



32No3. GW30

UCAR CARBON COMPANY INC.

P.O. Box 887, Niagara Fall, NY 14302-0887

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June 19, 1995

Mr. Peter J. Buechi, PE
Regional Engineer
NYS Department of Environmental Conservation
270 Michigan Avenue
Buffalo, New York 14203-2999

RE: Quarterly Report of Groundwater Analysis
Republic Solid Waste Management Facility
Post-Closure Monitoring Program

Dear Mr. Buechi:

I am enclosing a copy of the twenty-ninth quarter's groundwater sampling analysis from the closed Republic Waste Management Facility. Bedrock well, BW-4-86, continues to demonstrate some slight volatile organic contamination in the less than one part per million range.

The following will summarize the positive organic parameters:

<u>Contaminate</u>	<u>Conc. 29th</u> <u>Qtr. ppb.</u>	<u>Mean Conc.</u> <u>ppb.</u>	<u>Range</u> <u>ppb</u>
Trans-1,2-Dichlorethene	450	383	6-1000
Trichloroethene	320	301	30-740
Tetrachloroethene	420	261	72-440
Hexachlorobutadiene	63	52	10-160
Vinyl Chloride	110	95	29-300
Hexachlorethane	10	11	10-12

UCAR Carbon Company Inc. continues to maintain the position that this contamination at well, BW-4-86 is not related to the closed Republic Waste Management Facility given the fact that

Letter to Peter J. Buechi
June 19, 1995
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downgradient bedrock well, BW-6-86, continues to show no similar contamination.

If you have any questions, please contact me at 278-3275.

Very truly yours,

A handwritten signature in cursive script, appearing to read "A.C. Ogg".

A.C. Ogg
Site Manager

A.C. Ogg
nm
enc.

cc: Mr. Jim Devald, Dir. of Environmental Health
Niagara County Health Department
P.O. Box 428
Niagara Falls, N.Y. 14302-0428

UCAR CARBON COMPANY, INCORPORATED

REPUBLIC WASTE MANAGEMENT FACILITY

POST CLOSURE MONITORING PROGRAM

QUARTERLY REPORT

Prepared By:



"A Company Dedicated to Honesty, Quality and Service"

June 9, 1995
REF: CTC522B/100B

QA/QC VERIFICATION FOR PROJECT ID 522B

The following report, as well as the supporting data, have been carefully reviewed for accuracy, adherence to the cited methods, and completeness. All data contained in this report was generated in accordance with the AES Laboratory Quality Assurance/Quality Control Program.

Frank J. Suriano

Metals Department

Linda A. Ratke

Inorganic Chemistry

Susan Scrochi

Organic Chemistry

Scott Ake

Field Services

W. Joseph McDougall

Quality Control

Bonnie J. Simpson

Project Manager

All 'Total' results on soil matrices are calculated on a dry weight basis, unless otherwise noted. Analyses noted as 'Performed in the laboratory' require immediate testing and should be performed in the field.

The following are standard abbreviations:

BQL - Below Quantifiable Limits
ND - None Detected
NG - No Growth of Colonies
NR - Not Requested

ADVANCED ENVIRONMENTAL SERVICES INC.

QUARTERLY GROUNDWATER MONITORING - WELL INFORMATION May 16, 1995 thru May 18, 1995

UCAR CARBON COMPANY, INC.

Hyde Park Boulevard
Niagara Falls, New York

AES Code: CTC

Project I.D. # 522B

Monitoring Well I.D.	Evacuation Date	Top of outside Casing Elevation (ft.)	Monitoring Well Diameter	Water Level (ft.)	Water Elevation (ft.)	Bottom of Well (ft.)	Volume of Standing Water (gallons)	Volume of Evacuated Water (gallons)	Recharge Rate
BW-1	5/17/95	610.72	4	15.83	594.89	28.85	8.50	27.0	C
BW-2	5/18/95	608.43	4	13.07	595.36	26.60	8.83	27.0	C
BW-3	5/17/95	604.72	4	10.49	594.23	25.00	9.47	30.0	C
BW-4	5/17/95	607.08	4	10.25	596.83	22.69	8.12	25.0	C
BW-5	5/16/95	603.33	4	8.74	594.59	28.80	13.10	42.0	C
BW-6	5/18/95	607.04	4	12.78	594.26	25.15	8.08	26.0	C
MW-1	5/17/95	609.43	2	11.04	598.39	23.40	2.02	2.10 (Dry)	S
MW-2	5/16/95	607.54	3	9.87	597.67	24.61	5.41	9.0 (Dry)	S
MW-3	5/16/95	601.61	2	8.57	593.04	16.11	1.23	3.8	R
OW-1 SOUTH	5/18/95	608.81	2	6.05	602.76	8.70	0.43	NR	N/A
OW-2 NORTH	5/18/95	607.06	2	6.53	600.53	9.74	0.52	NR	N/A

Updated bottom elevations taken from each of the monitoring wells sampled.

Abbreviations:

VS = Very Slow ----- Recharge Rate longer than 24 hr period.

S = Slow ----- Recharge Rate within 24 hr period.

R = Rapid ----- Recharge Rate within 1 hr period.

C = Continuous ---- Recharge Rate immediate.

Field Technician

Date

ADVANCED ENVIRONMENTAL SERVICES INC.

QUARTERLY GROUNDWATER MONITORING - FIELD PARAMETER INFORMATION

May 16, 1995 thru May 18, 1995

UCAR CARBON COMPANY, INC.

Hyde Park Boulevard
Niagara Falls, New York

AES Code: CTC

Project I.D. # 522B

Monitoring Well I.D.	Sampling Date	Sampling Time	Water Level (ft.)	Turbidity (NTU)	Filter Time	Field Comments / Observations
BW-1	5/17/95	2:25 PM	16.11	12.9	2:25 PM	Clear with a slight SO2 odor
BW-2	5/18/95	1:15 PM	13.33	38.4	3:35 PM	Clear with a light green tint, strong odor
BW-3	5/17/95	3:10 PM	10.51	1.2	3:10 PM	Clear, no odor
BW-4	5/17/95	3:00 PM	10.82	102.5	3:00 PM	Clear with an oily sheen and black particulates
BW-5	5/16/95	3:00 PM	8.81	1.5	3:00 PM	Clear with an SO2 odor
BW-6	5/18/95	2:10 PM	17.75	135.3	3:20 PM	Slightly turbid tan
MW-1	5/18/95	12:20 PM	11.46	120.8	3:45 PM	Slightly turbid tan
MW-2	5/17-18/95	3:15 PM	24.41	*	*	Slight orange tint
MW-3	5/16/95	1:55 PM	14.92	566	3:45 PM	Cloudy tan
OW-1 South	N/A	N/A	N/A	N/A	N/A	N/A
OW-2 North	N/A	N/A	N/A	N/A	N/A	N/A
Blind Duplicate	5/18/95	2:10 PM	17.75	185.8	3:25 PM	Clear with an oily sheen and black particulates
Trip Blank	5/17/95	11:00 AM	N/A	1.25	N/A	Very Clear Deionized Water.

* Monitoring well contained insufficient volume for all the required parameters.

The blind duplicate site was BW-6 and the quality control site was BW-4.

N/A = Not Applicable


Technician Date 6-5-95

CLIENT: Ucar Carbon Company, Incorporated
SAMPLE ID: MW-1
COLLECTION METHOD: GRAB
COLLECTION DATE(S): 05/18/95
SAMPLE TYPE: GROUNDWATER

AES CLIENT ID: CTC
AES SAMPLE ID: 522B-1

PROJECT ID: 522B

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
Turbidity *	120.8	NTU	0.1	EPA 180.1
Ammonia	5.6	mg/L	0.05	EPA 350.1
Nitrite (on water)	BQL	mg/L	0.05	EPA 353.2
Kjeldahl Nitrogen, Total	7.5	mg/L	0.1	EPA 351.2
Iron, Total (ICP/water)	18	mg/L	0.05	EPA 200.7
Iron, Soluble (ICP/water)	BQL	mg/L	0.05	EPA 200.7
Potassium, Total (ICP/water)	36**	mg/L	1.0	EPA 200.7
Potassium, Soluble (on ICP)	38**	mg/L	1.0	EPA 200.7
Zinc, Total (ICP/water)	0.15	mg/L	0.02	EPA 200.7
Zinc, Soluble (on ICP)	0.05	mg/L	0.02	EPA 200.7

* Analysis performed in field.

