B009N7-WEY-033

0046760

SEP 1990 RECEIVED J.H. KESSNER

CASE NARRATIVE

WEYERHAEUSER (WEYER)
ANALYTICAL AND TESTING SERVICES

Case Number: 3403
SDG Number: B009N7
Contract Number: 68-D9-0080

Samples from this case (3403) were received on 8/1/90. This case was comprised of foliage for metals analysis only. The requested analyses were as follows:

Sample ID		Analysis Requested
B009N7	B00BL0	METALS
B009N7D	B00BL0D	METALS
B009N7S	B00BL0S	METALS
B009N8	B00BL1	METALS
B009N9	B00BL2	METALS
B009P0	B00BL3	METALS
B009P1	B00BL4	METALS
B009P2	B00BL5	METALS
B009P3	B00BL6	METALS
B009P4	B00BL7	METALS
B009P5	B00BL8	METALS
B009P6	B00BL9	METALS
B009P7	B00BM0	METALS
B009P8	B00BM1	METALS
B009P9	B00BM2	METALS
B009Q0	B00BM3	METALS
B009Q1	B00BM4	METALS
B009Q2	B00BM5	METALS

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Several anomalies existed with this sample set that are listed below.

1. The duplicate sample analysis was outside the control limit for lead.
2. The spike recovery was outside the control limit for lead, mercury, silver and thallium.
3. The ICP serial dilution was outside the control limit for aluminum.
4. Method of Standard Additions was performed for samples B009N7D and B009N9 for lead.

5. The analytical spike for several of the samples analyzed for arsenic, selenium and thallium was outside the control limit; however, the sample absorbances were less than 50 percent of the spike and consequently MSAs were not performed. These samples are flagged with a W.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Kari Doxsee

Kari H. Doxsee, Manager
Analytical Chemistry Laboratories

Date 9-13-90

Please feel free to contract me with any questions concerning this data report. I can be reached at (206) 924-6148.

Sincerely,

Kari Doxsee

Kari H. Doxsee, Manager
Analytical Chemistry Laboratories
Weyerhaeuser Analytical & Testing Services

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1 A

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B009N7

Lab Name: WEYERHAEUSER COMPANY Contract: 68-D9-0080

Lab Code: WEYER Case No.: SAS No.: SDG No.: B009N7

Matrix (soil/water): SOIL Lab Sample ID: 54289

Level (low/med): LOW Date Received: 08/01/90

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	371		E	P
7440-36-0	Antimony	3.8	U		P
7440-38-2	Arsenic	0.36	U		F
7440-39-3	Barium	7.8	B		P
7440-41-7	Beryllium	0.19	U		P
7440-43-9	Cadmium	0.95	U		P
7440-70-2	Calcium	6400			P
7440-47-3	Chromium	0.95	U		P
7440-48-4	Cobalt	0.38	U		P
7440-50-8	Copper	9.5			P
7439-89-6	Iron	604			P
7439-92-1	Lead	4.9		N*	F
7439-95-4	Magnesium	1480			P
7439-96-5	Manganese	36.6			P
7439-97-6	Mercury	0.09	U	N	CV
7440-02-0	Nickel	3.8	U		P
7440-09-7	Potassium	19800			P
7782-49-2	Selenium	0.55	U		F
7440-22-4	Silver	0.57	U	N	P
7440-23-5	Sodium	113	B		P
7440-28-0	Thallium	0.18	U	NW	F
7440-62-2	Vanadium	0.82	B		P
7440-66-6	Zinc	23.3			P
	Cyanide				NR

Color Before: YELLOW Clarity Before: Texture: FINE

Color After: WHITE Clarity After: Artifacts:

Comments:

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EPA SAMPLE NO.

10

INORGANIC ANALYSIS DATA SHEET

B009N8

Lab Name: WEYERHAEUSER COMPANY Contract: 68-D9-0080

Lab Code: WEYER Case No.: SAS No.: SDG No.: B009N7

Matrix (soil/water): SOIL Lab Sample ID: 54290

Level (low/med): LOW Date Received: 08/01/90

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1040		E	P
7440-36-0	Antimony	3.6	U		P
7440-38-2	Arsenic	0.34	U	W	F
7440-39-3	Barium	36.2	B		P
7440-41-7	Beryllium	0.18	U		P
7440-43-9	Cadmium	0.91	U		P
7440-70-2	Calcium	4090			P
7440-47-3	Chromium	1.3	B		P
7440-48-4	Cobalt	0.63	B		P
7440-50-8	Copper	6.9			P
7439-89-6	Iron	1580			P
7439-92-1	Lead	3.9		N*	F
7439-95-4	Magnesium	964			P
7439-96-5	Manganese	50.5			P
7439-97-6	Mercury	0.09	U	N	CV
7440-02-0	Nickel	3.6	U		P
7440-09-7	Potassium	3120			P
7782-49-2	Selenium	0.52	U	W	F
7440-22-4	Silver	0.55	U	N	P
7440-23-5	Sodium	189	B		P
7440-28-0	Thallium	0.17	U	N	F
7440-62-2	Vanadium	6.5	B		P
7440-66-6	Zinc	64.9			P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: FINE

Color After: GREY Clarity After: Artifacts:

Comments:

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1 c

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B009N9

Lab Name: WEYERHAEUSER COMPANY Contract: 68-D9-0080

Lab Code: WEYER Case No.: SAS No.: SDG No.: B009N7

Matrix (soil/water): SOIL Lab Sample ID: 54291

Level (low/med): LOW Date Received: 08/01/90

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	224		E	P
7440-36-0	Antimony	3.9	U		P
7440-38-2	Arsenic	0.39	U	W	F
7440-39-3	Barium	5.9	B		P
7440-41-7	Beryllium	0.19	U		P
7440-43-9	Cadmium	0.97	U		P
7440-70-2	Calcium	6460			P
7440-47-3	Chromium	0.97	U		P
7440-48-4	Cobalt	0.52	B		P
7440-50-8	Copper	7.4			P
7439-89-6	Iron	326			P
7439-92-1	Lead	2.8		N*+	F
7439-95-4	Magnesium	1640			P
7439-96-5	Manganese	30.3			P
7439-97-6	Mercury	0.09	U	N	CV
7440-02-0	Nickel	3.9	U		P
7440-09-7	Potassium	20500			P
7782-49-2	Selenium	0.58	U	W	F
7440-22-4	Silver	0.58	U	N	P
7440-23-5	Sodium	104	B		P
7440-28-0	Thallium	0.19	U	NW	F
7440-62-2	Vanadium	0.39	U		P
7440-66-6	Zinc	28.0			P
	Cyanide				NR

Color Before: YELLOW Clarity Before: Texture: FINE

Color After: WHITE Clarity After: Artifacts:

Comments:

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1D

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B009P0

Lab Name: WEYERHAEUSER COMPANY Contract: 68-D9-0080

Lab Code: WEYER Case No.: SAS No.: SDG No.: B009N7

Matrix (soil/water): SOIL Lab Sample ID: 52492

Level (low/med): LOW Date Received: 08/01/90

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	584		E	P
7440-36-0	Antimony	3.7	U		P
7440-38-2	Arsenic	0.40	U	W	F
7440-39-3	Barium	28.5	B		P
7440-41-7	Beryllium	0.18	U		P
7440-43-9	Cadmium	0.92	U		P
7440-70-2	Calcium	4110			P
7440-47-3	Chromium	0.92	U		P
7440-48-4	Cobalt	0.37	U		P
7440-50-8	Copper	5.2			P
7439-89-6	Iron	892			P
7439-92-1	Lead	3.5		N*	F
7439-95-4	Magnesium	1090			P
7439-96-5	Manganese	33.1			P
7439-97-6	Mercury	0.10	U	N	CV
7440-02-0	Nickel	3.7	U		P
7440-09-7	Potassium	4510			P
7782-49-2	Selenium	0.59	U	W	F
7440-22-4	Silver	0.55	U	N	P
7440-23-5	Sodium	157	B		P
7440-28-0	Thallium	0.20	U	N	F
7440-62-2	Vanadium	2.9	B		P
7440-66-6	Zinc	15.9			P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: FINE

Color After: GREY Clarity After: Artifacts:

Comments:

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1E

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B009P1

Lab Name: WEYERHAEUSER COMPANY Contract: 68-D9-0080

Lab Code: WEYER Case No.: SAS No.: SDG No.: B009N7

Matrix (soil/water): SOIL Lab Sample ID: 54293

Level (low/med): LOW Date Received: 08/01/90

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	248		E	P
7440-36-0	Antimony	3.9	U		P
7440-38-2	Arsenic	0.38	U	W	F
7440-39-3	Barium	8.6	B		P
7440-41-7	Beryllium	0.19	U		P
7440-43-9	Cadmium	0.97	U		P
7440-70-2	Calcium	7580			P
7440-47-3	Chromium	12.8			P
7440-48-4	Cobalt	0.39	U		P
7440-50-8	Copper	3.7	B		P
7439-89-6	Iron	460			P
7439-92-1	Lead	3.6		N*	F
7439-95-4	Magnesium	1700			P
7439-96-5	Manganese	45.0			P
7439-97-6	Mercury	0.10	U	N	CV
7440-02-0	Nickel	8.4			P
7440-09-7	Potassium	16300			P
7782-49-2	Selenium	0.58	U	W	F
7440-22-4	Silver	0.58	U	N	P
7440-23-5	Sodium	80.0	B		P
7440-28-0	Thallium	0.19	U	N	F
7440-62-2	Vanadium	0.39	U		P
7440-66-6	Zinc	27.1			P
	Cyanide				NR

Color Before: YELLOW Clarity Before: Texture: FINE

Color After: WHITE Clarity After: Artifacts:

Comments:

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1 F

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B009P2

Lab Name: WEYERHAEUSER COMPANY Contract: 68-D9-0080

Lab Code: WEYER Case No.: SAS No.: SDG No.: B009N7

Matrix (soil/water): SOIL Lab Sample ID: 54294

Level (low/med): LOW Date Received: 08/01/90

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	878		E	P
7440-36-0	Antimony	3.9	U		P
7440-38-2	Arsenic	0.36	U	W	F
7440-39-3	Barium	46.5			P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.98	U		P
7440-70-2	Calcium	4920			P
7440-47-3	Chromium	0.98	U		P
7440-48-4	Cobalt	0.51	B		P
7440-50-8	Copper	3.3	B		P
7439-89-6	Iron	1430			P
7439-92-1	Lead	4.8		N*	F
7439-95-4	Magnesium	1240			P
7439-96-5	Manganese	45.8			P
7439-97-6	Mercury	0.09	U	N	CV
7440-02-0	Nickel	3.9	U		P
7440-09-7	Potassium	3280			P
7782-49-2	Selenium	0.54	U	W	F
7440-22-4	Silver	0.59	U	N	P
7440-23-5	Sodium	238	B		P
7440-28-0	Thallium	0.18	U	N	F
7440-62-2	Vanadium	4.4	B		P
7440-66-6	Zinc	27.2			P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: FINE

Color After: GREY Clarity After: Artifacts:

Comments:

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1G

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B009P3

Lab Name: WEYERHAEUSER COMPANY Contract: 68-D9-0080

Lab Code: WEYER Case No.: SAS No.: SDG No.: B009N7

Matrix (soil/water): SOIL Lab Sample ID: 54295

Level (low/med): LOW Date Received: 08/01/90

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	291		E	P
7440-36-0	Antimony	3.1	U		P
7440-38-2	Arsenic	0.37	U	W	F
7440-39-3	Barium	7.9	B		P
7440-41-7	Beryllium	0.16	U		P
7440-43-9	Cadmium	0.78	U		P
7440-70-2	Calcium	6680			P
7440-47-3	Chromium	0.78	U		P
7440-48-4	Cobalt	0.31	U		P
7440-50-8	Copper	7.3			P
7439-89-6	Iron	466			P
7439-92-1	Lead	2.7		N*	F
7439-95-4	Magnesium	1330			P
7439-96-5	Manganese	48.7			P
7439-97-6	Mercury	0.09	U	N	CV
7440-02-0	Nickel	3.1	U		P
7440-09-7	Potassium	18700			P
7782-49-2	Selenium	0.56	U	W	F
7440-22-4	Silver	0.47	U	N	P
7440-23-5	Sodium	90.2	B		P
7440-28-0	Thallium	0.19	U	NW	F
7440-62-2	Vanadium	0.57	B		P
7440-66-6	Zinc	14.3			P
	Cyanide				NR

Color Before: YELLOW Clarity Before: Texture: FINE

Color After: WHITE Clarity After: Artifacts:

Comments:

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1H

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B009P4

Lab Name: WEYERHAEUSER COMPANY Contract: 68-D9-0080

Lab Code: WEYER Case No.: SAS No.: SDG No.: B009N7

Matrix (soil/water): SOIL Lab Sample ID: 54296

Level (low/med): LOW Date Received: 08/01/90

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	864		E	P
7440-36-0	Antimony	3.1	U		P
7440-38-2	Arsenic	0.35	U	W	F
7440-39-3	Barium	36.4			P
7440-41-7	Beryllium	0.16	U		P
7440-43-9	Cadmium	0.79	U		P
7440-70-2	Calcium	3310			P
7440-47-3	Chromium	0.81	B		P
7440-48-4	Cobalt	0.59	B		P
7440-50-8	Copper	1.8	B		P
7439-89-6	Iron	1470			P
7439-92-1	Lead	1.9		N*	F
7439-95-4	Magnesium	971			P
7439-96-5	Manganese	50.9			P
7439-97-6	Mercury	0.09	U	N	CV
7440-02-0	Nickel	3.1	U		P
7440-09-7	Potassium	3290			P
7782-49-2	Selenium	0.53	U	W	F
7440-22-4	Silver	0.47	U	N	P
7440-23-5	Sodium	164	B		P
7440-28-0	Thallium	0.18	U	N	F
7440-62-2	Vanadium	3.6	B		P
7440-66-6	Zinc	22.8			P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: FINE

Color After: GREY Clarity After: Artifacts:

Comments:

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1 I

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B009P5

Lab Name: WEYERHAEUSER COMPANY Contract: 68-D9-0080

Lab Code: WEYER Case No.: SAS No.: SDG No.: B009N7

Matrix (soil/water): SOIL Lab Sample ID: 54297

Level (low/med): LOW Date Received: 08/01/90

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	296		E	P
7440-36-0	Antimony	3.6	U		P
7440-38-2	Arsenic	0.36	U	W	F
7440-39-3	Barium	10.3	B		P
7440-41-7	Beryllium	0.18	U		P
7440-43-9	Cadmium	0.91	U		P
7440-70-2	Calcium	10000			P
7440-47-3	Chromium	0.91	U		P
7440-48-4	Cobalt	0.36	U		P
7440-50-8	Copper	2.6	B		P
7439-89-6	Iron	440			P
7439-92-1	Lead	1.2		N*	F
7439-95-4	Magnesium	1440			P
7439-96-5	Manganese	62.2			P
7439-97-6	Mercury	0.09	U	N	CV
7440-02-0	Nickel	3.6	U		P
7440-09-7	Potassium	17900			P
7782-49-2	Selenium	0.54	U	W	F
7440-22-4	Silver	0.55	U	N	P
7440-23-5	Sodium	120	B		P
7440-28-0	Thallium	0.18	U	NW	F
7440-62-2	Vanadium	0.71	B		P
7440-66-6	Zinc	21.0			P
	Cyanide				NR

Color Before: YELLOW Clarity Before: Texture: FINE

Color After: WHITE Clarity After: Artifacts:

Comments:

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1 J

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B009P6

Lab Name: WEYERHAEUSER COMPANY Contract: 68-D9-0080

Lab Code: WEYER Case No.: SAS No.: SDG No.: B009N7

Matrix (soil/water): SOIL Lab Sample ID: 54298

Level (low/med): LOW Date Received: 08/01/90

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1170		E	P
7440-36-0	Antimony	3.8	U		P
7440-38-2	Arsenic	0.37	U		F
7440-39-3	Barium	38.7			P
7440-41-7	Beryllium	0.19	U		P
7440-43-9	Cadmium	0.96	U		P
7440-70-2	Calcium	4600			P
7440-47-3	Chromium	1.1	B		P
7440-48-4	Cobalt	1.0	B		P
7440-50-8	Copper	1.4	B		P
7439-89-6	Iron	2120			P
7439-92-1	Lead	3.4		N*	F
7439-95-4	Magnesium	966			P
7439-96-5	Manganese	52.1			P
7439-97-6	Mercury	0.10	U	N	CV
7440-02-0	Nickel	3.8	U		P
7440-09-7	Potassium	2810			P
7782-49-2	Selenium	0.56	U	W	F
7440-22-4	Silver	0.58	U	N	P
7440-23-5	Sodium	189	B		P
7440-28-0	Thallium	0.19	U	NW	F
7440-62-2	Vanadium	5.3	B		P
7440-66-6	Zinc	18.1			P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: FINE

Color After: GREY Clarity After: Artifacts:

Comments:

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1 K

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B009P7

Lab Name: WEYERHAEUSER COMPANY Contract: 68-D9-0080

Lab Code: WEYER Case No.: SAS No.: SDG No.: B009N7

Matrix (soil/water): SOIL Lab Sample ID: 54299

Level (low/med): LOW Date Received: 08/01/90

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	429		E	P
7440-36-0	Antimony	3.7	U		P
7440-38-2	Arsenic	2.0	U		F
7440-39-3	Barium	10.3	B		P
7440-41-7	Beryllium	0.19	U		P
7440-43-9	Cadmium	0.93	U		P
7440-70-2	Calcium	8860			P
7440-47-3	Chromium	0.93	U		P
7440-48-4	Cobalt	0.37	U		P
7440-50-8	Copper	3.8	B		P
7439-89-6	Iron	660			P
7439-92-1	Lead	1.5		N*	F
7439-95-4	Magnesium	1410			P
7439-96-5	Manganese	65.2			P
7439-97-6	Mercury	0.09	U	N	CV
7440-02-0	Nickel	3.7	U		P
7440-09-7	Potassium	16600			P
7782-49-2	Selenium	0.59	U	W	F
7440-22-4	Silver	0.56	U	N	P
7440-23-5	Sodium	151	B		P
7440-28-0	Thallium	0.25	B	N	F
7440-62-2	Vanadium	1.3	B		P
7440-66-6	Zinc	29.3			P
	Cyanide				NR

Color Before: YELLOW Clarity Before: Texture: FINE

Color After: WHITE Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1 L

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B009P8

Lab Name: WEYERHAEUSER COMPANY Contract: 68-D9-0080

Lab Code: WEYER Case No.: SAS No.: SDG No.: B009N7

Matrix (soil/water): SOIL Lab Sample ID: 54300

Level (low/med): LOW Date Received: 08/01/90

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	635		E	P
7440-36-0	Antimony	3.7	U		P
7440-38-2	Arsenic	0.40	U	E	F
7440-39-3	Barium	29.4	B		P
7440-41-7	Beryllium	0.19	U		P
7440-43-9	Cadmium	0.93	U		P
7440-70-2	Calcium	4420			P
7440-47-3	Chromium	0.93	U		P
7440-48-4	Cobalt	0.37	U		P
7440-50-8	Copper	1.7	B		P
7439-89-6	Iron	1040			P
7439-92-1	Lead	1.9		N*	F
7439-95-4	Magnesium	905	B		P
7439-96-5	Manganese	43.5			P
7439-97-6	Mercury	0.09	U	N	CV
7440-02-0	Nickel	3.7	U		P
7440-09-7	Potassium	3660			P
7782-49-2	Selenium	0.59	U		F
7440-22-4	Silver	0.56	U	N	P
7440-23-5	Sodium	145	B		P
7440-28-0	Thallium	0.20	U	NW	F
7440-62-2	Vanadium	2.2	B		P
7440-66-6	Zinc	103			P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: FINE

Color After: WHITE Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1M

INORGANIC ANALYSIS DATA SHEET

B009P9

Lab Name: WEYERHAEUSER COMPANY Contract: 68-D9-0080

Lab Code: WEYER Case No.: SAS No.: SDG No.: B009N7

Matrix (soil/water): SOIL Lab Sample ID: 54301

Level (low/med): LOW Date Received: 08/01/90

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	230		E	P
7440-36-0	Antimony	3.9	U		P
7440-38-2	Arsenic	0.34	U	E	F
7440-39-3	Barium	5.0	B		P
7440-41-7	Beryllium	0.19	U		P
7440-43-9	Cadmium	0.97	U		P
7440-70-2	Calcium	5430			P
7440-47-3	Chromium	0.97	U		P
7440-48-4	Cobalt	0.39	U		P
7440-50-8	Copper	2.1	B		P
7439-89-6	Iron	323			P
7439-92-1	Lead	1.7		N*	F
7439-95-4	Magnesium	680	B		P
7439-96-5	Manganese	28.4			P
7439-97-6	Mercury	0.09	U	N	CV
7440-02-0	Nickel	3.9	U		P
7440-09-7	Potassium	17300			P
7782-49-2	Selenium	0.51	U	W	F
7440-22-4	Silver	0.58	U	N	P
7440-23-5	Sodium	106	B		P
7440-28-0	Thallium	0.17	U	N	F
7440-62-2	Vanadium	0.39	U		P
7440-66-6	Zinc	10.5			P
	Cyanide				NR

Color Before: YELLOW Clarity Before: Texture: FINE

Color After: WHITE Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1N

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B009Q0

Lab Name: WEYERHAEUSER COMPANY Contract: 68-D9-0080

Lab Code: WEYER Case No.: SAS No.: SDG No.: B009N7

Matrix (soil/water): SOIL Lab Sample ID: 54302

Level (low/med): LOW Date Received: 08/01/90

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	829		E	P
7440-36-0	Antimony	3.4	U		P
7440-38-2	Arsenic	0.36	U	E	F
7440-39-3	Barium	34.5			P
7440-41-7	Beryllium	0.17	U		P
7440-43-9	Cadmium	0.85	U		P
7440-70-2	Calcium	3810			P
7440-47-3	Chromium	0.85	U		P
7440-48-4	Cobalt	0.43	B		P
7440-50-8	Copper	1.4	B		P
7439-89-6	Iron	1360			P
7439-92-1	Lead	4.2		N*	F
7439-95-4	Magnesium	907			P
7439-96-5	Manganese	41.2			P
7439-97-6	Mercury	0.09	U	N	CV
7440-02-0	Nickel	3.4	U		P
7440-09-7	Potassium	3100			P
7782-49-2	Selenium	0.54	U	W	F
7440-22-4	Silver	0.51	U	N	P
7440-23-5	Sodium	152	B		P
7440-28-0	Thallium	0.18	U	NW	F
7440-62-2	Vanadium	3.3	B		P
7440-66-6	Zinc	15.3			P
	Cyanide				NR

Color Before: YELLOW Clarity Before: Texture: FINE

Color After: WHITE Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

10

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B009Q1

Lab Name: WEYERHAEUSER COMPANY Contract: 68-D9-0080

Lab Code: WEYER Case No.: SAS No.: SDG No.: B009N7

Matrix (soil/water): SOIL Lab Sample ID: 54303

Level (low/med): LOW Date Received: 08/01/90

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	350		E	P
7440-36-0	Antimony	3.2	U		P
7440-38-2	Arsenic	0.33	U	W	F
7440-39-3	Barium	7.7	B		P
7440-41-7	Beryllium	0.16	U		P
7440-43-9	Cadmium	0.79	U		P
7440-70-2	Calcium	6880			P
7440-47-3	Chromium	0.79	U		P
7440-48-4	Cobalt	0.35	B		P
7440-50-8	Copper	4.5			P
7439-89-6	Iron	532			P
7439-92-1	Lead	2.0		N*	F
7439-95-4	Magnesium	1400			P
7439-96-5	Manganese	52.1			P
7439-97-6	Mercury	0.09	U	N	CV
7440-02-0	Nickel	3.2	U		P
7440-09-7	Potassium	16100			P
7782-49-2	Selenium	0.49	U	W	F
7440-22-4	Silver	0.48	U	N	P
7440-23-5	Sodium	113	B		P
7440-28-0	Thallium	0.16	U	NW	F
7440-62-2	Vanadium	0.85	B		P
7440-66-6	Zinc	13.4			P
	Cyanide				NR

Color Before: YELLOW Clarity Before: Texture: FINE

Color After: WHITE Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1 ρ

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B009Q2

Lab Name: WEYERHAEUSER COMPANY Contract: 68-D9-0080

Lab Code: WEYER Case No.: SAS No.: SDG No.: B009N7

Matrix (soil/water): SOIL Lab Sample ID: 54304

Level (low/med): LOW Date Received: 08/01/90

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1290		E	P
7440-36-0	Antimony	3.7	U		P
7440-38-2	Arsenic	0.37	U	W	F
7440-39-3	Barium	39.0			P
7440-41-7	Beryllium	0.18	U		P
7440-43-9	Cadmium	0.92	U		P
7440-70-2	Calcium	6490			P
7440-47-3	Chromium	1.2	B		P
7440-48-4	Cobalt	0.89	B		P
7440-50-8	Copper	5.8			P
7439-89-6	Iron	2180			P
7439-92-1	Lead	4.5			F
7439-95-4	Magnesium	1380			P
7439-96-5	Manganese	62.0			P
7439-97-6	Mercury	0.09	U	N	CV
7440-02-0	Nickel	3.7	U		P
7440-09-7	Potassium	2860			P
7782-49-2	Selenium	0.56	U	W	F
7440-22-4	Silver	0.55	U	N	P
7440-23-5	Sodium	194	B		P
7440-28-0	Thallium	0.19	U	NW	F
7440-62-2	Vanadium	5.7	B		P
7440-66-6	Zinc	20.5			P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: FINE

Color After: WHITE Clarity After: Artifacts:

Comments:

ANALYTICAL LABORATORY SERVICES REQUEST

Weyerhaeuser Research and Development – Analysis and Testing

Request Number: 03403

Title: WESTINGHOUSE ASPARAGUS SAMPLES PROJ #15453		
Number of Samples: 16	Project Number: 046-5669	Groups: 3,6
Date Received: 08/02/90	Date Desired: 08/23/90 9/11	Estimated Completion Date: 08/23/90
Submitted By: BRANDT, CHARLES	Location:	Telephone: (509)376-5345
Reviewed By: DOXSEE, Kari	Location: 2F 25	Telephone: 924-6148
Copy To:		

Sample Description and History:

UPDATED 8/7/90

Group	Series	Test Code	Test Description		
			Report Range	Report Basis	Lower Limit of Sensitivity
3	A	MET-WES	Metals - Westinghouse - Inorganic Group 3 CLP Deliverables		

Sample Number	Series to Be Evaluated	Submitter's Designation
54289	A	B009N7 ALL MET EXCEPT Hg & B00BL0 Hg ONLY
54290	A	B009N8 ALL MET EXCEPT Hg & B00BL1 Hg ONLY
54291	A	B009N9 ALL MET EXCEPT Hg & B00BL2 Hg ONLY
54292	A	B009P0 ALL MET EXCEPT Hg & B00BL3 Hg ONLY
54293	A	B009P1 ALL MET EXCEPT Hg & B00BL4 Hg ONLY
54294	A	B009P2 ALL MET EXCEPT Hg & B00BL5 Hg ONLY
54295	A	B009P3 ALL MET EXCEPT Hg & B00BL6 Hg ONLY
54296	A	B009P4 ALL MET EXCEPT Hg & B00BL7 Hg ONLY
54297	A	B009P5 ALL MET EXCEPT Hg & B00BL8 Hg ONLY
54298	A	B009P6 ALL MET EXCEPT Hg & B00BL9 Hg ONLY
54299	A	B009P7 ALL MET EXCEPT Hg & B00BM0 Hg ONLY
54300	A	B009P8 ALL MET EXCEPT Hg & B00BM1 Hg ONLY
54301	A	B009P9 ALL MET EXCEPT Hg & B00BM2 Hg ONLY
54302	A	B009Q0 ALL MET EXCEPT Hg & B00BM3 Hg ONLY
54303	A	B009Q1 ALL MET EXCEPT Hg & B00BM4 Hg ONLY
54304	A	B009Q2 ALL MET EXCEPT Hg & B00BM5 Hg ONLY

Interim Report Desired?	Hazardous Samples? Yes		No	
Reference:				Record Book:
Results Approved:	Date:	Signature applies to attached pages		Page Number:

Printed on: 08/07/90

CROSS REFERENCE FOR ASPARAGUS

HG	METALS
~~B00BN6~~	~~B00BK6~~
~~B00BN7~~	~~B00BK7~~
B00BL0	B009N7
B00BL1	B009N8
B00BL2	B009N9
B00BL3	B009P0
B00BL4	B009P1
B00BL5	B009P2
B00BL6	B009P3
B00BL7	B009P4
B00BL8	B009P5
B00BL9	B009P6
B00BM0	B009P7
B00BM1	B009P8
B00BM2	B009P9
B00BM3	B009Q0
B00BM4	B009Q1
B00BM5	B009Q2

CLP-MET A Hg Only
other metals

A 52296 B00BL0-all met except Hg
+B00000 - Hg only

Battelle
Pacific Northwest Laboratories
Richland, Washington

CHAIN OF CUSTODY

CAB 028

Company Contact: Charles A. Brandt Telephone: (509) 376-5345

Samples Collected by: R.J Fellows Date: 7/30/90 Time: 14:30

Sample Location: 300 FF-1

Ice Chest No.: RM #7 Field Logbook Page No.: 52960

Remarks: Rabitbrush and Grass Samples found in CAB 019 and CAB 020 for Metals + Pb

Method of Shipment: Fed Exp.

Sample Identification

BØØ9N7	BØØ9P8
BØØ9N8	BØØ9QØ
BØØ9N9	BØØ9Q1
BØØ9PØ	BØØ9Q2
BØØ9P1	
BØØ9P2	
BØØ9P3	
BØØ9P4	
BØØ9P5	
BØØ9P6	
BØØ9P7	
BØØ9P9	

Chain of Possession

Relinquished by:	Received by:	Date/Time:
Robert J Fellows	R.J. Stuff	7-30-90 14:57
R.J. Stuff	D.R. Raymond	7-30-90 3:10 PM.
	Bonnie Chappel	8-1-90 1030

PNL-MA-567, GC-1

0084

BC-1200-345 (11/89)

Battelle
Pacific Northwest Laboratories
Richland, Washington

CHAIN OF CUSTODY

CAB 029

Company Contact: Charles A Brandt Telephone: 376-5345 (509)

Samples Collected by: RA Fellows Date: 7/30/90 Time: 1430

Sample Location: 300 FF-1

Ice Chest No.: RM #7 Field Logbook Page No.: 52960

Remarks: Veg Samples for Hg analysis as found in CAB 019 and CAB 020

Method of Shipment: Fed Express

Sample Identification

BØØBLØ	BØØBM2
BØØBL1	BØØBM3
BØØBL2	BØØBM4
BØØBL3	BØØBM5
BØØBL4	
BØØBL5	
BØØBL6	
BØØBL7	
BØØBL8	
BØØBL9	
BØØBMØ	
BØØBM1	

Chain of Possession

Relinquished by:	Received by:	Date/Time:
Robert Fellows	R.Z. Stoffel	7-30-90 1457
R.Z. Stoffel	S.L. Raymond	7/30/90 3:10 PM.
	Bonnie Chappel	8-01-90 1030

PNL-MA-567, GC-1

BC-1000-34R(11/89)

CC85

B009N7-WEY-033

SEP 1990 RECEIVED J.M. KESSNER

CASE NARRATIVE

WEYERHAEUSER (WEYER)
ANALYTICAL AND TESTING SERVICES

Case Number: 3403
SDG Number: B009N7
Contract Number: 68-D9-0080

Samples from this case (3403) were received on 8/1/90. This case was comprised of foliage for metals analysis only. The requested analyses were as follows:

Sample ID		Analysis Requested
B009N7	BOOBL0	METALS
B009N7D	BOOBL0D	METALS
B009N7S	BOOBL0S	METALS
B009N8	BOOBL1	METALS
B009N9	BOOBL2	METALS
B009P0	BOOBL3	METALS
B009P1	BOOBL4	METALS
B009P2	BOOBL5	METALS
B009P3	BOOBL6	METALS
B009P4	BOOBL7	METALS
B009P5	BOOBL8	METALS
B009P6	BOOBL9	METALS
B009P7	BOOBM0	METALS
B009P8	BOOBM1	METALS
B009P9	BOOBM2	METALS
B009Q0	BOOBM3	METALS
B009Q1	BOOBM4	METALS
B009Q2	BOOBM5	METALS

ICP Parent samples

Mercury splits - data Reported under ICP Parent sample ID's

Several anomalies existed with this sample set that are listed below.

1. The duplicate sample analysis was outside the control limit for lead.
2. The spike recovery was outside the control limit for lead, mercury, silver and thallium.
3. The ICP serial dilution was outside the control limit for aluminum.
4. Method of Standard Additions was performed for samples B009N7D and B009N9 for lead.

Westinghouse
Hanford Company

Internal
Memo

From: Office of Sample Management 16500-90-087
Phone: 3-3419 MO-346/200W T6-08
Date: November 14, 1990
Subject: INSPECTION OF 300-FF-1 DATA PACKAGES AT WEYERHAEUSER ANALYTICAL AND TESTING SERVICES

To: L. C. Hulstrom H4-55

cc: M. R. Adams H4-55*
R. A. Bechtold T6-08
W. L. Johnson H4-55*
J. H. Kessner T6-08*
E. J. Kosiancic R2-67*
Data Files
JAL File/LB
*w/o attachments

Representatives from the Westinghouse Company (WHC) Office of Sample Management (OSM) and Weyerhaeuser Analytical and Testing Services (Weyerhaeuser) met on-site at Weyerhaeuser on November 7, 1990, to discuss shipping and sample documentation inconsistencies identified in six data packages transmitted to the OSM for the 300-FF-1 Project. Attendees of the meeting included:

R. A. Bechtold (WHC-OSM)
J. A. Lerch (WHC-OSM)
B. L. Chappel (Weyerhaeuser)
K. H. Doxsee (Weyerhaeuser)
M. B. Lanza (Weyerhaeuser)

The main issues of concern were the appearance of multiple Chain-of- Custody (COC) records and incomplete shipping/sample documentation in the six data packages. Inspection and discussion of the data files at Weyerhaeuser concluded with adequate resolution of the issues.

