138179

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
CENTRAL REGIONAL LABORATORY
839 BESTGATE ROAD
ANNAPOLIS, MARYLAND 21401
(301) 266-9160

DATE :May 4, 1989

SUBJECT:Analytical Reports for Greenwood Chemical

FROM :Daniel K. Donnelly DKD
Chief, Laboratory Section

TO :Darius Ostrauskas (3HW24)

I have enclosed three analytical reports for the samples from Greenwood Chemical. These reports cover samples we received on February 21, 24 and March 2, 1989. Please give me a call if you should have any questions regarding any of these reports.

DKD:jr

Enclosures
a/s

cc: Eric Blischke, Ebasco

301392

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
CENTRAL REGIONAL LABORATORY
839 BESTGATE ROAD
ANNAPOLIS, MARYLAND 21401
(301) 266-9180

DATE :March 16, 1989

SUBJECT: Chloride and Sulfate Determinations of Greenwood Chemical Samples
Superfund-Remedial TFA03N9P5, (2/21/89 - 2/27/89), 890221-01 - 16

FROM :Ronald H. Altman RA
Chemist

TO :Daniel K. Donnelly
Chief, Laboratory Section

THRU : Norman Fritsche NF
Team Leader, Inorganic Analysis Section

The results of the chloride and sulfate analyses by automated spectroscopy are presented in the attached table.

Additional quality control results are available upon request.

Sample Description:

Lab No.	Description
890221-01	Greenwood Chemical, GWC-S-GW09-01, Sta. S-GW09-01
-02	Greenwood Chemical, GWC-S-GW16S-01, Sta. S-GW16S-01
-03	Greenwood Chemical, GWC-D-GW16S-01, Sta. D-GW16S-01
-04	Greenwood Chemical, GWC-S-GW19-01, Sta. S-GW19-01
-05	Greenwood Chemical, GWC-S-GW05-01, Sta. S-GW05-01
-06	Greenwood Chemical, GWC-S-GW20S-01, Sta. S-GW20S-01
-07	Greenwood Chemical, GWC-S-GW04-01, Sta. S-GW04-01
-08	Greenwood Chemical, GWC-S-GW21S-01, Sta. S-GW21S-01
-09	Greenwood Chemical, GWC-S-GW01-01, Sta. S-GW01-01
-10	Greenwood Chemical, GWC-S-GW20S-01, Sta. S-GW02S-01
-11	Greenwood Chemical, GWC-S-GW11-01, Sta. S-GW11-01
-12	Greenwood Chemical, GWC-S-GW03-01, Sta. S-GW03-01
-13	Greenwood Chemical, GWC-S-GW07S-01, Sta. S-GW07S-01
-14	Greenwood Chemical, GWC-S-GW07D-01, Sta. S-GW07D-01
-15	Greenwood Chemical, GWC-S-GW12S-01, Sta. S-GW12S-01
-16	Greenwood Chemical, GWC-S-GW13-01, Sta. S-GW13-01

RHA:ad

cc: Peggy Zawodny PZ
QCO

U.S. Environmental Protection Agency, Region III, Central Regional Lab

Project Name: Greenwood Chemical - Superfund-Remedial

PARAMETER:	Chloride mg/L	Sulfate mg/L
Sample Number:		
890221-01	4.4	29.7
-02	13.0	10.4
-03	13.7	10.5
-04	4.8	<10
-05	5.8	36.4
-06	145	33.5
-07	7.5	<10
-08	126	20.1±0.6(115%)
-09	3.6±0.1(105%)	<10
-10	5.9	<10
-11	4.3	<10
-12	3.1	<10
-13	10.6	<10
-14	111	10.7
-15	11.3	<10
-16	35.3±0.9(103%)	20.0±0.1(127%)

Numbers in parentheses are spike recoveries.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
CENTRAL REGIONAL LABORATORY
839 BESTGATE ROAD
ANNAPOLIS, MARYLAND 21401
(301) 266-9180

DATE : March 30, 1989

SUBJECT: Chloride and Sulfate Determinations of Greenwood Chemical, Superfund Remedial, TFA03N9P5, (3/7/89 - 3/21/89), 890224-19-29, 33, 34, 36, 890302-06-13

FROM : Ronald H. Altman RHA
Chemist

TO : Daniel K. Donnelly
Chief, Laboratory Section

THRU : Norman Fritsche NF
Team Leader, Inorganic Analysis Section

The chloride and sulfate analyses of the Greenwood Chemical samples by automated spectrophotometry are presented in the attached table.