** The soluble result is higher than the total result but less than 20% relative percent difference.

CLIENT: Ucar Carbon Company, Incorporated
SAMPLE ID: MW-3
COLLECTION METHOD: GRAB
COLLECTION DATE(S): 05/16/95
SAMPLE TYPE: GROUNDWATER

AES CLIENT ID: CTC
AES SAMPLE ID: 522B-2

PROJECT ID: 522B

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
Turbidity *	566	NTU	0.1	EPA 180.1
Ammonia	0.09	mg/L	0.05	EPA 350.1
Nitrite (on water)	BQL	mg/L	0.05	EPA 353.2
Kjeldahl Nitrogen, Total	0.21	mg/L	0.1	EPA 351.2
Iron, Total (ICP/water)	8.4	mg/L	0.05	EPA 200.7
Iron, Soluble (ICP/water)	BQL	mg/L	0.05	EPA 200.7
Potassium, Total (ICP/water)	2.3	mg/L	1.0	EPA 200.7
Potassium, Soluble (on ICP)	1.7	mg/L	1.0	EPA 200.7
Zinc, Total (ICP/water)	0.10	mg/L	0.02	EPA 200.7
Zinc, Soluble (on ICP)	BQL	mg/L	0.02	EPA 200.7

* Analysis performed in field.

CLIENT: Ucar Carbon Company, Incorporated
SAMPLE ID: BW-1
COLLECTION METHOD: GRAB
COLLECTION DATE(S): 05/17/95
SAMPLE TYPE: GROUNDWATER

AES CLIENT ID: CTC
AES SAMPLE ID: 522B-3

PROJECT ID: 522B

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
Turbidity *	12.9	NTU	0.1	EPA 180.1
Ammonia	0.95	mg/L	0.05	EPA 350.1
Nitrite (on water)	BQL	mg/L	0.05	EPA 353.2
Kjeldahl Nitrogen, Total	1.5	mg/L	0.1	EPA 351.2
Iron, Total (ICP/water)	1.4	mg/L	0.05	EPA 200.7
Iron, Soluble (ICP/water)	0.9	mg/L	0.05	EPA 200.7
Potassium, Total (ICP/water)	6.1**	mg/L	1.0	EPA 200.7
Potassium, Soluble (on ICP)	6.8**	mg/L	1.0	EPA 200.7
Zinc, Total (ICP/water)	0.41	mg/L	0.02	EPA 200.7
Zinc, Soluble (on ICP)	0.10	mg/L	0.02	EPA 200.7

* Analysis performed in field.

** The soluble result is higher than the total result but less than 20% relative percent difference.

CLIENT: Ucar Carbon Company, Incorporated
SAMPLE ID: BW-2
COLLECTION METHOD: GRAB
COLLECTION DATE(S): 05/18/95
SAMPLE TYPE: GROUNDWATER

AES CLIENT ID: CTC
AES SAMPLE ID: 522B-4

PROJECT ID: 522B

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
Turbidity *	38.4	NTU	0.1	EPA 180.1
Ammonia	0.49	mg/L	0.05	EPA 350.1
Nitrite (on water)	BQL	mg/L	0.05	EPA 353.2
Kjeldahl Nitrogen, Total	1.3	mg/L	0.1	EPA 351.2
Iron, Total (ICP/water)	4.8	mg/L	0.05	EPA 200.7
Iron, Soluble (ICP/water)	4.1	mg/L	0.05	EPA 200.7
Potassium, Total (ICP/water)	5.0**	mg/L	1.0	EPA 200.7
Potassium, Soluble (on ICP)	5.8**	mg/L	1.0	EPA 200.7
Zinc, Total (ICP/water)	0.41	mg/L	0.02	EPA 200.7
Zinc, Soluble (on ICP)	0.09	mg/L	0.02	EPA 200.7

* Analysis performed in field.

** The soluble result is higher than the total result but less than 20% relative percent difference.

CLIENT: Ucar Carbon Company, Incorporated
SAMPLE ID: BW-3
COLLECTION METHOD: GRAB
COLLECTION DATE(S): 05/17/95
SAMPLE TYPE: GROUNDWATER

AES CLIENT ID: CTC
AES SAMPLE ID: 522B-5

PROJECT ID: 522B

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
Turbidity *	1.2	NTU	0.1	EPA 180.1
Ammonia	0.82	mg/L	0.05	EPA 350.1
Nitrite (on water)	BQL	mg/L	0.05	EPA 353.2
Kjeldahl Nitrogen, Total	1.4	mg/L	0.1	EPA 351.2
Iron, Total (ICP/water)	1.3	mg/L	0.05	EPA 200.7
Iron, Soluble (ICP/water)	1.1	mg/L	0.05	EPA 200.7
Potassium, Total (ICP/water)	6.0	mg/L	1.0	EPA 200.7
Potassium, Soluble (on ICP)	6.0	mg/L	1.0	EPA 200.7
Zinc, Total (ICP/water)	0.05**	mg/L	0.02	EPA 200.7
Zinc, Soluble (on ICP)	0.11**	mg/L	0.02	EPA 200.7

* Analysis performed in field.

** The soluble result is higher than the total result but less than 20% relative percent difference.

CLIENT: Ucar Carbon Company, Incorporated
 SAMPLE ID: BW-4
 COLLECTION METHOD: GRAB
 COLLECTION DATE(S): 05/16/95 - 05/17/95
 SAMPLE TYPE: GROUNDWATER

AES CLIENT ID: CTC
 AES SAMPLE ID: 522B-6

PROJECT ID: 522B

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
Turbidity *	102.5	NTU	0.1	EPA 180.1
Ammonia	4.0	mg/L	0.05	EPA 350.1
Nitrite (on water)	BQL	mg/L	0.05	EPA 353.2
Kjeldahl Nitrogen, Total	5.2	mg/L	0.1	EPA 351.2
Iron, Total (ICP/water)	8.3	mg/L	0.05	EPA 200.7
Iron, Soluble (ICP/water)	2.7	mg/L	0.05	EPA 200.7
Potassium, Total (ICP/water)	18**	mg/L	1.0	EPA 200.7
Potassium, Soluble (on ICP)	20**	mg/L	1.0	EPA 200.7
Zinc, Total (ICP/water)	6.9	mg/L	0.02	EPA 200.7
Zinc, Soluble (on ICP)	0.3	mg/L	0.02	EPA 200.7
Chloromethane	BQL	µg/L	10	SW 846 8240
Bromomethane	BQL	µg/L	10	SW 846 8240
Vinyl chloride	110	µg/L	10	SW 846 8240
Chloroethane	BQL	µg/L	10	SW 846 8240
Methylene chloride	BQL	µg/L	10	SW 846 8240
Acetone	BQL	µg/L	10	SW 846 8240
Carbon disulfide	BQL	µg/L	10	SW 846 8240
1,1-Dichloroethene	BQL	µg/L	10	SW 846 8240
1,1-Dichloroethane	BQL	µg/L	10	SW 846 8240
trans-1,2-Dichloroethene	450	µg/L	10	SW 846 8240
Chloroform	BQL	µg/L	10	SW 846 8240
1,2-Dichloroethane	BQL	µg/L	10	SW 846 8240
2-Butanone	BQL	µg/L	10	SW 846 8240
1,1,1-Trichloroethane	BQL	µg/L	10	SW 846 8240
Carbon tetrachloride	BQL	µg/L	10	SW 846 8240
Vinyl acetate	BQL	µg/L	10	SW 846 8240
Bromodichloromethane	BQL	µg/L	10	SW 846 8240
1,2-Dichloropropane	BQL	µg/L	10	SW 846 8240
cis-1,3-Dichloropropene	BQL	µg/L	10	SW 846 8240

* Analysis performed in field.

** The soluble result is higher than the total result but less than 20% relative percent difference.

CLIENT: Ucar Carbon Company, Incorporated
 SAMPLE ID: BW-4
 COLLECTION METHOD: GRAB
 COLLECTION DATE(S): 05/16/95 - 05/17/95
 SAMPLE TYPE: GROUNDWATER

AES CLIENT ID: CTC
 AES SAMPLE ID: 522B-6

PROJECT ID: 522B

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
Trichloroethene	320	µg/L	10	SW 846 8240
Benzene	BQL	µg/L	10	SW 846 8240
trans-1,3-Dichloropropene	BQL	µg/L	10	SW 846 8240
Chlorodibromomethane	BQL	µg/L	10	SW 846 8240
1,1,2-Trichloroethane	BQL	µg/L	10	SW 846 8240
Bromoform	BQL	µg/L	10	SW 846 8240
4-Methyl-2-pentanone	BQL	µg/L	10	SW 846 8240
2-Hexanone	BQL	µg/L	10	SW 846 8240
Tetrachloroethene	420	µg/L	10	SW 846 8240
1,1,2,2-Tetrachloroethane	BQL	µg/L	10	SW 846 8240
Toluene	BQL	µg/L	10	SW 846 8240
Chlorobenzene	BQL	µg/L	10	SW 846 8240
Ethylbenzene	BQL	µg/L	10	SW 846 8240
Styrene	BQL	µg/L	10	SW 846 8240
m-Xylene	BQL	µg/L	10	SW 846 8240
o/p-Xylene	BQL	µg/L	10	SW 846 8240
bis(2-chloroethyl)ether	BQL	µg/L	10	SW 846 8270
1,3-Dichlorobenzene	BQL	µg/L	10	SW 846 8270
1,4-Dichlorobenzene	BQL	µg/L	10	SW 846 8270
Benzyl alcohol	BQL	µg/L	10	SW 846 8270
1,2-Dichlorobenzene	BQL	µg/L	10	SW 846 8270
bis(2-chloroisopropyl)ether	BQL	µg/L	10	SW 846 8270
n-Nitrosodi-n-propylamine	BQL	µg/L	10	SW 846 8270
Hexachloroethane	10	µg/L	10	SW 846 8270
Nitrobenzene	BQL	µg/L	10	SW 846 8270
Isophorone	BQL	µg/L	10	SW 846 8270
bis(2-chloroethoxy)methane	BQL	µg/L	10	SW 846 8270
1,2,4-Trichlorobenzene	BQL	µg/L	10	SW 846 8270
Naphthalene	BQL	µg/L	10	SW 846 8270