A brief chronological history is necessary to better understand the observed inconsistencies. Field samples taken by Pacific Northwest Laboratories (PNL) were collected in separate containers for Hg and the remaining Contract Laboratory Program (CLP) Target Analyte List (TAL) metals. All samples underwent a drying process prior to off-site shipment. Weyerhaeuser received three shipments of vegetation samples for the 300-FF-1 project as follows (also see Table 1):

June 5, 1990:

One cooler containing samples for Hg analysis only (sent prior to below shipment because of Hg holding time considerations).

June 22, 1990:

Two coolers containing samples for remaining TAL metals analysis (corresponding to the Hg samples sent on June 5, 1990); eight samples for Hg analysis also included.

August 1, 1990:

One cooler containing samples for both Hg and TAL metals analysis.

Samples received on June 5, 1990, and June 22, 1990, were divided into five Sample Delivery Groups (SDG) according to EPA protocol, which defines a SDG as a group of twenty or fewer samples received over a period of up to fourteen calendar days. Weyerhaeuser was given a cross reference listing of TAL samples and Hg samples and was requested to combine the results in the same data package by R. A. Bechtold on June 29, 1990. Samples received on August 1, 1990, were placed in a stand-alone SDG.

300-FF-1 sample data was received by OSM in the six SDG's listed in Table 1. Review of the transmitted data packages revealed that sample and shipping documentation was absent or incomplete in the packages and that some of the COC forms transmitted in SDG packages B009B5 and B009D5 were unsigned by Weyerhaeuser.

The 300-FF-1 data are bound in three files at Weyerhaeuser as described in Table 1 (arbitrarily file one, two, and three). Discrepancies noted with transmittal of shipping/sample documentation are a reflection of the location of original documentation in two of the three bound Weyerhaeuser files containing data transmitted in six SDG's. Original documents in the bound files were inspected and found to be complete for the three shipment dates. Receipt of the coolers at Weyerhaeuser receiving was verified by signature on the Federal Express shipping forms. All original COC forms were signed and dated by Weyerhaeuser personnel and no evidence of back-dating was apparent.

The appearance of unsigned COC forms in the transmitted data packages were the result of copies made from the original forms for use as "worksheets" as samples were pulled from the two coolers, logged-in, and divided into SDG's on June 22, 1990. The original "worksheets" are located in the bound data files and were included with transmission of some of the data packages by the package assembly group, as a mistake. Bonnie Chappel of the Weyerhaeuser Sample Management Office acknowledged that the COC forms should have been signed before any copies were made. No further action concerning the issue was taken as the WHC contract with Weyerhaeuser has expired since OSM received the 300-FF-1 data.

Necessary attention will be given in this area to ensure that such events do not occur during future analytical contracts. The OSM recommends that sample shipments of greater than twenty samples per cooler/shipping container be avoided whenever possible. This suggested up-front type of corrective action would eliminate many of the problems described above.

Copies of the shipping/sample documentation from the two Weyerhaeuser data files containing original documentation for each of the three shipment dates are Attachments one through three. Together with this Internal Memo, they will be placed with the 300-FF-1 data packages currently located at OSM. The documentation included in the attachments consists of:

- o Battelle Pacific Northwest Laboratories COC Forms (generated by PNL)
- o Receipt of Westinghouse Samples Form (Weyerhaeuser)
- o Analytical Laboratory Services Request Forms (PNL)
- o WHC Release to Ship Form
- o Federal Express Airbill
- o Federal Express Constant Surveillance Service/Signature Security Service Tally Record (service was discontinued by Federal Express on July 1, 1990)

If you have any questions, please contact J. A. Lerch at 3-3419 or R. A. Bechtold at 3-3448.

J. A. Lerch, Scientist
Office of Sample Management

R. A. Bechtold, Principal Scientist
Office of Sample Management

jmd

Attachments - 3

TABLE 1

300-FF-1 SAMPLE DELIVERY GROUPS

SAMPLE DELIVERY GROUP	Hg SAMPLES RECEIVED	TAL SAMPLES RECEIVED	WEYERHAEUSER FILE NUMBER	WEYERHAEUSER SHIPPING DOCUMENTATION FILE	ATTACHMENT NUMBER
ASPG19	06/05/90	06/22/90	1	1	1 & 2
ASPG39	06/05/90	06/22/90	1	1	1 & 2
B00985	06/05/90	06/22/90	1	1	1 & 2
B009B5	06/05/90	06/22/90	2	1	1 & 2
B009D5	06/22/90	06/22/90	2	1	1 & 2
B009N7	08/01/90	08/01/90	3	3	3

Westinghouse
Hanford Company

OSM INORGANIC DATA ASSESSMENT

DATE 09/19/90

REVIEWED BY JA Lerch

LABORATORY Weyerhaeuser

CASE # 3403

SDG # B009N7

SAMPLES/MATRIX B009N7 B009P2 B009P7
B009N8 B009P3 B009P8
B009N9 B009P4 B009P9
B009P0 B009P5 B009Q0
B009P1 B009P6 B009Q1
B009Q2
-all asparagus

DATA ASSESSMENT SUMMARY

	ICP	AA	Hg	CN
1. Calibrations (Form II)	O	O	O	NR
2. Blanks (III)	X	O	O	NR
3. ICS (IV)	X			
4. Matrix Spike (V)	M	X	X	NR
5. Duplicate Analysis (VI)	O	X	O	NR
6. LCS (VII)	O	O		
7. Serial Dilution (IX)	X			
8. GFAA		M		
9. Holding Times (XIV)	O	O	O	NR
10. Other QC see attachment				

O = data had no problems
X = data qualified due to minor problems
M = data qualified due to major problems/some data may be unusable

OVERALL ASSESSSMENT: all Ag results unusable because of low MS recovery; some As results unusable due to low GFAA spike recovery - all other results acceptable with qualification

NOTES: CN not requested (NR)

o Refer to the corresponding attachments for explanation of any problems.

54 7900 046

INORGANIC QC - Calibrations

Name JA Lerch Date 09/19/90

COMMENTS: all initial & continuing cal. verification (ICV+CCV) %R within control limits
- analysis Run log check ok
- Hg correlation coefficient ok

ACTION: none

sample #	constituent	value/qual	sample #	constituent	value/qual

INORGANIC QC - Blanks

Name JA Lerch Date 09/19/90

COMMENTS: trace contamination below CRDL for Al, Ba, Ca, K, Na, Zn

ACTION: qualify associated sample results as per OSM guidelines

sample #	constituent	value/qual	sample #	constituent	value/qual
all	Na	U			
B009P9	Ba	U			

INORGANIC QC - ICS

Name JA Lerch Date 09/19/90

COMMENTS: all ICS solution recoveries within limits
- possible negative interference for K
- possible positive interference for Na

ACTION: qualify associated results as per OSM guidelines

sample #	constituent	value/qual	sample #	constituent	value/qual
- no sample qualification required					

INORGANIC QC - Matrix Spike

Name JA Lerch Date 09/19/90

COMMENTS: B009N75 - Pb, Hg, Ag, Tl recoveries out of control limits low; all other recoveries ok

ACTION: qualify associated results as per OSM guidelines

sample #	constituent	value/qual	sample #	constituent	value/qual
all	Pb	J			
	Hg	UJ			
	Ag	R			
	Tl	UJ			
with the exception B009P7	Tl	J			

INORGANIC QC - Duplicate Analysis

Name JA Lerch Date 09/19/90

COMMENTS: B009N7D - Pb duplicate RPD out of control limits; all other RPD's ok where applicable

ACTION: qualify associated results as per OSWM guidelines

sample #	constituent	value/qual	sample #	constituent	value/qual
all	Pb	J			

INORGANIC QC - LCS

Name JA Lerch Date 09/19/90

COMMENTS: all solid LCS results within control limits

ACTION: none

sample #	constituent	value/qual	sample #	constituent	value/qual

INORGANIC QC - Serial Dilution

Name JA Lerch Date 09/19/90

COMMENTS: – Al dilution %D out of control limits
all other %D's ok where applicable

ACTION: qualify associated results as per
OSM guidelines

sample #	constituent	value/qual	sample #	constituent	value/qual
all	Al	J			

INORGANIC QC - Holding Times

Name JA Lerch Date 09/19/90

COMMENTS: -all HT requirements met

ACTION: none

sample #	constituent	value/qual	sample #	constituent	value/qual

INORGANIC QC - GFAA

Name JA Lerch Date 09/19/90

COMMENTS: MSA performed on B009N9 for Pb; correlation coefficient requirement not met.
- GFAA analytical spikes out of control limits for Se, Tl, As on some samples (see below)