Additional quality control are available upon request.

Sample Description:

Lab No.:	Description
890224-19	Greenwood Chemical, GWC-S-GW02D-01, Sta. S-GW02D-01
890224-20	Greenwood Chemical, GWC-S-GW06R-01, Sta. S-GW06R-01
890224-21	Greenwood Chemical, GWC-S-GW12D-01, Sta. S-GW12D-01
890224-22	Greenwood Chemical, GWC-S-GW14S-01, Sta. S-GW14S-01
890224-23	Greenwood Chemical, GWC-S-GW16D-01, Sta. S-GW16D-01
890224-24	Greenwood Chemical, GWC-S-GW18S-01, Sta. S-GW18S-01
890224-25	Greenwood Chemical, GWC-S-GW30-01, Sta. S-GW30-01
890224-26	Greenwood Chemical, GWC-D-GW12D-01, Sta. D-GW12D-01
890224-27	Greenwood Chemical, GWC-D-GW30-01, Sta. D-GW30-01
890224-28	Greenwood Chemical, GWC-R-GW01, Sta. R-GW01
890224-29	Greenwood Chemical, GWC-F-GW01, Sta. F-GW01
890224-33	Greenwood Chemical, GWC-S-RGW04-01, Sta. S-RGW04-01
890224-34	Greenwood Chemical, GWC-S-RGW05-01, Sta. S-RGW05-01
890224-36	Greenwood Chemical, GWC-S-RGW07-01, Sta. S-RGW07-01
890302-06	Greenwood Chemical, GWC-S-GW17D-01, Sta. GW17D-01
890302-07	Greenwood Chemical, GWC-S-GW18D1-01, Sta. GW18D1-01
890302-08	Greenwood Chemical, GWC-S-GW18D2-01, Sta. GW18D2-01
890302-09	Greenwood Chemical, GWC-S-GW17S-01, Sta. GW17S-01
890302-10	Greenwood Chemical, GWC-S-GW20D-01, Sta. GW20D-01
890302-11	Greenwood Chemical, GWC-S-GW21D-01, Sta. GW21D-01
890302-12	Greenwood Chemical, GWC-S-GW10D-01, Sta. GW10D-01
890302-13	Greenwood Chemical, GWC-S-GW14D-01, Sta. GW14D-01

RHA:nt

cc: Peggy Zawodny PZ
QCO

301395

U.S. Environmental Protection Agency, Region III, Central Regional Lab

Project Name: Greenwood Chemical, Superfund Remedial

PARAMETER:	Chloride(mg/L)	Sulfate(mg/L)
Sample Number:		
890224-19	7.1	<5
890224-20	89.7	66.5
890224-21	4.8	7.2
890224-22	122	33.2
890224-23	11.0±0.1(120%)	7.0
890224-24	167	14.6
890224-25	11.0	14.9±0.2(128%)
890224-26	4.9	8.0±0.6(94%)
890224-27	11.1	14.4
890224-28	<1	<5
890224-29	<1	<5
890224-33	3.1	7.6±0.2(88%)
890224-34	18.6	<5
890224-36	2.2±0(94%)	<5
890302-06	15.4	12.2±0(116%)
890302-07	114	25.3
890302-08	30.0	22.8
890302-09	12.8	57.1
890302-10	87.2	52.0
890302-11	36.6	25.5
890302-12	341	78.2
890302-13	86.8±0.6(105%)	45.9

Numbers in parentheses are spike recoveries.

ESAT PROJECT
2568A RIVA RD., SUITE 300
ANNAPOLIS, MD 21401
PHONE: (301) 266-9887

DATE: April 24, 1989

SUBJECT: Cyanide Determinations of Greenwood Chemical Samples for Superfund-Remedial (02/21/89 - 04/05/89). 890221-01-16; 890224-19-37; and, 890302-06-15. ESAT TID #03890203. ESAT TASK Nos. 1531, 1535, and 1541.