CLIENT: Ucar Carbon Company, Incorporated
 SAMPLE ID: BW-4
 COLLECTION METHOD: GRAB
 COLLECTION DATE(S): 05/16/95 - 05/17/95
 SAMPLE TYPE: GROUNDWATER

AES CLIENT ID: CTC
 AES SAMPLE ID: 522B-6

PROJECT ID: 522B

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
4-Chloroaniline	BQL	µg/L	10	SW 846 8270
Hexachlorobutadiene	63	µg/L	10	SW 846 8270
2-Methylnaphthalene	BQL	µg/L	10	SW 846 8270
Hexachlorocyclopentadiene	BQL	µg/L	10	SW 846 8270
2-Chloronaphthalene	BQL	µg/L	10	SW 846 8270
2-Nitroaniline	BQL	µg/L	10	SW 846 8270
Dimethyl phthalate	BQL	µg/L	10	SW 846 8270
2,6-Dinitrotoluene	BQL	µg/L	10	SW 846 8270
Acenaphthylene	BQL	µg/L	10	SW 846 8270
3-Nitroaniline	BQL	µg/L	10	SW 846 8270
Acenaphthene	BQL	µg/L	10	SW 846 8270
2,4-Dinitrotoluene	BQL	µg/L	10	SW 846 8270
Dibenzofuran	BQL	µg/L	10	SW 846 8270
Diethyl phthalate	BQL	µg/L	10	SW 846 8270
4-Chlorophenyl phenyl ether	BQL	µg/L	10	SW 846 8270
Fluorene	BQL	µg/L	10	SW 846 8270
4-Nitroaniline	BQL	µg/L	10	SW 846 8270
n-Nitrosodiphenylamine	BQL	µg/L	10	SW 846 8270
4-Bromophenyl phenyl ether	BQL	µg/L	10	SW 846 8270
Hexachlorobenzene	BQL	µg/L	10	SW 846 8270
Phenanthrene	BQL	µg/L	10	SW 846 8270
Anthracene	BQL	µg/L	10	SW 846 8270
di-n-Butylphthalate	BQL	µg/L	10	SW 846 8270
Fluoranthene	BQL	µg/L	10	SW 846 8270
Pyrene	BQL	µg/L	10	SW 846 8270
Butyl benzyl phthalate	BQL	µg/L	10	SW 846 8270
3,3'-Dichlorobenzidine	BQL	µg/L	10	SW 846 8270
bis(2ethylhexyl)phthalate	BQL	µg/L	10	SW 846 8270
Benzo(a)anthracene	BQL	µg/L	10	SW 846 8270

CLIENT: Ucar Carbon Company, Incorporated
 SAMPLE ID: BW-4
 COLLECTION METHOD: GRAB
 COLLECTION DATE(S): 05/16/95 - 05/17/95
 SAMPLE TYPE: GROUNDWATER

AES CLIENT ID: CTC
 AES SAMPLE ID: 522B-6

PROJECT ID: 522B

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
Chrysene	BQL	µg/L	10	SW 846 8270
di-n-Octylphthalate	BQL	µg/L	10	SW 846 8270
Benzo(b)fluoranthene	BQL	µg/L	10	SW 846 8270
Benzo(k)fluoranthene	BQL	µg/L	10	SW 846 8270
Benzo(a)pyrene	BQL	µg/L	10	SW 846 8270
Indeno(1,2,3-cd)pyrene	BQL	µg/L	10	SW 846 8270
Dibenzo(a,h)anthracene	BQL	µg/L	10	SW 846 8270
Benzo(g,h,i)perylene	BQL	µg/L	10	SW 846 8270
Phenol	BQL	µg/L	10	SW 846 8270
2-Chlorophenol	BQL	µg/L	10	SW 846 8270
2-Methylphenol	BQL	µg/L	10	SW 846 8270
4-Methylphenol	BQL	µg/L	10	SW 846 8270
2-Nitrophenol	BQL	µg/L	10	SW 846 8270
2,4-Dimethylphenol	BQL	µg/L	10	SW 846 8270
Benzoic acid	BQL	µg/L	10	SW 846 8270
2,4-Dichlorophenol	BQL	µg/L	10	SW 846 8270
4-Chloro-3-methylphenol	BQL	µg/L	10	SW 846 8270
2,4,6-Trichlorophenol	BQL	µg/L	10	SW 846 8270
2,4,5-Trichlorophenol	BQL	µg/L	10	SW 846 8270
2,4-Dinitrophenol	BQL	µg/L	10	SW 846 8270
4-Nitrophenol	BQL	µg/L	10	SW 846 8270
4,6-Dinitro-2-methylphenol	BQL	µg/L	10	SW 846 8270
Pentachlorophenol	BQL	µg/L	10	SW 846 8270

CLIENT: Ucar Carbon Company, Incorporated
SAMPLE ID: BW-5
COLLECTION METHOD: GRAB
COLLECTION DATE(S): 05/16/95
SAMPLE TYPE: GROUNDWATER

AES CLIENT ID: CTC
AES SAMPLE ID: 522B-7

PROJECT ID: 522B

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
Turbidity *	1.5	NTU	0.1	EPA 180.1
Ammonia	0.11	mg/L	0.05	EPA 350.1
Nitrite (on water)	BQL	mg/L	0.05	EPA 353.2
Kjeldahl Nitrogen, Total	0.21	mg/L	0.1	EPA 351.2
Iron, Total (ICP/water)	1.1	mg/L	0.05	EPA 200.7
Iron, Soluble (ICP/water)	1.0	mg/L	0.05	EPA 200.7
Potassium, Total (ICP/water)	3.2**	mg/L	1.0	EPA 200.7
Potassium, Soluble (on ICP)	3.9**	mg/L	1.0	EPA 200.7
Zinc, Total (ICP/water)	0.15**	mg/L	0.02	EPA 200.7
Zinc, Soluble (on ICP)	0.12**	mg/L	0.02	EPA 200.7

* Analysis performed in field.

** The soluble result is higher than the total result but less than 20% relative percent difference.

CLIENT: Ucar Carbon Company, Incorporated
 SAMPLE ID: BW-6
 COLLECTION METHOD: GRAB
 COLLECTION DATE(S): 05/18/95
 SAMPLE TYPE: GROUNDWATER

AES CLIENT ID: CTC
 AES SAMPLE ID: 522B-8

PROJECT ID: 522B

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
Turbidity *	135.3	NTU	0.1	EPA 180.1
Ammonia	0.11 **	mg/L	0.05	EPA 350.1
Nitrite (on water)	BQL	mg/L	0.05	EPA 353.2
Kjeldahl Nitrogen, Total	0.1	mg/L	0.1	EPA 351.2
Iron, Total (ICP/water)	7.9	mg/L	0.05	EPA 200.7
Iron, Soluble (ICP/water)	2.1	mg/L	0.05	EPA 200.7
Potassium, Total (ICP/water)	3.0	mg/L	1.0	EPA 200.7
Potassium, Soluble (on ICP)	3.0	mg/L	1.0	EPA 200.7
Zinc, Total (ICP/water)	0.04***	mg/L	0.02	EPA 200.7
Zinc, Soluble (on ICP)	0.11***	mg/L	0.02	EPA 200.7
Chloromethane	BQL	µg/L	10	SW 846 8240
Bromomethane	BQL	µg/L	10	SW 846 8240
Vinyl chloride	BQL	µg/L	10	SW 846 8240
Chloroethane	BQL	µg/L	10	SW 846 8240
Methylene chloride	BQL	µg/L	10	SW 846 8240
Acetone	BQL	µg/L	10	SW 846 8240
Carbon disulfide	BQL	µg/L	10	SW 846 8240
1,1-Dichloroethene	BQL	µg/L	10	SW 846 8240
1,1-Dichloroethane	BQL	µg/L	10	SW 846 8240
trans-1,2-Dichloroethene	BQL	µg/L	10	SW 846 8240
Chloroform	BQL	µg/L	10	SW 846 8240
1,2-Dichloroethane	BQL	µg/L	10	SW 846 8240
2-Butanone	BQL	µg/L	10	SW 846 8240
1,1,1-Trichloroethane	BQL	µg/L	10	SW 846 8240
Carbon tetrachloride	BQL	µg/L	10	SW 846 8240
Vinyl acetate	BQL	µg/L	10	SW 846 8240
Bromodichloromethane	BQL	µg/L	10	SW 846 8240
1,2-Dichloropropane	BQL	µg/L	10	SW 846 8240
cis-1,3-Dichloropropene	BQL	µg/L	10	SW 846 8240

* Analysis performed in field.

** Ammonia is greater than TKN but the relative percent difference is less than the ASP guideline of 20%. This difference is insignificant.

*** The soluble result is higher than the total result but less than 20% relative

CLIENT: Ucar Carbon Company, Incorporated
 SAMPLE ID: BW-6
 COLLECTION METHOD: GRAB
 COLLECTION DATE(S): 05/18/95
 SAMPLE TYPE: GROUNDWATER

AES CLIENT ID: CTC
 AES SAMPLE ID: 522B-8

PROJECT ID: 522B

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
Trichloroethene	BQL	µg/L	10	SW 846 8240
Benzene	BQL	µg/L	10	SW 846 8240
trans-1,3-Dichloropropene	BQL	µg/L	10	SW 846 8240
Chlorodibromomethane	BQL	µg/L	10	SW 846 8240
1,1,2-Trichloroethane	BQL	µg/L	10	SW 846 8240
Bromoform	BQL	µg/L	10	SW 846 8240
4-Methyl-2-pentanone	BQL	µg/L	10	SW 846 8240
2-Hexanone	BQL	µg/L	10	SW 846 8240
Tetrachloroethene	BQL	µg/L	10	SW 846 8240
1,1,2,2-Tetrachloroethane	BQL	µg/L	10	SW 846 8240
Toluene	BQL	µg/L	10	SW 846 8240
Chlorobenzene	BQL	µg/L	10	SW 846 8240
Ethylbenzene	BQL	µg/L	10	SW 846 8240
Styrene	BQL	µg/L	10	SW 846 8240
m-Xylene	BQL	µg/L	10	SW 846 8240
o/p-Xylene	BQL	µg/L	10	SW 846 8240
bis(2-chloroethyl)ether	BQL	µg/L	10	SW 846 8270
1,3-Dichlorobenzene	BQL	µg/L	10	SW 846 8270
1,4-Dichlorobenzene	BQL	µg/L	10	SW 846 8270
Benzyl alcohol	BQL	µg/L	10	SW 846 8270
1,2-Dichlorobenzene	BQL	µg/L	10	SW 846 8270
bis(2-chloroisopropyl)ether	BQL	µg/L	10	SW 846 8270
n-Nitrosodi-n-propylamine	BQL	µg/L	10	SW 846 8270
Hexachloroethane	BQL	µg/L	10	SW 846 8270
Nitrobenzene	BQL	µg/L	10	SW 846 8270
Isophorone	BQL	µg/L	10	SW 846 8270
bis(2-chloroethoxy)methane	BQL	µg/L	10	SW 846 8270
1,2,4-Trichlorobenzene	BQL	µg/L	10	SW 846 8270
Naphthalene	BQL	µg/L	10	SW 846 8270

CLIENT: Ucar Carbon Company, Incorporated
 SAMPLE ID: BW-6
 COLLECTION METHOD: GRAB
 COLLECTION DATE(S): 05/18/95
 SAMPLE TYPE: GROUNDWATER

AES CLIENT ID: CTC
 AES SAMPLE ID: 522B-8

PROJECT ID: 522B

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
4-Chloroaniline	BQL	µg/L	10	SW 846 8270
Hexachlorobutadiene	BQL	µg/L	10	SW 846 8270
2-Methylnaphthalene	BQL	µg/L	10	SW 846 8270
Hexachlorocyclopentadiene	BQL	µg/L	10	SW 846 8270
2-Chloronaphthalene	BQL	µg/L	10	SW 846 8270
2-Nitroaniline	BQL	µg/L	10	SW 846 8270
Dimethyl phthalate	BQL	µg/L	10	SW 846 8270
2,6-Dinitrotoluene	BQL	µg/L	10	SW 846 8270
Acenaphthylene	BQL	µg/L	10	SW 846 8270
3-Nitroaniline	BQL	µg/L	10	SW 846 8270
Acenaphthene	BQL	µg/L	10	SW 846 8270
2,4-Dinitrotoluene	BQL	µg/L	10	SW 846 8270
Dibenzofuran	BQL	µg/L	10	SW 846 8270
Diethyl phthalate	BQL	µg/L	10	SW 846 8270
4-Chlorophenyl phenyl ether	BQL	µg/L	10	SW 846 8270
Fluorene	BQL	µg/L	10	SW 846 8270
4-Nitroaniline	BQL	µg/L	10	SW 846 8270
n-Nitrosodiphenylamine	BQL	µg/L	10	SW 846 8270
4-Bromophenyl phenyl ether	BQL	µg/L	10	SW 846 8270
Hexachlorobenzene	BQL	µg/L	10	SW 846 8270
Phenanthrene	BQL	µg/L	10	SW 846 8270
Anthracene	BQL	µg/L	10	SW 846 8270
di-n-Butylphthalate	BQL	µg/L	10	SW 846 8270
Fluoranthene	BQL	µg/L	10	SW 846 8270
Pyrene	BQL	µg/L	10	SW 846 8270
Butyl benzyl phthalate	BQL	µg/L	10	SW 846 8270
3,3'-Dichlorobenzidine	BQL	µg/L	10	SW 846 8270
bis(2ethylhexyl)phthalate	BQL	µg/L	10	SW 846 8270
Benzo(a)anthracene	BQL	µg/L	10	SW 846 8270

CLIENT: Ucar Carbon Company, Incorporated
 SAMPLE ID: BW-6
 COLLECTION METHOD: GRAB
 COLLECTION DATE(S): 05/18/95
 SAMPLE TYPE: GROUNDWATER

AES CLIENT ID: CTC
 AES SAMPLE ID: 522B-8

PROJECT ID: 522B

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
Chrysene	BQL	µg/L	10	SW 846 8270
di-n-Octylphthalate	BQL	µg/L	10	SW 846 8270
Benzo(b)fluoranthene	BQL	µg/L	10	SW 846 8270
Benzo(k)fluoranthene	BQL	µg/L	10	SW 846 8270
Benzo(a)pyrene	BQL	µg/L	10	SW 846 8270
Indeno(1,2,3-cd)pyrene	BQL	µg/L	10	SW 846 8270
Dibenzo(a,h)anthracene	BQL	µg/L	10	SW 846 8270
Benzo(g,h,i)perylene	BQL	µg/L	10	SW 846 8270
Phenol	BQL	µg/L	10	SW 846 8270
2-Chlorophenol	BQL	µg/L	10	SW 846 8270
2-Methylphenol	BQL	µg/L	10	SW 846 8270
4-Methylphenol	BQL	µg/L	10	SW 846 8270
2-Nitrophenol	BQL	µg/L	10	SW 846 8270
2,4-Dimethylphenol	BQL	µg/L	10	SW 846 8270
Benzoic acid	BQL	µg/L	10	SW 846 8270
2,4-Dichlorophenol	BQL	µg/L	10	SW 846 8270
4-Chloro-3-methylphenol	BQL	µg/L	10	SW 846 8270
2,4,6-Trichlorophenol	BQL	µg/L	10	SW 846 8270
2,4,5-Trichlorophenol	BQL	µg/L	10	SW 846 8270
2,4-Dinitrophenol	BQL	µg/L	10	SW 846 8270
4-Nitrophenol	BQL	µg/L	10	SW 846 8270
4,6-Dinitro-2-methylphenol	BQL	µg/L	10	SW 846 8270
Pentachlorophenol	BQL	µg/L	10	SW 846 8270

CLIENT: Ucar Carbon Company, Incorporated
 SAMPLE ID: BLIND DUPLICATE
 COLLECTION METHOD: GRAB
 COLLECTION DATE(S): 05/18/95
 SAMPLE TYPE: GROUNDWATER

AES CLIENT ID: CTC
 AES SAMPLE ID: 522B-9

PROJECT ID: 522B

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
Turbidity *	185.8	NTU	0.1	EPA 180.1
Ammonia	0.12	mg/L	0.05	EPA 350.1
Nitrite (on water)	ND	mg/L	0.05	EPA 353.2
Kjeldahl Nitrogen, Total	0.2	mg/L	0.1	EPA 351.2
Iron, Total (ICP/water)	7.7	mg/L	0.05	EPA 200.7
Iron, Soluble (ICP/water)	2.1	mg/L	0.05	EPA 200.7
Potassium, Total (ICP/water)	2.1**	mg/L	1.0	EPA 200.7
Potassium, Soluble (on ICP)	2.5**	mg/L	1.0	EPA 200.7
Zinc, Total (ICP/water)	0.03**	mg/L	0.02	EPA 200.7
Zinc, Soluble (on ICP)	0.10**	mg/L	0.02	EPA 200.7
Chloromethane	BQL	µg/L	10	SW 846 8240
Bromomethane	BQL	µg/L	10	SW 846 8240
Vinyl chloride	BQL	µg/L	10	SW 846 8240
Chloroethane	BQL	µg/L	10	SW 846 8240
Methylene chloride	BQL	µg/L	10	SW 846 8240
Acetone	BQL	µg/L	10	SW 846 8240
Carbon disulfide	BQL	µg/L	10	SW 846 8240
1,1-Dichloroethene	BQL	µg/L	10	SW 846 8240
1,1-Dichloroethane	BQL	µg/L	10	SW 846 8240
trans-1,2-Dichloroethene	BQL	µg/L	10	SW 846 8240
Chloroform	BQL	µg/L	10	SW 846 8240
1,2-Dichloroethane	BQL	µg/L	10	SW 846 8240
2-Butanone	BQL	µg/L	10	SW 846 8240
1,1,1-Trichloroethane	BQL	µg/L	10	SW 846 8240
Carbon tetrachloride	BQL	µg/L	10	SW 846 8240
Vinyl acetate	BQL	µg/L	10	SW 846 8240
Bromodichloromethane	BQL	µg/L	10	SW 846 8240
1,2-Dichloropropane	BQL	µg/L	10	SW 846 8240
cis-1,3-Dichloropropene	BQL	µg/L	10	SW 846 8240

* Analysis performed in field.