ACTION: qualify associated results as per OSM guidelines

sample #	constituent	value/qual
B009N7	Tl	UJ
B009N8	As	UJ
	Se	UJ
B009N9	As	UJ
	Se	UJ
	Tl	UJ
B009P0	As	UJ
	Se	UJ
B009P1	As	UJ
	Se	UJ
B009P2	As	UJ
	Se	UJ
B009P3	As	UJ
	Se	UJ
	Tl	UJ
B009P4	As	UJ
	Se	UJ
B009P5	As	UJ
	Se	UJ
	Tl	UJ

sample #	constituent	value/qual
B009P6	Se	UJ
	Tl	acceptable
B009P7	Se	UJ
		UJ
B009P8	Tl	R
	Se	UJ
B009P9	Se	R
	~~Tl~~ As	UJ
B009Q0	Se	UJ
	Tl	R
	As	UJ
B009Q1	As	UJ
	Se	UJ
	Tl	UJ
B009Q2	As	UJ
	Se	UJ
	Tl	UJ

INORGANIC QC - other

Name JA Lerch Date 9/19/90

COMMENTS: - Hg samples submitted under separate ID# - SEE CASE NARRATIVE
metal sample#'s left-hand column; corresponding Hg sample #'s middle column

ACTION:

sample #	constituent	value/qual	sample #	constituent	value/qual

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1 A

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B009N7

Lab Name: WEYERHAEUSER COMPANY Contract: 68-D9-0080

Lab Code: WEYER Case No.: SAS No.: SDG No.: B009N7

Matrix (soil/water): SOIL Lab Sample ID: 54289

Level (low/med): LOW Date Received: 08/01/90

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	371	J	E	P
7440-36-0	Antimony	3.8	U		P
7440-38-2	Arsenic	0.36	U		F
7440-39-3	Barium	7.8	B		P
7440-41-7	Beryllium	0.19	U		P
7440-43-9	Cadmium	0.95	U		P
7440-70-2	Calcium	6400			P
7440-47-3	Chromium	0.95	U		P
7440-48-4	Cobalt	0.38	U		P
7440-50-8	Copper	9.5			P
7439-89-6	Iron	604			P
7439-92-1	Lead	4.9	J	N*	F
7439-95-4	Magnesium	1480			P
7439-96-5	Manganese	36.6			P
7439-97-6	Mercury	0.09	U	N	CV
7440-02-0	Nickel	3.8	U		P
7440-09-7	Potassium	19800			P
7782-49-2	Selenium	0.55	U		F
7440-22-4	Silver	0.57	U	N R	P
7440-23-5	Sodium	113	B	U	P
7440-28-0	Thallium	0.18	U	NW	F
7440-62-2	Vanadium	0.82	B		P
7440-66-6	Zinc	23.3			P
	Cyanide				NR

09/19/90

Color Before: YELLOW Clarity Before: Texture: FINE

Color After: WHITE Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1D

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B009N8

Lab Name: WEYERHAEUSER COMPANY Contract: 68-D9-0080

Lab Code: WEYER Case No.: SAS No.: SDG No.: B009N7

Matrix (soil/water): SOIL Lab Sample ID: 54290

Level (low/med): LOW Date Received: 08/01/90

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1040	J	E	P
7440-36-0	Antimony	3.6	U		P
7440-38-2	Arsenic	0.34	UJ	W	F
7440-39-3	Barium	36.2	B		P
7440-41-7	Beryllium	0.18	U		P
7440-43-9	Cadmium	0.91	U		P
7440-70-2	Calcium	4090			P
7440-47-3	Chromium	1.3	B		P
7440-48-4	Cobalt	0.63	B		P
7440-50-8	Copper	6.9			P
7439-89-6	Iron	1580			P
7439-92-1	Lead	3.9	J	N*	F
7439-95-4	Magnesium	964			P
7439-96-5	Manganese	50.5			P
7439-97-6	Mercury	0.09	UJ	N	CV
7440-02-0	Nickel	3.6	U		P
7440-09-7	Potassium	3120			P
7782-49-2	Selenium	0.52	UJ	W	F
7440-22-4	Silver	0.55	~~U~~	N R	P
7440-23-5	Sodium	189	~~B~~	U	P
7440-28-0	Thallium	0.17	UJ	N	F
7440-62-2	Vanadium	6.5	B		P
7440-66-6	Zinc	64.9			P
	Cyanide				NR

JL 09/19/90

Color Before: BROWN Clarity Before: Texture: FINE

Color After: GREY Clarity After: Artifacts:

Comments:

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1c

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B009N9

Lab Name: WEYERHAEUSER COMPANY Contract: 68-D9-0080

Lab Code: WEYER Case No.: SAS No.: SDG No.: B009N7

Matrix (soil/water): SOIL Lab Sample ID: 54291

Level (low/med): LOW Date Received: 08/01/90

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	224	J	E	P
7440-36-0	Antimony	3.9	U		P
7440-38-2	Arsenic	0.39	UJ	W	F
7440-39-3	Barium	5.9	B		P
7440-41-7	Beryllium	0.19	U		P
7440-43-9	Cadmium	0.97	U		P
7440-70-2	Calcium	6460			P
7440-47-3	Chromium	0.97	U		P
7440-48-4	Cobalt	0.52	B		P
7440-50-8	Copper	7.4			P
7439-89-6	Iron	326			P
7439-92-1	Lead	2.8	J	N*+	F
7439-95-4	Magnesium	1640			P
7439-96-5	Manganese	30.3			P
7439-97-6	Mercury	0.09	UJ	N	CV
7440-02-0	Nickel	3.9	U		P
7440-09-7	Potassium	20500			P
7782-49-2	Selenium	0.58	UJ	W	F
7440-22-4	Silver	0.58	~~U~~	N R	P
7440-23-5	Sodium	104	~~B~~	U	P
7440-28-0	Thallium	0.19	UJ	NW	F
7440-62-2	Vanadium	0.39	U		P
7440-66-6	Zinc	28.0			P
	Cyanide				NR

09/19/90

Color Before: YELLOW Clarity Before: Texture: FINE

Color After: WHITE Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1D

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B009P0

Lab Name: WEYERHAEUSER COMPANY Contract: 68-D9-0080

Lab Code: WEYER Case No.: SAS No.: SDG No.: B009N7

Matrix (soil/water): SOIL Lab Sample ID: 52492

Level (low/med): LOW Date Received: 08/01/90

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	584	J	E	P
7440-36-0	Antimony	3.7	U		P
7440-38-2	Arsenic	0.40	U	W	F
7440-39-3	Barium	28.5	B		P
7440-41-7	Beryllium	0.18	U		P
7440-43-9	Cadmium	0.92	U		P
7440-70-2	Calcium	4110			P
7440-47-3	Chromium	0.92	U		P
7440-48-4	Cobalt	0.37	U		P
7440-50-8	Copper	5.2			P
7439-89-6	Iron	892			P
7439-92-1	Lead	3.5	J	N*	F
7439-95-4	Magnesium	1090			P
7439-96-5	Manganese	33.1			P
7439-97-6	Mercury	0.10	U	N	CV
7440-02-0	Nickel	3.7	U		P
7440-09-7	Potassium	4510			P
7782-49-2	Selenium	0.59	U	W	F
7440-22-4	Silver	0.55	U	N R	P
7440-23-5	Sodium	157	B	U	P
7440-28-0	Thallium	0.20	U	N	F
7440-62-2	Vanadium	2.9	B		P
7440-66-6	Zinc	15.9			P
	Cyanide				NR

09/19/90

Color Before: BROWN Clarity Before: Texture: FINE

Color After: GREY Clarity After: Artifacts:

Comments:

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1E

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B009P1

Lab Name: WEYERHAEUSER COMPANY Contract: 68-D9-0080

Lab Code: WEYER Case No.: SAS No.: SDG No.: B009N7

Matrix (soil/water): SOIL Lab Sample ID: 54293

Level (low/med): LOW Date Received: 08/01/90

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	248	J	E	P
7440-36-0	Antimony	3.9	U		P
7440-38-2	Arsenic	0.38	UJ	W	F
7440-39-3	Barium	8.6	B		P
7440-41-7	Beryllium	0.19	U		P
7440-43-9	Cadmium	0.97	U		P
7440-70-2	Calcium	7580			P
7440-47-3	Chromium	12.8			P
7440-48-4	Cobalt	0.39	U		P
7440-50-8	Copper	3.7	B		P
7439-89-6	Iron	460			P
7439-92-1	Lead	3.6	J	N*	F
7439-95-4	Magnesium	1700			P
7439-96-5	Manganese	45.0			P
7439-97-6	Mercury	0.10	UJ	N	CV
7440-02-0	Nickel	8.4			P
7440-09-7	Potassium	16300			P
7782-49-2	Selenium	0.58	UJ	W	F
7440-22-4	Silver	0.58	~~U~~	N R	P
7440-23-5	Sodium	80.0	~~B~~	U	P
7440-28-0	Thallium	0.19	UJ	N	F
7440-62-2	Vanadium	0.39	U		P
7440-66-6	Zinc	27.1			P
	Cyanide				NR