FROM: Sue Raupuk
ESAT Analyst

Marinela Alvero
ESAT Chemist

TO: Daniel K. Donnelly
Chief, Laboratory Section

THRU: Charles Matkovich CM
ESAT Team Manager

The ESAT Laboratory Staff was assigned forty-five (45) water samples from Greenwood Chemical for cyanide analysis. All samples were successfully distilled and analyzed within the recommended fourteen (14) day holding time. A larger sample volume (570 mL) was used to obtain a lower detection limit of 0.005 mg/L, The sample descriptions and results of the analysis are found in the following table.

SAMPLE DESCRIPTION AND RESULTS:

Lab No.	Description	Cyanide (mg/L)
890221-01	Greenwood Chemical GWC-S-GW09-01, STA. S-GW09-1	0.040
890221-02	Greenwood Chemical GWC-S-GW16S-01, STA. S-GW16S-01	<0.005
890221-03	Greenwood Chemical GWC-D-GW16S-01, STA. D-GW16S-01	<0.005
890221-04	Greenwood Chemical GWC-S-GW19-01, STA. S-GW19-01	<0.005
890221-05	Greenwood Chemical GWC-S-GW05-01, STA. S-GW05-01	<0.005
890221-06	Greenwood Chemical GWC-S-GW20S-01, STA. S-GW20S-01	0.005

WESTON

Site Name: Greenwood Chemical
Sample Nos.: 890221-01-16; 890224-19-37; 890302-06-15

SAMPLE DESCRIPTION AND RESULTS: (Continued)

Lab No.	Description	Cyanide (mg/L)
890221-07	Greenwood Chemical GWC-S-GW04-01, STA. S-GW04-01	<0.005
890221-08	Greenwood Chemical GWC-S-GW21S-01, STA. S-GW21S-01	<0.005
890221-09	Greenwood Chemical GWC-S-GW01-01, STA. S-GW01-01	<0.005
890221-10	Greenwood Chemical GWC-S-GW20S-01, STA. S-GW02S-01	<0.005
890221-11	Greenwood Chemical GWC-S-GW11-01, STA. S-GW11-01	<0.005
890221-12	Greenwood Chemical GWC-S-GW03-01, STA. S-GW03-01	<0.005
890221-13	Greenwood Chemical GWC-S-GW07S-01, STA. S-GW07S-01	0.005
890221-14	Greenwood Chemical GWC-S-GW07D-01, STA. S-GW07D-01	<0.005
890221-15	Greenwood Chemical GWC-S-GW12S-01, STA. S-GW12S-01	<0.005
890221-16	Greenwood Chemical GWC-S-GW13-01, STA. S-GW13-01	<0.005
890224-19	Greenwood Chemical GWC-S-GW02D-01, STA. S-GW02D-01	<0.005
890224-20	Greenwood Chemical GWC-S-GW06R-01, STA. S-GW06R-01	<0.005
890224-21	Greenwood Chemical GWC-S-GW12D-01, STA. S-GW12D-01	<0.005
890224-22	Greenwood Chemical GWC-S-GW14S-01, STA. S-GW14S-01	<0.005
890224-23	Greenwood Chemical GWC-S-GW16D-01, STA. S-GW16D-01	<0.005

WESTON

Site Name: Greenwood Chemical
Sample Nos.: 890221-01-16; 890224-19-37; 890302-06-15

SAMPLE DESCRIPTION AND RESULTS: (Continued)