** The soluble result is higher than the total result but less than 20% relative percent difference.

CLIENT: Ucar Carbon Company, Incorporated
 SAMPLE ID: BLIND DUPLICATE
 COLLECTION METHOD: GRAB
 COLLECTION DATE(S): 05/18/95
 SAMPLE TYPE: GROUNDWATER

AES CLIENT ID: CTC
 AES SAMPLE ID: 522B-9

PROJECT ID: 522B

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
Trichloroethene	BQL	µg/L	10	SW 846 8240
Benzene	BQL	µg/L	10	SW 846 8240
trans-1,3-Dichloropropene	BQL	µg/L	10	SW 846 8240
Chlorodibromomethane	BQL	µg/L	10	SW 846 8240
1,1,2-Trichloroethane	BQL	µg/L	10	SW 846 8240
Bromoform	BQL	µg/L	10	SW 846 8240
4-Methyl-2-pentanone	BQL	µg/L	10	SW 846 8240
2-Hexanone	BQL	µg/L	10	SW 846 8240
Tetrachloroethene	BQL	µg/L	10	SW 846 8240
1,1,2,2-Tetrachloroethane	BQL	µg/L	10	SW 846 8240
Toluene	BQL	µg/L	10	SW 846 8240
Chlorobenzene	BQL	µg/L	10	SW 846 8240
Ethylbenzene	BQL	µg/L	10	SW 846 8240
Styrene	BQL	µg/L	10	SW 846 8240
m-Xylene	BQL	µg/L	10	SW 846 8240
o/p-Xylene	BQL	µg/L	10	SW 846 8240
bis(2-chloroethyl)ether	BQL	µg/L	10	SW 846 8270
1,3-Dichlorobenzene	BQL	µg/L	10	SW 846 8270
1,4-Dichlorobenzene	BQL	µg/L	10	SW 846 8270
Benzyl alcohol	BQL	µg/L	10	SW 846 8270
1,2-Dichlorobenzene	BQL	µg/L	10	SW 846 8270
bis(2-chloroisopropyl)ether	BQL	µg/L	10	SW 846 8270
n-Nitrosodi-n-propylamine	BQL	µg/L	10	SW 846 8270
Hexachloroethane	BQL	µg/L	10	SW 846 8270
Nitrobenzene	BQL	µg/L	10	SW 846 8270
Isophorone	BQL	µg/L	10	SW 846 8270
bis(2-chloroethoxy)methane	BQL	µg/L	10	SW 846 8270
1,2,4-Trichlorobenzene	BQL	µg/L	10	SW 846 8270
Naphthalene	BQL	µg/L	10	SW 846 8270

CLIENT: Ucar Carbon Company, Incorporated
 SAMPLE ID: BLIND DUPLICATE
 COLLECTION METHOD: GRAB
 COLLECTION DATE(S): 05/18/95
 SAMPLE TYPE: GROUNDWATER

AES CLIENT ID: CTC
 AES SAMPLE ID: 522B-9

PROJECT ID: 522B

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
4-Chloroaniline	BQL	µg/L	10	SW 846 8270
Hexachlorobutadiene	BQL	µg/L	10	SW 846 8270
2-Methylnaphthalene	BQL	µg/L	10	SW 846 8270
Hexachlorocyclopentadiene	BQL	µg/L	10	SW 846 8270
2-Chloronaphthalene	BQL	µg/L	10	SW 846 8270
2-Nitroaniline	BQL	µg/L	10	SW 846 8270
Dimethyl phthalate	BQL	µg/L	10	SW 846 8270
2,6-Dinitrotoluene	BQL	µg/L	10	SW 846 8270
Acenaphthylene	BQL	µg/L	10	SW 846 8270
3-Nitroaniline	BQL	µg/L	10	SW 846 8270
Acenaphthene	BQL	µg/L	10	SW 846 8270
2,4-Dinitrotoluene	BQL	µg/L	10	SW 846 8270
Dibenzofuran	BQL	µg/L	10	SW 846 8270
Diethyl phthalate	BQL	µg/L	10	SW 846 8270
4-Chlorophenyl phenyl ether	BQL	µg/L	10	SW 846 8270
Fluorene	BQL	µg/L	10	SW 846 8270
4-Nitroaniline	BQL	µg/L	10	SW 846 8270
n-Nitrosodiphenylamine	BQL	µg/L	10	SW 846 8270
4-Bromophenyl phenyl ether	BQL	µg/L	10	SW 846 8270
Hexachlorobenzene	BQL	µg/L	10	SW 846 8270
Phenanthrene	BQL	µg/L	10	SW 846 8270
Anthracene	BQL	µg/L	10	SW 846 8270
di-n-Butylphthalate	BQL	µg/L	10	SW 846 8270
Fluoranthene	BQL	µg/L	10	SW 846 8270
Pyrene	BQL	µg/L	10	SW 846 8270
Butyl benzyl phthalate	BQL	µg/L	10	SW 846 8270
3,3'-Dichlorobenzidine	BQL	µg/L	10	SW 846 8270
bis(2ethylhexyl)phthalate	BQL	µg/L	10	SW 846 8270
Benzo(a)anthracene	BQL	µg/L	10	SW 846 8270

CLIENT: Ucar Carbon Company, Incorporated
 SAMPLE ID: BLIND DUPLICATE
 COLLECTION METHOD: GRAB
 COLLECTION DATE(S): 05/18/95
 SAMPLE TYPE: GROUNDWATER

AES CLIENT ID: CTC
 AES SAMPLE ID: 522B-9

PROJECT ID: 522B

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
Chrysene	BQL	µg/L	10	SW 846 8270
di-n-Octylphthalate	BQL	µg/L	10	SW 846 8270
Benzo(b)fluoranthene	BQL	µg/L	10	SW 846 8270
Benzo(k)fluoranthene	BQL	µg/L	10	SW 846 8270
Benzo(a)pyrene	BQL	µg/L	10	SW 846 8270
Indeno(1,2,3-cd)pyrene	BQL	µg/L	10	SW 846 8270
Dibenzo(a,h)anthracene	BQL	µg/L	10	SW 846 8270
Benzo(g,h,i)perylene	BQL	µg/L	10	SW 846 8270
Phenol	BQL	µg/L	10	SW 846 8270
2-Chlorophenol	BQL	µg/L	10	SW 846 8270
2-Methylphenol	BQL	µg/L	10	SW 846 8270
4-Methylphenol	BQL	µg/L	10	SW 846 8270
2-Nitrophenol	BQL	µg/L	10	SW 846 8270
2,4-Dimethylphenol	BQL	µg/L	10	SW 846 8270
Benzoic acid	BQL	µg/L	10	SW 846 8270
2,4-Dichlorophenol	BQL	µg/L	10	SW 846 8270
4-Chloro-3-methylphenol	BQL	µg/L	10	SW 846 8270
2,4,6-Trichlorophenol	BQL	µg/L	10	SW 846 8270
2,4,5-Trichlorophenol	BQL	µg/L	10	SW 846 8270
2,4-Dinitrophenol	BQL	µg/L	10	SW 846 8270
4-Nitrophenol	BQL	µg/L	10	SW 846 8270
4,6-Dinitro-2-methylphenol	BQL	µg/L	10	SW 846 8270
Pentachlorophenol	BQL	µg/L	10	SW 846 8270

CLIENT: Ucar Carbon Company, Incorporated
 SAMPLE ID: TRIP BLANK
 COLLECTION METHOD: GRAB
 COLLECTION DATE(S): 05/16/95 - 05/17/95
 SAMPLE TYPE: BAKER WATER

