total PAH's:	683.446
860811	02	-0-	-0-	A	6.48725	60.5382	60.1133	11.8697	139.009
860811	02	-0-	-0-	B	4.36261	25.6374	70.7649	18.6119	119.377
								Average Total PAH's:	129.193
860811	03	-0-	-0-	A	0.00000	3.89786	9.58460	0.00000	13.4825
860811	03	-0-	-0-	B	0.00000	3.16348	12.6351	0.00000	15.7986
								Average Total PAH's:	14.6405
860811	04	-0-	-0-	A	24.2188	370.282	112.827	31.7325	539.060
860811	04	-0-	-0-	B	13.4346	439.271	155.137	41.2766	649.119
								Average Total PAH's:	594.089
860811	05	-0-	-0-	A	9.03014	316.955	188.431	27.6475	542.063
860811	05	-0-	-0-	B	47.9653	2722.89	134.836	25.1554	2930.84
								Average Total PAH's:	1736.45
860811	06	-0-	-0-	A	0.00000	34.7855	79.4324	15.6035	129.821
860811	06	-0-	-0-	B	0.00000	26.3596	98.9265	17.0391	142.325
								Average Total PAH's:	136.073

Key:

Bicyclics:
- Naphthalene
- 2-Methylnaphthalene
- 1-Methylnaphthalene
- Biphenyl

Tricyclics:
- Acenaphthylene
- Acenaphthene
- Dibenzofuran
- Fluorene
- Phenanthrene
- Anthracene
- Carbazole

Tetracyclics:
- Fluoranthene
- Pyrene
- 1,2-Benzanthracene
- Chrysene

Pentacyclics:
- Benzo-a-pyrene
- Benzo-ghi-perylene

Land Farming Group
Forest Products Laboratory
Miss. State University

Date: 09/05/86
Time: 10:39:48a

CP Analysis Results in UG per G

SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP
860811	01	-0-	-0-	A	2.9727
860811	01	-0-	-0-	B	3.4842
860811	02	-0-	-0-	A	6.6402
860811	02	-0-	-0-	B	6.4646
860811	03	-0-	-0-	A	0.8850
860811	03	-0-	-0-	B	0.9716
860811	04	-0-	-0-	A	28.723
860811	04	-0-	-0-	B	31.678
860811	05	-0-	-0-	A	22.071
860811	05	-0-	-0-	B	19.626
860811	06	-0-	-0-	A	9.7408
860811	06	-0-	-0-	B	8.8274
860811	REC	-0-	-0-	-0-	61.355
860811	RECLEV	-0-	-0-	-0-	58.735
860811	SOILBL	-0-	-0-	-0-	0.0000

First Reviewer: Paul R. Beauregard

Second Reviewer:

Land Farming Group
Forest Products Laboratory
Miss. State University

Date: 09/02/86
Time: 6:08:51p

Weight and Moisture Content Data

Site I.D.	Suffix	Day	Load	Sub.	Moist soil Wt.	% Moisture	Dry Weight	I.D.#
860811	01	-0-	-0-	A	2.00000	16.9100	1.66180	1565
860811	01	-0-	-0-	B	2.00000	16.9100	1.66180	1566
860811	02	-0-	-0-	A	4.00000	11.7500	3.53000	1567
860811	02	-0-	-0-	B	4.00000	11.7500	3.53000	1568
860811	03	-0-	-0-	A	6.00000	11.4900	5.31060	1569
860811	03	-0-	-0-	B	6.00000	11.4900	5.31060	1570
860811	04	-0-	-0-	A	2.00000	17.7500	1.64500	1571
860811	04	-0-	-0-	B	2.00000	17.7500	1.64500	1572
860811	05	-0-	-0-	A	4.00000	14.7300	3.41080	1573
860811	05	-0-	-0-	B	4.00000	14.7300	3.41080	1574
860811	06	-0-	-0-	A	6.00000	19.8900	4.80660	1575
860811	06	-0-	-0-	B	6.00000	19.8900	4.80660	1576
860811	REC	-0-	-0-	-0-	10.0000	3.31000	9.66900	1577
860811	RECLEV	-0-	-0-	-0-	10.0000	3.31000	9.66900	1578
860811	SOILBL	-0-	-0-	-0-	10.0000	3.31000	9.66900	1579

Land Farming Group Time: 6:58:45p
Forest Products Laboratory Date: 09/02/86
Miss. State University

PAH Analyses Results of Site Batch Samples in UG per G

Site ID	Suffix	Dev	Ld	Sb	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
860811	01	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	6.980	5.476	10.049	37.971	8.064	10.35	12.76	9.628	5.356	6.920	6.86
860811	01	-0-	-0-	B	7.4016	11.674	0.000	5.657	0.000	0.000	22.81	55.79	77.025	767.84	215.4	14.92	19.65	11.37	13.60	12.04	12.0
860811	02	-0-	-0-	A	3.7394	2.7479	0.000	0.000	0.000	0.000	5.184	6.176	14.901	28.329	5.949	19.38	22.32	8.187	10.23	6.799	5.07
860811	02	-0-	-0-	B	2.4929	1.8697	0.000	0.000	0.000	0.000	3.683	1.552	8.3853	9.5201	2.691	21.56	23.60	11.81	13.80	10.82	7.79
860811	03	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	1.356	0.000	1.4123	1.1298	0.000	2.391	3.302	2.090	1.601	0.000	0.00
860811	03	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	1.8642	1.2993	0.000	2.994	3.992	3.521	2.128	0.000	0.00
860811	04	-0-	-0-	A	8.3591	11.368	0.000	4.462	0.000	0.000	15.74	31.98	52.267	215.64	34.65	31.98	38.78	20.55	21.52	18.91	12.8
860811	04	-0-	-0-	B	5.6967	7.5380	0.000	0.000	0.000	0.000	16.84	27.17	50.152	281.89	63.22	49.67	54.83	23.95	26.69	22.86	18.4
860811	05	-0-	-0-	A	3.0491	3.9530	0.000	2.023	0.000	2.337	10.47	18.65	40.841	206.87	37.79	68.49	65.29	21.90	32.75	16.15	9.50
860811	05	-0-	-0-	B	12.197	29.025	0.000	6.743	0.000	2.615	44.27	130.5	177.08	1812.3	556.2	46.62	43.98	18.44	25.80	15.63	9.53
860811	06	-0-	-0-	A	0.0000	0.0000	0.000	0.000	0.000	0.000	3.204	2.143	7.5937	17.809	4.036	26.32	27.75	11.21	14.15	9.612	5.99
860811	06	-0-	-0-	B	0.0000	0.0000	0.000	0.000	0.000	0.000	3.246	1.644	9.0501	9.8822	2.538	35.08	34.72	13.32	15.81	10.80	6.24
860811	REC	-0-	-0-	-0	8.4393	9.6908	10.59	11.98	10.36	10.95	11.43	11.89	11.801	11.366	11.73	10.13	9.753	9.002	8.272	10.29	2.29
860811	RECLEV	-0-	-0-	-0	10.095	11.032	11.84	12.80	11.11	11.15	10.98	11.03	9.9514	9.7714	12.71	10.50	9.880	9.912	9.474	9.940	1.67
860811	SOILBL	-0-	-0-	-0	0.0000	0.0000	0.000	0.000	0.000	0.000	0.951	0.000	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.00

Key:

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit

Note: Values of 0.000 indicate None Detected down to the specified Method Detection Limit (MDL)

First Reviewer: David A. Stoutel

Second Reviewer:

Land Farming Group
Forest Products Laboratory
Miss. State University

Date: 09/02/86
Time: 6:08:31p

Weight and Moisture Content Data

Site I.D.	Suffix	Day	Load	Sub.	Moist soil Wt.	% Moisture	Dry Weight	I.D.#
860811	01	-0-	-0-	A	2.00000	16.9100	1.66180	1565
860811	01	-0-	-0-	B	2.00000	16.9100	1.66180	1566
860811	02	-0-	-0-	A	4.00000	11.7500	3.53000	1567
860811	02	-0-	-0-	B	4.00000	11.7500	3.53000	1568
860811	03	-0-	-0-	A	6.00000	11.4900	5.31060	1569
860811	03	-0-	-0-	B	6.00000	11.4900	5.31060	1570
860811	04	-0-	-0-	A	2.00000	17.7500	1.64500	1571
860811	04	-0-	-0-	B	2.00000	17.7500	1.64500	1572
860811	05	-0-	-0-	A	4.00000	14.7300	3.41080	1573
860811	05	-0-	-0-	B	4.00000	14.7300	3.41080	1574
860811	06	-0-	-0-	A	6.00000	19.8900	4.80660	1575
860811	06	-0-	-0-	B	6.00000	19.8900	4.80660	1576
860811	REC	-0-	-0-	-0-	10.0000	3.31000	9.66900	1577
860811	RECLEV	-0-	-0-	-0-	10.0000	3.31000	9.66900	1578
860811	SOILBL	-0-	-0-	-0-	10.0000	3.31000	9.66900	1579

SAMPLE WORK SHEET

	Initials	Date

Date 8-18-86

FPUL Number(s) 860811-1→6

Description & Source

SOIL FROM SOUTHERN WOOD PIEDMONT
WILMINGTON, N.C.

PAH, PCP, MICRO, AND MINERAL
ANALYSES NEED TO BE DONE 8/18/86 HB

Where stored BACK LAB 8/18/86 HB

Date weighed (balances Used) 8-18-86 SARTORIUS L610 HB 8/18/86

Date extracted 8-18-86 HB

Extraction procedure SOXHLET EXTRACTION W/ $MeCl_2$ SOLVENT 8/18/86 HB

Clean up step

Derivatization

Date analyzed 8-28-86 TO 8-29-86 DD.

Instrument TRACOR 540 G.C. DD.

Means of verification Recoveries + standards DD.

Total glassware rinse 0 μg DD.

Recoveries (attached) ✓ yes ____ no DD.

Spiked-reference material (attached) ____ yes ____ no

FROM: SOUTHERN WOOD PIED[illegible]T CO.,
P.O. BOX 450
WILMINGTON N.C,
28402-0450

August 4 19[illegible]

Copies: C.A. Burdell
Sandra Watson

TO: DR. GARY McGINNIS
MISSISSIPPI STATE UNIVERSITY
FOREST PRODUCTS UTILIZATION LAB
P.O. DRAWER FP
STATE COLLEGE
MISSISSIPPI
39762

CREO/SOIL samples from Land Farms No. 1(RIVERSIDE) & # 2 (OFFICESIDE)
Composite samples No 38-39-40-41-42-& 43 Depths "A" 0" to 3" "B" 9" to 12"
"C" 21" to 24" Samples sifted through 1/4" & 1/2" Sreen Mesh

CONTACT: MR.C.A. BURDELL
P.O. BOX 5447
SPARTANBURG, S.C.,
29304
PHONE (803) 576-7660

HENRY O. PHILLIPS JR.,
WILMINGTON N.C, PLANT
PHONE (919) 762-9678

LOG # 6746 LAND FARM NO 1
"A" 0" to 3" Sample # 38
"B" 9" to 12" Sample #39
"C" 21" to 24" Samples # 40

LOG # 6747 LAND FARM No 2
"A" 0" to 3" sample No 41
"B" 9" to 12" Sample No 42
"C" 21" to 24" Sample No 43

Log Nos from Mike Roldan.

SAMPLE WORK SHEET

	Initials	Date
	SWP	8/11/86

Date 8/11/86

FPUL Number(s) 860811 → 1 ——→ 6

Description & Source Southern Wood Piedmont, Wilmington, N.C. for PAH, PCP, micro and mineral analysis

FPUL # SWP #

860811-1 = LF#1 0-3" = 6746A
860811-2 = LF#1 9-12" = 6746B
860811-3 = LF#1 21-24" = 6746C

FPUL #1 SWP #

860811-4 = LF#2 0-3" = 6747A
860811-5 = LF#2 9-12" = 6747B
860811-6 = LF#2 21-24" = 6747C

Where stored 21°C room

Date weighed (balances Used)

Date extracted

Extraction procedure

Clean up step

Derivatization

Date analyzed

Instrument

Means of verification

Total glassware rinse _____ g

Recoveries (attached) _____ yes _____ no

Spiked-reference material (attached) _____ yes _____ no

Date 8-18-86 Project 860811-1→6 Analyst HAMID

Soil Moisture Content Analysis

1. Weigh the aluminum pan, record the weight.
2. Tare the balance to zero.
3. Add the moist soil and record its weight.
4. Place the soil in a 110 C - 130 C oven overnight.
5. Remove the soil from the oven and allow to cool.
6. Reweigh the dried soil and pan (combined weight).
7. Subtract the pan weight to get the dry soil weight.
8. Subtract the dry soil weight from the moist soil weight to get the moisture weight.
9. Divide the moisture weight by the moist soil weight and multiply by 100 to get the percent moisture.

Sample [illegible]	Pan weight	Moist soil weight	Dry soil plus pan weight	Dry soil weight	Moisture weight	Percent moisture
8[illegible]811 1A	1.50	3.43	4.35	2.85	0.58	16.91%
860811 1B	1.50	3.43	4.35	2.85	0.58	16.91%
860811 2A	1.52	3.66	4.75	3.23	0.43	11.75%
860811 2B	1.52	3.66	4.75	3.23	0.43	11.75%
860811 3A	1.53	3.22	4.38	2.85	0.37	11.49%
860811 3B	1.53	3.22	4.38	2.85	0.37	11.49%
860811 4A	1.54	3.55	4.46	2.92	0.63	17.75%
860811 4B	1.54	3.55	4.46	2.92	0.63	17.75%
860811 5A	1.54	3.53	4.55	3.01	0.52	14.73%
860811 5B	1.54	3.53	4.55	3.01	0.52	14.73%
860811 6A	1.58	3.57	4.44	2.86	0.71	19.89%
860811 6B	1.58	3.57	4.44	2.86	0.71	19.89%
860[illegible] R[illegible]	1.51	3.32	4.94	3.43	0.11	3.31%

MISSISSIPPI STATE UNIVERSITY

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762
PHONE (601) 325-2116

September 4, 1986

Dr. Gary D. McGinnis
Forest Products Lab
Mississippi State, MS 39762

Dear Dr. McGinnis:

The results of chloride ion concentration, pH, C/N ratio, and total organic carbon, nitrogen, and phosphorus from the Wilmington landfarming units are listed below.

ID	FPUL #	Total C (ug/g)	Total N (ug/g)	Total P (ug/g)	C/N	Cl (ug/g)	pH
0-3" LF#1	860811-1	26825	958	65.85	28	22	7.96
0-3" LF#2	860811-4	35103	1050	278.05	33.43	24	7.82

The pH for both units is high and should be corrected.

Sincerely,

Hamid Borazjani

/sl

MISSISSIPPI STATE UNIVERSITY

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762
PHONE (601) 325-2116

November 3, 1986

Mr. Charles Burdell
Southern Wood Piedmont
P. O. Box 5447
Spartanburg, SC 29304

Dear Mr. Burdell:

Please find enclosed the analysis results for soil samples from your Wilmington facility. The sample designations are as follows:

861006-(1-3) = LF#1, 6813 (A-C)
861006-(4-6) = LF#2, 6814 (A-C)

PAH Results:

For LF#1 (0-3"), bicyclics and pentacyclics in our screen were not detected, while the tricyclic PAH's showed further reduction. The tetracyclics, as a group, remained unchanged. LF#1 (9-12") shows a significant increase in the higher molecular weight PAH's above dibenzofuran. LF#1 (21-24") results also indicate marked increases in the presence of higher PAH's from phenanthrene to benzo-ghi-perylene, except for carbazole, which was not detected. For LF#2 (0-3"), further reduction is demonstrated for the bicyclic and tricyclic PAH's. The tetracyclic and pentacyclic PAH's show little change. LF#2 (9-12") results indicate significant reduction for all PAH groups. For LF#2 (21-24"), slight reduction is further evident for PAH's up through chrysene. The two pentacyclics show no significant change.

PCP Results:

For LF#1, reduction is significant at all three levels, particularly the 21-24" level. For LF#2, slight reduction is evident for the 0-3" and 21-24" levels. Very significant reduction is measured at the 9-12" level.

In comparison with previous samples, 860811 (1,4), the C/N ratio has fallen for upper levels of both units. Total organic carbon, nitrogen, and phosphorous are stabilized for both units (no fertilizer addition needed). The chloride ion levels are slightly higher for both units due to biodegradation of PCP. The pH level of both units is perfectly adjusted (no pH adjustment required for the timebeing).

For LF#1 top level, bacteria counts are up significantly for PCP, creosote amended media. The total number of bacteria on PDA is up by almost a million and total number of fungi has gone up significantly. For LF#2 top level, bacteria counts are up for all media. The total number of bacteria has gone up by two million. The big increase in bacteria counts is probably due to corrected soil pH and good field condition.

The only change that I would recommend is to add fertilizer to site one. We have some movement of chemicals to the second zone. The fertilizer would slow down the movement and may increase the rate of degradation. I would add approximately 2 lb/100 square feet.

If you have any questions, please contact me.

Sincerely,

David Strobel

David A. Strobel
Research Assistant

/sl
enclosures

MISSISSIPPI STATE UNIVERSITY

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762
PHONE (601) 325-2116

October 22, 1986

Dr. Gary D. McGinnis
Professor
Forest Products Lab

Dr. McGinnis:

Listed below are the chloride ion concentration, pH, C/N ratio, and total organic carbon, nitrogen, and phosphorous results from Wilmington, North Carolina.

FPUL #	SWP #	Depth	C (ug/g)	N (ug/g)	P (ug/g)	C/N	Cl (ug/g)	pH
861006-1	6813A	(0-3")LF#1	26140	967	85.34	27.03	34	6.98
861006-4	6814A	(0-3")LF#2	26588	1253	196.17	21.22	32	6.44

Hamid Borazjani

/sl

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 2:32:13p
Date: 10/13/86

Micro. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS
861006	01	-0-	-0-	A	1026666	3866666	125000	4400000	1900000	1700000	-0-
861006	04	-0-	-0-	A	1300000	3366666	160000	3700000	1900000	1666666	-0-

First Reviewer: Angela L. Dunnam Date: 10-13-86

Second Reviewer: Benjamin A. Crump Date: 10-13-86

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 7:28:55p
Date: 10/22/86

PAH Analyses Results of Site Batch Samples in UG per G

Site ID	Suffix	Day	Ld	Sb	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
861006	01	-0-	-0-	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5	5.2	0.0	12.7	20.1	16.6	12.6	0.0	0.0
861006	01	-0-	-0-	B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.2	8.9	0.0	15.4	25.1	19.4	17.1	0.0	0.0
861006	02	-0-	-0-	A	10.7	3.9	0.0	0.0	2.3	2.2	8.0	15.2	37.8	89.9	23.4	170.0	169.4	66.1	102.1	42.7	27.3
861006	02	-0-	-0-	B	3.5	2.3	0.0	0.0	3.7	1.7	7.5	2.4	18.7	20.5	5.7	120.0	123.9	48.6	81.6	31.9	22.0
861006	03	-0-	-0-	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4	7.1	0.0	35.8	38.7	13.5	19.5	6.7	5.7
861006	03	-0-	-0-	B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	1.6	0.0	24.8	27.4	10.1	15.4	8.5	9.2
861006	04	-0-	-0-	A	0.0	0.0	0.0	0.0	0.0	0.0	8.4	6.1	19.5	40.8	14.7	47.8	59.3	24.7	29.0	27.9	18.7
861006	04	-0-	-0-	B	0.0	0.0	0.0	0.0	0.0	0.0	8.3	5.6	18.4	47.6	8.2	50.4	60.9	34.3	34.5	33.5	19.0
861006	05	-0-	-0-	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8	2.6	0.0	13.0	17.6	13.7	10.6	0.0	0.0
861006	05	-0-	-0-	B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0	9.6	11.5	8.4	0.0	0.0	0.0
861006	06	-0-	-0-	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	4.7	0.0	16.7	17.6	9.5	10.4	8.1	7.4
861006	06	-0-	-0-	B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	6.5	0.0	14.7	14.1	10.1	9.3	8.0	6.4
861006	GWW	-0-	-0-	-0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
861006	MDL	-0-	-0-	-0	1.2	1.3	1.1	1.2	1.3	1.2	1.5	1.3	1.3	1.3	1.6	1.3	1.4	1.6	1.8	2.3	2.4
861006	REC	-0-	-0-	-0	10.6	9.2	12.2	12.8	11.8	12.0	13.2	13.4	14.7	15.2	16.5	15.7	17.3	13.4	16.5	17.8	3.8
861006	RECLEV	-0-	-0-	-0	9.8	10.7	11.5	12.4	10.7	10.8	10.6	10.7	9.6	9.4	12.3	10.2	9.6	9.6	9.2	9.6	1.6
861006	SOILBL	-0-	-0-	-0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.8	2.3	0.0	0.0	0.0
861006	SOLVBL	-0-	-0-	-0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Key:

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories. It does not provide absolute identification of components.

Analyst: David A. Stutel

Land Farming Group
Forest Products Laboratory
Miss. State Univerisity

Date: 10/30/86
Time: 9:25:14p

Group and Total PAH Results of Soil Samples in UG per G

Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
861006	01	-0-	-0-	A	0.0	12.7	62.0	0.0	74.7
861006	01	-0-	-0-	B	0.0	27.2	77.0	0.0	104.2
								Average Total PAH's:	89.4
861006	02	-0-	-0-	A	14.7	178.9	507.6	70.0	771.2
861006	02	-0-	-0-	B	5.8	60.3	374.1	53.9	494.1
								Average Total PAH's:	632.7
861006	03	-0-	-0-	A	0.0	12.5	107.5	12.4	132.3
861006	03	-0-	-0-	B	0.0	6.9	77.8	17.7	102.4
								Average Total PAH's:	117.4
861006	04	-0-	-0-	A	0.0	89.5	160.9	46.6	296.9
861006	04	-0-	-0-	B	0.0	88.1	180.2	52.5	320.9
								Average Total PAH's:	308.9
861006	05	-0-	-0-	A	0.0	9.4	54.8	0.0	64.1
861006	05	-0-	-0-	B	0.0	3.2	29.5	0.0	32.7
								Average Total PAH's:	48.4
861006	06	-0-	-0-	A	0.0	8.9	54.2	15.4	78.6
861006	06	-0-	-0-	B	0.0	10.2	48.2	14.4	72.8
								Average Total PAH's:	75.7

Key:

Bicyclics:	Tricyclics:	Tetracyclics:	Pentacyclics:
Naphthalene	Acenaphthylene	Fluoranthene	Benzo-a-pyrene
2-Methylnaphthalene	Acenaphthene	Pyrene	Benzo-ghi-perylene
Methylnaphthalene	Dibenzofuran	1,2-Benzanthracene	
Biphenyl	Fluorene	Chrysene	
	Phenanthrene		
	Anthracene		
	Carbazole		

[illegible]ng Farming Group
Forest Products Laboratory
Miss. State University

Date: 10/30/86
Time: 2:30:29p

PCP Analysis Results in UG per G

SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP	I.D.#
861006	01	-0-	-0-	A	0.0000	1830
861006	01	-0-	-0-	B	0.0000	1831
861006	02	-0-	-0-	A	26.227	1832
861006	02	-0-	-0-	B	24.553	1833
861006	03	-0-	-0-	A	9.0682	1834
861006	03	-0-	-0-	B	9.0966	1835
861006	04	-0-	-0-	A	21.668	1836
861006	04	-0-	-0-	B	21.715	1837
861006	05	-0-	-0-	A	3.5479	1838
861006	05	-0-	-0-	B	3.6845	1839
861006	06	-0-	-0-	A	6.1612	1840
861006	06	-0-	-0-	B	5.9304	1841
[illegible]006	REC	-0-	-0-	-0-	66.298	1842
861006	RECLEV	-0-	-0-	-0-	56.791	1843
861006	SOILBL	-0-	-0-	-0-	0.0000	1844

First Reviewer: Paul R. Beauregard

Second Reviewer:

Land Farming Group
Forest Products Laboratory
Miss. State University

Date: 10/22/86
Time: 7:43:36p

Weight and Moisture Content Data

Site I.D.	Suffix	Day	Load	Sub.	Moist soil Wt.	% Moisture	Dry Weight	I.D.#
861006	01	-0-	-0-	A	2.00000	5.95000	1.88100	1830
861006	01	-0-	-0-	B	2.00000	5.95000	1.88100	1831
861006	02	-0-	-0-	A	4.00000	9.95000	3.60200	1832
861006	02	-0-	-0-	B	4.00000	9.95000	3.60200	1833
861006	03	-0-	-0-	A	6.00000	6.10000	5.63400	1834
861006	03	-0-	-0-	B	6.00000	6.10000	5.63400	1835
861006	04	-0-	-0-	A	2.00000	5.32000	1.89360	1836
861006	04	-0-	-0-	B	2.00000	5.32000	1.89360	1837
861006	05	-0-	-0-	A	4.00000	10.3000	3.58800	1838
861006	05	-0-	-0-	B	4.00000	10.3000	3.58800	1839
861006	06	-0-	-0-	A	6.00000	9.00000	5.46000	1840
861006	06	-0-	-0-	B	6.00000	9.00000	5.46000	1841
861006	GWW	-0-	-0-	-0-	1.00000	0.00000	1.00000	1846
861006	MDL	-0-	-0-	-0-	6.00000	0.00000	6.00000	1899
861006	REC	-0-	-0-	-0-	10.0000	0.00000	10.0000	1842
861006	RECLEV	-0-	-0-	-0-	10.0000	0.00000	10.0000	1843
861006	SOILBL	-0-	-0-	-0-	10.0000	0.00000	10.0000	1844
861006	SOLVBL	-0-	-0-	-0-	1.00000	0.00000	1.00000	1845

Note: 1) GWW and SOLVBL Values are "weighted" to 1 gram with no moisture to yield total micrograms in the final report.
2) MDL is given a weight value to approximate actual sample weights.

MISSISSIPPI STATE UNIVERSITY

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762
PHONE (601) 325-2116

December 9, 1986

Mr. Charles Burdell
Southern Wood Piedmont
P. O. Box 5447
Spartanburg, SC 29304

Dear Charles:

Please find enclosed the chemical analysis results for two soil samples received from your Wilmington facility. Their corresponding identifications are as follows:

861104-1 = LF#1, Log #6829, sample No. 51, 9"-12"
861104-2 = LF#1, Log #6829, sample No. 52, 21"-24."

In comparison with previous results (861006-2 and 3), both PAH's and PCP show significant reductions at each level, particularly for the 21"-24" level. It has been discussed and agreed that the lower level is now sufficiently clear to allow an additional loading, provided that the soil is moderately dry.

As always, we will be glad to answer any questions that you may have on this data.

Sincerely,

David A. Strobel

David A. Strobel
Research Assistant II

gc

enclosures

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 10:45:18p
Date: 12/04/86

PAH Analyses Results of Site Batch Samples in UG per G

Site ID	Suffix	Day	Ld	Sb	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
861104	01	-0-	-0-	A	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	10.3	5.1	0.0	167.2	151.2	45.6	64.5	19.8	11.4
861104	01	-0-	-0-	B	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	15.9	4.0	0.0	53.6	51.7	21.9	30.4	10.9	8.5
861104	02	-0-	-0-	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2	23.8	4.3	0.0	0.0	0.0
861104	02	-0-	-0-	B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	10.2	4.5	0.0	0.0	0.0
861104	GWW	-0-	-0-	-0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
861104	REC	-0-	-0-	-0	10.2	11.7	10.4	10.4	9.2	11.1	12.0	12.6	7.9	10.6	7.6	10.1	9.0	8.4	13.9	3.5	0.0
861104	RECLEV	-0-	-0-	-0	9.8	10.7	11.5	12.4	10.7	10.8	10.6	10.7	9.6	9.4	12.3	10.2	9.6	9.6	9.2	9.6	1.6
861104	SOILBL	-0-	-0-	-0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
861104	SOLVBL	-0-	-0-	-0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Key:

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories. It does not provide absolute identification of components.

Analyst: David A. Stubel

Land Farming Group
Forest Products Laboratory
Miss. State Univerisity

Date: 12/04/86
Time: 10:51:11p

Group and Total PAH Results of Soil Samples in UG per G

Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
861104	01	-0-	-0-	A	0.0	18.3	428.5	31.2	478.1
861104	01	-0-	-0-	B	0.0	22.9	157.6	19.5	200.0
								Average Total PAH's:	339.0
861104	02	-0-	-0-	A	0.0	0.0	33.3	0.0	33.3
861104	02	-0-	-0-	B	0.0	0.0	18.6	0.0	18.6
								Average Total PAH's:	25.9

Key:

Bicyclics:	Tricyclics:	Tetracyclics:	Pentacyclics:
Naphthalene	Acenaphthylene	Fluoranthene	Benzo-a-pyrene
2-Methylnaphthalene	Acenaphthene	Pyrene	Benzo-ghi-perylene
1-Methylnaphthalene	Dibenzofuran	1,2-Benzanthracene	
Biphenyl	Fluorene	Chrysene	
	Phenanthrene		
	Anthracene		
	Carbazole		

Land Farming Group
Forest Products Laboratory
Miss. State University

Date: 11/13/86
Time: 8:36:52a

PCP Analysis Results in UG per G

SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP	I.D.#
861104	01	-0-	-0-	A	11.251	2014
861104	01	-0-	-0-	B	6.4797	2015
861104	02	-0-	-0-	A	0.0000	2016
861104	02	-0-	-0-	B	0.0000	2017
861104	REC	-0-	-0-	-0-	57.347	2018
861104	RECLEV	-0-	-0-	-0-	56.791	2019
861104	SOILBL	-0-	-0-	-0-	0.0000	2020

First Reviewer: Paul R. Beauregard

Second Reviewer:

Land Farming Group
Forest Products Laboratory
Miss. State University

Date: 11/13/86
Time: 8:30:32a

Weight and Moisture Content Data

Site I.D.	Suffix	Day	Load	Sub.	Moist soil Wt.	% Moisture	Dry Weight	I.D.#
861104	01	-0-	-0-	A	4.00000	6.25000	3.75000	2014
861104	01	-0-	-0-	B	4.00000	6.25000	3.75000	2015
861104	02	-0-	-0-	A	6.00000	6.90000	5.58600	2016
861104	02	-0-	-0-	B	6.00000	6.90000	5.58600	2017
861104	GWW	-0-	-0-	-0-	-0-	-0-	0.00000	2022
861104	REC	-0-	-0-	-0-	10.0000	0.00000	10.0000	2018
861104	RECLEV	-0-	-0-	-0-	10.0000	0.00000	10.0000	2019
861104	SOILBL	-0-	-0-	-0-	10.0000	0.00000	10.0000	2020
861104	SOLVBL	-0-	-0-	-0-	-0-	-0-	0.00000	2021

Note: 1) GWW and SOLVBL Values are "weighted" to 1 gram with no moisture to yield total micrograms in the final report.
2) MDL is given a weight value to approximate actual sample weights.

861208-1-6

MISSISSIPPI STATE UNIVERSITY

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762
PHONE (601) 325-2116

February 2, 1987

Mr. Charles Burdell
Southern Wood Piedmont
P. O. Box 5447
Spartanburg, SC 29304

Dear Charles:

Please find enclosed the information on soil samples from your Wilmington facility. The sample designations are as follows:

861208-(1-3) = LF #1, 6848 (A-C)
861208-(1-3) = LF #2, 6849 (A-C)

In comparison with 861006-1-6 samples, PAH's: For LF #1 (0-3"), reduction is moderate for most compounds except anthracene. For LF #1 (9-12") and (21-24"), significant reduction is evident for lower and heavy molecular weight compounds. LF #2 (0-3") indicates that more creosote sludge has been incorporated since all PAH levels are significantly higher. PAH levels are significantly higher for LF #2 (9-12") and (21-24"); therefore, no more creosote should be added to LF #2 for the timebeing.

PCP: For LF #1, concentrations are down for all three levels. For LF #2, significant increase is evident for all levels apparently due to reloading of the site.

Nutrients: For LF #1 and LF #2, carbon is up significantly while nitrogen is relatively unchanged, yielding a higher C/N ratio. Phosphorus is unchanged.

Chloride and pH: LF #1 and LF #2 are unchanged while the pH has dropped to around 6.

Bacteria counts: For LF #1, bacteria populations are relatively down or unchanged for all media. For LF #2, populations follow the same pattern. Decrease in bacteria counts may be due to drop in temperature in December.

As always, we will be glad to answer any questions that you may have on this data.

Sincerely,

David A. Strobel

David A. Strobel
Research Assistant II

sl:2/2/87
enclosures

MISSISSIPPI STATE UNIVERSITY

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762
PHONE (601) 325-2116

January 28, 1987

Dr. Gary D. McGinnis
Forest Products Lab

Dr. McGinnis:

Listed below are results of pH, Cl, C/N ratio, and total organic carbon, nitrogen, and phosphorus from Wilmington, NC.

SWP #1	Depth	FPUL #	C g/g	N g/g	P g/g	C/N	Cl	pH
6848A	0-3"	861208-1	36440	1020	89.5	35.72	31	5.85
6849A	0-3"	861208-4	53481	1174	234.6	45.55	31	6.07

Hamid Borazjani, Analyst

/sl

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 9:42:27p
Date: 12/17/86

PAH Analyses Results of Site Batch Samples in UG per G

Site ID	Suffix	Day	Ld	Sb	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
861208	01	-0-	-0-	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.9	27.4	0.0	19.6	25.1	0.0	0.0	0.0	0.0
861208	01	-0-	-0-	B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4	21.4	0.0	14.2	26.6	15.8	0.0	0.0	0.0
861208	02	-0-	-0-	A	0.0	0.0	0.0	0.0	0.0	2.8	4.1	0.0	8.2	7.2	0.0	41.3	31.6	15.9	29.6	10.3	8.5
861208	02	-0-	-0-	B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	4.7	0.0	47.1	43.4	21.9	34.4	13.7	6.8
861208	03	-0-	-0-	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	8.8	4.5	0.0	0.0	0.0
861208	03	-0-	-0-	B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	13.3	13.9	0.0	0.0	0.0
861208	04	-0-	-0-	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.1	33.7	99.5	24.4	185.4	180.7	70.6	83.0	45.0	30.6
861208	04	-0-	-0-	B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.4	56.9	304.4	61.8	71.2	69.5	52.2	67.7	35.3	17.7
861208	05	-0-	-0-	A	0.0	0.0	0.0	0.0	0.0	11.0	6.3	9.7	36.2	28.5	5.7	109.2	111.5	35.4	46.2	25.0	19.6
861208	05	-0-	-0-	B	0.0	0.0	0.0	0.0	0.0	6.5	8.8	15.4	53.9	115.5	29.4	208.2	175.7	51.3	60.2	28.5	17.1
861208	06	-0-	-0-	A	0.0	0.0	0.0	0.0	0.0	5.4	5.7	7.3	29.9	21.4	5.7	132.1	120.2	40.0	56.9	28.4	18.9
861208	06	-0-	-0-	B	0.0	0.0	0.0	0.0	0.0	5.5	11.1	19.4	46.8	185.3	47.8	141.0	127.8	41.8	64.1	30.9	18.2
861208	GWW	-0-	-0-	-0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
861208	REC	-0-	-0-	-0	15.0	18.0	17.6	16.7	17.0	16.9	20.1	19.9	11.4	17.1	10.3	18.3	21.1	13.8	24.7	11.1	12.6
861208	RECLEV	-0-	-0-	-0	19.4	22.0	17.5	18.7	17.5	17.5	19.6	19.5	12.0	16.6	20.8	17.2	19.2	17.0	14.7	12.6	12.7
861208	SOILBL	-0-	-0-	-0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
861208	SOLVBL	-0-	-0-	-0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Key:

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories.
It does not provide absolute identification of components.

Analyst: David A. Stuntel

Land Farming Group
Forest Products Laboratory
Miss. State Univerisity

Date: 12/17/86
Time: 9:47:01p

Group and Total PAH Results of Soil Samples in UG per G

Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
861208	01	-0-	-0-	A	0.0	37.3	44.7	0.0	82.0
861208	01	-0-	-0-	B	0.0	25.7	56.6	0.0	82.4
								Average Total PAH's:	82.2
861208	02	-0-	-0-	A	0.0	22.4	118.4	18.8	159.6
861208	02	-0-	-0-	B	0.0	11.8	146.8	20.5	179.1
								Average Total PAH's:	169.3
861208	03	-0-	-0-	A	0.0	0.0	19.3	0.0	19.3
861208	03	-0-	-0-	B	0.0	0.0	37.3	0.0	37.3
								Average Total PAH's:	28.3
861208	04	-0-	-0-	A	0.0	177.7	519.8	75.5	773.1
861208	04	-0-	-0-	B	0.0	459.6	260.6	52.9	773.0
								Average Total PAH's:	773.1
861208	05	-0-	-0-	A	0.0	97.5	302.3	44.5	444.3
861208	05	-0-	-0-	B	0.0	229.5	495.4	45.6	770.5
								Average Total PAH's:	607.4
861208	06	-0-	-0-	A	0.0	75.4	349.2	47.3	471.8
861208	06	-0-	-0-	B	0.0	315.8	374.6	49.1	739.5
								Average Total PAH's:	605.7

Key:

Bicyclics:	Tricyclics:	Tetracyclics:	Pentacyclics:
Naphthalene	Acenaphthylene	Fluoranthene	Benzo-a-pyrene
2-Methylnaphthalene	Acenaphthene	Pyrene	Benzo-ghi-perylene
1-Methylnaphthalene	Dibenzofuran	1,2-Benzanthracene	
Biphenyl	Fluorene	Chrysene	
	Phenanthrene		
	Anthracene		
	Carbazole		

Land Farming Group
Forest Products Laboratory
Miss. State University

Date: 12/12/86
Time: 4:54:16p

PCP Analysis Results in UG per G

SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP	I.D.#
861208	01	-0-	-0-	A	1.5005	2148
861208	01	-0-	-0-	B	1.3895	2149
861208	02	-0-	-0-	A	5.3982	2150
861208	02	-0-	-0-	B	5.1980	2151
861208	03	-0-	-0-	A	1.6925	2152
861208	03	-0-	-0-	B	2.3982	2153
861208	04	-0-	-0-	A	42.376	2154
861208	04	-0-	-0-	B	17.968	2155
861208	05	-0-	-0-	A	28.326	2156
861208	05	-0-	-0-	B	28.865	2157
861208	06	-0-	-0-	A	34.912	2158
861208	06	-0-	-0-	B	37.134	2159
861208	REC	-0-	-0-	-0-	99.915	2160
861208	RECLEV	-0-	-0-	-0-	94.652	2161
861208	SOILBL	-0-	-0-	-0-	0.0000	2162

First Reviewer: Paul R. Beauregard

Second Reviewer:

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 2:28:56p
Date: 12/15/86

Micro. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS
861208	01	-0-	-0-	A	700000	3200000	120000	3900000	1600000	1600000	-0-
861208	04	-0-	-0-	A	650000	3700000	105000	3850000	2250000	2550000	-0-

First Reviewer: Angela L. Dunnam Date: 12-15-86

Second Reviewer: Boran Ahmed Date: 12-15-86

James W. Andrews, Ph.D.
President

Janette M. Davis
Vice-President

SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES, INC.

P. O. Box 13548 • Savannah, GA 31416-0548
Whitfield Avenue at Shipyard Road (31406)
(912) 354-7858

WRP
DAM
JMD

LOG NO: 87-0116

Received: 14 JAN 87

Mr. Ed Gibbs
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304
CC: Steve Blevins

Project: Wilmington Plant

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , WATER SAMPLES	SAMPLED BY
0116-1	#11 SWP C.F. River old slip up stream	Client
0116-2	#12 Port Authority C.F.River downstream	
0116-3	#13 U.S.Hwy 74 near bridge C.F. River	
0116-4	#14 Greenfield Creek mouth of C.F.River	

PARAMETER	0116-1	0116-2	0116-3	0116-4
K001-Appendix 7 Parameters				
2-Chlorophenol, mg/l	ND	ND	ND	ND
Phenol, mg/l	ND	ND	ND	ND
2,4-Dimethylphenol, mg/l	ND	ND	ND	ND
2,4,6-Trichlorophenol, mg/l	ND	ND	ND	ND
p-Chloro-m-cresol, mg/l	ND	ND	ND	ND
Tetrachlorophenol, mg/l	ND	ND	ND	ND
2,4-Dinitrophenol, mg/l	ND	ND	ND	ND
Pentachlorophenol, mg/l	ND	ND	ND	ND
Naphthalene, mg/l	ND	ND	ND	ND
Acenaphthene, mg/l	ND	ND	ND	ND
Phenanthrene + Anthracene, mg/l	ND	ND	ND	ND
Fluoranthene, mg/l	ND	ND	ND	ND
Chrysene + Benz(a)anthracene, mg/l	ND	ND	ND	ND
Benzo(b,k)fluoranthene, mg/l	ND	ND	ND	ND
Benzo(a)pyrene, mg/l	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene+Dibenzo(a,h)anthracene, mg/l	ND	ND	ND	ND
Carbazole, mg/l	ND	ND	ND	ND
Copper, mg/l	ND	ND	ND	ND

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James W. Andrews, Ph.D.
President

Janette M. Davis
Vice-President

SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES, INC.

P. O. Box 13548 • Savannah, GA 31416-0548
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LOG NO: 87-0116

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Mr. Ed Gibbs
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304
CC: Steve Blevins

Project: Wilmington Plant

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , WATER SAMPLES	SAMPLED BY
0116-1	#11 SWP C.F. River old slip up stream	Client
0116-2	#12 Port Authority C.F.River downstream	
0116-3	#13 U.S.Hwy 74 near bridge C.F. River	
0116-4	#14 Greenfield Creek mouth of C.F.River	

PARAMETER	0116-1	0116-2	0116-3	0116-4
Chromium, mg/l	ND	ND	ND	ND
Arsenic, mg/l	ND	ND	ND	ND

Methods: EPA SW-846
ND = None Detected

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James W. Andrews, Ph.D.
President

Janette M. Davis
Vice-President

SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES, INC.

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Whitfield Avenue at Shipyard Road (31406)
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LOG NO: 87-0116

Received: 14 JAN 87

Mr. Ed Gibbs
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304
CC: Steve Blevins

Project: Wilmington Plant

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION	SAMPLED BY
0116-5	Detection Limitss	Client
0116-6	Accuracy (mean % recovery)	
0116-7	Precison (mena % RSD)	

PARAMETER	0116-5	0116-6	0116-7
K001-Appendix 7 Parameters			
2-Chlorophenol, mg/l	0.01	96 %	0 %
Phenol, mg/l	0.01	35 %	36 %
2,4-Dimethylphenol, mg/l	0.01	55 %	24 %
2,4,6-Trichlorophenol, mg/l	0.01	64 %	12 %
p-Chloro-m-cresol, mg/l	0.01	56 %	21 %
Tetrachlorophenol, mg/l	0.02	31 %	19 %
2,4-Dinitrophenol, mg/l	0.03	42 %	27 %
Pentachlorophenol, mg/l	0.01	61 %	6 %
Naphthalene, mg/l	0.01	57 %	42 %
Acenaphthene, mg/l	0.01	49 %	27 %
Phenanthrene + Anthracene, mg/l	0.02	49 %	35 %
Fluoranthene, mg/l	0.02	72 %	13 %
Chrysene + Benz(a)anthracene, mg/l	0.03	81 %	21 %
Benzo(b,k)fluoranthene, mg/l	0.03	67 %	28 %
Benzo(a)pyrene, mg/l	0.02	62 %	35 %
Indeno(1,2,3-cd)pyrene+Dibenzo(a,h)anthracene, mg/l	0.03	64 %	39 %
Carbazole, mg/l	0.01	53 %	32 %
Copper, mg/l	0.05	101 %	2.0 %
Chromium, mg/l	0.05	97 %	2.9 %
Arsenic, mg/l	0.01	85 %	12 %

RECEIVED

JAN 2 1987

ENVIRONMENTAL AFFAIRS

J. W. Andrews

J. W. Andrews, Ph. D.

CHAIN OF CUSTODY RECORD

SLm

COMPANY NAME/LOCATION: Southern Wood Piedmont, Wilmington NC.

SAMPLERS (Signature): Hop Creeps B.

SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE IDENTIFICATION	NO. OF CONTAINERS	1 liter plastic jug (T)	1 liter glass w/TFE (J)	500 ml plastic-zenA	500 ml plastic-met(W)	250 ml plastic (D)	250 ml oval glass(C)	130 ml amber glass(E)	100 ml plastic (P)	40ml vial w/ins. (G)	20 ml plastic vial(I)	1 liter wm glass (L)	1 liter wm plastic (U)	500 ml wm glass (N)	500 ml wm plastic (P)	40ml vial w/ins. (G)	*Container sealed	ADDITIONAL SAMPLE INFORMATION
61	1/13/87	1000 AM		✓	#11-SWP Cape Fear River old slip-up stream	1		1						1									
61	1/13/87	✓		✓	#12 State Ports Authy Cape Fear River Down stream	1		1						1									
61	1/13/87	✓		✓	#13 U.S. Hwy #74 Near Bridge Cape Fear River up stream	1		1						1									
61	1/13/87	✓		✓	#14 Greenfield Creek mouth of C.F. River Down stream	1		1						1									

COLOR CODE: WATER/WASTEWATER: P, R; SOIL/SLUDGE

Relinquished by:	Date/Time	Received by:	Date/Time	Relinquished by:	Date/Time
		L. Sims	1/14/87 3:30 pm		
Relinquished by:	Date/Time	Received by:	Date/Time	Relinquished by:	Date/Time

Color Code/Preservative
- Green - sulfuric acid
- Purple - no preservative
- Red - nitric acid
- Tan - zinc acetate
- Yellow - sodium thiosulfate
- Blue - sodium hydroxide

Container seal intact

Field _____

Lab _____

Part I: Field Section

Collector H.O. Phillips Jr Date Sampled 1/13/87 Time 1000 Am. (hours)

Affiliation of Sampler Southern Wood Piedmont Co.

Address PO Box 470 - Foot of Greenfield St. Wilmington NC 28402
number street city state zip

Telephone (919) 762-9678 Company Contact H.O. Phillips

TYPE OF SAMPLE/SAMPLES*	FIELD INFORMATION
Water	

*Indicate whether sample is soil, sludge, water, etc.

Analysis Requested

Special Handling and/or Storage

Part II: Bottles Required for Analyses Requested

The number, color and type of sampling containers we have provided you is listed below. The color codes correspond with specific preservatives (See reverse side of form), pease handle with caution. Please fill in all necessary information on both sides of this form and return to us along with your samples. Ship coolers back to Savannah Laboratories & Environmental Services, Inc., by UPS, Bus or Federal Express. Our shipping address is: Shipyard Road at Whitfield Ave., Savannah, GA 31406. If you have any questions about sampling procedures, please call (912)354-7858.