Lab No.	Description	Cyanide (mg/L)
890224-24	Greenwood Chemical GWC-S-GW18S-01, STA. S-GW18S-01	<0.005
890224-25	Greenwood Chemical GWC-S-GW30-01, STA. S-GW30-01	<0.005
890224-26	Greenwood Chemical GWC-D-GW12D-01, STA. D-GW12D-01	<0.005
890224-27	Greenwood Chemical GWC-D-GW30-01, STA. D-GW30-01	<0.005
890224-28	Greenwood Chemical GWC-R-GW01, STA. R-GW01	<0.005
890224-29	Greenwood Chemical GWC-F-GW01, STA. F-GW01	<0.005
890224-30	Greenwood Chemical GWC-S-RGW01-01, STA. S-RGW01-01	<0.005
890224-31	Greenwood Chemical GWC-S-RGW02-01, STA. S-RGW02-01	<0.005
890224-32	Greenwood Chemical GWC-S-RGW03-01, STA. S-RGW03-01	<0.005
890224-33	Greenwood Chemical GWC-S-RGW04-01, STA. S-RGW04-01	<0.005
890224-34	Greenwood Chemical GWC-S-RGW05-01, STA. S-RWG05-01	<0.005
890224-35	Greenwood Chemical GWC-S-RGW06-01, STA. S-RGW06-01	<0.005
890224-36	Greenwood Chemical GWC-S-RGW07-01, STA. S-RGW07-01	<0.005
890224-37	Greenwood Chemical GWC-S-RGW08-01, STA. S-RGW08-01	<0.005
890302-06	Greenwood Chemical GWC-S-GW17D-01, STA. GW17D-01	<0.005

WESTON

Site Name: Greenwood Chemical
Sample Nos.: 890221-01-16; 890224-19-37; 890302-06-15

SAMPLE DESCRIPTION AND RESULTS: (Continued)

Lab No.	Description	Cyanide (mg/L)
890302-07	Greenwood Chemical GWC-S-GW18D1-01, STA. GW18D1-01	0.025
890302-08	Greenwood Chemical GWC-S-GW18D2-01, STA. GW18D2-01	<0.005
890302-09	Greenwood Chemical GWC-S-GW17S-01, STA. GW17S-01	<0.005
890302-10	Greenwood Chemical GWC-S-GW20D-01. STA. GW20D-01	<0.005
890302-11	Greenwood Chemical GWC-S-GW21D-01, STA. GW21D-01	<0.005
890302-12	Greenwood Chemical GWC-S-GW10D-01, STA. GW10D-01	<0.005
890302-13	Greenwood Chemical GWC-S-GW14D-01, STA. GW14D-01	<0.005
890302-14	Greenwood Chemical GWC-F-GW02, STA. GWC-F-GW02	<0.005
890302-15	Greenwood Chemical GWC-R-GW02, STA. GWC-R-GW02	<0.005

Q. C. RESULTS:

CHECK STANDARDS:

Type	Found Value	True Value	% Recovery
Preparation (02/21/89)	0.088 mg/L	0.100 mg/L	88
Preparation (02/23/89)	0.088 mg/L	0.100 mg/L	88
Preparation (03/02/89)	0.092 mg/L	0.100 mg/L	92
Preparation (03/03/89)	0.092 mg/L	0.100 mg/L	92
Preparation (03/07/89)	0.087 mg/L	0.100 mg/L	87

Q. C. RESULTS: (Continued)

CHECK STANDARDS:

Type	Found Value	True Value	% Recovery
Instrument (02/24/89)	0.108 pk ht	0.109 pk ht	99
Instrument (03/16/89)	0.120 pk ht	0.120 pk ht	100
Instrument (03/22/89)	0.125 pk ht	0.124 pk ht	101

PREPARATION DUPLICATES:

Lab No.	Sample Result mg/L	Duplicate Result mg/L	SD
890221-01	0.039	0.040	±0.001
890221-11	<0.005	<0.009*	NA
890224-26	<0.005	<0.008*	NA
890224-31	<0.005	<0.009*	NA
890302-08	<0.005	<0.009*	NA

INSTRUMENT DUPLICATES:

Lab No.	Sample Result mg/L	Duplicate Result mg/L	SD
890221-04	<0.005	<0.005	NA
890221-12	<0.005	<0.005	NA
890224-23	<0.005	<0.005	NA
890224-30	<0.005	<0.005	NA
890302-09	<0.005	<0.005	NA

WESTON

Site Name: Greenwood Chemical
Sample Nos.: 890221-01-16; 890224-19-37; 890302-06-15

Q. C. RESULTS: (Continued)

PREPARATION SPIKES:

Lab No.	Sample Result mg/L	Spike Result mg/L	Spike Added mg/L	% Recovery
890221-03	<0.005	0.115	0.100	115
890221-10	<0.005	0.116	0.100	116
890224-19	<0.005	0.109	0.100	109
890224-27	<0.005	0.108	0.100	108
890302-07	0.025	0.140	0.100	115

INSTRUMENT SPIKES:

Lab No.	Sample Result mg/L	Spike Result mg/L	Spike Added mg/L	% Recovery
890221-06	0.005	0.056	0.050	102
890221-13	0.005	0.059	0.050	108
890224-22	<0.005	0.047	0.050	94
890224-35	<0.005	0.041	0.050	82
890302-10	<0.005	0.047	0.050	94

NOTES:

Preparation QC samples provide an estimate of combined sample preparation and measurement variability and/or bias.

Instrument QC samples provide an estimate of only measurement variability and/or bias.

NA indicates that the Standard Deviation (SD) determination is not appropriate because the analyte concentrations are below the detection limit.

* indicates that a higher detection limit (0.009 mg/L) was determined for the preparation duplicates due to smaller sample volume (305-380 mL) used for preparation duplicates and spikes.

cc: Norman Fritsche, EPA Task Monitor
Diann Sims, Acting EPA QCO
Terry Simpson, Acting ESAT DPO

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION
Curtis Bldg., 6th & Walnut Sts.
Philadelphia, Pennsylvania 19106

CHAIN OF CUSTODY RECORD

PROJ. NO.: 136-3LP5
PROJECT NAME: GREENWOOD CHEM.
SAMPLERS: (Signature) Matt Nol

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	SULPHATE & CHLORIDE					REMARKS TAG #
S-GW09-01	2/16/89	1040		X	GWC-S-GW09-01	1	X					890221013-1026178
S-GW16S-01	↓	1121		X	GWC-S-GW16S-01	1	X					890221023-1026187
D-GW16S-01	↓	1123		X	GWC-D-GW16S-01	1	X					890221033-1026196
S-GW19-01	↓	1515		X	GWC-S-GW19-01	1	X					890221043-1026218
S-GW05-01	↓	1525		X	GWC-S-GW05-01	1	X					890221053-1026226
S-GW20S-01	↓	1746		X	GWC-S-GW20S-01	1	X					890221063-1026236
S-GW04-01	2/17/89	1038		X	GWC-S-GW04-01	1	X					890221073-1026248
S-GW21S-01	↓	1220		X	GWC-S-GW21S-01	1	X					890221083-1026259

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Matt Nol	02/20/89 1030	FEDERAL EXPRESS			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		Janet Robins	2-21-89 0856	FEDEX AB NO. 226933 7000	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

301404

PROJ. NO.	PROJECT NAME
136-3LP5	GREENWOOD CHEM.

SAMPLERS: (Signature) Matthew

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	LOW DETECT CN-						CRL REMARKS TAG #
S GW21S-01	2/17/89	1220		X	GWC-S-GW21S-01	1	X			89022108			3-1026255

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Matthew	02/20/89 1830	FEDERAL EXPRESS			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		Janet Robison	2/21/89 0856	FEDEX AB NO. 2269337000	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

C01405

3-7163

PROJ. NO.	PROJECT NAME
136-31 P5	GREENWOOD CHEM.

SAMPLERS: (Signature) [signature]

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	LOW DETECT CN-				CRL REMARKS TAG #
S-GW01-01	2/14/89	1559		X	GWC-S-GW01-01	1	X			89022109	3-1026084
S-GW02S-01	↓	1633		X	GWC-S-GW20S-01 *	1	X			89022110	3-1026093
S-GW11-01	2/15/89	0835		X	GWC-S-GW11-01	1	X			89022111	3-1026102
S-GW03-01		1040		X	GWC-S-GW03-01	1	X			89022112	3-1026111
S-GW07S-01		1131		X	GWC-S-GW07S-01	1	X			89022113	3-1026120
S-GW07D-01		1131		X	GWC-S-GW07D-01	1	X			89022114	3-1026129
S-GW12S-01		1623		X	GWC-S-GW12S-01	1	X			89022115	3-1026157
S-GW13-01	↓	1816		X	GWC-S-GW13-01	1	X			89022116	3-1026167
S-GW09-01	2/16/89	1040		X	GWC-S-GW09-01	1	X			89022101	3-1026176
S-GW16S-01		1121		X	GWC-S-GW16S-01	1	X			89022102	3-1026185
D-GW16S-01		1123		X	GWC-D-GW16S-01	1	X			89022103	3-1026194
S-GW19-01		1515		X	GWC-S-GW19-01	1	X			89022104	3-1026~~246~~ 216
S-GW05-01		1525		X	GWC-S-GW05-01	1	X			89022105	3-1026~~255~~ 225
S-GW20S-01	↓	1746		X	GWC-S-GW20S-01	1	X			89022106	3-1026234
S-GW04-01	2/17/89	1038		X	GWC-S-GW04-01	1	X			89022107	3-1026246

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	02/20/89 1030	FEDERAL EXPRESS			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		[signature]	2/21/89 0856	FEDEX AB NO. 2269337000	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

* Station Location on sample tags read GWC-S-GW20S-01 [illegible]

3-7164

301406

MN 02/20/89 MN 02/20/89

PROJ NO.	PROJECT NAME
136-3LP5	GREENWOOD CHEM.

SAMPLERS: (Signature) [signature]

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	SULFATE & CHLORIDE						CRL REMARKS TAG#	
S-GW01-01	2/14/89	1559		X	GWC-S-GW01-01	1	X					89022109	3-1026084 056	MN 02/20/89
S-GW02S-01	↓	1633		X	GWC-S-GW02S-01	1	X					89022110	3-1026093 095	MN 02/20/89
S-GW11-01	2/15/89	0835		X	GWC-S-GW11-01	1	X					89022111	3-1026102 104	MN 02/20/89
S-GW03-01	↓	1040		X	GWC-S-GW03-01	1	X					89022112	3-1026111 113	MN 02/20/89
S-GW07S-01	↓	1131		X	GWC-S-GW07S-01	1	X					89022113	3-1026122	
S-GW07D-01	↓	1131		X	GWC-S-GW07D-01	1	X					89022114	3-1026131	
S-GW12S-01	↓	1623		X	GWC-S-GW12S-01	1	X					89022115	3-1026159	
S-GW13-01	↓	1816		X	GWC-S-GW13-01	1	X					89022116	3-1026169	

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	02/20/89 1030	FEDERAL EXPRESS			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		[signature]	2-21-89 0830	FEDEX AB NO. 2269337000	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

301407

2-7165

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION
Curtis Bldg., 6th & Walnut Sts.
Philadelphia, Pennsylvania 19106

CHAIN OF CUSTODY RECORD

PROJ. NO.: 136-3LP5
PROJECT NAME: GREENWOOD CHEM.
SAMPLERS: (Signature) [signature]

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	LOW DETECT CN	SULPHATE & CHLORIDE				CRL REMARKS ~~TC#~~ MN 02/23/09 TAG#
GW02D-01	2/20/09	1139		X	GWC-S-GW02D-01	2	X	X				89022419 3-1026334, 3-1026336
GW06R-01	↓	1715		X	GWC-S-GW06R-01	2	X	X				89022420 3-1026312, 3-1026314
GW12D-01	↓	1619		X	GWC-S-GW12D-01	2	X	X				89022421 3-1026346, 3-1026348
GW14S-01	2/19/09	1755		X	GWC-S-GW14S-01	2	X	X				89022422 ~~3-1026298, 3-1026295~~ ~~3-1026321, 3-1026323~~ MN 02/23/09
GW16D-01	2/20/09	1715		X	GWC-S-GW16D-01	2	X	X				89022423 3-1026321, 3-1026323
GW18S-01	2/21/09	0930		X	GWC-S-GW18S-01	2	X	X				89022424 3-1026275, 3-1026277
GW30-01	2/21/09	1018		X	GWC-S-GW30-01	2	X	X				89022425 3-1026372, 3-1026374
D-GW12D-01	2/20/09	1620		X	GWC-D-GW12D-01	2*	X	X				89022426 3-1026346, 3-1026348
D-GW30-01	2/21/09	1019		X	GWC-D-GW30-01	2	X	X				89022427 3-1026382, 3-1026387
R-GW01	02/20/09	1330		X	GWC-R-GW01	2	X	X				89022428 3-1026397, 3-1026402
F-GW01	02/20/09	1345		X	GWC-F-GW01	2	X	X				89022429 3-1026410, 3-1026411

* Sample tag numbers are: 3-1026361 3-1026354

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	02/23/09 1830	FEDERAL EXPRESS			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		[signature]	22489 0955	FEDEX AB NO. 226933720	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

2001408

CHAIN OF CUSTODY RECORD

Curtis Bldg., 6th & Walnut Sts.
Philadelphia, Pennsylvania 19106

PROJ. NO.: 136-3L95

PROJECT NAME: GREENWOOD CHEM.

SAMPLERS: (Signature) [signature]

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	LOW DETECT CN	SULPHATE & CHLORIDE						TAG #	REMARKS
RGW01-01	2/22/99	1047		X	GWC-S-RGW01-01 HP 02/23/99	2 1	X				89022130			3-1026349	CRL
RGW02-01	↓	1403		X	GWC-S-RGW02-01 HP 02/23/99	2 1	X				89022131			3-1026414	
RGW03-01	↓	1531		X	GWC-S-RGW03-01 HP 02/23/99	2 1	X				89022132			3-1026422	
RGW04-01	2/23/99	1124		X	GWC-S-RGW04-01	2	X	X			89022133			3-1026430	3-1026393
RGW05-01	↓	1009		X	GWC-S-RGW05-01	2	X	X			89022134			3-1026438	3-1026465
RGW06-01	↓	1058		X	GWC-S-RGW06-01 HP 02/23/99	2 1	X				89022135			3-1026446	
RGW07-01	2/22/99	1421		X	GWC-S-RGW07-01	2	X	X			89022136			3-1026454	3-1026057
RGW08-01	↓	1504		X	GWC-S-RGW08-01 HP 02/23/99	2 1	X				89022137			3-1026462	

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	02/23/99 1830	FEDERAL EXPRESS			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		[signature]	2-24-99 0955	FEDEX AB NO. 2269337206	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

301409

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 3
Curtis Bldg., 6th & Walnut Sts.
Philadelphia, Pennsylvania 19106

CHAIN OF ~~CUSTODY~~ RECORD

PROJ. NO.: 136-3LP5
PROJECT NAME: GREENWOOD CHEM.
SAMPLERS: (Signature) Matt Nol

CRL

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	LOW DETECT CN-	SULPHATE & CHLORIDE					REMARKS ~~GAS ID #~~ MN 03/01/89	TAG #
GW17D-01	3/1/89	1410		X	GWC-S-GW17D-01	6 2	X	X					89030206	3-1026480, 3-1026482
GW18D01	2/28/89	1025		X	GWC-S-GW18D1-01	7 2	X	X					89030207	3-1026489, 3-1026493
GW18D2-01	2/28/89	1045		X	GWC-S-GW18D2-01	8 2	X	X					89030208	3-1026500, 3-1026504
GW17S-01	2/28/89	1118		X	GWC-S-GW17S-01	9 2	X	X					89030209	3-1026266, 3-1026268
GW20D-01	3/1/89	1612		X	GWC-S-GW20D-01	10 2	X	X					89030210	3-1026512, 3-1026514
GW21D-01	2/28/89	1635		X	GWC-S-GW21D-01	11 2	X	X					89030211	3-1026521, 3-1026523
~~GW19D-01~~	~~2/28/89~~			~~X~~	~~GWC-~~	~~2~~	~~X~~	~~X~~						~~3-1~~
GW10D-01	2/28/89	1305		X	GWC-S-GW10D-01	12 2	X	X					89030212	3-1026284, 3-1026286
GW14D-01	3/1/89	1200		X	GWC-S-GW14D-01	13 2	X	X					89030213	3-1026302, 3-1026304
GWC-F-GW02	3/1/89 GB02	1500		X	GWC-F-GW02	14 1	X						89030214	
GWC-R-GW02	3/1/89 RB02	1445		X	GWC-R-GW02	15 1	X						89030215	

Samples not noted on custody sheet at time of sampling. Custody sheet not relinquished by Sealer. JR

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
		FEDERAL EXPRESS			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		[signature]	3-2-89 0954	FED EX AB NO. 2269937092	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

301410