AES CLIENT ID: CTC
 AES SAMPLE ID: 522B-10

PROJECT ID: 522B

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
Turbidity *	1.3	NTU	0.1	EPA 180.1
Ammonia	BQL	mg/L	0.05	EPA 350.1
Nitrite (on water)	BQL	mg/L	0.05	EPA 353.2
Kjeldahl Nitrogen, Total	BQL	mg/L	0.1	EPA 351.2
Iron, Total (ICP/water)	BQL	mg/L	0.05	EPA 200.7
Potassium, Total (ICP/water)	BQL	mg/L	1.0	EPA 200.7
Zinc, Total (ICP/water)	BQL	mg/L	0.02	EPA 200.7
Chloromethane	BQL	µg/L	10	SW 846 8240
Bromomethane	BQL	µg/L	10	SW 846 8240
Vinyl chloride	BQL	µg/L	10	SW 846 8240
Chloroethane	BQL	µg/L	10	SW 846 8240
Methylene chloride	BQL	µg/L	10	SW 846 8240
Acetone	BQL	µg/L	10	SW 846 8240
Carbon disulfide	BQL	µg/L	10	SW 846 8240
1,1-Dichloroethene	BQL	µg/L	10	SW 846 8240
1,1-Dichloroethane	BQL	µg/L	10	SW 846 8240
trans-1,2-Dichloroethene	BQL	µg/L	10	SW 846 8240
Chloroform	BQL	µg/L	10	SW 846 8240
1,2-Dichloroethane	BQL	µg/L	10	SW 846 8240
2-Butanone	BQL	µg/L	10	SW 846 8240
1,1,1-Trichloroethane	BQL	µg/L	10	SW 846 8240
Carbon tetrachloride	BQL	µg/L	10	SW 846 8240
Vinyl acetate	BQL	µg/L	10	SW 846 8240
Bromodichloromethane	BQL	µg/L	10	SW 846 8240
1,2-Dichloropropane	BQL	µg/L	10	SW 846 8240
cis-1,3-Dichloropropene	BQL	µg/L	10	SW 846 8240
Trichloroethene	BQL	µg/L	10	SW 846 8240
Benzene	BQL	µg/L	10	SW 846 8240
trans-1,3-Dichloropropene	BQL	µg/L	10	SW 846 8240

* Analysis performed in field.

CLIENT: Ucar Carbon Company, Incorporated
 SAMPLE ID: TRIP BLANK
 COLLECTION METHOD: GRAB
 COLLECTION DATE(S): 05/16/95 - 05/17/95
 SAMPLE TYPE: BAKER WATER

AES CLIENT ID: CTC
 AES SAMPLE ID: 522B-10

PROJECT ID: 522B

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
Chlorodibromomethane	BQL	µg/L	10	SW 846 8240
1,1,2-Trichloroethane	BQL	µg/L	10	SW 846 8240
Bromoform	BQL	µg/L	10	SW 846 8240
4-Methyl-2-pentanone	BQL	µg/L	10	SW 846 8240
2-Hexanone	BQL	µg/L	10	SW 846 8240
Tetrachloroethene	BQL	µg/L	10	SW 846 8240
1,1,2,2-Tetrachloroethane	BQL	µg/L	10	SW 846 8240
Toluene	BQL	µg/L	10	SW 846 8240
Chlorobenzene	BQL	µg/L	10	SW 846 8240
Ethylbenzene	BQL	µg/L	10	SW 846 8240
Styrene	BQL	µg/L	10	SW 846 8240
m-Xylene	BQL	µg/L	10	SW 846 8240
o/p-Xylene	BQL	µg/L	10	SW 846 8240
bis(2-chloroethyl)ether	BQL	µg/L	10	SW 846 8270
1,3-Dichlorobenzene	BQL	µg/L	10	SW 846 8270
1,4-Dichlorobenzene	BQL	µg/L	10	SW 846 8270
Benzyl alcohol	BQL	µg/L	10	SW 846 8270
1,2-Dichlorobenzene	BQL	µg/L	10	SW 846 8270
bis(2-chloroisopropyl)ether	BQL	µg/L	10	SW 846 8270
n-Nitrosodi-n-propylamine	BQL	µg/L	10	SW 846 8270
Hexachloroethane	BQL	µg/L	10	SW 846 8270
Nitrobenzene	BQL	µg/L	10	SW 846 8270
Isophorone	BQL	µg/L	10	SW 846 8270
bis(2-chloroethoxy)methane	BQL	µg/L	10	SW 846 8270
1,2,4-Trichlorobenzene	BQL	µg/L	10	SW 846 8270
Naphthalene	BQL	µg/L	10	SW 846 8270
4-Chloroaniline	BQL	µg/L	10	SW 846 8270
Hexachlorobutadiene	BQL	µg/L	10	SW 846 8270
2-Methylnaphthalene	BQL	µg/L	10	SW 846 8270

CLIENT: Ucar Carbon Company, Incorporated
 SAMPLE ID: TRIP BLANK
 COLLECTION METHOD: GRAB
 COLLECTION DATE(S): 05/16/95 - 05/17/95
 SAMPLE TYPE: BAKER WATER

AES CLIENT ID: CTC
 AES SAMPLE ID: 522B-10

PROJECT ID: 522B

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
Hexachlorocyclopentadiene	BQL	µg/L	10	SW 846 8270
2-Chloronaphthalene	BQL	µg/L	10	SW 846 8270
2-Nitroaniline	BQL	µg/L	10	SW 846 8270
Dimethyl phthalate	BQL	µg/L	10	SW 846 8270
2,6-Dinitrotoluene	BQL	µg/L	10	SW 846 8270
Acenaphthylene	BQL	µg/L	10	SW 846 8270
3-Nitroaniline	BQL	µg/L	10	SW 846 8270
Acenaphthene	BQL	µg/L	10	SW 846 8270
2,4-Dinitrotoluene	BQL	µg/L	10	SW 846 8270
Dibenzofuran	BQL	µg/L	10	SW 846 8270
Diethyl phthalate	BQL	µg/L	10	SW 846 8270
4-Chlorophenyl phenyl ether	BQL	µg/L	10	SW 846 8270
Fluorene	BQL	µg/L	10	SW 846 8270
4-Nitroaniline	BQL	µg/L	10	SW 846 8270
n-Nitrosodiphenylamine	BQL	µg/L	10	SW 846 8270
4-Bromophenyl phenyl ether	BQL	µg/L	10	SW 846 8270
Hexachlorobenzene	BQL	µg/L	10	SW 846 8270
Phenanthrene	BQL	µg/L	10	SW 846 8270
Anthracene	BQL	µg/L	10	SW 846 8270
di-n-Butylphthalate	BQL	µg/L	10	SW 846 8270
Fluoranthene	BQL	µg/L	10	SW 846 8270
Pyrene	BQL	µg/L	10	SW 846 8270
Butyl benzyl phthalate	BQL	µg/L	10	SW 846 8270
3,3'-Dichlorobenzidine	BQL	µg/L	10	SW 846 8270
bis(2ethylhexyl)phthalate	BQL	µg/L	10	SW 846 8270
Benzo(a)anthracene	BQL	µg/L	10	SW 846 8270
Chrysene	BQL	µg/L	10	SW 846 8270
di-n-Octylphthalate	BQL	µg/L	10	SW 846 8270
Benzo(b)fluoranthene	BQL	µg/L	10	SW 846 8270

CLIENT: Ucar Carbon Company, Incorporated
 SAMPLE ID: TRIP BLANK
 COLLECTION METHOD: GRAB
 COLLECTION DATE(S): 05/16/95 - 05/17/95
 SAMPLE TYPE: BAKER WATER

AES CLIENT ID: CTC
 AES SAMPLE ID: 522B-10

PROJECT ID: 522B

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
Benzo(k)fluoranthene	BQL	µg/L	10	SW 846 8270
Benzo(a)pyrene	BQL	µg/L	10	SW 846 8270
Indeno(1,2,3-cd)pyrene	BQL	µg/L	10	SW 846 8270
Dibenzo(a,h)anthracene	BQL	µg/L	10	SW 846 8270
Benzo(g,h,i)perylene	BQL	µg/L	10	SW 846 8270
Phenol	BQL	µg/L	10	SW 846 8270
2-Chlorophenol	BQL	µg/L	10	SW 846 8270
2-Methylphenol	BQL	µg/L	10	SW 846 8270
4-Methylphenol	BQL	µg/L	10	SW 846 8270
2-Nitrophenol	BQL	µg/L	10	SW 846 8270
2,4-Dimethylphenol	BQL	µg/L	10	SW 846 8270
Benzoic acid	BQL	µg/L	10	SW 846 8270
2,4-Dichlorophenol	BQL	µg/L	10	SW 846 8270
4-Chloro-3-methylphenol	BQL	µg/L	10	SW 846 8270
2,4,6-Trichlorophenol	BQL	µg/L	10	SW 846 8270
2,4,5-Trichlorophenol	BQL	µg/L	10	SW 846 8270
2,4-Dinitrophenol	BQL	µg/L	10	SW 846 8270
4-Nitrophenol	BQL	µg/L	10	SW 846 8270
4,6-Dinitro-2-methylphenol	BQL	µg/L	10	SW 846 8270
Pentachlorophenol	BQL	µg/L	10	SW 846 8270

CLIENT: Ucar Carbon Company, Incorporated
SAMPLE ID: MW-2
COLLECTION METHOD: GRAB
COLLECTION DATE(S): 05/18/95
SAMPLE TYPE: GROUNDWATER

AES CLIENT ID: CTC
AES SAMPLE ID: 522B-11

PROJECT ID: 522B

Analytical Parameters	Analytical Results	Units	Practical Quantifiable	
			Limit	Method
Ammonia	0.90	mg/L	0.05	EPA 350.1
Nitrite (on water)	BQL	mg/L	0.05	EPA 353.2
Kjeldahl Nitrogen, Total	3.0	mg/L	0.1	EPA 351.2

CLIENT: Ucar Carbon Company, Incorporated

AES CLIENT ID: CTC
PROJECT ID: 522B

ACCURACY

Analytical Parameter(s)	Method	Sample ID	Type	Percent Recovery
Ammonia	EPA 350.1	522B-6	Matrix Spike	102
Nitrite (on water)	EPA 353.2	522B-6	Matrix Spike	104
Kjeldahl Nitrogen, Total	EPA 351.2	522B-6	Matrix Spike	80
Iron, Total (ICP/water)	EPA 200.7	522B-6	Matrix Spike	95
Iron, Soluble (ICP/water)	EPA 200.7	522B-6	Matrix Spike	96
Potassium, Total (ICP/water)	EPA 200.7	522B-6	Matrix Spike	96
Potassium, Soluble (on ICP)	EPA 200.7	522B-6	Matrix Spike	98
Zinc, Total (ICP/water)	EPA 200.7	522B-6	Matrix Spike	99
Zinc, Soluble (on ICP)	EPA 200.7	522B-6	Matrix Spike	97
1,1-Dichloroethene	SW 846 8240	522B-6	Matrix Spike	94
Trichloroethene	SW 846 8240	522B-6	Matrix Spike	101
Benzene	SW 846 8240	522B-6	Matrix Spike	114
Toluene	SW 846 8240	522B-6	Matrix Spike	101
Chlorobenzene	SW 846 8240	522B-6	Matrix Spike	107
1,4-Dichlorobenzene	SW 846 8270	522B-6	Matrix Spike	64
n-Nitrosodi-n-propylamine	SW 846 8270	522B-6	Matrix Spike	115
1,2,4-Trichlorobenzene	SW 846 8270	522B-6	Matrix Spike	73
Acenaphthene	SW 846 8270	522B-6	Matrix Spike	96
2,4-Dinitrotoluene	SW 846 8270	522B-6	Matrix Spike	99
Pyrene	SW 846 8270	522B-6	Matrix Spike	82
Phenol	SW 846 8270	522B-6	Matrix Spike	42
2-Chlorophenol	SW 846 8270	522B-6	Matrix Spike	81
4-Chloro-3-methylphenol	SW 846 8270	522B-6	Matrix Spike	99
4-Nitrophenol	SW 846 8270	522B-6	Matrix Spike	54
Pentachlorophenol	SW 846 8270	522B-6	Matrix Spike	118

CLIENT: Ucar Carbon Company, Incorporated

AES CLIENT ID: CTC
PROJECT ID: 522B

PRECISION

Analytical Parameter(s)	Method	Sample ID	Type	Relative % Difference
Ammonia	EPA 350.1	522B-6	Duplicate	2.5
Nitrite (on water)	EPA 353.2	522B-6	Duplicate	NA
Kjeldahl Nitrogen, Total	EPA 351.2	522B-6	Duplicate	0
Iron, Total (ICP/water)	EPA 200.7	522B-6	Duplicate	4
Iron, Soluble (ICP/water)	EPA 200.7	522B-6	Duplicate	1
Potassium, Total (ICP/water)	EPA 200.7	522B-6	Duplicate	5
Potassium, Soluble (on ICP)	EPA 200.7	522B-6	Duplicate	1
Zinc, Total (ICP/water)	EPA 200.7	522B-6	Duplicate	1
Zinc, Soluble (on ICP)	EPA 200.7	522B-6	Duplicate	0
Chloromethane	SW 846 8240	522B-6	Duplicate	NA
Bromomethane	SW 846 8240	522B-6	Duplicate	NA
Vinyl chloride	SW 846 8240	522B-6	Duplicate	9
Chloroethane	SW 846 8240	522B-6	Duplicate	NA
Methylene chloride	SW 846 8240	522B-6	Duplicate	NA
Acetone	SW 846 8240	522B-6	Duplicate	NA
Carbon disulfide	SW 846 8240	522B-6	Duplicate	NA
1,1-Dichloroethene	SW 846 8240	522B-6	Duplicate	NA
1,1-Dichloroethane	SW 846 8240	522B-6	Duplicate	NA
trans-1,2-Dichloroethene	SW 846 8240	522B-6	Duplicate	14
Chloroform	SW 846 8240	522B-6	Duplicate	NA
1,2-Dichloroethane	SW 846 8240	522B-6	Duplicate	NA
2-Butanone	SW 846 8240	522B-6	Duplicate	NA
1,1,1-Trichloroethane	SW 846 8240	522B-6	Duplicate	NA
Carbon tetrachloride	SW 846 8240	522B-6	Duplicate	NA
Vinyl acetate	SW 846 8240	522B-6	Duplicate	NA
Bromodichloromethane	SW 846 8240	522B-6	Duplicate	NA
1,2-Dichloropropane	SW 846 8240	522B-6	Duplicate	NA
cis-1,3-Dichloropropene	SW 846 8240	522B-6	Duplicate	NA

NA = NOT AVAILABLE - ORIGINAL AND/OR DUPLICATE RESULTS ARE BELOW REPORTED LIMITS

CLIENT: Ucar Carbon Company, Incorporated

AES CLIENT ID: CTC
PROJECT ID: 522B

PRECISION

Analytical Parameter(s)	Method	Sample ID	Type	Relative % Difference
Trichloroethene	SW 846 8240	522B-6	Duplicate	16
Benzene	SW 846 8240	522B-6	Duplicate	NA
trans-1,3-Dichloropropene	SW 846 8240	522B-6	Duplicate	NA
Chlorodibromomethane	SW 846 8240	522B-6	Duplicate	NA
1,1,2-Trichloroethane	SW 846 8240	522B-6	Duplicate	NA
Bromoform	SW 846 8240	522B-6	Duplicate	NA
4-Methyl-2-pentanone	SW 846 8240	522B-6	Duplicate	NA
2-Hexanone	SW 846 8240	522B-6	Duplicate	NA
Tetrachloroethene	SW 846 8240	522B-6	Duplicate	7
1,1,2,2-Tetrachloroethane	SW 846 8240	522B-6	Duplicate	NA
Toluene	SW 846 8240	522B-6	Duplicate	NA
Chlorobenzene	SW 846 8240	522B-6	Duplicate	NA
Ethylbenzene	SW 846 8240	522B-6	Duplicate	NA
Styrene	SW 846 8240	522B-6	Duplicate	NA
m-Xylene	SW 846 8240	522B-6	Duplicate	NA
o/p-Xylene	SW 846 8240	522B-6	Duplicate	NA
bis(2-chloroethyl)ether	SW 846 8270	522B-6	Duplicate	NA
1,3-Dichlorobenzene	SW 846 8270	522B-6	Duplicate	NA
1,4-Dichlorobenzene	SW 846 8270	522B-6	Duplicate	NA
Benzyl alcohol	SW 846 8270	522B-6	Duplicate	NA
1,2-Dichlorobenzene	SW 846 8270	522B-6	Duplicate	NA
bis(2-chloroisopropyl)ether	SW 846 8270	522B-6	Duplicate	NA
n-Nitrosodi-n-propylamine	SW 846 8270	522B-6	Duplicate	NA
Hexachloroethane	SW 846 8270	522B-6	Duplicate	4
Nitrobenzene	SW 846 8270	522B-6	Duplicate	NA
Isophorone	SW 846 8270	522B-6	Duplicate	NA
bis(2-chloroethoxy)methane	SW 846 8270	522B-6	Duplicate	NA
1,2,4-Trichlorobenzene	SW 846 8270	522B-6	Duplicate	NA

NA = NOT AVAILABLE - ORIGINAL AND/OR DUPLICATE RESULTS ARE BELOW REPORTED LIMITS

CLIENT: Ucar Carbon Company, Incorporated

AES CLIENT ID: CTC
PROJECT ID: 522B

PRECISION

Analytical Parameter(s)	Method	Sample ID	Type	Relative % Difference
Naphthalene	SW 846 8270	522B-6	Duplicate	NA
4-Chloroaniline	SW 846 8270	522B-6	Duplicate	NA
Hexachlorobutadiene	SW 846 8270	522B-6	Duplicate	8
2-Methylnaphthalene	SW 846 8270	522B-6	Duplicate	NA
Hexachlorocyclopentadiene	SW 846 8270	522B-6	Duplicate	NA
2-Chloronaphthalene	SW 846 8270	522B-6	Duplicate	NA
2-Nitroaniline	SW 846 8270	522B-6	Duplicate	NA
Dimethyl phthalate	SW 846 8270	522B-6	Duplicate	NA
2,6-Dinitrotoluene	SW 846 8270	522B-6	Duplicate	NA
Acenaphthylene	SW 846 8270	522B-6	Duplicate	NA
3-Nitroaniline	SW 846 8270	522B-6	Duplicate	NA
Acenaphthene	SW 846 8270	522B-6	Duplicate	NA
2,4-Dinitrotoluene	SW 846 8270	522B-6	Duplicate	NA
Dibenzofuran	SW 846 8270	522B-6	Duplicate	NA
Diethyl phthalate	SW 846 8270	522B-6	Duplicate	NA
4-Chlorophenyl phenyl ether	SW 846 8270	522B-6	Duplicate	NA
Fluorene	SW 846 8270	522B-6	Duplicate	NA
4-Nitroaniline	SW 846 8270	522B-6	Duplicate	NA
n-Nitrosodiphenylamine	SW 846 8270	522B-6	Duplicate	NA
4-Bromophenyl phenyl ether	SW 846 8270	522B-6	Duplicate	NA
Hexachlorobenzene	SW 846 8270	522B-6	Duplicate	NA
Phenanthrene	SW 846 8270	522B-6	Duplicate	NA
Anthracene	SW 846 8270	522B-6	Duplicate	NA
di-n-Butylphthalate	SW 846 8270	522B-6	Duplicate	NA
Fluoranthene	SW 846 8270	522B-6	Duplicate	NA
Pyrene	SW 846 8270	522B-6	Duplicate	NA
Butyl benzyl phthalate	SW 846 8270	522B-6	Duplicate	NA
3,3'-Dichlorobenzidine	SW 846 8270	522B-6	Duplicate	NA

NA = NOT AVAILABLE - ORIGINAL AND/OR DUPLICATE RESULTS ARE BELOW REPORTED LIMITS

CLIENT: Ucar Carbon Company, Incorporated

AES CLIENT ID: CTC
PROJECT ID: 522B

PRECISION

Analytical Parameter(s)	Method	Sample ID	Type	Relative % Difference
bis(2ethylhexyl)phthalate	SW 846 8270	522B-6	Duplicate	NA
Benzo(a)anthracene	SW 846 8270	522B-6	Duplicate	NA
Chrysene	SW 846 8270	522B-6	Duplicate	NA
di-n-Octylphthalate	SW 846 8270	522B-6	Duplicate	NA
Benzo(b)fluoranthene	SW 846 8270	522B-6	Duplicate	NA
Benzo(k)fluoranthene	SW 846 8270	522B-6	Duplicate	NA
Benzo(a)pyrene	SW 846 8270	522B-6	Duplicate	NA
Indeno(1,2,3-cd)pyrene	SW 846 8270	522B-6	Duplicate	NA
Dibenzo(a,h)anthracene	SW 846 8270	522B-6	Duplicate	NA
Benzo(g,h,i)perylene	SW 846 8270	522B-6	Duplicate	NA
Phenol	SW 846 8270	522B-6	Duplicate	NA
2-Chlorophenol	SW 846 8270	522B-6	Duplicate	NA
2-Methylphenol	SW 846 8270	522B-6	Duplicate	NA
4-Methylphenol	SW 846 8270	522B-6	Duplicate	NA
2-Nitrophenol	SW 846 8270	522B-6	Duplicate	NA
2,4-Dimethylphenol	SW 846 8270	522B-6	Duplicate	NA
Benzoic acid	SW 846 8270	522B-6	Duplicate	NA
2,4-Dichlorophenol	SW 846 8270	522B-6	Duplicate	NA
4-Chloro-3-methylphenol	SW 846 8270	522B-6	Duplicate	NA
2,4,6-Trichlorophenol	SW 846 8270	522B-6	Duplicate	NA
2,4,5-Trichlorophenol	SW 846 8270	522B-6	Duplicate	NA
2,4-Dinitrophenol	SW 846 8270	522B-6	Duplicate	NA
4-Nitrophenol	SW 846 8270	522B-6	Duplicate	NA
4,6-Dinitro-2-methylphenol	SW 846 8270	522B-6	Duplicate	NA
Pentachlorophenol	SW 846 8270	522B-6	Duplicate	NA

NA = NOT AVAILABLE - ORIGINAL AND/OR DUPLICATE RESULTS ARE BELOW REPORTED LIMITS

Advanced Environmental Services

Sample Traceability Report

AES Job Code CTC

AES Job No. 522B

				SAMPLE PREP			ANALYSIS		
AES Sample No.	Sample Date	Group #	Run #	Method Number	Date	Analyst	Method Number	Date	Analyst
522B 1-11	5/18/95	2122	70	—	—	—	353.2	6/1/95	JK
522B (1-11)	5/16-18/95	2005	83:	—	—	—	350.1	6/6/95	TS
522B (1,4,6,8,9,11)	5/16-18/95	2027	128	351.2	5/25/95	TS	351.2	5/25/95	JK
522B (2,3,5,7)	5/16-18/95	2027	127	351.2	5/24/95	TS	351.2	5/24/95	JK
522B-11	5/18/95	2027	128	351.2	6/2/95	TS	351.2	6-8-95	TS

Note: Areas marked using a dash indicate that no sample preparation was required under the applied methodology.

Advanced Environmental Services

AES Job Code CTC

Sample Traceability Report

AES Job No. 582B

				SAMPLE PREP			ANALYSIS		
AES Sample No.	Sample Date	Group #	Run #	Method Number	Date	Analyst	Method Number	Date	Analyst
582B 1-10	5-16-95	1010	288	9.3	5/19	ZR	200.7	6-1-95	14W

Note: Areas marked using a dash indicate that no sample preparation was required under the applied methodology.

Advanced Environmental Services

Sample Traceability Report

AES Job Code CTC

AES Job No. 522B

				SAMPLE PREP			ANALYSIS		
AES Sample No.	Sample Date	Group #	Run #	Method Number	Date	Analyst	Method Number	Date	Analyst
522B-6	5-16-95	4000	138	-	-	-	8240	5-18-95	KA
522B-8	5-18-95			-	-	-			
522B-9	5-18-95			-	-	-			
522B-10	5-16-5-17-95			-	-	-			

Note: Areas marked using a dash indicate that no sample preparation was required under the applied methodology.

Advanced Environmental Services

AES Job Code CTC

Sample Traceability Report

AES Job No. 522B

				SAMPLE PREP			ANALYSIS		
AES Sample No.	Sample Date	Group #	Run #	Method Number	Date	Analyst	Method Number	Date	Analyst
522B-06	5/17/95	4300	173	8270	5/23/95	ST	8270	5/23/95	SCS
↓ -06.00P	↓	↓	↓	↓	↓	↓	↓	↓	↓
↓ -06 Spk	↓	↓	↓	↓	↓	↓	↓	↓	↓
522B-08	5/17/95	4300	173	8270	5/23/95	ST	↓	↓	↓
↓ -09	↓	↓	↓	↓	↓	↓	↓	↓	↓
↓ -10	5/17/95	↓	↓	↓	↓	↓	↓	↓	↓

Note: Areas marked using a dash indicate that no sample preparation was required under the applied methodology.



ENVIRONMENTAL SERVICES, INC.
2186 LIBERTY DRIVE
NIAGARA FALLS, NEW YORK 14304

(716) 283-3120
(800) 791-3120
FAX (716) 283-4727

CHAIN OF CUSTODY RECORD

PROJECT NAME:

SKW Alloy's

SAMPLER'S SIGNATURE:

[Signature]

CONTAINER CLASSIFICATION

UNPRESERVED
HNO₃ H₂SO₄ HCL NaOH VIAL (PRES.) VIAL (UNPRES.) TOTAL

PROJECT I.D. #: 52313

JOB CODE: DTT

DATE

TIME

SAMPLE IDENTIFICATION

GRAB COMP

SAMPLE TYPE

PARAMETERS/REMARKS

6-6-95	2:30	12	✓	Ground H ₂ O	2	2	2				6	CO ₂ , N/A, TE, TCC, AMMO, PHENOL, ALK, ...
	2:50	3R	✓		2	2	2				6	CH/IDE, S/A, TE, TDS, Tot+Se, ...
	2:50	BLIND Dup.	✓		2	2	2				6	pH*, Cond*, Turb*, eH*, DO, ...
	3:00	14N	✓		2	2	2				6	
	3:35	SR (QC-SITE)	✓		4	3	3				10	
	3:25	Point 6 (Midstream)	✓		2	2	2				6	
	3:10	LEACHATE	✓		2	2	2				6	
	3:35	Point 7 (ENTERING)			DRY - NO SAMPLE							

(H) = ONLY DONE ON POINT 6 + POINT

* = DONE IN FIELD

TOTAL NUMBER OF CONTAINERS

46

NOTE: Please indicate required analysis, and whom we may contact with questions, if you have not yet done so through your customer service representative.

1. RELINQUISHED BY:

DATE

TIME

RECEIVED BY:

2. RELINQUISHED BY:

DATE

TIME

RECEIVED BY:

3. RELINQUISHED BY:

DATE

TIME

RECEIVED BY:

6/6/95

4:45pm

Laura Reppenhagen