09/19/90

Color Before: YELLOW Clarity Before: Texture: FINE

Color After: WHITE Clarity After: Artifacts:

Comments:

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1 F

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B009P2

Lab Name: WEYERHAEUSER COMPANY Contract: 68-D9-0080

Lab Code: WEYER Case No.: SAS No.: SDG No.: B009N7

Matrix (soil/water): SOIL Lab Sample ID: 54294

Level (low/med): LOW Date Received: 08/01/90

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	878	J	E	P
7440-36-0	Antimony	3.9	U		P
7440-38-2	Arsenic	0.36	U W		F
7440-39-3	Barium	46.5			P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.98	U		P
7440-70-2	Calcium	4920			P
7440-47-3	Chromium	0.98	U		P
7440-48-4	Cobalt	0.51	B		P
7440-50-8	Copper	3.3	B		P
7439-89-6	Iron	1430			P
7439-92-1	Lead	4.8	J	N*	F
7439-95-4	Magnesium	1240			P
7439-96-5	Manganese	45.8			P
7439-97-6	Mercury	0.09	U	N	CV
7440-02-0	Nickel	3.9	U		P
7440-09-7	Potassium	3280			P
7782-49-2	Selenium	0.54	U W		F
7440-22-4	Silver	0.59	U	N R	P
7440-23-5	Sodium	238	B	U	P
7440-28-0	Thallium	0.18	U	N	F
7440-62-2	Vanadium	4.4	B		P
7440-66-6	Zinc	27.2			P
	Cyanide				NR

JL 09/19/90

Color Before: BROWN Clarity Before: Texture: FINE

Color After: GREY Clarity After: Artifacts:

Comments:

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1G

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B009P3

Lab Name: WEYERHAEUSER COMPANY Contract: 68-D9-0080

Lab Code: WEYER Case No.: SAS No.: SDG No.: B009N7

Matrix (soil/water): SOIL Lab Sample ID: 54295

Level (low/med): LOW Date Received: 08/01/90

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	291	J	E	P
7440-36-0	Antimony	3.1	U		P
7440-38-2	Arsenic	0.37	UJ	W	F
7440-39-3	Barium	7.9	B		P
7440-41-7	Beryllium	0.16	U		P
7440-43-9	Cadmium	0.78	U		P
7440-70-2	Calcium	6680			P
7440-47-3	Chromium	0.78	U		P
7440-48-4	Cobalt	0.31	U		P
7440-50-8	Copper	7.3			P
7439-89-6	Iron	466			P
7439-92-1	Lead	2.7	J	N*	F
7439-95-4	Magnesium	1330			P
7439-96-5	Manganese	48.7			P
7439-97-6	Mercury	0.09	UJ	N	CV
7440-02-0	Nickel	3.1	U		P
7440-09-7	Potassium	18700			P
7782-49-2	Selenium	0.56	UJ	W	F
7440-22-4	Silver	0.47	~~U~~	N R	P
7440-23-5	Sodium	90.2	~~B~~	U	P
7440-28-0	Thallium	0.19	UJ	NW	F
7440-62-2	Vanadium	0.57	B		P
7440-66-6	Zinc	14.3			P
	Cyanide				NR

09/19/91

Color Before: YELLOW Clarity Before: Texture: FINE

Color After: WHITE Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1H

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B009P4

Lab Name: WEYERHAEUSER COMPANY Contract: 68-D9-0080

Lab Code: WEYER Case No.: SAS No.: SDG No.: B009N7

Matrix (soil/water): SOIL Lab Sample ID: 54296

Level (low/med): LOW Date Received: 08/01/90

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	864	J	E	P
7440-36-0	Antimony	3.1	U		P
7440-38-2	Arsenic	0.35	U	W	F
7440-39-3	Barium	36.4			P
7440-41-7	Beryllium	0.16	U		P
7440-43-9	Cadmium	0.79	U		P
7440-70-2	Calcium	3310			P
7440-47-3	Chromium	0.81	B		P
7440-48-4	Cobalt	0.59	B		P
7440-50-8	Copper	1.8	B		P
7439-89-6	Iron	1470			P
7439-92-1	Lead	1.9	J	N*	F
7439-95-4	Magnesium	971			P
7439-96-5	Manganese	50.9			P
7439-97-6	Mercury	0.09	U	N	CV
7440-02-0	Nickel	3.1	U		P
7440-09-7	Potassium	3290			P
7782-49-2	Selenium	0.53	U	W ~~R~~ UJ	F
7440-22-4	Silver	0.47	U	N R	P
7440-23-5	Sodium	164	B	U	P
7440-28-0	Thallium	0.18	U	N	F
7440-62-2	Vanadium	3.6	B		P
7440-66-6	Zinc	22.8			P
	Cyanide				NR

09/19/90

Color Before: BROWN Clarity Before: Texture: FINE

Color After: GREY Clarity After: Artifacts:

Comments:

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1 I

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B009P5

Lab Name: WEYERHAEUSER COMPANY Contract: 68-D9-0080

Lab Code: WEYER Case No.: SAS No.: SDG No.: B009N7

Matrix (soil/water): SOIL Lab Sample ID: 54297

Level (low/med): LOW Date Received: 08/01/90

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	296	J	E	P
7440-36-0	Antimony	3.6	U		P
7440-38-2	Arsenic	0.36	UJ	W	F
7440-39-3	Barium	10.3	B		P
7440-41-7	Beryllium	0.18	U		P
7440-43-9	Cadmium	0.91	U		P
7440-70-2	Calcium	10000			P
7440-47-3	Chromium	0.91	U		P
7440-48-4	Cobalt	0.36	U		P
7440-50-8	Copper	2.6	B		P
7439-89-6	Iron	440			P
7439-92-1	Lead	1.2	J	N*	F
7439-95-4	Magnesium	1440			P
7439-96-5	Manganese	62.2			P
7439-97-6	Mercury	0.09	UJ	N	CV
7440-02-0	Nickel	3.6	U		P
7440-09-7	Potassium	17900			P
7782-49-2	Selenium	0.54	UJ	W	F
7440-22-4	Silver	0.55	U	N R	P
7440-23-5	Sodium	120	B	U	P
7440-28-0	Thallium	0.18	UJ	NW	F
7440-62-2	Vanadium	0.71	B		P
7440-66-6	Zinc	21.0			P
	Cyanide				NR

09/19/91

Color Before: YELLOW Clarity Before: Texture: FINE

Color After: WHITE Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1 J

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B009P6

Lab Name: WEYERHAEUSER COMPANY Contract: 68-D9-0080

Lab Code: WEYER Case No.: SAS No.: SDG No.: B009N7

Matrix (soil/water): SOIL Lab Sample ID: 54298

Level (low/med): LOW Date Received: 08/01/90

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1170	J	E	P
7440-36-0	Antimony	3.8	U		P
7440-38-2	Arsenic	0.37	U		F
7440-39-3	Barium	38.7			P
7440-41-7	Beryllium	0.19	U		P
7440-43-9	Cadmium	0.96	U		P
7440-70-2	Calcium	4600			P
7440-47-3	Chromium	1.1	B		P
7440-48-4	Cobalt	1.0	B		P
7440-50-8	Copper	1.4	B		P
7439-89-6	Iron	2120			P
7439-92-1	Lead	3.4	J	N*	F
7439-95-4	Magnesium	966			P
7439-96-5	Manganese	52.1			P
7439-97-6	Mercury	0.10	U	N	CV
7440-02-0	Nickel	3.8	U		P
7440-09-7	Potassium	2810			P
7782-49-2	Selenium	0.56	U	W	F
7440-22-4	Silver	0.58	U	N R	P
7440-23-5	Sodium	189	B	U	P
7440-28-0	Thallium	0.19	U	NW	F
7440-62-2	Vanadium	5.3	B		P
7440-66-6	Zinc	18.1			P
	Cyanide				NR

JL 09/19/90

Color Before: BROWN Clarity Before: Texture: FINE

Color After: GREY Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1 K

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B009P7

Lab Name: WEYERHAEUSER COMPANY Contract: 68-D9-0080

Lab Code: WEYER Case No.: SAS No.: SDG No.: B009N7

Matrix (soil/water): SOIL Lab Sample ID: 54299

Level (low/med): LOW Date Received: 08/01/90

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	429	J	E	P
7440-36-0	Antimony	3.7	U		P
7440-38-2	Arsenic	2.0	U		F
7440-39-3	Barium	10.3	B		P
7440-41-7	Beryllium	0.19	U		P
7440-43-9	Cadmium	0.93	U		P
7440-70-2	Calcium	8860			P
7440-47-3	Chromium	0.93	U		P
7440-48-4	Cobalt	0.37	U		P
7440-50-8	Copper	3.8	B		P
7439-89-6	Iron	660			P
7439-92-1	Lead	1.5	J	N*	F
7439-95-4	Magnesium	1410			P
7439-96-5	Manganese	65.2			P
7439-97-6	Mercury	0.09	U	N	CV
7440-02-0	Nickel	3.7	U		P
7440-09-7	Potassium	16600			P
7782-49-2	Selenium	0.59	U	W	F
7440-22-4	Silver	0.56	U	N R	P
7440-23-5	Sodium	151	B	U	P
7440-28-0	Thallium	0.25	B	N J	F
7440-62-2	Vanadium	1.3	B		P
7440-66-6	Zinc	29.3			P
	Cyanide				NR