K001 and CCA

	WATER/WASTEWATER																							SOIL/SLUDGE					
COLOR CODE	P								R																				
	liter plastic jug (T)	liter glass w/TFE (J)	500 ml plastic-gen(A)	500 ml plastic-met(M)	250 ml plastic (D)	250 ml oval glass(C)	130 ml amber glass(E)	100 ml plastic (F)	40ml vial w/ins. (G)	20 ml plastic vial(L)		liter wm glass (L)	liter wm plastic (U)	500 ml wm glass (N)	500 ml wm plastic(P)	40ml vial w/ins. (G)	*Bottle sealed	*Container sealed											
	4								4																				

Bottles shipped to: Southern Wood Piedmont
Greenfield St.
Wilmington NC 28401

MISSISSIPPI STATE UNIVERSITY

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762
PHONE (601) 325-2116

March 12, 1987

- Take advantage of lack of kill zones in agency
- set page expects that the wol enemies and agency reinforcements exists - Slow down is ecologically sour [illegible] standpoint -

Mr. Mike Pruett
Southern Wood Piedmont
P. O. Box 5447
Spartanburg, SC 29304

Dear Mike:

Please find enclosed the information on soil samples from your Wilmington units. The sample designations are 870209(1-3) = LF #1, 6881(A-C) and 870209(1-3) = LF #2, 6882(A-C).

In comparison with 861208-1-6 samples, PAH's: For LF #1 (0-3"), (9-12"), and (21-24") indicate moderate increase for most of heavy compounds. PAH levels are significantly lower for LF #2 (0-3"), (9-12"), and (21-24").

PCP: For LF #1, concentrations are down to zero for all three levels. For LF #2, concentrations are down or unchanged for (0-3"), and (21-24") but significant increase is evident for (9-12").

Nutrients: For LF #1 and LF #2, carbon is down while nitrogen is unchanged for LF #1 and down for LF #2. Phosphorus is significantly higher for both units.

Chloride ion and pH: Chloride ion is slightly up for LF #1 and #2; pH has been corrected to above 6 for both units.

Bacteria counts: For LF #1, with exception of penta amended media, bacteria populations are down. Significant increase of bacteria for penta amended media explains the sharp drop of penta for LF #1. For LF #2, bacteria counts are down for all except non-amended media. Bacteria counts are usually lower than usual in cold weather.

We will be glad to answer any questions that you may have on this data.

Sincerely,

David Strobel

David A. Strobel
Research Assistant II

sl:sampleanal
enclosures

MISSISSIPPI STATE UNIVERSITY

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762
PHONE (601) 325-2116

March 11, 1987

Dr. Gary D. McGinnis
Forest Products Lab
Mississippi State, MS 39762

Dear Dr. McGinnis:

Results of chloride ion concentration, pH, C/N ratio, total organic carbon, nitrogen, and phosphorus for Wilmington landfarming units are listed below.

FPUL #	SWP #	C(µg/g)	N(µg/g)	P(µg/g)	C/N	Cl(µg/g)	pH
870209-1	6881A(0-3")	35511.4	1154.1	857.9	30.77	36.6	6.33
870209-4	6882A(0-3")	43148.13	921.5	673.1	46.82	45.0	6.41

Hamid Borazjani, Analyst

/sl

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 8:50:11a
Date: 02/25/87

PAH Analyses Results of Site Batch Samples in UG per G

I.D.	Site	Sfx	Day	Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bgh
2537	870209	01	-0-	-0-	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.2	39.1	124.6	33.5	123.2	110.5	22.1	40.9	7.3	0.0
2538	870209	01	-0-	-0-	B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.7	43.3	159.3	41.2	92.1	85.1	11.4	12.9	0.0	0.0
2539	870209	02	-0-	-0-	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7	7.7	0.0	68.2	68.0	30.7	51.7	19.0	13.3
2540	870209	02	-0-	-0-	B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	9.5	0.0	68.6	64.6	16.3	33.3	11.8	7.4
2541	870209	03	-0-	-0-	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9	5.7	0.0	15.1	22.1	3.4	8.0	0.0	0.0
2542	870209	03	-0-	-0-	B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	3.2	0.0	7.8	8.8	6.3	8.3	3.5	0.0
2543	870209	04	-0-	-0-	A	0.0	0.0	0.0	0.0	0.0	0.0	9.9	9.4	27.3	66.4	0.0	58.9	60.0	23.1	42.2	24.7	0.0
2544	870209	04	-0-	-0-	B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	20.9	39.6	0.0	84.3	93.6	25.9	14.1	18.5	0.0
2545	870209	05	-0-	-0-	A	0.0	0.0	0.0	0.0	0.0	2.9	0.0	3.4	12.9	26.9	0.0	72.0	69.4	11.3	25.6	13.3	7.7
2546	870209	05	-0-	-0-	B	0.0	0.0	0.0	0.0	0.0	2.5	8.1	3.7	15.4	24.0	0.0	79.1	79.1	13.3	29.2	14.3	0.0
2547	870209	06	-0-	-0-	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	5.8	0.0	17.1	17.3	2.5	0.0	0.0	0.0
2548	870209	06	-0-	-0-	B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	6.7	0.0	16.6	18.1	4.4	0.0	0.0	0.0
2553	870209	GWW	-0-	-0-	-0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2549	870209	REC	-0-	-0-	-0	16.0	17.7	16.7	15.7	17.0	17.4	20.5	20.6	13.5	21.0	14.9	23.9	27.3	14.7	29.5	15.2	11.5
2550	870209	RECL	-0-	-0-	-0	19.4	22.0	17.5	18.7	17.5	17.5	19.6	19.5	15.3	16.6	20.8	17.2	19.2	17.0	14.7	12.6	12.7
2551	870209	SOIL	-0-	-0-	-0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2552	870209	SOLV	-0-	-0-	-0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Key:

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
I.D. = Sample Number

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Site = Site Name

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Sfx = Suffix
S = Subscript

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit
Ld = Percent Load

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories. It does not provide absolute identification of components.

Analyst: David A. Stobel

Forest Products Laboratory Time: 8:53:47a
Miss. State University

PCP Analysis Results by GC/FID in UG per G

I.D.#	Site I.D.	Suffix	Day	Load	Subscript	PCP
2537	870209	01	-0-	-0-	A	0.0
2538	870209	01	-0-	-0-	B	0.0
2539	870209	02	-0-	-0-	A	0.0
2540	870209	02	-0-	-0-	B	0.0
2541	870209	03	-0-	-0-	A	0.0
2542	870209	03	-0-	-0-	B	0.0
2543	870209	04	-0-	-0-	A	33.5
2544	870209	04	-0-	-0-	B	47.2
2545	870209	05	-0-	-0-	A	110.3
2546	870209	05	-0-	-0-	B	115.8
2547	870209	06	-0-	-0-	A	26.6
2548	870209	06	-0-	-0-	B	27.5
2553	870209	GWW	-0-	-0-	-0-	0.0
2549	870209	REC	-0-	-0-	-0-	119.1
2550	870209	RECLEV	-0-	-0-	-0-	94.7
2551	870209	SOILBL	-0-	-0-	-0-	0.0
2552	870209	SOLVBL	-0-	-0-	-0-	0.0

Land Farming Group
Forest Products Laboratory
Miss. State Univerisity

Date: 02/25/87
Time: 8:55:24a

Group and Total PAH Results of Soil Samples in UG per G

I.D.#	Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
2537	870209	01	-0-	-0-	A	0.0	209.4	296.7	7.3	513.4
2538	870209	01	-0-	-0-	B	0.0	264.4	201.4	0.0	465.8
								Average Total PAH's:		489.6
2539	870209	02	-0-	-0-	A	0.0	17.4	218.6	32.2	268.2
2540	870209	02	-0-	-0-	B	0.0	25.5	182.8	19.2	227.5
								Average Total PAH's:		247.8
2541	870209	03	-0-	-0-	A	0.0	10.6	48.6	0.0	59.2
2542	870209	03	-0-	-0-	B	0.0	5.4	31.1	3.5	40.1
								Average Total PAH's:		49.6
2543	870209	04	-0-	-0-	A	0.0	113.0	184.2	24.7	321.8
2544	870209	04	-0-	-0-	B	0.0	66.0	217.9	18.5	302.4
								Average Total PAH's:		312.1
2545	870209	05	-0-	-0-	A	0.0	46.0	178.3	21.0	245.4
2546	870209	05	-0-	-0-	B	0.0	53.6	200.6	14.3	268.5
								Average Total PAH's:		256.9
2547	870209	06	-0-	-0-	A	0.0	8.7	36.9	0.0	45.6
2548	870209	06	-0-	-0-	B	0.0	9.9	39.1	0.0	49.0
								Average Total PAH's:		47.3
2553	870209	GWW	-0-	-0-	-0	0.0	0.0	0.0	0.0	0.0
								Average Total PAH's:		0.0
2549	870209	REC	-0-	-0-	-0	66.1	124.7	95.3	26.8	313.0
								Average Total PAH's:		313.0
2550	870209	RECLEV	-0-	-0-	-0	77.7	126.8	68.1	25.3	297.9
								Average Total PAH's:		297.9
2551	870209	SOILBL	-0-	-0-	-0	0.0	0.0	0.0	0.0	0.0

Group and Total PAH Results of Soil Samples in UG per G

I.D.#	Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
									Average Total PAH's:	0.0
2552	870209	SOLVBL	-0-	-0-	-0	0.0	0.0	0.0	0.0	0.0
									Average Total PAH's:	0.0

Key:

Bicyclics:	Tricyclics:	Tetracyclics:	Pentacyclics:
Naphthalene	Acenaphthylene	Fluoranthene	Benzo-a-pyrene
2-Methylnaphthalene	Acenaphthene	Pyrene	Benzo-ghi-perylene
1-Methylnaphthalene	Dibenzofuran	1,2-Benzanthracene	
Biphenyl	Fluorene	Chrysene	
	Phenanthrene		
	Anthracene		
	Carbazole		

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 1:37:43p
Date: 02/16/87

Micro. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS
870209	01	-0-	-0-	A	333333	2800000	76666	3200000	2400000	2033333	-0-
870209	04	-0-	-0-	A	316666	2133333	110000	3200000	1566666	1583333	-0-

First Reviewer: Angela L. Dunham Date: 2-16-87

Second Reviewer: [illegible] Date: 2-16-87

MISSISSIPPI STATE UNIVERSITY

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762
PHONE (601) 325-2116

June 3, 1987

Mr. Mike Pruett
Southern Wood Piedmont
P. O. Box 5447
Spartanburg, SC 29304

Dear Mike:

Please find enclosed the information on soil samples from your Wilmington units. The sample designations are 870508(1-3) = LF #1, 6968(A-C), and 870508(~~1-3~~ 4-6) = LF #2, 6969(A-C).

In comparison with 870209-1-6 samples, PAH's: For LF #1 (0-3") and (9-12") show significant increase for most of heavy compounds but no change is evident for (21-24"). PAH levels are significantly higher for LF #2 (0-3"), (9-12"), and (21-24").

PCP: For LF #1, concentrations are up slightly for all three levels. For LF #2, concentrations are up for (0-3"), down slightly for (9-12"), and significantly lower for (21-24").

Nutrients: For LF #1, carbon and nitrogen are up but phosphorus is down. For LF #2, carbon and nitrogen are down while phosphorus is up. C/N ratio for both units is in good shape.

Chloride ion and pH: Chloride ion is up for LF #1 and is slightly down for LF #2; pH has been adjusted to above 6.5 for both units.

Bacteria counts: For LF #1, bacteria populations are up for all media except creosote amended medium. The same pattern is followed for LF #2, but increase in bacteria populations is more significant here.

We will be glad to answer any questions that you may have on this data.

Sincerely,

Hamid

Hamid Borazjani
Research Associate

sl:sampleanal
enclosures

Land Treatment Group
Forest Products Laboratory
Miss. State University

Date: 05/28/87
Time: 4:17:22

PCP Analysis Results in UG per G

SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP	I.D.#
870508	01	----	----	A	4.8	3143
870508	01	----	----	B	3.7	3144
870508	02	----	----	A	4.6	3145
870508	02	----	----	B	4.7	3146
870508	03	----	----	A	0.0	3324
870508	03	----	----	B	0.0	3147
870508	04	----	----	A	52.2	3148
870508	04	----	----	B	71.1	3149
870508	05	----	----	A	101.9	3150
870508	05	----	----	B	104.3	3151
870508	06	----	----	A	5.9	3152
870508	06	----	----	B	4.9	3153
870508	GWW	----	----	----	0.0	3158
870508	REC	----	----	----	99.1	3154
870508	RECLEV	----	----	----	94.7	3155
870508	SOILBL	----	----	----	0.0	3156
870508	SOLVBL	----	----	----	0.0	3157

Values of 0.0 indicate None Detected above the Method Detection Limit.

Analyst: David A. Stabel

Land-Farming Group
Forest Products Laboratory
Miss. State University

Time: 23:13:10
Date: 05/21/87

PAH Analyses Results of Site Batch Samples in UG per G

I.D.	Site	Sfx	Day	Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
3143	870508	01	---	---	A	11.5	22.1	0.0	5.0	0.0	6.6	35.6	87.2	126.6	955.2	309.9	83.2	74.0	28.4	59.2	20.8	0.0
3144	870508	01	---	---	B	12.6	23.3	0.0	5.2	0.0	7.6	40.4	106.1	164.5	1228.3	402.0	154.0	129.5	45.6	78.9	20.7	0.0
3145	870508	02	---	---	A	3.2	4.2	0.0	0.0	3.5	3.9	9.1	18.3	36.6	133.9	45.7	60.5	62.7	22.3	43.0	19.2	8.8
3146	870508	02	---	---	B	2.5	3.0	0.0	0.0	3.3	4.0	5.8	6.7	18.8	46.2	14.4	73.1	71.2	25.0	43.9	18.0	8.1
3146	870508	03	---	---	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	6.4	0.0	11.8	9.9	3.1	12.1	0.0	0.0
3147	870508	03	---	---	B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	5.1	17.4	5.7	11.4	10.7	3.7	10.8	0.0	0.0
3148	870508	04	---	---	A	9.7	14.8	2.7	3.2	4.0	10.8	29.1	60.9	130.8	496.9	153.8	271.8	222.7	59.9	92.5	27.2	8.2
3149	870508	04	---	---	B	17.3	27.1	3.1	6.0	4.1	8.9	46.4	121.4	212.5	1430.1	283.5	249.1	216.7	64.7	120.3	30.1	8.4
3150	870508	05	---	---	A	6.9	4.4	1.2	0.0	2.6	3.9	10.5	8.6	23.4	74.6	22.2	121.6	116.3	30.9	49.6	21.5	8.2
3151	870508	05	---	---	B	4.5	4.2	0.0	0.0	2.8	5.5	11.5	18.3	42.5	107.3	32.7	133.6	123.7	32.5	53.2	21.7	8.8
3152	870508	06	---	---	A	0.0	0.0	0.0	0.0	0.0	2.3	3.2	2.1	12.3	10.4	4.1	37.9	32.8	11.1	17.7	6.5	0.0
3153	870508	06	---	---	B	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.7	16.9	8.6	3.7	26.0	22.1	9.9	16.5	8.5	0.0
3153	870508	GKW	---	---	--	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3154	870508	REC	---	---	--	11.8	15.7	12.8	16.1	16.4	18.4	21.3	23.2	16.8	23.5	28.1	26.6	29.0	24.1	23.3	14.7	10.6
3155	870508	RECLE	---	---	--	19.4	22.0	17.5	18.7	17.5	17.5	19.6	19.5	12.0	16.6	20.8	17.2	19.2	17.0	14.7	12.6	12.7
3156	870508	SOILB	---	---	--	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3157	870508	SOLVB	---	---	--	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Key:

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
I.D. = Sample Number

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Site = Site Name

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
US = micrograms
Sfx = Suffix
S = Subscript

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit
Ld = Percent Load

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GKW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories.
It does not provide absolute identification of components.

Analyst: David A. Stotel

Land Farming Group
Forest Products Laboratory
Miss. State Univerisity

Date: 06/03/87
Time: 0:42:21

Up and Total PAH Results of Soil Samples in UG per G

I.D.#	Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
3143	870508	01	----	----	A	38.7	1521.1	244.8	20.8	1825.4
3144	870508	01	----	----	B	41.1	1948.9	408.0	20.7	2418.6
									Average Total PAH's:	2122
3145	870508	02	----	----	A	7.4	250.9	188.6	18.9	465.7
3146	870508	02	----	----	B	5.5	99.2	213.1	26.0	343.9
									Average Total PAH's:	404.8
3324	870508	03	----	----	A	0.0	6.6	24.3	0.0	30.9
3147	870508	03	----	----	B	0.0	30.5	36.6	0.0	67.1
									Average Total PAH's:	49.0
3148	870508	04	----	----	A	30.3	886.0	646.9	35.4	1598.6
3149	870508	04	----	----	B	53.5	2107.0	650.8	38.5	2849.8
									Average Total PAH's:	2224.2
3150	870508	05	----	----	A	12.5	145.7	318.5	29.8	506.5
3151	870508	05	----	----	B	8.7	220.7	342.9	30.5	602.8
									Average Total PAH's:	554.7
3152	870508	06	----	----	A	0.0	34.4	99.6	6.5	140.5
3153	870508	06	----	----	B	0.0	37.1	74.5	8.5	120.0
									Average Total PAH's:	130.2
3158	870508	GWW	----	----	--	0.0	0.0	0.0	0.0	0.0
									Average Total PAH's:	0.0
3154	870508	REC	----	----	--	56.4	147.6	103.0	25.4	332.4
									Average Total PAH's:	332.4
[illegible]	870508	RECLEV	----	----	--	77.7	123.4	68.1	25.3	294.5

Group and Total PAH Results of Soil Samples in UG per G

I.D.#	Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
									Average Total PAH's:	294.5
3156	870508	SOILBL	----	----	--	0.0	0.0	0.0	0.0	0.0
									Average Total PAH's:	0.0
3157	870508	SOLVBL	----	----	--	0.0	0.0	0.0	0.0	0.0
									Average Total PAH's:	0.0

MISSISSIPPI STATE UNIVERSITY

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762
PHONE (601) 325-2116

June 2, 1987

Dr. Gary D. McGinnis
Forest Products Lab
Mississippi State, MS 39762

Dear Dr. McGinnis:

Results of chloride ion concentration, pH, C/N ratio, total organic carbon, nitrogen, and phosphorus for Wilmington landfarming units are listed below.

FPUL #	SWP#	Depth	C(μg/g)	N(μg/g)	P(μg/g)	C/N	Cl(μg/g)	pH
870508-1	6968A	0-3"	42228.1	1501.2	320.5	28.13	46	6.70
870508-4	6969A	0-3"	42311.7	1212.1	601.2	34.90	29	6.50

I will be glad to answer any questions that you may have on this data.

Hamid Borazjani, Analyst

sl

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 8:39:50
Date: 06/02/87

Micro. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS
870508	01	----	----	A	250000	2933333	100000	2800000	2333333	2400000	----
870508	04	----	----	A	220000	2733333	93333	2400000	2733333	3200000	----

First Reviewer: Angela D. Carraway Date: 6-2-87

Second Reviewer: Bonnie Alcorn Date: 6-2-87

VDI

SSISSIPPI STATE UNIVERSITY

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762-5724
PHONE (601) 325-2116

October 22, 1987

Mr. Mike Pruett
Southern Wood Piedmont
P. O. Box 5447
Spartanburg, SC 29304

Dear Mike:

Please find enclosed the information on soil samples from your Wilmington units. The sample designations are 870919(1-3) = LF #1, 7054(A-C), and 870919(4-6) = LF #2, 7055(A-C), and 870919-7 (creo/soil from LF #1 and LF #2 composite).

In comparison with 870508-1-6 samples, PAH's for LF #1 (0-3"), (9-12"), and (21-24") show significant reduction for light and most heavy compounds. PAH levels have declined sharply for LF #2 (0-3"), but levels have increased slightly for (9-12") and (21-24") depths. PAH levels are very high for creo/soil composite from LF #1 and LF #2.

PCP: For LF #1, concentrations are down to zero (by our method detection limit) for (0-3") and (21-24") and up slightly for (9-12"). For LF #2, concentrations are down sharply for (0-3") and (9-12") but up slightly for (21-24").

Nutrients: For LF #1, carbon is down, but nitrogen and phosphorus are up. For LF #2, everything except phosphorus is up. Due to decline of carbon in LF #1, C/N ratio is slightly below normal; but for LF #2, C/N ratio is still in good shape.

Chloride ion and pH: Chloride ion is down for LF #1 but unchanged for LF #2; pH is perfect for LF #1 and slightly down for LF #2 (addition of lime would help to correct the pH).

Bacteria counts: For LF #1, total bacteria populations are unchanged, but there is a reduction in populations of penta- and creosote-tolerant bacteria. For LF #2, with the exception of creosote-tolerant bacteria, populations are down for all other media. Even though bacteria populations have declined sharply, there is still enough bacteria in the soil for both units to get the job done.

We will be glad to answer any questions that you may have on this data.

Sincerely,

Hamid

Hamid Borazjani
Research Associate

sl:sampleanal
enclosures

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 11:06:02
Date: 10/16/87

PAH Analyses Results of Site Batch Samples in UG per G

I.D.	Site	Sfx	Day	Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
4191	870919	01	----	---	A	0	0	0	0	0	0	0	27	44	191	56	36	54	27	31	0	0
4192	870919	01	----	---	B	0	0	0	0	0	0	0	39	77	269	107	54	71	37	47	0	0
4193	870919	02	----	---	A	0	0	0	0	0	0	0	7	15	49	2	59	79	33	42	8	0
4194	870919	02	----	---	B	0	0	0	0	0	0	0	0	14	19	13	66	83	32	43	11	0
4195	870919	03	----	---	A	0	0	0	0	0	0	0	0	5	3	0	68	73	23	24	5	0
4196	870919	03	----	---	B	0	0	0	0	0	0	0	0	7	3	0	60	65	19	20	2	0
4197	870919	04	----	---	A	0	0	0	0	0	0	0	0	35	92	9	45	60	37	29	0	0
4198	870919	04	----	---	B	0	0	0	0	0	15	33	73	99	484	187	46	64	29	31	0	0
4199	870919	05	----	---	A	0	0	0	0	0	11	11	9	26	48	25	298	291	72	99	11	0
4200	870919	05	----	---	B	0	0	0	0	0	11	0	0	24	62	23	237	241	60	86	14	0
4201	870919	06	----	---	A	0	0	0	0	0	9	8	10	60	19	12	69	63	26	27	9	0
4202	870919	06	----	---	B	0	0	0	0	0	0	0	0	8	6	2	29	28	11	11	6	0
4203	870919	07	----	---	A	66	347	189	56	13	901	839	1310	3595	1313	243	1640	1084	138	154	29	0
4204	870919	07	----	---	B	94	416	223	64	14	996	917	1406	3787	1279	212	1557	1003	146	161	35	0
4209	870919	GWW	----	---	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4205	870919	REC	----	---	--	12	13	13	14	16	17	22	28	15	24	21	21	26	19	29	19	34
4206	870919	RECLE	----	---	--	19	22	17	18	17	17	19	19	11	16	20	17	19	17	14	12	12
4207	870919	SOILB	----	---	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4208	870919	SOLVB	----	---	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Key:

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
I.D. = Sample Number

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Site = Site Name

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Sfx = Suffix
S = Subscript

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit
Ld = Percent Load

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories.
It does not provide absolute identification of components.

Analyst: David A. Stobel

Land Treatment Group
Forest Products Laboratory
Miss. State Univerisity

Date: 10/16/87
Time: 11:07:57

Group and Total PAH Results of Soil Samples in UG per G

I.D.#	Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
4191	870919	01	----	----	A	0.0	319.4	150.0	0.0	469.4
4192	870919	01	----	----	B	0.0	493.3	211.5	0.0	704.8
4193	870919	02	----	----	A	0.0	75.4	215.3	8.3	299.1
4194	870919	02	----	----	B	0.0	48.2	226.4	11.1	285.8
4195	870919	03	----	----	A	0.0	9.6	190.2	5.8	205.5
4196	870919	03	----	----	B	0.0	10.3	167.3	2.9	180.6
4197	870919	04	----	----	A	0.0	137.8	172.7	0.0	310.5
4198	870919	04	----	----	B	0.0	894.3	170.9	0.0	1065.2
4199	870919	05	----	----	A	0.0	133.3	762.4	11.7	907.4
4200	870919	05	----	----	B	0.0	123.0	627.1	14.3	764.4
4201	870919	06	----	----	A	0.0	120.2	186.5	9.3	316.0
4202	870919	06	----	----	B	0.0	17.1	81.4	6.7	105.1
4203	870919	07	----	----	A	658.8	8219.1	3019.1	29.9	11926.9
4204	870919	07	----	----	B	799.0	8613.1	2869.6	35.2	12317.0
4209	870919	GWW	----	----	--	0.0	0.0	0.0	0.0	0.0
4205	870919	REC	----	----	--	54.2	146.6	96.2	53.7	350.6
4206	870919	RECLEV	----	----	--	77.7	123.4	68.1	25.3	294.5
4207	870919	SGILBL	----	----	--	0.0	0.0	0.0	0.0	0.0
4208	870919	SGLVBL	----	----	--	0.0	0.0	0.0	0.0	0.0

Key:

Bicyclics:	Tricyclics:	Tetracyclics:	Pentacyclics:
Naphthalene	Acenaphthylene	Fluoranthene	Benzo-a-pyrene
2-Methylnaphthalene	Acenaphthene	Pyrene	Benzo-ghi-perylene
1-Methylnaphthalene	Dibenzofuran	1,2-Benzanthracene	
Biphenyl	Fluorene	Chrysene	
	Phenanthrene		
	Anthracene		
	Carbazole		

Land Treatment Group
Forest Products Laboratory
Miss. State University

Date: 10/14/87
Time: 13:47:46

PCP Analysis Results in UG per G

SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP	I.D.#
870919	01	----	----	A	0.0	4191
870919	01	----	----	B	0.0	4192
870919	02	----	----	A	9.8	4193
870919	02	----	----	B	8.2	4194
870919	03	----	----	A	0.0	4195
870919	03	----	----	B	0.0	4196
870919	04	----	----	A	17.3	4197
870919	04	----	----	B	17.7	4198
870919	05	----	----	A	75.1	4199
870919	05	----	----	B	63.9	4200
870919	06	----	----	A	17.0	4201
870919	06	----	----	B	7.6	4202
870919	07	----	----	A	13.1	4203
870919	07	----	----	B	10.9	4204
870919	GWW	----	----	----	0.0	4209
870919	REC	----	----	----	86.3	4205
870919	RECLEV	----	----	----	83.3	4206
870919	SOILBL	----	----	----	0.0	4207
870919	SOLVBL	----	----	----	0.0	4208

Values of 0.0 indicate None Detected above the Method Detection Limit.

Analyst: Leigh Ann Nelson

MISSISSIPPI STATE UNIVERSITY

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762-5724
PHONE (601) 325-2116

MEMO TO: Dr. Gary D. McGinnis

FROM: Hamid Borazjani, Analyst

DATE: October 8, 1987

Results of chloride ion concentration, pH, C/N ratio, total organic carbon, nitrogen, and phosphorus for Navasota Biotreatment units are listed below.

FPUL #	SWP #	Site ID	Depth	C(g/g)	N(g/g)	P(g/g)	C/N	Cl(g/g)	pH
870919-1	7054-A	LF #1	0-3"	34938.4	1650.9	449.6	21.16	27.9	6.91
870919-4	7055-A	LF #2	0-3"	46175.3	1311.2	421.7	35.21	30.3	6.31

Comments/Recommendations:

pH level for Landfarm Unit #2 is relatively low.

sl

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 10:28:59
Date: 10/07/87

Micro. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS
870919	01	----	----	A	83333	2800000	65000	1700000	1500000	1833333	----
870919	04	----	----	A	86666	1300000	36666	2600000	766666	733333	----

First Reviewer: Angela D. Carraway Date: 10-7-87

Second Reviewer: [illegible] Date: 10-7-87

MISSISSIPPI STATE UNIVERSITY

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762
PHONE (601) 325-2116

December 7, 1987

Mr. Mike Pruett
Southern Wood Piedmont
P. O. Box 5447
Spartanburg, SC 29304

Dear Mike:

Please find enclosed the information on soil samples from your Wilmington units. The sample designations are 871108(1-3) = LF #1, 7156(A-C), and 871108(4-6) = LF #2. 7157(A-C), and 871108-7 (creo/soil from LF #1 and LF #2 composite, 7155.

In comparison with 870919-1-7 samples, PAH's for LF #1 and LF #2 with the exception of (0-3"), we see a good reduction for all levels, especially for (21-24") depths.

PCP: Concentrations are down or unchanged for all the samples except (9-12") of LF #1. PCP concentration for creo/soil is down to zero (by our method detection limit).

Nutrients: Carbon, nitrogen, and phosphorus are down for both units, especially nitrogen for LF #2. Addition of manure to that unit would correct the problem.

Chloride ion and pH: Chloride ion concentrations for both units show significant increase due to good rate of degradations of PCP. pH is good for both units. Creo/soil has a good level of all nutrients and a perfect pH.

Bacteria counts: For LF #1, total bacteria populations are relatively unchanged, but there is a significant increase in creosote and penta acclimated bacteria. For LF #2, populations are sharply increased to over four million and this significant increase is directly correlated to very good degradation rate of PAH's and PCP for LF #2.

We will be glad to answer any questions that you may have on this data.

Sincerely,

Hamid Borazjani
Research Associate

jg:sampleanal
enclosures

Land Farming Group Time: 2:48:51
Forest Products Laboratory Date: 12/04/87
Miss. State University

PAH Analyses Results of Site Batch Samples in UG per G

I.D.	Site	Sfx	Day	Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
4563	871108	01	---	---	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.8	75.5	615.5	212.2	39.8	44.4	0.0	79.5	52.8	0.0
4564	871108	01	---	---	B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.4	52.4	422.2	117.5	33.6	34.2	0.0	41.9	25.0	0.0
4565	871108	02	---	---	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	12.9	2.3	0.0	63.7	68.5	19.7	42.7	26.2	11.3
4566	871108	02	---	---	B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	10.0	29.6	0.0	32.1	36.8	11.8	33.3	21.6	11.1
4567	871108	03	---	---	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.8	16.8	0.0	19.7	4.3	0.0
4568	871108	03	---	---	B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.8	11.2	0.0	11.6	5.9	0.0
4569	871108	04	---	---	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.5	39.4	113.2	0.0	163.8	160.5	38.1	84.9	31.1	0.0
4570	871108	04	---	---	B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	24.6	72.4	0.0	118.9	125.0	35.9	94.1	35.2	0.0
4571	871108	05	---	---	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1	19.5	51.0	0.0	45.6	41.3	20.9	46.7	30.5	18.2
4572	871108	05	---	---	B	0.0	0.0	0.0	0.0	0.0	3.6	0.0	9.3	32.7	75.5	0.0	67.6	66.8	29.7	55.0	42.1	30.0
4573	871108	06	---	---	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	19.2	8.0	0.0	35.3	34.0	13.1	29.4	21.8	14.9
4574	871108	06	---	---	B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	19.8	10.7	0.0	33.3	26.7	14.2	27.4	25.6	20.6
4575	871108	07	---	---	A	188.6	109.2	61.1	16.0	0.0	183.2	124.6	172.2	365.9	105.2	0.0	180.3	145.7	0.0	20.3	23.4	0.0
4576	871108	07	---	---	B	162.2	155.9	74.0	24.4	0.0	248.3	259.2	488.9	810.9	863.4	339.8	295.7	239.4	43.4	102.0	27.3	0.0
4[illegible]	[illegible]1108	MDL	---	---	--	0.5	0.5	0.5	0.5	0.6	0.5	0.6	0.6	0.6	0.7	1.3	1.1	1.1	1.4	1.6	2.0	2.5

Key:

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
I.D. = Sample Number

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Site = Site Name

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Sfx = Suffix
S = Subscript

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit
Ld = Percent Load

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories.
It does not provide absolute identification of components.

Analyst: David A. Stratel

Land Treatment Group
Forest Products Laboratory
Miss. State Univerisity

Date: 12/04/87
Time: 2:50:34

up and Total PAH Results of Soil Samples in UG per G

I.D.#	Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
4563	871108	01	----	----	A	0.0	950.9	163.7	52.8	1167.4
4564	871108	01	----	----	B	0.0	629.5	109.7	25.0	764.3
4565	871108	02	----	----	A	0.0	17.8	194.5	37.5	249.8
4566	871108	02	----	----	B	0.0	43.3	114.0	32.7	189.9
4567	871108	03	----	----	A	0.0	0.0	52.3	4.3	56.7
4568	871108	03	----	----	B	0.0	0.0	33.6	5.9	39.5
4569	871108	04	----	----	A	0.0	169.1	447.4	31.1	647.6
4570	871108	04	----	----	B	0.0	104.0	373.9	35.2	513.2
4571	871108	05	----	----	A	0.0	81.6	154.4	48.7	284.7
4572	871108	05	----	----	B	0.0	121.1	219.1	72.1	412.3
4573	871108	06	----	----	A	0.0	30.2	111.9	36.7	178.7
4574	871108	06	----	----	B	0.0	33.6	101.7	46.2	181.5
4575	871108	07	----	----	A	374.9	951.2	346.4	23.4	1695.9
4576	871108	07	----	----	B	416.4	3010.5	680.5	27.3	4134.7

Key:

Bicyclics:	Tricyclics:	Tetracyclics:	Pentacyclics:
Naphthalene	Acenaphthylene	Fluoranthene	Benzo-a-pyrene
2-Methylnaphthalene	Acenaphthene	Pyrene	Benzo-ghi-perylene
1-Methylnaphthalene	Dibenzofuran	1,2-Benzanthracene	
Biphenyl	Fluorene	Chrysene	
	Phenanthrene		
	Anthracene		
	Carbazole		

Land Treatment Group
Forest Products Laboratory
Miss. State University

Date: 11/24/87
Time: 12:58:11

PCP Analysis Results in UG per G

SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP	I.D.#
871108	01	----	----	A	0.0	4563
871108	01	----	----	B	0.0	4564
871108	02	----	----	A	6.4	4565
871108	02	----	----	B	6.1	4566
871108	03	----	----	A	1.5	4567
871108	03	----	----	B	1.9	4568
871108	04	----	----	A	11.7	4569
871108	04	----	----	B	14.8	4570
871108	05	----	----	A	13.3	4571
871108	05	----	----	B	15.2	4572
871108	06	----	----	A	2.4	4573
871108	06	----	----	B	2.3	4574
871108	07	----	----	A	0.0	4575
871108	07	----	----	B	0.0	4576
871108	GWW	----	----	----	0.0	4581
871108	MDL	----	----	----	0.2	4582
871108	REC	----	----	----	77.5	4577
871108	RECLEV	----	----	----	83.3	4578
871108	SOILBL	----	----	----	0.0	4579
871108	SOLVBL	----	----	----	0.0	4580

Key: GWW = Glassware Wash
MDL = Method Detection Limit

Note: Values of 0.0 indicate None Detected above the specified Method Detection Limit.

Analyst: Leigh Ann Nelson

MISSISSIPPI STATE UNIVERSITY

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762-5724
PHONE (601) 325-2116

MEMO

TO: Dr. Gary McGinnis

FROM: Hamid Borazjani, Analyst

DATE: December 1, 1987

Listed below are chloride ion concentration, pH, C/N ratio, and total organic carbon, nitrogen, and phosphorus results from Wilmington, NC land farming units.

MFPUL#	SWP#	Site ID	Depth	C (μg/g)	N (μg/g)	P (μg/g)	C/N	Cl (μg/g)	pH
871108-1	7156A	LF #1	0-3"	30147.7	1326.6	672.2	22.70	224	7.49
871108-4	7157A	LF #2	0-3"	31511.9	718.1	551.7	43.60	238	6.82
871108-7	7155	LF #1&2	0-3"	44404.5	1850.2	311.0	24.00	240	7.20

Comments and Recommendations:

Nitrogen level for LF #2 is low. Addition of manure would correct the problem.

/sl

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 3:36:38
Date: 11/17/87

Micro. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS	AVG. NA COUNTS
871108	1	----	----	A	80000	2433333	60000	2800000	2300000	2100000	----	3433333
871108	4	----	----	A	63333	4066666	73333	4000000	3533333	3300000	----	4666666

Key:

ACA = Actinomycete Agar (Actinomycetes)
PDA = Potato Dextrose Agar (Bacteria)
PDAA = Potato Dextrose + Antibiotics (Fungi)
NA = Nutrient Agar (Bacteria)
C = NA + 20ppm Creosote (Creosote acclimated Bacteria)
P = NA + 5ppm Pentachlorophenol (PCP acclimated Bacteria)
CP = NA + 20ppm Cresote + 5ppm PCP (Creosote & PCP acclimated Bacteria)
SEA = Soil Extract Agar (Bacteria)

Analyst: Angela D. Carraway

Verified: Barry Alcorn

MISSISSIPPI STATE UNIVERSITY

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762
PHONE (601) 325-2116

December 17, 1987

Mr. Mike Pruett
Southern Wood Piedmont
P. O. Box 5447
Spartanburg, SC 29304

Dear Mike:

Enclosed is the information on soil samples from your Wilmington units. The sample designations are 871120 (1-3) = LF#1, 7184 (A-C), and 871120 (4-6) = LF#2, 7185 (A-C).

In comparison with 871108-1-6 samples, PAH's for LF#1 and LF#2 have gone up significantly for all depths, especially 0-3" probably due to the loading of both units.

For LF#1, PCP concentrations are up slightly for 0-3" and 9-12" but unchanged for 21-24" levels. For LF#2, concentrations are down significantly for 0-3"and 9-12" but slightly up for 21-24".

Nutrients: Carbon and nitrogen are increased sharply for both units (due to loading of both units) but phosphorus levels are unchanged. C/N ratio for both units is in excellent shape.

Chloride ion and pH: Chloride ion for LF#2 is up sharply due to good degradation of PCP on that unit; pH level for both units is good.

Bacteria counts: Total bacteria and acclimated bacteria counts for both units are down by one million/g of soil probably due to cold weather, but still over two million bacteria per gram of soil are there to do the job. We will be glad to answer any questions that you may have on this data.

Sincerely,

Hamid Borazjani
Research Associate
601/325-3106

/sl

enclosures

Land Treatment Group
Forest Products Laboratory
Miss. State University

Time: 22:47:16
Date: 12/10/87

PAH Analysis Results of Soil Samples in UG per G

I.D.	Site	Sfx	Day	Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
4673	871120	01	---	---	A	32.6	47.1	0.0	8.1	11.1	61.1	76.2	236.2	444.5	3273.2	732.5	288.0	251.9	39.6	79.7	35.5	15.7
4674	871120	01	---	---	B	20.4	58.2	0.0	12.2	9.3	75.1	80.3	318.2	629.5	3782.9	904.1	371.2	320.0	54.7	101.8	14.8	24.1
4675	871120	02	---	---	A	0.0	0.0	0.0	0.0	6.7	24.2	26.1	63.5	287.4	605.5	145.4	282.1	203.2	100.9	125.5	81.1	43.3
4676	871120	02	---	---	B	0.0	0.0	0.0	0.0	3.5	6.1	16.1	36.9	88.9	651.3	129.7	110.7	104.0	36.3	49.8	33.5	21.1
4677	871120	03	---	---	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	20.9	0.0	17.5	18.4	2.7	15.7	4.7	0.0
4678	871120	03	---	---	B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.3	28.0	0.0	18.2	18.6	2.2	14.4	4.1	0.0
4679	871120	04	---	---	A	68.2	143.6	49.3	23.8	7.2	177.5	229.6	532.9	966.1	6464.1	1520.6	463.1	391.5	71.0	108.7	27.2	0.0
4680	871120	04	---	---	B	95.4	198.0	42.8	32.4	6.2	169.7	241.2	644.4	1118.0	9125.4	2310.9	503.0	433.7	84.3	139.8	30.6	0.0
4681	871120	05	---	---	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.6	36.6	284.3	62.8	66.1	64.7	12.8	32.8	14.5	0.0
4682	871120	05	---	---	B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.8	24.8	108.2	16.4	63.6	64.7	15.8	40.5	16.9	0.0
4683	871120	06	---	---	A	0.0	0.0	0.0	0.0	0.0	11.5	9.9	31.5	58.4	192.8	43.5	75.4	64.6	12.7	25.9	11.6	0.0
4684	871120	06	---	---	B	0.0	0.0	0.0	0.0	0.0	9.1	5.9	15.1	26.3	214.6	33.6	63.5	56.0	10.4	24.1	10.7	0.0
4690	871120	MDL	---	---	--	0.6	0.7	0.6	0.6	0.6	0.6	0.8	0.7	0.7	0.9	1.4	1.1	1.2	1.7	2.4	3.8	4.2

Key:

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
I.D. = Sample Number

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Site = Site Name

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Sfx = Suffix
S = Subscript

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit
Ld = Percent Load

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories. It does not provide absolute identification of components.

Analyst: David A. Stokel

Land Treatment Group
Forest Products Laboratory
Miss. State Univerisity

Date: 12/10/87
Time: 22:52:02

Group and Total PAH Results of Soil Samples in UG per G

I.D.#	Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
4673	871120	01	----	----	A	87.9	4834.8	659.2	51.2	5633.0
4674	871120	01	----	----	B	90.8	5799.4	847.7	38.9	6776.8
4675	871120	02	----	----	A	0.0	1158.7	711.7	124.4	1994.9
4676	871120	02	----	----	B	0.0	932.5	300.8	54.6	1288.0
4677	871120	03	----	----	A	0.0	26.0	54.3	4.7	85.0
4678	871120	03	----	----	B	0.0	38.2	53.4	4.1	95.8
4679	871120	04	----	----	A	284.9	9897.9	1034.3	27.2	11244.3
4680	871120	04	----	----	B	368.5	13615.8	1160.7	30.6	15175.6
4681	871120	05	----	----	A	0.0	401.3	176.3	14.5	592.0
4682	871120	05	----	----	B	0.0	159.2	184.5	16.9	360.6
4683	871120	06	----	----	A	0.0	347.7	178.6	11.6	537.8
4684	871120	06	----	----	B	0.0	304.6	153.9	10.7	469.2

Key:

cyclics:	Tricyclics:	Tetracyclics:	Pentacyclics:
Naphthalene	Acenaphthylene	Fluoranthene	Benzo-a-pyrene
2-Methylnaphthalene	Acenaphthene	Pyrene	Benzo-ghi-perylene
1-Methylnaphthalene	Dibenzofuran	1,2-Benzanthracene	
Biphenyl	Fluorene	Chrysene	
	Phenanthrene		
	Anthracene		
	Carbazole		

Land Treatment Group
Forest Products Laboratory
Miss. State University

Date: 12/07/87
Time: 10:57:04

PCP Analysis Results in UG per G

TEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP	I.D.#
871120	01	----	----	A	2.9	4673
871120	01	----	----	B	3.1	4674
871120	02	----	----	A	11.4	4675
871120	02	----	----	B	16.3	4676
871120	03	----	----	A	1.4	4677
871120	03	----	----	B	1.3	4678
871120	04	----	----	A	9.9	4679
871120	04	----	----	B	9.6	4680
871120	05	----	----	A	2.5	4681
871120	05	----	----	B	2.4	4682
871120	06	----	----	A	3.3	4683
871120	06	----	----	B	3.8	4684
871120	GWW	----	----	----	0.0	4689
871120	MDL	----	----	----	0.3	4690
871120	REC	----	----	----	86.6	4685
871120	RECLEV	----	----	----	83.3	4686
871120	SOILBL	----	----	----	0.0	4687
871120	SOLVBL	----	----	----	0.0	4688

Key: GWW = Glassware Wash
MDL = Method Detection Limit

Note: Values of 0.0 indicate None Detected above the specified Method Detection Limit.

Analyst: Leigh Ann Nelson

MISSISSIPPI STATE UNIVERSITY

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762
PHONE (601) 325-2116

MEMO TO: Dr. Gary D. McGinnis

FROM: Hamid Borazjani, Analyst

DATE: December 11, 1987

Listed below are chloride ion concentration, pH, C/N ratio, and total organic carbon, nitrogen, and phosphorus results from Wilmington, NC land farming units.

FPUL #	SWP #	Site ID	Depth	C(µg/g)	N(µg/g)	P(µg/g)	C/N	Cl(µg/g)	pH
871120-1	7184-A	LF #1	0-3"	53091.2	1949.6	580.3	27.23	380	6.96
871120-4	7185-A	LF #2	0-3"	63655.6	1652.3	569.9	38.52	720	6.54

Comments/Recommendations:

Chloride ion concentration for LF#2 is high.

sl

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 9:46:23
Date: 11/25/87

cro. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS	AVG. NA COUNTS
871120	01	----	----	A	170000	2933333	80000	2450000	1800000	1600000	----	3400000
871120	04	----	----	A	130000	2700000	65000	2200000	1200000	1400000	----	3000000

Key:

ACA = Actinomycete Agar (Actinomycetes)
PDA = Potato Dextrose Agar (Bacteria)
PDAA = Potato Dextrose + Antibiotics (Fungi)
NA = Nutrient Agar (Bacteria)
C = NA + 20ppm Creosote (Creosote acclimated Bacteria)
P = NA + 5ppm Pentachlorophenol (PCP acclimated Bacteria)
CP = NA + 20ppm Cresote + 5ppm PCP (Creosote & PCP acclimated Bacteria)
SEA = Soil Extract Agar (Bacteria)

Analyst: Angela D. Carraway

Verified: Bernard A. Crist

James W. Andrews, Ph.D.
President

Janette M. Davis
Vice-President

SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES, INC.

P. O. Box 13548 • Savannah, GA 31416-0548
Whitfield Avenue at Shipyard Road (31406)
(912) 354-7858

JBW
MDP
ELG
File

LOG NO: 88-0151

Received: 13 JAN 88

Mr. Ed Gibbs
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304
CC: Steve Blevins

Project: Wilmington

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
0151-1	#19 SWP Cape Fear River Old Slip	Client
0151-2	#20 State Ports Authority Cape Fear Riv.	
0151-3	#21 U.S. Hwy #74 near bridge C.F. Riv.	
0151-4	#22 Greenfield Creek mouth C.F. Riv.	

PARAMETER	0151-1	0151-2	0151-3	0151-4
K001-Appendix 7 Parameters				
-Chlorophenol, mg/l	ND	ND	ND	ND
Phenol, mg/l	ND	ND	ND	ND
2,4-Dimethylphenol, mg/l	ND	ND	ND	ND
2,4,6-Trichlorophenol, mg/l	ND	ND	ND	ND
p-Chloro-m-cresol, mg/l	ND	ND	ND	ND
Tetrachlorophenol, mg/l	ND	ND	ND	ND
2,4-Dinitrophenol, mg/l	ND	ND	ND	ND
Pentachlorophenol, mg/l	ND	ND	ND	ND
Naphthalene, mg/l	ND	ND	ND	ND
Acenaphthene, mg/l	ND	ND	ND	ND
Phenanthrene + Anthracene, mg/l	ND	ND	ND	ND
Fluoranthene, mg/l	ND	ND	ND	ND
Chrysene + Benz(a)anthracene, mg/l	ND	ND	ND	ND
Benzo(b,k)fluoranthene, mg/l	ND	ND	ND	ND
Benzo(a)pyrene, mg/l	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene+Dibenzo(a,h)anthracene, mg/l	ND	ND	ND	ND
Carbazole, mg/l	ND	ND	ND	ND
Copper, mg/l	ND	ND	ND	ND

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JAN 27 1988
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James W. Andrews, Ph.D.
President

Janette M. Davis
Vice-President

SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES, INC.

P. O. Box 13548 • Savannah, GA 31416-0548
Whitfield Avenue at Shipyard Road (31406)
(912) 354-7858

LOG NO: 88-0151

Received: 13 JAN 88

Mr. Ed Gibbs
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304
CC: Steve Blevins

Project: Wilmington

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
0151-1	#19 SWP Cape Fear River Old Slip	Client
0151-2	#20 State Ports Authority Cape Fear Riv.	
0151-3	#21 U.S. Hwy #74 near bridge C.F. Riv.	
0151-4	#22 Greenfield Creek mouth C.F. Riv.	

PARAMETER	0151-1	0151-2	0151-3	0151-4
Chromium, mg/l	ND	ND	ND	ND
Arsenic, mg/l	ND	ND	ND	ND

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President

Janette M. Davis
Vice-President

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P. O. Box 13548 • Savannah, GA 31416-0548
Whitfield Avenue at Shipyard Road (31406)
(912) 354-7858

LOG NO: 88-0151

Received: 13 JAN 88

Mr. Ed Gibbs
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304
CC: Steve Blevins

Project: Wilmington

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , QC SAMPLES	SAMPLED BY
0151-5	Detection Limits	Client
0151-6	Accuracy (mean % recovery)	
0151-7	Precision (mean % RSD)	

PARAMETER	0151-5	0151-6	0151-7
KO01-Appendix 7 Parameters			
2-Chlorophenol, mg/l	0.01	70 %	8.7 %
enol, mg/l	0.01	48 %	10 %
2,4-Dimethylphenol, mg/l	0.01	53 %	4.4 %
2,4,6-Trichlorophenol, mg/l	0.01	54 %	4.7 %
p-Chloro-m-cresol, mg/l	0.01	52 %	4.9 %
Tetrachlorophenol, mg/l	0.02	40 %	20 %
2,4-Dinitrophenol, mg/l	0.03	18 %	10 %
Pentachlorophenol, mg/l	0.01	40 %	5.9 %
Naphthalene, mg/l	0.01	83 %	12 %
Acenaphthene, mg/l	0.01	76 %	6.7 %
Phenanthrene + Anthracene, mg/l	0.02	74 %	5.8 %
Fluoranthene, mg/l	0.02	76 %	3.8 %
Chrysene + Benz(a)anthracene, mg/l	0.03	73 %	2.4 %
Benzo(b,k)fluoranthene, mg/l	0.03	78 %	1.0 %
Benzo(a)pyrene, mg/l	0.02	72 %	7.2 %
Indeno(1,2,3-cd)pyrene+Dibenzo(a,h)anthracene, mg/l	0.03	85 %	7.1 %
Carbazole, mg/l	0.01	65 %	8.2 %
Copper, mg/l	0.01	101 %	0.78 %
Chromium, mg/l	0.01	100 %	1.0 %
Arsenic, mg/l	0.01	81 %	7.0 %

Methods: EPA SW-846

J. W. Andrews

W. Andrews, Ph. D.

RECEIVED
JAN 27 1988
ENVIRONMENTAL AFFAIRS

1-12-88

CHAIN OF CUSTODY RECORD

COMPANY NAME/LOCATION: Southern Wood Piedmont Co. Wilmington NC.

SAMPLERS (Signature): [illegible] *1

COLOR CODE: WATER/WASTEWATER | SOIL/SLUDGE

SL&ES LOG NO.	DATE	TIME	COMP	GRAB	SAMPLE IDENTIFICATION	NO. OF CONTAINERS	liter plastic jug (T)	liter glass w/TFE (J)	500 ml plastic-gen(A)	500 ml plastic-met(W)	250 ml plastic (D)	250 ml oval glass(C)	130 ml amber glass(E)	100 ml plastic (F)	40ml vial w/ins.(G)	20 ml plastic vial(I)	wicer wm glass (L)	liter wm plastic(U)	500 ml wm glass (N)	500 ml wm plastic(P)	40ml vial w/ins. (G)	*Container sealed	Analyses Requ
7217	1/12/88	10:00 Am		✓	#19 SWP Cape Fear River	2	1				1												
					Old Sly.																		
7217	1/12/88	10:20 Am		✓	#20 State Ports Authy																		
					Cape FEAR River.	2	1				1												
7217	1/12/88	10:35 Am		✓	U.S. Hwy. #74 NEAR																		
					Bridge C.F. RIVER #21	2	⊗				1												
					⊗ - LITER BOTTLE Broken																		
					Broken. Sub-12oz Bottle.																		
7217	1/12/88	10:50 Am		✓	#22-Greenfield	2	1				1												
					Creek - mouth of Cape																		
					Fear River.																		
0151																							
						8	4				4												

Relinquished by:	Date/Time	Received by:	Date/Time	Relinquished by:	Date/Time
W.O. Phillips	11:00 Am 1/12/88	[illegible]	1/13/88 1:05 pm		
Relinquished by:	Date/Time	Received by:	Date/Time	Relinquished by:	Date/Time

Color Code/Preservative
- Green - sulfuric acid
- Purple - no preservative
- Red - nitric acid
- Tan - zinc acetate
- Yellow - sodium thiosulfate
- Blue - sodium hydroxide
- Lt. Blue - hydrochloric acid

Container seal i
Field
Lab

SAMPLING ANALYSIS REQUEST

Part I: Field Section

Collector H.O. Phillips Date Sampled 1/12/88 Time 10⁰⁰ Am. (hours)

Affiliation of Sampler Southern Wood Piedmont Co.

Address P.O. Box 450 - Foot of Greenfield Street - Wilmington N 28402
number street city state zip

Telephone (919) 762-9678 Company Contact H.O. Phillips

TYPE OF SAMPLE/SAMPLES*	FIELD INFORMATION
water	Cape Fear River - Wilmington N.C.

*Indicate whether sample is soil, sludge, water, etc.

Additional Analysis Requested K001, CU, CR, AS

Special Handling and/or Storage None

Part II: Bottles Required for Analyses Requested

The number, color and type of sampling containers we have provided you is listed below. The color codes correspond with specific preservatives (See reverse side of form), please handle with caution. Please fill in all necessary information on both sides of this form and return to us along with your samples. Ship coolers back to Savannah Laboratories & Environmental Services, Inc., by UPS, Bus or Federal Express. Our shipping address is: Shipyard Road at Whitfield Ave., Savannah, GA 31406. If you have any questions about sampling procedures, please call (912)354-7858.

per site
1-liter glass - P
1-250 ml plastic - R

	Container	COLOR CODE	Number
WATER/WASTEWATER	liter plastic jug (T)		
	liter glass w/TFE (J)	P	4
	500 ml plastic-gen (A)		
	500 ml plastic-met (W)		
	250 ml plastic (D)	R	4
	250 ml oval glass (C)		
	130 ml amber glass (E)		
	100 ml plastic (F)		
	40ml vial w/ins. (G)		
	20 ml plastic vial (I)		
SOIL/SLUDGE	liter wm glass (L)		
	liter wm plastic (U)		
	500 ml wm glass (N)		
	500 ml wm plastic (P)		
	40ml vial w/ins. (G)		
	*Bottle sealed		
	*Container sealed		

Bottles shipped to: Southern Wood
Greenfield St.

James W. Andrews, Ph.D.
President

Janette M. Davis
Vice-President

SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES, INC.

P. O. Box 13548 • Savannah, GA 31416-0548
5102 LaRoche Avenue (31404)
(912) 354-7858

MDP
ELG
TMD
File

LOG NO: 88-3166

Received: 08 JUN 88

RECEIVED
JUN 29 1988
ENVIRONMENTAL AFFAIRS

Mr. Ed Gibbs
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Steve Blevins

Project: Wilmington, NC

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
3166-1	#23 SWP C.F. River (7439) 6-7-88	Client
3166-2	#24 States Ports Auth. (7440) 6-7-88	
3166-3	#25 U.S. #74 New Bridge (7441) 6-7-88	
3166-4	#26 Greenfield Creek (7442) 6-7-88	

PARAMETER	3166-1	3166-2	3166-3	3166-4
KO01 (Method 8270)				
2-Chlorophenol, mg/l	ND	ND	ND	ND
[illegible]enol, mg/l	ND	ND	ND	ND
2,4-Dimethylphenol, mg/l	ND	ND	ND	ND
Trichlorophenols, mg/l	ND	ND	ND	ND
p-Chloro-m-cresol, mg/l	ND	ND	ND	ND
Tetrachlorophenols, mg/l	ND	ND	ND	ND
2,4-Dinitrophenol, mg/l	ND	ND	ND	ND
Pentachlorophenol, mg/l	ND	ND	ND	ND
Naphthalene, mg/l	ND	ND	ND	ND
Acenaphthene, mg/l	ND	ND	ND	ND
Acenaphthylene, mg/l	ND	ND	ND	ND
Phenanthrene, mg/l	ND	ND	ND	ND
Anthracene, mg/l	ND	ND	ND	ND
Fluoranthene, mg/l	ND	ND	ND	ND
Chrysene, mg/l	ND	ND	ND	ND
Benzo(a)Anthracene, mg/l	ND	ND	ND	ND
Benzo(b,k)fluoranthene, mg/l	ND	ND	ND	ND
Benzo(a)pyrene, mg/l	ND	ND	ND	ND
Indeno (1,2,3-cd)pyrene, mg/l	ND	ND	ND	ND
Dibenzo (a,h)anthracene, mg/l	ND	ND	ND	ND
Carbazole, mg/l	ND	ND	ND	ND
Dilution factor, mg/l	1	1	1	1

James W. Andrews, Ph.D.
President

Janette M. Davis
Vice-President

SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES, INC.

P. O. Box 13548 • Savannah, GA 31416-0548
5102 LaRoche Avenue (31404)
(912) 354-7858

LOG NO: 88-3166

RECEIVED

Received: 08 JUN 88

JUN 29 1988

ENVIRONMENTAL AFFAIRS

Mr. Ed Gibbs
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Steve Blevins

Project: Wilmington, NC

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
3166-1	#23 SWP C.F. River (7439) 6-7-88	Client
3166-2	#24 States Ports Auth. (7440) 6-7-88	
3166-3	#25 U.S. #74 New Bridge (7441) 6-7-88	
3166-4	#26 Greenfield Creek (7442) 6-7-88	

PARAMETER	3166-1	3166-2	3166-3	3166-4
Arsenic, mg/l	ND	ND	ND	ND
Chromium, mg/l	ND	ND	ND	ND
Copper, mg/l	0.02	ND	ND	ND

James W. Andrews, Ph.D.
President

Janette M. Davis
Vice-President

SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES, INC.

P. O. Box 13548 • Savannah, GA 31416-0548
5102 LaRoche Avenue (31404)
(912) 354-7858

RECEIVED

JUN 29 1988

ENVIRONMENTAL AFFAIRS

LOG NO: 88-3166

Received: 08 JUN 88

Mr. Ed Gibbs
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Steve Blevins

Project: Wilmington, NC

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , QC SAMPLES	SAMPLED BY
3166-5	Detection Limits	Client
3166-6	Accuracy (mean % recovery)	
3166-7	Precision (mean % RSD)	

PARAMETER	3166-5	3166-6	3166-7
KO01 (Method 8270)			
2-Chlorophenol, mg/l	0.01	92 %	15 %
Phenol, mg/l	0.01	68 %	11 %
2,4-Dimethylphenol, mg/l	0.01	55 %	5.3 %
Trichlorophenols, mg/l	0.01	88 %	3.1 %
p-Chloro-m-cresol, mg/l	0.01	55 %	3.8 %
Tetrachlorophenols, mg/l	0.01	61 %	15 %
2,4-Dinitrophenol, mg/l	0.05	72 %	8.3 %
Pentachlorophenol, mg/l	0.01	54 %	7.4 %
Naphthalene, mg/l	0.01	86 %	5.1 %
Acenaphthene, mg/l	0.01	100 %	2.9 %
Acenaphthylene, mg/l	0.01	90 %	0 %
Phenanthrene, mg/l	0.01	110 %	4.0 %
Anthracene, mg/l	0.01	114 %	5.1 %
Fluoranthene, mg/l	0.01	108 %	4.0 %
Chrysene, mg/l	0.01	118 %	5.0 %
Benzo(a)Anthracene, mg/l	0.01	104 %	15 %
Benzo(b,k)fluoranthene, mg/l	0.01	86 %	14 %
Benzo(a)pyrene, mg/l	0.01	90 %	1.6 %
Indeno (1,2,3-cd)pyrene, mg/l	0.01	106 %	2.3 %
Dibenzo (a,h)anthracene, mg/l	0.01	110 %	2.4 %
Carbazole, mg/l	0.01	58 %	13 %
Dilution factor	1	—	—

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President

Janette M. Davis
Vice-President

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5102 LaRoche Avenue (31404)
(912) 354-7858

LOG NO: 88-3166

Received: 08 JUN 88

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Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Steve Blevins

Project: Wilmington, NC

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , QC SAMPLES	SAMPLED BY
3166-5	Detection Limits	Client
3166-6	Accuracy (mean % recovery)	
3166-7	Precision (mean % RSD)	

PARAMETER	3166-5	3166-6	3166-7
Arsenic, mg/l	0.01	109 %	15 %
Chromium, mg/l	0.01	103 %	0.49 %
Copper, mg/l	0.01	101 %	0 %

Methods: EPA SW-846

J. W. Andrews

J. W. Andrews, Ph. D.

CHAIN OF CUSTODY RECORD

6/7/88

Wilmington N.C. PLANT Site

COMPANY NAME/LOCATION: Southern Wood Piedmont Co.

SAMPLERS (Signature): H. O. Phillips

COLOR CODE — WATER/WASTEWATER | SOIL/SLUDGE

SL&ES LOG NO.	DATE	TIME	COMP.	GRAB	SAMPLE IDENTIFICATION	NO. OF CONTAINERS	1 liter plastic jug (T)	1 liter glass w/TFE (J)	500 ml plastic-Rad(A)	500 ml plastic-met(W)	250 ml plastic (D)	250 ml oval glass(C)	130 ml amber glass(E)	100 ml plastic (F)	40ml vial w/ins.(G)	20 ml plastic vial(I)	1 liter wm glass (L)	1 liter wm plastic(O)	500 ml wm glass (N)	500 ml wm plastic(P)	40ml vial w/ins. (G)	*Container sealed	Analyses
7439	6/7/88	9:30 Am	✓	✓	#23 SOP C.F. River.	2		1			1												
					OID Slip																		
7440	6/7/88	9:10 Am	✓	✓	#24 States Ports Auth	2		1			1												
					C.F. River																		
7441	6/7/88	10:10 Am	✓	✓	#25 US #74 New Bridge	2		1			1												
					C/F-River																		
7442	6/7/88	10:30 Am	✓	✓	#26 Greenfield Creek	2		1			1												
					mouth of Cape Fear																		
					River																		

Relinquished by:	Date/Time	Received by:	Date/Time	Relinquished by:	Date/Time
H. O. Phillips	6/7/88 13:30				
Relinquished by:	Date/Time	Received by:	Date/Time	Relinquished by:	Date/Time
	6/8 1:30	G. M. Cooper			

Color Code/Preservative
- Green - sulfuric acid
- Purple - no preservative
- Red - nitric acid
- Tan - zinc acetate
- Yellow - sodium thiosulfate
- Blue - sodium hydroxide
- Lt. Blue - hydrochloric acid

Container seal
Field ✓
Lab

Part I: Field Section

Collector H.O. Phillips Date Sampled 6/7/88 Time 9:30 Am (hours)

Affiliation of Sampler Southern Wood Piedmont Co.

Address P.O. Box 410 Wilmington NC 28402
number street city state zip

Telephone (919) 762-9678 Company Contact H.O. Phillips

TYPE OF SAMPLE/SAMPLES*	FIELD INFORMATION
Water	Cape Fear River Wilmington NC.

*Indicate whether sample is soil, sludge, water, etc.

Additional Analysis Requested K001 - Cu - Cr - As

Special Handling and/or Storage None

Part II: Bottles Required for Analyses Requested

The number, color and type of sampling containers we have provided you is listed below. The color codes correspond with specific preservatives (See reverse side of form), please handle with caution. Please fill in all necessary information on both sides of this form and return to us along with your samples. Ship coolers back to Savannah Laboratories & Environmental Services, Inc., by UPS, Bus or Federal Express. Our shipping address is: Shipyard Road at Whitfield Ave., Savannah, GA 31406. If you have any questions about sampling procedures, please call (912)354-7858.

Per Site
1-liter glass P
1-250 ml plastic R

COLOR CODE	WATER/WASTEWATER																								SOIL/SLUDGE	
	P			R																						
	liter plastic jug (T)	liter glass w/INE (J)	500 ml plastic-gen(A)	500 ml plastic-met(M)	250 ml plastic (D)	250 ml oval glass(C)	130 ml amber glass(E)	100 ml plastic (F)	40ml vial w/ins. (G)	20 ml plastic vial(I)				liter wm glass (L)	liter wm plastic(U)	500 ml wm glass (N)	500 ml wm plastic (P)	40ml vial w/ins. (G)			*Bottle sealed	*Container sealed
	4			4																		

Bottles shipped to: Southern Wood Piedmont - Wilmington
Greenfield Ct

MISSISSIPPI STATE UNIVERSITY

Telex: 53882
Telecopy: (601) 325-3560

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762-5724
PHONE (601) 325-2116

February 9, 1988

Mr. Mike Pruett
Southern Wood Piedmont
P. O. Box 5447
Spartanburg, SC 29304

Dear Mike:

Enclosed is the information on soil samples from your Wilmington units. The sample designations are 880125(1-3) = LF#1, 7219 (A-C); 880125(4-6) = LF#2, 7220 (A-C); and 870125-7, creo/soil from LF#1 and LF#2.

In comparison with 871120-1-6 samples, PAH's for LF#1 and LF#2 have reduced sharply with exception of 21-24" of LF#1. The rate of degradation for 0-3" of LF#1 is over 35% and for 0-3" of LF#2 is 95%. PAH's are up for creo/soil vs. 871108 sample.

PCP concentrations are down or unchanged for all the levels with exception of slight increase in PCP level for LF#2 (9-12"). PCP level is up for creo/soil in comparison with 871108 sample.

Nutrients: Carbon and nitrogen are unchanged for both units. C/N ratio is in good shape for LF#1 but for LF#2 is relatively high (addition of manure to that unit will bring the C/N ratio down). Chloride ion and pH level for both units are in excellent shape.

Bacteria counts: Perhaps the biggest improvement has been the 100% population increase for acclimated as well as non-acclimated bacteria for both units on all seven agar media. This population explosion is probably responsible for such a huge degradation of PAH's and reduction of PCP.

As always, we will be glad to answer any questions that you may have on this data.

Sincerely,

Hamid

Hamid Borazjani
Research Associate
601/325-3106

sl

enclosures

cc: Gary D. McGinnis

Land Treatment Group
Forest Products Laboratory
Miss. State University

Time: 10:00:08
Date: 02/01/88

PAH Analysis Results in UG per G

I.D.	Site	Sfx	Day	Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
4968	880125	01	----	---	A	26	34	0	0	0	7	40	122	166	1439	464	156	126	52	60	24	0
4969	880125	01	----	---	B	48	93	0	22	0	9	134	426	601	3453	1187	205	165	65	92	25	0
4970	880125	02	----	---	A	0	0	0	0	0	0	0	20	41	162	49	44	44	19	29	14	0
4971	880125	02	----	---	B	0	0	0	0	0	0	0	10	27	122	39	48	54	29	39	21	0
4972	880125	03	----	---	A	0	0	0	0	0	0	4	9	17	89	27	21	21	10	14	6	0
4973	880125	03	----	---	B	0	0	0	0	0	0	0	5	15	47	12	26	23	11	11	5	0
4974	880125	04	----	---	A	0	0	0	0	0	0	0	22	48	206	59	78	77	51	56	53	0
4975	880125	04	----	---	B	0	0	0	0	0	0	0	16	36	148	39	77	78	50	52	36	0
4976	880125	05	----	---	A	6	8	2	4	3	6	13	23	46	176	59	48	52	32	39	29	18
4977	880125	05	----	---	B	6	9	3	2	3	7	14	27	45	228	63	54	53	37	39	33	18
4978	880125	06	----	---	A	0	0	0	0	0	0	0	5	11	40	12	32	30	18	20	13	9
4979	880125	06	----	---	B	0	0	0	0	0	1	0	2	9	17	4	23	23	16	18	11	5
4980	880125	07	----	---	A	1889	1088	433	256	22	1143	1095	1716	4201	2062	871	1641	1251	283	328	81	0
4981	880125	07	----	---	B	1928	1187	467	281	26	1261	1198	1862	4430	2303	963	1723	1264	291	342	88	0
	880125	GWW	----	---	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4985	880125	MDL	----	---	--	1	1	1	1	1	1	1	1	1	1	2	1	1	2	3	4	3
4982	880125	REC	----	---	--	53	61	48	54	52	53	61	63	41	56	67	59	68	75	68	39	42
4983	880125	RECLE	----	---	--	58	66	52	56	53	52	59	58	36	50	62	52	58	51	44	38	38
4984	880125	SOILB	----	---	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4986	880125	SOLVB	----	---	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
I.D. = Sample Number

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Site = Site Name

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Sfx = Suffix
S = Subscript

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit
Ld = Percent Load

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories. It does not provide absolute identification of components.

Analyst: David A. Stuckey

Land Treatment Group
Forest Products Laboratory
Miss. State Univerisity

Date: 02/01/88
Time: 10:01:30

Group and Total PAH Results of Soil Samples in UG per G

I.D.#	Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
4968	880125	01	----	----	A	60.5	2238.0	393.3	24.0	2715.7
4969	880125	01	----	----	B	163.3	5809.2	527.1	24.6	6524.3
4970	880125	02	----	----	A	0.0	271.7	137.1	14.1	423.0
4971	880125	02	----	----	B	0.0	197.4	170.7	20.6	388.7
4972	880125	03	----	----	A	0.0	145.9	66.0	5.7	217.6
4973	880125	03	----	----	B	0.0	79.2	71.0	5.4	155.6
4974	880125	04	----	----	A	0.0	335.7	261.3	53.0	650.1
4975	880125	04	----	----	B	0.0	239.0	257.7	35.8	532.5
4976	880125	05	----	----	A	20.3	326.6	171.5	46.7	565.0
4977	880125	05	----	----	B	20.5	386.9	183.5	51.7	642.5
4978	880125	06	----	----	A	0.0	68.0	99.8	21.6	189.4
4979	880125	06	----	----	B	0.0	33.3	80.0	16.1	129.5
4980	880125	07	----	----	A	3665.5	11110.7	3503.3	80.5	18360.1
4981	880125	07	----	----	B	3862.7	12042.8	3619.5	87.8	19612.9

Bicyclics:
- Naphthalene
- 2-Methylnaphthalene
- 1-Methylnaphthalene
- Biphenyl

Tricyclics:
- Acenaphthylene
- Acenaphthene
- Dibenzofuran
- Fluorene
- Phenanthrene
- Anthracene
- Carbazole

Tetracyclics:
- Fluoranthene
- Pyrene
- 1,2-Benzanthracene
- Chrysene

Pentacyclics:
- Benzo-a-pyrene
- Benzo-ghi-perylene

Land Treatment Group
Forest Products Laboratory
Miss. State University

Date: 02/01/88
Time: 13:24:22

PCP Analysis Results in UG per G

SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP	I.D.#
880125	01	----	----	A	0.0	4968
880125	01	----	----	B	0.0	4969
880125	02	----	----	A	4.4	4970
880125	02	----	----	B	7.5	4971
880125	03	----	----	A	1.7	4972
880125	03	----	----	B	2.2	4973
880125	04	----	----	A	8.8	4974
880125	04	----	----	B	9.9	4975
880125	05	----	----	A	17.8	4976
880125	05	----	----	B	16.1	4977
880125	06	----	----	A	3.2	4978
880125	06	----	----	B	3.2	4979
880125	07	----	----	A	27.1	4980
880125	07	----	----	B	30.8	4981
880125	GWW	----	----	----	0.0	4987
880125	MDL	----	----	----	1.7	4985
880125	REC	----	----	----	76.7	4982
880125	RECLEV	----	----	----	83.3	4983
880125	SOILBL	----	----	----	0.0	4984
880125	SOLVBL	----	----	----	0.0	4986

Key: GWW = Glassware Wash
MDL = Method Detection Limit

Note: Values of 0.0 indicate None Detected above the specified Method Detection Limit.

Analyst: Leigh Ann Veloon

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 13:22:14
Date: 02/02/88

Micro. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS	AVG. NA COUNTS
880125	1	----	----	A	160000	4500000	170000	4450000	4600000	4500000	----	4950000
880125	4	----	----	A	210000	4600000	140000	4600000	5200000	4300000	----	5366666

Key:

ACA = Actinomycete Agar (Actinomycetes)
PDA = Potato Dextrose Agar (Bacteria)
PDAA = Potato Dextrose + Antibiotics (Fungi)
NA = Nutrient Agar (Bacteria)
C = NA + 20ppm Creosote (Creosote acclimated Bacteria)
P = NA + 5ppm Pentachlorophenol (PCP acclimated Bacteria)
CP = NA + 20ppm Cresote + 5ppm PCP (Creosote & PCP acclimated Bacteria)
SEA = Soil Extract Agar (Bacteria)

Analyst: Angela D. Carraway

Verified: Bobbyn Alsin A

MISSISSIPPI STATE UNIVERSITY

Telex: 53882
Telecopy: (601) 325-3560

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762-5724
PHONE (601) 325-2116

February 8, 1988

Dr. Gary D. McGinnis
Forest Products Lab

Dr. McGinnis:

Listed below are results of PH, Cl, C/N ratio, and total organic carbon, nitrogen, and phosphorus from Wilmington, NC.

SWP #	Depth	FPUL #	C(ug/g)	N(ug/g)	P(ug/g)	C/N	Cl(ug/g)	PH
7219A	0-3"	880125-1	57324.6	1810.3	362.4	31.66	9.6	6.90
7220A	0-3"	880125-4	63247.5	1505.6	367.9	42.00	10	6.75

Hamid Borazjani, Analyst

/jl

✓ OK

MISSISSIPPI STATE UNIVERSITY

elex: 53882
elecopy: (601) 325-3560

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762-5724
PHONE (601) 325-2116

April 13, 1988

Mr. Mike Pruett
Southern Wood Piedmont
P. O. Box 5447
Spartanburg, SC 29304

Dear Mike:

Please find enclosed the information on soil samples from your Wilmington units. The sample designations are 880308(1-3) = LF #1, Log 7279 (sample #99-101), 880308(4-6) = LF #2, Log 7280 (sample #101-104), and 880308-7 (creo/soil from LF #1 and LF #2 composite samples).

In comparison with 880125-1-7 samples, PAH's for LF #1 and LF #2 have reduced significantly for all depths except 9-12" level of LF #2. PAH's for creo/soil are up sharply.

PCP: For LF #1, concentrations are down for all depths except for (0-3") level. For LF #2, concentrations are unchanged for (0-3") and (21-24") but sharply up for (9-12") level. PCP concentration for creo/soil is also up sharply.

Nutrients: Carbon levels have reduced sharply for both units. Nitrogen and phosphorus levels are in relatively good shape. Decline of C/N ratio is due to low level of carbon.

Chloride ion and pH: Chloride ion for both units is low and pH is in excellent shape for both units.

Bacteria counts: Acclimated bacteria and total bacteria counts for both units are down by one million apparently due to low level of carbon in the soil, but still over three million bacteria per gram of soil are there to take care of creosote and penta. Addition of old saw dust to both units will be extremely helpful for biodegradation process.

We will be glad to answer any questions that you may have on this data.

Sincerely,

Hamid

Hamid Borazjani
Research Associate

sl:sampleanal
enclosures

Land Treatment Group
Forest Products Laboratory
Miss. State University

Time: 10:02:19
Date: 04/05/88

PAH Analysis Results in UG per G

I.D.	Site	Suffix	Day Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
5235	880308	01	-------	A	0	0	0	0	0	0	0	60	99	847	262	106	110	48	66	16	0
5236	880308	01	-------	B	0	0	0	0	0	0	0	79	136	1003	331	106	106	38	59	19	0
5237	880308	02	-------	A	0	0	0	0	0	4	0	9	28	104	26	64	60	24	37	20	12
5238	880308	02	-------	B	0	0	0	0	0	2	6	13	28	176	56	41	40	18	23	15	0
5239	880308	03	-------	A	0	0	0	0	0	0	0	0	5	14	0	8	7	2	4	0	0
5240	880308	03	-------	B	0	0	0	0	0	0	0	0	4	10	0	9	9	2	4	0	0
5241	880308	04	-------	A	0	0	0	0	0	0	0	31	65	249	72	52	55	26	36	29	0
5242	880308	04	-------	B	0	0	0	0	0	0	0	13	34	143	29	49	51	28	33	28	0
5243	880308	05	-------	A	10	7	2	0	0	10	16	21	143	126	50	290	319	92	122	47	24
5244	880308	05	-------	B	9	10	4	0	7	9	11	11	81	91	29	227	255	96	142	80	55
5245	880308	06	-------	A	0	0	0	0	0	0	0	0	9	7	0	16	16	11	12	8	4
5246	880308	06	-------	B	0	0	0	0	0	0	5	7	18	60	19	18	17	11	15	9	6
5247	880308	07	-------	A	1786	1566	643	407	44	1901	1981	2946	7400	3892	1570	3067	2285	527	544	154	38
5248	880308	07	-------	B	2062	2259	812	616	58	2511	3319	6048	13996	11483	1326	4028	2963	692	749	199	51
52[illegible]	[illegible]0308	GWW	-------	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5252	880308	MDL	-------	--	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	4
5249	880308	REC	-------	--	52	61	49	54	51	52	59	62	41	59	71	61	66	61	52	50	56
5250	880308	RECLEV	-------	--	58	66	52	56	53	52	59	58	36	50	62	52	58	51	44	38	38
5251	880308	SOILBL	-------	--	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5253	880308	SOLVBL	-------	--	0	0	0	0	0	0	0	0	0	0	0	0	0	80	0	0	0

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
I.D. = Sample Number

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Site = Site Name

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Sfx = Suffix
S = Subscript

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit
Ld = Percent Load

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories.
It does not provide absolute identification of components.

Analyst: David A. [illegible]

Group and Total PAH Results in UG per G

#	Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
5235	880308	01	----	----	A	0.0	1267.8	330.4	16.2	1614.3
5236	880308	01	----	----	B	0.0	1549.9	309.0	18.8	1877.7
5237	880308	02	----	----	A	0.0	171.2	185.1	32.3	388.6
5238	880308	02	----	----	B	0.0	281.3	122.4	15.3	419.0
5239	880308	03	----	----	A	0.0	18.4	20.9	0.0	39.3
5240	880308	03	----	----	B	0.0	14.6	23.5	0.0	38.1
5241	880308	04	----	----	A	0.0	417.3	168.3	29.3	614.9
5242	880308	04	----	----	B	0.0	219.4	161.8	28.1	409.3
5243	880308	05	----	----	A	18.6	365.9	823.4	70.8	1278.7
5244	880308	05	----	----	B	23.1	238.6	719.9	134.9	1116.6
5245	880308	06	----	----	A	0.0	15.5	54.1	12.7	82.3
5246	880308	06	----	----	B	0.0	109.5	61.0	14.9	185.4
5247	880308	07	----	----	A	4401.6	19732.9	6422.9	192.5	30749.9
5248	880308	07	----	----	B	5747.8	38740.9	8432.0	250.2	53170.8

Key:

Bicyclics:
- Naphthalene
- 2-Methylnaphthalene
- 1-Methylnaphthalene
- Biphenyl

Tricyclics:
- Acenaphthylene
- Acenaphthene
- Dibenzofuran
- Fluorene
- Phenanthrene
- Anthracene
- Carbazole

Tetracyclics:
- Fluoranthene
- Pyrene
- 1,2-Benzanthracene
- Chrysene

Pentacyclics:
- Benzo-a-pyrene
- Benzo-ghi-perylene

Land Treatment Group
Forest Products Laboratory
Miss. State University

Date: 04/07/88
Time: 15:16:11

PCP Analysis Results in ug per G

SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP	I.D.#
880308	01	----	----	A	2.36	5235
880308	01	----	----	B	2.34	5236
880308	02	----	----	A	3.07	5237
880308	02	----	----	B	3.06	5238
880308	03	----	----	A	0.695	5239
880308	03	----	----	B	0.829	5240
880308	04	----	----	A	9.6	5241
880308	04	----	----	B	9.	5242
880308	05	----	----	A	42.7	5243
880308	05	----	----	B	47.1	5244
880308	06	----	----	A	1.79	5245
880308	06	----	----	B	3.88	5246
880308	07	----	----	A	48.1	5247
880308	07	----	----	B	68.8	5248
880308	GWW	----	----	----	0.	5254
880308	MDL	----	----	----	0.237	5252
880308	REC	----	----	----	64.3	5249
880308	RECLEV	----	----	----	83.3	5250
880308	SOILBL	----	----	----	0.	5251
880308	SOLVBL	----	----	----	0.	5253

Key: GWW = Glassware Wash
MDL = Method Detection Limit

Note: Values of 0.0 indicate None Detected above the specified Method Detection Limit.

Analyst: Brenda Ferguson

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 11:24:10
Date: 03/14/88

Micro. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS	AVG. NA COUNTS
880308	01	---	---	A	63333	3500000	156666	3433333	3000000	3300000	---	4100000
880308	04	---	---	A	50000	2766666	73333	2333333	2400000	2600000	---	2833333
880308	07	---	---	A	1666	166666	1666	146666	0	0	---	310000

Key:

ACA = Actinomycete Agar (Actinomycetes)
PDA = Potato Dextrose Agar (Bacteria)
PDAA = Potato Dextrose + Antibiotics (Fungi)
NA = Nutrient Agar (Bacteria)
C = NA + 20ppm Creosote (Creosote acclimated Bacteria)
P = NA + 5ppm Pentachlorophenol (PCP acclimated Bacteria)
CP = NA + 20ppm Cresote + 5ppm PCP (Creosote & PCP acclimated Bacteria)
SEA = Soil Extract Agar (Bacteria)

Analyst: Angela D. Carraway

Verified: [illegible]

MISSISSIPPI STATE UNIVERSITY

Telex: 53882
Telecopy: (601) 325-3560

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762-5724
PHONE (601) 325-2116

April 13, 1988

Dr. Gary D. McGinnis
Forest Products Lab

Dear Dr. McGinnis:

Listed below are results of pH, C/N ratio, total organic carbon, nitrogen, and phosphorus for Navasota biotreatment units.

FPUL #	SWP #	Site ID	Depth	C(ug/g)	N(ug/g)	P(ug/g)	C/N	Cl(ug/g)	PH
880308-1	7279-A	LF#1	0-3"	27160.3	1514.2	284.3	17.94	10.4	6.79
880308-4	7280-A	LF#2	0-3"	26548.4	1278.0	499.7	20.77	12.2	6.86
880308-7	Creo/soil	LF#1&2	All	98300.4	1754.3	106.2	56.03	179.0	7.29

Comments/Recommendations:

Carbon levels for both units are low.

Hamid

Hamid Borazjani, Analyst

sl:corresp
4/13/88

MISSISSIPPI STATE UNIVERSITY

Telex: 53882
Telecopy: (601) 325-3560

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762-5724
PHONE (601) 325-2116

May 6, 1988

Mr. Mike Pruett
Southern Wood Piedmont
P. O. Box 5447
Spartanburg, SC 29304

Dear Mike:

Please find enclosed the information on soil samples from your Wilmington units. The sample designations are 880415(1-3) = LF #1, Log 7350 (samples 105, 106, 107), 880415(4-6) = LF #2, Log 7351 (samples 108, 109, 110), and 880415-7 (creo/soil from LF #1 and LF #2 = sample 111).

In comparison with 880308-1-7 samples, PAH's for LF #1 top level (0-3") are down sharply but have increased significantly for bottom level (21-24"). PAH's for LF #2 0-3" level are up but have reduced sharply for 9-12" level and slightly for 21-24" level. PAH's for creo/soil have remained unchanged.

PCP: For LF #1, concentrations are down for all depths except 9-12". For LF #2, concentrations are unchanged for all levels. PCP concentration for creo/soil is down significantly.

Nutrients: Nutrient levels have remained relatively the same. Carbon levels are still down.

Chloride ion and pH: Chloride ion concentration is unchanged; pH levels are very high for both units (addition of sulfur would help).

Bacteria counts: Bacteria populations are slightly down for LF #1; for LF #2, total bacteria as well as acclimated bacteria have gone up significantly.

We will be glad to answer any questions that you may have on this data.

Sincerely,

Hamid Borazjani
Research Associate

sl:sampleanal
enclosures

Land Treatment Group
Forest Products Laboratory
Miss. State University

Time: 16:32:28
Date: 05/04/88

PAH Analysis Results in UG per G

I.D.	Site	Suffix	Day Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
5666	880415	01	-------	A	0	0	0	0	0	0	0	0	6	5	5	18	21	16	13	10	0
5667	880415	01	-------	B	0	0	0	0	0	0	0	0	9	24	12	22	26	17	15	13	0
5668	880415	02	-------	A	5	3	0	0	3	3	8	13	28	89	26	41	45	23	28	13	0
5669	880415	02	-------	B	6	5	0	0	4	3	8	13	38	120	37	92	92	34	49	19	10
5670	880415	03	-------	A	31	51	4	11	4	8	66	195	325	1497	483	83	81	37	47	10	0
5671	880415	03	-------	B	18	32	2	7	3	6	44	112	171	1233	397	71	75	34	42	12	0
5672	880415	04	-------	A	9	10	0	0	5	5	17	37	68	295	97	97	103	51	54	22	0
5673	880415	04	-------	B	8	9	0	0	0	0	16	35	63	279	92	67	73	41	43	18	0
5674	880415	05	-------	A	6	5	0	2	4	4	9	14	37	134	41	100	100	44	58	23	8
5675	880415	05	-------	B	7	5	0	0	0	5	6	6	30	52	14	92	93	42	58	22	0
5676	880415	06	-------	A	0	0	0	0	0	0	0	0	6	10	3	17	17	10	10	6	0
5677	880415	06	-------	B	0	0	0	0	0	0	0	0	7	8	2	18	17	10	8	3	0
5678	880415	07	-------	A	2579	1553	701	350	90	1955	1762	2351	6314	4215	687	3695	2708	373	509	80	0
5679	880415	07	-------	B	6678	3569	1486	819	158	3548	3534	4393	10794	4297	1906	4579	3251	498	457	105	0
5[illegible]	[illegible]0415	GWW	-------	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5683	880415	MDL	-------	--	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	4
5680	880415	REC	-------	--	63	68	51	58	53	56	66	67	55	64	71	69	74	52	46	38	40
5681	880415	RECLEV	-------	--	58	66	52	56	53	52	59	58	36	50	62	52	58	51	44	38	38
5682	880415	SOILBL	-------	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5684	880415	SOLVBL	-------	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
I.D. = Sample Number

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Site = Site Name

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Sfx = Suffix
S = Subscript

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit
Ld = Percent Load
UG per L = Parts per Billion

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories.
It does not provide absolute identification of components.

Analyst: David A. Stovall

Land.Treatment Group
Forest Products Laboratory
Miss. State Univerisity

Date: 05/04/88
Time: 16:33:36

Group and Total PAH Results in UG per G

I.D.#	Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
5666	880415	01	----	----	A	0.0	15.7	68.9	10.1	94.7
5667	880415	01	----	----	B	0.0	45.0	80.2	12.8	138.0
5668	880415	02	----	----	A	7.9	169.9	138.1	13.2	329.2
5669	880415	02	----	----	B	10.9	223.7	265.9	29.1	529.6
5670	880415	03	----	----	A	97.3	2578.0	248.5	10.4	2934.3
5671	880415	03	----	----	B	59.5	1967.8	222.7	12.4	2262.3
5672	880415	04	----	----	A	18.6	524.3	305.9	22.2	871.0
5673	880415	04	----	----	B	16.9	483.7	223.7	18.3	742.7
5674	880415	05	----	----	A	13.2	244.8	301.6	30.4	590.0
5675	880415	05	----	----	B	12.5	112.9	285.5	21.7	432.6
5676	880415	06	----	----	A	0.0	19.0	54.0	5.6	78.7
5677	880415	06	----	----	B	0.0	17.1	53.0	3.3	73.4
5678	880415	07	----	----	A	5183.2	17374.2	7285.0	80.0	29922.4
5679	880415	07	----	----	B	12552.4	28629.3	8784.5	104.8	50071.0

Bicyclics:
- Naphthalene
- 2-Methylnaphthalene
- 1-Methylnaphthalene
- Biphenyl

Tricyclics:
- Acenaphthylene
- Acenaphthene
- Dibenzofuran
- Fluorene
- Phenanthrene
- Anthracene
- Carbazole

Tetracyclics:
- Fluoranthene
- Pyrene
- 1,2-Benzanthracene
- Chrysene

Pentacyclics:
- Benzo-a-pyrene
- Benzo-ghi-perylene

Forest Products Laboratory Time: 13:34:33
Miss. State University

PCP Analysis Results in UG per G

FIELD	SUFFIX	DAY	LOAD	SUBSCRIP	PCP	I.D.#
880415	01	----	----	A	0.	5666
880415	01	----	----	B	0.	5667
880415	02	----	----	A	4.2	5668
880415	02	----	----	B	7.18	5669
880415	03	----	----	A	0.	5670
880415	03	----	----	B	0.	5671
880415	04	----	----	A	10.8	5672
880415	04	----	----	B	12.1	5673
880415	05	----	----	A	30.1	5674
880415	05	----	----	B	32.8	5675
880415	06	----	----	A	4.13	5676
880415	06	----	----	B	2.52	5677
880415	07	----	----	A	0.	5678
880415	07	----	----	B	0.	5679
880415	GWW	----	----	----	0.	5685
880415	MDL	----	----	----	1.84	5683
880415	RECLEV	----	----	----	83.3	5681
880415	RECOVERY	----	----	----	84.	5680
880415	SOIL BLK	----	----	----	0.	5682
880415	SOLV BLK	----	----	----	0.	5684

Key: GWW = Glassware Wash
MDL = Method Detection Limit

Note: Values of 0.0 indicate None Detected above the specified Method Detection Limit.

Analyst: Brenda Jerguson

Verified: David A. Stuckel

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 16:31:21
Date: 05/03/88

Micro. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS	AVG. NA COUNTS
880415	1	----	----	A	60000	2533333	56666	1900000	2200000	1650000	----	3133333
880415	4	----	----	A	86666	3666666	110000	3866666	3700000	2500000	----	5666666

Key:

ACA = Actinomycete Agar (Actinomycetes)
PDA = Potato Dextrose Agar (Bacteria)
PDAA = Potato Dextrose + Antibiotics (Fungi)
NA = Nutrient Agar (Bacteria)
C = NA + 20ppm Creosote (Creosote acclimated Bacteria)
P = NA + 5ppm Pentachlorophenol (PCP acclimated Bacteria)
CP = NA + 20ppm Cresote + 5ppm PCP (Creosote & PCP acclimated Bacteria)
SEA = Soil Extract Agar (Bacteria)

Analyst: Rebecca Chancellor

Verified: Beverly Alcorn

MISSISSIPPI STATE UNIVERSITY

Telex: 53882
Telecopy: (601) 325-3560

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762-5724
PHONE (601) 325-2116

MEMO TO: Dr. Gary D. McGinnis

FROM: Hamid Borazjani, Analyst

DATE: May 5, 1988

Results of pH, C/N ratio, chloride ion, total organic carbon, nitrogen, and phosphorus from Wilmington, NC biotreatment units are listed below.

FPUL #	SWP #	Site ID	Depth	C(ug/g)	N(ug/g)	P(ug/g)	C/N	Cl(ug/g)	pH
880415-1	7350A	LF #1	0-3"	31234.6	1823.5	291.8	17.13	7.6	8.19
880415-4	7351A	LF #2	0-3"	29888.3	1578.1	502.1	18.94	10.0	8.21
880415-7	cr/soil	LF#1&2	All	97693.2	1612.0	178.4	60.60	140.0	7.45

Comments/Recommendations:

The pH level for both units is high.

sl

MISSISSIPPI STATE UNIVERSITY

Telex: 53882
Telecopy: (601) 325-3560

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762-5724
PHONE (601) 325-2116

May 31, 1988

Mr. Mike Pruett
Southern Wood Piedmont
P. O. Box 5447
Spartanburg, SC 29304

Dear Mike:

Please find enclosed the information on soil samples from your Wilmington units. The sample designations are 880509(1-3) = LF #1, Log 7378 (samples 112, 113, 114), 880509(4-6) = LF #2, Log 7379 (samples 115, 116, 117), and 880509-7 (creo/soil for LF #1 and LF #2 = sample 118).

In comparison with 880415-1-7 samples, PAH's for both units at 0-3" and 9-12" levels have sharply increased (probably due to the loading of units) but are down significantly for the bottom levels and creo/soil.

PCP: For LF #1, concentrations are up for all levels except 9-12". For LF #2, concentrations are unchanged for 0-3" and 9-12" but down to zero for 21-24" levels.

Nutrients: Carbon levels have remained the same for all except creo/soil. Nitrogen and phosphorus have not changed much.

Chloride ion and pH: pH levels are adjusted to the optimum range. Chloride ion concentrations are in stable level for all samples.

Bacteria counts: Acclimated bacteria population are down significantly especially for LF #2. The only major factor that I can point out for this drop could be either very dry or moist conditions at the units. I hope that you are still tilling the units weekly.

We will be glad to answer any questions that you may have on this data.

Sincerely,

Hamid Borazjani
Postdoctoral Assistant
601/325-3106

jl:sampleanal
enclosures

Land Treatment Group
Forest Products Laboratory
Miss. State University

Time: 22:24:20
Date: 05/16/88

PAH Analysis Results in UG per G

I.D.	Site	Suffix	Day Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
5812	880509	01	-------	A	30	60	17	15	4	141	165	396	832	2006	717	564	443	123	119	47	0
5813	880509	01	-------	B	19	33	15	8	3	119	110	239	513	895	300	477	380	75	75	19	0
5814	880509	02	-------	A	10	13	0	4	0	3	22	54	86	476	166	47	47	16	26	8	0
5815	880509	02	-------	B	8	11	0	2	0	2	12	24	42	281	94	54	52	17	27	12	7
5816	880509	03	-------	A	0	0	0	0	0	0	3	4	24	27	10	51	48	17	23	8	5
5817	880509	03	-------	B	0	0	0	0	0	0	2	2	10	8	2	20	19	6	10	5	6
5818	880509	04	-------	A	25	71	37	18	6	229	244	561	1223	1427	490	685	532	136	127	46	19
5819	880509	04	-------	B	11	28	30	6	5	190	154	306	731	514	176	612	489	100	99	25	10
5820	880509	05	-------	A	6	6	2	2	2	24	15	28	116	120	37	232	192	77	76	57	34
5820	880509	05	-------	B	8	9	1	3	2	19	17	35	80	216	73	172	144	54	60	43	26
5822	880509	06	-------	A	0	0	0	0	0	0	0	3	6	17	6	7	6	4	7	4	0
5823	880509	06	-------	B	0	0	0	0	0	0	0	0	3	3	0	6	5	2	4	4	0
5824	880509	07	-------	A	147	556	287	15	23	996	853	1447	3662	1677	468	1590	1163	184	155	48	13
5825	880509	07	-------	B	142	558	290	19	24	1024	877	1485	3745	1729	488	1583	1303	233	195	59	15
[illegible]	880509	GWW	-------	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5829	880509	MDL	-------	—	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3
5826	880509	REC	-------	—	53	62	49	55	54	56	66	70	47	66	79	68	73	62	45	46	48
5827	880509	RECLEV	-------	—	58	66	52	56	53	52	59	58	36	50	62	52	58	51	44	38	38
5828	880509	SOILBL	-------	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5830	880509	SOLVBL	-------	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
I.D. = Sample Number

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Site = Site Name

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Sfx = Suffix
S = Subscript

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit
Ld = Percent Load
UG per L = Parts per Billion

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories. It does not provide absolute identification of components.

Analyst: David A. Stokel

Group and Total PAH Results in UG per G

.D.#	Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
5812	880509	01	——	——	A	121.5	4262.8	1248.3	46.7	5679.2
5813	880509	01	——	——	B	74.2	2180.2	1006.5	19.1	3280.0
5814	880509	02	——	——	A	26.7	806.9	136.9	7.9	978.3
5815	880509	02	——	——	B	21.7	456.1	149.3	18.8	645.8
5816	880509	03	——	——	A	0.0	67.8	138.4	13.3	219.5
5817	880509	03	——	——	B	0.0	23.6	54.8	10.8	89.2
5818	880509	04	——	——	A	150.7	4181.0	1480.0	65.1	5876.8
5819	880509	04	——	——	B	75.3	2076.2	1298.7	35.1	3485.3
5820	880509	05	——	——	A	15.8	341.1	577.6	91.8	1026.3
5820	880509	05	——	——	B	20.8	440.3	430.1	69.4	960.6
5822	880509	06	——	——	A	0.0	31.4	23.8	4.3	59.4
5823	880509	06	——	——	B	0.0	6.1	16.9	4.1	27.1
5824	880509	07	——	——	A	1005.5	9126.6	3091.6	60.4	13284.0
5825	880509	07	——	——	B	1009.5	9372.0	3313.6	74.6	13769.6

Key:

Bicyclics:	Tricyclics:	Tetracyclics:	Pentacyclics:
Naphthalene	Acenaphthylene	Fluoranthene	Benzo-a-pyrene
2-Methylnaphthalene	Acenaphthene	Pyrene	Benzo-ghi-perylene
1-Methylnaphthalene	Dibenzofuran	1,2-Benzanthracene	
Biphenyl	Fluorene	Chrysene	
	Phenanthrene		
	Anthracene		
	Carbazole		

Land Treatment Group
Forest Products Laboratory
Miss. State University

Date: 05/25/88
Time: 14:06:27

PCP Analysis Results in UG per G

SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP	I.D.#
880509	01	----	----	A	7.9	5812
880509	01	----	----	B	5.79	5813
880509	02	----	----	A	3.43	5814
880509	02	----	----	B	3.39	5815
880509	03	----	----	A	2.67	5816
880509	03	----	----	B	2.49	5817
880509	04	----	----	A	12.3	5818
880509	04	----	----	B	11.7	5819
880509	05	----	----	A	33.6	5820
880509	05	----	----	B	29.1	5821
880509	06	----	----	A	0.	5822
880509	06	----	----	B	0.	5823
880509	07	----	----	A	21.4	5824
880509	07	----	----	B	21.8	5825
880509	GWW	----	----	----	0.	5831
880509	MDL	----	----	----	1.11	5829
880509	REC	----	----	----	99.	5826
880509	RECLEV	----	----	----	83.3	5827
880509	SOIL BLK	----	----	----	0.	5828
880509	SOLV BLK	----	----	----	0.	5830

Key: GWW = Glassware Wash
MDL = Method Detection Limit

Note: Values of 0.0 indicate None Detected above the specified Method Detection Limit.

Analyst: Brenda Ferguson

Verified: David A. Stokel

Time: 9:52:09
Date: 05/23/88

Forest Products Laboratory
Miss. State University

Micro. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS	AVG. NA COUNTS
880509	01	----	----	A	100000	1966666	100000	2200000	1333333	1200000	----	3100000
880509	04	----	----	A	90000	1600000	70000	1733333	966666	966666	----	2900000
880509	07	----	----	A	6666	533333	1666	466666	366666	333333	----	633333

Key:

ACA = Actinomycete Agar (Actinomycetes)
PDA = Potato Dextrose Agar (Bacteria)
PDAA = Potato Dextrose + Antibiotics (Fungi)
NA = Nutrient Agar (Bacteria)
C = NA + 20ppm Creosote (Creosote acclimated Bacteria)
P = NA + 5ppm Pentachlorophenol (PCP acclimated Bacteria)
CP = NA + 20ppm Cresote + 5ppm PCP (Creosote & PCP acclimated Bacteria)
SEA = Soil Extract Agar (Bacteria)

Analyst: Angela D. Carraway
Verified: Barry A. Crawford

MISSISSIPPI STATE UNIVERSITY

Telex: 53882
Telecopy: (601) 325-3560

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762-5724
PHONE (601) 325-2116

MEMO TO: Dr. Gary D. McGinnis

FROM: Hamid Borazjani, Analyst

DATE: May 23, 1988

Results of pH, C/N ratio, chloride ion, total organic carbon, nitrogen, and phosphorus from Wilmington, NC biotreatment units are listed below.

FPUL #	SWP #	Site ID	Depth	C(ug/g)	N(ug/g)	P(ug/g)	C/N	Cl(ug/g)	pH
880509-1	7378A	LF #1	0-6"	27248.8	1750.1	507.7	15.57	15	6.63
880509-4	7379A	LF #2	0-6"	30167.1	1800.9	611.0	16.75	25	6.89
880509-7	cr/soil	LF#1&2	All	59928.2	1149.6	143.2	52.13	25	6.55

jl

OK

MISSISSIPPI STATE UNIVERSITY

Telex: 53882
Telecopy: (601) 325-3560

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762-5724
PHONE (601) 325-2116

July 21, 1988

Mr. Mike Pruett
Southern Wood Piedmont
P. O. Box 5447
Spartanburg, SC 29304

Dear Mike:

Enclosed is the information on soil samples from your Wilmington units. The sample designations are 880617(1-3) = LF#1, Log 7450 (samples 129, 130, 131); 880617(4-6) = LF#2, Log 7451 (samples 132, 133, 134); and 880617-7 (creo/soil composite sample).

In comparison with 880509-1-7 samples, PAH's for all the samples are down significantly for all the levels.

PCP: Concentrations have decreased for all the levels except for 21-24" level of LF #2.

Nutrients: The C/N ratio is improved for both units and phosphorus levels have remained the same.

Bacteria counts: Bacteria populations for acclimated as well as non-acclimated have increased sharply for both units and the population increase is usually an indication of a good biodegradation.

Chloride ion and pH: pH levels are almost perfect for both units. Chloride ion concentrations are down slightly.

As always, we will be glad to answer any questions that you may have on this data.

Sincerely,

Hamid Borazjani
Research Associate
601/325-3106

sl

enclosures

cc: Gary D. McGinnis

Land Treatment Group
Forest Products Laboratory
Miss. State Univerisity

Date: 07/07/88
Time: 10:24:37

Group and Total PAH Results in UG per G

I.D.#	Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
6147	880617	01			A	23.5	906.5	461.4	42.2	1433.6
6148	880617	01			B	36.4	1009.7	287.6	50.2	1383.9
6149	880617	02			A	8.1	140.9	160.0	37.1	346.1
6150	880617	02			B	6.8	134.5	117.8	38.3	297.4
6151	880617	03			A	2.4	74.4	54.0	4.3	135.2
6152	880617	03			B	4.3	14.3	37.4	3.9	59.8
6153	880617	04			A	8.3	316.5	226.9	57.8	609.4
6154	880617	04			B	14.4	591.7	240.5	54.1	900.6
6155	880617	05			A	8.6	127.5	242.9	51.3	430.2
6156	880617	05			B	21.5	909.8	214.1	60.2	1205.6
6157	880617	06			A	0.0	75.0	72.3	8.2	155.4
6158	880617	06			B	1.4	10.4	42.9	7.7	62.4
6159	880617	07			A	30.6	1307.9	959.0	31.0	2328.5
6160	880617	07			B	28.3	586.7	846.4	25.4	1486.8
[illegible]66	880617	GWW				0.0	0.0	0.0	0.0	0.0
6164	880617	MDL				2.5	7.2	4.7	6.2	20.5
6161	880617	REC				202.2	414.8	293.6	111.1	1021.7
6162	880617	RECLEV				233.0	370.3	204.4	75.9	883.6
6163	880617	SOILBL				0.0	0.0	0.0	0.0	0.0
6165	880617	SOLVBL				0.0	0.0	0.0	0.0	0.0

Key:

Bicyclics:
Naphthalene
2-Methylnaphthalene
1-Methylnaphthalene
Biphenyl

Tricyclics:
Acenaphthylene
Acenaphthene
Dibenzofuran
Fluorene
Phenanthrene
Anthracene
Carbazole

Tetracyclics:
Fluoranthene
Pyrene
1,2-Benzanthracene
Chrysene

Pentacyclics:
Benzo-a-pyrene
Benzo-ghi-perylene

Land Treatment Group
Forest Products Laboratory
Miss. State University

Time: 10:23:25
Date: 07/07/88

PAH Analysis Results in UG per G

I.D.	Site	Suffix	Day	Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bg
6147	880617	01			A	7	12	0	5	0	10	20	51	100	556	169	185	130	51	95	28	
6148	880617	01			B	13	19	0	5	0	0	23	66	107	615	199	83	67	45	93	36	
6149	880617	02			A	4	4	0	0	0	2	5	9	23	76	26	51	47	26	36	19	[illegible]
6150	880617	02			B	4	3	0	0	0	1	3	5	15	81	28	31	33	22	32	22	[illegible]
6151	880617	03			A	1	1	0	0	0	1	2	4	8	48	12	16	12	6	20	4	
6152	880617	03			B	2	2	0	0	0	0	2	0	6	4	2	12	10	5	10	4	
6153	880617	04			A	4	5	0	0	0	0	11	17	43	186	60	71	65	37	54	34	2
6154	880617	04			B	6	8	0	0	0	0	16	46	87	332	110	77	66	39	57	35	2
6155	880617	05			A	5	3	0	0	2	3	6	7	26	64	19	83	75	36	49	34	1
6156	880617	05			B	8	11	0	3	2	3	17	42	64	612	169	69	60	33	52	36	2
6157	880617	06			A	0	0	0	0	0	0	0	2	10	58	5	22	19	10	22	8	
6158	880617	06			B	1	0	0	0	0	0	0	0	4	4	3	13	10	7	13	8	
6159	880617	07			A	8	14	5	4	0	80	54	129	387	534	123	456	286	90	127	31	[illegible]
[illegible]	880617	07			B	5	12	8	3	0	89	36	86	256	97	22	410	254	79	103	25	[illegible]
6166	880617	GWW				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	[illegible]
6164	880617	MDL				1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	4
6161	880617	REC				48	57	46	52	51	51	58	63	43	67	82	67	75	81	71	54	57
6162	880617	RECLEV				58	66	52	56	53	52	59	58	36	50	62	52	58	51	44	38	38
6163	880617	SOILBL				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6165	880617	SOLVBL				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
I.D. = Sample Number

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Site = Site Name

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Sfx = Suffix
S = Subscript

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit
Ld = Percent Load
UG per L = Parts per Billion

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories.
It does not provide absolute identification of components.

Analyst: David A. Stokel

Land Treatment Group
Forest Products Laboratory
Miss. State University

Date: 07/20/88
Time: 9:00:16

PCP Analysis Results in UG per G

SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP	I.D.#
880617	01	----	----	A	0.	6147
880617	01	----	----	B	0.	6148
880617	02	----	----	A	3.66	6149
880617	02	----	----	B	3.56	6150
880617	03	----	----	A	0.	6151
880617	03	----	----	B	0.	6152
880617	04	----	----	A	7.51	6153
880617	04	----	----	B	7.25	6154
880617	05	----	----	A	17.6	6155
880617	05	----	----	B	18.5	6156
880617	06	----	----	A	8.24	6157
880617	06	----	----	B	8.66	6158
880617	07	----	----	A	0.	6159
880617	07	----	----	B	0.	6160
880617	GWW	----	----	----	0.	6166
880617	MDL	----	----	----	0.978	6164
880617	REC	----	----	----	81.1	6161
880617	RECLEV	----	----	----	83.3	6162
880617	SOILBL	----	----	----	0.	6163
880617	SOLVBL	----	----	----	0.	6165

Key: GWW = Glassware Wash
MDL = Method Detection Limit

Note: Values of 0.0 indicate None Detected above the specified Method Detection Limit.

Analyst: Brenda Ferguson

Verified: David A. Stoutel

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 8:52:40
Date: 07/06/88

Micro. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS	AVG. NA COUNTS
880617	01	----	----	A	80000	2800000	160000	3300000	3266666	2933333	----	3500000
880617	04	----	----	A	76666	2833333	153333	3100000	3100000	2866666	----	3700000
880617	07	----	----	A	10000	1000000	30000	700000	500000	253333	----	1100000

Key:

ACA = Actinomycete Agar (Actinomycetes)
PDA = Potato Dextrose Agar (Bacteria)
PDAA = Potato Dextrose + Antibiotics (Fungi)
NA = Nutrient Agar (Bacteria)
C = NA + 20ppm Creosote (Creosote acclimated Bacteria)
P = NA + 5ppm Pentachlorophenol (PCP acclimated Bacteria)
CP = NA + 20ppm Cresote + 5ppm PCP (Creosote & PCP acclimated Bacteria)
SEA = Soil Extract Agar (Bacteria)

Analyst: Angela D. Carraway
Verified: Bonnie A Grant

MISSISSIPPI STATE UNIVERSITY

Telex: 53882
Telecopy: (601) 325-3560

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762-5724
PHONE (601) 325-2116

MEMO TO: Dr. Gary D. McGinnis

FROM: Hamid Borazjani, Analyst

DATE: July 21, 1988

Results of pH, C/N ratio, chloride ion, and total organic carbon, nitrogen, and phosphorus from Wilmington, NC biotreatment units are listed below.

FPUL #	SWP #	Site ID	Depth	C(μg/g)	N(μg/g)	P(μg/g)	C/N	Cl(μg/g)	pH
880617-1	7450	LF #1	0-6"	32425	1745	529	18.6	16	7.00
880617-4	7451	LF #2	0-6"	27904	1775	551	15.72	30	6.96
880617-7	cr/soil	LF#1&2	All	22415	1642	233	13.65	90	7.10

sl

MISSISSIPPI STATE UNIVERSITY

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Telecopy: (601) 325-3560

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762-5724
PHONE (601) 325-2116

July 27, 1988

Mr. Mike Pruett
Southern Wood Piedmont
P. O. Box 5447
Spartanburg, SC 29304

Dear Mike:

Enclosed is the information on soil samples from your Wilmington units. The sample designations are 880624 (1-3) = LF#1, Log 7452 (samples 135, 136, 137); and 880624 (4-6) = LF#2, Log 7453 (samples 138, 139, 140).

In comparison with 880617 (1-7) samples, PAH's are significantly up for both top levels of LF #1 and LF #2. PAH's for all other levels have increased slightly or remained the same.

PCP: Concentration levels have increased for 0-3" of LF #1 and 9-12" of LF #2. Other levels of LF #1 and LF #2 are either down or unchanged.

Nutrients: Nitrogen levels are up almost 100 ppm for both levels while C/N ratio and phosphorus levels are unchanged.

Bacteria counts: Bacteria populations for all media are down by a factor of one million which is probably due to the loading of units and should be back up again a week later.

Chloride ion and pH: Both chloride ion concentrations and pH levels are in excellent shape.

If you have questions on this data, please feel free to contact us.

Sincerely,

Hamid Co

Hamid Borazjani
Research Associate
601/325-3106

sl

enclosures

cc: Gary D. McGinnis

Land Treatment Group
Forest Products Laboratory
Miss. State University

Time: 19:52:45
Date: 07/22/88

PAH Analysis Results in UG per G

I.D.	Site	Suffix	Day	Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
6218	880624	01			A	72	102	7	20	4	27	132	359	488	4526	1544	235	171	60	93	40	0
6219	880624	01			B	30	38	7	12	6	72	89	243	692	1189	345	873	562	197	194	82	45
6220	880624	02			A	3	3	0	0	2	3	5	10	28	93	25	64	53	26	33	23	11
6221	880624	02			B	4	5	1	1	1	7	10	17	93	146	47	118	94	48	43	37	35
6222	880624	03			A	1	1	0	0	0	0	1	2	4	20	6	7	7	3	8	5	0
6223	880624	03			B	1	0	0	0	0	0	1	2	5	13	4	6	6	3	6	4	0
6224	880624	04			A	48	76	4	16	3	11	88	233	362	1973	640	174	122	51	76	50	0
6225	880624	04			B	56	83	3	14	4	12	88	215	321	3288	1104	171	122	45	76	38	0
6226	880624	05			A	7	7	0	2	2	4	10	19	51	221	69	103	84	32	50	39	28
6227	880624	05			B	12	13	1	3	2	4	16	31	48	369	113	83	71	28	41	33	25
6228	880624	06			A	2	2	0	0	0	0	2	4	18	40	13	30	24	12	18	15	0
6229	880624	06			B	2	2	0	0	0	1	3	4	29	54	16	66	53	24	30	16	0
6235	880624	GWW				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62[illegible]	[illegible]0624	MDL				1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	3	8
6230	880624	REC				55	63	51	54	51	51	56	57	36	53	64	55	64	59	53	59	53
6231	880624	RECLEV				58	66	52	56	53	52	59	58	36	50	62	52	58	51	42	38	38
6232	880624	SOILBL				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6234	880624	SOLVBL				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
I.D. = Sample Number

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Site = Site Name

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Sfx = Suffix
S = Subscript

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit
Ld = Percent Load
UG per L = Parts per Billion

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories. It does not provide absolute identification of components.

Analyst: David A. Stubel

Land Treatment Group
Forest Products Laboratory
Miss. State Univerisity

Date: 07/22/88
Time: 19:54:23

Group and Total PAH Results in UG per G

I.D.#	Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
6218	880624	01	—	—	A	202.1	7080.0	559.6	39.6	7881.3
6219	880624	01	—	—	B	87.4	2635.6	1824.7	126.4	4674.1
6220	880624	02	—	—	A	6.7	164.8	176.7	34.5	382.7
6221	880624	02	—	—	B	11.8	321.9	302.8	72.4	708.9
6222	880624	03	—	—	A	1.6	32.8	25.0	5.5	65.0
6223	880624	03	—	—	B	0.5	24.7	20.7	3.7	49.6
6224	880624	04	—	—	A	144.6	3310.3	422.8	50.2	3927.9
6225	880624	04	—	—	B	156.4	5033.9	414.2	38.4	5643.0
6226	880624	05	—	—	A	16.2	375.1	269.3	67.1	727.7
6227	880624	05	—	—	B	29.6	582.2	223.2	58.2	893.3
6228	880624	06	—	—	A	4.1	78.1	83.4	15.1	180.6
6229	880624	06	—	—	B	3.4	107.2	173.3	16.2	300.0

Key:

Bicyclics:

Naphthalene
2-Methylnaphthalene
1-Methylnaphthalene
Biphenyl

Tricyclics:

Acenaphthylene
Acenaphthene
Dibenzofuran
Fluorene
Phenanthrene
Anthracene
Carbazole

Tetracyclics:

Fluoranthene
Pyrene
1,2-Benzanthracene
Chrysene

Pentacyclics:

Benzo-a-pyrene
Benzo-ghi-perylene

Land Treatment Group
Forest Products Laboratory
Miss. State University

Date: 07/19/88
Time: 9:35:46

PCP Analysis Results in UG per G

TEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP	I.D.#
880624	01	----	----	A	5.43	6218
880624	01	----	----	B	12.1	6219
880624	02	----	----	A	6.4	6220
880624	02	----	----	B	3.51	6221
880624	03	----	----	A	0.	6222
880624	03	----	----	B	0.	6223
880624	04	----	----	A	7.65	6224
880624	04	----	----	B	7.08	6225
880624	05	----	----	A	13.3	6226
880624	05	----	----	B	13.	6227
880624	06	----	----	A	4.95	6228
880624	06	----	----	B	5.17	6229
880624	GWW	----	----	----	0.	6235
880624	MDL	----	----	----	1.04	6233
880624	RECLEV	----	----	----	83.3	6231
880624	RECOV	----	----	----	80.2	6230
880624	SOILBL	----	----	----	0.	6232
880624	SOLVBL	----	----	----	0.	6234

Key: GWW = Glassware Wash
MDL = Method Detection Limit

Note: Values of 0.0 indicate None Detected above the specified Method Detection Limit.

Analyst: Brenda Ferguson

Verified: David A. Stoebel

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 2:18:17
Date: 07/26/88

Bio. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS	AVG. NA COUNTS
880624	01	—	—	A	80000	2800000	175000	2800000	1900000	1900000	—	3100000
880624	04	—	—	A	90000	2400000	350000	2800000	2066666	2300000	—	3300000

Key:

ACA = Actinomycete Agar (Actinomycetes)
PDA = Potato Dextrose Agar (Bacteria)
PDAA = Potato Dextrose + Antibiotics (Fungi)
NA = Nutrient Agar (Bacteria)

C = NA + 20ppm Creosote (Creosote acclimated Bacteria)
P = NA + 5ppm Pentachlorophenol (PCP acclimated Bacteria)
CP = NA + 20ppm Cresote + 5ppm PCP (Creosote & PCP acclimated Bacteria)
SEA = Soil Extract Agar (Bacteria)

Analyst: Angela D. Carraway

Verified: [illegible]

MISSISSIPPI STATE UNIVERSITY

Telex: 53882
Telecopy: (601) 325-3560

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762-5724
PHONE (601) 325-2116

MEMO TO: Dr. Gary D. McGinnis

FROM: Hamid Borazjani, Analyst

DATE: July 26, 1988

Results of pH, C/N ratio, chloride ion, and total organic carbon, nitrogen, and phosphorus from Wilmington, NC biotreatment units are listed below.

FPUL #	SWP #	Site ID	Depth	C(μg/g)	N(μg/g)	P(μg/g)	C/N	Cl(μg/g)	pH
880624-1	7452	LF #1	0-6"	28792	1818	583	15.84	24.90	6.86
880624-4	7453	LF #2	0-6"	34924	1895	576	18.43	25.10	7.02

sl

MISSISSIPPI STATE UNIVERSITY

Telex: 53882
Telecopy: (601) 325-3560

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762-5724
PHONE (601) 325-2116

September 16, 1988

Mr. Mike Pruett
Southern Wood Piedmont
P. O. Box 5447
Spartanburg, SC 29304

Dear Mike:

Enclosed is the information on soil samples from your Wilmington units and spray field. The sample designations are 880818 (1-3) = LF#1, Log 7542 (samples 142, 143, 144); 880818 (4-6) = LF#2, Log 7543 (samples 145, 146, 147); 880818-7 = creo/soil composite, and 880809-1 = spray field sample.

In comparison with 880624 (1-6) samples, PAH's are down significantly for 0-3" for LF #1, and 0-3" and 9-12" for LF #2. PAH's have remained unchanged for 9-12" for LF #1, 21-24" for LF #2, but up significantly for 21-24" for LF #1. In comparison with 880617-7 sample, PAH's are up significantly for creo/soil sample.

PCP: With exception of 9-12" for LF #2, PCP concentration levels are down for all levels for LF #1 and #2. PCP level for creo/soil is up significantly compared to the 880617-7 sample.

Nutrients: Carbon levels are down for LF #1 and up for LF #2. Nitrogen levels are up for both levels. C/N ratio, chloride ion concentration, and pH levels for both units are in good shape.

Bacteria counts: Bacteria populations have increased sharply on PCP amended media (more PCP acclimated bacteria), but on the other media populations have remained unchanged.

Chloride ion and pH: Chloride ion concentrations for both units are down and in good levels; pH levels are up slightly but still in a proper range.

As always, please feel free to contact us if you have any questions on these data.

Sincerely,

Hamid Borazjani
Research Associate
601/325-3106

sl
enclosures

cc: Gary D. McGinnis

Land Treatment Group
Forest Products Laboratory
[illegible]s. State University

Time: 8:16:26
Date: 09/02/88

PAH Analysis Results in UG per G

I.D.	Site	Suffix	Day Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
6681	880818	01	-------	A	14	23	0	0	0	0	34	94	164	1060	330	206	151	103	87	52	0
6682	880818	01	-------	B	19	27	0	0	0	0	42	102	192	1390	459	97	85	78	73	54	0
6683	880818	02	-------	A	4	7	0	0	0	0	9	29	53	414	107	35	33	27	32	34	0
6684	880818	02	-------	B	5	6	0	0	0	0	6	17	38	249	73	46	36	34	28	23	0
6685	880818	03	-------	A	0	0	0	0	0	0	2	4	10	54	17	26	29	31	27	18	0
6686	880818	03	-------	B	4	6	0	0	0	0	8	21	30	251	82	31	30	32	30	17	0
6687	880818	04	-------	A	17	35	0	0	0	0	67	218	370	2828	838	159	133	94	100	47	0
6688	880818	04	-------	B	11	23	0	0	0	0	27	83	133	1331	376	123	111	88	85	49	0
6689	880818	05	-------	A	2	0	0	0	0	3	3	8	28	84	23	62	81	35	57	40	0
6690	880818	05	-------	B	5	0	0	0	0	0	5	9	25	100	31	54	52	31	44	35	0
6691	880818	06	-------	A	0	0	0	0	0	0	0	4	9	46	14	31	28	21	18	10	0
6692	880818	06	-------	B	0	3	0	0	0	0	5	13	27	168	54	10	15	10	11	8	0
[illegible]	880818	07	-------	A	1715	1036	425	216	26	1292	1232	1844	4620	3564	1375	1697	954	257	267	74	0
6694	880818	07	-------	B	1630	990	415	207	26	1298	1201	1779	4541	2973	1176	1878	1066	287	296	83	0
6695	880818	REC	-------	--	45	53	44	50	49	52	59	65	47	66	79	67	77	82	75	78	119
6696	880818	RECLEV	-------	--	58	66	52	56	53	52	59	58	36	50	62	52	58	51	44	38	38
6697	880818	SOILBL	-------	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6698	880818	MDL	-------	--	1	1	1	1	1	1	1	1	1	1	2	1	1	1	2	4	10
6699	880818	SOLVBL	-------	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6700	880818	GWW	-------	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
I.D. = Sample Number

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Site = Site Name

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Sfx = Suffix
S = Subscript

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit
Ld = Percent Load
UG per L = Parts per Billion

1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories.
It does not provide absolute identification of components.

Analyst: David A. Stalter

Land Treatment Group
Forest Products Laboratory
Miss. State Univerisity

Date: 09/02/88
Time: 8:19:41

Group and Total PAH Results in UG per G

I.D.#	Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
6681	880818	01	----	----	A	36.7	1682.9	546.9	52.3	2318.7
6682	880818	01	----	----	B	45.6	2184.9	333.0	54.2	2617.7
6683	880818	02	----	----	A	11.7	612.3	127.3	34.0	785.2
6684	880818	02	----	----	B	10.1	382.0	143.2	23.4	558.8
6685	880818	03	----	----	A	0.0	86.0	112.7	17.7	216.4
6686	880818	03	----	----	B	9.9	391.6	122.9	17.4	541.8
6687	880818	04	----	----	A	52.6	4320.9	485.1	47.5	4906.1
6688	880818	04	----	----	B	33.9	1950.3	407.0	49.4	2440.6
6689	880818	05	----	----	A	2.5	149.2	234.1	40.5	426.3
6690	880818	05	----	----	B	4.9	169.1	180.7	34.5	389.2
6691	880818	06	----	----	A	0.0	72.1	97.8	9.9	179.8
6692	880818	06	----	----	B	2.5	266.5	46.5	7.7	323.2
6693	880818	07	----	----	A	3392.0	13951.5	3173.7	74.4	20591.6
6694	880818	07	----	----	B	3241.8	12993.8	3526.7	83.0	19845.5

Key:

Bicyclics:	Tricyclics:	Tetracyclics:	Pentacyclics:
Naphthalene	Acenaphthylene	Fluoranthene	Benzo-a-pyrene
2-Methylnaphthalene	Acenaphthene	Pyrene	Benzo-ghi-perylene
1-Methylnaphthalene	Dibenzofuran	1,2-Benzanthracene	
Biphenyl	Fluorene	Chrysene	
	Phenanthrene		
	Anthracene		
	Carbazole		

Land Treatment Group
Forest Products Laboratory
Miss. State University

Date: 08/29/88
Time: 14:30:47

PCP Analysis Results in UG per G

SAMPID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP	I.D.#
880818	01	----	----	A	0.	6681
880818	01	----	----	B	0.	6682
880818	02	----	----	A	0.	6683
880818	02	----	----	B	0.	6684
880818	03	----	----	A	0.	6685
880818	03	----	----	B	0.	6686
880818	04	----	----	A	0.	6687
880818	04	----	----	B	0.	6688
880818	05	----	----	A	17.	6689
880818	05	----	----	B	17.7	6690
880818	06	----	----	A	5.24	6691
880818	06	----	----	B	2.68	6692
880818	07	----	----	A	12.6	6693
880818	07	----	----	B	14.3	6694
880818	GWW	----	----	----	0.	6700
880818	MDL	----	----	----	1.33	6698
880818	REC	----	----	----	77.8	6695
880818	RECLEV	----	----	----	83.3	6696
880818	SOILBL	----	----	----	0.	6697
880818	SOLVBL	----	----	----	0.	6699

Key: GWW = Glassware Wash
MDL = Method Detection Limit

Note: Values of 0.0 indicate None Detected above the specified Method Detection Limit.

Analyst: Brenda Ferguson
Verified: David A. Stratton

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 13:19:59
Date: 09/07/88

Miss. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS	AVG. NA COUNTS
88081B	#1	----	----	A	85000.	3900000.	70000.	2300000.	3500000.	2900000.	----	2300000.
88081B	#4	----	----	A	100000.	3400000.	87000.	2400000.	3000000.	3000000.	----	3100000.
88081B	#7	----	----	A	10000.	300000.	20000.	550000.	5000.	10000.	----	900000.

Key:

ACA = Actinomycete Agar (Actinomycetes)
PDA = Potato Dextrose Agar (Bacteria)
PDAA = Potato Dextrose + Antibiotics (Fungi)
NA = Nutrient Agar (Bacteria)
C = NA + 20ppm Creosote (Creosote acclimated Bacteria)
P = NA + 5ppm Pentachlorophenol (PCP acclimated Bacteria)
CP = NA + 20ppm Cresote + 5ppm PCP (Creosote & PCP acclimated Bacteria)
SEA = Soil Extract Agar (Bacteria)

Analyst: Mary E. Harrigan

Verified: Bobby J. Blanchard

MISSISSIPPI STATE UNIVERSITY

ex: 53882
Telecopy: (601) 325-3560

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762-5724
PHONE (601) 325-2116

MEMO TO: Dr. Gary D. McGinnis

FROM: Hamid Borazjani, Analyst

DATE: September 15, 1988

Results of pH, C/N ratio, chloride ion, and total organic carbon, nitrogen, and phosphorus from Wilmington, NC biotreatment units and spray field are listed below.

FPUL #	SWP #	Site ID	Depth	C(μg/g)	N(μg/g)	P(μg/g)	C/N	Cl(μg/g)	pH
880818-1	7542	LF #1	0-6"	31401.6	1901.3	467.8	16.51	8.77	7.4
880818-4	7543	LF #2	0-6"	29186.4	2104.1	705.0	13.87	10.20	7.36
880818-7	Creo/ soil	LF #1&2	--	47898.0	1529.0	201.8	31.32	22.00	7.25
880809-1	Spray field	--	0-6"	9917.5	793.4	299.4	12.50	8.10	6.20

sl

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 13:24:06
Date: 09/07/88

Micro. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS	AVG. NA COUNTS
880809	#1	----	----	A	67000.	1000000.	60000.	2200000.	500000.	250000.	----	1400000.

Key:

ACA = Actinomycete Agar (Actinomycetes)
PDA = Potato Dextrose Agar (Bacteria)
PDAA = Potato Dextrose + Antibiotics (Fungi)
NA = Nutrient Agar (Bacteria)
C = NA + 20ppm Creosote (Creosote acclimated Bacteria)
P = NA + 5ppm Pentachlorophenol (PCP acclimated Bacteria)
CP = NA + 20ppm Cresote + 5ppm PCP (Creosote & PCP acclimated Bacteria)
SEA = Soil Extract Agar (Bacteria)

Analyst: Mary E Harrison

Verified: Bettye J Crow

MISSISSIPPI STATE UNIVERSITY

Telex: 53882
Telecopy: (601) 325-3560

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762-5724
PHONE (601) 325-2116

October 27, 1988

Mr. Mike Pruett
Southern Wood Piedmont
P. O. Box 5447
Spartanburg, SC 29304

Dear Mike:

Enclosed is the information on soil samples from your Wilmington units. The sample designations are 880930 (1-3) = LF#1, Log 7600 (samples 148, 149, 150); 880930 (4-6) = LF#2, Log 7601 (samples 151, 152, 153); and 880930-7 = creo/soil composite.

In comparison with 880818 (1-7) samples, PAH's are down significantly for all levels and creo/soil.

PCP: Concentrations for LF #1 have remained unchanged at (0-6") and (9-12"), but it has gone up slightly for 23" level. PCP levels for LF #2 and creo/soil are up. PCP results show that beside biodegradation some of the PCP's are moving to the bottom levels.

Nutrients: Organic carbon, nitrogen, and phosphorus are down for both units, but the reduction is proportional resulting in an excellent C/N ratio for both units. Chloride ion and pH levels for both units are in good shape.

Bacteria counts: Total bacteria counts for both units have gone up to over three million, but there is reduction in population of PCP acclimated bacteria. Populations have increased or remained unchanged for other microorganisms.

Please feel free to contact us if you have any questions on these data.

Sincerely,

Hamid Borazjani
Research Associate
601/325-3106

sl

enclosures

cc: Gary D. McGinnis

MISSISSIPPI STATE UNIVERSITY

Telex: 53882
Telecopy: (601) 325-3560

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762-5724
PHONE (601) 325-2116

MEMO TO: Dr. Gary D. McGinnis

FROM: Hamid Borazjani, Analyst

DATE: October 27, 1988

Results of pH, C/N ratio, chloride ion, and total organic carbon, nitrogen, and phosphorus from Wilmington, NC biotreatment units are listed below.

FPUL #	SWP #	Site ID	Depth	C(μg/g)	N(μg/g)	P(μg/g)	C/N	Cl(μg/g)	pH
880930-1	148	LF #1	0-3"	25764.0	1260.1	194.1	20.45	6.8	7.48
880930-4	151	LF #2	0-3"	27827.14	1441.0	196.0	19.31	7.1	7.77
880930-7	Creo/ soil	LF #1&2	--	102417.6	1984.3	54.8	51.62	140.0	6.74

sl

Land Treatment Group
Forest Products Laboratory
Miss. State University

Time: 19:59:31
Date: 10/20/88

PAH Analysis Results in UG per G

I.D.	Site	Suffix	Day Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
6887	880930	01	-------	A	0	0	0	0	0	0	0	0	37	112	0	16	36	26	0	0	0
6888	880930	01	-------	B	0	0	0	0	0	0	0	0	13	66	0	39	43	29	0	0	0
6889	880930	02	-------	A	0	0	0	0	0	0	0	0	12	52	0	21	24	14	0	0	0
6890	880930	02	-------	B	0	0	0	0	0	0	20	72	131	523	140	18	24	13	0	0	0
6891	880930	03	-------	A	0	0	0	0	0	0	0	0	0	0	0	38	37	20	19	11	7
6892	880930	03	-------	B	0	0	0	0	0	0	0	0	6	0	0	47	46	21	35	21	11
6893	880930	04	-------	A	0	0	0	0	0	0	0	0	40	238	0	48	78	48	32	0	0
6894	880930	04	-------	B	0	0	0	0	0	0	0	44	107	488	155	85	87	63	55	55	56
6895	880930	05	-------	A	0	0	0	0	0	0	0	11	28	114	0	40	46	30	15	0	0
6896	880930	05	-------	B	0	0	0	0	0	0	0	0	18	65	0	48	52	22	19	0	0
6897	880930	06	-------	A	0	0	0	0	0	0	0	0	0	0	0	25	31	0	0	0	0
6898	880930	06	-------	B	0	0	0	0	0	0	0	0	4	16	0	19	21	0	0	0	0
899	880930	07	-------	A	9251	4471	1850	1083	71	5782	5011	9251	13876	11409	3762	3084	1912	348	308	120	47
900	880930	07	-------	B	1665	1159	450	240	30	2004	1773	3261	8171	10099	4394	2081	1356	386	368	206	66
904	880930	GWW	-------	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
121	880930	MDL	-------	--	6	6	5	9	5	4	8	7	6	5	10	7	8	6	9	37	25
901	880930	REC	-------	--	45	52	49	51	50	51	45	70	83	331	266	88	105	68	76	99	39
120	880930	RECLEV	-------	--	58	66	52	56	53	52	59	58	36	50	62	52	58	51	44	38	38
902	880930	SOILBL	-------	--	0	0	0	0	0	0	0	0	9	32	34	11	9	8	12	49	7
903	880930	SOLVBL	-------	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
I.D. = Sample Number

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Site = Site Name

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Sfx = Suffix
S = Subscript

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit
Ld = Percent Load
UG per L = Parts per Billion

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories.
It does not provide absolute identification of components.

Analyst: David A. Stokel

Land Treatment Group
Forest Products Laboratory
Miss. State Univerisity

Date: 10/20/88
Time: 20:02:08

Group and Total PAH Results in UG per G

I.D.#	Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
6887	880930	01	----	----	A	0.0	149.8	77.0	0.0	226.7
6888	880930	01	----	----	B	0.0	79.6	110.6	0.0	190.3
6889	880930	02	----	----	A	0.0	63.7	58.1	0.0	121.8
6890	880930	02	----	----	B	0.0	885.6	55.6	0.0	941.2
6891	880930	03	----	----	A	0.0	0.0	113.7	18.5	132.3
6892	880930	03	----	----	B	0.0	5.9	148.4	32.3	186.6
6893	880930	04	----	----	A	0.0	277.8	206.5	0.0	484.3
6894	880930	04	----	----	B	0.0	794.3	290.0	110.8	1195.1
6895	880930	05	----	----	A	0.0	153.3	131.5	0.0	284.8
6896	880930	05	----	----	B	0.0	83.0	141.0	0.0	224.1
6897	880930	06	----	----	A	0.0	0.0	56.3	0.0	56.3
6898	880930	06	----	----	B	0.0	19.8	40.0	0.0	59.8
6899	880930	07	----	----	A	16654.5	49160.9	5651.3	166.4	71633.1
6900	880930	07	----	----	B	3513.6	29732.5	4191.7	272.5	37710.4

Ke

Bicyclics:
Naphthalene
2-Methylnaphthalene
1-Methylnaphthalene
Biphenyl

Tricyclics:
Acenaphthylene
Acenaphthene
Dibenzofuran
Fluorene
Phenanthrene
Anthracene
Carbazole

Tetracyclics:
Fluoranthene
Pyrene
1,2-Benzanthracene
Chrysene

Pentacyclics:
Benzo-a-pyrene
Benzo-ghi-perylene

Land Treatment Group
Forest Products Laboratory
Miss. State University

Date: 10/24/88
Time: 13:13:06

P Analysis Results in ug per G

SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP	I.D.#
880930	01	----	----	A	0.	6887
880930	01	----	----	B	0.	6888
880930	02	----	----	A	0.	6889
880930	02	----	----	B	0.	6890
880930	03	----	----	A	2.78	6891
880930	03	----	----	B	3.08	6892
880930	04	----	----	A	10.1	6893
880930	04	----	----	B	10.2	6894
880930	05	----	----	A	33.5	6895
880930	05	----	----	B	37.9	6896
880930	06	----	----	A	28.5	6897
880930	06	----	----	B	23.1	6898
880930	07	----	----	A	142.	6899
880930	07	----	----	B	18.1	6900
880930	REC	----	----	----	70.7	6901
880930	SOILBL	----	----	----	0.	6902
880930	SOLVBL	----	----	----	0.	6903
880930	GWW	----	----		0.	6904
880930	RECLEV	----	----	----	83.3	7120
880930	MDL	----	----	----	3.05	7121

Key: GWW = Glassware Wash
MDL = Method Detection Limit

Note: Values of 0.0 indicate None Detected above the specified Method Detection Limit.

Analyst: Brenda Ferguson

Verified: David A. Stokel

Land Farming Group
Forest Products Laboratory
[illegible]. State University

Time: 15:30:59
Date: 10/11/89

Micro. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS	AVG. NA COUNTS
880930	1	----	----	----	80000.	3100000.	160000.	3200000.	2000000.	1800000.	----	3400000.
880930	4	----	----	----	80000.	2600000.	110000.	2400000.	1800000.	1800000.	----	3200000.
880930	7	----	----	----	1700.	70000.	0.	100000.	13000.	10000.	----	300000.

Key:

ACA = Actinomycete Agar (Actinomycetes)
PDA = Potato Dextrose Agar (Bacteria)
PDAA = Potato Dextrose + Antibiotics (Fungi)
NA = Nutrient Agar (Bacteria)
C = NA + 20ppm Creosote (Creosote acclimated Bacteria)
P = NA + 5ppm Pentachlorophenol (PCP acclimated Bacteria)
CP = NA + 20ppm Cresote + 5ppm PCP (Creosote & PCP acclimated Bacteria)
SEA = Soil Extract Agar (Bacteria)

Analyst: [illegible]

Verified: [illegible]

MISSISSIPPI STATE UNIVERSITY

Telex: 53882
Telecopy: (601) 325-3560

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762-5724
PHONE (601) 325-2116

October 28, 1988

Mr. Mike Pruett
Southern Wood Piedmont
P. O. Box 5447
Spartanburg, SC 29304

Dear Mike:

Enclosed is the information on soil samples from your Wilmington units. The sample designations are 881010 (1-3) = LF#1, Log 7629 (samples 155, 156, 157); and 881010 (4-6) = LF#2, Log 7630 (samples 158, 159, 160).

In comparison with 880930 (1-7) samples, PAH's are up significantly for all levels of LF #1 and LF #2.

PCP: Concentrations are up sharply for all levels of LF #1 but down significantly for all levels of LF #2.

Nutrients: Total organic carbons have decreased for both units. Total organic nitrogen is up for LF #1 but down for LF #2. Phosphorus levels have remained unchanged. C/N ratio for LF #2 is in much better shape than that of LF #1. Chloride ion concentration and pH levels are in excellent shape.

Bacteria counts: Bacterial, fungal, and actinomycal populations have increased almost two-fold for all the amended and non-amended media. This population jump should increase the rate of biodegradation tremendously.

We will be glad to answer any questions that you might have on these data.

Sincerely,

Hamid Borazjani

Hamid Borazjani
Research Associate
601/325-3106

sl

enclosures

cc: Gary D. McGinnis

MISSISSIPPI STATE UNIVERSITY

ex: 53882
Telecopy: (601) 325-3560

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762-5724
PHONE (601) 325-2116

MEMO TO: Dr. Gary D. McGinnis

FROM: Hamid Borazjani, Analyst HB

DATE: October 28, 1988

Results of pH, C/N ratio, chloride ion, and total organic carbon, nitrogen, and phosphorus from Wilmington, NC biotreatment units are listed below.

FPUL #	SWP #	Site ID	Depth	C(μg/g)	N(μg/g)	P(μg/g)	C/N	Cl(μg/g)	pH
881010-1	7629	LF #1	0-3"	21337.6	1784.0	180.4	11.96	7.6	6.93
881010-4	7630	LF #2	0-3"	22953.2	1038.4	191.2	22.10	7.7	7.02

sl

Land Treatment Group
Forest Products Laboratory
[illegible]. State University

Time: 13:47:29
Date: 10/24/88

PAH Analysis Results in UG per G

I.D.	Site	Suffix	Day	Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
7127	881010	01			A	0	0	0	0	0	177	141	459	1300	2198	600	635	423	104	85	0	0
7128	881010	01			B	0	0	0	0	0	210	139	403	1170	1693	436	705	497	130	104	0	0
7129	881010	02			A	0	0	0	0	0	15	0	31	99	330	60	138	107	52	35	25	0
7130	881010	02			B	0	0	0	0	0	12	0	106	177	823	228	85	73	43	27	15	0
7131	881010	03			A	0	0	0	0	0	42	18	45	118	89	10	130	98	27	23	16	0
7132	881010	03			B	0	0	0	0	0	54	27	71	187	147	27	181	136	23	32	18	0
7133	881010	04			A	0	22	24	0	0	223	153	401	1175	831	193	660	444	123	87	43	0
7134	881010	04			B	0	25	26	0	0	210	136	406	1201	1235	271	651	433	105	83	37	0
7135	881010	05			A	0	0	0	0	0	15	0	42	122	329	91	93	68	28	18	18	0
7136	881010	05			B	0	0	0	0	0	0	0	39	78	385	112	53	45	26	18	25	0
7137	881010	06			A	0	0	0	0	0	0	0	12	27	114	30	93	86	18	12	20	0
7138	881010	06			B	0	0	0	0	0	0	0	0	11	8	0	58	57	10	16	17	0
7[illegible]	[illegible]81010	REC				165	190	163	171	169	166	183	203	132	166	239	190	236	175	143	159	59
7140	881010	RECLEV				175	199	158	169	158	158	177	176	108	150	188	155	174	154	133	114	115
7141	881010	SOILBL				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7142	881010	MDL				1	2	1	2	2	1	2	2	2	2	5	2	2	2	3	7	9
7143	881010	SOLVBL				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7144	881010	GWW				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
I.D. = Sample Number

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Site = Site Name

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Sfx = Suffix
S = Subscript

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit
Ld = Percent Load
UG per L = Parts per Billion

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories. It does not provide absolute identification of components.

Analyst: Brenda Ferguson
verified: David A. Stokel

Land Treatment Group
Forest Products Laboratory
Miss. State Univerisity

Date: 10/24/88
Time: 13:50:40

Group and Total PAH Results in UG per G

I.D.#	Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
7127	881010	01	—	—	A	0.0	4875.1	1247.8	0.0	6122.8
7128	881010	01	—	—	B	0.0	4049.6	1435.6	0.0	5485.2
7129	881010	02	—	—	A	0.0	534.9	332.0	24.8	891.7
7130	881010	02	—	—	B	0.0	1345.3	228.3	15.0	1588.6
7131	881010	03	—	—	A	0.0	322.6	278.6	15.7	616.9
7132	881010	03	—	—	B	0.0	513.8	371.0	18.1	902.9
7133	881010	04	—	—	A	45.7	2976.7	1315.0	43.4	4380.9
7134	881010	04	—	—	B	51.3	3459.0	1272.3	36.8	4819.4
7135	881010	05	—	—	A	0.0	599.0	207.8	17.7	824.4
7136	881010	05	—	—	B	0.0	613.5	142.4	25.2	781.1
7137	881010	06	—	—	A	0.0	183.3	209.1	19.9	412.3
7138	881010	06	—	—	B	0.0	19.7	140.6	17.2	177.5

Key:

Bicyclics:

Naphthalene
2-Methylnaphthalene
1-Methylnaphthalene
Biphenyl

Tricyclics:

Acenaphthylene
Acenaphthene
Dibenzofuran
Fluorene
Phenanthrene
Anthracene
Carbazole

Tetracyclics:

Fluoranthene
Pyrene
1,2-Benzanthracene
Chrysene

Pentacyclics:

Benzo-a-pyrene
Benzo-ghi-perylene

Land Treatment Group
Forest Products Laboratory
Miss. State University

Date: 10/24/88
Time: 14:12:15

PCP Analysis Results in UG per G

SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP	I.D.#
881010	01	----	----	A	7.5	7127
881010	01	----	----	B	9.29	7128
881010	02	----	----	A	17.8	7129
881010	02	----	----	B	15.5	7130
881010	03	----	----	A	134.	7131
881010	03	----	----	B	149.	7132
881010	04	----	----	A	6.22	7133
881010	04	----	----	B	7.57	7134
881010	05	----	----	A	0.	7135
881010	05	----	----	B	0.	7136
881010	06	----	----	A	1.89	7137
881010	06	----	----	B	1.95	7138
881010	RECOV	----	----	----	215.	7139
881010	RECLEV	----	----	----	251.	7140
881010	SOILBLK	----	----	----	0.	7141
881010	MDL	----	----	----	1.26	7142
881010	SOLVBLK	----	----	----	0.	7143
881010	GWW	----	----	----	0.	7144

Key: GWW = Glassware Wash
MDL = Method Detection Limit

Note: Values of 0.0 indicate None Detected above the specified Method Detection Limit.

Analyst: Brenda Ferguson
Verified: David A. Stotler

Land Farming Group
Forest Products Laboratory
State University

Time: 14:52:22
Date: 10/15/88

Micro. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS	AVG. NA COUNTS
881010	1	----	----	----	120000.	4100000.	120000.	3000000.	3000000.	3100000.	----	4100000.
881010	4	----	----	----	130000.	4000000.	140000.	3900000.	3400000.	3400000.	----	4400000.

Key:

ACA = Actinomycete Agar (Actinomycetes)
PDA = Potato Dextrose Agar (Bacteria)
PDAA = Potato Dextrose + Antibiotics (Fungi)
NA = Nutrient Agar (Bacteria)
C = NA + 20ppm Creosote (Creosote acclimated Bacteria)
P = NA + 5ppm Pentachlorophenol (PCP acclimated Bacteria)
CP = NA + 20ppm Cresote + 5ppm PCP (Creosote & PCP acclimated Bacteria)
SEA = Soil Extract Agar (Bacteria)

Analyst: Mary S Harrington

Verified: Benjamin Hirsch

MISSISSIPPI STATE UNIVERSITY

Telex: 53882
Telecopy: (601) 325-3560

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762-5724
PHONE (601) 325-2116

December 20, 1988

Mr. Mike Pruett
Southern Wood Piedmont
P. O. Box 5447
Spartanburg, SC 29304

Dear Mike:

Enclosed is the information on soil samples from your Wilmington units. The sample designations are 881128 (1-3) = LF #1, Log 7652 (samples 162, 163, 164); and 881128 (4-6) = LF #2, Log 7653 (samples 165, 166, 167); and 881128-7, creo/soil composite.

In comparison with 881010 (1-7) samples, PAH's are down significantly for all levels of LF #1. PAH's have remained unchanged for LF #2.

PCP: Concentrations are down for all levels of LF #1 but are up for LF #2.

Nutrients: Organic carbon and phosphorus are down for both units, but nitrogen levels are in good shape. Addition of manure to both units would improve this condition and would enhance the rate of degradation. pH levels for both units are almost perfect for biodegradation.

Bacteria counts: Total bacteria counts for both units have decreased slightly for LF #1 and LF #2. There is a small reduction in the number of fungi for both units and the population of actinomycetes have remained the same. The overall counts for both units (acclimated as well as non-acclimated) are very good.

Please let me know if you have any questions on these data.

Sincerely,

Hamid Borazjani
Research Associate
601/325-3106

sl

enclosures

cc: Gary D. McGinnis

Land Treatment Group
Forest Products Laboratory
Miss. State University

Time: 16:52:55
Date: 12/19/88

PAH Analysis Results in UG per G

I.D.	Site	Suffix	Day Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
7385	881128	1	-------	A	7	10	0	0	7	55	37	113	335	577	183	483	309	116	80	35	0
7386	881128	1	-------	B	27	54	8	11	6	113	119	321	800	1809	644	666	422	85	100	35	0
7387	881128	2	-------	A	5	9	0	2	0	6	15	45	89	341	107	54	44	19	30	28	14
7388	881128	2	-------	B	0	0	0	0	0	3	3	9	28	76	30	52	53	37	17	13	0
7389	881128	3	-------	A	1	0	0	0	0	1	0	2	5	10	0	58	55	14	24	10	0
7390	881128	3	-------	B	3	5	0	0	0	2	6	20	41	210	73	82	79	23	34	14	0
7391	881128	4	-------	A	19	46	0	11	6	46	92	323	668	2299	834	532	363	113	146	62	18
7392	881128	4	-------	B	14	14	0	0	6	48	30	96	226	831	276	504	362	134	100	46	16
7393	881128	5	-------	A	8	11	0	0	3	7	15	42	99	419	141	153	119	41	46	32	18
7394	881128	5	-------	B	10	16	0	3	3	4	20	57	117	605	222	164	126	45	48	36	19
7395	881128	6	-------	A	0	0	0	0	0	1	2	6	13	52	12	30	27	22	14	13	0
7396	881128	6	-------	B	0	0	0	0	0	0	0	4	10	31	0	8	8	4	0	0	0
7397	881128	7	-------	A	767	1234	531	55	28	1737	1694	2472	6580	2682	1062	2413	1892	357	308	78	18
	881128	7	-------	B	942	1555	597	114	37	1965	2217	3612	7692	8056	1509	2274	1402	317	299	65	0
7399	881128	REC	-------	--	45	48	50	46	52	46	48	52	58	56	35	30	26	17	22	24	24
7400	881128	RECLEV	-------	--	50	53	54	50	52	46	48	51	50	50	53	51	50	50	51	50	50
7401	881128	SOILBL	-------	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7402	881128	MDL	-------	--	1	1	1	1	1	1	2	2	1	1	2	2	2	2	3	6	9
7403	881128	SOLVBL	-------	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7404	881128	GWW	-------	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Naph. = Naphthalene	Diben = Dibenzofuran	Pyren = Pyrene	Soilbl = Soil Blank
2-Met = 2-Methylnaphthalene	Flore = Fluorene	12-bz = 1,2 Benzanthracene	Reclev = Recovery Levels
1-Met = 1-Methylnaphthalene	Phen. = Phenanthrene	Chrys = Chrysene	Rec = Recovery
[illegible]ph. = Biphenyl	Anthr = Anthracene	Ben-a = Benzo-a-pyrene	G = Gram
[illegible]thy = Acenaphthylene	Carba = Carbazole	Bghi = Benzo-ghi-perylene	UG per G = Parts per Million
Acthe = Acenaphthene	Fluor = Fluoranthene	UG = microgram	MDL = Method Detection Limit
I.D. = Sample Number	Site = Site Name	Sfx = Suffix	Ld = Percent Load
		S = Subscript	UG per L = Parts per Billion

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories. It does not provide absolute identification of components.

Analyst: David A. Stutzel

Land Treatment Group
Forest Products Laboratory
Miss. State Univerisity

Date: 12/19/88
Time: 16:13:37

Group and Total PAH Results in UG per G

I.D.#	Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
7385	881128	1	----	----	A	17.2	1306.2	988.1	34.9	2346.4
7386	881128	1	----	----	B	99.7	3811.7	1272.3	34.6	5218.3
7387	881128	2	----	----	A	16.3	603.1	146.8	42.1	808.4
7388	881128	2	----	----	B	0.0	148.7	159.2	12.7	320.6
7389	881128	3	----	----	A	1.5	18.7	151.7	10.1	182.0
7390	881128	3	----	----	B	7.9	351.3	218.0	14.2	591.4
7391	881128	4	----	----	A	75.7	4267.4	1154.3	79.9	5577.3
7392	881128	4	----	----	B	28.2	1511.7	1100.4	61.7	2701.9
7393	881128	5	----	----	A	18.1	725.5	359.7	50.1	1153.4
7394	881128	5	----	----	B	29.4	1029.2	383.7	54.4	1496.6
7395	881128	6	----	----	A	0.0	86.9	92.0	13.2	192.1
7396	881128	6	----	----	B	0.0	45.0	19.5	0.0	64.5
7397	881128	7	----	----	A	2585.7	16255.8	4969.9	96.1	23907.5
7398	881128	7	----	----	B	3206.9	25087.1	4292.7	65.3	32651.9

Key:

Bicyclics:	Tricyclics:	Tetracyclics:	Pentacyclics:
Naphthalene	Acenaphthylene	Fluoranthene	Benzo-a-pyrene
2-Methylnaphthalene	Acenaphthene	Pyrene	Benzo-ghi-perylene
1-Methylnaphthalene	Dibenzofuran	1,2-Benzanthracene	
Biphenyl	Fluorene	Chrysene	
	Phenanthrene		
	Anthracene		
	Carbazole		

Land Treatment Group
Forest Products Laboratory
Miss. State University

Date: 12/05/88
Time: 10:54:17

Analysis Results in UG per G

SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP	I.D.#
881128	1	----	----	A	3.12	7385
881128	1	----	----	B	4.22	7386
881128	2	----	----	A	1.93	7387
881128	2	----	----	B	1.61	7388
881128	3	----	----	A	4.66	7389
881128	3	----	----	B	3.68	7390
881128	4	----	----	A	6.88	7391
881128	4	----	----	B	6.93	7392
881128	5	----	----	A	21.	7393
881128	5	----	----	B	17.	7394
881128	6	----	----	A	5.12	7395
881128	6	----	----	B	5.11	7396
881128	7	----	----	A	53.9	7397
881128	7	----	----	B	65.3	7398
881128	REC	----	----	----	66.	7399
881128	RECLEV	----	----	----	83.3	7400
881128	SOILBL	----	----	----	0.	7401
881128	MDL	----	----	----	0.328	7402
881128	SOLVBL	----	----	----	0.	7403
881128	GWW	----	----	----	0.	7404

Key: GWW = Glassware Wash
MDL = Method Detection Limit

Note: Values of 0.0 indicate None Detected above the specified Method Detection Limit.

Analyst: Brenda Ferguson

Verified: David A. Stuckel

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 14:46:37
Date: 12/16/88

Micro. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS	AVG. NA COUNTS
881128	1	----	----	A	80000.	3600000.	80000.	2900000.	1800000.	2000000.	----	3400000.
881128	4	----	----	A	85000.	3400000.	52000.	3500000.	2300000.	1900000.	----	4000000.
881128	7	----	----	A	1700.	250000.	0.	450000.	60000.	30000.	----	500000.

Key:

ACA = Actinomycete Agar (Actinomycetes)
PDA = Potato Dextrose Agar (Bacteria)
PDAA = Potato Dextrose + Antibiotics (Fungi)
NA = Nutrient Agar (Bacteria)
C = NA + 20ppm Creosote (Creosote acclimated Bacteria)
P = NA + 5ppm Pentachlorophenol (PCP acclimated Bacteria)
CP = NA + 20ppm Cresote + 5ppm PCP (Creosote & PCP acclimated Bacteria)
SEA = Soil Extract Agar (Bacteria)

Analyst: Mary L Nannige

Verified: _____

MISSISSIPPI STATE UNIVERSITY

Telex: 53882
Telecopy: (601) 325-3560

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762-5724
PHONE (601) 325-2116

MEMO TO: Dr. Gary D. McGinnis

FROM: Hamid Borazjani, Analyst

DATE: December 20, 1988

Results of pH, C/N ratio, chloride ion, and total organic carbon, nitrogen, and phosphorus for the Wilmington land treatment units are listed below.

MFPUL #	SWP #	Site ID	Depth	C(μg/g)	N(μg/g)	P(μg/g)	C/N	Cl(μg/g)	pH
881128-1	7652A	LF #1	0-3"	23185.7	1209.1	143.4	19.17	26.0	6.95
881128-4	7653A	LF #2	0-3"	24692.9	1151.3	169.2	21.45	7.9	6.77
881128-7	7652&53	LF #1&2	--	44517.5	804.7	115.1	55.32	18.0	7.48

sl

ELG
SBL.
EH

MISSISSIPPI STATE UNIVERSITY

Telex: 53882
Telecopy: (601) 325-3560

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762-5724
PHONE (601) 325-2116

January 10, 1989

RECEIVED

JAN 17 1989

ENVIRONMENTAL AFFAIRS

Mr. Mike Pruett
Southern Wood Piedmont
P. O. Box 5447
Spartanburg, SC 29304

Dear Mike:

Enclosed is the information on soil samples from your Wilmington units. The sample designations are 881213 (1-3) = LF #1, Log 7658 (samples 168, 169, 170); and 881213 (4-6) = LF #2, Log 7659 (samples 171, 172, 173).

In comparison with 881128 (1-6) samples, PAH's are up slightly for all levels of LF #1. PAH's have gone up significantly for all levels of LF #2.

PCP: PCP concentrations have remained relatively up or unchanged for all levels of LF #1 and LF #2. The only exception is 9-12" of LF #2 which shows a significant reduction of PCP.

Nutrients: Organic carbon and nitrogen are higher for both units, especially for LF #2 and because of this increase, C/N ratio for both units has improved; pH levels for both units are still in excellent shape.

Bacteria counts: Total bacteria as well as acclimated bacteria have increased by a million for both units. The biggest increase is for PCP acclimated bacteria.

Please call if you have any questions on these data.

Sincerely,

Hamid Borazjani
Research Associate
601/325-3106

sl

enclosures

cc: Gary D. McGinnis

MISSISSIPPI STATE UNIVERSITY

Telex: 53882
Telecopy: (601) 325-3560

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762-5724
PHONE (601) 325-2116

MEMO TO: Dr. Gary D. McGinnis

FROM: Hamid Borazjani, Analyst

DATE: January 10, 1989

Results of pH, C/N ratio, chloride ion, and total organic carbon, nitrogen, and phosphorus for the Wilmington land treatment units are listed below.

MFPUL #	SWP #	Site ID	Depth	C(μg/g)	N(μg/g)	P(μg/g)	C/N	Cl(μg/g)	pH
881213-1	7658A	LF #1	0-3"	31418.6	1471.1	184.0	21.36	47	7.12
881213-4	7659A	LF #2	0-3"	34333.7	1264.2	151.6	27.16	18	6.81

sl

Land Treatment Group
Forest Products Laboratory
Miss. State University

Time: 10:57:30
Date: 01/04/89

PAH Analysis Results in UG per G

I.D.	Site	Suffix	Day	Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
7480	881213	01			A	19	27	0	6	7	69	46	139	288	1027	341	481	304	132	109	58	25
7481	881213	01			B	13	25	0	9	7	63	61	221	422	1599	536	617	395	164	129	44	43
7482	881213	02			A	9	11	0	2	3	9	16	43	95	366	136	164	110	33	42	20	0
7483	881213	02			B	9	12	0	3	3	28	29	86	251	562	191	282	181	51	55	19	0
7539	881213	03			A	2	3	0	0	0	8	7	21	69	125	45	78	54	13	19	10	0
7484	881213	03			B	3	4	0	0	0	3	6	17	36	135	49	39	30	12	20	15	0
7485	881213	04			A	28	55	4	16	6	85	127	418	840	2333	804	666	451	183	159	63	24
7486	881213	04			B	19	29	0	8	5	63	49	139	295	1302	475	668	460	163	124	34	0
7487	881213	05			A	28	44	4	10	3	8	63	177	299	1487	635	121	87	33	48	19	0
7488	881213	05			B	10	20	0	4	2	5	30	93	172	806	289	129	95	36	44	22	0
7489	881213	06			A	0	0	0	0	0	0	0	4	15	26	9	32	31	13	22	20	0
7490	881213	06			B	0	0	0	0	0	0	0	8	22	49	16	39	37	12	19	12	0
7496	881213	GWW			--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7494	881213	MDL			--	2	2	2	2	3	2	3	3	3	3	5	4	4	5	6	9	14
7491	881213	REC			--	122	137	140	137	146	132	142	162	184	179	180	185	180	190	199	207	199
7493	881213	RECLEV			--	150	160	161	151	156	138	145	153	151	150	159	154	151	150	152	150	151
7492	881213	SOIL BLK			--	0	0	0	0	0	0	0	5	9	9	0	10	10	0	0	0	0
7495	881213	SOLV BLK			--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
I.D. = Sample Number

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Site = Site Name

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Sfx = Suffix
S = Subscript

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit
Ld = Percent Load
UG per L = Parts per Billion

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories. It does not provide absolute identification of components.

Analyst: David A. Stewart

Land Treatment Group
Forest Products Laboratory
Miss. State Univerisity

Date: 01/04/89
Time: 10:58:44

Group and Total PAH Results in UG per G

Lab.#	Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
7480	881213	01	---	---	A	52.1	1918.4	1026.0	82.8	3079.2
7481	881213	01	---	---	B	47.5	2909.4	1304.6	87.2	4348.7
7482	881213	02	---	---	A	22.0	667.0	347.7	19.6	1056.2
7483	881213	02	---	---	B	24.0	1149.6	568.2	18.9	1760.6
7539	881213	03	---	---	A	5.4	275.7	164.0	9.7	454.8
7484	881213	03	---	---	B	7.1	246.8	101.2	15.1	370.2
7485	881213	04	---	---	A	102.7	4613.3	1457.9	86.4	6260.3
7486	881213	04	---	---	B	55.7	2328.1	1414.7	34.4	3832.9
7487	881213	05	---	---	A	86.4	2672.3	289.4	19.3	3067.5
7488	881213	05	---	---	B	33.9	1396.3	303.9	22.3	1756.4
7489	881213	06	---	---	A	0.0	54.6	97.8	20.4	172.8
7490	881213	06	---	---	B	0.0	93.9	107.9	12.3	214.1

Key:

Bicyclics:
Naphthalene
2-Methylnaphthalene
1-Methylnaphthalene
Biphenyl

Tricyclics:
Acenaphthylene
Acenaphthene
Dibenzofuran
Fluorene
Phenanthrene
Anthracene
Carbazole

Tetracyclics:
Fluoranthene
Pyrene
1,2-Benzanthracene
Chrysene

Pentacyclics:
Benzo-a-pyrene
Benzo-ghi-perylene

Land Treatment Group
Forest Products Laboratory
Miss. State University

Date: 12/21/88
Time: 10:27:26

PCP Analysis Results in UG per G

SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP	I.D.#
881213	01	----	----	A	4.31	7480
881213	01	----	----	B	4.38	7481
881213	02	----	----	A	2.05	7482
881213	02	----	----	B	2.89	7483
881213	03	----	----	A	2.67	7483
881213	03	----	----	B	1.48	7484
881213	04	----	----	A	5.91	7485
881213	04	----	----	B	5.74	7486
881213	05	----	----	A	4.72	7487
881213	05	----	----	B	4.88	7488
881213	06	----	----	A	5.05	7489
881213	06	----	----	B	3.58	7490
881213	GWW	----	----	----	0.	7496
881213	MDL	----	----	----	0.975	7494
881213	REC	----	----	----	213.	7491
881213	RECLEV	----	----	----	250.	7493
881213	SOIL BLK	----	----	----	0.	7492
881213	SOLV BLK	----	----	----	0.	7495

Key: GWW = Glassware Wash
MDL = Method Detection Limit

Note: Values of 0.0 indicate None Detected above the specified Method Detection Limit.

Analyst: Brenda Ferguson

Verified: David A Stakel

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 16:29:40
Date: 01/04/89

Bio. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS	AVG. NA COUNTS
881213	1	----	----	A	110000.	2200000.	60000.	3500000.	3700000.	3700000.	----	3600000.
881213	4	----	----	A	140000.	2800000.	90000.	4100000.	4000000.	4200000.	----	4700000.

Key:

ACA = Actinomycete Agar (Actinomycetes)
PDA = Potato Dextrose Agar (Bacteria)
PDAA = Potato Dextrose + Antibiotics (Fungi)
NA = Nutrient Agar (Bacteria)
C = NA + 20ppm Creosote (Creosote acclimated Bacteria)
P = NA + 5ppm Pentachlorophenol (PCP acclimated Bacteria)
CP = NA + 20ppm Cresote + 5ppm PCP (Creosote & PCP acclimated Bacteria)
SEA = Soil Extract Agar (Bacteria)

Analyst: Mary E Nannige

Verified: Barry Alcorn

James W. Andrews, Ph.D.
President

Janette Davis Long
Vice-President

SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue (31404)
P. O. Box 13548 • Savannah, GA 31416-0548
(912) 354-7858

JDW
ELG
TMD
MDP
File

LOG NO: 89-1120

Received: 11 JAN 89

RECEIVED

FEB 06 1989

ENVIRONMENTAL AFFAIRS

Mr. Ed Gibbs
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Steve Blevins

Project: Wilmington

Cape Fear River

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
1120-1	#27 (7679) State Ports Authority	Client
1120-2	#28 (7680) Greenfield Creek at mouth of Cape Fear River	
1120-3	#29 (7681) Old Slip Area	
1120-4	#30 (7682) US 74 New Bridge	

PARAMETER	1120-1	1120-2	1120-3	1120-4
KO01 (Method 8270)				
2-Chlorophenol, mg/l	ND	ND	ND	ND
Phenol, mg/l	ND	ND	ND	ND
2,4-Dimethylphenol, mg/l	ND	ND	ND	ND
Trichlorophenols, mg/l	ND	ND	ND	ND
p-Chloro-m-cresol, mg/l	ND	ND	ND	ND
Tetrachlorophenols, mg/l	ND	ND	ND	ND
2,4-Dinitrophenol, mg/l	ND	ND	ND	ND
Pentachlorophenol, mg/l	ND	ND	ND	ND
Naphthalene, mg/l	ND	ND	ND	ND
Acenaphthene, mg/l	ND	ND	ND	ND
Acenaphthylene, mg/l	ND	ND	ND	ND
Phenanthrene, mg/l	ND	ND	ND	ND
Anthracene, mg/l	ND	ND	ND	ND
Fluoranthene, mg/l	ND	ND	ND	ND
Chrysene, mg/l	ND	ND	ND	ND
Benzo(a)Anthracene, mg/l	ND	ND	ND	ND
Benzo(b,k)fluoranthene, mg/l	ND	ND	ND	ND
Benzo(a)pyrene, mg/l	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene, mg/l	ND	ND	ND	ND
Dibenzo(a,h)anthracene, mg/l	ND	ND	ND	ND
Carbazole, mg/l	ND	ND	ND	ND
Dilution factor	1	1	1	1

James W. Andrews, Ph.D.
President

Janette Davis Long
Vice-President

SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES, INC.

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LOG NO: 89-1120

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Received: 11 JAN 89

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ENVIRONMENTAL AFFAIRS

Mr. Ed Gibbs
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Steve Blevins

Project: Wilmington

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
1120-1	#27 (7679)	Client
1120-2	#28 (7680)	
1120-3	#29 (7681)	
1120-4	#30 (7682)	

PARAMETER	1120-1	1120-2	1120-3	1120-4
Copper, mg/l	ND	ND	ND	ND
Chromium, mg/l	ND	ND	ND	ND
Arsenic, mg/l	ND	ND	ND	ND

James W. Andrews, Ph.D.
President

Janette Davis Long
Vice-President

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ENVIRONMENTAL AFFAIRS

Mr. Ed Gibbs
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Steve Blevins

Project: Wilmington

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , QC SAMPLES	SAMPLED BY
1120-5	Detection Limits	Client
1120-6	Accuracy (mean % recovery)	
1120-7	Precision (% RPD)	

PARAMETER	1120-5	1120-6	1120-7
KOO1 (Method 8270)			
2-Chlorophenol, mg/l	0.01	91 %	6.6 %
henol, mg/l	0.01	59 %	1.7 %
2,4-Dimethylphenol, mg/l	0.01	87 %	4.6 %
Trichlorophenols, mg/l	0.01	101 %	4.0 %
p-Chloro-m-cresol, mg/l	0.01	97 %	11 %
Tetrachlorophenols, mg/l	0.01	102 %	13 %
2,4-Dinitrophenol, mg/l	0.05	86 %	12 %
Pentachlorophenol, mg/l	0.01	107 %	12 %
Naphthalene, mg/l	0.01	84 %	9.5 %
Acenaphthene, mg/l	0.01	94 %	7.5 %
Acenaphthylene, mg/l	0.01	92 %	4.3 %
Phenanthrene, mg/l	0.01	97 %	4.1 %
Anthracene, mg/l	0.01	96 %	6.3 %
Fluoranthene, mg/l	0.01	92 %	7.7 %
Chrysene, mg/l	0.01	96 %	1.0 %
Benzo(a)Anthracene, mg/l	0.01	98 %	7.2 %
Benzo(b,k)fluoranthene, mg/l	0.01	90 %	2.2 %
Benzo(a)pyrene, mg/l	0.01	91 %	2.3 %
Indeno(1,2,3-cd)pyrene, mg/l	0.01	99 %	2.5 %
Dibenzo(a,h)anthracene, mg/l	0.01	102 %	2.3 %
Carbazole, mg/l	0.01	90 %	2.9 %
Dilution factor	1	—	—

James W. Andrews, Ph.D.
President

Janette Davis Long
Vice-President

SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES, INC.

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Received: 11 JAN 89

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FEB 06 1989
ENVIRONMENTAL AFFAIRS

Mr. Ed Gibbs
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Steve Blevins

Project: Wilmington

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , QC SAMPLES	SAMPLED BY
1120-5	Detection Limits	Client
1120-6	Accuracy (mean % recovery)	
1120-7	Precision (% RPD)	

PARAMETER	1120-5	1120-6	1120-7
Copper, mg/l	0.010	96 %	0 %
Chromium, mg/l	0.010	96 %	1.0 %
Arsenic, mg/l	0.010	120 %	16 %

Methods: EPA SW-846

James W. Andrews

J. W. Andrews, Ph. D.

CHAIN OF CUSTODY RECORD

SL SAVANNAH LABOR, AND ENVIRONMENTAL

COLOR CODE: WATER/WASTEWATER [P] [R] | SOIL/SLUDGE

COMPANY NAME/LOCATION: Southern Wood Piedmont Co.

SAMPLERS (Signature): [signature]

SWP LOG NO	DATE	TIME	COMP.	GRAB	SAMPLE IDENTIFICATION	NO. OF CONTAINERS	liter plastic jug	liter glass w/TFE	500 ml plastic-gen	500 ml plastic-met	250 ml plastic	250 ml oval glass	130 ml amber glass	100 ml plastic	40ml vial w/ins.	20 ml plastic vial	liter wm glass	liter wm plastic	500 ml wm glass	500 ml wm plastic	40ml vial w/ins.	*Container sealed	Analyses Req
1679	1/10/89	8 00 AM		✓	#27 State Ports Authority Cape Fear River	2	1			1													
1680	1/10/89	8 30 AM		✓	#28 Greenfield Creek Mouth of Cape Fear River	2	1			1													
1681	1/10/89	8 50 AM		✓	#29 SWP. Cape Fear River Oil Slick	2	1			1													
1682	1/10/89	9 30 AM		✓	#30 US 74 New Bridge Cape Fear River	2	1			1													
1120																							

Relinquished by:	Date/Time	Received by:	Date/Time	Relinquished by:	Date/Time
[signature]	1/10/89	Sarita Samuel	1/11 9:12 AM		
Relinquished by:	Date/Time	Received by:	Date/Time	Relinquished by:	Date/Time

Color Code/Preservative
- Green - sulfuric acid
- Purple - no preservative
- Red - nitric acid
- Tan - zinc acetate
- Yellow - sodium thiosulfate
- Blue - sodium hydroxide
- Lt. Blue - hydrochloric acid

Container seal i
Field ✓
Lab

Part I: Field Section

Collector H. Phillips Date Sampled 1/10/89 Time 8 AM (hours)

Affiliation of Sampler Southern Wood Piedmont Co.

Address PO Box 450 Wilmington NC 28402
number street city state zip

Telephone (919) 762-9678 Company Contact H. Phillips

TYPE OF SAMPLE/SAMPLES*	FIELD INFORMATION
Water	Cape Fear River Wilmington NC.

*Indicate whether sample is soil, sludge, water, etc.

Additional Analysis Requested K-001 - Cu - Cr - As

Special Handling and/or Storage None.

Part II: Bottles Required for Analyses Requested

The number, color and type of sampling containers we have provided you is listed below. The color codes correspond with specific preservatives (See reverse side of form), please handle with caution. Please fill in all necessary information on both sides of this form and return to us along with your samples. Ship coolers back to Savannah Laboratories & Environmental Services, Inc., by UPS, Bus or Federal Express. Our shipping address is: 5102 LaRoche Avenue, Savannah, GA 31404. If you have any questions about sampling procedures, please call (912)354-7858.

	WATER/WASTEWATER																		SOIL/SLUDGE					
COLOR CODE		P			R																			
	1 liter plastic jug	1 liter glass w/TFE	500 ml plastic-ren	500 ml plastic-met	250 ml plastic	250 ml oval glass	130 ml amber glass	100 ml plastic	40ml vial w/ins.	20 ml plastic vial	1 liter wm glass	1 liter wm plastic	500 ml wm glass	500 ml wm plastic	40ml vial w/ins.	*Bottle sealed	*Container sealed							
	4			4																				

Packed by: SLS
Checked by: LB

Bottles shippped to: Southern Wood Piedmont
Attn: Henry Phillips
Mansfield Ohio

EN
3BW

MISSISSIPPI STATE UNIVERSITY

Telex: 53882
Telecopy: (601) 325-3560

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762-5724
PHONE (601) 325-2116

March 17, 1989

RECEIVED

MAR 2 0 1989

ENVIRONMENTAL AFFAIRS

Mr. Mike Pruett
Southern Wood Piedmont
P. O. Box 5447
Spartanburg, SC 29304

Dear Mike:

Please find enclosed the information on soil samples from your Wilmington units. The sample designations are: 890206 (1-3) = LF #1, log 7712 (samples 174, 175, 176); 980206 (4-6) = LF #2, log 7713 (samples 177, 178, 179); and 890206 (7) creo/soil.

In comparison with 881213 (1-6) samples with exception of 21-24" of LF #2, PAH's are down significantly for all levels of LF #1 and 2.

PCP: PCP concentrations have remained relatively unchanged for all levels of LF #1 and 2 with the exception of bottom levels (21-24") of both units which show a moderate increase (probably due to the migration of PCP downward.

Nutrients: The C/N ratio for both units is very high due to very low levels of nitrogen. Incorporation of fertilizer (manure) would correct this problem. PH levels for both units are very good.

Bacteria Counts: Bacteria population for both units are about 4 million per gram of soil which is extremely good for this time of year. There is a significant increase in number of fungi for both units.

As always we will be glad to answer any questions on these data.

Sincerely,

Borazjani

Hamid Borazjani
Research Scientist
601/325-3106

jl

enclosure

MISSISSIPPI STATE UNIVERSITY

Telex: 53882
Telecopy: (601) 325-3560

FOREST PRODUCTS UTILIZATION LABORATORY
P. O. DRAWER FP
MISSISSIPPI STATE, MISSISSIPPI 39762-5724
PHONE (601) 325-2116

March 17, 1989

Mr. Mike Pruett
Southern Wood Piedmont
P. O. Box 5447
Spartanburg, SC 29304

Dear Mike:

Results of pH, C/N ratio, chloride, and total organic carbon, nitrogen, and phosphorus in ppm for the Wilmington soil samples are listed below.

MFPUL #	SWP #	Site ID	Depth	C(ug/g)	N(ug/g)	P(ug/g)	C/N	Cl(ug/g)	pH
890206-1	7712A	LF #1	0-3"	32535.8	713.4	157.8	45.6	68	7.37
890206-4	7713A	LF #2	0-3"	28684.2	809.7	114.2	35.42	70	6.86
890206-7	Creo/soil	LF 1&2		72438.4	1173.1	276.3	61.75	22	6.96

Sincerely,

Hamid Borazjani
Research Scientist
601/325-3136

jl

Land Treatment Group
Forest Products Laboratory
Miss. State University

Time: 19:37:03
Date: 02/23/89

PAH Analysis Results in UG per G

I.D.	Site	Suffix	Day Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
7780	890206	1	-------	A	9	8	0	2	18	8	14	42	114	393	113	210	158	59	77	41	22
7781	890206	1	-------	B	20	34	3	8	7	6	68	200	313	1759	522	202	175	58	82	60	3
7782	890206	2	-------	A	4	0	0	0	11	4	3	8	37	45	12	85	63	26	35	26	0
7783	890206	2	-------	B	14	24	2	5	8	2	30	82	113	833	253	67	55	24	35	30	18
7784	890206	3	-------	A	1	0	0	0	0	0	2	4	51	17	7	62	43	12	20	10	5
7785	890206	3	-------	B	2	0	0	0	0	2	1	1	9	11	4	26	23	8	13	16	10
7786	890206	4	-------	A	9	13	0	4	9	36	29	97	204	1016	255	602	362	111	144	59	10
7787	890206	4	-------	B	13	14	0	4	7	32	27	85	183	818	252	601	363	121	128	67	26
7788	890206	5	-------	A	10	12	1	3	3	2	20	65	99	521	140	89	62	24	32	32	9
7789	890206	5	-------	B	5	3	0	0	3	3	8	19	41	183	45	83	62	20	28	20	0
7790	890206	6	-------	A	4	3	1	1	1	5	5	12	35	80	24	100	69	24	32	21	10
7791	890206	6	-------	B	4	4	1	1	1	2	7	20	38	248	46	85	60	23	33	21	9
7792	890206	7	-------	A	1403	819	352	152	20	1134	956	1370	3266	1036	391	1570	920	299	249	77	17
7793	890206	7	-------	B	1906	1261	480	249	27	1512	1504	2432	5423	3012	1643	1517	849	237	245	82	18

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
I.D. = Sample Number

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Site = Site Name

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Sfx = Suffix
S = Subscript

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit
Ld = Percent Load
UG per L = Parts per Billion

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories. It does not provide absolute identification of components.

Analyst: David A. Stewart

Land Treatment Group
Forest Products Laboratory
Miss. State University

Time: 19:38:24
Date: 02/23/89

PAH Analysis Results in UG per G

I.D.	Site	Suffix	Day	Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
7794	890206	REC	---	---	--	38.3	43.5	45.5	43.0	53.0	46.8	52.3	57.2	62.6	61.5	69.2	67.4	64.5	64.9	68.1	83.2	90.3
7795	890206	RECLEV	---	---	--	50.1	53.4	53.5	50.2	52.1	46.1	48.5	51.1	50.3	50.2	53.0	51.4	50.2	50.1	50.7	49.9	50.2
7796	890206	SOILBL	---	---	--	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7797	890206	MDL	---	---	--	0.5	0.6	0.5	0.5	0.5	0.5	0.7	0.6	0.6	0.7	1.1	0.7	0.7	1.0	1.0	1.8	2.5
7798	890206	SOLVBL	---	---	--	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7799	890206	GWW	---	---	--	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Key:

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
I.D. = Sample Number
G = Gram

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Site = Site Name
L = Liter

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
ug = microgram
mg = milligram
S = Subscript

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
mg per L = Parts per Million
ug per L = Parts per Billion
ug per G = Parts per Million
Ld = Percent Load
MDL = Method Detection Limit

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories. It does not provide absolute identification of components.

Analyst: David A. [illegible]

Land Treatment Group
Forest Products Laboratory
Miss. State Univerisity

Date: 02/23/89
Time: 19:38:53

Group and Total PAH Results in UG per G

Lab#	Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
7780	890206	1	----	----	A	18.5	702.6	504.5	63.1	1288.7
7781	890206	1	----	----	B	65.0	2874.2	515.9	63.5	3518.6
7782	890206	2	----	----	A	3.8	119.7	208.5	26.3	358.3
7783	890206	2	----	----	B	44.7	1322.4	180.7	47.8	1595.6
7784	890206	3	----	----	A	1.3	82.0	137.7	15.2	236.1
7785	890206	3	----	----	B	1.8	28.3	70.0	26.5	126.5
7786	890206	4	----	----	A	25.5	1646.1	1219.4	68.1	2959.1
7787	890206	4	----	----	B	31.0	1403.6	1213.2	92.7	2740.6
7788	890206	5	----	----	A	26.0	850.0	205.8	40.7	1122.6
7789	890206	5	----	----	B	8.8	301.4	193.3	19.7	523.3
7790	890206	6	----	----	A	9.2	162.3	224.8	30.9	427.3
7791	890206	6	----	----	B	10.5	362.8	200.6	29.7	603.6
7792	890206	7	----	----	A	2726.1	8173.7	3037.7	93.9	14031.4
7793	890206	7	----	----	B	3894.8	15552.7	2848.0	99.7	22395.3

Key

Bicyclics:
- Naphthalene
- 2-Methylnaphthalene
- 1-Methylnaphthalene
- Biphenyl

Tricyclics:
- Acenaphthylene
- Acenaphthene
- Dibenzofuran
- Fluorene
- Phenanthrene
- Anthracene
- Carbazole

Tetracyclics:
- Fluoranthene
- Pyrene
- 1,2-Benzanthracene
- Chrysene

Pentacyclics:
- Benzo-a-pyrene
- Benzo-ghi-perylene

Land Treatment Group
Forest Products Laboratory
Miss. State University

Date: 02/21/89
Time: 7:52:44

PCP Analysis Results in UG per G

TEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP	I.D.#
890206	1	----	----	A	3.7	7780
890206	1	----	----	B	3.6	7781
890206	2	----	----	A	2.86	7782
890206	2	----	----	B	2.21	7783
890206	3	----	----	A	4.97	7784
890206	3	----	----	B	6.3	7785
890206	4	----	----	A	7.85	7786
890206	4	----	----	B	8.23	7787
890206	5	----	----	A	8.96	7788
890206	5	----	----	B	7.2	7789
890206	6	----	----	A	14.7	7790
890206	6	----	----	B	20.9	7791
890206	7	----	----	A	34.3	7792
890206	7	----	----	B	42.3	7793
890206	REC	----	----	----	14.7	7794
890206	RECLEV	----	----	----	18.	7795
890206	SOILBL	----	----	----	0.	7796
890206	MDL	----	----	----	0.367	7797
890206	SOLVBL	----	----	----	0.	7798
890206	GWW	----	----	----	0.	7799

Key: GWW = Glassware Wash
MDL = Method Detection Limit

Note: Values of 0.0 indicate None Detected above the specified Method Detection Limit.

Analyst: Gary E Harrigan

Verified: David A. Stewart

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 14:23:25
Date: 02/17/89

Bio. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS	AVG. NA COUNTS
890206	01	----	----	A	120000.	4100000.	120000.	4300000.	4400000.	4700000.	----	4600000.
890206	04	----	----	A	80000.	4000000.	120000.	3600000.	4000000.	3400000.	----	3900000.
890206	07	----	----	A	500.	500000.	2500.	250000.	40000.	30000.	----	550000.

Key:

ACA = Actinomycete Agar (Actinomycetes)
PDA = Potato Dextrose Agar (Bacteria)
PDAA = Potato Dextrose + Antibiotics (Fungi)
NA = Nutrient Agar (Bacteria)
C = NA + 20ppm Creosote (Creosote acclimated Bacteria)
P = NA + 5ppm Pentachlorophenol (PCP acclimated Bacteria)
CP = NA + 20ppm Cresote + 5ppm PCP (Creosote & PCP acclimated Bacteria)
SEA = Soil Extract Agar (Bacteria)

Analyst: Mary F Harrington

Verified: Barbara A Ernst

✓
OK

Mr. Chuck Davis
Southern wood Piedmont
P.O. Box 5447
Spartanburg, SC 29304

Dear Chuck:

Please find enclosed the information on soil samples you sent us on 3/13/89 and 3/17/89. Sample designations are:

890307-1 = spray field composite
890313-1 = LF#2 creosoil (21"-24") log 7776 sample# 181

As I mentioned to Mr. Sandra Watson on the phone, addition of fertilizer to your ~~spray~~ sprayfield soil is need to increase the nutrient levels for enhancement of bacterial population.

Please call if you have any questions on these data

Ron d

Land Treatment Group
Forest Products Laboratory
Miss. State University

Time: 9:09:28
Date: 04/03/89

PAH Analysis Results in UG per G

I.D.	Site	Suffix	Day	Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
7996	890313	1	———		A	0	0	0	0	0	0	0	0	0	0	0	6	6	3	4	0	0
7997	890313	1	———		B	0	0	0	0	0	0	0	0	0	0	0	5	6	3	3	0	0
7998	890313	REC	———	—		86	101	104	94	109	94	96	110	127	122	185	138	143	139	141	196	158
7999	890313	RECLEV	———	—		100	107	107	100	104	92	97	102	101	100	106	103	100	100	101	100	100
8000	890313	SOILBL	———	—		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8001	890313	MDL	———	—		1	2	1	2	2	2	2	2	2	3	4	2	3	2	2	5	8
8002	890313	SOLVBL	———	—		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8003	890313	GWW	———	—		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
[illegible] = Acenaphthylene
Acthe = Acenaphthene
I.D. = Sample Number

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Site = Site Name

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Sfx = Suffix
S = Subscript

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit
Ld = Percent Load
UG per L = Parts per Billion

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories. It does not provide absolute identification of components.

Analyst: David A. Stoffel

Land Treatment Group
Forest Products Laboratory
Miss. State Univerisity

Date: 03/31/89
Time: 16:21:29

Group and Total PAH Results in UG per G

I.D.#	Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
7996	890313	1	—	—	A	0.0	0.0	19.6	0.0	19.6
7997	890313	1	—	—	B	0.0	0.0	17.2	0.0	17.2

Key:

Bicyclics:
Naphthalene
2-Methylnaphthalene
1-Methylnaphthalene
Biphenyl

Tricyclics:
Acenaphthylene
Acenaphthene
Dibenzofuran
Fluorene
Phenanthrene
Anthracene
Carbazole

Tetracyclics:
Fluoranthene
Pyrene
1,2-Benzanthracene
Chrysene

Pentacyclics:
Benzo-a-pyrene
Benzo-ghi-perylene

Land Treatment Group
Forest Products Laboratory
Miss. State University

Date: 03/28/89
Time: 8:18:25

PCP Analysis Results in UG per G

TEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP	I.D.#
890313	1	----	----	A	1.83	7996
890313	1	----	----	B	1.49	7997
890313	REC	----	----	----	28.3	7998
890313	RECLEV	----	----	----	35.9	7999
890313	SOILBL	----	----	----	0.	8000
890313	MDL	----	----	----	0.833	8001
890313	SOLVBL	----	----	----	0.	8002
890313	GWW	----	----	----	0.	8003

Key: GWW = Glassware Wash
MDL = Method Detection Limit

Note: Values of 0.0 indicate None Detected above the specified Method Detection Limit.

Analyst: Mary F. Harrigan

Verified: David A. Stuebel

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 11:03:00
Date: 03/21/89

. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS	AVG. NA COUNTS
S90307	1	----	----	----	5000.	1300000.	20000.	300000.	150000.	120000.	----	1000000.

Key:

ACA = Actinomycete Agar (Actinomycetes)
PDA = Potato Dextrose Agar (Bacteria)
PDAA = Potato Dextrose + Antibiotics (Fungi)
NA = Nutrient Agar (Bacteria)
C = NA + 20ppm Creosote (Creosote acclimated Bacteria)
P = NA + 5ppm Pentachlorophenol (PCP acclimated Bacteria)
CP = NA + 20ppm Cresote + 5ppm PCP (Creosote & PCP acclimated Bacteria)
SEA = Soil Extract Agar (Bacteria)

Analyst: Mary Hanuga

Verified: Bonnie Alvarado

SBW 6/5/89

MISSISSIPPI FOREST PRODUCTS LABORATORY

Telex 785045
Fax (601) 325-8126

P.O. Drawer FP
Mississippi State, MS 39762-5724
Phone (601) 325-2116

May 30, 1989

Before Spreading
Sampled 5/1/89

Mr. Chuck Davis
Southern Wood Piedmont
P. O. Box 5447
Spartanburg, SC 29304

Dear Chuck:

Please find enclosed the information on soil samples from your Wilmington units. The sample designations are: 890504 (1-3) = LF#1, Log 7866 (samples 183, 184, 185); 890504 (4-6) = LF #2, Log 7867 (samples 186, 187, 188); and 890504 (7) creo/soil.

In comparison with 890206 (1-7), PAH's have gone up for all the levels of LF#1 and LF#2 with exceptions of (9-12") of LF#1 and (0-3") of LF#2. PAH's for creo/soil have remained unchanged.

PCP: PCP concentrations have dropped significantly for all the levels of LF#1 and LF#2. The only exception is (9-12") of LF#1 which shows a slight increase in PCP concentration.

Nutrients: Nitrogen content for LF#2 is low. More fertilizer should be added to that unit. All the other soil related parameters except moisture content for both units look very good.

Bacteria counts: Bacteria population, acclimated as well as non-acclimated, have decreased by a million per gram of soil due to high moisture content of soil (probably because of heavy rainfall), but the overall population should quickly increase as the moisture level goes down.

We will be glad to answer any questions which you may have on these data.

Sincerely,

Hamid Borazjani
Research Scientist
601/325-3106

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sl

Land Treatment Group
Forest Products Laboratory
Miss. State University

Time: 12:25:30
Date: 05/26/89

PAH Analysis Results in ug per G

I.D.	Site	Suffix	Day Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
8495	890504	1	———	A	8	8	0	2	2	3	16	36	70	350	118	125	112	91	172	74	42
8496	890504	1	———	B	65	84	3	17	5	6	96	261	444	3149	1213	125	104	97	270	123	47
8497	890504	2	———	A	4	4	1	1	2	1	10	25	45	172	49	48	41	36	84	37	20
8498	890504	2	———	B	5	4	1	1	2	2	7	13	39	92	28	55	50	44	99	58	26
8499	890504	3	———	A	3	4	0	1	1	1	9	24	45	224	83	62	67	60	127	46	19
8500	890504	3	———	B	1	1	0	0	1	0	2	2	8	23	8	30	30	24	51	27	12
8501	890504	4	———	A	18	32	1	7	3	4	55	144	304	1226	422	199	150	123	239	114	47
8502	890504	4	———	B	8	8	0	2	3	7	20	39	105	370	139	151	125	113	159	129	49
8503	890504	5	———	A	4	3	1	1	1	6	8	11	188	89	30	398	308	209	264	151	90
8504	890504	5	———	B	9	13	1	3	1	5	26	65	238	488	163	409	317	210	265	156	126
8505	890504	6	———	A	2	2	1	0	1	1	4	6	37	52	17	72	58	56	85	63	29
8506	890504	6	———	B	3	3	0	0	0	1	6	13	35	130	42	52	43	45	74	30	23
8507	890504	7	———	A	170	343	112	77	22	1158	968	2127	4123	6472	2952	2838	1629	473	626	176	54
85[illegible]	890504	7	———	B	79	103	67	22	10	515	341	613	1532	1344	441	1960	1172	489	638	153	43

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
I.D. = Sample Number

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Site = Site Name

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Sfx = Suffix
S = Subscript

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit
Ld = Percent Load
UG per L = Parts-per Billion

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories. It does not provide absolute identification of components.

Analyst: David A. Stuthel

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ENVIRONMENTAL AFFAIRS

Land Treatment Group
Forest Products Laboratory
Miss. State University

Time: 12:29:58
Date: 05/26/89

PAH Analysis Results in ug per G

I.D.	Site	Suffix	Day	Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
8509	890504	REC	—	—	—	41.4	43.2	47.3	46.7	50.9	47.8	55.5	64.5	75.0	75.3	82.4	88.3	90.7	150.6	157.4	192.2	192.7
8510	890504	RECLEV	—	—	—	50.1	53.4	53.5	50.2	52.1	46.1	48.5	51.1	50.3	50.2	53.0	51.4	50.2	50.1	50.7	49.9	50.2
8511	890504	SOILBL	—	—	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8512	890504	MDL	—	—	—	0.4	0.4	0.4	0.4	0.5	0.4	0.5	0.5	0.6	0.6	0.8	0.8	0.8	1.6	1.5	3.2	7.7
8513	890504	SOLVBL	—	—	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Key:

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
I.D. = Sample Number
G = Gram

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Site = Site Name
L = Liter

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
ug = microgram
mg = milligram
S = Subscript

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
mg per L = Parts per Million
ug per L = Parts per Billion
ug per G = Parts per Million
Ld = Percent Load
MDL = Method Detection Limit

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories. It does not provide absolute identification of components.

Analyst: David A. Stahl

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Land Treatment Group
Forest Products Laboratory
Miss. State Univerisity

Date: 05/26/89
Time: 12:27:36

Group and Total PAH Results in ug per G

I.D.#	Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
8495	890504	1	—	—	A	18.0	595.1	500.8	116.0	1229.9
8496	890504	1	—	—	B	168.8	5174.3	595.8	170.5	6109.5
8497	890504	2	—	—	A	10.6	303.3	208.8	56.4	579.1
8498	890504	2	—	—	B	10.9	182.8	248.4	83.8	525.9
8499	890504	3	—	—	A	8.6	387.1	314.5	65.8	776.0
8500	890504	3	—	—	B	2.3	43.5	135.1	39.6	220.5
8501	890504	4	—	—	A	58.9	2159.1	711.0	161.3	3090.2
8502	890504	4	—	—	B	18.3	682.6	549.1	178.4	1428.4
8503	890504	5	—	—	A	9.2	333.4	1179.0	240.9	1762.5
8504	890504	5	—	—	B	26.3	986.2	1200.5	281.6	2494.5
8505	890504	6	—	—	A	4.6	116.6	270.6	91.9	483.7
8506	890504	6	—	—	B	6.0	228.3	214.0	52.8	501.2
8507	890504	7	—	—	A	701.0	17822.3	5565.2	230.4	24318.9
8508	890504	7	—	—	B	270.8	4795.1	4258.6	195.9	9520.4

Bicyclics:

Naphthalene
2-Methylnaphthalene
1-Methylnaphthalene
Biphenyl

Tricyclics:

Acenaphthylene
Acenaphthene
Dibenzofuran
Fluorene
Phenanthrene
Anthracene
Carbazole

Tetracyclics:

Fluoranthene
Pyrene
1,2-Benzanthracene
Chrysene

Pentacyclics:

Benzo-a-pyrene
Benzo-ghi-perylene

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JUN 05 1989
ENVIRONMENTAL AFFAIRS

Land Treatment Group
Forest Products Laboratory
Miss. State University

Date: 05/23/89
Time: 13:34:02

PCP Analysis Results in ug per G

TEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP	I.D.#
890504	1	----	----	A	2.57	8495
890504	1	----	----	B	2.67	8496
890504	2	----	----	A	2.79	8497
890504	2	----	----	B	3.49	8498
890504	3	----	----	A	1.73	8499
890504	3	----	----	B	2.1	8500
890504	4	----	----	A	4.62	8501
890504	4	----	----	B	6.43	8502
890504	5	----	----	A	5.57	8503
890504	5	----	----	B	4.79	8504
890504	6	----	----	A	1.16	8505
890504	6	----	----	B	1.44	8506
890504	7	----	----	A	21.9	8507
890504	7	----	----	B	16.6	8508
890504	REC	----	----	----	9.98	8509
890504	RECLEV	----	----	----	18.	8510
890504	SOILBLK	----	----	----	0.	8511
890504	MDL	----	----	----	0.533	8512
890504	SOLVBL	----	----	----	0.	8513
890504	GWW	----	----	----	0.	8514

Key: GWW = Glassware Wash
MDL = Method Detection Limit

Note: Values of 0.0 indicate None Detected above the specified Method Detection Limit.

Analyst: Mary F. Hennigan

Verified: David A. Stoutel

Listed below are chloride ion concentration, pH, C/N ratio and total organic carbon, nitrogen and phosphorus results from the Wilmington units.

MFPL #	SWP Site ID	Depth	C(ug/g)	N(ug/g)	P(ug/g)	C/N	Cl(ug/g)	pH
890504-1	LF#1 Log 7866	0-3"	40000	1200	760	33.33	17.2	7.14
890504-4	LF#2 Log 7867	0-3"	43000	980	620	43.80	20.4	7.15
890504-7	LF#1&2 Creo/soil	--	75000	612	135	122.50	38.9	6.88

sl
5/19/89

RECEIVED
JUN 05 1989
ENVIRONMENTAL AFFAIRS

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 16:25:29
Date: 05/12/89

Micro. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS	AVG. NA COUNTS
890504	1	----	----	A	45000.	2800000.	210000.	2900000.	2600000.	2600000.	----	3000000.
890504	4	----	----	A	60000.	3000000.	190000.	2800000.	2600000.	2400000.	----	3000000.
890504	7	----	----	A	0.	75000.	50000.	40000.	15000.	2500.	----	120000.

Key:

ACA = Actinomycete Agar (Actinomycetes)
PDA = Potato Dextrose Agar (Bacteria)
PDAA = Potato Dextrose + Antibiotics (Fungi)
NA = Nutrient Agar (Bacteria)
C = NA + 20ppm Creosote (Creosote acclimated Bacteria)
P = NA + 5ppm Pentachlorophenol (PCP acclimated Bacteria)
CP = NA + 20ppm Cresote + 5ppm PCP (Creosote & PCP acclimated Bacteria)
SEA = Soil Extract Agar (Bacteria)

Analyst: Mary F Hannigan

Verified: Bonny Ahmed

MISSISSIPPI FOREST PRODUCTS LABORATORY

Telex 785045
Fax (601) 325-8126

P.O. Drawer FP
Mississippi State, MS 39762-5724
Phone (601) 325-2116

May 31, 1989

Mr. Chuck Davis
Southern Wood Piedmont
P. O. Box 5447
Spartanburg, SC 29304

Dear Chuck:

Please find enclosed the information on soil samples from your Wilmington units. The sample designations are: 890515 (1-3) = LF#1, Log 7870 (samples 189, 190, 191); and 890515 (4-6) = LF #2, Log 7871 (samples 192, 193, 194).

In comparison with 890504 (1-6), PAH's are down significantly for (9-12") and (12-24") of both LF#1 and #2. PAH's have gone up for (0-3") of both units.

PCP: PCP concentrations are up for (0-3", 12-24") of LF#1, and for 9-12" of LF#2.

Nutrients: pH level has dropped sharply for LF#2. Lime should be added to the unit if pH level stays the same by next month's sampling period.

Bacteria counts: Bacteria populations for LF#1 have decreased slightly. Populations of bacteria, acclimated as well as non-acclimated, for LF#2 have remained unchanged.

We will be glad to answer any questions that you may have on these data.

Sincerely,

Hamid Borazjani
Research Scientist
601/325-3106

sl
enclosures

Land Treatment Group
Forest Products Laboratory
Miss. State University

Time: 10:58:40
Date: 05/26/89

PAH Analysis Results in ug per g

I.D.	Site	Suffix	Day	Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
8530	890515	1	———		A	17	28	6	7	7	114	82	206	406	909	280	533	350	111	131	46	17
8531	890515	1	———		B	21	32	5	8	7	118	94	239	482	1085	279	501	313	99	115	12	15
8532	890515	2	———		A	4	3	0	0	0	3	5	9	23	61	20	33	29	15	35	0	10
8533	890515	2	———		B	6	6	0	0	2	2	8	18	37	235	76	41	35	17	21	7	11
8534	890515	3	———		A	2	2	0	0	2	6	5	6	44	15	7	87	70	32	49	21	6
8535	890515	3	———		B	3	2	0	0	2	0	3	2	23	12	5	70	67	30	44	7	6
8536	890515	4	———		A	27	46	0	12	0	11	67	187	316	1509	479	130	101	45	62	16	14
8537	890515	4	———		B	14	20	0	6	8	12	34	106	201	735	229	194	141	58	109	27	17
8538	890515	5	———		A	9	10	4	2	3	21	23	58	184	278	81	369	242	80	88	33	13
8539	890515	5	———		B	21	24	2	5	3	4	30	74	128	874	315	58	48	28	38	25	12
8540	890515	6	———		A	5	3	0	0	0	2	5	8	17	84	23	45	35	16	31	5	6
8541	890515	6	———		B	2	2	0	0	0	3	3	6	21	49	13	59	46	22	36	4	20
8542	890515	RECOV	———		—	45	46	51	46	45	44	47	52	57	58	56	62	61	59	62	18	35
85[illegible]	[illegible]90515	RECLEV	———		—	50	53	54	50	52	46	48	51	50	50	53	51	50	50	51	50	50
8544	890515	SOILBL	———		—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8545	890515	MDL	———		--	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	3
8546	890515	SOLVBL	———		—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8547	890515	GWW	———		—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
I.D. = Sample Number

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Site = Site Name

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Sfx = Suffix
S = Subscript

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit
Ld = Percent Load
UG per L = Parts per Billion

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories.
It does not provide absolute identification of components.

Analyst: David A. Stokell

Land Treatment Group
Forest Products Laboratory
Miss. State Univerisity

Date: 05/25/89
Time: 16:09:03

Group and Total PAH Results in ug per g

I.D.#	Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
8530	890515	1	—	—	A	57.8	2004.9	1125.2	62.8	3250.7
8531	890515	1	—	—	B	66.2	2305.1	1027.5	27.2	3426.1
8532	890515	2	—	—	A	7.0	119.8	112.0	9.8	248.7
8533	890515	2	—	—	B	12.4	378.3	115.0	17.9	523.6
8534	890515	3	—	—	A	3.7	84.3	238.8	27.2	354.0
8535	890515	3	—	—	B	4.3	46.7	210.6	13.5	275.1
8536	890515	4	—	—	A	84.9	2568.9	338.1	30.2	3022.1
8537	890515	4	—	—	B	39.6	1325.2	502.5	44.0	1911.3
8538	890515	5	—	—	A	24.9	647.9	778.9	46.0	1497.7
8539	890515	5	—	—	B	53.1	1428.1	171.4	37.2	1689.8
8540	890515	6	—	—	A	7.2	138.5	126.1	11.3	283.0
8541	890515	6	—	—	B	3.3	95.5	163.7	23.8	286.4

Key:

Bicyclics:

Naphthalene
2-Methylnaphthalene
1-Methylnaphthalene
Biphenyl

Tricyclics:

Acenaphthylene
Acenaphthene
Dibenzofuran
Fluorene
Phenanthrene
Anthracene
Carbazole

Tetracyclics:

Fluoranthene
Pyrene
1,2-Benzanthracene
Chrysene

Pentacyclics:

Benzo-a-pyrene
Benzo-ghi-perylene

Land Treatment Group
Forest Products Laboratory
Miss. State University

Date: 05/23/89
Time: 18:49:49

PCP Analysis Results in ug per g

DATEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP	I.D.#
890515	1	----	----	A	5.04	8530
890515	1	----	----	B	5.08	8531
890515	2	----	----	A	1.67	8532
890515	2	----	----	B	1.72	8533
890515	3	----	----	A	5.41	8534
890515	3	----	----	B	5.13	8535
890515	4	----	----	A	5.94	8536
890515	4	----	----	B	5.19	8537
890515	5	----	----	A	11.1	8538
890515	5	----	----	B	6.26	8539
890515	6	----	----	A	2.15	8540
890515	6	----	----	B	1.69	8541
890515	RECOV	----	----	----	11.2	8542
890515	RECLEV	----	----	----	18.	8543
890515	SOILBL	----	----	----	0.	8544
890515	MDL	----	----	----	0.458	8545
890515	SOLVBL	----	----	----	0.	8546
890515	GWW	----	----	----	0.	8547

Key: GWW = Glassware Wash
MDL = Method Detection Limit

Note: Values of 0.0 indicate None Detected above the specified Method Detection Limit.

Analyst: Mary E Hanagan

Verified: David A. Stickel

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 8:33:34
Date: 05/30/89

Micro. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS	AVG. NA COUNTS
890515	1	----	----	----	50000.	2800000.	100000.	2000000.	2300000.	2400000.	----	2200000.
890515	4	----	----	----	25000.	3100000.	100000.	2500000.	2700000.	2800000.	----	2800000.

Key:

ACA = Actinomycete Agar (Actinomycetes)
PDA = Potato Dextrose Agar (Bacteria)
PDAA = Potato Dextrose + Antibiotics (Fungi)
NA = Nutrient Agar (Bacteria)
C = NA + 20ppm Creosote (Creosote acclimated Bacteria)
P = NA + 5ppm Pentachlorophenol (PCP acclimated Bacteria)
CP = NA + 20ppm Cresote + 5ppm PCP (Creosote & PCP acclimated Bacteria)
SEA = Soil Extract Agar (Bacteria)

Analyst: Kelly Dove

Verified: Bobby Hart

Listed below are chloride ion concentration, pH, C/N ratio, and total organic carbon, nitrogen and phosphorus results from the Wilmington units.

MFPL #	Site ID	Depth	C(ug/g)	N(ug/g)	P(ug/g)	C/N	Cl(ug/g)	pH
890515-1	LF#1 Log 7870	0-3"	30000	1804	924	16.63	5.54	6.34
890515-4	LF#2 Log 7871	0-3"	83000	1531	777	54.21	4.19	5.52

sl
/30/89

James W. Andrews, Ph.D.
President

Janette Davis Long
Vice-President

SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue (31404)
P. O. Box 13548 • Savannah, GA 31416-0548
(912) 354-7858

SBW
TMD
MDP
file

LOG NO: 89-4532

Received: 07 JUN 89

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JUL 10 1989

ENVIRONMENTAL AFFAIRS

Ms. Sandra Watson
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Steve Blevins

Project: Wilmington, NC

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
4532-1	# 31 State Port Authority # 7962	Client
4532-2	# 32 Greenfield Creek # 7963	
4532-3	# 33 SWP Old Slip # 7964	
4532-4	# 34 US 74 New Bridge # 7965	

PARAMETER	4532-1	4532-2	4532-3	4532-4
KO01 (Method 8270)				
2-Chlorophenol, mg/l	ND	ND	ND	ND
Phenol, mg/l	ND	ND	ND	ND
2,4-Dimethylphenol, mg/l	ND	ND	ND	ND
Trichlorophenols, mg/l	ND	ND	ND	ND
p-Chloro-m-cresol, mg/l	ND	ND	ND	ND
Tetrachlorophenols, mg/l	ND	ND	ND	ND
2,4-Dinitrophenol, mg/l	ND	ND	ND	ND
Pentachlorophenol, mg/l	ND	ND	ND	ND
Naphthalene, mg/l	ND	0.050	ND	ND
Acenaphthene, mg/l	ND	ND	ND	ND
Acenaphthylene, mg/l	ND	ND	ND	ND
Phenanthrene, mg/l	ND	ND	ND	ND
Anthracene, mg/l	ND	ND	ND	ND
Fluoranthene, mg/l	ND	ND	ND	ND
Chrysene, mg/l	ND	ND	ND	ND
Benzo(a)Anthracene, mg/l	ND	ND	ND	ND
Benzo(b,k)fluoranthene, mg/l	ND	ND	ND	ND
Benzo(a)pyrene, mg/l	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene, mg/l	ND	ND	ND	ND
Dibenzo(a,h)anthracene, mg/l	ND	ND	ND	ND
Carbazole, mg/l	ND	ND	ND	ND
Dilution factor	1	1	1	1

NOTE:
1st time something detected in creek samples.
Detection limit for Naphthalene = 0.01.

James W. Andrews, Ph.D.
President

Janette Davis Long
Vice-President

SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES, INC.

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Spartanburg, SC 29304

CC: Steve Blevins

Project: Wilmington, NC

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
4532-1	# 31 State Port Authority # 7962	Client
4532-2	# 32 Greenfield Creek # 7963	
4532-3	# 33 SWP Old Slip # 7964	
4532-4	# 34 US 74 New Bridge # 7965	

PARAMETER	4532-1	4532-2	4532-3	4532-4
Copper, mg/l	ND	ND	ND	ND
Chromium, mg/l	ND	ND	ND	ND
Arsenic, mg/l	ND	ND	ND	ND

James W. Andrews, Ph.D.
President

Janette Davis Long
Vice-President

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Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Steve Blevins

Project: Wilmington, NC

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , QC SAMPLES	SAMPLED BY
4532-5	Detection Limits	Client
4532-6	Accuracy (mean % recovery)	
4532-7	Precision (% RPD)	

PARAMETER	4532-5	4532-6	4532-7
KOO1 (Method 8270)			
2-Chlorophenol, mg/l	0.010	80 %	14 %
Phenol, mg/l	0.010	52 %	11 %
2,4-Dimethylphenol, mg/l	0.010	98 %	0 %
Trichlorophenols, mg/l	0.010	82 %	1.2 %
p-Chloro-m-cresol, mg/l	0.010	89 %	4.5 %
Tetrachlorophenols, mg/l	0.010	84 %	2.4 %
2,4-Dinitrophenol, mg/l	0.050	86 %	4.7 %
Pentachlorophenol, mg/l	0.050	66 %	9.1 %
Naphthalene, mg/l	0.010	59 %	6.8 %
Acenaphthene, mg/l	0.010	89 %	1.1 %
Acenaphthylene, mg/l	0.010	55 %	5.5 %
Phenanthrene, mg/l	0.010	60 %	5.0 %
Anthracene, mg/l	0.010	55 %	1.8 %
Fluoranthene, mg/l	0.010	60 %	5.0 %
Chrysene, mg/l	0.010	71 %	0 %
Benzo(a)Anthracene, mg/l	0.010	79 %	5.1 %
Benzo(b,k)fluoranthene, mg/l	0.010	68 %	3.7 %
Benzo(a)pyrene, mg/l	0.010	84 %	2.4 %
Indeno(1,2,3-cd)pyrene, mg/l	0.010	111 %	5.4 %
Dibenzo(a,h)anthracene, mg/l	0.010	100 %	2.0 %
Carbazole, mg/l	0.010	63 %	6.3 %

James W. Andrews, Ph.D.
President

Janette Davis Long
Vice-President

SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES, INC.

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Ms. Sandra Watson
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Steve Blevins

Project: Wilmington, NC

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , QC SAMPLES	SAMPLED BY
4532-5	Detection Limits	Client
4532-6	Accuracy (mean % recovery)	
4532-7	Precision (% RPD)	

PARAMETER	4532-5	4532-6	4532-7
Copper, mg/l	0.010	113 %	0.88 %
Chromium, mg/l	0.010	98 %	1.0 %
Arsenic, mg/l	0.010	108 %	4.6 %

James W. Andrews, Ph.D.
President

Janette Davis Long
Vice-President

SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES, INC.

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LOG NO: 89-4532

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ENVIRONMENTAL AFFAIRS

Ms. Sandra Watson
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304

CC: Steve Blevins

Project: Wilmington, NC

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , QC SAMPLES	SAMPLED BY
4532-8	Report Completion Date	Client

PARAMETER	4532-8
Date Reported	07.03.89

Methods: EPA SW-846

ND = Not Detected

James W. Andrews

J. W. Andrews, Ph. D.

6-6-89

Southern Wood Piedmont Co.
P.O. Box 450
Wilmington N.C. 28405

CAPE FEAR RIVER SAMPLES

TO: SAVANNAH LAB & ENVIORENTAL SERV. INC.
P.O. BOX 13842
Shipyard ROAD at Whitfield
SAVANNAH GEORGIA 31406-0842

Log # Phone on ARRIVAL 354-7858
"A" 1962 Sample # 31 State Ports Authy C/F RIVER
"B" 1963 ✓ 32 Greenfield Creek Mouth of C/F River
"C" 1964 ✓ 33 SWP C/F RIVER old Slip.
"D" 1965 ✓ 34 US #74 New Bridge C/F RIVER

Sample # 31-32 DOWN Stream
" 33-34 UP stream.

cpys: Chuck DAVIS — Ed. Gibbs. Sandra Watso
Elaine Hedrick

Log # From SANDRA

Contact

Chuck DAVIS
S.W.P. PO Box 5447
Spartanburg SC 29304
Phone 1-803-576-7660

Id. O. Phillips
Wilmington
1-919-762-9678

CHAIN OF CUSTODY RECORD

SL SAVANNAH LABORAT
AND ENVIRONMENTAL SER

COLOR CODE: WATER/WASTEWATER P R; SOIL/SLUDGE

COMPANY NAME/LOCATION: Southern Wood Piedmont Co.

PERS (Signature): Bob Phillips

DATE	TIME	COMP.	GRAB	SAMPLE IDENTIFICATION	NO. OF CONTAINERS	1 liter plastic jug	1 liter glass w/TFE	500 ml plastic-gen	500 ml plastic-met	250 ml plastic	250 ml oval glass	130 ml amber glass	100 ml plastic	40ml vial w/ins.	20 ml plastic vial	1 liter wm glass	1 liter wm plastic	500 ml wm glass	500 ml wm plastic	40ml wm vial w/ins.	*Container sealed	Analyses Requested
6/6/89	8:00 Am		✓	#31 State P. Authy	2	1			1													
6/6/89	8:15 Am		✓	#32 Greenfield Creek.	2	1			1													
6/6	8:20 Am		✓	#33 SNP Old Sling	✓	1			1													
6/6	9:00		✓	#34 US74-New Rivdr	✓	1			1													

Relinquished by:	Date/Time	Received by:	Date/Time	Relinquished by:	Date/Time
Bob Phillips	6/6/89 11:00 Am	Sarita Samuel	6/7 8:30 Am		
Relinquished by:	Date/Time	Received by:	Date/Time	Relinquished by:	Date/Time

Color Code/Preservative
- Green - sulfuric acid
- Purple - no preservative
- Red - nitric acid
- Tan - zinc acetate
- Yellow - sodium thiosulfate
- Blue - sodium hydroxide
- Lt. Blue - hydrochloric acid

Container seal intac
Field ✓
Lab

Affiliation of Sampler SWP. Co

Address Wilmington NC 28402
number street city state zip

Telephone 919 762-9678 Company Contact W. O. Phillips

TYPE OF SAMPLE/SAMPLES* FIELD INFORMATION

water Cape Fear River Wilmington N.C

*Indicate whether sample is soil, sludge, water, etc.

Additional Analysis Requested K-001-Cu-Cr-As

Special Handling and/or Storage None

Part II: Bottles Required for Analyses Requested

The number, color and type of sampling containers we have provided you is listed below. The color codes correspond with specific preservatives (See reverse side of form), please handle with caution. Please fill in all necessary information on both sides of this form and return to us along with your samples. Ship coolers back to Savannah Laboratories & Environmental Services, Inc., by UPS, Bus or Federal Express. Our shipping address is: 5102 LaRoche Avenue, Savannah, GA 31404. If you have any questions about sampling procedures, please call (912)354-7858.

	WATER/WASTEWATER																		SOIL/SLUDGE					
COLOR CODE		P			R																			
	1 liter plastic jug	1 liter glass w/TFE	500 ml plastic-gen	500 ml plastic-met	250 ml plastic	250 ml oval glass	130 ml amber glass	100 ml plastic	40ml vial w/ins.	20 ml plastic vial	1 liter wm glass	1 liter wm plastic	500 ml wm glass	500 ml wm plastic	40ml vial w/ins.	*Bottle sealed	*Container sealed							
		4			4																			

Packed by: SE

Checked by: LB

Bottles shippped to: Southern Wood
Greenfield St.
Wilmington, NC 28401

Date Shipped: 5-31-90

James W. Andrews, Ph.D.
President

Janette Davis Long
Vice-President

SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue (31404)
P. O. Box 13548 • Savannah, GA 31416-0548
(912) 354-7858

SBW
MDP
MD
File

LOG NO: 89-5978

Received: 26 JUL 89

Ms. Sandra Watson
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304
CC: Steve Blevins

Project: Wilmington

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
5978-1	#35 Greenfield Creek-Mouth of Cape May River (8041	Client

PARAMETER	5978-1
KOO1 (Method 8270)	
2-Chlorophenol, mg/l	ND
Phenol, mg/l	ND
2,4-Dimethylphenol, mg/l	ND
Trichlorophenols, mg/l	ND
p-Chloro-m-cresol, mg/l	ND
Tetrachlorophenols, mg/l	ND
2,4-Dinitrophenol, mg/l	ND
Pentachlorophenol, mg/l	ND
Naphthalene, mg/l	ND
Acenaphthene, mg/l	ND
Acenaphthylene, mg/l	ND
Phenanthrene, mg/l	ND
Anthracene, mg/l	ND
Fluoranthene, mg/l	ND
Chrysene, mg/l	ND
Benzo(a)Anthracene, mg/l	ND
Benzo(b,k)fluoranthene, mg/l	ND
Benzo(a)pyrene, mg/l	ND
Indeno(1,2,3-cd)pyrene, mg/l	ND
Dibenzo(a,h)anthracene, mg/l	ND
Carbazole, mg/l	ND
Dilution factor	1

RESAMPLING
to confirm
previous hit.

RECEIVED
AUG 25 1989
ENVIRONMENTAL AFFAIRS

James W. Andrews, Ph.D.
President

Janette Davis Long
Vice-President

SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue (31404)
P. O. Box 13548 • Savannah, GA 31416-0548
(912) 354-7858

LOG NO: 89-5978

Received: 26 JUL 89

Ms. Sandra Watson
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304
CC: Steve Blevins

Project: Wilmington

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
5978-1	#35 Greenfield Creek-Mouth of Cape May River (8041	Client

PARAMETER	5978-1
Arsenic, mg/l	ND
Chromium, mg/l	ND
Copper, mg/l	ND

RECEIVED
AUG 25 1989
ENVIRONMENTAL AFFAIRS

James W. Andrews, Ph.D.
President

Janette Davis Long
Vice-President

SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue (31404)
P. O. Box 13548 • Savannah, GA 31416-0548
(912) 354-7858

LOG NO: 89-5978

Received: 26 JUL 89

Ms. Sandra Watson
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304
CC: Steve Blevins

Project: Wilmington

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , QC SAMPLES	SAMPLED BY
5978-2	Detection Limits	Client
5978-3	Accuracy (mean % recovery)	
5978-4	Precision (% RPD)	

PARAMETER	5978-2	5978-3	5978-4
KO01 (Method 8270)			
2-Chlorophenol, mg/l	0.010	74 %	5.4 %
Phenol, mg/l	0.010	36 %	5.6 %
2,4-Dimethylphenol, mg/l	0.010	64 %	3.1 %
Trichlorophenols, mg/l	0.010	93 %	5.4 %
p-Chloro-m-cresol, mg/l	0.010	71 %	0.10 %
Tetrachlorophenols, mg/l	0.010	104 %	1.9 %
2,4-Dinitrophenol, mg/l	0.050	87 %	2.3 %
Pentachlorophenol, mg/l	0.050	101 %	3.0 %
Naphthalene, mg/l	0.010	78 %	1.3 %
Acenaphthene, mg/l	0.010	84 %	1.2 %
Acenaphthylene, mg/l	0.010	83 %	0.10 %
Phenanthrene, mg/l	0.010	85 %	0.10 %
Anthracene, mg/l	0.010	78 %	0.10 %
Fluoranthene, mg/l	0.010	91 %	5.5 %
Chrysene, mg/l	0.010	84 %	5.9 %
Benzo(a)Anthracene, mg/l	0.010	84 %	2.3 %
Benzo(b,k)fluoranthene, mg/l	0.010	100 %	0.50 %
Benzo(a)pyrene, mg/l	0.010	95 %	1.1 %
Indeno(1,2,3-cd)pyrene, mg/l	0.010	99 %	24 %
Dibenzo(a,h)anthracene, mg/l	0.010	99 %	9.1 %
Carbazole, mg/l	0.010	133 %	0.80 %

RECEIVED
AUG 25 1989
ENVIRONMENTAL AFFAIRS

James W. Andrews, Ph.D.
President

Janette Davis Long
Vice-President

SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES, INC.

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Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304
CC: Steve Blevins

Project: Wilmington

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , QC SAMPLES	SAMPLED BY
5978-2	Detection Limits	Client
5978-3	Accuracy (mean % recovery)	
5978-4	Precision (% RPD)	

PARAMETER	5978-2	5978-3	5978-4
Arsenic, mg/l	0.010	105 %	0 %
Chromium, mg/l	0.010	108 %	0.93 %
Copper, mg/l	0.010	102 %	0 %

RECEIVED
AUG 2 5 1989
ENVIRONMENTAL AFFAIRS

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SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES, INC.

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P. O. Box 13548 • Savannah, GA 31416-0548
(912) 354-7858

LOG NO: 89-5978

Received: 26 JUL 89

Ms. Sandra Watson
Southern Wood Piedmont (WI)
P.O. Box 5477, I-85 and Sigsbee Rd.
Spartanburg, SC 29304
CC: Steve Blevins

Project: Wilmington

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , QC SAMPLES	SAMPLED BY
5978-5	Report Completion Date	Client

PARAMETER	5978-5
Date Reported	08.21.89

Methods: EPA SW-846

J. W. Andrews

J. W. Andrews, Ph. D.

RECEIVED

AUG 25 1989

ENVIRONMENTAL AFFAIRS

From:

Southern Wood Piedmont Co
P.O. Box 450
Wilmington N.C. 28402
Phone 919-762-9678

July 25 1989

cpys: Chuck Davis
Sandra Watson
Elaine Hedrick

Cape Fear River Samples.

TO:

SAVANNAH Lab & Environmental Sec. Div.
PO Box 13842
Shipyard Road & Whitfield ave.
5102 LaRoche ave
SAVANNAH, GEORGIA 31406-0842
Phone on arrival 354-7858

"B"

Sample #35 - Greenfield Creek - mouth of Cape Fear River - ~~Down~~ Down stream from plant site

Log # 8041

From Elaine Hedrick

CONTACT

Chuck Davis
SW P. PO Box 5447
Spartanburg SC. 29304
Phone 803-599-1075
New Phone #

H.O. Phillips
Wilmington N.C.

CHAIN OF CUSTODY RECORD

SL SAVANNAH LABORA
AND ENVIRONMENTAL S

COLOR CODE | WATER/WASTEWATER | SOIL/SLUDGE

COMPANY NAME/LOCATION: WR-CO-Wilmington NC.

SAMPLERS (Signature): H.O. Phillips

G NO	DATE	TIME	COMP.	GRAB	SAMPLE IDENTIFICATION	NO. OF CONTAINERS	liter plastic jug	liter glass w/TFE	500 ml plastic-gen	500 ml plastic-mer	250 ml plastic	250 ml oval glass	130 ml amber glass	100 ml plastic	40ml vial w/ins.	20 ml plastic vial	liter wm glass	liter wm plastic	500 ml wm glass	500 ml wm plastic	40ml vial w/ins.	*Container sealed	Analyses Reque
41	7/24/89	8:00 AM		✓	#35- Greenfield Creek- mouth of - Cape Fear River	2		1			1												
78																							

inquished by:	Date/Time	Received by:	Date/Time	Relinquished by:	Date/Time
[signature]	7/24/89	Sacita Samuel	7/26 8:00 AM		
inquished by:	Date/Time	Received by:	Date/Time	Relinquished by:	Date/Time

Color Code/Preservative
- Green - sulfuric acid
- Purple - no preservative
- Red - nitric acid
- Tan - zinc acetate
- Yellow - sodium thiosulfate
- Blue - sodium hydroxide
- Lt. Blue - hydrochloric acid

Container seal int
Field ✓
Lab

Collector H O Phillips Date Sampled 7-24-89 Time 800 Am (hours)

Affiliation of Sampler Southern Wood Piedmont Co

Address PO Box 400 - Wilmington NC 28402.
number street city state zip

Telephone (919) 762-9678 Company Contact H. O. Phillips

TYPE OF SAMPLE/SAMPLES*	FIELD INFORMATION
Water	Cape Fear River - Wilmington NC.

*Indicate whether sample is soil, sludge, water, etc.

Additional Analysis Requested Kool, CCA

Special Handling and/or Storage None

Part II: Bottles Required for Analyses Requested

The number, color and type of sampling containers we have provided you is listed below. The color codes correspond with specific preservatives (See reverse side of form), please handle with caution. Please fill in all necessary information on both sides of this form and return to us along with your samples. Ship coolers back to Savannah Laboratories & Environmental Services, Inc., by UPS, Bus or Federal Express. Our shipping address is: 5102 LaRoche Avenue, Savannah, GA 31404. If you have any questions about sampling procedures, please call (912)354-7858.

COLOR CODE	WATER/WASTEWATER																		SOIL/SLUDGE					
	·	P			R																			
	liter plastic jug	liter glass w/TFE	500 ml plastic-gen	500 ml plastic-met	250 ml plastic	250 ml Nalgene	130 ml amber glass	100 ml plastic	40ml vial w/ins.	500 ml glass	liter wm glass	liter wm plastic	500 ml wm glass	500 ml wm plastic	120 ml amber glass	Small wm glass jar								

Packed by: JS

Checked by: LB

Bottles shippped to: SW - Wilmington
Greenfield St.
Wilmington, NC 28401

SBW
EH

MISSISSIPPI FOREST PRODUCTS LABORATORY

Telex 785045
Fax (601) 325-8126

P.O. Drawer FP
Mississippi State, MS 39762-5724
Phone (601) 325-2116

RECEIVED
AUG 14 1989
ENVIRONMENTAL AFFAIRS

August 10, 1989

Mr. Chuck Davis
Southern Wood Piedmont
P. O. Box 5447
Spartanburg, SC 29304

Dear Chuck:

Please find enclosed the information on soil samples from your Wilmington units. The sample designations are:

890715(1-3) = LF#1, log 8008 (samples 195, 196, 197)
890715(4-6) = LF#2, log 8009 (samples 198, 199, 200)
890724-1 = LF#1, log 8034 (sample 201)
890724-2 = LF#2, log 8035 (sample 202)

In comparison with 890515(1-6), PAH's are down for 0-3" of LF#1 and for 9-12" and 12-24" of LF#2. PAH's have gone up for 9-12" of LF#1 and 0-3" of LF#2. PAH's have remained unchanged for 9-12" of LF#1. There are little or no PAH's analyzed for 36" of both units.

PCP: PCP levels are down significantly for all the levels of LF#1. PCP level for 9-12" of LF#2 is up, but concentrations have remained unchanged for 0-3" and 12-24" depths. No detectable amount of PCP was found for 36" depth of LF#1 and LF#2.

Nutrients: PH levels for both units are back to the good range. All the other nutrient levels are also in good shape.

Bacteria Counts: Population of acclimated bacteria for both units are down probably due to loading of units. Total numbers of bacteria for both units have remained unchanged.

We will be glad to answer any questions that you may have on these data.

Sincerely,

Hamid Borazjani
Research Scientist
601/325-3106

jl
enclosure

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 13:54:09
Date: 07/31/89

Micro Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS	AVG. NA COUNTS
890715	1	----	----	----	15000.	2900000.	120000.	1300000.	1700000.	1700000.	----	2100000.
890715	4	----	----	----	20000.	2900000.	80000.	1900000.	1900000.	1600000.	----	2300000.

Key:

ACA = Actinomycete Agar (Actinomycetes)
PDA = Potato Dextrose Agar (Bacteria)
PDAA = Potato Dextrose + Antibiotics (Fungi)
NA = Nutrient Agar (Bacteria)
C = NA + 20ppm Creosote (Creosote acclimated Bacteria)
P = NA + 5ppm Pentachlorophenol (PCP acclimated Bacteria)
CP = NA + 20ppm Cresote + 5ppm PCP (Creosote & PCP acclimated Bacteria)
SEA = Soil Extract Agar (Bacteria)

Analyst: Kelly Dove

Verified: Bonnie Alcorn

Listed below are chloride ion concentration, pH, C/N ratio, and total organic carbon, nitrogen and phosphorus results from the Wilmington soil samples.

MFPL #	Site ID	Depth	C(ug/g)	N(ug/g)	P(ug/g)	C/N	Cl(ug/g)	pH
890715-1	LF#1	0-3"	70014.1	1209.3	750.2	57.9	12.00	7.52
890715-4	LF#2	0-3"	55244.8	1004.8	689.7	55.00	7.00	7.21

jl
7/27/89

and Treatment Group
orest Products Laboratory
iss. State University

Time: 14:52:47
Date: 08/04/89

PAH Analysis Results in ug per g

.D.	Site	Suffix	Day	Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
)96	890715	1			A	15	22	0	6	4	3	41	130	284	1069	349	94	86	83	94	55	0
)97	890715	1			B	5	0	0	0	0	0	8	25	50	243	78	67	61	96	84	40	0
)98	890715	2			A	6	8	0	2	4	1	12	36	61	331	120	18	16	44	27	29	22
)99	890715	2			B	26	48	2	14	1	2	76	214	374	1809	578	28	20	48	44	0	0
.00	890715	3			A	0	0	0	0	0	0	0	0	2	4	0	6	5	8	8	0	0
.01	890715	3			B	4	7	0	2	1	1	10	29	67	395	150	52	39	21	36	33	0
.02	890715	4			A	38	54	4	18	3	8	88	248	446	2709	972	91	80	89	118	86	0
03	890715	4			B	18	26	0	7	3	5	44	153	259	1307	452	82	71	84	83	68	0
04	890715	5			A	9	9	1	2	3	2	11	33	51	482	134	54	52	67	62	74	57
05	890715	5			B	8	5	1	1	2	3	7	11	35	179	31	70	57	39	51	39	25
06	890715	6			A	1	1	1	0	0	0	1	3	7	38	9	9	8	16	12	11	0
07	890715	6			B	1	0	0	0	0	0	0	1	4	18	0	7	7	10	7	0	0

Nap[illegible] Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
I.D. = Sample Number

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Site = Site Name

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Sfx = Suffix
S = Subscript

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit
Ld = Percent Load
UG per L = Parts per Billion

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories.
It does not provide absolute identification of components.

Analyst: David A. Stobel

Land Treatment Group
Forest Products Laboratory
Miss. State University

Time: 14:54:04
Date: 08/04/89

PAH Analysis Results in ug per g

I.D.	Site	Suffix	Day	Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
108	890715	RECOV	—	—	—	42.4	43.6	48.1	46.7	50.3	45.9	51.1	56.3	61.6	63.1	66.4	67.4	68.1	106.2	108.3	86.6	41.4
109	890715	RECLEV	—	—	—	50.1	53.4	53.5	50.2	52.1	46.1	48.5	51.1	50.3	50.2	53.0	51.4	50.2	50.1	50.7	49.9	50.2
110	890715	SOILBLK	—	—	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
111	890715	SOLVBLK	—	—	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112	890715	GWW	—	—	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
113	890715	MDL	—	—	—	0.4	0.3	0.4	0.3	0.4	0.3	0.5	0.4	0.4	0.5	0.7	0.5	0.6	1.2	1.4	6.7	15.8

Key:

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
I.D. = Sample Number
G = Gram

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Site = Site Name
L = Liter

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
ug = microgram
mg = milligram
S = Subscript

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
mg per L = Parts per Million
ug per L = Parts per Billion
ug per G = Parts per Million
Ld = Percent Load
MDL = Method Detection Limit

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories. It does not provide absolute identification of components.

Analyst: David A. Stokel

and Treatment Group
orest Products Laboratory
iss. State Univerisity

Date: 08/04/89
Time: 13:26:08

Group and Total PAH Results in ug per g

.D.#	Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
096	890715	1	—	—	A	43.4	1880.1	356.3	55.0	2334.8
097	890715	1	—	—	B	5.5	404.4	309.1	39.7	758.7
098	890715	2	—	—	A	16.5	565.2	104.4	50.4	736.5
099	890715	2	—	—	B	90.0	3055.2	139.4	0.0	3284.5
100	890715	3	—	—	A	0.0	5.8	27.0	0.0	32.8
101	890715	3	—	—	B	12.8	653.9	148.1	32.6	847.5
102	890715	4	—	—	A	113.6	4474.1	377.7	85.6	5051.1
103	890715	4	—	—	B	50.3	2221.8	320.1	67.6	2659.8
104	890715	5	—	—	A	21.0	716.7	235.8	130.7	1104.2
105	890715	5	—	—	B	15.9	267.5	216.1	63.9	563.4
106	890715	6	—	—	A	3.9	57.2	45.1	10.6	116.8
107	890715	6	—	—	B	1.0	23.0	31.5	0.0	55.4

/:

:yclics:	Tricyclics:	Tetracyclics:	Pentacyclics:
›hthalene	Acenaphthylene	Fluoranthene	Benzo-a-pyrene
lethylnaphthalene	Acenaphthene	Pyrene	Benzo-ghi-perylene
lethylnaphthalene	Dibenzofuran	1,2-Benzanthracene	
›henyl	Fluorene	Chrysene	
	Phenanthrene		
	Anthracene		
	Carbazole		

Land Treatment Group
Forest Products Laboratory
Miss. State University

Date: 07/28/89
Time: 12:11:37

Analysis Results in ug per g

SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP	I.D.#
890715	1	----	----	A	0.	9096
890715	1	----	----	B	0.	9097
890715	2	----	----	A	0.	9098
890715	2	----	----	B	0.	9099
890715	3	----	----	A	0.	9100
890715	3	----	----	B	1.73	9101
890715	4	----	----	A	4.49	9102
890715	4	----	----	B	3.25	9103
890715	5	----	----	A	16.8	9104
890715	5	----	----	B	19.2	9105
890715	6	----	----	A	2.03	9106
890715	6	----	----	B	1.94	9107
890715	RECOV	----	----	----	12.7	9108
890715	RECLEV	----	----	----	18.	9109
890715	SOILBLK	----	----	----	0.	9110
890715	SOLVBLK	----	----	----	0.	9111
890715	GWW	----	----	----	0.	9112
890715	MDL	----	----		1.07	9113

Key: GWW = Glassware Wash
MDL = Method Detection Limit

Note: Values of 0.0 indicate None Detected above the specified Method Detection Limit.

Analyst: Mary L Harrigan
verified: David A. Stoutel

Land Treatment Group
Forest Products Laboratory
Miss[illegible]ate University

Time: 10:33:53
Date: 08/03/89

PAH Analysis Results in ug per G

I.D.	Site	Suffix	Day Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
200	890724	1	-------	A	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0
201	890724	1	-------	B	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0	0
202	890724	2	-------	A	0	0	0	0	0	0	0	0	0	3	0	0	1	0	0	0	0
203	890724	2	-------	B	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
204	890724	RECOV	-------	--	43	43	49	46	48	44	49	55	59	60	62	66	65	102	112	50	102
205	890724	RECLEV	-------	--	50	53	54	50	52	46	48	51	50	50	53	51	50	50	51	50	50
206	890724	SOILBLK	-------	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
207	890724	SOLVBLK	-------	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
208	890724	GWW	-------	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
209	890724	MDL	-------	--	0	0	0	0	0	0	0	0	0	1	1	1	1.	1	2	6	16

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
I.D. = Sample Number

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Site = Site Name

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Sfx = Suffix
S = Subscript

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit
Ld = Percent Load
UG per L = Parts per Billion

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories. It does not provide absolute identification of components.

Analyst: David A. Stahl

Land Treatment Group
Forest Products Laboratory
Miss. State Univerisity

Date: 08/03/89
Time: 10:35:03

Group and Total PAH Results in ug per G

I.D.#	Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
9200	890724	1	——	——	A	0.0	2.4	1.6	0.0	4.0
9201	890724	1	——	——	B	0.0	1.6	1.4	0.0	3.0
9202	890724	2	——	——	A	0.0	2.8	0.9	0.0	3.7
9203	890724	2	——	——	B	0.0	2.4	0.0	0.0	2.4

Key:

Bicyclics:	Tricyclics:	Tetracyclics:	Pentacyclics:
Naphthalene	Acenaphthylene	Fluoranthene	Benzo-a-pyrene
2-Methylnaphthalene	Acenaphthene	Pyrene	Benzo-ghi-perylene
1-Methylnaphthalene	Dibenzofuran	1,2-Benzanthracene	
Biphenyl	Fluorene	Chrysene	
	Phenanthrene		
	Anthracene		
	Carbazole		

Land Treatment Group
Forest Products Laboratory
Miss. State University

Date: 08/07/89
Time: 13:41:14

PCP Analysis Results in ug per G

SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP	I.D.#
890724	1	----	----	A	0.	9200
890724	1	----	----	B	0.	9201
890724	2	----	----	A	0.	9202
890724	2	----	----	B	0.	9203
890724	RECOV	----	----	----	14.1	9204
890724	RECLEV	----	----	----	18.	9205
890724	SOILBLK	----	----	----	0.	9206
890724	SOLVBLK	----	----	----	0.	9207
890724	GWW	----	----	----	0.	9208
890724	MDL	----	----	----	1.08	9209

Key: GWW = Glassware Wash
MDL = Method Detection Limit

Note: Values of 0.0 indicate None Detected above the specified Method Detection Limit.

Analyst: Mary L Hampiga

Verified: David A. Stuart

MDB
SBW
EH

MISSISSIPPI FOREST PRODUCTS LABORATORY

Telex 785045
Fax (601) 325-8126

P.O. Drawer FP
Mississippi State, MS 39762-5724
Phone (601) 325-2116

October 13, 1989

RECEIVED
OCT 18 1989
ENVIRONMENTAL AFFAIRS

Mr. Chuck Davis
Southern Wood Piedmont
P. O. Box 5447
Spartanburg, SC 29304

Dear Chuck:

Please find enclosed the information on soil samples from your Wilmington units. The sample designations are:

890922 (1-3) = LF#1, Log 8122 (Samples 203, 204, 205)
890922 (4-6) = LF#2, Log 8123 (Samples 206, 207, 208)
890922-7 = Creo/soil composite from LF#1&2

In comparison with 890715 (1-6), PAH's are down significantly for all the levels of both units, especially for 12-24" levels.

PCP: PCP levels have gone up or have remained unchanged for all the levels except 12-24" of LF#1.

Nutrient: C/N ratio for both units are in good range. PH levels for both units are also in excellent shape.

Bacteria counts: Bacteria population are slightly down for both units but the fungal population of LF#2 have increased significantly.

We will be glad to answer any questions that you may have on these data.

Sincerely,

Hamid Borazjani
Research Scientist
(601)325-3106

HB/dg

enclosure

Listed below are chloride ion concentration, pH, C/N ratio, and total organic carbon, nitrogen and phosphorus results from the Wilmington soil samples.

MFPL#	Site ID	Depth	C(ug/g)	N(ug/g)	P(ug/g)	C/N	Cl(ug/g)	pH
890922-1	LF#1 Sample #203	0-3"	34678	1372.9	713.5	25.26	20.1	7.56
890922-4	LF#2 Sample #206	0-3"	27457.6	933.6	521.2	29.41	13.7	7.53
890922-7	LF#1&2	Creo/soil	46165.2	908.3	149.4	50.82	32.30	6.90

dg

Land Farming Group
Forest Products Laboratory
Miss. State University

Time: 10:44:37
Date: 10/09/89

Micro. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS	AVG. NA COUNTS
890922	1	----	----	----	10000.	1000000.	60000.	1500000.	1300000.	1300000.	----	1700000.
890922	4	----	----	----	10000.	2000000.	40000.	1500000.	1300000.	1200000.	----	1700000.
890922	7	----	----	----	6700.	300000.	1000.	300000.	70000.	80000.	----	500000.

Key:

ACA = Actinomycete Agar (Actinomycetes)
PDA = Potato Dextrose Agar (Bacteria)
PDAA = Potato Dextrose + Antibiotics (Fungi)
NA = Nutrient Agar (Bacteria)
C = NA + 20ppm Creosote (Creosote acclimated Bacteria)
P = NA + 5ppm Pentachlorophenol (PCP acclimated Bacteria)
CP = NA + 20ppm Cresote + 5ppm PCP (Creosote & PCP acclimated Bacteria)
SEA = Soil Extract Agar (Bacteria)

Analyst: Linda Maddox

Verified: Bonnie Flanc

ind Treatment Group
rest Products Laboratory
ss. State University

Time: 14:32:15
Date: 10/09/89

PAH Analysis Results in ug per G

D.	Site	Suffix	Day Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
32	890922	1A	-------	--	0	0	0	0	0	0	12	33	52	190	51	65	58	100	44	68	0
33	890922	1B	-------	--	8	6	0	0	0	0	6	15	33	130	43	78	70	91	53	28	26
34	890922	2A	-------	--	9	12	0	3	0	0	13	40	74	327	121	48	40	49	33	18	15
35	890922	2B	-------	--	3	0	0	0	0	0	4	9	20	76	20	46	37	45	28	18	0
36	890922	3A	-------	--	0	0	0	0	0	0	0	0	3	6	0	7	7	0	0	0	0
37	890922	3B	-------	--	0	0	0	0	0	0	0	0	4	6	0	8	5	0	0	0	0
38	890922	4A	-------	--	13	14	0	0	0	0	22	43	87	399	130	103	87	90	56	38	0
39	890922	4B	-------	--	9	19	0	0	0	0	25	91	135	706	251	188	183	129	82	54	0
40	890922	5A	-------	--	6	3	0	0	4	0	5	11	29	106	35	58	51	60	37	29	16
41	890922	5B	-------	--	7	7	0	0	0	2	10	24	45	174	61	50	47	55	35	28	17

Naph = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
I.D. = Sample Number

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Site = Site Name

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Sfx = Suffix
S = Subscript

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit
Ld = Percent Load
UG per L = Parts per Billion

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories.
It does not provide absolute identification of components.

Analyst: David A. Stuebel

j Treatment Group
est Products Laboratory
s. State University

Time: 14:33:25
Date: 10/09/89

PAH Analysis Results in ug per G

Site	Suffix	Day	Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
890922	6A	-------	--		0	0	0	0	0	0	0	2	10	6	0	12	9	8	6	0	0
890922	6B	-------	--		0	0	0	0	0	0	0	0	7	8	0	16	10	8	5	0	0
890922	7A	-------	--		185	296	158	54	19	772	727	1315	2576	2656	825	1570	857	304	276	82	24
890922	7B	-------	--		226	285	153	49	20	724	668	1172	1696	3044	874	1738	1237	337	318	89	24
890922	RECOVERY	-------	--		43	47	51	49	53	47	53	59	62	61	71	72	71	93	89	74	86
890922	RECLEV	-------	--		51	67	51	52	52	51	53	53	51	51	51	51	52	51	51	52	51
890922	SOILBLK	-------	--		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
890922	SOLVBLK	-------	--		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
890922	GWW	-------	--		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
890922	MDL	-------	--		1	1	1	1	1	1	1	1	1	1	2	1	1	2	2	3	6

ph. = Naphthalene
Met = 2-Methylnaphthalene
Met = 1-Methylnaphthalene
ph. = Biphenyl
thy = Acenaphthylene
the = Acenaphthene
.D. = Sample Number

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Site = Site Name

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Sfx = Suffix
S = Subscript

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit
Ld = Percent Load
UG per L = Parts per Billion

te: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories.
It does not provide absolute identification of components.

Analyst: David A. Stabel

.and Treatment Group
orest Products Laboratory
liss. State Univerisity

Date: 10/09/89
Time: 14:35:04

Group and Total PAH Results in ug per G

.D.#	Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
9732	890922	1A	----	----	--	0.0	338.2	266.3	68.1	672.6
9733	890922	1B	----	----	--	13.1	227.0	291.5	54.4	586.1
9734	890922	2A	----	----	--	23.6	575.2	170.4	32.3	801.4
9735	890922	2B	----	----	--	2.9	128.6	156.3	17.5	305.3
9736	890922	3A	----	----	--	0.0	9.3	14.6	0.0	23.8
9737	890922	3B	----	----	--	0.0	9.7	13.7	0.0	23.4
9738	890922	4A	----	----	--	27.8	680.8	336.6	37.7	1082.9
9739	890922	4B	----	----	--	28.2	1207.0	581.3	53.9	1870.5
9740	890922	5A	----	----	--	9.7	189.4	206.7	45.8	451.6
9741	890922	5B	----	----	--	14.5	317.6	188.1	44.8	565.1
9742	890922	6A	----	----	--	0.0	18.3	35.6	0.0	53.9
974[illegible]	[illegible]0922	6B	----	----	--	0.0	15.2	39.1	0.0	54.3
9744	890922	7A	----	----	--	692.2	8890.7	3006.0	106.7	12695.6
9745	890922	7B	----	----	--	712.8	8197.8	3630.2	112.5	12653.4

ey:

icyclics:

aphthalene
-Methylnaphthalene
-Methylnaphthalene
iphenyl

Tricyclics:

Acenaphthylene
Acenaphthene
Dibenzofuran
Fluorene
Phenanthrene
Anthracene
Carbazole

Tetracyclics:

Fluoranthene
Pyrene
1,2-Benzanthracene
Chrysene

Pentacyclics:

Benzo-a-pyrene
Benzo-ghi-perylene

Land Treatment Group
Forest Products Laboratory
Miss. State University

Date: 10/09/89
Time: 9:01:36

PCP Analysis Results in ug per G

SAMPLID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP	I.D.#
890922	1A	----	----	----	2.6	9732
890922	1B	----	----	----	3.15	9733
890922	2A	----	----	----	3.51	9734
890922	2B	----	----	----	3.19	9735
890922	3A	----	----	----	0.77	9736
890922	3B	----	----	----	0.	9737
890922	4A	----	----	----	4.07	9738
890922	4B	----	----	----	4.42	9739
890922	5A	----	----	----	16.3	9740
890922	5B	----	----	----	12.9	9741
890922	6A	----	----	----	1.79	9742
890922	6B	----	----	----	1.9	9743
890922	7A	----	----	----	0.	9744
890922	7B	----	----	----	0.	9745
890922	RECOVERY	----	----	----	16.	9746
890922	RECLEV	----	----	----	18.	9747
890922	SOILBLK	----	----	----	0.	9748
890922	SOLVBLK	----	----	----	0.	9749
890922	GWW	----	----	----	0.	9750
890922	MDL	----	----	----	0.417	9751

Key: GWW = Glassware Wash
MDL = Method Detection Limit

Note: Values of 0.0 indicate None Detected above the specified Method Detection Limit.

Analyst: Mary F. Harrigan

Verified: David A. Stobel

MDP
TMD
SBW
EH

MISSISSIPPI FOREST PRODUCTS LABORATORY

Telex 785045
Fax (601) 325-8126

P.O. Drawer FP
Mississippi State, MS 39762-5724
Phone (601) 325-2116

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DEC 11 1989
ENVIRONMENTAL AFFAIRS

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DEC 1989
ENVIRONMENTAL AFFAIRS

December 5, 1989

Mr. Chuck Davis
Southern Wood Piedmont
P. O. Box 5447
Spartanburg, SC 29304

Dear Chuck:

Please find enclosed the information on soil samples from your Wilmington units. The sample designations are:

891111 (1-3) = LF#1, Log 8392 (Samples 211, 212, 213)
891111 (3-6) = LF#2, Log 8393 (Samples 214, 215, 216)
891111 (7) = Creo/soil Composite LF#1 and LF#2
891113 (1-3) = LF#1, Log 8395 (Samples 217, 218, 219)
891113 (3-6) = LF#2, Log 8396 (Samples 220, 221, 222)

In comparison with 891111 (1-7), PAH's are up significantly for all the levels of both units.

PCP: PCP concentrations are down for all the levels of LF#1 and 0-3" of LF#2, but have gone up for (9-12") and (21-24") of LF#2.

Nutrients: Organic nitrogen content of LF#1 has decreased sharply. Addition of any types of fertilizer would improve the situation significantly. PH levels for both units are very good.

Bacteria Counts: Bacteria, fungi, and actinomycete population have increased sharply for both units.

We will be glad to answer any questions that you may have on these data.

Sincerely,

Hamid Borazjani
Research Scientist
(601) 325-3106

HB/dg

RECEIVED

DEC 1 1989

ENVIRONMENTAL AFFAIRS

Land Farming Group
Forest Products Laboratory
[illegible]. State University

Time: 17:34:25
Date: 11/20/89

Micro. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS	AVG. NA COUNTS
891111	1	----	----	----	50000.	2100000.	80000.	2400000.	1700000.	1000000.	----	2400000.
891111	4	----	----	----	25000.	2100000.	77000.	1800000.	1700000.	1500000.	----	2300000.
891111	7	----	----	----	6700.	500000.	17000.	500000.	330000.	300000.	----	600000.

Key:

ACA = Actinomycete Agar (Actinomycetes)
PDA = Potato Dextrose Agar (Bacteria)
PDAA = Potato Dextrose + Antibiotics (Fungi)
NA = Nutrient Agar (Bacteria)
C = NA + 20ppm Creosote (Creosote acclimated Bacteria)
P = NA + 5ppm Pentachlorophenol (PCP acclimated Bacteria)
CP = NA + 20ppm Cresote + 5ppm PCP (Creosote & PCP acclimated Bacteria)
SEA = Soil Extract Agar (Bacteria)

Analyst: Linda Waddell

Verified: Bonny Alcorn

Listed below are chloride ion concentration, pH, C/N ratio, and total organic carbon, nitrogen and phosphorus results from the Wilmington, North Carolina soil samples.

MFPL #	Site ID	Depth	C(ug/g)	N(ug/g)	P(ug/g)	C/N	Cl(ug/g)	pH
891111-1	LF#1	0-3"	29428.8	549	556.2	53.60	6.94	6.81
891111-4	LF#2	0-3"	25488.4	986.1	476.1	25.85	6.52	6.38
891111-7	LF#1&2	creo/soil	34350.0	1003	140.9	34.25	22.7	6.55
891113-1	LF#1	0-3"	21550.3	677	484	31.83	16.5	6.50
891113-4	LF#4	0-3"	33365.2	856.2	696.5	38.97	14.8	6.72

dg

Land Treatment Group
[redacted] Products Laboratory
[redacted] State University

Time: 15:17:50
Date: 11/28/89

PAH Analysis Results in ug per G

I.D.	Site	Suffix	Day	Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
9988	891111	1A	------	--		0	0	0	0	0	0	0	0	26	20	0	86	70	53	31	0	0
9989	891111	1B	------	--		0	0	0	0	0	0	0	29	39	386	76	68	59	54	30	0	0
9990	891111	2A	------	--		0	0	0	0	0	0	0	0	14	24	0	54	54	57	41	27	0
9991	891111	2B	------	--		0	0	0	0	0	0	0	0	14	10	0	77	99	91	64	39	10
9992	891111	3A	------	--		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9993	891111	3B	------	--		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9994	891111	4A	------	--		21	22	0	0	0	0	41	126	211	1175	427	327	261	142	115	53	44
9995	891111	4B	------	--		0	0	0	0	0	0	0	0	14	25	0	47	54	68	33	23	25
9[redacted]	[redacted]91111	5A	------	--		0	0	0	0	0	0	0	0	11	7	0	36	34	29	20	16	0
9997	891111	5B	------	--		0	0	0	0	0	0	0	0	16	14	0	41	37	25	17	14	0
9998	891111	6A	------	--		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9999	891111	6B	------	--		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10000	891111	7A	------	--		188	286	188	42	22	987	765	1390	3437	2021	559	2312	1310	437	384	100	0
10001	891111	7B	------	--		184	297	171	42	21	913	739	1492	3758	3555	1059	2206	1200	366	321	83	0

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
I.D. = Sample Number

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Site = Site Name

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Sfx = Suffix
S = Subscript

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit
Ld = Percent Load
UG per L = Parts per Billion

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories.
It does not provide absolute identification of components.

Analyst: David A. Stuebel

Land Treatment Group
[redacted] Products Laboratory
Miss. State University

Time: 15:18:30
Date: 11/28/89

PAH Analysis Results in ug per G

I.D.	Site	Suffix	Day	Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
10002	891111	RECOVERY	------	--		44	46	51	45	50	47	48	57	63	59	58	70	70	43	68	33	17
10003	891111	RECLEVEL	------	--		50	53	54	50	52	46	48	51	50	50	53	51	50	50	51	50	50
10004	891111	SOILBLK	------	--		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10005	891111	SOLVBLK	------	--		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10006	891111	GWW	------	--		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10007	891111	MDL	------	--		2	2	2	2	2	2	3	2	2	3	6	3	3	4	8	12	17

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
[redacted] = Biphenyl
[redacted] = Acenaphthylene
Acthe = Acenaphthene
I.D. = Sample Number

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Site = Site Name

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Sfx = Suffix
S = Subscript

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit
Ld = Percent Load
UG per L = Parts per Billion

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories.
It does not provide absolute identification of components.

Analyst: David A. Stuart

Land Treatment Group
Forest Products Laboratory
. State Univerisity

Date: 11/28/89
Time: 15:28:19

Group and Total PAH Results in ug per G

I.D./	Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
9988	891111	1A	---	---	--	0.0	45.5	239.8	0.0	285.3
9989	891111	1B	---	---	--	0.0	530.2	211.9	0.0	742.0
9990	891111	2A	---	---	--	0.0	37.8	206.6	27.1	271.5
9991	891111	2B	---	---	--	0.0	23.9	331.6	48.8	404.3
9992	891111	3A	---	---	--	0.0	0.0	0.0	0.0	0.0
9993	891111	3B	---	---	--	0.0	0.0	0.0	0.0	0.0
9994	891111	4A	---	---	--	43.0	1980.5	845.0	97.4	2965.9
9995	891111	4B	---	---	--	0.0	39.0	202.3	47.2	288.5
9996	891111	5A	---	---	--	0.0	18.6	118.0	16.1	152.6
9997	891111	5B	---	---	--	0.0	29.5	120.1	13.7	163.3
9998	891111	6A	---	---	--	0.0	0.0	0.0	0.0	0.0
9999	891111	6B	---	---	--	0.0	0.0	0.0	0.0	0.0
10000	891111	7A	---	---	--	703.2	9181.4	4442.4	100.5	14427.4
10001	891111	7B	---	---	--	694.5	11536.2	4092.2	83.1	16406.0

Key:

Bicyclics:	Tricyclics:	Tetracyclics:	Pentacyclics:
Naphthalene	Acenaphthylene	Fluoranthene	Benzo-a-pyrene
2-Methylnaphthalene	Acenaphthene	Pyrene	Benzo-ghi-perylene
1-Methylnaphthalene	Dibenzofuran	1,2-Benzanthracene	
Biphenyl	Fluorene	Chrysene	
	Phenanthrene		
	Anthracene		
	Carbazole		

Land Treatment Group
Forest Products Laboratory
Miss. State University

Date: 11/29/89
Time: 11:50:22

PCP Analysis Results in ug per G

SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP	I.D.#
891111	1A	----	----	----	6.64	9988
891111	1B	----	----	----	4.99	9989
891111	2A	----	----	----	8.3	9990
891111	2B	----	----	----	10.8	9991
891111	3A	----	----	----	1.08	9992
891111	3B	----	----	----	1.18	9993
891111	4A	----	----	----	7.63	9994
891111	4B	----	----	----	7.26	9995
891111	5A	----	----	----	14.9	9996
891111	5B	----	----	----	16.7	9997
891111	6A	----	----	----	2.17	9998
891111	6B	----	----	----	1.48	9999
891111	7A	----	----	----	2.98	10000
891111	7B	----	----	----	4.39	10001
891111	RECOVERY	----	----	----	16.9	10002
891111	RECLEVEL	----	----	----	18.	10003
891111	SOILBLK	----	----	----	0.	10004
891111	SOLVBLK	----	----	----	0.	10005
891111	GWW	----	----	----	0.	10006
891111	MDL	----	----	----	0.567	10007

Key: GWW = Glassware Wash
MDL = Method Detection Limit

Note: Values of 0.0 indicate None Detected above the specified Method Detection Limit.

Analyst: Mary F. Harrington

verified: David A. Stahl

Land Farming Group
Forest Products Laboratory
[illegible]s. State University

Time: 11:43:21
Date: 11/21/89

Micro. Analyses Results for Site or Site-Batch Samples

SITEID	SUFFIX	DAY	LOAD	SUB.	AVG. ACA COUNTS	AVG. PDA COUNTS	AVG. PDAA COUNTS	AVG. C COUNTS	AVG. P COUNTS	AVG. C+P COUNTS	AVG. SEA COUNTS	AVG. NA COUNTS
891113	1	----	----	----	60000.	2900000.	90000.	2400000.	2600000.	2400000.	----	3100000.
891113	4	----	----	----	50000.	2000000.	70000.	1700000.	2300000.	2100000.	----	2700000.

Key:

ACA = Actinomycete Agar (Actinomycetes)
PDA = Potato Dextrose Agar (Bacteria)
PDAA = Potato Dextrose + Antibiotics (Fungi)
NA = Nutrient Agar (Bacteria)
C = NA + 20ppm Creosote (Creosote acclimated Bacteria)
P = NA + 5ppm Pentachlorophenol (PCP acclimated Bacteria)
CP = NA + 20ppm Cresote + 5ppm PCP (Creosote & PCP acclimated Bacteria)
SEA = Soil Extract Agar (Bacteria)

Analyst: Linda Maddux

Verified: Bozan Alvi

Listed below are chloride ion concentration, pH, C/N ratio, and total organic carbon, nitrogen and phosphorus results from the Wilmington, North Carolina soil samples.

MFPL #	Site ID	Depth	C(ug/g)	N(ug/g)	P(ug/g)	C/N	Cl(ug/g)	pH
891111-1	LF#1	0-3"	29428.8	549	556.2	53.60	6.94	6.81
891111-4	LF#2	0-3"	25488.4	986.1	476.1	25.85	6.52	6.38
891111-7	LF#1&2	creo/soil	34350.0	1003	140.9	34.25	22.7	6.55
891113-1	LF#1	0-3"	21550.3	677	484	31.83	16.5	6.50
891113-4	LF#4	0-3"	33365.2	856.2	696.5	38.97	14.8	6.72

dg

Land Treatment Group
[illegible] Products Laboratory
[illegible] State University

Time: 17:17:30
Date: 11/28/89

PAH Analysis Results in ug per G

I.D.	Site	Suffix	Day	Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
10008	891113	1A	------	--		0	0	0	0	0	41	19	66	198	161	34	287	200	99	65	35	0
10009	891113	1B	------	--		14	20	0	0	0	37	61	168	291	1504	528	254	185	94	70	32	0
10010	891113	2A	------	--		0	0	0	0	0	5	4	11	49	109	14	96	73	63	45	30	11
10011	891113	2B	------	--		0	0	0	0	0	0	0	11	44	69	15	63	49	44	23	21	12
10012	891113	3A	------	--		0	0	0	0	0	0	0	0	7	0	0	21	17	9	13	0	0
10013	891113	3B	------	--		0	0	0	0	0	0	0	0	5	0	0	34	31	13	14	0	0
10014	891113	4A	------	--		46	72	0	17	0	23	153	393	514	5810	2049	210	138	96	84	27	0
10015	891113	4B	------	--		11	21	0	0	0	22	74	118	201	1023	380	182	143	107	76	46	0
1[illegible]	[illegible]91113	5A	------	--		13	15	0	0	0	4	25	80	141	584	188	82	74	70	49	38	14
10017	891113	5B	------	--		33	59	9	21	0	4	147	518	868	3409	1206	79	61	64	51	36	0
10018	891113	6A	------	--		0	0	0	0	0	0	0	0	9	15	0	13	13	7	7	0	0
10019	891113	6B	------	--		0	0	0	0	0	0	0	0	0	0	0	14	12	6	0	0	0

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
I.D. = Sample Number

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Site = Site Name

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Sfx = Suffix
S = Subscript

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit
Ld = Percent Load
UG per L = Parts per Billion

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories.
It does not provide absolute identification of components.

Analyst: David A. Stuart

Land Treatment Group
[redacted] Products Laboratory
[redacted] State University

Time: 17:19:11
Date: 11/28/89

PAH Analysis Results in ug per G

I.D.	Site	Suffix	Day	Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
10020	891113	RECOVERY	----	--		42	45	50	47	49	46	51	59	63	62	70	80	85	59	71	45	40
10021	891113	RECLEVEL	----	--		50	53	54	50	52	46	48	51	50	50	53	51	50	50	51	50	50
10022	891113	SOILBLK	----	--		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10023	891113	SOLVBLK	----	--		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10024	891113	GWW	----	--		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10025	891113	MDL	----	--		1	1	1	1	1	1	2	1	1	1	3	2	2	2	4	5	11

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
[redacted] = Biphenyl
[redacted] = Acenaphthylene
Acthe = Acenaphthene
I.D. = Sample Number

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Site = Site Name

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Sfx = Suffix
S = Subscript

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit
Ld = Percent Load
UG per L = Parts per Billion

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories.
It does not provide absolute identification of components.

Analyst: David A. Stahl

Land Treatment Group
Forest Products Laboratory
[illegible]. State Univerisity

Date: 11/28/89
Time: 17:21:55

Group and Total PAH Results in ug per G

I.D./	Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
10008	891113	1A	----	----	--	0.0	518.7	651.2	35.3	1205.2
10009	891113	1B	----	----	--	33.7	2588.5	602.9	32.2	3257.4
10010	891113	2A	----	----	--	0.0	193.3	276.7	40.9	511.0
10011	891113	2B	----	----	--	0.0	138.8	178.7	32.9	350.4
10012	891113	3A	----	----	--	0.0	7.3	59.7	0.0	67.0
10013	891113	3B	----	----	--	0.0	4.9	91.5	0.0	96.4
10014	891113	4A	----	----	--	135.4	8941.3	528.4	27.1	9632.2
10015	891113	4B	----	----	--	32.0	1818.6	507.6	46.4	2404.6
10016	891113	5A	----	----	--	27.1	1021.6	275.3	52.1	1376.2
[illegible]	891113	5B	----	----	--	122.0	6150.8	254.6	36.1	6563.5
10018	891113	6A	----	----	--	0.0	23.7	39.2	0.0	62.9
10019	891113	6B	----	----	--	0.0	0.0	31.7	0.0	31.7

Key:

Bicyclics:
- Naphthalene
- 2-Methylnaphthalene
- 1-Methylnaphthalene
- Biphenyl

Tricyclics:
- Acenaphthylene
- Acenaphthene
- Dibenzofuran
- Fluorene
- Phenanthrene
- Anthracene
- Carbazole

Tetracyclics:
- Fluoranthene
- Pyrene
- 1,2-Benzanthracene
- Chrysene

Pentacyclics:
- Benzo-a-pyrene
- Benzo-ghi-perylene

Land Treatment Group
Forest Products Laboratory
Miss. State University

Date: 11/29/89
Time: 9:33:25

PCP Analysis Results in ug per G

SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP	I.D.#
891113	1A	----	----	----	2.72	10008
891113	1B	----	----	----	2.63	10009
891113	2A	----	----	----	1.98	10010
891113	2B	----	----	----	2.07	10011
891113	3A	----	----	----	1.27	10012
891113	3B	----	----	----	1.39	10013
891113	4A	----	----	----	6.18	10014
891113	4B	----	----	----	5.89	10015
891113	5A	----	----	----	23.3	10016
891113	5B	----	----	----	23.2	10017
891113	6A	----	----	----	7.75	10018
891113	6B	----	----	----	8.37	10019
891113	RECOVERY	----	----	----	16.4	10020
891113	RECLEVEL	----	----	----	18.	10021
891113	SOILBLK	----	----	----	0.	10022
891113	SOLVBLK	----	----	----	0.	10023
891113	GWW	----	----	----	0.	10024
891113	MDL	----	----	----	0.333	10025

Key: GWW = Glassware Wash
MDL = Method Detection Limit

Note: Values of 0.0 indicate None Detected above the specified Method Detection Limit.

Analyst: Mary S Hannigan

verified: David A. Stuebl

Land Treatment Group
Forest Products Laboratory
Miss. State University

Date: 02/03/89
Time: 14:07:44

PCP Analysis Results in UG per L

SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP	I.D.#
WILCORE	1,6	0	----	----	0.	7668
WILCORE	2X,5X	0	----	----	349.	7669
WILCORE	3X,8X	0	----	----	0.	7670
WILCORE	4,10	0	----	----	0.	7671
WILCORE	7,11	0	----	----	0.	7672
WILCORE	9X,12X	0	----	----	0.	7673
WILCORE	1,6	30	----	----	0.	7674
WILCORE	2X,5X	30	----	----	0.	7675
WILCORE	3X,8X	30	----	----	0.	7676
WILCORE	4,10	30	----	----	0.	7677
WILCORE	7,11	30	----	----	0.	7678
WILCORE	9X,12X	30	----	----	0.	7679
WILCORE	REC	----	----	----	55.3	7680
WILCORE	RECLEV	----	----	----	104.	7681
WILCORE	BLANK	----	----	----	0.	7682
WILCORE	MDL	----	----	----	10.4	7683
WILCORE	GWW	----	----	----	0.	7684

Key: GWW = Glassware Wash
MDL = Method Detection Limit

Note: Values of 0.0 indicate None Detected above the specified Method Detection Limit.

Analyst: Brenda Ferguson

Verified: David A. Stuart

Land Treatment Group
Forest Products Laboratory
Miss. State University

Time: 10:05:32
Date: 02/16/89

PAH Analysis Results in UG per L

I.D.	Site	Suffix	Day	Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
7668	WILCORE	1,6	0.	—	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7669	WILCORE	2X,5X	0.	—	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7670	WILCORE	3X,8X	0.	—	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7671	WILCORE	4,10	0.	—	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7672	WILCORE	7,11	0.	—	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7673	WILCORE	9X,12X	0.	—	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7674	WILCORE	1,6	30.	—	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7675	WILCORE	2X,5X	30.	—	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7676	WILCORE	3X,8X	30.	—	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7677	WILCORE	4,10	30.	—	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
[illegible]	WILCORE	7,11	30.	—	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7679	WILCORE	9X,12X	30.	—	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7680	WILCORE	REC	-------		—	97	114	91	101	99	95	106	105	63	83	110	100	115	90	97	129	223
7681	WILCORE	RECLEV	-------		—	121	138	109	117	109	109	122	122	75	104	130	107	120	106	92	79	79
7682	WILCORE	BLANK	-------		—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7683	WILCORE	MDL	-------		—	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
7684	WILCORE	GWW	-------		—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Naph. = Naphthalene	Diben = Dibenzofuran	Pyren = Pyrene	Soilbl = Soil Blank
2-Met = 2-Methylnaphthalene	Flore = Fluorene	12-bz = 1,2 Benzanthracene	Reclev = Recovery Levels
1-Met = 1-Methylnaphthalene	Phen. = Phenanthrene	Chrys = Chrysene	Rec = Recovery
Biph. = Biphenyl	Anthr = Anthracene	Ben-a = Benzo-a-pyrene	G = Gram
[illegible]thy = Acenaphthylene	Carba = Carbazole	Bghi = Benzo-ghi-perylene	UG per G = Parts per Million
[illegible]cthe = Acenaphthene	Fluor = Fluoranthene	UG = microgram	MDL = Method Detection Limit
I.D. = Sample Number	Site = Site Name	Sfx = Suffix	Ld = Percent Load
		S = Subscript	UG per L = Parts per Billion

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories.
It does not provide absolute identification of components.

Analyst: David A. Stuart

Land Treatment Group
Forest Products Laboratory
Miss. State Univerisity

Date: 02/16/89
Time: 10:53:07

Group and Total PAH Results in UG per L

I.D.#	Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
7668	WILCORE	1,6	0.0	—	—	0.0	0.0	0.0	0.0	0.0
7669	WILCORE	2X,5X	0.0	—	—	0.0	0.0	0.0	0.0	0.0
7670	WILCORE	3X,8X	0.0	—	—	0.0	0.0	0.0	0.0	0.0
7671	WILCORE	4,10	0.0	—	—	0.0	0.0	0.0	0.0	0.0
7672	WILCORE	7,11	0.0	—	--	0.0	0.0	0.0	0.0	0.0
7673	WILCORE	9X,12X	0.0	—	—	0.0	0.0	0.0	0.0	0.0
7674	WILCORE	1,6	30.0	—	—	0.0	0.0	0.0	0.0	0.0
7675	WILCORE	2X,5X	30.0	—	—	0.0	0.0	0.0	0.0	0.0
7676	WILCORE	3X,8X	30.0	—	—	0.0	0.0	0.0	0.0	0.0
7677	WILCORE	4,10	30.0	—	—	0.0	0.0	0.0	0.0	0.0
7678	WILCORE	7,11	30.0	—	--	0.0	0.0	0.0	0.0	0.0
	WILCORE	9X,12X	30.0	—	—	0.0	0.0	0.0	0.0	0.0

Key:

Bicyclics:
Naphthalene
2-Methylnaphthalene
1-Methylnaphthalene
Biphenyl

Tricyclics:
Acenaphthylene
Acenaphthene
Dibenzofuran
Fluorene
Phenanthrene
Anthracene
Carbazole

Tetracyclics:
Fluoranthene
Pyrene
1,2-Benzanthracene
Chrysene

Pentacyclics:
Benzo-a-pyrene
Benzo-ghi-perylene

Land Farming Group
Forest Products Laboratory
Miss. State University

Date: 01/27/89
Time: 11:38:23

Water Sample Volume Data

Site I.D.	Suffix	Day	Load	Sub.	Volume (L)	Percent Correction	Final Volume(L)	I.D.#
WILCORE	1,6	0.	----	----	0.80	0.00	0.80	7668
WILCORE	2X,5X	0.	----	----	1.00	0.00	1.00	7669
WILCORE	3X,8X	0.	----	----	0.95	0.00	0.95	7670
WILCORE	4,10	0.	----	----	0.60	0.00	0.60	7671
WILCORE	7,11	0.	----	----	1.00	0.00	1.00	7672
WILCORE	9X,12X	0.	----	----	1.00	0.00	1.00	7673
WILCORE	1,6	30.	----	----	0.90	0.00	0.90	7674
WILCORE	2X,5X	30.	----	----	0.90	0.00	0.90	7675
WILCORE	3X,8X	30.	----	----	0.90	0.00	0.90	7676
WILCORE	4,10	30.	----	----	0.72	0.00	0.72	7677
WILCORE	7,11	30.	----	----	0.90	0.00	0.90	7678
WILCORE	9X,12X	30.	----	----	0.90	0.00	0.90	7679
WILCORE	REC	----	----	----	0.96	0.00	0.96	7680
WILCORE	RECLEV	----	----	----	0.96	0.00	0.96	7681
WILCORE	BLANK	----	----	----	0.96	0.00	0.96	7682
WILCORE	MDL	----	----	----	0.96	0.00	0.96	7683
WILCORE	GWW	----	----	----	0.75	0.00	0.75	7684

Note: 1) GWW and SOLVBL volumes are "Normalized" to One to yield total micrograms in the final report.
2) MDL is given a volume approximate to actual sample volumes.

1.26.88

Water Sample Preparation History

R:Base I.D.# or I.P.#	Sample Name	Water Sample Volume	Added Water	Condensed Extract Volume	Extract Dilution (if any)	ISTD Volume	Surr. Volume	CP Dilution
Day 0								
1,6		800	100	3ml		1ml	1ml	
2X,5X		1,000	—	5ml	1ml:5ml	3ml	1	
3X,8X		950	—	3		1	1	
4,10		600	300	3		1	1	
7,11		1,000	—	3		1	1	
9X,12X		1,000	—	10ml		3ml	1	
Day 30								
1,6		900	—	3		1	1	
2X,5X		900	—	10ml		3ml	1	
3X,8X		900	—	3		1	1	
4,10		720	180	3		1	1	
7,11		900	—	3		1	1	
[illegible],12X		900	—	10ml		3ml	1	
Blank		960	—	3		1	1	
Recov.		960	—	3		1	1	
GWW		750ml of solvent		3		1	—	

Recovery Standard I.D. 880630-1 Volume added 1ml
PAH's 100 ppm
PCP 99.8 ppm

Procedure	Signature of analyst	Date	Internal Standard Identification
Surrogate addition	Fran Hendrix	1-25-88	
Extraction	FH	1-25-88	890117-2
K-D	FH	1-26-88	
Extract Dilution			
ISTD addition	FH	1-26-88	
CP Dilution			

Internal Standard Concentrations: DPM 150.76 TBP 150.80

Comments: Surrogate ID - 881206-1

1-23 88

SAMPLE WORK SHEET

	Initials	Date
Date 1-25-88	7H	1-25-88

FPUL Number(s) Day 0 and Day 30

Description & Source Cape water from Wilmington NC.

Where stored Cold Room 4 °C

Date weighed (balances Used)

Date extracted 1-25-88

Extraction procedure

Clean up step

Derivatization

Date analyzed 1-31-89 AA.

Instrument PE-3B, GC-FID, AA.

Means of verification Recovery, SRS, + contacts AA.

Total glassware rinse 0μ g AA

Recoveries (attached) ✓ yes _____ no AA

Spiked-reference material (attached) _____ yes ✓ no AA

Land Treatment Group
Analytical Specification Sheet

Sample Identification (I.D.): Wilmington Chrom

Sample Type: ✓ Soil
___ Water
___ Other (describe) ___ ___

Extraction: ✓ Soxhlet
✓ Continuous Liquid/Liquid
___ Other (describe) ___ ___

Clean-up: ✓ Sodium Sulfate Drying column
___ Silica Gel
___ Silica Gel / Basic Alumina
___ Acid / Base
___ Basic Alumina

GC Analysis: ✓ Pentachlorophenol ___ OCDD

✓ PAH's

✓ Naphthalene
✓ 2-Methylnaphthalene
✓ 1-Methylnaphthalene
✓ Biphenyl
✓ Acenaphthylene
✓ Acenapthene
✓ Dibenzofuran
✓ Fluorene
✓ Phenanthrene
✓ Anthracene
✓ Carbazole
✓ Fluoranthene
✓ Pyrene
✓ 1,2-Benzanthracene
✓ Chrysene
✓ Benzo-a-pyrene
✓ Benzo-ghi-perylene

___ PNA's

___ Phenol
___ p-Cresol
___ o,m-Cresol
___ 2,4-Dimethylphenol
___ 2,4-Dichlorophenol
___ Naphthalene
___ 4-Chloro-3-methyl phenol
___ 2,4,6-Trichlorophenol
___ Acenapthene
___ 2,4-Dinitrophenol
___ 2,3,4,6-Tetrachloro-phenol
___ Fluorene
___ Pentachlorophenol
___ Phenanthrene
___ Anthracene
___ Fluoranthene
___ Pyrene
___ Chrysene
___ Benzo(b)fluoranthene
___ Benzo(k)fluoranthene
___ Benzo(ghi)perylene

___ Other

___ 2,6-Dinitrotoluene
___ 2,4-Dinitrotoluene
___ 4,6-Dinitro-o-cresol
___ Dibenz-ah-anthracene
___ Indeno(123-cd)pyrene
___ ___
___ ___
___ ___
___ ___

Volatiles

___ Benzene
___ Toluene

Requested By: Hamid Rorazjani

Date: 1-25-88

Land Treatment Group
Forest Products Laboratory
Miss. State University

Date: 02/23/89
Time: 8:01:38

PCP Analysis Results in UG per L

SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP	I.D.#
CORES	WIL 1,6	60	----	----	0.	7763
CORES	WIL 2,5X	60	----	----	0.	7764
CORES	WIL 3,8X	60	----	----	0.	7765
CORES	WIL 4,10	60	----	----	0.	7766
CORES	WIL 7,11	60	----	----	0.	7767
CORES	WIL9,12X	60	----	----	0.	7768
CORES	ATL 1,11	60	----	----	0.	7769
CORES	ATL 2,4	60	----	----	0.	7770
CORES	ATL 3,9	60	----	----	0.	7771
CORES	ATL 5,8	60	----	----	0.	7772
CORES	ATL 6,12	60	----	----	0.	7773
CORES	ATL 7,10	60	----	----	0.	7774
CORES	BLANK	60	----	----	0.	7775
CORES	REC	60	----	----	55.	7776
CORES	RECLEV	60	----	----	104.	7777
CORES	MDL	60	----	----	10.4	7778
CORES	GWW	60	----	----	0.	7779

Key: GWW = Glassware Wash
MDL = Method Detection Limit

Note: Values of 0.0 indicate None Detected above the specified Method Detection Limit.

Analyst: Gary S. Harrington

Verified: David A. Stokel

Land Treatment Group
Forest Products Laboratory
[redacted] State University

Time: 10:46:48
Date: 03/17/89

PAH Analysis Results in UG per L

I.D.	Site	Suffix	Day	Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
7763	CORES	WIL 1,6	60.	---	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7764	CORES	WIL 2,5X	60.	---	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7765	CORES	WIL 3,8X	60.	---	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7766	CORES	WIL 4,10	60.	---	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7767	CORES	WIL 7,11	60.	---	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7768	CORES	WIL9,12X	60.	---	--	0	0	0	0	0	0	0	0	19	0	0	0	0	0	0	0	0
7775	CORES	BLANK	60.	---	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7776	CORES	REC	60.	---	--	109	111	86	99	96	80	83	108	64	95	96	98	109	43	82	77	106
7777	CORES	RECLEV	60.	---	--	121	138	109	117	109	109	122	122	75	104	130	107	120	106	92	79	79
[redacted]	CORES	MDL	60.	---	--	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
7779	CORES	GWW	60.	---	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
I.D. = Sample Number

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Site = Site Name

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Sfx = Suffix
S = Subscript

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit
Ld = Percent Load
UG per L = Parts per Billion

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories. It does not provide absolute identification of components.

Analyst: David A. Stokel

Land Treatment Group
Forest Products Laboratory
Miss. State Univerisity

Date: 03/17/89
Time: 10:48:25

Group and Total PAH Results in UG per L

I.D.#	Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
7763	CORES	WIL 1,6	60.0	----	--	0.0	0.0	0.0	0.0	0.0
7764	CORES	WIL 2,5X	60.0	----	--	0.0	0.0	0.0	0.0	0.0
7765	CORES	WIL 3,8X	60.0	----	--	0.0	0.0	0.0	0.0	0.0
7766	CORES	WIL 4,10	60.0	----	--	0.0	0.0	0.0	0.0	0.0
7767	CORES	WIL 7,11	60.0	----	--	0.0	0.0	0.0	0.0	0.0
7768	CORES	WIL9,12X	60.0	----	--	0.0	19.2	0.0	0.0	19.2

Key:

Bicyclics:

Naphthalene
2-Methylnaphthalene
[illegible]thylnaphthalene
[illegible]enyl

Tricyclics:

Acenaphthylene
Acenaphthene
Dibenzofuran
Fluorene
Phenanthrene
Anthracene
Carbazole

Tetracyclics:

Fluoranthene
Pyrene
1,2-Benzanthracene
Chrysene

Pentacyclics:

Benzo-a-pyrene
Benzo-ghi-perylene

Land Farming Group
Forest Products Laboratory
Miss. State University

Date: 02/09/89
Time: 9:03:14

Water Sample Volume Data

Site I.D.	Suffix	Day	Load	Sub.	Volume (L)	Percent Correction	Final Volume(L)	I.D.#
CORES	WIL 1,6	60.	----	----	0.90	0.00	0.90	7763
CORES	WIL 2,5X	60.	----	----	0.90	0.00	0.90	7764
CORES	WIL 3,8X	60.	----	----	0.90	0.00	0.90	7765
CORES	WIL 4,10	60.	----	----	0.90	0.00	0.90	7766
CORES	WIL 7,11	60.	----	----	0.90	0.00	0.90	7767
CORES	WIL9,12X	60.	----	----	0.90	0.00	0.90	7768
CORES	ATL 1,11	60.	----	----	0.90	0.00	0.90	7769
CORES	ATL 2,4	60.	----	----	0.90	0.00	0.90	7770
CORES	ATL 3,9	60.	----	----	0.90	0.00	0.90	7771
CORES	ATL 5,8	60.	----	----	0.90	0.00	0.90	7772
CORES	ATL 6,12	60.	----	----	0.90	0.00	0.90	7773
CORES	ATL 7,10	60.	----	----	0.90	0.00	0.90	7774
CORES	BLANK	60.	----	----	0.96	0.00	0.96	7775
CORES	RECOV	60.	----	----	0.96	0.00	0.96	7776
CORES	RECLEV	60.	----	----	0.96	0.00	0.96	7777
CORES	MDL	60.	----	----	0.96	0.00	0.96	7778
CORES	GWW	60.	----	----	0.70	0.00	0.70	7779

Note: 1) GWW and SOLVBL volumes are "Normalized" to One to yield total micrograms in the final report.
2) MDL is given a volume approximate to actual sample volumes.

2-3-89

SAMPLE WORK SHEET

	Initials	Date
Date 2-3-89	F.N.	2-3-89

FPUL Number(s)

Description & Source Wilmington Cores Day-60
Atlanta Cores Day-60

Where stored Cold Room 4°C

Date weighed (balances Used)

Date extracted 2-3-89

Extraction procedure

Clean up step

Derivatization

Date analyzed 3-10-89 DA

Instrument Tracor 540 GC/FID DA

Means of verification Recovery, std. & contols. DA

Total glassware rinse 0 µg DA

Recoveries (attached) ✓ yes _____ no DA

Spiked-reference material (attached) _____ yes ✓ no DA

2-3-89

Water Sample Preparation History

R:Base I.D.# or #	Sample Name	Water Sample Volume	Added Water	Condensed Extract Volume	Extract Dilution (if any)	ISTD Volume	Surr. Volume	CP Dilution
DQY-60								
Wilm.	1,6	900ml	—	10 ml		452.4 3 ml	1 ml	20µl<2.
Wilm	2,5X	900	—	10 ml		3 ml	1	20 <2
Wilm	3,8X	900	—	10 ml		3 ml	1	20 <2
Wilm	4,10	900	—	10 ml		3 ml	1	20 <2
Wilm	7,11	900	—	10 ml		3 ml	1	20 <2
Wilm	9,12X	900	—	10 ml		3 ml	1	20 <2
DQY-60 Atl.	1,11	900	—	3 ml		150.8 1 ml	1	20µl<2n
Atl.	2,4	900	—	3 ml		1 ml	1	20 <2
Atl.	3,9	900	—	3 ml		1 ml	1	20 <2
Atl	5,8	900	—	3 ml		1 ml	1	20 <2
Atl.	6,12	900	—	3 ml		1 ml	1	20 <2
Atl	7,10	900	—	3 ml		1 ml	1	20 <2
Blank		960	—	3 ml		1 ml	1	20 <2
Recovery		960	—	3 ml		1 ml	1	20 <2
GWW		700 mls of solvent		3 ml		1 ml	—	20 <2

Recovery Standard I.D. 890630-1 Volume added 1 ml

Procedure	Signature of analyst	Date	Internal Standard Identification
Surrogate addition	Frank Hendricks	2-3-89	
Extraction	FH	2-3-89	890117-2
C-D	FH	2-4-89	
Extract Dilution			
ISTD addition	FH	2-4-89	
' Dilution	MFH	2-8-89	

Internal Standard Concentrations: DPM 150.76 TBP 150.80

Comments: Surrogate ID. - 851206-1

2-3-89

Land Treatment Group
Analytical Specification Sheet

Sample Identification (I.D.): _____ _____

Sample Type: ____ Soil
✓ Water
____ Other (describe) ____ _____

Extraction: ____ Soxhlet
✓ Continuous Liquid/Liquid
____ Other (describe) _____

Clean-up: ✓ Sodium Sulfate Drying column
____ Silica Gel
____ Silica Gel / Basic Alumina
____ Acid / Base
____ Basic Alumina

GC Analysis: ✓ Pentachlorophenol ____ OCDD

✓ PAH's

✓ Naphthalene
✓ 2-Methylnaphthalene
✓ 1-Methylnaphthalene
✓ Biphenyl
✓ Acenaphthylene
✓ Acenapthene
✓ Dibenzofuran
✓ Fluorene
✓ Phenanthrene
✓ Anthracene
✓ Carbazole
✓ Fluoranthene
✓ Pyrene
✓ 1,2-Benzanthracene
✓ Chrysene
✓ Benzo-a-pyrene
✓ Benzo-ghi-perylene

____ PNA's

__ Phenol
__ p-Cresol
__ o,m-Cresol
__ 2,4-Dimethylphenol
__ 2,4-Dichlorophenol
__ Naphthalene
__ 4-Chloro-3-methyl phenol
__ 2,4,6-Trichlorophenol
__ Acenapthene
__ 2,4-Dinitrophenol
__ 2,3,4,6-Tetrachloro-phenol
__ Fluorene
__ Pentachlorophenol
__ Phenanthrene
__ Anthracene
__ Fluoranthene
__ Pyrene
__ Chrysene
__ Benzo(b)fluoranthene
__ Benzo(k)fluoranthene
__ Benzo(ghi)perylene

____ Other

__ 2,6-Dinitrotoluene
__ 2,4-Dinitrotoluene
__ 4,6-Dinitro-o-cresol
__ Dibenz-ah-anthracene
__ Indeno(123-cd)pyrene
__ _____
__ _____
__ _____
__ _____

Volatiles

__ Benzene
__ Toluene

Requested By: Hamid Bonozjon

Date: 2/3/89

Land Treatment Group
Forest Products Laboratory
Miss. State University

Date: 02/23/89
Time: 8:02:04

PCP Analysis Results in UG per L

SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP	I.D.#
CORES	WIL 1,6	90	----	----	0.	7853
CORES	WIL 4,10	90	----	----	0.	7854
CORES	WIL3X,8X	90	----	----	0.	7855
CORES	WI9X,12X	90	----	----	0.	7856
CORES	WIL 7,11	90	----	----	0.	7857
CORES	WIL2X,5X	90	----	----	0.	7858
CORES	ATL 2,4	90	----	----	0.	7859
CORES	ATL 6,12	90	----	----	0.	7860
CORES	ATL 7,10	90	----	----	0.	7861
CORES	AT1X,11X	90	----	----	0.	7862
CORES	ATL3X,9X	90	----	----	6.7	7863
CORES	ATL5X,8X	90	----	----	0.	7864
CORES	REC		----	----	75.	7865
CORES	RECLEV		----	----	104.	7866
CORES	BLANK		----	----	0.	7867
CORES	MDL.		----	----	5.21	7868
CORES	GWW		----	----	0.	7869

Key: GWW = Glassware Wash
MDL = Method Detection Limit

Note: Values of 0.0 indicate None Detected above the specified Method Detection Limit.

Analyst: Hayat Hussain

Verified: David A. Stahel

Land Farming Group
Forest Products Laboratory
Miss. State University

Date: 02/21/89
Time: 8:18:46

Water Sample Volume Data

Site I.D.	Suffix	Day	Load	Sub.	Volume (L)	Percent Correction	Final Volume(L)	I.D.#
CORES	WIL 1,6	90.	----	----	0.90	0.00	0.90	7853
CORES	WIL 4,10	90.	----	----	0.90	0.00	0.90	7854
CORES	WIL3X,8X	90.	----	----	0.90	0.00	0.90	7855
CORES	WI9X,12X	90.	----	----	0.90	0.00	0.90	7856
CORES	WIL 7,11	90.	----	----	0.90	0.00	0.90	7857
CORES	WIL2X,5X	90.	----	----	0.90	0.00	0.90	7858
CORES	ATL 2,4	90.	----	----	0.90	0.00	0.90	7859
CORES	ATL 6,12	90.	----	----	0.90	0.00	0.90	7860
CORES	ATL 7,10	90.	----	----	0.90	0.00	0.90	7861
CORES	AT1X,11X	90.	----	----	0.90	0.00	0.90	7862
CORES	ATL3X,9X	90.	----	----	0.90	0.00	0.90	7863
CORES	ATL5X,8X	90.	----	----	0.90	0.00	0.90	7864
CORES	REC	----	----	----	0.96	0.00	0.96	7865
CORES	RECLEV	----	----	----	0.96	0.00	0.96	7866
CORES	BLANK	----	----	----	0.96	0.00	0.96	7867
CORES	MDL	----	----	----	0.96	0.00	0.96	7868
CORES	GWW	----	----	----	0.70	0.00	0.70	7869

Note: 1) GWW and SOLVBL volumes are "Normalized" to One to yield total micrograms in the final report.
2) MDL is given a volume approximate to actual sample volumes.

2-14-89

SAMPLE WORK SHEET

	Initials	Date
Date 2-14-89	MH	2-14-89

FPUL Number(s)

Description & Source Core water samples from Wilmington, NC and Atlanta, GA. These are both day-90.

Where stored Cold Room 4°C.

Date weighed (balances Used)

Date extracted 2-14-89

Extraction procedure

Clean up step

Derivatization Diazomethane MH 2/16/89

Date analyzed 2/16/89 (MH)

Instrument Tracor 540 (MH)

Means of verification Standards, Controls + Recovery (MH)

Total glassware rinse 0.4 g (MH)

Recoveries (attached) ✓ yes _____ no (MH)

Spiked-reference material (attached) _____ yes ✓ no (MH)

2-14-89

Water Sample Preparation History

R:Base I.D.# or L.P.#	Sample Name	Water Sample Volume	Added Water	Condensed Extract Volume	Extract Dilution (if any)	ISTD Volume	Surr. Volume	CP Dilution
Day-90								
Wilm	1,6	900 ml	–	10 ml		3 ml	1 ml	20µl/<2
Wilm	4,10	900	–	3		1	1	20µl/<2
Wilm	3X, 8X	900	–	3		1	1	20 <2
Wilm	9X, 12X	900	–	10 ml		3 ml	1	20 <2
Wilm	7,11	900	–	10 ml		3 ml	1	20 <2
Wilm	2X, 5X	900	–	10 ml		3	1	20 <2
Day-90 Atl.	2,4	900	–	3		1	1	20 <2
Atl	6,12	900	–	3		1	1	20 <2
Atl.	7,10	900	–	3		1	1	20 <2
Atl.	1X, 11X	900	–	3		1	1	20 <2
Atl.	3X, 9X	900	–	3		1	1	20 <2
Atl.	5X, 8X	900	–	3		1	1	20 <2
Blank		960	–	3		1	1	20 <2
Recovery		960	–	3		1	1	20 <2
.6 GW		700 ml of solvent		3		1	–	20 <2

Recovery Standard I.D. 880630-1 Volume added 1 ml

Procedure	Signature of analyst	Date	Internal Standard Identification
Surrogate addition	Fran Hendrix	2-14-89	
Extraction	FH	2-14-89	890117-2
K-D	FH	2-15-89	
Extract Dilution			
ISTD addition	FH	2-15-89	
CP Dilution	[illegible]	2-16-89	

Internal Standard Concentrations: DPM 150.76 TBP 150.80

Comments: Surrogate I.D. - 881206-1

2-14-81

Land Treatment Group
Analytical Specification Sheet

Sample Identification (I.D.): Atlanta & Wilmington day 80

Sample Type: ____ Soil
✓ Water
____ Other (describe) ____ _____

Extraction: ____ Soxhlet
✓ Continuous Liquid/Liquid
____ Other (describe) ____ _____

Clean-up: ✓ Sodium Sulfate Drying column
____ Silica Gel
____ Silica Gel / Basic Alumina
____ Acid / Base
____ Basic Alumina

GC Analysis: ✓ Pentachlorophenol ____ OCDD

✓ PAH's

✓ Naphthalene
✓ 2-Methylnaphthalene
✓ 1-Methylnaphthalene
✓ Biphenyl
✓ Acenaphthylene
✓ Acenapthene
✓ Dibenzofuran
✓ Fluorene
✓ Phenanthrene
✓ Anthracene
✓ Carbazole
✓ Fluoranthene
✓ Pyrene
✓ 1,2-Benzanthracene
✓ Chrysene
✓ Benzo-a-pyrene
✓ Benzo-ghi-perylene

____ PNA's

__ Phenol
__ p-Cresol
__ o,m-Cresol
__ 2,4-Dimethylphenol
__ 2,4-Dichlorophenol
__ Naphthalene
__ 4-Chloro-3-methyl phenol
__ 2,4,6-Trichlorophenol
__ Acenapthene
__ 2,4-Dinitrophenol
__ 2,3,4,6-Tetrachloro-phenol
__ Fluorene
__ Pentachlorophenol
__ Phenanthrene
__ Anthracene
__ Fluoranthene
__ Pyrene
__ Chrysene
__ Benzo(b)fluoranthene
__ Benzo(k)fluoranthene
__ Benzo(ghi)perylene

____ Other

__ 2,6-Dinitrotoluene
__ 2,4-Dinitrotoluene
__ 4,6-Dinitro-o-cresol
__ Dibenz-ah-anthracene
__ Indeno(123-cd)pyrene
__ _____
__ _____
__ _____
__ _____

Volatiles

__ Benzene
__ Toluene

Requested By: Hamid Bonzffon.

Date: 2/14/89

Land Farming Group
Forest Products Laboratory
Miss. State University

Date: 03/09/89
Time: 8:05:54

Weight and Moisture Content Data

Site I.D.	Suffix	Day	Load	Sub.	Moist soil Wt.	% Moisture	Dry Weight	I.D.#
CORES	ATL-2-1	----	----	----	5.00	18.80	4.06	7901
CORES	ATL-2-2	----	----	----	5.00	21.78	3.91	7902
CORES	ATL-2-3	----	----	----	5.00	21.00	3.95	7903
CORES	ATL-6-1	----	----	----	5.00	20.23	3.99	7904
CORES	ATL-6-2	----	----	----	5.00	23.50	3.83	7905
CORES	ATL-6-3	----	----	----	5.00	21.74	3.91	7906
CORES	ATL-7-1	----	----	----	5.00	21.45	3.93	7907
CORES	ATL-7-2	----	----	----	5.00	21.25	3.94	7908
CORES	ATL-7-3	----	----	----	5.00	22.04	3.90	7909
CORES	WIL-1-1	----	----	----	5.00	9.64	4.52	7910
CORES	WIL-1-2	----	----	----	5.00	9.38	4.53	7911
CORES	WIL-1-3	----	----	----	5.00	5.80	4.71	7912
CORES	WIL-4-1	----	----	----	5.00	9.30	4.53	7913
CORES	WIL-4-2	----	----	----	5.00	9.09	4.55	7914
CORES	WIL-4-3	----	----	----	5.00	8.13	4.59	7915
CORES	WIL-4-4	----	----	----	5.00	5.36	4.73	7916
CORES	WIL-4-5	----	----	----	5.00	7.65	4.62	7917
CORES	WIL-4-6	----	----	----	5.00	14.68	4.27	7918
CORES	WIL-7-1	----	----	----	5.00	8.97	4.55	7919
CORES	WIL-7-2	----	----	----	5.00	10.00	4.50	7920
CORES	WIL-7-3	----	----	----	5.00	6.11	4.69	7921
CORES	WIL-7-4	----	----	----	5.00	8.12	4.59	7922
CORES	WIL-7-5	----	----	----	5.00	5.92	4.70	7923
CORES	WIL-7-6	----	----	----	5.00	7.14	4.64	7924
CORES	REC	----	----	----	5.00	0.00	5.00	7925
CORES	RECLEV	----	----	----	5.00	0.00	5.00	7926
CORES	SOILBL	----	----	----	5.00	0.00	5.00	7927
CORES	MDL	----	----	----	5.00	0.00	5.00	7928
CORES	SOLVBL	----	----	----	1.00	0.00	1.00	7929
CORES	GWW	----	----	----	1.00	0.00	1.00	7930

Note: 1) GWW and SOLVBL Values are "weighted" to 1 gram with no moisture to yield total micrograms in the final report.
2) MDL is given a weight value to approximate actual sample weights.

Land Treatment Group
Forest Products Laboratory
Miss. State University

Date: 06/02/89
Time: 16:47:40

PCP Analysis Results in ug per G

SITEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP	I.D.#
CORES	WIL-1-1	----	----	----	0.	7910
CORES	WIL-1-2	----	----	----	0.	7911
CORES	WIL-1-3	----	----	----	0.	7912
CORES	WIL-4-1	----	----	----	0.	7913
CORES	WIL-4-2	----	----	----	0.	7914
CORES	WIL-4-3	----	----	----	0.	7915
CORES	WLI-4-4	----	----	----	0.	7916
CORES	WIL-4-5	----	----	----	0.	7917
CORES	WIL-4-6	----	----	----	0.	7918
CORES	WIL-7-1	----	----	----	0.	7919
CORES	WIL-7-2	----	----	----	0.	7920
CORES	WIL-7-3	----	----	----	0.	7921
CORES	WIL-7-4	----	----	----	0.	7922
CORES	WIL-7-5	----	----	----	0.	7923
CORES	WIL-7-6	----	----	----	0.	7924
CORES	REC	----	----	----	18.6	7925
CORES	RECLEV	----	----	----	21.6	7926
CORES	SOILBL	----	----	----	0.	7927
CORES	MDL	----	----	----	0.788	7928
CORES	SOLVBL	----	----	----	0.	7929
CORES	GWW	----	----	----	0.	7930

Key: GWW = Glassware Wash
MDL = Method Detection Limit

Note: Values of 0.0 indicate None Detected above the specified Method Detection Limit.

Analyst: Mary J. Nassig

Verified: David A. Stokell

Land Treatment Group
Forest Products Laboratory
Miss. State University

Time: 17:17:25
Date: 06/15/89

PAH Analysis Results in ug per G

I.D.	Site	Suffix	Day Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
7910	CORES	WIL-1-1	———	a	0	0	0	0	0	0	0	0	2	0	0	4	5	4	5	0	0
7911	CORES	WIL-1-2	———	a	0	0	0	0	0	0	0	0	2	0	0	5	5	3	5	0	0
7912	CORES	WIL-1-3	———	a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7913	CORES	WIL-4-1	———	a	0	0	0	0	0	0	0	0	2	0	0	5	6	5	5	0	0
7914	CORES	WIL-4-2	———	a	0	0	0	0	0	0	0	0	2	0	0	6	8	6	6	0	0
7915	CORES	WIL-4-3	———	a	1	0	0	0	0	0	0	0	2	0	0	3	4	4	3	0	0
7916	CORES	WIL-4-4	———	a	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0
7917	CORES	WIL-4-5	———	a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7918	CORES	WIL-4-6	———	a	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0
7919	CORES	WIL-7-1	———	a	0	0	0	0	0	0	0	0	3	0	0	6	9	3	5	0	0
79[illegible]	[illegible]RES	WIL-7-2	———	a	0	0	0	0	0	0	0	0	3	0	0	9	9	5	6	0	0
7921	CORES	WIL-7-3	———	a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7922	CORES	WIL-7-4	———	a	0	0	0	0	0	0	0	0	0	0	0	3	5	4	3	0	0
7923	CORES	WIL-7-5	———	a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7924	CORES	WIL-7-6	———	a	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0
7928	CORES	MDL	———	a	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	4	7

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
I.D. = Sample Number

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Site = Site Name

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
Chrys = Chrysene
Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Sfx = Suffix
S = Subscript

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit
Ld = Percent Load
UG per L = Parts per Billion

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories. It does not provide absolute identification of components.

Analyst: David A. Stuart

Land Treatment Group
Forest Products Laboratory
Miss. State Univerisity

Date: 06/15/89
Time: 17:19:48

Group and Total PAH Results in ug per G

I.D.#	Siteid	Suffix	Day	Load	Subscript	Bicyclics	Tricyclics	Tetracyclics	Pentacyclics	Total PAH's
7910	CORES	WIL-1-1	---	---	a	0.0	2.2	18.1	0.0	20.3
7911	CORES	WIL-1-2	---	---	a	0.0	1.9	17.3	0.0	19.1
7912	CORES	WIL-1-3	---	---	a	0.0	0.0	0.0	0.0	0.0
7913	CORES	WIL-4-1	---	---	a	0.0	2.2	21.8	0.0	23.9
7914	CORES	WIL-4-2	---	---	a	0.0	2.1	26.3	0.0	28.4
7915	CORES	WIL-4-3	---	---	a	1.3	1.8	15.1	0.0	18.2
7916	CORES	WIL-4-4	---	---	a	0.0	0.0	2.9	0.0	2.9
7917	CORES	WIL-4-5	---	---	a	0.0	0.0	0.0	0.0	0.0
7918	CORES	WIL-4-6	---	---	a	0.0	0.0	2.7	0.0	2.7
7919	CORES	WIL-7-1	---	---	a	0.0	2.7	23.9	0.0	26.5
7920	CORES	WIL-7-2	---	---	a	0.0	2.8	29.4	0.0	32.2
[illegible]	CORES	WIL-7-3	---	---	a	0.0	0.0	0.0	0.0	0.0
7922	CORES	WIL-7-4	---	---	a	0.0	0.0	14.6	0.0	14.6
7923	CORES	WIL-7-5	---	---	a	0.0	0.0	0.0	0.0	0.0
7924	CORES	WIL-7-6	---	---	a	0.0	0.0	3.8	0.0	3.8

Key:

Bicyclics:
Naphthalene
2-Methylnaphthalene
1-Methylnaphthalene
Biphenyl

Tricyclics:
Acenaphthylene
Acenaphthene
Dibenzofuran
Fluorene
Phenanthrene
Anthracene
Carbazole

Tetracyclics:
Fluoranthene
Pyrene
1,2-Benzanthracene
Chrysene

Pentacyclics:
Benzo-a-pyrene
Benzo-ghi-perylene

Treatment Group
t Products Laboratory
Miss. State University

Time: 16:07:02
Date: 06/14/89

PAH Analysis Results in ug per G

I.D.	Site	Suffix	Day Ld	S	Naph.	2-Met	1-Met	Biph.	Acthy	Acthe	Diben	Flore	Phen.	Anthr	Carba	Fluor	Pyren	12-Bz	Chrys	Ben-a	Bghi
7925	CORES	RECOV	———	a	41	45	50	52	55	51	59	69	75	76	71	88	87	100	105	69	81
7926	CORES	RECLEV	———	a	60	64	64	60	63	55	58	61	60	60	64	62	60	60	61	60	60
7927	CORES	SOILBLK	———	a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7929	CORES	SOLVBLK	———	a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7930	CORES	GWW	———	a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Naph. = Naphthalene
2-Met = 2-Methylnaphthalene
1-Met = 1-Methylnaphthalene
Biph. = Biphenyl
Acthy = Acenaphthylene
Acthe = Acenaphthene
I.D. = Sample Number

Diben = Dibenzofuran
Flore = Fluorene
Phen. = Phenanthrene
Anthr = Anthracene
Carba = Carbazole
Fluor = Fluoranthene
Site = Site Name

Pyren = Pyrene
12-bz = 1,2 Benzanthracene
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Ben-a = Benzo-a-pyrene
Bghi = Benzo-ghi-perylene
UG = microgram
Sfx = Suffix
S = Subscript

Soilbl = Soil Blank
Reclev = Recovery Levels
Rec = Recovery
G = Gram
UG per G = Parts per Million
MDL = Method Detection Limit
Ld = Percent Load
UG per L = Parts per Billion

Note: 1) Values of 0.0 indicate None Detected down to the specified Method Detection Limit (MDL).
2) Glassware Wash (GWW) and Solvent Blank (SOLVBL) values are in Total micrograms.
3) This GC/FID analysis is a quantitation procedure for samples with known histories. It does not provide absolute identification of components.

Analyst: David A. Stewart

--- - 1 - 84 Project Wilmington Broken cores Analyst Linda

Soil Moisture Content Analysis

1. Weigh the aluminum pan, record the weight.
2. Tare the balance to zero.
3. Add the moist soil and record its weight.
4. Place the soil in a 110 C - 130 C oven overnight.
5. Remove the soil from the oven and allow to cool.
6. Reweigh the dried soil and pan (combined weight).
7. Subtract the pan weight to get the dry soil weight.
8. Subtract the dry soil weight from the moist soil weight to get the moisture weight.
9. Divide the moisture weight by the moist soil weight and multiply by 100 to get the percent moisture.

Sample I.D.	1 Pan weight	2 Moist soil weight	Dry soil plus pan weight	4 Dry soil weight	4-2 Moisture weight	5 Percent moisture
Ht[illegible]-1	1.55	3.99	4.79	3.24	.75	18.80%
Ht-2-2	1.55	4.50	5.07	3.52	.98	21.78%
Ht-2-3	1.57	4.19	4.88	3.31	.88	21.00%
Ht-6-1	1.54	3.46	4.30	2.76	.70	20.23%
Ht-6-2	1.55	3.66	4.41	2.86	.86	23.50%
Ht-6-3	1.53	3.45	4.23	2.70	.75	21.74%
Ht-7-1	1.56	3.59	4.38	2.82	.77	21.45%
Ht-7-2	1.58	3.20	4.10	2.52	.68	21.25%
Ht-7-3	1.56	4.40	4.99	3.43	.97	22.04%
1-1-1	1.56	3.32	4.56	3.00	.32	9.64%
1-1-2	1.56	3.41	4.65	3.09	.32	9.38%
~~1-1-3~~	~~1.53~~	~~3.37~~	~~4.71~~	~~3.18~~	~~.19~~	~~5.66%~~
1-4-1	1.55	3.55	4.77	3.22	.33	9.30%
1-4[illegible]	1.55	3.74	4.95	3.40	.34	9.09%
1-4-3	1.55	3.69	4.94	3.39	.30	8.13%

Project Wil + Ah1 Analyst Linda

Soil Moisture Content Analysis

1. Weigh the aluminum pan, record the weight.
2. Tare the balance to zero.
3. Add the moist soil and record its weight.
4. Place the soil in a 110 C - 130 C oven overnight.
5. Remove the soil from the oven and allow to cool.
6. Reweigh the dried soil and pan (combined weight).
7. Subtract the pan weight to get the dry soil weight.
8. Subtract the dry soil weight from the moist soil weight to get the moisture weight.
9. Divide the moisture weight by the moist soil weight and multiply by 100 to get the percent moisture.

Sample I.D.	Pan weight	Moist soil weight	Dry soil plus pan weight	Dry soil weight	Moisture weight	Percent moisture
Wil 4-4	1.55	4.85	6.14	4.59	.26	5.36
Wil 4-5	1.53	3.79	5.03	3.58	.29	7.65
Wil 4-6	1.54	4.70	5.55	4.01	.69	14.68
Wil 7 4	1.55	4.31	5.51	3.96	.35	8.12
Wil 7-5	1.53	3.55	4.87	3.34	.21	5.92
Wil 7-6	1.57	4.70	5.47	3.90	.30	7.14
Wil 1-3	1.53	3.65	4.98	3.45	.20	5.8
Wil 7-3	1.53	4.09	5.37	3.84	.25	6.4

Project Wilmington Broken cores Analyst Linda

Soil Moisture Content Analysis

1. Weigh the aluminum pan, record the weight.
2. Tare the balance to zero.
3. Add the moist soil and record its weight.
4. Place the soil in a 110 C - 130 C oven overnight.
5. Remove the soil from the oven and allow to cool.
6. Reweigh the dried soil and pan (combined weight).
7. Subtract the pan weight to get the dry soil weight.
8. Subtract the dry soil weight from the moist soil weight to get the moisture weight.
9. Divide the moisture weight by the moist soil weight and multiply by 100 to get the percent moisture.

Sample I.D.	Pan weight	Moist soil weight	Dry soil plus pan weight	Dry soil weight	Moisture weight	Percent moisture
W[illegible]1	1.55	4.35	5.51	3.96	.39	8.97%
W-7-2	1.55	3.20	4.43	2.88	.32	10.00%
~~W-7-3~~	~~1.53~~	~~4.11~~	~~5.43~~	~~3.90~~	~~.21~~	~~5.41%~~
Recovery	1.50	4.56	6.06	4.56	.00	0.00%
Oil BLK	1.50	4.56	6.06	4.56	.00	0.00%

2/1/87

Soil Sample Preparation Hi[illegible]y for Atlanta & Wilmington Broken cores Analysis

Sample I.D.#	Soil weight (wet)	Extraction solvent volume (ml)	Condensed extract volume (ml)	PAH/PCP (Column clean-up) Aliquot volume	PAH/PCP (Column clean-up) Condensed volume	OCDD (Column clean-up) Aliquot volume	OCDD (Column clean-up) Diluted volume	PCP (Dilutions) Aliquot volume	PCP (Dilutions) Diluted volume	OCDD (Dilutions) Aliquot volume	OCDD (Dilutions) Diluted volume
Atl.-2-1	5.00	300	3	1	2			20 µl	<2 ml		
Atl.-2-2	5.00	300	3	1	2			20	<2		
Atl-2-3	5.00	300	3	1	2			20	<2		
Atl-6-1	5.00	300	3	1	2			20	<2		
Atl-6-2	5.00	300	3	1	2			20	<2		
Atl-6-3	5.00	300	3	1	2			20	<2		
Atl-7-1	5.00	300	3	1	2			20	<2		
Atl-7-2	5.00	300	3	1	2			20	<2		
Atl-7-3	5.00	300	3	1	2			20	<2		
Wil-1-1	5.00	300	3	1	2			20	<2		
Wil-1-2	5.00	300	3	1	2			20	<2		
Wil-1-3	5.00	300	3	1	2			20	<2		
Wil-4-1	5.00	300	3	1	2			20	<2		
Wil-4-2	5.00	300	3	1	2			20	<2		
Wil-4-3	5.00	300	3	1	2			20	<2		
Internal Standards:		DPM	2,4,6-TBP	OCN		Preparer:	881121-1	ISTD	1ml	500	
D. Number:		881121-1	881121-1	881121-1		Date:	880923-1	PAH's	3ml		
ncentration:		502.72 µg/ml	101.00 µg/ml	2.26 µg/ml			890206-1	PCP	1ml		
ount Added:		1ml	1ml	1ml							

3-1-89 Atlanta & Wilmington

3-28-89 Wilmington

5-23-89 Atlanta

5/26/89 Atlanta

Feb 4

Soil Sample Preparation History for Wilmington Broken cores Analysis

Sample I.D.#	Soil weight (wet)	Extraction solvent volume (ml)	Condensed extract volume (ml)	PAH/PCP (Column clean-up) Aliquot volume	PAH/PCP (Column clean-up) Condensed volume	OCDD (Column clean-up) Aliquot volume	OCDD (Column clean-up) Diluted volume	PCP (Dilutions) Aliquot volume	PCP (Dilutions) Diluted volume	OCDD (Dilutions) Aliquot volume	OCDD (Dilutions) Diluted volum
wil.4-4	5.00	300	3	1	2						
wil.4-5	5.00	300	3	1	2						
wil.4-6	5.00	300	3	1	2						
wil.7-4	5.00	300	3	1	2						
wil.7-5	5.00	300	3	1	2						
wil.7-6	5.00	300	3	1	2						

3-1-89 Analyzed

3-2-89 Analyzed

3-23-89 Analyzed

Internal Standards:	DPM	2,4,6-TBP	OCN		Preparer:	881121-1	ISTD	1ml	500	
ID. Number:	881121-1	881121-1	881121-1		Date:	880923-1	PAH's	3ml		
Concentration:	502.72 ug/ml	101.00 ug/ml	2.26 ug/ml			890206-1	PCP	1ml		
Amount Added:	1ml	1ml	1ml							

3/1/89

Soil Sample Preparation History for Atlanta + Wilmington Broken Cores Analysis

Sample I.D.#	Soil weight (wet)	Extraction solvent volume (ml)	Condensed extract volume (ml)	PAH/PCP (Column clean-up) Aliquot volume	PAH/PCP (Column clean-up) Condensed volume	OCDD (Column clean-up) Aliquot volume	OCDD (Column clean-up) Diluted volume	PCP (Dilutions) Aliquot volume	PCP (Dilutions) Diluted volume	OCDD (Dilutions) Aliquot volume	OCDD (Dilutions) Diluted volum
Wil-7-1	5.00	300	3	1	2						
Wil-7-2	5.00	300	3	1	2						
Wil-7-3	5.00	300	3	1	2						
Recovery	5.00	300	3	1	2						
Soil BLK	5.00	300	3	1	2						
Soil BLK	—	300	3	1	2						
GWW	—	300	3	1	2						

3-1-89 Standard 2nd

3-2-89 - Standard

7-23-89 - 0.6% Acetone

Internal Standards:	DPM	2,4,6-TBP	OCN		Preparer: 881121-1	ESTD	1ml	500	
I.D. Number:	881121-1	881121-1	881121-1		Date: 880923-1	PAH3	3ml		
Concentration:	502.72 ng/ml	101.0 ng/ml	2.26 ng/ml		890206-1	PCP	1ml		
Amount Added:	1ml	1ml	1ml						

SAMPLE WORK SHEET

	Initials	Date

Date 3-1-89

FPUL Number(s) Atlanta & Wilmington Broken cores

Description & Source Soil from Atlanta, Ga. & Wilmington, N.C. PCP & PAH analysis need to be done.

Where stored Core Room

Date weighed (balances Used) 3/1/89 mettler PB/300

Date extracted 3/1/89

Extraction procedure Soxhlet extraction with meCl2 as solvent,

Clean up step 1mL of sample cleaned on 9g of silica gel. 5-23-89-ffm

Derivatization Diazomethane 5-23-89-ffm

Date analyzed 5/31/89 (HL)

Instrument Tracor 540/ECD (HL)

Means of verification Standards, Controls & Recovery (HL)

Total glassware rinse 0.4 g (HL)

Recoveries (attached) ✓ yes ____ no (HL)

Spiked-reference material (attached) ____ yes ✓ no (HL)

Land Treatment Group
Analytical Specification Sheet

Sample Identification (I.D.): Atlantic Wilmington Broken Cores

Sample Type: ✓ Soil
___ Water
___ Other (describe) ___ ___

Extraction: ✓ Soxhlet
___ Continuous Liquid/Liquid
___ Other (describe) ___

Clean-up: ___ Sodium Sulfate Drying column
✓ Silica Gel
___ Silica Gel / Basic Alumina
___ Acid / Base
___ Basic Alumina

GC Analysis: ✓ Pentachlorophenol ___ OCDD

✓ PAH's

✓ Naphthalene
✓ 2-Methylnaphthalene
✓ 1-Methylnaphthalene
✓ Biphenyl
✓ Acenaphthylene
✓ Acenapthene
✓ Dibenzofuran
✓ Fluorene
✓ Phenanthrene
✓ Anthracene
✓ Carbazole
✓ Fluoranthene
✓ Pyrene
✓ 1,2-Benzanthracene
✓ Chrysene
✓ Benzo-a-pyrene
✓ Benzo-ghi-perylene

___ PNA's

___ Phenol
___ p-Cresol
___ o,m-Cresol
___ 2,4-Dimethylphenol
___ 2,4-Dichlorophenol
___ Naphthalene
___ 4-Chloro-3-methyl phenol
___ 2,4,6-Trichlorophenol
___ Acenapthene
___ 2,4-Dinitrophenol
___ 2,3,4,6-Tetrachloro-phenol
___ Fluorene
___ Pentachlorophenol
___ Phenanthrene
___ Anthracene
___ Fluoranthene
___ Pyrene
___ Chrysene
___ Benzo(b)fluoranthene
___ Benzo(k)fluoranthene
___ Benzo(ghi)perylene

___ Other

___ 2,6-Dinitrotoluene
___ 2,4-Dinitrotoluene
___ 4,6-Dinitro-o-cresol
___ Dibenz-ah-anthracene
___ Indeno(123-cd)pyrene
___ ___
___ ___
___ ___
___ ___

Volatiles

___ Benzene
___ Toluene

Requested By: Hamid Borazjani

Date: 3/1/89

MFPL #	weed	location
890414-8	Box #1	surface
" -9	"	1 foot
" -10	"	2 feet
" -11	Box #2	surface
" -12	"	1 foot
" -13	"	2 feet
" -14	Box #3	surface
" -15	"	1 foot
" -16	"	2 feet
" -17	Box #4	surface
" -18	"	1 foot
" -19	"	2 feet
" -20	Box #5	surface
" -21	"	1 foot
" -22	"	2 feet
" -23	Box #6	surface
" -24	"	1 foot
" -25	"	2 feet
" -26	chicken manure	only nutrient test
" -27	Tank area	for soil washing study
" -28	"	"

Land Treatment Group
Forest Products Laboratory
Miss. State University

Date: 06/12/89
Time: 9:11:29

PCP Analysis Results in ug per G

TEID	SUFFIX	DAY	LOAD	SUBSCRIP	PCP	I.D.#
WILCORE	#3X	----	----	0-10	18.2	8215
WILCORE	#3X	----	----	10-20	15.7	8216
WILCORE	#3X	----	----	20-30	65.7	8217
WILCORE	#3X	----	----	30-40	18.1	8218
WILCORE	#3X	----	----	40-50	1.48	8219
WILCORE	#3X	----	----	50-60	0.	8220
WILCORE	#5X	----	----	0-10	30.9	8221
WILCORE	#5X	----	----	10-20	44.1	8222
WILCORE	#5X	----	----	20-30	4.77	8223
WILCORE	#5X	----	----	30-40	2.47	8224
WILCORE	#5X	----	----	40-50	0.	8225
WILCORE	#5X	----	----	50-60	0.	8226
WILCORE	#9X	----	----	0-10	32.4	8227
WILCORE	#9X	----	----	10-20	7.79	8228
WILCORE	#9X	----	----	20-30	8.35	8229
WILCORE	#9X	----	----	30-40	4.84	8230
WILCORE	#9X	----	----	40-50	0.96	8231
WILCORE	#9X	----	----	50-60	0.	8232
WILCORE	REC	----	----	----	19.3	8233
CORE	RECLEV	----	----	----	21.6	8234
WILCORE	SOILBL	----	----	----	0.	8235
WILCORE	MDL	----	----	----	0.698	8236
WILCORE	SOLVBL	----	----	----	0.	8237
WILCORE	GWW	----	----	----	0.	8238

Key: GWW = Glassware Wash
MDL = Method Detection Limit

Note: Values of 0.0 indicate None Detected above the specified Method Detection Limit.

Analyst: Mary F. Hannigan

Verified: David A. Stoutel

Land Farming Group
Forest Products Laboratory
Miss. State University

Date: 06/14/89
Time: 9:09:20

Weight and Moisture Content Data

Site I.D.	Suffix	Day	Load	Sub.	Moist soil Wt.	% Moisture	Dry Weight	I.D.#
WILCORE	#3X	----	----	0-10	5.00	7.76	4.61	8215
WILCORE	#3X	----	----	10-2	5.00	12.08	4.40	8216
WILCORE	#3X	----	----	20-3	5.00	16.24	4.19	8217
WILCORE	#3X	----	----	30-4	5.00	8.68	4.57	8218
WILCORE	#3X	----	----	40-5	5.00	7.99	4.60	8219
WILCORE	#3X	----	----	50-6	5.00	13.64	4.32	8220
WILCORE	#5X	----	----	0-10	5.00	5.75	4.71	8221
WILCORE	#5X	----	----	10-2	5.00	7.10	4.64	8222
WILCORE	#5X	----	----	20-3	5.00	6.22	4.69	8223
WILCORE	#5X	----	----	30-4	5.00	15.00	4.25	8224
WILCORE	#5X	----	----	40-5	5.00	16.26	4.19	8225
WILCORE	#5X	----	----	50-6	5.00	23.00	3.85	8226
WILCORE	#9X	----	----	0-10	5.00	7.44	4.63	8227
WILCORE	#9X	----	----	10-2	5.00	9.39	4.53	8228
WILCORE	#9X	----	----	20-3	5.00	7.59	4.62	8229
WILCORE	#9X	----	----	30-4	5.00	10.75	4.46	8230
WILCORE	#9X	----	----	40-5	5.00	10.80	4.46	8231
WILCORE	#9X	----	----	50-6	5.00	17.69	4.12	8232
WILCORE	REC	----	----	----	5.00	0.00	5.00	8233
WILCORE	RECLEV	----	----	----	5.00	0.00	5.00	8234
WILCORE	SOILBL	----	----	----	5.00	0.00	5.00	8235
WILCORE	MDL	----	----	----	5.00	0.00	5.00	8236
WILCORE	SOLVBL	----	----	----	1.00	0.00	1.00	8237
WILCORE	GWW	----	----	----	1.00	0.00	1.00	8238

Note: 1) GWW and SOLVBL Values are "weighted" to 1 gram with no moisture to yield total micrograms in the final report.
2) MDL is given a weight value to approximate actual sample weights.

4-10-89

Wilmington cores
loaded-3X, 5X, + 9X.

Linda

Soil Moisture Content Analysis

1. Weigh the aluminum pan, record the weight.
2. Tare the balance to zero.
3. Add the moist soil and record its weight.
4. Place the soil in a 110 C - 130 C oven overnight.
5. Remove the soil from the oven and allow to cool.
6. Reweigh the dried soil and pan (combined weight).
7. Subtract the pan weight to get the dry soil weight.
8. Subtract the dry soil weight from the moist soil weight to get the moisture weight.
9. Divide the moisture weight by the moist soil weight and multiply by 100 to get the percent moisture.

Sample I.D.	Pan weight	Moist soil weight	Dry soil plus pan weight	Dry soil weight	Moisture weight	Percent moisture
#3X 0-10cm	1.55	4.77	5.95	4.40	0.37	7.76%
#3X 10-20cm	1.55	4.80	5.77	4.22	0.58	12.08%
#3X 20-30cm	1.55	3.88	4.80	3.25	0.63	16.24%
#3X 30-40cm	1.50	4.03	5.18	3.68	0.35	8.68%
#3X 40-50cm	1.53	4.88	6.02	4.49	0.39	7.99%
#3X 50-60cm	1.51	4.40	5.31	3.80	0.60	13.64%
#5X 0-10cm	1.55	4.00	5.32	3.77	0.23	5.75%
#5X 10-20cm	1.55	4.65	5.87	4.32	0.33	7.10%
#5X 20-30cm	1.55	4.50	5.77	4.22	0.28	6.22%
#5X 30-40cm	1.53	3.60	4.59	3.06	0.54	15.00%
#5X 40-50cm	1.52	3.69	4.61	3.09	0.60	16.26%
#5X 50-60cm	1.55	4.13	4.73	3.18	0.95	23.00%
#9X 0-10cm	1.55	3.63	4.91	3.36	0.27	7.44%
#9X 10-20cm	1.55	3.94	5.12	3.57	0.37	9.39%
#9X 20-30cm	1.55	4.61	5.81	4.26	0.35	7.59%

4-10-89

Wilmington cores

loaded - 3X, 5X, & 9X.

Soil Moisture Content Analysis

1. Weigh the aluminum pan, record the weight.
2. Tare the balance to zero.
3. Add the moist soil and record its weight.
4. Place the soil in a 110 C - 130 C oven overnight.
5. Remove the soil from the oven and allow to cool.
6. Reweigh the dried soil and pan (combined weight).
7. Subtract the pan weight to get the dry soil weight.
8. Subtract the dry soil weight from the moist soil weight to get the moisture weight.
9. Divide the moisture weight by the moist soil weight and multiply by 100 to get the percent moisture.

Sample I.D.	Pan weight	Moist soil weight	Dry soil plus pan weight	Dry soil weight	Moisture weight	Percent moisture
#9X 30-40cm	1.53	4.00	5.10	3.57	0.43	10.75%
#9X 40-50cm	1.53	3.98	5.08	3.55	0.43	10.80%
#9X 50-60cm	1.55	3.90	4.79	3.21	0.69	17.69%
Recovery	1.57	3.80	5.37	3.80	0.00	0.00
Soil Blk	1.57	3.80	5.37	3.80	0.00	0.00

H 10-89

Soil Sample Preparation History for Wilmington cores loaded - 3X, 5X & 9X Analysis

Sample I.D.	Soil weight (wet)	Extraction solvent volume (ml)	Condensed extract volume (ml)	PAH/PCP (Column clean-up) Aliquot volume	PAH/PCP (Column clean-up) Condensed volume	OCDD (Column clean-up) Aliquot volume	OCDD (Column clean-up) Diluted volume	PCP (Dilutions) Aliquot volume	PCP (Dilutions) Diluted volume	OCDD (Dilutions) Aliquot volume	OCDD (Dilutions) Diluted volume
#3X 0-10cm	5.00	300	3	1	2			20µl	<2ml		
#3X 10-20cm	5.00	300	3	1	2			20	<2		
#3X 20-30cm	5.00	300	3	1	2			20	<2		
#3X 30-40cm	5.00	300	3	1	2			20	<2		
#3X 40-50cm	5.00	300	3	1	2			20	<2		
#3X 50-60cm	5.00	300	3	1	2			20	<2		
#5X 0-10cm	5.00	300	3	1	2			20	<2		
#5X 10-20cm	5.00	300	3	1	2			20	<2		
#5X 20-30cm	5.00	300	3	1	2			20	<2		
#5X 30-40cm	5.00	300	3	1	2			20	<2		
#5X 40-50cm	5.00	300	3	1	2			20	<2		
#6X 50-60cm	5.00	300	3	1	2			20	<2		
#9X 0-10cm	5.00	300	3	1	2			20	<2		
#9X 10-20cm	5.00	300	3	1	2			20	<2		
#9X 20-30cm	5.00	300	3	1	2			20	<2		
Internal Standards:		DPM	2,4,6-TBP	OCN		Preparer:	881121-1	ISTD	1ml	500	
I.D. Number:		881121-1	881121-1	881121-1		Date:	880923-1	PAHs	3ml		
Concentration:		502.72 ng/ml	101.00 ng/ml	2.26 ng/ml			890206-1	PCP	1ml		
Amount Added:		1ml	1ml	1ml							

Spring -88-01-H

Spring -88-11-H

5-22-89

June 89

5/24/89 from H.

H-1[illegible]89

Soil Sample Preparation History for Wilmington Cores Analysis
loaded-3X, 5X & 9X

Sample I.D.#	Soil weight (wet)	Extraction solvent volume (ml)	Condensed extract volume (ml)	PAH/PCP (Column clean-up) Aliquot volume	PAH/PCP (Column clean-up) Condensed volume	OCDD (Column clean-up) Aliquot volume	OCDD (Column clean-up) Diluted volume	PCP (Dilutions) Aliquot volume	PCP (Dilutions) Diluted volume	OCDD (Dilutions) Aliquot volume	OCDD (Dilutions) Diluted volume
#9X 30-40cm	5.00	300	3	1	2			20 µl	<2 ml		
#9X 40-50cm	5.00	300	3	1	2			20	<2		
#9X 50-60cm	5.00	300	3	1	2			20	<2		
Recovery	5.00	300	3	1	2			20	<2		
Soil BLK	5.00	300	3	1	2			20	<2		
Soil BLK	—	300	3	1	2			20	<2		
GWW	—	300	3	1	2			20	<2		

spunk 4-10-89 spunk 4-11-89 spunk 5-22-89 spunk 5/20/89

Internal Standards:	DPN	2,4,6-TBP	OCN		Preparer:	881121-1	ISTD	1ml	500	
I.D. Number:	881121-1	881121-1	881121-1		Date:	880923-1	PAH'S	3ml		
Concentration:	502.72 ng/ml	101.60 ng/ml	2.26 ng/ml			890206-1	PCP	1ml		
Amount Added:	1ml	1ml	1ml							

Land Treatment Group
Analytical Specification Sheet

Sample Identification (I.D.): Wilmington Gas

Sample Type: ✓ Soil
___ Water
___ Other (describe) ___

Extraction: ✓ Soxhlet
___ Continuous Liquid/Liquid
___ Other (describe) ___

Clean-up: ___ Sodium Sulfate Drying column
✓ Silica Gel
___ Silica Gel / Basic Alumina
___ Acid / Base
___ Basic Alumina

GC Analysis: ✓ Pentachlorophenol ___ OCDD

✓ PAH's

✓ Naphthalene
✓ 2-Methylnaphthalene
✓ 1-Methylnaphthalene
✓ Biphenyl
✓ Acenaphthylene
✓ Acenapthene
✓ Dibenzofuran
✓ Fluorene
✓ Phenanthrene
✓ Anthracene
✓ Carbazole
✓ Fluoranthene
✓ Pyrene
✓ 1,2-Benzanthracene
✓ Chrysene
✓ Benzo-a-pyrene
✓ Benzo-ghi-perylene

___ PNA's

___ Phenol
___ p-Cresol
___ o,m-Cresol
___ 2,4-Dimethylphenol
___ 2,4-Dichlorophenol
___ Naphthalene
___ 4-Chloro-3-methyl phenol
___ 2,4,6-Trichlorophenol
___ Acenapthene
___ 2,4-Dinitrophenol
___ 2,3,4,6-Tetrachloro-phenol
___ Fluorene
___ Pentachlorophenol
___ Phenanthrene
___ Anthracene
___ Fluoranthene
___ Pyrene
___ Chrysene
___ Benzo(b)fluoranthene
___ Benzo(k)fluoranthene
___ Benzo(ghi)perylene

___ Other

___ 2,6-Dinitrotoluene
___ 2,4-Dinitrotoluene
___ 4,6-Dinitro-o-cresol
___ Dibenz-ah-anthracene
___ Indeno(123-cd)pyrene
___ ___
___ ___
___ ___
___ ___

Volatiles

___ Benzene
___ Toluene

Requested By: Hamid Borazjani

Date: 4/10/89

SAMPLE WORK SHEET

	Initials	Date

Date 4-10-89

FPUL Number(s) Wilmington cores-loaded- 3X, 5X, & 9X.

Description & Source Soil from Wilmington, N.C. PCB, & PAH's analysis need to be done. HB 4/10/89

Where stored Soil Lab HB 4/10/89

Date weighed (balances Used) 4-10-89 mettler PB/300 HB 4/10/89

Date extracted 4-10-89

Extraction procedure Soxhlet extraction with $MeCl_2$ as solvent. HB 4/10/89

Clean up step 1 ml of sample cleared on 9 g of Silica gel.

Derivatization Diazomethane

Date analyzed 5/30-31/89 HB

Instrument Tracor 540/ECD HB

Means of verification Standards, Controls + Recovery HB

Total glassware rinse 0 µg g HB

Recoveries (attached) ✓ yes _____ no HB

Spiked-reference material (attached) _____ yes ✓ no HB