JL 09/19/90

Color Before: YELLOW Clarity Before: Texture: FINE

Color After: WHITE Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1 L

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B009P8

Lab Name: WEYERHAEUSER COMPANY Contract: 68-D9-0080

Lab Code: WEYER Case No.: SAS No.: SDG No.: B009N7

Matrix (soil/water): SOIL Lab Sample ID: 54300

Level (low/med): LOW Date Received: 08/01/90

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	635	J	E	P
7440-36-0	Antimony	3.7	U		P
7440-38-2	Arsenic	0.40	U	E R	F
7440-39-3	Barium	29.4	B		P
7440-41-7	Beryllium	0.19	U		P
7440-43-9	Cadmium	0.93	U		P
7440-70-2	Calcium	4420			P
7440-47-3	Chromium	0.93	U		P
7440-48-4	Cobalt	0.37	U		P
7440-50-8	Copper	1.7	B		P
7439-89-6	Iron	1040			P
7439-92-1	Lead	1.9	J	N*	F
7439-95-4	Magnesium	905	B		P
7439-96-5	Manganese	43.5			P
7439-97-6	Mercury	0.09	U	N	CV
7440-02-0	Nickel	3.7	U		P
7440-09-7	Potassium	3660			P
7782-49-2	Selenium	0.59	U		F
7440-22-4	Silver	0.56	U	N R	P
7440-23-5	Sodium	145	B	U	P
7440-28-0	Thallium	0.20	U	NW	F
7440-62-2	Vanadium	2.2	B		P
7440-66-6	Zinc	103			P
	Cyanide				NR

09/19/90

Color Before: BROWN Clarity Before: Texture: FINE

Color After: WHITE Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1M

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B009P9

Lab Name: WEYERHAEUSER COMPANY Contract: 68-D9-0080

Lab Code: WEYER Case No.: SAS No.: SDG No.: B009N7

Matrix (soil/water): SOIL Lab Sample ID: 54301

Level (low/med): LOW Date Received: 08/01/90

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	230	J	E	P
7440-36-0	Antimony	3.9	U		P
7440-38-2	Arsenic	0.34	~~U~~	E R	F
7440-39-3	Barium	5.0	~~B~~	U	P
7440-41-7	Beryllium	0.19	U		P
7440-43-9	Cadmium	0.97	U		P
7440-70-2	Calcium	5430			P
7440-47-3	Chromium	0.97	U		P
7440-48-4	Cobalt	0.39	U		P
7440-50-8	Copper	2.1	B		P
7439-89-6	Iron	323			P
7439-92-1	Lead	1.7	J	N*	F
7439-95-4	Magnesium	680	B		P
7439-96-5	Manganese	28.4			P
7439-97-6	Mercury	0.09	U	N	CV
7440-02-0	Nickel	3.9	U		P
7440-09-7	Potassium	17300			P
7782-49-2	Selenium	0.51	U	W	F
7440-22-4	Silver	0.58	~~U~~	N R	P
7440-23-5	Sodium	106	~~B~~	U	P
7440-28-0	Thallium	0.17	U	N	F
7440-62-2	Vanadium	0.39	U		P
7440-66-6	Zinc	10.5			P
	Cyanide				NR

JL 09/19/90

Color Before: YELLOW Clarity Before: Texture: FINE

Color After: WHITE Clarity After: Artifacts:

Comments:

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1N

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B009Q0

Lab Name: WEYERHAEUSER COMPANY Contract: 68-D9-0080

Lab Code: WEYER Case No.: SAS No.: SDG No.: B009N7

Matrix (soil/water): SOIL Lab Sample ID: 54302

Level (low/med): LOW Date Received: 08/01/90

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	829	J	E	P
7440-36-0	Antimony	3.4	U		P
7440-38-2	Arsenic	0.36	~~U~~	E R	F
7440-39-3	Barium	34.5			P
7440-41-7	Beryllium	0.17	U		P
7440-43-9	Cadmium	0.85	U		P
7440-70-2	Calcium	3810			P
7440-47-3	Chromium	0.85	U		P
7440-48-4	Cobalt	0.43	B		P
7440-50-8	Copper	1.4	B		P
7439-89-6	Iron	1360			P
7439-92-1	Lead	4.2	J	N*	F
7439-95-4	Magnesium	907			P
7439-96-5	Manganese	41.2			P
7439-97-6	Mercury	0.09	U	N	CV
7440-02-0	Nickel	3.4	U		P
7440-09-7	Potassium	3100			P
7782-49-2	Selenium	0.54	U	W	F
7440-22-4	Silver	0.51	~~U~~	N R	P
7440-23-5	Sodium	152	~~B~~	U	P
7440-28-0	Thallium	0.18	U	NW	F
7440-62-2	Vanadium	3.3	B		P
7440-66-6	Zinc	15.3			P
	Cyanide				NR

JL 09/19/90

Color Before: YELLOW Clarity Before: Texture: FINE

Color After: WHITE Clarity After: Artifacts:

Comments:

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10

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B009Q1

Lab Name: WEYERHAEUSER COMPANY Contract: 68-D9-0080

Lab Code: WEYER Case No.: SAS No.: SDG No.: B009N7

Matrix (soil/water): SOIL Lab Sample ID: 54303

Level (low/med): LOW Date Received: 08/01/90

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	350	J	E	P
7440-36-0	Antimony	3.2	U		P
7440-38-2	Arsenic	0.33	U	W	F
7440-39-3	Barium	7.7	B		P
7440-41-7	Beryllium	0.16	U		P
7440-43-9	Cadmium	0.79	U		P
7440-70-2	Calcium	6880			P
7440-47-3	Chromium	0.79	U		P
7440-48-4	Cobalt	0.35	B		P
7440-50-8	Copper	4.5			P
7439-89-6	Iron	532			P
7439-92-1	Lead	2.0	J	N*	F
7439-95-4	Magnesium	1400			P
7439-96-5	Manganese	52.1			P
7439-97-6	Mercury	0.09	U	N	CV
7440-02-0	Nickel	3.2	U		P
7440-09-7	Potassium	16100			P
7782-49-2	Selenium	0.49	U	W	F
7440-22-4	Silver	0.48	U	N R	P
7440-23-5	Sodium	113	B	U	P
7440-28-0	Thallium	0.16	U	NW	F
7440-62-2	Vanadium	0.85	B		P
7440-66-6	Zinc	13.4			P
	Cyanide				NR

JJ 09/19/90

Color Before: YELLOW Clarity Before: Texture: FINE

Color After: WHITE Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B009Q2

Lab Name: WEYERHAEUSER COMPANY Contract: 68-D9-0080

Lab Code: WEYER Case No.: SAS No.: SDG No.: B009N7

Matrix (soil/water): SOIL Lab Sample ID: 54304

Level (low/med): LOW Date Received: 08/01/90

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1290	J	E	P
7440-36-0	Antimony	3.7	U		P
7440-38-2	Arsenic	0.37	UJ	W	F
7440-39-3	Barium	39.0			P
7440-41-7	Beryllium	0.18	U		P
7440-43-9	Cadmium	0.92	U		P
7440-70-2	Calcium	6490			P
7440-47-3	Chromium	1.2	B		P
7440-48-4	Cobalt	0.89	B		P
7440-50-8	Copper	5.8			P
7439-89-6	Iron	2180			P
7439-92-1	Lead	4.5	J		F
7439-95-4	Magnesium	1380			P
7439-96-5	Manganese	62.0			P
7439-97-6	Mercury	0.09	U	N UJ	CV
7440-02-0	Nickel	3.7	U		P
7440-09-7	Potassium	2860			P
7782-49-2	Selenium	0.56	UJ	W	F
7440-22-4	Silver	0.55	U	N R	P
7440-23-5	Sodium	194	B	U	P
7440-28-0	Thallium	0.19	UJ	NW	F
7440-62-2	Vanadium	5.7	B		P
7440-66-6	Zinc	20.5			P
	Cyanide				NR

09/19/90

Color Before: BROWN Clarity Before: Texture: FINE

Color After: WHITE Clarity After: Artifacts:

Comments: