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QUARTERLY REPORT ON GROUNDWATER MONITORING WASTEWATER TREATMENT FACILITY NAVAL AIR STATION, PENSACOLA, FLORIDA

May 1990

Prepared for:

DEPARTMENT OF THE N A W
Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive, P.O. Box 10068
.Charleston, South Carolina 29411-0068

Contract Number N62467-88-C-0200

ecology and environment, inc.
316 SOUTH BAYLEN STREET, PENSACOIA, FLORIDA 32501, TEL. (904) 435-8925
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DEPARTMENT OF ENVIRONMENTAL REGULATION

NORTHWEST DISTRICT
160 GOVERNMENTAL CENTER
PENSACOLA, FLORIDA 32501-5794

DOB MARTINEZ
GOVERNOR
DALE TWACHTMANN
SECRETARY
ROBERT V. KRIEGEL
DISTRICT MANAGER

QUARTERLY REPORT ON GROUND WATER MONITORING
Rule 17-4.245(6)(k)2.

GMS # 101/F00625 DATE JUL 01 1990

DER PERMIT # HF17-148989

U.S. Navy Public Works - Storage Surface Impoundment Closure
Installation Name

NAS Pensacola — Address
Pensacola — City
Florida — State
Zip
Escambia — County

T. W. BONE, Captain, CEC, USN — Owner or Authorized Representative's Name
Commanding Officer — Title

Method of Discharge N/A

Type of Industry Military

Report for Period 12/1/89 (date) to 2/28/90 (date)

Attach monitoring data as approved in monitoring plan using parameter monitoring report forms. When applicable, attach additional sheets describing any changes in the background water quality and the discharge plume since the last reported description. Include any changes in size, direction of movement, rate of movement, and concentration changes of plume constituents in violation of the applicable standards.

NOTE: Pursuant to Rule 17-4.245(6)(k)3., at any time there is a change in the permitted volume, location or chemical, physical or microbiological composition of the discharge plume, the permittee shall notify the department and, if required by the department, submit a new report stating the volume and chemical, physical and microbiological compositions of the discharge at the point of release or contact with the ground water at the site boundary.

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

TWBone — Owner or Authorized Representative's Signature

JUL 01 1990 — Date

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ATTACHMENT A

LIST OF MONITORING WELLS SAMPLED AND
ANALYTICAL PARAMETERS (Source: U.S. Navy)

			pH (150.1)	Specific Conductance	Sodium (200.7)	Chlorides (300.0)	List I (624)	List II (625)	List III	List IV	Groundwater Elev.
BACKG											
	DC-3	S									
	DC-4	S									
	DC-S	S									
/POC	CH8	S	X	X			X	X	X		X
CA/POC	CH9	S	X	X			X	X	X		X
POC	CH10	S	X	X			X	X	X		X
POC	CH11	S	X	X			X	X	X		X
POC	CH12R	S	X	X			X		X		X
POC	CH13	S	X	X			X	X	X		X
POC	CH14	S	X	X			X	X	X		X
CA	CH62	S					X				X
CA	CH63	D	X	X	X	X	X	X			X
CA	CH64	I	X	X	X	X	X	X			X
CA	CH65	D	X	X	X	X	X	X			X
CA	CH67	S	X	X	X	X	X	X			X
CA	CH68	D	X	X	X	X	X	X			X
CA	CH69	I	X	X	X	X	X				X
	CH70	S									
CA	CH71	S	X	X	X	X					X
CA	CH72	S	X	X	X	X					X
	CH73	S									
CA	CH76	S	X	X	X	X					X
CA	CH77	S	X	X	X	X					X
CA	CH78	S	X	X	X	X					X
CA	CH79	S	X	X	X	X					X
	CH80	S									
	CH81	S									
	CH82	S									
CA	CH83	S	X	X	X	X					X
CA	CH84	I	X	X	X	X	X	X			X
CA	RW1-6		X	X	X	X					X
	RIWS 1		X	X			X	X	X		X
	DUP 1		X	X			X	X	X		X
	DUP 2		X	X			X	X	X		X
	TB 1		X	X			X	X	X		X
	FD 1		X	X			X	X	X		X

DACC = DACKCROUND WELL
POC = POINT OF COMPLIANCE WELL
CA = CORRECTIVE ACTION WELL
LIST I = VOLATILES (METHOD 624)
LIST II = BASE NEUTRALS (METHOD 625)
LIST III = SPECIFIC CONDITION 34(c) H017-127026 (Attached)
LIST IV = 40 CFR 264 APPENDIX IX

NOTE: LISTS III AND IV HAVE HAD CONSTITUENTS LISTED IN LISTS I AND II DELETED ELIMINATING TESTING MORE THAN ONCE FOR ONE PARAMETER.

PERMITTEE:

US. Navy Public Works

I.D. Number: 1017F00625 (FL9170024567)
Permit/Certification Number: H017-127026
Date of Issue:

Expiration Date: November 1, 1988

SPECIFIC CONDITIONS:

b. The following wells, as shown in Figure E-14 in the Part B application, shall constitute the POC wells to which the groundwater protection standards shall apply:

Shallow Wells: DG-5, DG-4, DG-1, DG-6.
Intermediate Well: GM-75.

The background monitoring well shall be well DG-1. The facility may designate or install another well that is more representative of unaffected background to ensure completion of corrective action. The facility may apply for alternate concentration limits (ACL) in accordance with 40 CFR 264.94 for the groundwater protection standard as a permit modification in accordance with PAC Rule 17-30.290.

34 c. The groundwater protection standard (40 CFR 264.92) as established under 40 CFR 264.94 shall be:

Parameter	Standard
Arsenic	0.05 mg/l*
Barium	1.0 mg/l*
Cadmium	0.01 mg/l*
Chromium (total)	0.05 mg/l*
Lead	0.05 mg/l*
Mercury	0.002 mg/l*
Selenium	0.01 mg/l*
Silver	0.05 mg/l*
Copper	1.00 mg/l**
Zinc	5.00 mg/l**
Iron	0.3 mg/l**
Manganese	0.05 mg/l**
Antimony	minimum detection limit
Thallium	minimum detection limit
Nickel	minimum detection limit
Chloride	250 mg/l**
Sulfate	250 mg/l**
Sodium	160 mg/l**

*Federal primary drinking water standard (40 CFR 264.94 Table 1)
**Florida secondary drinking water standards (PAC 17-22.104(2))

PERMITTEE:

U.S. Navy Public Works

I.D. Number: 1017F00625 (FL9170024567)
Permit/Certification Number: H017-127026
Dare of Issue:

Expiration Date: November 1, 1908

SPECIFIC CONDITIONS:

ACID EXTRACTABLES

2-Chlorophenol	minimum detection limit
2,4-Dichlorophenol	minimum dctcction limit
2,4-Dimethylphenol	minimum detection limit
4,6-Dinitro-o-Cresol	minimum dctection limit
2,4-Dinitrophenol	minimum detection limit
2-Hitrophcnol	minimum dctectioa limit
4-Nltrophcnol	minimum dctcction limit
p-Chloro-m-Cresol	minimum detection limit
Pcntachloropheaol	minimum detection limit
Phenol	minimum dctcction limit
2,4,6-Trichlorophenol	minimum dctcction limit
2-methyl phenol	minimum detection limit
o-methyly phenol	minimum detection limit
nctbyl cthyl phenol	minimum detection limit
dimethyl cthyl phenol	minimum detection limit
tctramethyl butyl phenol	minimum dctcction limit

VOLATILES

Acrolein	minimum dctcction Unit
Acrylonitrile	minimum dctcction limit
Benzene	minimum dctcction limit
Dis(chloromethyl) ether	minimum detection limit
Bromoform	minimum dctcction limit
Carbon Tetrachloride	minimum dctcction limit
Chlorobenzene	minimum detection limit
Chlorodibromomethane	minimum dctectlon limit
Chloroethane	minimum dctcctioa limit
2-Chloroethylvinyl Ether	minimum dctcctlon limit
Chloroform	minimum detection limit
Dichlorobromomethane	minimum detcction limit.
Dichlorodifluoromethane	minimum detection limit
1,1-Dichloroethane	minimum detection limit
1,2-Dichloroethane	minimum detection limit
1,1-Dichloroethylene	minimum detection limit

PERMITTEE:

U.S. Navy Public Works

I.D. Number: 1017F00625 (FL9170024567)
Permit/Certification Number: N017-127026
Date of Issue:

Expiration Date: November 1, 1988

SPECIFIC CONDITIONS:

1,2-Dichloropropane	minimum detection limit
1,2-Dichloropropylene	minimum detection limit
Ethylbenzene	minimum detection limit
Methyl Bromide	minimum detection limit
Methyl Chloride	minimum detection limit
Methyl Ethyl Ketone	minimum detection limit
Methylene Chloride	minimum detection limit
1,1,2,2-Tetrachloroethane	minimum detection limit
Tetrachloroethylene	minimum detection limit
Toluene	minimum detection limit
1,2-trans-Dichloroethylene	minimum detection limit
1,1,1-Trichloroethane	minimum detection limit
1,1,2-Trichloroethane	minimum detection limit
Trichloroethylene	minimum detection limit
Trichlorofluoromethane	minimum detection limit
Vinyl Chloride	minimum detection limit

BASE NEUTRAL EXTRACTABLES

Acenaphthene	minimum detection limit
Acenaphthylene	minimum detection limit
Anthracene	minimum detection limit
Benzidine	minimum detection limit
Benzo(a)anthracene	minimum detection limit
Benzo(a)pyrene	minimum detection limit
3,4-Benzofluoranthene	minimum detection limit
Benzo(ghi)perylene	minimum detection limit
Bis(2-chloroethoxy)methane	minimum detection limit
Bis(2-chloroethyl)ether	minimum detection limit
Bis(2-chloroisopropyl)ether	minimum detection limit
Bis(2-ethylhexyl)phthalate	minimum detection limit
4-Bromophenyl Phenyl Ether	minimum detection limit
Butylbenzyl Phthalate	minimum detection limit
2-Chloronaphthalene	minimum detection limit
4-Chlorophenyl Phenyl Ether	minimum detection limit
Chrysene	minimum detection limit
Dibenzo(a,h)anthracene	minimum detection limit
1,2-Dichlorobenzene	minimum detection limit
1,3-Dichlorobenzene	minimum detection limit
1,4-Dichlorobenzene	minimum detection limit
3,3-Dichlorobenzidine	minimum detection limit

PERMITTEE:

U.S. Navy Public Works

I.D. Number: 1017F00625 (FL9170024567)
Permit/Certification Number: H017-127026
Date of Issue:

Expiration Date: November 1, 1388

SPECIFIC CONDITIONS:

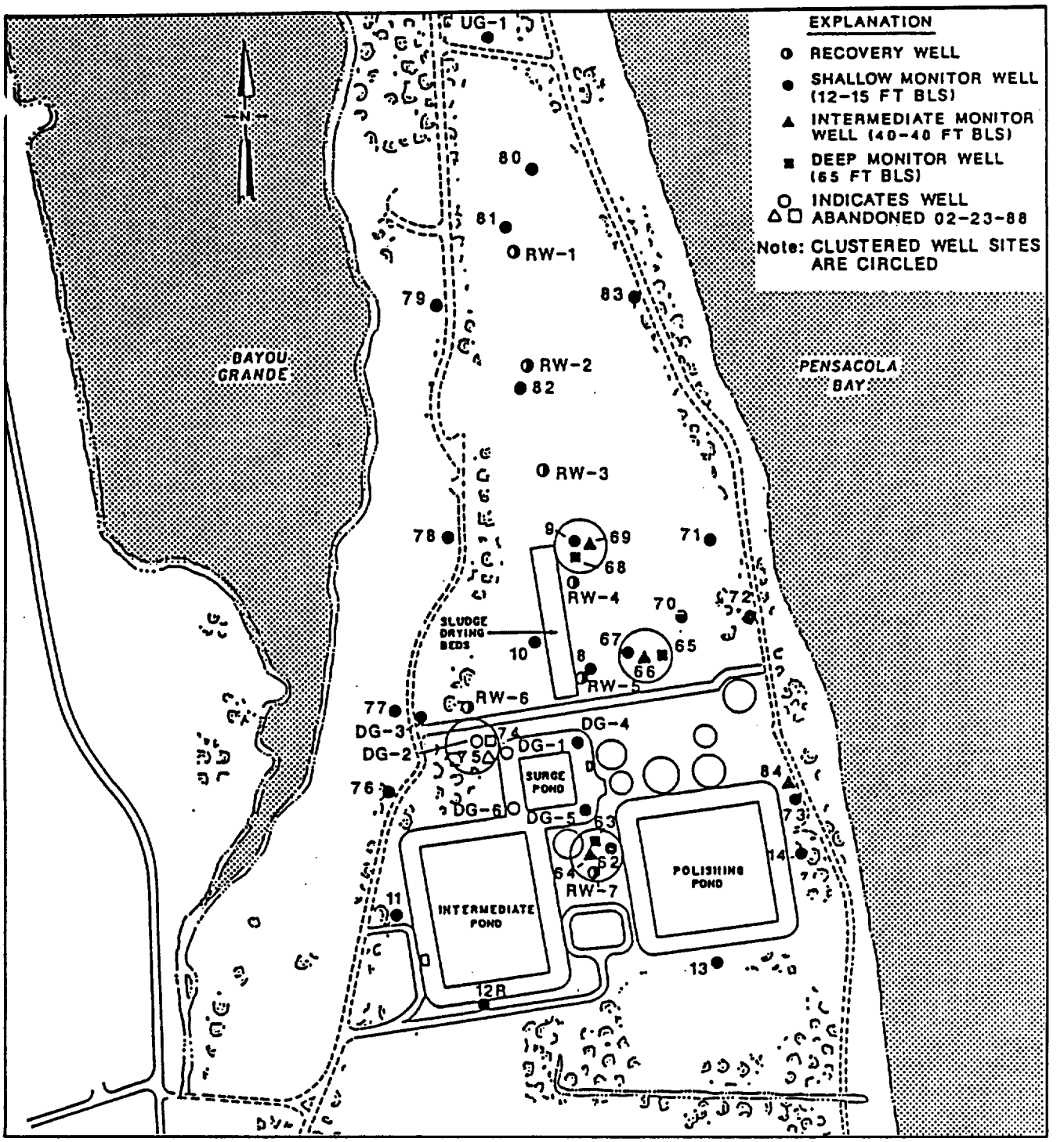
Diethylphthalate	minimum detection limit
Dimethylphthalate	minimum detection limit
Di-n-Butyl Phthalate	minimum detection limit
2,4-Dinitrotoluene	minimum detection limit
Di-n-Octyl-Phthalate	minimum detection limit
1,2-Diphenylhydrazine	minimum detection limit
Fluoranthene	minimum detection limit
Fluorene	minimum detection limit
Hexachlorobenzene	minimum detection limit
Hexachlorobutadiene	minimum detection limit
Hexachlorocyclopentadiene	minimum detection limit
Hexachloroethane	minimum detection limit
Indeno(1,2,3-cd)pyrene	minimum detection limit
Isophorone	minimum detection limit
Methyl napthalene	minimum detection limit
2-Methyl napthalene	minimum detection limit
Naphthalene	minimum detection limit
Nitrobenzene	minimum detection limit
N-Nitrosodimethylamine	minimum detection limit
N-Nitrosodi-n-propylamine	minimum detection limit
N-Nitrosodiphenylamide	minimum detection limit
Phenanthrene	minimum detection limit
Pyrene	minimum detection limit
1,2,4-Trichlorobenzene	minimum detection limit

ADDITIONAL CONSTITUENTS

Benzyl Alcohol	minimum detection limit
Methyl Dihydro Indene	minimum detection limit
Tetramethylbenzene	minimum detection limit
"alkylated" benzene	minimum detection limit
2-hexanone	minimum detection limit
Trimethyl Benzene	minimum detection limit
Hydroxymethyl Pentanone	minimum detection limit
Cyanide (complexed)	minimum detection limit

ATTACHMENT B

LOCATIONS OF MONITORING AND RECOVERY WELLS AT NAS PENSACOLA WASTEWATER TREATMENT PLANT



SOURCE: Geraghty & Miller, Inc. 1988

SCALE

0 300 600 FEET

Attachment B LOCATIONS OF MONITORING AND RECOVERY WELLS AT NAS PENSACOLA WASTEWATER TREATMENT PLANT

ATTACHMENT C

CORRECTIVE-ACTION MONITORING WELLS
GROUNDWATER SAMPLING ANALYTICAL RESULTS

M E M O R A N D U M

TO: Brian Caldwell

FROM: Gary Hahn Gary Hahn/EC

DATE: April 18, 1990

SUBJECT: UH5000 USN Southern Division Report

RE: 9000.731

CC: Lab File

Attached is the laboratory report of the analysis conducted on twenty-four samples received at the Analytical Services Center on March 22, 1990. Analysis was performed according to the procedures set forth in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, Third Edition, U.S. EPA, 1986.

All samples on which this report is based will be retained by E & E for a period of 14 days from the date of this report unless otherwise instructed by the client. If additional storage of samples is requested by the client, a storage fee of $1.00 per sample container per month will be charged for each sample, with such charges accruing until destruction of the samples is authorized by the client.

GH:emc
enclosure

M E M O R A N D U M

TO: Brian Caldwell

FROM: Gary Hahn Gary Hahn/EC

DATE: April 18, 1990

SUBJECT: UH5000 USN Southern Division Report

RE: 9000.745

CC: Lab File

Attached is the laboratory report of the analysis conducted on eleven samples received at the Analytical Services Center on March 23, 1990. Analysis was performed according to the procedures set forth in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, Third Edition, U.S. EPA, 1986.

All samples on which this report is based will be retained by E & E for a period of 14 days from the date of this report unless otherwise instructed by the client. If additional storage of samples is requested by the client, a storage fee of $1.00 per sample container per month will be charged for each sample, with such charges accruing until destruction of the samples is authorized by the client.

GH:emc
enclosure

PARAMETER	METHOD
List III Metals (exceptions are listed belov)	Hethod 6010 - "Test Hethods for Evaluating Solid Waste, Physical/Chemical Methods," SV-846, U.S. EPA, 1986.
Arsenic	Method 7060 - "Test Hethods for Evaluating Solid Waste, Physical/Chemical Methods," SV-846, U.S. EPA, 1986.
Lead	Hethod 7421 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, U.S. EPA, 1986.
Mercury	Hethod 7470 - "Test Methods for Evaluating Solid Vaste, Physical/Chemical Methods," SV-846, U.S. EPA, 1986.
Selenium	Hethod 7740 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, U.S. EPA, 1986.
Thallium	Method 7841 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SV-846, U.S. EPA, 1986.
Sodium	Method 6010 - "Test Methods for Evaluating Solid Vaste, Physical/Chemical Methods," SV-846, U.S. EPA, 1986.
Chloride	Method 325.3 - "Methods for the Chemical Analysis of Water and Wastes," EPA-600/4-79-020, March 1983.
Sulfate	Hethod 375.4 - "Methods for the Chemical Analysis of Vater and Wastes," EPA-600/4-79-020, March 1983.
Cyanide	Method 335.2 - "Methods for the Chemical Analysis of Vater and Wastes," EPA-600/4-79-020, March 1983.
Volatile Organics	Method 8240 - "Test Hethods for Evaluating Solid Vaste, Physical/Chemical Methods," SV-846, U.S. EPA, 1986.
Semi-Volatile Organics	Method 8270 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, U.S. EPA, 1986.

ADDITIONAL REQUIRED COMPOUNDS FOR'ANALYSIS

Included in the list of additional compounds are several compounds routinely analyzed for, which are contained in the daily calibration standard.

Compound Requested	Calibration Name
ichlorofluoromethane	(same)
o-methyl-phenol	2-methyl phenol
isophorone	(same)
methyl bromide	bromomethane
3,4-benzofluoranthene	benzo(b)fluoranthene
i y :	(same)
benzyl .l l l	(same)
2-hexanone	(same)

In cases where general compound nomenclature is requested, a single isomer representing the group was analyzed, calibrated and a detection limit established. This assumes all isomers would have the same response factor and detection limit. The actual compound used for calibration is listed below with its coinciding group.

Requested Parameter	Actual Isomer
trimethyl benzene	1,2,4 and 1,3,5 trimethyl benzene
tetramethyl benzene	1,2,3,4-tetramethyl benzene
tetramethyl butyl phenol	4-octyl phenol
"alkylated" benzene	**
hydroxymethyl pentanone	4-hydroxy-4-methyl-2-pentanone

** "Alkylated" benzenes such as the trimethyl and tetramethyl benzenes were quantitated as indicated in the above table. Any other "alkylated" benzenes present in the samples would have been detected and quantitated as tentatively identified compounds assuming a response factor of 1.0 to the nearest internal standard.

Table C-1

GROUNDWATER SAMPLE DESIGNATIONS
CORRECTIVE-ACTION MONITORING WELLS

Sample Location	Sample Designation
Well GM-62	P32W062
Well GM-63	P32W063
Well W 4	P32W064
Well GM-65	P32W065
Well GM-67	P32W067
Well GM-68	P32W068
Well GM-69	P32W069
Well GM-71	P32W071
Well GM-72	P32W072
Well GM-76	P32W076
Well GM-77	P32W077
Well GM-78	P32W078
Well GM-79	P32W079
Well GM-83	P32W083
Well GM-84	P32W084
RW1-6*	P32WR1-6

*Composite discharge from the recovery well system

Table C-2

SUMMARY ANALYTICAL RESULTS FOR
CORRECTIVE-ACTION MONITORING WELLS

(All results in ug/L unless noted)

Compound	Sample No. (Location)							
	P32W062[a] (GM-62)	P32W063 (GM-63)	P32W064 (GM-64)	P32W065 (GM-65)	P32W067 (GM-67)	P32W068 (GM-68)	P32W069 (GM-69)	P32W084 (GM-84)
sodium (mg/L)	N/A	560	320	120	58	77	690	4,300
Chloride (mg/L)	N/A	860	400	190	38	130	740	7,600
Chloromethane	13					—	—	—
Vinyl Chloride	—	—	—	—	—	—	12	—
Chloroethane	—	—	—	—	—	—	17	—
Methylene Chloride	6(B)	6(B)	6(B)	6(B)	5(B)	7(B)	6(B)	15(B)
Acetone	26(B)	19(B)	13(B)	19(B)	20(B)	170(B,X)	41(B)	19(B)
Carbon Disulfide	—	—	—	—	(L)	29	—	—
1,1-Dichloroethane	—	—	—	—	—	—	110	—
Chlorobenzene	—	—	25	—	—	—	150	—
Tetrachloroethene	—	—	—	—	—	—	(L)	—
Toluene	—	—	—	—	—	—	(L)	—
Total Xylenes	—	—	—	—	—	—	5	—
1,3-Dichlorobenzene	—	—	(L)	—	—	—	160	—
1,4-Dichlorobenzene	—	—	(L)	—	(L)	—	140	—
1,2-Dichlorobenzene	—	—	(L)	—	—	—	180	—
2-Clorophenol	—	—	—	—	—	—	(L)	—
Naphthalene	—	—	—	—	—	—	(L)	—
bis(2-Ethylhexyl)phthalate	31(B)	27(B)	24(B)	21(B)	35(B)	(L,B)	33(B)	41(B)
Di-n-butylphthalate	22(B)	19(B)	18(B)	15(B)	(L,B)	(L,B)	23(B)	11(B)
Di-n-octylphthalate			(L)	—	—	—	—	—

[a]Analyzed for VOCs and BNAs only

B-Compound also present in method blank
X-Detected concontration exceeded calibration range of analyzing instrument
L-Compound present below detection limit
N/A-Analysis not performed
A dash (—) indicates compound not detected

Table C-2 (Continued)

SUMMARY ANALYTICAL RESULTS FOR CORRECTIVE-ACTION MONITORING WELLS

(All results in mg/L)

Compound	Sample No. (Location)							
	P32W071 (GM-71)	P32W072 (GM-72)	P32W076 (GM-76)	P32W077 (GM-77)	P32W078 (GM-78)	P32W079 (GM-79)	P32W083 (GM-83)	P32WR1-6 (RW1-6)
Sodium	6.7	17	100	44	6.6	4.5	14	130
chloride	9.6	12	110	52	12	5.2	21	52

Note: Theme samples analyzed for sodium and chloride only.

PARAMETER MONITORING REPORT

(Rule i7-3.402 , 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 03-22-90

Monitoring Well # GM-62

Well Type:

[X] Corrective Action

[ ] Point-of-Compliance

Well Name: Shallow

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above HSL) 2.71 ft

STORET Code	Parameter Monitored	Sampling Method	EPA Analysis Method	Analysis Result	Units	Sample Filtered/ Unfiltered	Preser-vatives Added
	pH	Teflon bailer	150.1	6.6		Unfiltered	
	Specific Conductance	Teflon bailer	120.1	620	umhos/ cm	Unfiltered	
	vocs	Teflon bailer	8240	See attached		Unfiltered	HCl
	BNAs	Teflon bailer	8270	See attached		Unfiltered	

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

TEST CODE :WPURG 1 JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : PURGEABLES UNITS : UG/L
SAMPLE ID LAB : EE-90-70484 MATRIX: WATER
SAMPLE ID CLIENT: P32W062

PARAMETER	RESULTS	Q	DET. LIMIT
Chloromethane	13		lo
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chlorethane	ND		10
Methylene Chloride	6.0	B	5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
trans-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromoethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	26	B	10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WBNBNA1 JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70484 MATRIX: WATER
SAMPLE ID CLIENT: P32W062

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(2-Chloroethyl)Ether	ND		10
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
Hexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	22	B	10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	31	B	10
Chrysene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WBNBNA1 JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70484 MATRIX: WATER
SAMPLE ID CLIENT: P32W062

PARAMETER'	RESULTS	Q	DET. LIMIT
Di-N-Octyl Phthalate	ND		lo
Benzo(B)Fluoranthene	ND		10
Benzo(K)Fluoranthene	ND		10
Benzo(A)Pyrene	ND		10
Indeno(1,2,3-cd)Pyrene	ND		10
Dibenzo(A,H)Anthracene	ND		10
Benzo(G,H,I)Perlyene	ND		10
Benzyl Alcohol	ND		10
4-Chloroaniline	ND		10
2-Methylnaphthalene	ND		10
2-Nitroaniline	ND		50
3-Nitroaniline	ND		50
Dibenzofuran	ND		10
4-Nitroaniline	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LINIT

TEST CODE :WAPBNA1 JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : ACID PHENOL UNITS : UG/L
SAMPLE ID LAB. : EE-90-70484 MATRIX : WATER
SAMPLE ID CLIENT: P32W062

PARAMETER	RESULTS	Q	DET. LIMIT
Phenol	ND		lo
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Methylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Methylphenol	ND		10
4-Methylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

CHS # 1017100625

Sample Date: 03-22-90

Monitoring Well # GM-63

Well Type:

[X] Corrective Action

[ ] Point-of-Compliance

Well Name: Deep

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 2.22 ft

STORET Code	Parameter Monitored	Sampling Method	BPA Analysis Method	Analysis Result	Units	Sample Filtered/ Unfiltered	Preser-vatives Added
	pH	Teflon Bailer	150.1	10.4		Unfiltered	
	Specific Conductance	Teflon. Bailer	120.1	3,100	umhos/ cm	Unfiltered	
	Inorganics :	Teflon bailer		See attached		Unfiltered	
	Sodium		6010				HNO_3
	Chloride		325.3				
	VOCs	Teflon bailer	8240	See attached		Unfiltered	HCl
	BNAs	Teflon bailer	8270	See attached		Unfiltered	

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

METALS SECTION JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB :EE-90-70485 MATRIX: WATER
SAMPLE ID CLIENT: P32W063

PARAMETER		RESULTS	Q	DET. LIMIT	UNITS
Sodium	(ICP)	560000		200	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WCL 1 JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAHE : CHLORIDE UNITS : MG/L
PARAMETER : Chloride

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70485			
P32W063	*860*		1.0

QUALIFIERS: C = COHMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WPURG 1 JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : PURGEABLES UNITS : UG/L
SAMPLE ID LAB : EE-90-70485 MATRIX: WATER
SAHPLE ID CLIENT: P32W063

PARAMETER	RESULTS	Q	DET. LIMIT
Chloromethane	ND		lo
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chlorethane	ND		10
Methylene Chloride	6.0	B	5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
trans-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromoethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	19	B	10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WBNBNA1 JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70485 MATRIX: WATER
SAMPLE ID CLIENT: P32W063

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(2-Chloroethyl)Ether	ND		lo
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
Hexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	19	B	10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	27	B	10
Chrysene	ND		10'

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WAPBNA1 JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : ACID PEENOL UNITS : UG/L
SAMPLE ID LAB : EE-90-70485 MATRIX : WATER
SAMPLE ID CLIENT: P32W063

PARAMETER	RESULTS	Q	DET. LIMIT
Phenol	ND		lo
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Methylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Methylphenol	ND		10
4-Methylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GHS # 1017300625

Sample Date: 03-22-90

Monitoring Well # GH-64

Well Type:

[X] Corrective Action

[ ] Point-of-Compliance

Well Name: Intermediate

Classification of Groundwater G-1

Well Developed Prior to Sample Collection (Yes/No)* YES

Groundwater Elevation (above MSL) 2.53 ft

STORET Code	Parameter Monitored	Sampling Method	BPA Analysis Method	Analysis Result	Units	Sample Filtered/ Unfiltered	Preser-vatives Added
	pH	Teflon Bailer	150.1	9.8		Unfiltered	
	Specific Conductance	Teflon Bailer	120.1	2,100	umhos/ cm	Unfiltered	
	Inorganics:	Teflon bailer		See attached		Unfiltered	
	Sodium		6010				HNO_3
	Chloride		325.3				
	VOCS	Teflon bailer	8240	See attached		Unfiltered	HCl
	BNAs	Teflon bailer	8270	See attached		Unfiltered	

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

METALS SECTION JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB :EE-90-70486 MATRIX: WATER
SAMPLE ID CLIENT: P32W064

PARAMETER		RESULTS	Q	DET. LIMIT	UNITS
Sodium	(ICP)	320000		200	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WCL 1 JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : CHLORIDE UNITS : MG/L
PARAMETER : Chloride

SAHPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70486			
P32W064	400		1.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WPURG 1 JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : PURGEABLES UNITS : UG/L
SAMPLE ID LAB : EE-90-70486 MATRIX: WATER
SAMPLE ID CLIENT: P32W064

PARAMETER	RESULTS	Q	DET. LIMIT
Chloromethane	ND		lo
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chlorethane	ND		10
Methylene Chloride	6.0	B	5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
trans-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibronoethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	25		5.0
Ethylbenzene	ND		5.0
Acetone	13	B	10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Iiexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WBNBNA1 JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70486 MATRIX: WATER
SAMPLE ID CLIENT: P32W064

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(2-Chloroethyl)Ether	ND		lo
1,3-Dichlorobenzene	PRESENT	L	10
1,4-Dichlorobenzene	PRESENT	L	10
1,2-Dichlorobenzene	PRESENT	L	10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
Hexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	18	B	10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	24	B	10
Chrysene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WBNBNA1 JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70486 MATRIX: WATER
SAMPLE ID CLIENT: P32W064

PARAMETER	RESULTS	Q	DET. LIMIT
Di-N-Octyl Phthalate	PRESENT	L	lo
Benzo(B)Fluoranthene	ND		10
Benzo(K)Fluoranthene	ND		10
Benzo(A)Pyrene	ND		10
Indeno(1,2,3-cd)Pyrene	ND		10
Dibenzo(A,H)Anthracene	ND		10
Benzo(G,H,I)Perlyene	ND		10
Benzyl Alcohol	ND		10
4-Chloroaniline	ND		10
2-Methylnaphthalene	ND		10
2-Nitroaniline	ND		50
3-Nitroaniline	ND		50
Dibenzofuran	ND		10
4-Nitroaniline	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIHIT

TEST CODE :WAPBNA1 JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : ACID PHENOL UNITS : UG/L
SAMPLE ID LAB : EE-90-70486 MATRIX: WATER
SAXPLE ID CLIENT: P32W064

PARAMETER	RESULTS	Q	DET. LIMIT
Phenol	ND		lo
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Methylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		SO
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Methylphenol	ND		10
4-Methylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIHATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GHS # 1017F00625

Sample Date: 03-22-90

Monitoring Well # GH-65

Well Type:

[X] Corrective Action

[ ] Point-of-Compliance

Well Name: Deep

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above HSL) 2.33 ft

STORET Code	Parameter Monitored	Sampling Method	EPA Analysis Method	Analysis Result	Units	Sample Filtered/ Unfiltered	Preser-vatives Added
	pH	Teflon Bailer	150.1	6.5		Unfiltered	
	Specific Conductance	Teflon Bailer	120.1	1,000	umhos/ cm	Unfiltered	
	Inorganics:	Teflon bailer		See attached		Unfiltered	
	Sodium		6010				HNO_3
	Chloride		325.3				
	VOCs	Teflon bailer	8240	See attached		Unfiltered	HCl
	BNAs	Teflon bailer	8270	See attached		Unfiltered	

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

METALS SECTION JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB :EE-90-70487 MATRIX: WATER
SAMPLE ID CLIENT: P32W065

PARAMETER		RESULTS	Q	DET. LIMIT	UNITS
Sodium	(ICP)	120000		200	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WCL 1 JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : CHLORIDE UNITS : MG/L
PARAMETER : Chloride

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70487			
P32W065	190		1.0

QUALIFIERS: C = COHHENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WPURG 1 JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : PURGEABLES UNITS : UG/L
SAMPLE ID LAB : EE-90-70487 HATRIX: WATER
SAMPLE ID CLIENT: P32W065

PARAHETER	RESULTS	Q	DET. LIMIT
Chloromethane	ND		lo
Bronomethane	ND		10
Vinyl Chloride	ND		10
Chlorethane	ND		10
Methylene Chloride	6.0	B	5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
trans-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromoethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	19	B	10
Carbon Disulfide	ND		5.0
2-BUtanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Bexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WBNBNA1 JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70487 MATRIX: WATER
SAMPLE ID CLIENT: P32W065

PARAXETER	RESULTS	Q	DET. LIMIT
Bis(2-Chloroethyl)Ether	ND		lo
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
Hexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	15	B	10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	21	B	10
Chrysene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WBNBNA1 JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTEERN DIVISION
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70487 MATRIX: WATER
SAMPLE ID CLIENT: P32W065

PARAMETER	RESULTS	Q	DET. LIMIT
Di-N-Octyl Phthalate	ND		lo
Benzo(B)Fluoranthene	ND		10
Benzo(K)Fluoranthene	ND		10
Benzo(A)Pyrene	ND		10
Indeno(1,2,3-cd)Pyrene	ND		10
Dibenzo(A,H)Anthracene	ND		10
Benzo(G,H,I)Perlyene	ND		10
Benzyl Alcohol	ND		10
4-Chloroaniline	ND		10
2-Methylnaphthalene	ND		10
2-Nitroaniline	ND		50
3-Nitroaniline	ND		50
Dibenzofuran	ND		10
4-Nitroaniline	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 03-21-90

Honitoring Well # GH-67

Well Type:

[X] Corrective Action

[ ] Point-of-Compliance

Well Name: Shallow

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above HSL) 2.28 ft

STORET Code	Parameter Monitored	Sampling Method	EPA Analysis Method	Analysis Result	Units	Sample Filtered/ Unfiltered	Preser-vatives Added
	pH	Teflon bailer	150.1	6.6		Unfiltered	
	Specific Conductance	Teflon bailer	120.1	1,300	umhos/ cm	Unfiltered	
	Inorganics:	Teflon bailer		See attached		Unfiltered	
	Sodium		6010				HNO_3
	Chloride		325.3				
	VOCS	Teflon bailer	8240	See attached		Unfiltered	HCl
	BNAs	Teflon bailer	8270	See attached		Unfiltered	

*Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

METALS SECTION JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB :EE-90-70488 MATRIX: WATER
SAMPLE ID CLIENT: P32W067

PARAMETER		RESULTS	Q	DET. LIMIT	UNITS
Sodium	(ICP)	58000		200	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WCL 1 JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : CHLORIDE UNITS : MG/L
PARAMETER : Chloride

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70488			
P32W067	38		1.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WPURG 1 JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : PURGEABLES UNITS : UGIL
SAMPLE ID LAB : EE-90-70488 MATRIX: WATER
SAMPLE ID CLIENT: P32W067

PARAMETER	RESULTS	Q	DET. LIMIT
Chloromethane	ND		lo
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chlorethane	ND		10
Methylene Chloride	5.0	B	5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
trans-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromoethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	20	B	10
Carbon Disulfide	PRESENT	L	5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WBNBNA1 JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAHE : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70488 MATRIX: WATER
SAHPLE ID CLIENT: P32W067

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(2-Chloroethyl)Ether	ND		lo
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	PRESENT	L	10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
Eexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	PRESENT	LB	10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	35	B	10
Chrysene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 03-21-90

Monitoring Well # GH-68

Well Type:

[X] Corrective Action

[ ] Point-of-Compliance

Well Name: Deep

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 2.36 ft

STORET Code	Parameter Monitored	Sampling Method	EPA Analysis Method	Analysis Result	Units	Sample Filtered/ Unfiltered	Preser-vatives Added
	pH	Teflon Bailer	150.1	6.2		Unfiltered	
	Specific Conductance	Teflon Bailer	120.1	610	umhos/ cm	Unfiltered	
	Inorganics:	Teflon bailer		See attached		Unfiltered	
	Sodium		6010				HNO_3
	Chloride		325.3				
	VOCs	Teflon bailer	8240	See attached		Unfiltered	HCl
	BNAs	Teflon bailer	8270	See attached		Unfiltered	

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB :EE-90-70224 MATRIX: WATER
SAMPLE ID CLIENT: P32W068

PARAMETER		RESULTS	Q	DET. LIMIT	UNITS
Sodium	(ICP)	77000		200	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WCL 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTRERN DIVISION
TEST NAME : CHLORIDE UNITS : MG/L
PARAMETER : Chloride

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70224			
P32W068	130		1.0

QUALIFIERS: C = COHMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WPURG 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.'
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAHE : PURGEABLES UNITS : UG/L
SAMPLE ID LAB : EE-90-70224 HATRIX: WATER
SAMPLE ID CLIENT: P32W068

PARAMETER	RESULTS	Q	DET. LIMIT
Chloromethane	ND		lo
Bromomethane	ND	.	10
Vinyl Chloride	ND		10
Chlorethane	ND		10
Methylene Chloride	7.0	B	5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
trans-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Brornodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromoethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	170	BX	10
Carbon Disulfide	29		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT
X = EXCEEDS CALIBRATION LIMIT

TEST CODE :WBNBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70224 MATRIX: WATER
SAMPLE ID CLIENT: P32W068

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(2-Chloroethyl)Ether	ND		lo
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene'	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
Hexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Bexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	PRESENT	LB	10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	PRESENT	LB	10
Chrysene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WBNBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70224 MATRIX: WATER
SAMPLE ID CLIENT: P32W068

PARAMETER	RESULTS	Q	DET. LIMIT
Di-N-Octyl Phthalate	ND		lo
Benzo(B)Fluoranthene	ND		10
Benzo(K)Fluoranthene	ND		10
Benzo(A)Pyrene	ND		10
Indeno(1,2,3-cd)Pyrene	ND		10
Dibenzo(A,H)Anthracene	ND		10
Benzo(G,H,I)Perlyene	ND		10
Benzyl Alcohol	ND		10
4-Chloroaniline	ND		10
2-Methylnaphthalene	ND		10
2-Nitroaniline	ND		50
3-Nitroaniline	ND		50
Dibenzofuran	ND		10
4-Nitroaniline	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WAPBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : ACID PHENOL UNITS : UG/L
SAMPLE ID LAB : EE-90-70224 MATRIX: WATER
SAMPLE ID CLIENT: P32W068

PARAMETER	RESULTS	Q	DET. LIMIT
Phenol	ND		lo
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Methylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Methylphenol	ND		10
4-Methylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

PARAMETER HONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 03-21-90

Monitoring Well # GM-69

Well Type:

[X] Corrective Action

[ ] Point-of-Compliance

Well Name: Intermediate

'Classificationof Groundwater G-1

Well Developed Prior to Sample Collection (Yes/No)* YES

Groundwater Elevation (above MSL) 2.23 ft

STORET Code	Parameter Monitored	Sampling Method	EPA Analysis Method	Analysis Result	Units	Sample Filtered/ Unfiltered	Preser-vatives Added
	pH	Teflon bailer	150.1	7.7		Unfiltered	
	Specific Conductance	Teflon bailer	120.1	3,000	umhos/ cm	Unfiltered	
	Inorganics:	Teflon bailer		See attached		Unfiltered	
	Sodium		6010				HNO_3
	Chloride		325.3				
	VOCs	Teflon bailer	8240	See attached		Unfiltered	HCl
	BNAs	Teflon bailer	8270	See attached		Unfiltered	

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

METALS SECTION JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB :EE-90-70489 MATRIX: WATER
SAMPLE ID CLIENT: P32W069

PARAMETER		RESULTS	Q	DET. LIMIT	UNITS
Sodium	(ICP)	690000		200	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WCL 1 JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : CHLORIDE UNITS : MG/L
PARAMETER : Chloride

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70489			
P32W069	740		1.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WPURG 1 JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : PURGEABLES UNITS : UG/L
SAMPLE ID LAB : EE-90-70489 MATRIX: WATER
SAMPLE ID CLIENT: P32W069

PARAMETER	RESULTS	Q	DET. LIMIT
Chloromethane	ND		lo
Bromomethane	ND		10
Vinyl Chloride	12		10
Chlorethane	17		10
Methylene Chloride	6.0	B	5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	110		5.0
trans-1,2-Dichloroethene	ND		5.0
Chloroforn	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromoethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	PRESENT	L	5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	PRESENT	L	5.0
Chlorobenzene	150		5.0
Ethylbenzene	ND		5.0
Acetone	41	B	10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	5.0		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WBNBNA1 JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70489 MATRIX: WATER
SAMPLE ID CLIENT: P32W069

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(2-Chloroethyl)Ether	ND		lo
1,3-Dichlorobenzene	160		10
1,4-Dichlorobenzene	140		10
1,2-Dichlorobenzene	180		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Eexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	PRESENT	L	10
Eexachlorobutadiene	ND		10
Eexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Eexachlorobenzene	ND		10
Phenanthréne	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	23	B	10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	33	B	10
Chrysene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WBNBNA1 JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70489 MATRIX: WATER
SAMPLE ID CLIENT: P32W069

PARAMETER	RESULTS	Q	DET. LIMIT
Di-N-Octyl Phthalate	ND		lo
Benzo(B)Fluoranthene	ND		10
Benzo(K)Fluoranthene	ND		10
Benzo(A)Pyrene	ND		10
Indeno(1,2,3-cd)Pyrene	ND		10
Dibenzo(A,H)Anthracene	ND		10
Benzo(G,H,I)Perlyene	ND		10
Benzyl Alcohol	ND		10
4-Chloroaniline	ND		10
2-Methylnaphthalene	ND		10
2-Nitroaniline	ND		50
3-Nitroaniline	ND		50
Dibenzofuran	ND		10
4-Nitroaniline	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WAPBNA1 JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : ACID PHENOL UNITS : UG/L
SAMPLE ID JAB : EE-90-70489 MATRIX: WATER
SAHPLE ID CLIENT: P32W069

PARAHETER	RESULTS	Q	DET. LIMIT
Phenol	ND		lo
2-Chlorophenol	PRESENT	L	10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Hethylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Hethylphenol	ND		10
4-Hethylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COMHENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 03-20-90

Monitoring Well # GM-71

Well Type:

[X] Corrective Action

[ ] Point-of-Compliance

Well Name: Shallow

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 1.66 ft

STORET Code	Parameter Monitored	Sampling Method	EPA Analysis Method	Analysis Result	units	Sample Filtered/ Unfiltered	Preser-vatives Added
	pH	Teflon bailer	150.1	6.4		Unfiltered	
	Specific Conductance	Teflon bailer	120.1	200	umhos/ cm	Unfiltered	
	Inorganics:	Teflon bailer		See attached		Unfiltered	
	Sodium		6010				HNO_3
	Chloride		325.3				

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB :EE-90-70227 MATRIX: WATER
SAMPLE ID CLIENT: P32W071

PARAMETER		RESULTS	Q	DET. LIMIT	UNITS
Sodium	(ICP)	6700		200	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WCL 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : CHLORIDE UNITS : MG/L
PARAMETER : Chloride

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70227			
P32W071	9.6		1.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 03-20-90

Monitoring Well # GM-72

Well Type:

[X] Corrective Action

[ ] Point-of-Compliance

Well Name: Shallow

Classification of Groundwater G-1

Well Developed Prior to Sample Collection (Yes/No)* YES

Groundwater Elevation (above HSL) 1.46 ft

STORET Code	Parameter Monitored	Sampling Method	BPA Analysis Method	Analysis Result	units	Sample Filteredl Unfiltered	Preser-vatives Added
	pH	Teflon bailer	150.1	6.1		Unfiltered	
	Specific Conductance	Teflon bailer	120.1	260	umhos/ . cm	Unfiltered	
	Inorganics:	Teflon bailer		See attached		Unfiltered	
	Sodium		6010				HNO_3
	Chloride		325.3				

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB :EE-90-70228 MATRIX: WATER
SAMPLE ID CLIENT: P32W072

PARAMETER		RESULTS	Q	DET. LIMIT	UNITS
Sodium	(ICP)	17000		200	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WCL 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : CHLORIDE UNITS : MG/L
PARAMETER : Chloride

SAMPLE ID	RESULTS	Q	DET. LIMIT
E&-90-70228			
P32W072	12		1.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017100625

Sample Date: 03-20-90

Monitoring Well # GM-76

Well Type:

[X] Corrective Action

[ ] Point-of-Compliance

Well Name: Shallow

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 1.88 ft

STORET Code	Parameter Monitored	Sampling Method	BPA Analysis Method	Analysis Result	Units	Sample Filtered/ Unfiltered	Preser-vatives Added
	pH	Teflon bailer	150.1	6.0	--	Unfiltered	
	Specific Conductance	Teflon bailer	120.1	1,000	umhos/ cm	Unfiltered	
	Inorganics:	Teflon bailer		See attached		Unfiltered	
	Sodium		6010				HNO_3
	Chloride		325.3				

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB :EE-90-70229 NATRIX: WATER
SAMPLE ID CLIENT.: P32W076

PARAMETER		RESULTS	Q	DET. LIMIT	UNITS
Sodium	(ICP)	100000		200	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WCL 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : CHLORIDE UNITS : MG/L
PARAMETER : Chloride

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70229			
P32W076	110		1.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

PARAMETER HONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GHS # 1017F00625

Sample Date: 03-20-90

Monitoring Well # GH-77

Well Type:

[X] Corrective Action

[ ] Point-of-Compliance

Well Name: Shallow

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 1.93 ft

STORET Code	Parameter Honitored	Sampling Method	EPA Analysis Method	Analysis Result	Units	Sample Filtered/ Unfiltered	Preser-vatives Added
	pH	Teflon bailer	150.1	6.0		Unfiltered	
	Specific Conductance	Teflon bailer	120.1	500	umhos/ cm	Unfiltered	
	Inorganics:	Teflon bailer		See attached		Unfiltered	
	Sodium		6010				HNO_3
	Chloride		325.3				

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB :EE-90-70230 MATRIX: WATER
SAMPLE ID CLIENT: P32W077

PARAMETER		RESULTS	Q	DET. LIMIT	UNITS
Sodium	(ICP)	44000		200	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GUS # 1017F00625

Sample Date: 03-20-90

Monitoring Well # GH-78

Well Type:

[X] Corrective Action

[ ] Point-of-Compliance

Well Name: Shallow

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 2.39 ft

STORET Code	Parameter Monitored	Sampling Method	BPA Analysis Method	Analysis Result	Units	Sample Filtered/ Unfiltered	Preser-vatives Added
	pH	Teflon bailer	150.1	5.8		Unfiltered	
	Specific Conductance	Teflon bailer	120.1	200	umhos/ cm	Unfiltered	
	Inorganics:	Teflon bailer		See attached		Unfiltered	
	Sodium		6010				HNO_3
	Chloride		325.3				

*Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB :EE-90-70231 MATRIX: WATER
SAMPLE ID CLIENT: P32W078

PARAMETER		RESULTS	Q	DET. LIMIT	UNITS
Sodium	(ICP)	8600		200	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WCL 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAHE : CHLORIDE UNITS : MG/L
PARAMETER : Chloride

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70231			
P32W078	12		1.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 03-20-90

Monitoring Well # GM-79

Well Type:

[X] Corrective Action

[ ] Point-of-Compliance

Well Name: Shallow

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 2.04 ft

STORET Code	Parameter Monitored	Sampling Method	EPA Analysis Method	Analysis Result	Units	Sample Filtered/ Unfiltered	Preser-vatives Added
	pH	Teflon bailer	150.1	5.4		Unfiltered	
	Specific Conductance	Teflon bailer	120.1	80	umhos/ cm	Unfiltered	
	Inorganics:	Teflon bailer		See attached		Unfiltered	
	Sodium		6010				HNO_3
	Chloride		325.3				

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Bffective January 1, 1983

JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB :EE-90-70232 MATRIX: WATER
SAMPLE ID CLIENT: P32W079

PARAMETER		RESULTS	Q	DET. LIMIT	UNITS
Sodium	(ICP)	4500		200	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 03-20-90

Monitoring Well # GM-83

Well Type:

[X] Corrective Action

[ ] Point-of-Compliance

Well Name: Shallov

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 1.07 ft

STORET Code	Parameter Monitored	Sampling Method	BPA Analysis Method	Analysis Result	Units	Sample Filtered/ Unfiltered	Preser-vatives Added
	pH	Teflon bailer	150.1	5.0		Unfiltered	
	Specific Conductance	Teflon bailer	120.1	120	umhos/ cm	Unfiltered	
	Inorganics:	Teflon bailer		See attached		Unfiltered	
	Sodium		6010				HNO_3
	Chloride		325.3				

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB :EE-90-70233 MATRIX: WATER
SAMPLE ID CLIENT: P32W083

PARAMETER		RESULTS	Q	DET. LIMIT	UNITS
Sodium	(ICP)	14000		200	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WCL 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : CHLORIDE UNITS : MG/L
PARAMETER : Chloride

SAMPLE ID	RESULTS	Q	DET. LIMIT
RE-90-70233			
P32W083	21		1.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 03-20-90

Monitoring Well # GM-84

Well Type:

[X] Corrective Action

[ ] Point-of-Compliance

Well Name: Intermediate

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above HSL) 1.03 ft

STORET Code	Parameter Monitored	Sampling Method	EPA Analysis Method	Analysis Result	units	Sample Filtered/ Unfiltered	Preser-vatives Added
	pH	Teflon Bailer	150.1	6.4		Unfiltered	
	Specific Conductance	Teflon Bailer	120.1	>10,000	umhos/ cm	Unfiltered	
	Inorganics:	Teflon bailer		See attached		Unfiltered	
	Sodium		6010				HNO_3
	Chloride		325.3				
	VOCs	Teflon bailer	8240	See attached		Unfiltered	HCl
	BNAs	Teflon bailer	8270	See attached		Unfiltered	

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
SAHPLE ID LAB :EE-90-70223 MATRIX: WATER
SAHPLE ID CLIENT: P32W084

PARAMETER	RESULTS	Q	DET. LIMIT	UNITS
Sodium (ICP)	4300000		200	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WCL 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : CHLORIDE UNITS : MG/L
PARAMETER : Chloride

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70223			
P32W084	7600		1.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WPURG 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : PURGEABLES UNITS : UG/L
SAMPLE ID LAB : EE-90-70223 MATRIX: WATER
SAHPLE ID CLIENT: P32W084

PARAMETER	RESULTS	Q	DET. LIMIT
Chloromethane	ND		lo
Broaomethane	ND		10
Vinyl Chloride	ND		10
Chforethane	ND		10
Methylene Chloride	15	B	5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
trans-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bronodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND'		5.0
Chlorodibromoethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	19	B	10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WBNBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAWPLE ID LAB : EE-90-70223 MATRIX: WATER
SAMPLE ID CLIENT: P32W084

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(2-Chloroethyl)Ether	ND		lo
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Bexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
Hexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylarnine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Bexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	11	B	10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	41	B	10
Chrysene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WBNBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70223 MATRIX: WATER
SAMPLE ID CLIENT: P32W084

PARAMETER	RESULTS	Q	DET. LIMIT
Di-N-Octyl Phthalate	ND		lo
Benzo(B)Fluoranthene	ND		10
Benzo(K)Fluoranthene	ND		10
Benzo(A)Pyrene	ND		10
Indeno(1,2,3-cd)Pyrene	ND		10
Dibenzo(A,H)Anthracene	ND		10
Benzo(G,H,I)Perlyene	ND		10
Benzyl Alcohol	ND		10
4-Chloroaniline	ND		10
2-Hethylnaphthalene	ND		10
2-Nitroaniline	ND		50
3-Nitroaniline	ND		50
Dibenzofuran	ND		10
4-Nitroaniline	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WAPBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : ACID PEENOL UNITS : UG/L
SAMPLE ID LAB : EE-90-70223 HATRIX: WATER
SAMPLE ID CLIENT: P32W084

PARAMETER	RESULTS	Q	DET. LIMIT
Phenol	ND		lo
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Methylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Hethylphenol	ND		10
4-Methylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 03-21-90

Monitoring Well # RW1-6

Well Type:

[X] Corrective Action

[ ] Point-of-Compliance

Well Name: composite discharge from recovery well system

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above HSL) N/A ft

STORET Code	Parameter Monitored	Sampling Method	EPA Analysis Method	Analysis Result	Units	Sample Filtered/ Unfiltered	Preser-vatives Added
	pH	Recovery well discharge	150.1			Unfiltered	
	Specific Conductance	Recovery well discharge	120.1		umhos/ cm	Unfiltered	
	Inorganics:	Recovery well discharge		See attached		Unfiltered	
	Sodium		6010				HNO_3
	Chloride		325.3				

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DBR Form 17-1.216(2)

Effective January 1, 1983

JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB :EE-90-70234 MATRIX: WATER
SAMPLE ID CLIENT: P32WR1-6

PARAMETER		RESULTS	Q	DET. LIMIT	UNITS
Sodium	(ICP)	130000		200	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WCL 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : CHLORIDE UNITS : MG/L
PARAMETER : Chloride

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70234			
P32WR1-6	52		1.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

ATTACHMENT D

POINT-OF-COMPLIANCE HONITORING WELLS
GROUNDWATER SAMPLING ANALYTICAL RESULTS

Table D-1

GROUNDWATER SAMPLE DESIGNATIONS
POINT-OF-COMPLIANCE MONITORING WELLS

Sample Location	Sample Designation
Well GM-8	P32W008
Well GM-9	P32W009
Well GM-10	P32W010
Well GM-11	P32W011
Well GM-12R	P32W012R
Well GM-13	P32W013
Well GM-14	P32W014

Table D-2

SUMMARY ANALYTICAL RESULTS FOR
POINT-OF-COMPLIANCE MONITORING WELLS
(All results in ug/L)

Compound	Sample No (Location/Type)							
	P32W008 (GM-8)	P32W009[a] (GM-9)	(P32WRB02[a]) (Rinsate)	P32W010 (GM-10)	P32W011 (GM-11)	P32W012R (GM-12R)	P32W013 (GM-13)	P32W014 (GM-14)
Barium	69	—	(30)	71	—	54	—	26
Iron	9,100	—	(2,000)	870	160	160	220	120
Lead	1.2	—	(—)	1.2	1.4	—	1.5	1.1
Manganese	130	—	(20)	180	44	250	46	190
Copper		—	(—)	—	—	12	—	—
Sodium	21,000	—	(6,500)	13.000	15,000	4,000	2,400	140,000
Selenium	1.0	—	(—)	—	—	—	—	—
Chloride	25,000	—	(7,400)	21,000	17,000	15,000	6,100	200,000
Sulfate	95,000	—	(32,000)	78,000	22,000	29,000	15,000	160,000
Cyanide	60	—	(20)	60	70	—	—	30
Methylene chloride	110(B)	—	(1,400[B])	7.0(B)	(L,B)	18(B)	8.0(B)	9.0(B)
Acetone	350(B)	10(B)	(32,000[B])	29(B)	19(B)	25(B)	180(B)	24(B)
Carbon disulfide	(L)	7.0	(—)	46	39	—	10	—
Vinyl Chloride	180	—	(—)	—	—	—	—	—
Chlorobenzene	1,300	—	(—)	(L)	—	—	—	(L)
1,3-Dichlorobenzene	1,400	—	(—)	(L)	—	—	—	—
1,4-Dichlorobenzene	2,800	—	(—)	(L)	—	—	—	—
1,2-Dichlorobenzene	2,300	—	(—)	(L)	—	—	—	—
2,4-Dichlorophenol	(L)	—	(—)	—	—	—	—	—
bis(2-Ethylhexyl)phthalate	(L,B)	44(B)	(11[B])	19(B)	(L,B)	(L,B)	(L,B)	(L,B)
Di-n-butylphthalate	—	(L,B)	(L,B)	12(B)	(L,B)	(L,B)	(L,B)	(L,B)
Tetramethylbutyl phenol	—	—	(—)	49	—	—	—	(L)
trans-1,2-Dichloroethene	430	—	(—)	—	—	—	—	—
Benzene	(L)	—	(—)	—	—	—	—	—
Toluene	66	—	(—)	—	—	—	—	—
1,1-Dichloroethane	80	—	(—)	—	—	—	—	—
Naphthalene	(L)	—	(—)	—	—	—	—	—

[A] Sample containers believed to have been switched in the field; see QA/QC Validation Summary for explanation.

B-Compound also present in method blank
L-Compound present below detection limit
A dash (—) indicates compound not detected

PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GXS # 1017F00625

Sample Date: 03-21-90

Monitoring Well # GH-8

Well Type:

[ ] Corrective Action

[X] Point-of-Compliance

Well Name: Shallow

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above HSL) 2.50 ft

STORET Code	Parameter Monitored	Sampling Method	BPA Analysis Method	Analysis Result	units	Sample Filtered/ Unfiltered	Preser-vatives Added
	pH	Teflon bailer	150.1	7.4		Unfiltered	
	Specific Conductance	Teflon bailer	120.1	740	umhos/ cm	Unfiltered	
	tnorganics:	Teflon bailer		See attached		Unfiltered	
	Hetals		6010				HNO_3
			7060				HNO_3
			7421				HNO_3
			7470				HNO_3
			7740				HNO_3
			7841				HNO_3
	Cyanide		335.2				NaOH
	Chloride		325.3				
	Sulfate		375.4				
	VOCS	Teflon bailer	8240	See attached		Unfiltered	HCl
	BNAs	Teflon bailer	8270	See attached		Unfiltered	

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB :EE-90-70211 MATRIX: WATER
SAMPLE ID CLIENT: P32W008

PARAXETER		RESULTS	Q	DET. LIMIT	UNITS
Silver	(ICP)	ND		10	UG/L
Arsenic	(FU)	ND		1.0	UG/L
Barium	(ICP)	69		10	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
Chromium Total	(ICP)	ND		10	UG/L
Copper	(ICP)	ND		10	UG/L
Iron	(ICP)	9100		25	UG/L
Mercury	(Vap)	ND		0.20	UG/L
Manganese	(ICP)	130		5.0	UG/L
Sodium	(ICP)	21000		200	UG/L
Nickel	(ICP)	ND		15	UG/L
Lead	(FU)	1.2		1.0	UG/L
Antimony	(ICP)	ND		60	UG/L
Selenium	(FU)	1.0.		1.0	UG/L
Thallium	(FU)	ND		2.0	UG/L
Zinc	(ICP)	ND		10	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WCNCMP1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : CYANIDE-COMPLEX UNITS : MG/L
PARAHETER : CYANIDE-COMPLEX

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70211			
P32W008	0.06		0.01

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WCL 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : CHLORIDE UNITS : MG/L
PARAMETER : Chloride

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70211			
P32W008	25		1.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WS04 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : SULFATE UNITS : MG/L
PARAMETER : Sulfate

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70211			
P32W008	95		2.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WPURG 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : PURGEABLES UNITS : UG/L
SAMPLE ID LAB : EE-90-70211 MATRIX: WATER
SAMPLE ID CLIENT: P32W008

PARAMETER	RESULTS	Q	DET. LIMIT
Chloromethane	ND		100
Bromomethane	ND		100
Vinyl Chloride	180		100
Chlorethane	ND		100
Methylene Chloride	110	B	50
1,l-Dichloroethene	ND		50
1,1-Dichloroethane	80		50
trans-1,2-Dichloroethene	430		50
Chloroform	ND		50
1,2-Dichloroethane	ND		50
1,1,1-Trichloroethane	ND		50
Carbon Tetrachloride	ND		50
Bromodichloromethane	ND		50
1,2-Dichloropropane	ND		50
trans-1,3-Dichloropropene	ND		50
Trichloroethene	ND		50
Chlorodibromoethane	ND		50
1,1,2-Trichloroethane	ND		50
Benzene	PRESENT	L	50
cis-1,3-Dichloropropene	ND		50
2-Chloroethylvinyl Ether	ND		100
Bromoform	ND		50
Tetrachloroethene	ND		50
1,1,2,2-Tetrachloroethane	ND		50
Toluene	66		50
Chlorobenzene	1300		50
Ethylbenzene	ND		50
Acetone	350	B	100
Carbon Disulfide	PRESENT	L	50
2-Butanone	ND		100
Vinyl Acetate	ND		100
4-Methyl-2-Pentanone	ND		100
2-Hexanone	ND		100
Styrene	ND		50
Total Xylenes	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

ECOLOGY & ENVIRONMENT, INC.

A N A L Y T I C A L S E R V I C E S C E N T E R

Results of Additional Required Compounds
by Volatile Organics Analysis

9000.731

CLIENT : UH5000 USN SOUTRERN DIVISION
SAMPLE ID LAB : EE-90-70211 UNITS : UG/L
SAMPLE ID CLIENT: P32W008 MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(chloromethyl) ether	ND		**
Dichlorodifluoromethane	ND		**
1,2-Dichloropropylene	ND		**
Trichlorofluoromethane (1)	ND		100
Trimethyl benzene	ND		100

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIHATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

** Compound searched for, detection limit not determined due to unavailability of standard.

(1) These compounds are included in the daily calibration standard. Quantitation is based on the standard RF rather than an RF of 1.

TEST CODE :WBNBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70211 MATRIX: WATER
SAMPLE ID CLIENT: P32W008

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(2-Chloroethyl)Ether	ND		100
1,3-Dichlorobenzene	1400		100
1,4-Dichlorobenzene	2800		100
1,2-Dichlorobenzene	2300		100
Bis(2-Chloroisopropyl)Ether	ND		100
N-Nitrosodipropylamine	ND		100
Bexachloroethane	ND		100
Nitrobenzene	ND		100
Isophorone	ND		100
Bis(2-Chloroethoxy)Methane	ND		100
1,2,4-Trichlorobenzene	ND		100
Naphthalene	PRESENT	L	100
Hexachlorobutadiene	ND		100
Hexachlorocyclopentadiene	ND		100
2-Chloronaphthalene	ND		100
Dimethyl Phthalate	ND		100
Acenaphthylene	ND		100
Fluorene	ND		100
Acenaphthene	ND		100
2,4-Dinitrotoluene	ND		100
2,6-Dinitrotoluene	ND		100
Diethyl Phthalate	ND		100
4-Chlorophenyl Phenyl Ether	ND		100
N-Nitrosodiphenylamine	ND		100
4-Bromophenyl Phenyl Ether	ND		100
Hexachlorobenzene	ND		100
Phenanthrene	ND		100
Anthracene	ND		100
Di-N-Butyl-Phthalate	ND		100
Fluoranthene	ND		100
Benzidine	ND		500
Pyrene	ND		100
Butyl Benzyl Phthalate	ND		100
3,3'-Dichlorobenzidine	ND		200
Benzo(A)Anthracene	ND		100
Bis(2-Ethylhexyl)Phthalate	PRESENT	LB	100
Chrysene	ND		100

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WBNBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70211 MATRIX: WATER
SAHPLE ID CLIENT: P32W008

PARAMETER	RESULTS	Q	DET. LIMIT
Di-N-Octyl Phthalate	ND		100
Benzo(B)Fluoranthene	ND		100
Benzo(K)Fluoranthene	ND		100
Benzo(A)Pyrene	ND		100
Indeno(1,2,3-cd)Pyrene	ND		100
Dibenzo(A,H)Anthracene	ND		100
Benzo(G,H,I)Perlyene	ND		100
Benzyl Alcohol	ND		100
4-Chloroaniline	ND		100
2-Methylnaphthalene	ND		100
2-Nitroaniline	ND		500
3-Nitroaniline	ND		500
Dibenzofuran	ND		100
4-Nitroaniline	ND		500

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WAPBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : ACID PHENOL UNITS : UG/L
SAMPLE ID LAB : EE-90-70211 MATRIX: WATER
SAMPLE ID CLIENT: P32W008

PARAMETER	RESULTS	Q	DET. LIMIT
Phenol	ND		100
2-Chlorophenol	ND		100
2-Nitrophenol	ND		100
2,4-Dimethylphenol	ND		100
2,4-Dichlorophenol	PRESENT	L	100
4-Chloro-3-Methylphenol	ND		100
2,4,6-Trichlorophenol	ND		100
2,4-Dinitrophenol	ND		500
4-Nitrophenol	ND		500
4,6-Dinitro-2-Methylphenol	ND		500
Pentachlorophenol	ND		500
2-Hethylphenol	ND		100
4-Hethylphenol	ND		100
Benzoic Acid	ND		500
2,4,5-Trichlorophenol	ND		500

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

ECOLOGY & ENVIRONMENT, INC.

ANALYTICAL SERVICES CENTER

Results of Additional Required Compounds
by Semi-Volatile Organics Analysis

9000.731

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB : EE-90- 70211 UNITS : UG/L
SAMPLE ID CLIENT: P32W008 MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIHIT
1,2-Diphenylhydrazine (2)	ND		500
N-Nitrosodiphenylamide	ND		**
Methyl dihydro indene	ND		**
Hydroxymethyl pentanone	ND		100
Methyl ethyl phenol	ND		**
Dimethyl ethyl phenol	ND		**
Tetramethylbutyl phenol	ND		100
Tetramethyl benzene	ND		100

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

** Compound searched for, detection limit not determined due to unavailability of standard.

(2) Decomposes to azobenzene during gas chromatography, reported as such.

PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 03-21-90

Monitoring Well # GM-9

Well Type:

[ ] Corrective Action

[X] Point-of-Compliance

Well Name: Shallow

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 2.51 ft

STORET Code	Parameter Monitored	Sampling Method	EPA Analysis Method	Analysis Result	units	Sample Filtered/ Unfiltered	Preser-vatives Added
	pH	Teflon bailer	150.1	6.4		Unfiltered	
	Specific Conductance	Teflon bailer	120.1	350	umhos/ cm	Unfiltered	
	Inorganics:	Teflon bailer		See attached		Unfiltered	
	Metals		6010				HNO_3
			7060				HNO_3
			7421				HNO_3
			7470				HNO_3
			7740				HNO_3
			7841				HNO_3
	Cyanide		335.2				NaOH
	Chloride		325.3				
	Sulfate		375.4				
	VOCS	Teflon bailer	8240	See attached		Unfiltered	HCl
	BNAs	Teflon bailer	8270	See attached		Unfiltered	

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT .: UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB :EE-90-70213 MATRIX: WATER
SAMPLE ID CLIENT: P32W009

PARAMETER		RESULTS	Q	DET. LIMIT	UNITS
Silver	(ICP)	ND		10	UG/L
Arsenic	(FU)	ND		1.0	UG/L
Barium	(ICP)	ND		10	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
Chromium Total	(ICP)	ND		10	UG/L
Copper	(ICP)	ND		10	UG/L
Iron	(ICP)	ND		25	UG/L
Mercury	(Vap)	ND		0.20	UG/L
Manganese	(ICP)	ND		5.0	UG/L
Sodium	(ICP)	ND		200	UG/L
Nickel	(ICP)	ND		15	UG/L
had	(FU)	ND		1.0	UG/L
Antimony	(ICP)	ND		60	UG/L
Selenium	(FU)	ND		1.0	UG/L
Thallium	(FU)	ND		2.0	UG/L
Zinc	(ICP)	ND		10	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WCNCMP1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : CYANIDE-COMPLEX UNITS : MG/L
PARAMETER : CYANIDE-COMPLEX

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70213			
P32W009	ND		0.01

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WCL 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : CHLORIDE UNITS : MG/L
PARAMETER : Chloride

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70213			
P32W009	ND		1.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WS04 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : SULFATE UNITS : MG/L
PARAMETER : Sulfate

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70213			
P32W009	ND		2.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WPURG 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : PURGEABLES UNITS : UG/L
SAMPLE ID LAB : EE-90-70213 MATRIX: WATER
SAMPLE ID CLIENT: P32W009

PARAMETER	RESULTS	Q	DET. LIMIT
Chloromethane	ND		lo
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chlorethane	ND		10
Methylene Chloride	ND		5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
trans-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromoethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	10	B	10
Carbon Disulfide	7.0		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

ECOLOGY & ENVIRONMENT, INC.

A N A L Y T I C A L S E R V I C E S C E N T E R

Results of Additional Required Compounds
by Volatile Organics Analysis

9000.731

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB : EE-90-70213 UNITS : UG/L
SAMPLE ID CLIENT: P32W009 MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(chloromethyl) ether	ND		**
Dichlorodifluoromethane	ND		**
1,2-Dichloropropylene	ND		**
Trichlorofluoromethae (1)	ND		10
Trimethyl benzene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

** Compound searched for, detection limit not determined due to unavailability of standard.

(1) These compounds are included in the daily calibration standard. Quantitation is based on the standard RF rather than an RF of 1.

TEST CODE :WBNBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT .: UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70213 MATRIX: WATER
SAHPLE ID CLIENT: P32W009

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(2-Chloroethyl)Ether	ND		lo
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Eexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
Eexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	PRESENT	LB	10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	44	B	10
Chrysene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WBNBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70213 MATRIX: WATER
SAMPLE ID CLIENT: P32W009

PARAMETER	RESULTS	Q	DET. LIMIT
Di-N-Octyl Phthalate	ND		lo
Benzo(B)Fluoranthene	ND		10
Benzo(K)Fluoranthene	ND		10
Benzo(A)Pyrene	ND		10
Indeno(1,2,3-cd)Pyrene	ND		10
Dibenzo(A,H)Anthracene	ND		10
Benzo(G,H,I)Perlyene	ND		10
Benzyl Alcohol	ND		10
4-Chloroaniline	ND		10
2-Methylnaphthalene	ND		10
2-Nitroaniline	ND		50
3-Nitroaniline	ND		50
Dibenzofuran	ND		10
4-Nitroaniline	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WAPBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NANE : ACID PHENOL UNITS : UG/L
SAMPLE ID LAB : EE-90-70213 MATRIX: WATER
SAMPLE ID CLIENT: P32W009

PARAMETER	RESULTS	Q	DET. LIMIT
Phenol	ND		lo
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Methylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Methylphenol	ND		10
4-Methylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

ECOLOGY & ENVIRONMENT, INC.

ANALYTICAL SERVICES CENTER

Results of Additional Required Compounds
by Semi-Volatile Organics Analysis

9000.731

CLIENT : UH5000 USN SOUTHERN DIVISION
SAUPLE ID LAB : EE-90- 70213 UNITS : UG/L
SAUPLE ID CLIENT: P32W009 HATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
1,2-Diphenylhydrazine (2)	ND		SQ
N-Nitrosodiphenylamide	ND		**
Methyl dihydro indene	ND		**
Hydroxymethyl pentanone	ND		10
Methyl ethyl phenol	ND		**
Dimethyl ethyl phenol	ND		**
Tetramethylbutyl phenol	ND		10
Tetramethyl benzene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIHATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

** Compound searched for, detection limit not determined due to unavailability of standard.

(2) Decomposes to azobenzene during gas chromatography, reported as such.

PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 03-21-90

Monitoring Well # GM-10

Well Type:

[ ] Corrective Action

[X] Point-of-Compliance

Well Name: Shallow

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above HSL) 2.70 ft

STORET Code	Parameter Monitored	Sampling Method	EPA Analysis Method	Analysis. Result	units	Sample Filtered/ Unfiltered	Preser-vatives Added
	pH	Teflon bailer	150.1	6.6		Unfiltered	
	Specific Conductance	Teflon bailer	120.1	400	umhos/ cm	Unfiltered	
	Inorganics:	Teflon bailer		See attached		Unfiltered	
	Metals		6010				HNO_3
			7060				HNO_3
			7421				HNO_3
			7470				HNO_3
			7740				HNO_3
			7841				HNO_3
	Cyanide		335.2				NaOH
	Chloride		325.3				
	Sulfate		375.4				
	VOCs	Teflon bailer	8240	See attached		Unfiltered	HCl
	BNAs	Teflon bailer	8270	See attached		Unfiltered	

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DBR Form 17-1.216(2)

Effective January 1, 1983

JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB' :EE-90-70214 MATRIX: WATER
SAMPLE ID CLIENT: P32W010

PARAMETER		RESULTS	Q	DET. LIMIT	UNITS
Silver	(ICP)	ND		lo	UG/L
Arsenic	(FU)	ND		1.0	UG/L
Barium	(ICP)	71		10	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
Chromium Total	(ICP)	ND		10	UG/L
Copper	(ICP)	ND		10	UG/L
Iron	(ICP)	870		25	UG/L
Mercury	(Vap)	ND		0.20	UG/L
Manganese	(ICP)	180		5.0	UG/L
Sodium	(ICP)	13000		200	UG/L
Nickel	(ICP)	ND		15	UG/L
Lead	(FU)	1.2		1.0	UG/L
Antimony	(ICP)	ND		60	UG/L
Selenium	(FU)	ND		1.0	UG/L
Thallium	(FU)	ND		2.0	UG/L
Zinc	(ICP)	ND		10	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WCNCMP1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : CYANIDE-COMPLEX UNITS : MG/L
PARAMETER : CYANIDE-COMPLEX

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70214			
P32W010	*0.06*		0.01

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WCL 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : CHLORIDE UNITS : MG/L
PARAMETER : Chloride

SAMPLE ID	RESULTS	Q	DET. LIMIT
BE-90-70214			
P32W010	21		1.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WS04 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : SULFATE UNITS : MG/L
PARAMETER : Sulfate

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70214			
P32W010	78		2.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIXATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WPURG 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : PURGEABLES UNITS : UG/L
SAHPLE ID LAB : EE-90-70214 MATRIX: WATER
SAMPLE ID CLIENT: P32W010

PARAMETER	RESULTS	Q	DET. LIMIT
Chloromethane	ND		lo
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chlorethane	ND		10
Methylene Chloride	7.0	B	5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
trans-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromoethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	PRESENT	L	5.0
Ethylbenzene	ND		5.0
Acetone	29	B	10
Carbon Disulfide	46		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

ECOLOGY & ENVIRONMENT, INC.

A N A L Y T I C A L S E R V I C E S C E N T E R

Results of Additional Required Compounds
by Volatile Organics Analysis

9000.731

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB : EE-90-70214 UNITS : UG/L
SAMPLE ID CLIENT: P32W010 MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(chloromethyl) ether	ND		**
Dichlorodifluoromethane	ND		**
1,2-Dichloropropylene	ND		**
Trichlorofluoromethane (1)	ND		10
Trimethyl benzene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

** Compound searched for, detection limit not determined due to unavailability of standard.

(1) These compounds are included in the daily calibration standard. Quantitation is based on the standard RF rather than an RF of 1.

TEST CODE :WBNBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70214 MATRIX: WATER
SAMPLE ID CLIENT: P32W010

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(2-Chloroethyl)Ether	ND		lo
1,3-Dichlorobenzene	PRESENT	L	10
1,4-Dichlorobenzene	PRESENT	L	10
1,2-Dichlorobenzene	PRESENT	L	10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Me thane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
Hexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	12	B	10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	19	B	10
Chrysene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WBNBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70214 MATRIX: WATER
SAMPLE ID CLIENT: P32W010

PARAMETER	RESULTS	Q	DET. LIMIT
Di-N-Octyl Phthalate	ND		lo
Benzo(B)Fluoranthene	ND		10
Benzo(K)Fluoranthene	ND		10
Benzo(A)Pyrene	ND		10
Indeno(1,2,3-cd)Pyrene	ND		10
Dibenzo(A,H)Anthracene	ND		10
Benzo(G,H,I)Perlyene	ND		10
Benzyl Alcohol	ND		10
4-Chloroaniline	ND		10
2-Hethylnaphthalene	ND		10
2-Nitroaniline	ND		50
3-Nitroaniline	ND		50
Dibenzofuran	ND		10
4-Nitroaniline	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WAPBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT .: UH5000 USN SOUTXERN DIVISION
TEST NAME : ACID PHENOL UNITS : UG/L
SAMPLE ID LAB : EE-90-70214 MATRIX: WATER
SAMPLE ID CLIENT: P32W010

PARAMETER	RESULTS	Q	DET. LIMIT
Phenol	ND		lo
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Methylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Methylphenol	ND		10
4-Methylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

OUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

ECOLOGY 6 ENVIRONMENT, INC.

A N A L Y T I C A L S E R V I C E S C E N T E R

Results of Additional Required Compounds
by Semi-Volatile Organics Analysis

9000.731

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB : EE-90- 70214 UNITS : UG/L
SAMPLE ID CLIENT: P32W010 MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
1,2-Diphenylhydrazine (2)	ND		SQ
N-Nitrosodiphenylamide	ND		**
Methyl dihydro indene	ND		**
Eydroxymethyl pentanone	ND		10
Methyl ethyl phenol	ND		**
Dimethyl ethyl phenol	ND		**
Tetramethylbutyl phenol	49		10
Tetramethyl benzene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

** Compound searched for, detection limit not determined due to unavailability of standard.

(2) Decomposes to azobenzene during gas chromatography, reported as such.

PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017300625

Sample Date: 03-21-90

Monitoring Well # GM-11

Well Type:

[ ] Corrective Action

[X] Point-of-Compliance

Well Name: Shallow

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 2.49 ft

STORET Code	Parameter Monitored	Sampling Method	EPA Analysis Method	Analysis Result	Units	Sample Filtered/ Unfiltered	Preser-vatives Added
	pH	Teflon bailer	150.1	6.8		Unfiltered	
	Specific Conductance	Teflon bailer	120.1	360	umhos/ cm	Unfiltered	
	Inorganics:	Teflon bailer		See attached		Unfiltered	
	Metals		6010				HNO_3
			7060				HNO_3
			7421				HNO_3
			7470				HNO_3
			7740				HNO_3
			7841				HNO_3
	Cyanide		335.2				NaOH
	Chloride		325.3				
	Sulfate		375.4				
	VOCs	Teflon bailer	8240	See attached		Unfiltered	HCl
	BNAs	Teflon bailer	8270	See attached		Unfiltered	

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB :EE-90-70216 MATRIX: WATER
SAMPLE ID CLIENT: P32W011

PARAMETER		RESULTS	Q	DET. LIMIT	UNITS
Silver	(ICP)	ND		lo	UG/L
Arsenic	(FU)	ND		1.0	UG/L
Barium	(ICP)	ND		10	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
Chromium Total	(ICP)	ND		10	UG/L
Copper	(ICP)	ND		10	UG/L
Iron	(ICP)	160		25	UG/L
Mercury	(Vap)	ND		0.20	UG/L
Manganese	(ICP)	44		5.0	UG/L
Sodium	(ICP)	15000		200	UG/L
Nickel	(ICP)	ND		15	UG/L
Lead	(FU)	1.4		1.0	UG/L
Antimony	(ICP)	ND		60	UG/L
Selenium	(FU)	ND		1.0	UG/L
Thallium	(FU)	ND		2.0	UG/L
Zinc	(ICP)	ND		10	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WCNCMP1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTEERN DIVISION
TEST NAME : CYANIDE-COMPLEX UNITS : MG/L
PARAMETER : CYANIDE-COMPLEX

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70216			
P32W011	0.07		0.01

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WCL 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : CHLORIDE UNITS : MG/L
PARAHETER : Chloride

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70216			
P32W011	17		1.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WS04 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : SULFATE UNITS : MG/L
PARAMETER : Sulfate

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70216			
P32W011	22		2.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WPURG 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT .: UH5000 USN SOUTHERN DIVISION
TEST NAME : PURGEABLES UNITS : UG/L
SAMPLE ID LAB : EE-90-70216 MATRIX: WATER
SAMPLE ID CLIENT: P32W011

PARAMETER	RESULTS	Q	DET. LIMIT
Chloromethane	ND		lo
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chlorethane	ND		10
Methylene Chloride	PRESENT	LB	5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
trans-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromoethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	19	B	10
Carbon Disulfide	39		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Eexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

ECOLOGY & ENVIRONMENT, INC.

A N A L Y T I C A L S E R V I C E S C E N T E R

Results of Additional Required Compounds
by Volatile Organics Analysis

9000.731

CLIENT : UH5000 USN SOUTHERN DIVISION
SAHPLE ID LAB : EE-90-70216 UNITS : UG/L
SAHPLE ID CLIENT: P32W011 MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(chloromethyl) ether	ND		**
Dichlorodifluoromethane	ND		**
1,2-Dichloropropylene	ND		**
Trichlorofluoromethane (1)	ND		10
Trimethyl benzene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

** Compound searched for, detection limit not determined due to unavailability of standard.

(1) These compounds are included in the daily calibration standard. Quantitation is based on the standard RF rather than an RF of 1.

TEST CODE :WBNBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70216 MATRIX: WATER
SAMPLE ID CLIENT: P32W011

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(2-Chloroethyl)Ether	ND		lo
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
Hexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	PRESENT	LB	10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	PRESENT	LB	10
Chrysene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WBNBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70216 MATRIX: WATER
SAMPLE ID CLIENT: P32W011

PARAMETER	RESULTS	Q	DET. LIMIT
Di-N-Octyl Phthalate	ND		lo
Benzo(B)Fluoranthene	ND		10
Benzo(K)Fluoranthene	ND		10
Benzo(A)Pyrene	ND		10
Indeno(1,2,3-cd)Pyrene	ND		10
Dibenzo(A,H)Anthracene	ND		10
Benzo(G,H,I)Perlyene	ND		10
Benzyl Alcohol	ND		10
4-Chloroaniline	ND		10
2-Xethylnaphthalene	ND		10
2-Nitroaniline	ND		50
3-Nitroaniline	ND		50
Dibenzofuran	ND		10
4-Nitroaniline	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WAPBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : ACID PEENOL UNITS : UG/L
SAMPLE ID LAB : EE-90-70216 MATRIX: WATER
SAMPLE ID CLIENT: P32W011

PARAMETER	RESULTS	Q	DET. LIMIT
Phenol	ND		lo
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Methylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Methylphenol	ND		10
4-Methylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

ECOLOGY & ENVIRONMENT, INC.

ANALYTICAL SERVICES CENTER

Results of Additional Required Compounds
by Semi-Volatile Organics Analysis

9000.731

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB : EE-90- 70216 UNITS : UG/L
SAMPLE ID CLIENT: P32W011 MATRIX: WATER

PARAMETER	RBSULTS	Q	DET. LIMIT
1,2-Diphenylhydrazine (2)	ND		SO
N-Nitrosodiphenylamide	ND		**
Methyl dihydro indene	ND		**
Eydroxymethyl pentanone	ND		10
Methyl ethyl phenol	ND		**
Dimethyl ethyl phenol	ND		**
Tetramethylbutyl phenol	ND		10
Tetramethyl benzene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK.
L = PRESENT BELOW STATED DETECTION LIMIT

** Compound searched for, detection limit not determined due to unavailability of standard.

(2) Decomposes to azobenzene during gas chromatography, reported as such.

TEST CODE :WCL 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : CHLORIDE UNITS : MG/L
PARAMETER :'Chloride

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70218			
P32W013	6.1		1.0

QUALIFIERS: C = COHMENT ND = NOT DETECTED
J = ESTIXATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIHIT

TEST CODE :WS04 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : SULFATE UNITS : MG/L
PARAMETER : Sulfate

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70218			
P32W013	15		2.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WPURG 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT .: UH5000 USN SOUTHERN DIVISION
TEST NAME : PURGEABLES UNITS : UG/L
SAMPLE ID LAB : EE-90-70218 MATRIX: WATER
SAMPLE ID CLIENT: P32W013

PARAMETER	RESULTS	Q	DET. LIMIT
Chloromethane	ND		lo
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chlorethane	ND		10
Hethylene Chloride	8.0	B	5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
trans-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Brornodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromoethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	180	B	10
Carbon Disulfide	10		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

OUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIHATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

ECOLOGY & ENVIRONMENT, INC.

ANALYTICAL SERVICES CENTER

Results of Additional Required Compounds
by Volatile Organics Analysis

9000.731

CLIENT : UH5000 USN SOUTHERN DIVISION
SAHPLE ID LAB : EE-90-70218 UNITS : UG/L
SAHPLE ID CLIENT: P32W013 MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(chloromethyl) ether	ND		**
Dichlorodifluoromethane	ND		**
1,2-Dichloropropylene	ND		**
Trichlorofluoromethane (1)	ND		10
Trimethyl benzene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

** Compound searched for, detection limit not determined due to unavailability of standard.

(1) These compounds are included in the daily calibration standard. Quantitation is based on the standard RF rather than an RF of 1.

TEST CODE :WBNBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70218 MATRIX: WATER
SAMPLE ID CLIENT: P32W013

PARAMETER	RESULTS	Q	DET. LIHIT
Bis(2-Chloroethyl)Ether	ND		lo
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Eexachlorobutadiene	ND		10
Hexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Iiexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	PRESENT	LB	10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	PRESENT	LB	10
Chrysene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WBNBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT. : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70218 MATRIX: WATER
SAMPLE ID CLIENT: P32W013

PARAMETER	RESULTS	Q	DET. LIMIT
Di-N-Octyl Phthalate	ND		lo
Benzo(B)Fluoranthene	ND		10
Benzo(K)Fluoranthene	ND		10
Benzo(A)Pyrene	ND		10
Indeno(1,2,3-cd)Pyrene	ND		10
Dibenzo(A,H)Anthracene	ND		10
Benzo(G,H,I)Perlyene	ND		10
Benzyl Alcohol	ND		10
4-Chloroaniline	ND		10
2-flethylnaphthelene	ND		10
2-Nitroaniline	ND		50
3-Nitroaniline	ND		50
Dibenzofuran	ND		10
4-Nitroaniline	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WAPBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : ACID PHENOL UNITS : UG/L
SAMPLE ID LAB : BE-90-70218 MATRIX: WATER
SAMPLE ID CLIENT: P32W013

PARAMETER	RESULTS	Q	DET. LIMIT
Phenol	ND		10
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10'
2,4-Dichlorophenol	ND		10
4-Chloro-3-Methylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Methylphenol	ND		10
4-Methylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

ECOLOGY & ENVIRONMENT, INC.

ANALYTICAL SERVICES CENTER

Results of Additional Required Compounds
by Semi-Volatile Organics Analysis

9000.731

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB : EB-90- 70218 UNITS : UG/L
SAMPLE ID CLIENT: P32W013 MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
1,2-Diphenylhydrazine (2)	ND		50
N-Nitrosodiphenylamide	ND		**
Methyl dihydro indene	ND		**
Bydroxymethyl pentanone	ND		10
Methyl ethyl phenol	ND		**
Dimethyl ethyl phenol	ND		**
Tetramethylbutyl phenol	ND		10
Tetramethyl benzene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIHATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

** Compound searched for, detection limit not determined due to unavailability of standard.

(2) Decomposes to azobenzene during gas chromatography, reported as such.

PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GHS # 1017F00625

Sample Date: 03-21-90

Monitoring Well # GM-14

Well Type:

[ ] Corrective Action

[X] Point-of-Compliance

Well Name: Shallow

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 1.36 ft

STORET Code	Parameter Monitored	Sampling Method	BPA Analysis Method	Analysis Result	Units	Sample Filtered/ Unfiltered	Preser-vatives Added
	pH	Teflon bailer	150.1	6.6		Unfiltered	
	Specific Conductance	Teflon bailer	120.1	1,100	umhos/ cm	Unfiltered	
	Inorganics:	Teflon bailer		See attached		Unfiltered	
	Metals		6010				HNO_3
			7060				HNO_3
			7421				HNO_3
			7470				HNO_3
			7740				HNO_3
			7841				HNO_3
	Cyanide		335.2				NaOH
	Chloride		325.3				
	Sulfate		375.4				
	VOCs	Teflon bailer	8240	See attached		Unfiltered	HCl
	BNAS	Teflon bailer	8270	See attached		Unfiltered	

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTEERN DIVISION
SAMPLE ID LAB :EE-90-70219 MATRIX: WATER
SAMPLE ID CLIENT: P32W014

PARAMETER		RESULTS	Q	DET. LIMIT	UNITS
Silver	(ICP)	ND		lo	UG/L
Arsenic	(FU)	ND		1.0	UG/L
Barium	(ICP)	26		10	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
Chromium Total	(ICP)	ND		10	UG/L
Copper	(ICP)	ND		10	UG/L
Iron	(ICP)	120		25	UG/L
Mercury	(Vap)	ND		0.20	UG/L
Manganese	(ICP)	190		5.0	UG/L
Sodium	(ICP)	140000		200	UG/L
Nickel	(ICP)	ND		15	UG/L
Lead	(FU)	1.1		1.0	UG/L
Antimony	(ICP)	ND		60	UG/L
Selenium	(FU)	ND		1.0	UG/L
Thallium	(FU)	ND		4.0	UG/L
Zinc	(ICP)	ND		10	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WCL 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : CHLORIDE UNITS : MG/L
PARAMETER : Chloride

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70219			
P32W014	200		1.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WS04 1' JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : SULFATE UNITS : MG/L
PARAMETER : Sulfate

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70219			
P32W014	160		2.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WPURG 1 JOB NUMBER :9000.731

Ecology and Environment? Inc.
Analytical Services Center

CLIENT ·: UH5000 USN SOUTHERN DIVISION
TEST NAME : PURGEABLES UNITS : UG/L
SAMPLE ID LAB : EE-90-70219 MATRIX: WATER
SAMPLE ID CLIENT: P32W014

PARAMETER	RESULTS	Q	DET. LIMIT
Chloromethane	ND		lo
Brornomethane	ND		10
Vinyl Chloride	ND		10
Chlorethane	ND		10
Hethylene Chloride	9.0	B	5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
trans-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibrornoethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	PRESENT	L	5.0
Ethylbenzene	ND		5.0
Acetone	24	B	10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-tiexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

ECOLOGY & ENVIRONMENT, INC.

A N A L Y T I C A L S E R V I C E S C E N T E R

Results of Additional Required Compounds
by Volatile Organics Analysis

9000.731

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB : EE-90-70219 UNITS : UG/L
SAMPLE ID CLIENT: P32W014 XATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(chloromethyl) ether	ND		**
Dichlorodifluoromethane	ND		**
1,2-Dichloropropylene	ND		**
Trichlorofluoromethane (1)	ND		10
Trimethyl benzene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

** Compound searched for, detection limit not determined due to unavailability of standard.

(1) These compounds are included in the daily calibration standard. Quantitation is based on the standard RF rather than an RF of 1.

TEST CODE :WBNBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70219 MATRIX : WATER
SAMPLE ID CLIENT: P32W014

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(2-Chloroethyl)Ether	ND		lo
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
Hexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	PRESENT	LB	10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	PRESENT	LB	10
.Chrysene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WBNBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70219 MATRIX: WATER
SAMPLE ID CLIENT: P32W014

PARAHETER	RESULTS	Q	DET. LIMIT
Di-N-Octyl Phthalate	ND		lo
Benzo(B)Fluoranthene	ND		10
Benzo(K)Fluoranthene	ND		10
Benzo(A)Pyrene	ND		10
Indeno(1,2,3-cd)Pyrene	ND		10
Dibenzo(A,H)Anthracene	ND		10
Benzo(G,H,I)Perlyene	ND		10
Benzyl Alcohol	ND		10
4-Chloroaniline	ND		10
2-Xethylnaphthalene	ND		10
2-Nitroaniline	ND		50
3-Nitroaniline	ND		50
Dibenzofuran	ND		10
4-Nitroaniline	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WAPBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : ACID PHENOL UNITS : UG/L
SAMPLE ID LAB : EE-90-70219 MATRIX: WATER
SAMPLE ID CLIENT: P32W014

PARAMETER	RESULTS	Q	DET. LIMIT
Phenol	ND		10
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Methylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Methylphenol	ND		10
4-Hethylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

ECOLOGY & ENVIRONMENT, INC.

ANALYTICAL SERVICES CENTER

Results of Additional Required Compounds
by Semi-Volatile Organics Analysis

9000.731

CLIENT : UH5000 USN SOUTHERN DIVISION
SAHPLE ID LAB : BE-90- 70219 UNITS : UG/L
SAHPLE ID CLIENT: P32W014 MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
1,2-Diphenylhydrazine (2)	ND		SQ
N-Nitrosodiphenylamide	ND		**
Methyl dihydro indene	ND		**
Iiydroxymethyl pentanone	ND		10
Methyl ethyl phenol	ND		**
Dimethyl ethyl phenol	ND		**
Tetramethylbutyl phenol	PRESENT	L	10
Tetramethyl benzene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

** Compound searched for, detection limit.not determined due to unavailability of standard.

(2) Decomposes to azobenzene during gas chromatography, reported as such.

ATTACHMENT E

FIELD AND LABORATORY QA/QC SAMPLE ANALYTICAL RESULTS

Table E-1

SAMPLE DESIGNATIONS
FIELD QA/QC SAMPLES

Sample Type	Sample Designation
Groundwater Duplicate	P32W008D
Groundwater Duplicate	P32W010D
Trip bottle blank[a]	P32WTB01
Trip bottle blank[a]	P32WTB02
Sampling equipment rinsate[b]	P32WRB01
Sampling equipment rinsate[c]	P32WRB02
Sampling equipment rinsate[d]	P32WRB03
Field blank	P32WFB01
Preservative blank[e]	P32WPB01

[a]Prepared in laboratory, shipped to field, and back to laboratory with volatile organic compound (VOC) samples. Analyzed for VOCs only.

[b]Collected 03-20-90

[c]Collected 03-21-90

[d]Collected 03-22-90

[e]Analyzed for metals, cyanide and VOCs only.

Table E-2

SUMMARY ANALYTICAL RESULTS FOR FIELD QA/QC SAMPLES
(All results in ug/L)

Compound	Sample No. (Location)					
	P32W008 (GM-8)	P32W008D[a] (GM-8)	P32W010 (GM-10)	P32W010D[b] (GM-10)	P32WTB01[c]	P32WTB02[c]
Barium	69	67	71	76	—	—
Iron	9,100	9,000	870	1,100	—	—
Lead	12	1.2	1.2	1.9	—	—
Manganese	130	130	180	200	—	—
Copper	—	—	—	—	—	—
Sodium	21,000	21,000	13,000	12,000	—	—
Selenium	10	—	—	—	—	—
Chromium Total	—	23	—	23	—	—
Chloride	25,000	25,000	21,000	21,000	—	—
Sulfate	95,000	130,000	78,000	73,000	—	—
Cyanide	60	30	60	80	—	—
Vinyl Chloride	180	180	—	—	—	—
Methylene Chloride	110(B)	(L,B)	70(B)	9.0(B)	6(B)	6.0(B)
Acetone	350(B)	130	29(B)	33(B)	(L)	26(B)
Carbon Disulfide	(L)	(L)	46	(L)	9.0	—
Benzene	(L)	(L)	—	—	—	—
Naphthalene	(L)	(L)	—	—	N/A	N/A
Di-N-Butylphthalate	—	(L,B)	12(B)	(L,B)	N/A	N/A
2,4-Dichlorophenol	(L)	(L)	—	—	N/A	N/A
trans-1,2-Dichloroethene	430	390	—	—	—	—
Chlorobenzene	1,300	1,200	(L)	(L)	—	—
Toluene	66	50	—	—	—	—
1,3-Dichlorobenzene	1,400	1,500	(L)	(L)	—	—
1,4-Dichlorobenzene	2,800	2,900	(L)	(L)	—	—
1,2-Dichlorobenzene	2,300	2,300	(L)	(L)	—	—
bis (2-Ethylhexyl)phthalate	(L,B)	—	19(B)	(L,B)	N/A	N/A
Tetramethylbutylphenol	—	—	49	40	N/A	N/A
1,1-Dichloroethane	80	(L)	—	—	—	

a Duplicate sample of P32W008
b Duplicate of sample P32W010, analysed for sodium, chlorides, VOCs and BNAs only
c Analysed for VOCs only
d Analysed for metals, cyanide, and VOCs only
B-Compound also present in method blank
L-Compound present detection limit
N/A-Analysis not performed
A dash (—) indicates compound not detected

Table E-2

SUMMARY ANALYTICAL RESULTS FOR FIELD QA/QC SAMPLES
(All results in ug/L)

Compound	Sample No.					
	P32W008 (GM-8)	P32W008D[a] (GM-8)	P32W010 (GM-10)	P32W010D[b] (GM-10)	P32WTB01[c]	P32WTB02[c]
Barium	69	67	71	76	N/A	N/A
Iron	9,100	9,000	870	1,100	N/A	N/A
Lead	1.2	1.2	1.2	19	N/A	N/A
Manganese	130	130	180	200	N/A	N/A
Copper	—	—	—	—	N/A	N/A
Sodium	21,000	21,000	13,000	12,000	N/A	N/A
Selenium	10		—	—	N/A	N/A
Chromium Total	—	23	—	23	N/A	N/A
Chloride	25,000	25,000	21,000	21,000	N/A	N/A
Sulfate	95,000	130,000	78,000	73,000	N/A	N/A
Cyanide	60	30	60	80	N/A	N/A
Vinyl Chloride	180	180	—		—	
Methylene Chloride	110(B)		70(B)	9.0(B)	6(B)	6.0(B)
Acetone	350(B)	130	29(B)	33(B)	(L)	26(B)
Carbon Disulfide	(L)	(L)	46	(L)	9.0	—
Benzene	(L)	(L)	—	—	—	—
Naphthalene	(L)	(L)	—	—	N/A	N/A
Di-N-Butylphthalate	—	(L,B)	12(B)	(L,B)	N/A	N/A
2,4-Dichlorophenol	(L)	(L)	—	—	N/A	N/A
trans-1,2-Dichloroethene	430	390	—	—	—	—
Chlorobenzene	1,300	1,200	(L)	(L)	—	—
Toluene	66	50	—	—	—	—
1,3-Dichlorobenzene	1,400	1,500	(L)	(L)	N/A	N/A
1,4-Dichlorobenzene	2,800	2,900	(L)	(L)	N/A	N/A
1,2-Dichlorobenzene	2,300	2,300	(L)	(L)	N/A	N/A
bis (2-Ethylhexyl)phthalate	(L,B)	—	19(B)	(L,B)	N/A	N/A
Tetramethylbutylphenol	—	—	49	40	N/A	N/A
1,1-Dichloroethane	80	(L)	—		—	—

[a] Duplicate sample of P32W008
[b] Duplicate of sample P32W010
[c] Analyzed for VOCs plus TICs only

B-Compound also present in method blank
L-Compound present detection limit
N/A-Analysis not performed
A dash (—) indicates compound not detected

Table E-2 (Continued)

SUMMARY ANALYTICAL RESULTS FOR FIELD QA/QC SAMPLES
(All results in ug/L)

Compound	Sample No.					
	P32MRB01	P32MRB02[d]	(P32W009[d])	P32MRB03	P32MFB01	P32MFB01[e]
Barium	—	30	(—)		—	
Iron	—	2,000	(—)	—	—	—
Lead	—	—	(—)		—	—
Manganese	—	20	(—)	—	—	—
Copper	18	—	(—)	—	14	—
Sodium	370	6,500	(—)	380	—	—
Selenium	—	—	(—)		—	—
Chromium Total	—	—	(—)	—	—	—
Chloride	—	7,400	(—)		1,700	N/A
Sulfate	—	32,000	(—)	N/A	—	N/A
Cyanide		20	(—)	—	—	—
Vinyl chloride	—	—	(—)	—	—	—
Methylene chloride	3,000(B)	1,400(B)	(—)	6.0(B)	13(B)	6.0(B)
Acetone	380(B)	32,000(B)	(10[B])	170(B)	(L,B)	11(B)
Carbon disulfide	150	—	(7.0)	—	12	12
Benzene	—	—	(—)	—	—	—
Naphathalene		—	(—)	—	—	N/A
Di-N-Butylphthalate	(L,B)	(L,B)	([L,B])	—	13(B)	N/A
2,4-Dichlorophenol	—	—	(—)	—	—	N/A
trans-1,2-Dichloroethene	—	—	(—)	—	—	—
Chlorobenzene	—	—	(—)	—	—	—
Toluene	—	—	(—)	—	—	—
1,3-Dichlorobenzene	—	—	(—)	—	—	N/A
1,4-Dichlorobenzene	—	—	(—)	—	—	N/A
1,2-Dichlorobenzene	—	—	(—)	—	—	N/A
bis(2-Ethylhexyl)phthalate	29(B)	11(B)	(44[B])	—	55(B)	N/A
Tetramethylbutylphenol	—	—	(—)	—	—	N/A
1,1-Dichloroethane	—	—	(—)	—	—	—

[d] Sample containers believed to have been switched in the field; see QA/QC Validation Summary for explanation

[e] Analyzed for metals, cyanide, and VOCs only

B-Compound also present in method blank
L-Compound present below detection limit
N/A-Analysis not performed
A dash (—) indicates compound not detected

JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB :EE-90-70212 MATRIX: WATER
SAMPLE ID CLIENT: P32W008D

PARAMETER		RESULTS	Q	DET. LIMIT	UNITS
Silver	(ICP)	ND		lo	UG/L
Arsenic	(FU)	ND		1.0	UG/L
Barium	(ICP)	67		10	UG/L
cadmium	(ICP)	ND		5.0	UG/L
Chromium Total	(ICP)	23		10	UG/L
Copper	(ICP)	ND		10	UG/L
Iron	(ICP)	9000		25	UG/L
Mercury	(Vap)	ND		0.20	UG/L
Manganese	(ICP)	130		5.0	UG/L
Sodium	(ICP)	21000		200	UG/L
Nickel	(ICP)	ND		15	UG/L
Lead	(FU)	1.2		1.0	UG/L
Antimony	(ICP)	ND		60	UG/L
Selenium	(FU)	ND		1.0	UG/L
Thallium	(FU)	ND		2.0	UG/L
Zinc	(ICP)	ND		10	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE : WCL 1 JOB NUMBER : 9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : CHLORIDE UNITS : MG/L
PARAMETER : Chloride

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70212			
P32W008D	25		1.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WS04 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : SULFATE UNITS : MG/L
PARAMETER : Sulfate

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70212			
P32W008D	130		2.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WCNCMP1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : CYANIDE-COMPLEX UNITS : MG/L
PARAMETER : CYANIDE-COMPLEX

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70212			
P32W008D	0.03		0.01

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WPURG 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT .: UH5000 USN SOUTHERN DIVISION
TEST NAME : PURGEABLES UNITS : UG/L
SAMPLE ID LAB : EE-90-70212 MATRIX: WATER
SAMPLE ID CLIENT: P32W008D

PARAMETER	RESULTS	Q	DET. LIMIT
Chloromethane	ND		100
Bromomethane	ND		100
Vinyl Chloride	180		100
Chlorethane	ND		100
Methylene Chloride	PRESENT	LB	50
1,1-Dichloroethene	ND		50
1,l-Dichloroethane	PRESENT	L	50
trans-1,2-Dichloroethene	390		50
Chloroform	ND		50
1,2-Dichloroethane	ND		50
1,1,1-Trichloroethane	ND		50
Carbon Tetrachloride	ND		50
Bromodichloromethane	ND		50
1,2-Dichloropropane	ND		50
trans-1,3-Dichloropropene	ND		50
Trichloroethene	ND		50
Chlorodibromoethane	ND		50
1,1,2-Trichloroethane	ND		50
Benzene	PRESENT	L	50
cis-1,3-Dichloropropene	ND		50
2-Chloroethylvinyl Ether	ND		100
Bromoform	ND		50
Tetrachloroethene	ND		50
1,1,2,2-Tetrachloroethane	ND		50
Toluene	50		50
Chlorobenzene	1200		50
Ethylbenzene	ND		50
Acetone	130	B	100
Carbon Disulfide	PRESENT	L	50
2-Butanone	ND		100
Vinyl Acetate	ND		100
4-Methyl-2-Pentanone	ND		100
2-Hexanone	ND		100
Styrene	ND		50
Total Xylenes	ND		50

QUALIFIERS: C = COHHENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

ECOLOGY & ENVIRONMENT, INC.

A N A L Y T I C A L S E R V I C E S C E N T E R

Results of Additional Required Compounds
by Volatile Organics Analysis

9000.731

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB : EE-90-70212 UNITS : UG/L
SAMPLE ID CLIENT: P32W008D MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(chloromethyl) ether	ND		**
Dichlorodifluoromethane	ND		**
1,2-Dichloropropylene	ND		**
Trichlorofluoromethane (1)	ND		100
Trimethyl benzene	ND		100

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

** Compound searched for, detection limit not determined due to unavailability of standard.

(1) These compounds are included in the daily calibration standard. Quantitation is based on the standard RF rather than an RF of 1.

TEST CODE :WBNBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70212 MATRIX: WATER
SAMPLE ID CLIENT: P32W008D

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(2-Chloroethyl)Ether	ND		100
1,3-Dichlorobenzene	1500		100
1,4-Dichlorobenzene	2900		100
1,2-Dichlorobenzene	2300		100
Bis(2-Chloroisopropyl)Ether	ND		100
N-Nitrosodipropylamine	ND		100
Eexachloroethane	ND		100
Nitrobenzene	ND		100
Isophorone	ND		100
Bis(2-Chloroethoxy)Methane	ND		100
1,2,4-Trichlorobenzene	ND		100
Naphthalene	PRESENT	L	100
Eexachlorobutadiene	ND		100
Eexachlorocyclopentadiene	ND		100
2-Chloronaphthalene	ND		100
Dimethyl Phthalate	ND		100
Acenaphthylene	ND		100
Fluorene	ND		100
Acenaphthene	ND		100
2,4-Dinitrotoluene	ND		100
2,6-Dinitrotoluene	ND		100
Diethyl Phthalate	ND		100
4-Chlorophenyl Phenyl Ether	ND		100
N-Nitrosodiphenylamine	ND		100
4-Bromophenyl Phenyl Ether	ND		100
Eexachlorobenzene	ND		100
Phenanthrene	ND		100
Anthracene	ND		100
Di-N-Butyl-Phthalate	PRESENT	LB	100
Fluoranthene	ND		100
Benzidine	ND		500
Pyrene	ND		100
Butyl Benzyl Phthalate	ND		100
3,3'-Dichlorobenzidine	ND		200
Benzo(A)Anthracene	ND		100
Bis(2-Ethylhexyl)Phthalate	ND		100
Chrysene	ND		100

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WBNBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70212 MATRIX: WATER
SAMPLE ID CLIENT: P32W008D

PARAMETER	RESULTS	Q	DET. LIMIT
Di-N-Octyl Phthalate	NO		100
Benzo(B)Fluoranthene	NO		100
Benzo(K)Fluoranthene	ND		100
Benzo(A)Pyrene	ND		100
Indeno(1,2,3-cd)Pyrene	ND		100
Dibenzo(A,H)Anthracene	ND		100
Benzo(G,H,I)Perlyene	ND		100
Benzyl Alcohol	ND		100
4-Chloroaniline	ND		100
2-Hethylnaphthalene	ND		100
2-Nitroaniline	ND		500
3-Nitroaniline	ND		500
Dibenzofuran	ND		100
4-Nitroaniline	ND		500

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WAPBNA1 JOB NUMBER :9000.731

3

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : ACID PHENOL UNITS : UG/L
SAMPLE ID LAB : EE-90-70212 HATRIX: WATER
SAMPLE ID CLIENT: P32W008D

PARAMETER	RESULTS	Q	DET. LIMIT
Phenol	ND		100
2-Chlorophenol	ND		100
2-Nitrophenol	ND		100
2,4-Dimethylphenol	ND		100
2,4-Dichlorophenol	PRESENT	L	100
4-Chloro-3-Hethylphenol	ND		100
2,4,6-Trichlorophenol	ND		100
2,4-Dinitrophenol	ND		500
4-Nitrophenol	ND		500
4,6-Dinitro-2-Methylphenol	ND		500
Pentachlorophenol	ND		500
2-Hethylphenol	ND		100
4-Hethylphenol	ND		100
Benzoic Acid	ND		500
2,4,5-Trichlorophenol	ND		500

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

ECOLOGY & ENVIRONMENT, INC.

ANALYTICAL SERVICES CENTER

Results of Additional Required Compounds
by Semi-Volatile Organics Analysis

9000.731

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB : EE-90- 70212 UNITS : UG/L
SAMPLE ID CLIENT: P32W008D MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
1,2-Diphenylhydrazine (2)	ND		500
N-Nitrosodiphenylamide	ND		**
Methyl dihydro indene	ND		**
Hydroxymethyl pentanone	ND		100
Methyl ethyl phenol	ND		**
Dimethyl ethyl phenol	ND		**
Tetramethylbutyl phenol	ND		100
Tetramethyl benzene	ND		100

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

** Compound searched for, detection limit not determined due to unavailability of standard.

(2) Decomposes to azobenzene during gas chromatography, reported as such.

JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB :EE-90-70215 MATRIX: WATER
SAMPLE ID CLIENT: P32W010D

PARAMETER		RESULTS	Q	DET. LIMIT	UNITS
Silver	(ICP)	ND		10	UG/L
Arsenic	(FU)	ND		1.0	UG/L
Barium	(ICP)	76		10	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
Chromium Total	(ICP)	23		10	UG/L
Copper	(ICP)	ND		10	UG/L
Iron	(ICP)	1100		25	UG/L
Uercury	(Vap)	ND		0.20	UG/L
Uanganese	(ICP)	200		5.0	UG/L
Sodium	(ICP)	12000		200	UG/L
Nickel	(ICP)	ND		15	UG/L
Lead	(FU)	1.9		1.0	UG/L
Antimony	(ICP)	ND		60	UG/L
Selenium	(FU)	ND		1.0	UG/L
Thallium	(FU)	ND		2.0	UG/L
Zinc	(ICP)	ND		10	UG/L

QUALIFIERS: C = COHHENT ND = NOT DETECTED
J = ESTIUATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WCL 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : CHLORIDE UNITS : MG/L
PARAMETER : Chloride

SAUPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70215			
P32W010D	21		1.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WS04 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : SULFATE UNITS : MG/L
PARAMETER : Sulfate

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70215			
P32W010D	73		2.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WCNCMP1 JOB NUHBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : CYANIDE-COMPLEX UNITS : MG/L
PARAMETER : CYANIDE-COMPLEX

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70215			
P32W010D	0.08		0.01

QUALIFIERS: C = COMMENT ND = NOT DETECTED
3 = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIHIT

TEST CODE :WPURG 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : PURGEABLES UNITS : UG/L
SAMPLE ID LAB : EE-90-70215 MATRIX: WATER
SAMPLE ID CLIENT: P32W010D

PARAMETER	RESULTS	Q	DET. LIMIT
Chloromethane	ND		lo
Bromonethane	ND		10
Vinyl Chloride	ND		10
Chlorethane	ND		10
Methylene Chloride	9.0	B	5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
trans-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromoethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	PRESENT	L	5.0
Ethylbenzene	ND		5.0
Acetone	33	B	10
Carbon Disulfide	PRESENT	L	5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

ECOLOGY & ENVIRONMENT, INC.

A N A L Y T I C A L S E R V I C E S C E N T E R

Results of Additional Required Compounds
by Volatile Organics Analysis

9000.731

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB : EE-90-70215 UNITS : UG/L
SAMPLE ID CLIENT: P32W010D MATRIX : WATER

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(chloromethyl) ether	ND		**
Dichlorodifluoromethane	ND		**
1,2-Dichloropropylene	ND		**
Trichlorofluoromethane (1)	ND		10
Trimethyl benzene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED.
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

** Compound searched for, detection limit not determined due to unavailability of standard.

(1) These compounds are included in the daily calibration standard. Quantitation is based on the standard RF rather than an RF of 1.

TEST CODE :WBNBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAHE : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70215 MATRIX: WATER
SAMPLE ID CLIENT: P32W010D

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(2-Chloroethyl)Ether	ND		lo
1,3-Dichlorobenzene	PRESENT	L	10
1,4-Dichlorobenzene	PRESENT	L	10
1,2-Dichlorobenzene	PRESENT	L	10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Bexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Eexachlorobutadiene	ND		10
Eexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Bexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	PRESENT	LB	10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	PRESENT	LB	10
Chrysene	ND		10

QUALIFIERS: C = COHMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIHIT

TEST CODE :WBNBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70215 MATRIX : WATER
SAMPLE ID CLIENT: P32W010D

PARAMETER	RESULTS	Q	DET. LIMIT
Di-N-Octyl Phthalate	ND		lo
Benzo(B)Fluoranthene	ND		10
Benzo(K)Fluoranthene	ND		10
Benzo(A)Pyrene	ND		10
Indeno(1,2,3-cd)Pyrene	ND		10
Dibenzo(A,H)Anthracene	ND		10
Benzo(G,H,I)Perlyene	ND		10
Benzyl Alcohol	ND		10
4-Chloroaniline	ND		10
2-Methylnaphthalene	ND		10
2-Nitroaniline	ND		50
3-Nitroaniline	ND		50
Dibenzofuran	ND		10
4-Nitroaniline	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WAPBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : ACID PHENOL UNITS : UG/L
SAMPLE ID LAB. : EE-90-70215 MATRIX: WATER
SAMPLE ID CLIENT: P32W010D

PARAMETER	RESULTS	Q	DET. LIMIT
Phenol	ND		lo
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Hethylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Methylphenol	ND		10
4-Methylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

ECOLOGY & ENVIRONMENT, INC.

ANALYTICAL SERVICES CENTER

Results of Additional Required Compounds
by Semi-Volatile Organics Analysis

9000.731

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB : EE-90- 70215 UNITS : UG/L
SAMPLE ID CLIENT: P32W010D MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
1,2-Diphenylhydrazine (2)	ND		50
N-Nitrosodiphenylamide	ND		**
Methyl dihydro indene	ND		**
Hydroxymethyl pentanone	ND		10
Methyl ethyl phenol	ND		**
Dimethyl ethyl phenol	ND		**
Tetramethylbutyl phenol	40		10
Tetramethyl benzene	ND		10

QUALIFIERS: C = COMMENT' ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

** Compound searched for, detection limit not determined due to unavailability of standard.

(2) Decomposes to azobenzene during gas chromatography, reported as such.

TEST CODE :WPURG 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAHE : PURGEABLES UNITS : UG/L
SAMPLE ID LAB : EE-90-70226 MATRIX : WATER
SAMPLE ID CLIENT: P32WTB01

PARAMETER	RESULTS	Q	DET. LIMIT
Chloromethane	ND		lo
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chlorethane	ND		10
Methylene Chloride	6.0	B	5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
trans-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromoethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	PRESENT	L	10
Carbon Disulfide	9.0		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

ECOLOGY & ENVIRONMENT, INC.

A N A L Y T I C A L S E R V I C E S C E N T E R

Results of Additional Required Compounds
by Volatile Organics Analysis

9000.731

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB : EE-90-70226 UNITS : UG/L
SAMPLE ID CLIENT: P32WTB01 MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(chloromethyl) ether	ND		**
Dichlorodifluoromethane	ND		**
1,2-Dichloropropylene	ND		**
Trichlorofluoromethane (1)	ND		10
Trimethyl benzene	ND		10

QUALIFIERS: C = COHHENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIHIT

** Compound searched for, detection limit not determined due to unavailability of standard.

(1) These compounds are included in the daily calibration standard. Quantitation is based on the standard RF rather than an RF of 1.

TEST CODE :WPURG 1 JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : PURGEABLES UNITS : UG/L
SAMPLE ID LAB : EE-90-70491 MATRIX: WATER
SAMPLE ID CLIENT: P32WTB02

PARAMETER	RESULTS	Q	DET. LIHIT
Chloromethane	ND		lo
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chlorethane	ND		10
Methylene Chloride	6.0	B	5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
trans-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromoethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	26	B	10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Bexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIXATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

ECOLOGY & ENVIRONMENT, INC.

A N A L Y T I C A L S E R V I C E S C E N T E R

Results of Additional Required Compounds
by Volatile Organics Analysis

9000.745

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB : EE-90- 70491 UNITS : UG/L
SAHPLE ID CLIENT: P32WTB02 MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(chloromethyl) ether	ND		**
Dichlorodifluoromethane	ND		**
1,2-Dichloropropylene	ND		**
Trichlorofluoromethane (1)	N D '		10
Trimethyl benzene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

** Compound searched for, detection limit not determined due to unavailability of Standard.

(1) These compounds are included in the daily calibration standard. Quantitation is based on the standard RF rather than an RF of 1.

JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB :EE-90-70220 MATRIX: WATER
SAMPLE ID CLIENT: P32WRB01

PARAMETER		RESULTS	Q	DET. LIMIT	UNITS
Silver	(ICP)	ND		lo	UG/L
Arsenic	(FU)	ND		1.0	UG/L
Barium	(ICP)	ND		10	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
Chromium Total	(ICP)	ND		10	UG/L
Copper	(ICP)	18		10	UG/L
Iron	(ICP)	ND		25	UG/L
Mercury	(Vap)	ND		0.20	UG/L
Xanganese	(ICP)	ND		5.0	UG/L
Sodium	(ICP)	370		500	UG/L
Nickel	(ICP)	ND		15	UG/L
Lead	(FU)	ND		1.0	UG/L
Antimony	(ICP)	ND		60	UG/L
Selenium	(FU)	ND		1.0	UG/L
Thallium	(FU)	ND		2.0	UG/L
Zinc	(ICP)	ND		10	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WCL 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : CHLORIDE UNITS : MG/L
PARAMETER : Chloride

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70220			
P32WRB01	ND		1.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WS04 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : SULFATE UNITS : MG/L
PARAMETER : Sulfate

SAMPLE ID	RESULTS	Q	DET. LIMIT
E&-90-70220			
P32WRB01	ND		2.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WCNCMP1 JOB NUXBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : CYANIDE-COMPLEX UNITS : MG/L
PARAMETER : CYANIDE-COMPLEX

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70220			
P32WRB01	ND		0.01

QUALIFIERS: C = COHMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WPURG 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : PURGEABLES UNITS : UG/L
SAMPLE ID LAB : EE-90-70220 MATRIX : WATER
SAMPLE ID CLIENT: P32WRB01

PARAMETER	RESULTS	Q	DET. LIMIT
Chloromethane	ND		200
Bromomethane	ND		200
Vinyl Chloride	ND		200
Chlorethane	ND		200
Methylene Chloride	3000	B	100
1,1-Dichloroethene	ND		100
1,1-Dichloroethane	ND		100
trans-1,2-Dichloroethene	ND		100
Chloroform	ND		100
1,2-Dichloroethane	ND		100
1,1,1-Trichloroethane	ND		100
Carbon Tetrachloride	ND		100
Bronodichloromethane	ND		100
1,2-Dichloropropane	ND		100
trans-1,3-Dichloropropene	ND		100
Trichloroethene	ND		100
Chlorodibromoethane	ND		100
1,1,2-Trichloroethane	ND		100
Benzene	ND		100
cis-1,3-Dichloropropene	ND		100
2-Chloroethylvinyl Ether	ND		200
Bromoforn	ND		100
Tetrachloroethene	ND		100
1,1,2,2-Tetrachloroethane	ND		100
Toluene	ND		100
Chlorobenzene	ND		100
Ethylbenzene	ND		100
Acetone	380	B	200
Carbon Disulfide	150		100
2-Butanone	ND		200
Vinyl Acetate	ND		200
4-Methyl-2-Pentanone	ND		200
2-Hexanone	ND		200
Styrene	ND		100
Total Xylenes	ND		100

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

ECOLOGY & ENVIRONMENT, INC.

ANALYTICAL SERVICES CENTER

Results of Additional Required Compounds
by Volatile Organics Analysis

9000.731

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB : EE-90-70220 UNITS : UG/L
SAMPLE ID CLIENT: P32WRB01 MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(chloromethyl) ether	ND		**
Dichlorodifluoromethane	ND		**
1,2-Dichloropropylene	ND		**
Trichlorofluoromethane (1)	ND		200
Trimethyl benzene	ND		200

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

** Compound searched for, detection limit not determined due to unavailability of standard.

(1) These compounds are included in the daily calibration standard. Quantitation is based on the standard RF rather than an RF of 1.

TEST CODE :WBNBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : 'BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70220 MATRIX : WATER
SAMPLE ID CLIENT: P32WRB01

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(2-Chloroethyl)Ether	ND		lo
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Eexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
Hexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Eexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	PRESENT	LB	10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	29	B	10
Chrysene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WBNBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70220 MATRIX: WATER
SAMPLE ID CLIENT: P32WRB01

PARAMETER	RESULTS	Q	DET. LIMIT
Di-N-Octyl Phthalate	ND		lo
Benzo(B)Fluoranthene	ND		10
Benzo(K)Fluoranthene	ND		10
Benzo(A)Pyrene	ND		10
Indeno(1,2,3-cd)Pyrene	ND		10
Dibenzo(A,H)Anthracene	ND		10
Benzo(G,H,I)Perlyene	ND		10
Benzyl Alcohol	ND		10
4-Chloroaniline	ND		10
2-Hethylnaphthalene	ND		10
2-Nitroaniline	ND		50
3-Nitroaniline	ND		50
Dibenzofuran	ND		10
4-Nitroaniline	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B * ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WAPBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : ACID PHENOL UNITS : UG/L
SAMPLE ID LAB : EE-90-70220 MATRIX: WATER
SAMPLE ID CLIENT: P32WRB01

PARAMETER	RESULTS	Q	DET. LIMIT
Phenol	ND		lo
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Methylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Hethylphenol	ND		10
4-Hethylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIHATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

ECOLOGY & ENVIRONMENT, INC.

ANALYTICAL SERVICES CENTER

Results of Additional Required Compounds
by Semi-Volatile Organics Analysis

9000.731

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB : EE-90- 70220 UNITS : UG/L
SAMPLE ID CLIENT: P32WRB01 MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
1,2-Diphenylhydrazine (2)	ND		50
N-Nitrosodiphenylamide	ND		**
Methyl dihydro indene	ND		**
Hydroxymethyl pentanone	ND		10
Methyl ethyl phenol	ND		**
Dimethyl ethyl phenol	ND		**
Tetramethylbutyl phenol	ND		10
Tetramethyl benzene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

** Compound searched for, detection limit not determined due to unavailability of standard.

(2) Decomposes to azobenzene during gas chromatography, reported as such.

QUALITY CONTROL FOR ACCURACY: PERCENT RECOVERY OF SURROGATE SPIKES

9000.745

Compound	E & E Laboratory No. 90-	Amount Added	Amount Determined	Percent Recovery
		(ug/L)		
1,2-dichloroethane-D4	Blank 1	50	56	112
	Blank 2	50	47	94
toluene-D8	Blank 1	50	54	108
	Blank 2	50	46	92
4-bromofluorobenzene	Blank 1	50	49	98
	Blank 2	50	43	86

These recoveries are acceptable to E & E, Inc. guidelines.

TEST CODE : WCL 1 JOB NUMBER : 9000.731

Ecology and Environment, Inc. .
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : CELORIDE UNITS : MG/L
PARAMETER : Chloride

SAMPLE ID.	RESULTS	Q	DET. LIMIT
EB-90-70222			
P32WRB02	7.4		1.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB : EE-90-70222 MATRIX: WATER
SAMPLE ID CLIENT: P32WRB02

PARAMETER		RESULTS	Q	DET. LIMIT	UNITS
Silver	(ICP)	ND		lo	UG/L
Arsenic	(FU)	ND		1.0	UG/L
Barium	(ICP)	30		10	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
Chromium Total	(ICP)	ND		10	UG/L
Copper	(ICP)	ND		10	UG/L
Iron	(ICP)	2000		25	UG/L
Mercury	(Vap)	ND		0.20	UG/L
Manganese	(ICP)	20		5.0	UG/L
Sodium	(ICP)	6500		200	UG/L
Nickel	(ICP)	ND		15	UG/L
Lead	(FU)	ND		1.0	UG/L
Antimony	(ICP)	ND		60	UG/L
Selenium	(FU)	ND		1.0	UG/L
Thallium	(FU)	ND		2.0	UG/L
Zinc	(ICP)	ND		10	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WS04 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : SULFATE UNITS : MG/L
PARAMETER : Sulfate

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70222			
P32WRB02	32		2.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WCNCMP1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : CYANIDE-COMPLEX UNITS : MG/L
PARAMETER : 'CYANIDE-COMPLEX

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70222			
P32WRB02	0.02		0.01

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WPURG 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : PURGEABLES UNITS : UG/L
SAMPLE ID LAB : EE-90-70222 MATRIX : WATER
SAMPLE ID CLIENT: P32WRB02

PARAMETER	RESULTS	Q	DET. LIMIT
Chloromethane	ND		2000
Bronomethane	ND		2000
Vinyl Chloride	ND		2000
Chlorethane	ND		2000
Hethylene Chloride	1400	B	1000
1,1-Dichloroethene	ND		1000
1,1-Dichloroethane	ND		1000
trans-1,2-Dichloroethene	ND		1000
Chloroform	ND		1000
1,2-Dichloroethane	ND		1000
1,1,1-Trichloroethane	ND		1000
Carbon Tetrachloride	ND		1000
Bromodichloromethane	ND		1000
1,2-Dichloropropane	ND		1000
trans-1,3-Dichloropropene	ND		1000
Trichloroethene	ND		1000
Chlorodibromoethane	ND		1000
1,1,2-Trichloroethane	ND		1000
Benzene	ND		1000
cis-1,3-Dichloropropene	ND		1000
2-Chloroethylvinyl Ether	ND		2000
Bromoform	ND		1000
Tetrachloroethene	ND		1000
1,1,2,2-Tetrachloroethane	ND		1000
Toluene	ND		1000
Chlorobenzene	ND		1000
Ethylbenzene	ND		1000
Acetone	32000	B	2000
Carbon Disulfide	ND		1000
2-Butanone	ND		2000
Vinyl Acetate	ND		2000
4-Methyl-2-Pentanone	ND		2000
2-Hexanone,	ND		2000
Styrene	ND		1000
Total Xylenes	ND		1000

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

ECOLOGY & ENVIRONMENT, INC.

ANALYTICAL SERVICES CENTER

Results of Additional Required Compounds
by Volatile Organics Analysis

9000.731

CLIENT : UH5000 USN SOUTHERN DIVISION
SAHPLE ID LAB : EE-90-70222 UNITS : UG/L
SAHPLE ID CLIENT: P32WRB02 MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(chloromethyl) ether	ND		**
Dichlorodifluoromethane	ND		**
1,2-Dichloropropylene	ND		**
Trichlorofluoromethane (1)	ND		200
Trimethyl benzene	ND		200

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

** Compound searched for, detection limit not determined due to unavailability of standard.

(1) These compounds are included in the daily calibration standard. Quantitation is based on the standard RF rather than an RF of 1.

TEST CODE :WBNBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70222 MATRIX: WATER
SAMPLE ID CLIENT: P32WRB02

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(2-Chloroethyl)Ether	ND		lo
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Nexachlorobutadiene	ND		10
Nexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Nexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	PRESENT	LB	10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	11	B	10
Chrysene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WBNBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70222 MATRIX: WATER
SAMPLE ID CLIENT: P32WRB02

PARAMETER	RESULTS	Q	DET. LIMIT
Di-N-Octyl Phthalate	ND		lo
Benzo(B)Fluoranthene	ND		10
Benzo(K)Fluoranthene	ND		10
Benzo(A)Pyrene	ND		10
Indeno(1,2,3-cd)Pyrene	ND		10
Dibenzo(A,H)Anthracene	ND		10
Benzo(G,H,I)Perlyene	ND		10
Benzyl Alcohol	ND		10
4-Chloroaniline	ND		10
2-Methylnaphthalene	ND		10
2-Nitroaniline	ND		50
3-Nitroaniline	ND		50
Dibenzofuran	ND		10
4-Nitroaniline	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WAPBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : ACID PHENOL UNITS : UG/L
SMPLE ID LAB : EE-90-70222 MATRIX: WATER
SAHPLE ID CLIENT: P32WRB02

PARAMETER	RESULTS	Q	DET. LIMIT
Phenol	ND		10
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Hethylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Methylphenol	ND		10
4-Hethylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COHHENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

ECOLOGY & ENVIRONMENT, INC.

ANALYTICAL SERVICES CENTER

Results of Additional Required Compounds
by Semi-Volatile Organics Analysis

9000.731

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB : EE-90- 70222 UNITS : UG/L
SAMPLE ID CLIENT: P32WRB02 MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
1,2-Diphenylhydrazine (2)	ND		50
N-Nitrosodiphenylamide	ND		**
Methyl dihydro indene	ND		**
Bydroxymethyl pentanone	ND		10
Methyl ethyl phenol	ND		**
Dimethyl ethyl phenol	ND		**
Tetramethylbutyl phenol	ND		10
Tetramethyl benzene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

** Compound searched for, detection limit not determined due to unavailability of standard.

(2) Decomposes to azobenzene during gas chromatography, reported as such.

METALS SECTION JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB' :EE-90-70490 MATRIX: WATER
SAMPLE ID CLIENT: P32WRB03

PARAMETER		RESULTS	Q	DET. LIMIT	UNITS
Silver	(ICP)	ND		10	UG/L
Arsenic	(FU)	ND		1.0	UG/L
Barium	(ICP)	ND		10	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
Chromium Total	(ICP)	ND		10	UG/L
Copper	(ICP)	ND		10	UG/L
Iron	(ICP)	ND		25	UG/L
Mercury	(Vap)	ND		0.20	UG/L
Manganese	(ICP)	ND		5.0	UG/L
Sodium	(ICP)	380		200	UG/L
Nickel	(ICP)	ND		15	UG/L
Lead	(FU)	ND		1.0	UG/L
Antimony	(ICP)	ND		60	UG/L
Selenium	(FU)	ND		1.0	UG/L
Thallium	(FU)	ND		2.0	UG/L
Zinc	(ICP)	ND		10	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WCL 1 JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : CHLORIDE UNITS : MG/L
PARAMETER : Chloride

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70490			
P32WRB03	ND		1.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIXATED VALUE B = *ALSO* PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WCNCMP1 JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : CYANIDE-COMPLEX UNITS : MG/L
PARAMETER : 'CYANIDE-COMPLEX

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70490			
P32WRB03	ND		0.01

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WPURG 1 JOB NUMBER :9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : PURGEABLES UNITS : UG/L
SAMPLE ID LAB : EE-90-70490 MATRIX : WATER
SAMPLE ID CLIENT: P32WRB03

PARAMETER	RESULTS	Q	DET. LIMIT
Chloromethane	ND		10
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chlorethane	ND		10
Methylene Chloride	6.0	B	5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
trans-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromoethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	170	B	10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

ECOLOGY & ENVIRONMENT, INC.

ANALYTICAL SERVICES CENTER

Results of Additional Required Compounds
by Volatile Organics Analysis

9000.745

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB : EE-90- 70490 UNITS : UG/L
SAMPLE ID CLIENT: P32WRB03 MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(chloromethyl) ether	ND		**
Dichlorodifluoromethane	ND		**
1,2-Dichloropropylene	ND		**
Trichlorofluorornethane (1)	ND		10
Trimethyl benzene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

** Compound searched for, detection limit not determined due to unavailability of standard.

(1) These compounds are included in the daily calibration standard. Quantitation is based on the standard RF rather than an RF of 1.

JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN **SOUTHERN** DIVISION
SAMPLE ID LAB :EE-90-70221 MATRIX: WATER
SAMPLE ID CLIENT: P32WFB01

PARAMETER		RESULTS	Q	DET. LIMIT	UNITS
Silver	(ICP)	ND		10	UG/L
Arsenic	(FU)	ND		1.0	UG/L
Barium	(ICP)	ND		10	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
Chromium Total	(ICP)	ND		10	UG/L
Copper	(ICP)	14		10	UG/L
Iron	(ICP)	ND		25	UG/L
Mercury	(Vap)	ND		0.20	UG/L
Hanganese	(ICP)	ND		5.0	UG/L
Sodium	(ICP)	ND		200	UG/L
Nickel	(ICP)	ND		15	UG/L
Lead	(FU)	ND		1.0	UG/L
Antimony	(ICP)	ND		60	UG/L
Selenium	(FU)	ND		1.0	UG/L
Thallium	(FU)	ND		2.0	UG/L
Zinc	(ICP)	ND		10	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WCL 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : CHLORIDE UNITS : MG/L
PARAMETER : 'Chloride

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70221			
P32WFB01	1.7		1.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WS04 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : SULFATE UNITS : MG/L
PARAMETER : Sulfate

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70221			
P32WFB01	ND		2.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WCNCMP1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : CYANIDE-COMPLEX UNITS : MG/L
PARAMETER : CYANIDE-COMPLEX

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70221			
P32WFB01	ND		0.01

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIHATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WPURG 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT .: UH5000 USN SOUTHERN DIVISION
TEST NAME : PURGEABLES UNITS : UG/L
SAMPLE ID LAB : EE-90-70221 MATRIX: WATER
SAMPLE ID CLIENT: P32WFB01

PARAMETER	RESULTS	Q	DET. LIMIT
Chloronethane	ND		lo
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chlorethane	ND		10
Methylene Chloride	13	B	5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
trans-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromoethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	PRESENT	LB	10
Carbon Disulfide	12		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

ECOLOGY & ENVIRONMENT, INC.

A N A L Y T I C A L S E R V I C E S C E N T E R

Results of Additional Required Compounds
by Volatile Organics Analysis .

9000.731

CLIENT : UH5000 USN SOUTHERN DIVISION
SAHPLE ID LAB : EE-90-70221 UNITS : UG/L
SAHPLE ID CLIENT: P32WFB01 MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(chloromethyl) ether	ND		**
Dichlorodifluoromethane	ND		**
1,2-Dichloropropylene	ND		**
Trichlorofluoromethane (1)	ND		10
Trimethyl benzene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
3 = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

** Compound searched for, detection limit not determined due to unavailability of standard.

(1) These compounds are included in the daily calibration standard. Quantitation is based on the standard RF rather than an RF of 1.

TEST CODE :WBNBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL UNITS : UG/L
SMPLE ID LAB : EE-90-70221 MATRIX: WATER
SAMPLE ID CLIENT: P32WFB01

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(2-Chloroethyl)Ether	ND		lo
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
Hexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	13	B	10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	55	B	10
Chrysene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WBNBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-90-70221 MATRIX: WATER
SAHPLE ID CLIENT: P32WFB01

PARAMETER	RESULTS	Q	DET. LIMIT
Di-N-Octyl Phthalate	ND		lo
Benzo(B)Fluoranthene	ND		10
Benzo(K)Fluoranthene	ND		10
Benzo(A)Pyrene	ND		10
Indeno(1,2,3-cd)Pyrene	ND		10
Dibenzo(A,H)Anthracene	ND		10
Benzo(G,H,I)Perlyene	ND		10
Benzyl Alcohol	ND		10
4-Chloroaniline	ND		10
2-Methylnaphthalene	ND		10
2-Nitroaniline	ND		50
3-Nitroaniline	ND		50
Dibenzofuran	ND		10
4-Nitroaniline	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WAPBNA1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : ACID PHENOL UNITS : UG/L
SAMPLE ID LAB : EE-90-70221 MATRIX: WATER
SAMPLE ID CLIENT: P32WFB01

PARAMETER	RESULTS	Q	DET. LIMIT
Phenol	ND		lo
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Methylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Methylphenol	ND		10
4-Methylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COXMENT ND = NOT DETECTED
J = ESTIHATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

ECOLOGY & ENVIRONMENT, INC.

ANALYTIC'AL SERVICES CENTER

Results of Additional Required Compounds
by Semi-Volatile Organics Analysis

9000.731

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB : EE-90- 70221 UNITS : UG/L
SAMPLE ID CLIENT: P32WFB01 MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
1,2-Diphenylhydrazine (2)	ND		50
N-Nitrosodiphenylamide	ND		**
Methyl dihydro indene	ND		**
Eydroxymethyl pentanone	ND		10
Methyl ethyl phenol	ND		**
Dimethyl ethyl phenol	ND		**
Tetramethylbutyl phenol	ND		10
Tetramethyl benzene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

** Compound searched for, detection limit not determined due to unavailability of standard.

(2) Decomposes to azobenzene during gas chromatography, reported as such.

JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
SAHPLE ID LAB :EE-90-70225 MATRIX: WATER
SAHPLE ID CLIENT: P32WPB01

PARAMETER		RESULTS	Q	DET. LIMIT	UNITS
Silver	(ICP)	ND		lo	UG/L
Arsenic	(FU)	ND		1.0	UG/L
Barium	(ICP)	ND		10	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
Chromium Total	(ICP)	ND		10	UG/L
Copper	(ICP)	ND		10	UG/L
Iron	(ICP)	ND		25	UG/L
Mercury	(Vap)	ND		0.20	UG/L
Manganese	(ICP)	ND		5.0	UG/L
Sodium	(ICP)	ND'		200	UG/L
Nickel	(ICP)	ND		15	UG/L
Lead	(FU)	ND		1.0	UG/L
Antimony	(ICP)	ND		60	UG/L
Selenium	(FU)	ND		1.0	UG/L
Thallium	(FU)	ND		2.0	UG/L
Zinc	(ICP)	ND		10	UG/L

QUALIFIERS: C = COHMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WCNCMP1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : CYANIDE-COMPLEX UNITS : MG/L
PARAMETER : CYANIDE-COMPLEX

SAMPLE ID	RESULTS	Q	DET. LIMIT
EE-90-70225			
P32WPB01	ND		0.01

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WPURG 1 JOB NUMBER :9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : PURGEABLES UNITS : UG/L
SAMPLE ID LAB : EE-90-70225 MATRIX: WATER
SAMPLE ID CLIENT: P32WPB01

PARAMETER	RESULTS	Q	DET. LIMIT
Chloromethane	ND		lo
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chlorethane	ND		10
Methylene Chloride	6.0	B	5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
trans-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromoethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	11	B	10
Carbon Disulfide	12		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

ECOLOGY & ENVIRONMENT, INC.

A N A L Y T I C A L S E R V I C E S C E N T E R

Results of Additional Required Compounds
by Volatile Organics Analysis

9000.731

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB : EE-90-70225' UNITS : UG/L
SAMPLE ID CLIENT: P32WPB01 MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(chloromethyl) ether	ND		**
Dichlorodifluoromethane	ND		**
1,2-Dichloropropylene	ND		**
Trichlorofluoromethane (1)	ND		10
Trimethyl benzene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

** Compound searched for, detection limit not determined due to unavailability of standard.

(1) These compounds are included in the daily calibration standard. Quantitation is based on the standard RF rather than an RF of 1.

QUALITY CONTROL FOR PRECISION
RESULTS OF ANALYSIS OF REPLICATE
ANALYSES OF WATER SAMPLES

9000.731

(UG/L)

Parameter	E & E Laboratory No. 90-70220	Original Analysis	Replicate Analysis	Relative Percent Difference (RPD)
Silver		ND	ND	--
Barium		ND	ND	--
Cadmium		ND	ND	--
Chromium		ND	ND	--
Copper		18	16	12
Iron		ND	ND	--
Manganese		ND	ND	--
Sodium		370	ND	--
Nickel		ND	ND	--
Zinc		ND	ND	--
Chloride	70219	200	200	0
Chloride	70223	7600	7300	6.0
Cyanide-Complex	Batch QC	ND	ND	--
Sulfate	70221	ND	ND	--

METALS SECTION JOB NUMBER : 9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
SAMPLE ID LAB : METHOD BLANK MATRIX: WATER

PARAMETER		RESULTS	Q	DET. LIMIT	UNITS
Silver	(ICP)	ND		10	UG/L
Arsenic	(FU)	ND		1.0	UG/L
Barium	(ICP)	ND		10	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
Chromium	(ICP)	ND		10	UG/L
Copper	(ICP)	ND		10	UG/L
Iron	(ICP)	ND		25	UG/L
Mercury	(Vap)	ND		0.20	UG/L
Manganese	(ICP)	ND		5.0	UG/L
Sodium	(ICP)	ND		200	UG/L
Nickel	(ICP)	ND		15	UG/L
Lead	(FU)	ND		1.0	UG/L
Antimony	(ICP)	ND		60	UG/L
Selenium	(FU)	ND		1.0	UG/L
Thallium	(FU)	ND		2.0	UG/L
Zinc	(ICP)	ND		10	UG/L

QUALIFIERS: C = COMXENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

QUALITY CONTROL FOR ACCURACY: PERCENT RECOVERY
FOR SPIKED WATER SAMPLES

9000.731

(UG/L)

Parameter	E & E Laboratory No. 90-70220	Original Value	Amount Added	Amount Determined	Percent Recovery
Silver		ND	50	45.9	92
Barium		ND	2000	2023	101
Cadmium		ND	50	41.0	a4
Chromium		ND	200	200	100
Copper		18	250	254	94
Iron		ND	1000	1041	104
Manganese		ND	500	499	100
Nickel		ND	500	489	98
Zinc		ND	500	494	99
Cyanide-Complex	Batch QC	ND	8.7	8.5	98

QUALITY CONTROL FOR ACCURACY AND PRECISION:
PERCENT RECOVERY AND RELATIVE PERCENT DIFFERENCE (RPD)
OF WATER MATRIX SPIKE (MS) AND MATRIX SPIKE DUPLICATE (MSD)
(Sample # 70224)

9000.731

(ug/L)

Compound	Original Result	Amount Added	Amount Determined MS	Amount Determined MSD	Percent Recovery MS	Percent Recovery MSD	RPD
1,1-Dichloroethene	ND	50	50	51	100	102	2
Trichloroethene	ND	50	56	57	112	114	2
Chlorobenzene	ND	50	55	57	110	114	4
Toluene	ND	50	55	56	110	112	2
Benzene	ND	50	57	57	114.	114	0

These recoveries and RPDs are within E & E, Inc. limits.

QUALITY CONTROL FOR ACCURACY: PERCENT RECOVERY OF SURROGATE SPIKES

9000.731

Compound	E & E Laboratory No. 90-	Amount Added	Amount Determined	Percent Recovery
		(ug/L)		
1,2-dichloroethane-D4	70211	50	61	122 H
	70212	50	53	106
	70213	50	55	110
	70214	50	53	106
	70215	50	56	112
	70216	50	58	116 H
	70217	50	49	98
toluene-D8	70211	50	49	98
	70212	50	46	92
	70213	50	50	100
	70214	50	51	102
	70215	50	53	106
	70216	50	50	100
	70217	50	44	88
4-bromofluorobenzene	70211	50	49	98
	70212	50	42	84
	70213	50	44	88
	70214	50	48	96
	70215	50	51	102
	70216	50	45	90
	70217	50	46	92

With the exception of those recoveries flagged with an "H", these recoveries are acceptable to E & E, Inc. guidelines.

QUALITY CONTROL FOR ACCURACY: PERCENT RECOVERY OF SURROGATE SPIKES

9000.731

Compound	E & E Laboratory No. 90-	Amount Added	Amount Determined	Percent Recovery
		(ug/L)		
1,2-dichloroethane-D4	70218	50	62	124 H
	70219	50	60	120 H
	70220	50	53	106
	70221	50	47	94
	70222	50	50	100
	70223	50	54	108
toluene-D8	70218	50	51	102
	70219	50	52	104
	70220	50	53	106
	70221	50	47	94
	70222	50	53	106
	70223	50	52	104
4-bromofluorobenzene	70218	50	43	86
	70219	50	44	88
	70220	50	51	102
	70221	50	43	86
	70222	50	49	98
	70223	50	54	108

With the exception of those recoveries flagged with an "H", these recoveries are acceptable to E & E, Inc. guidelines.

QUALITY CONTROL FOR ACCURACY: PERCENT RECOVERY OF SURROGATE SPIKES

9000.731

Compound	E & E Laboratory No. 90-	Amount Added	Amount Determined	Percent Recovery
		(ug/L)		
1,2-dichloroethane-D4	70224	50	54	108
	70225	50	50	100
	70226	50	48	96
	Blank 1	50	53	106
	Blank 2	50	52	104
	Blank 3	50	50	100
	Blank 4	50	51	102
toluene-D8	70224	50	53	106
	70225	50	50	100
	70226	50	52	104
	Blank 1	50	53	106
	Blank 2	50	54	108
	Blank 3	50	47	94
	Blank 4	50	52	104
4-bromofluorobenzene	70224	50	50	100
	70225	50	47	94
	70226	50	48	96
	Blank 1	50	48	96
	Blank 2	50	45	90
	Blank 3	50	45	90
	Blank 4	50	48	96

These recoveries are acceptable to E & E, Inc. guidelines.

TEST CODE :WPURG 1 JOB NUMBER : 9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : PURGEABLES UNITS : UG/L
SAMPLE ID LAB : METHOD BLANK 1 MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
Chloromethane	ND		lo
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chlorethane	ND		10
Hethylene Chloride	11		5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
trans-1.2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromoethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	43		10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WPURG 1 JOB NUMBER : 9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : PURGEABLES UNITS : UG/L
SAMPLE ID LAB : METHOD BLANK 2 MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
Chloromethane	ND		lo
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chlorethane	ND		10
Methylene Chloride	PRESENT	L	5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
trans-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromoethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	40		10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WPURG 1 JOB NUMBER : 9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAHE : PURGEABLES UNITS : UG/L
SAMPLE ID LAB : METHOD BLANK 3 MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
Chloromethane	ND		10
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chlorethane	ND		10
Hethylene Chloride	PRESENT	L	5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
trans-1,Z-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromoethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	21		10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WPURG 1 JOB NUMBER : 9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : PURGEABLES UNITS : UG/L
SAMPLE ID LAB : METEOD BLANK 4 MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
Chloromethane	ND		10
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chlorethane	ND		10
Methylene Chloride	12		5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
trans-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibtomoethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	30		10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Eexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

. QUALITY CONTROL FOR ACCURACY:
PERCENT RECOVERY OF WATER MATRIX SPIKE
(Sample # 70213)

9000.731

(ug)

Compound	Original Result	Amount Added	Amount Determined	Percent Recovery	E&E QC Limits
1,2,4-Trichlorobenzene	ND	100	29	29	6 - 101
Acenaphthene	ND	100	51	51	27 - 116
2,4-Dinitrotoluene	ND	100	58	58	22 - 129
Pyrene	ND	100	76	76	29 - 157
N-Nitrosodi-n-propylamine	ND	100	32	32	22 - 114
1,4-Dichlorobenzene	ND	100	26	26	5 - 92
Pentachlorophenol	ND	200	113	57	0 - 136
Phenol	ND	200	34	17	1 - 81
2-Chlorophenol	ND	200	79	38	15 - 121
4-Chloro-3-methylphenol	ND	200	117	59	29 - 119
4-Nitrophenol	ND	200	36	18	0 - 109

QUALITY CONTROL FOR ACCURACY:
PERCENT RECOVERY OF WATER MATRIX SPIKE
(Sample # 70222)

9000.731

(ug)

Compound	Original Result	Amount Added	Amount Determined	Percent Recovery	ESE QC Limits
1,2,4-Trichlorobenzene	ND	100	58	58	6 - 101
Acenaphthene	ND	100	84	84	27 - 116
2,4-Dinitrotoluene	ND	100	79	79	22 - 129
Pyrene	ND	100	97	97	29 - 157
N-Nitrosodi-n-propylamine	ND	100	81	81	22 - 114
1,4-Dichlorobenzene	ND	100	57	57	5 - 92
Pentachlorophenol	ND	200	107	54	0 - 136
Phenol	ND	200	71	36	1 - 81
2-Chlorophenol	ND	200	148	74	15 - 121
4-Chloro-3-methylphenol	ND	200	169	85	29 - 119
4-Nitrophenol	ND	200	62	31	0 - 109

QUALITY CONTROL FOR ACCURACY: PERCENT RECOVERY OF SURROGATE SPIKES

9000.731

Compound	E & E Laboratory No. 90-	Amount Added	Amount Determined	Percent Recovery
		(ug)		
2-fluorophenol	70211	200	54	27
	70212	200	47	24
	70213	200	62	31
	70214	200	62	31
	70215	200	83	42
	70216	200	81	41
	70217	200	73	37
	70218	200	85	43
	70219	200'	79	40
	70220	200	57	29
phenol-D5	70211	200	38	19
	70212	200	31	16
	70213	200	42	21
	70214	200	47	24
	70215	200	60	30
	70216	200	59	30
	70217	200	52	26
	70218	200	60	30
	70219	200	56	28
	70220	200	33	17
2,4,6-tribromophenol	70211	200	118	59
	70212	200	98	49
	70213	200	130	65
	70214	200	159	80
	70215	200	155	78
	70216	200	141	71
	70217	200	145	73
	70218	200	150	75
	70219	200	142	71
	70220	200	122	61

These recoveries are acceptable to E & E, Inc. guidelines.

QUALITY CONTROL FOR ACCURACY: PERCENT RECOVERY OF SURROGATE SPIKES.

9000.731

Compound	E & E Laboratory No. 90-	Amount Added	Amount Determined	Percent Recovery
		(ug)		
2-fluorophenol	70221	200	60	30
	70222	200	81	41
	70223	200	29	15
	70224	200	97	49
	Blank 1	200	73	37
	Blank 2	200	97	49
phenol-D5	70221	200	41	21
	70222	200	57	29
	70223	200	23	12
	70224	200	47	24
	Blank 1	200	47	24
	Blank 2	200	69	35
2,4,6-tribromophenol	70221	200	115	58
	70222	200	148	74
	70223	200	68	34
	70224	200	213	107
	Blank 1	200	126	63
	Blank 2	200	170	85

These recoveries are acceptable to E & E, Inc. guidelines.

QUALITY CONTROL FOR ACCURACY: PERCENT RECOVERY OF SURROGATE SPIKES

9000.731

Compound	E & E Laboratory No. 90-	Amount Added	Amount Determined	Percent Recovery
		(ug)		
nitrobenzene-D5	70211	100	61	61
	70212	100	55	55
	70213	100	57	57
	70214	100	70	70
	70215	100	63	63
	70216	100	76	76
	70217	100	72	72
	70218	100	79	79
	70219	100	74	74
	70220	100	44	44
2-fluorobiphenyl	70211	100	61	61
	70212	100	61	61
	70213	100	68	68
	70214	100	78	78
	70215	100	67	67
	70216	100	76	76
	70217	100	77	77
	70218	100	77	77
	70219	100	73	73
	70220	100	64	64
terphenyl-D14	70211	100	75	75
	70212	100	80	80
	70213	100	127	127
	70214	100	94	94
	70215	100	87	87
	70216	100	104	104
	70217	100	117	117
	70218	100	93	93
	70219	100	115	115
	70220	100	118	118

These recoveries are acceptable to E & E, Inc. guidelines.

QUALITY CONTROL FOR ACCURACY: PERCENT RECOVERY OF SURROGATE SPIKES

9000.731

Compound	E & E Laboratory No. 90-	Amount Added	Amount Determined	Percent Recovery
		(ug)		
nitrobenzene-D5	70221	100	53	53
	70222	100	81	81
	70223	100	59	59
	70224	100	86	86
	Blank 1	100	46	46
	Blank 2	100	85	85
2-fluorobiphenyl	70221	100	61	61
	70222	100	79	79
	70223	100	65	65
	70224	100	96	96
	Blank 1	100	63	63
	Blank 2	100	83	83
terphenyl-D14	70221	100	122	122
	70222	100	86	86
	70223	100	98	98
	70224	100	102	102
	Blank 1	100	115	115
	Blank 2	100	127	127

These recoveries are acceptable to E & E, Inc. guidelines.

TEST CODE :WBNBNA1 JOB NUMBER : 9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL % BNA UNITS : UG/L
SAMPLE ID LAB : METHOD BLANK 1 MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIHIT
Bis(2-Chloroethyl)Ether	ND		lo
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
Hexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	PRESENT	L	10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	22		10
Chrysene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WBNBNA1 JOB NUMBER : 9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL % BNA UNITS : UG/L
SAMPLE ID LAB : METHOD BLANK 1 MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
Di-N-Octyl Phthalate	ND		lo
Benzo(B)Fluoranthene	ND		10
Benzo(K)Fluoranthene	ND		10
Benzo(A)Pyrene	ND		10
Indeno(1,2,3-cd)Pyrene	ND		10
Dibenzo(A,H)Anthracene	ND		10
Benzo(G,H,I)Perlyene	ND		10
Benzyl Alcohol	ND		10
4-Chloroaniline	ND		10
2-Methylnaphthalene	ND		10
2-Nitroaniline	ND		50
3-Nitroaniline	ND		50
Dibenzofuran	ND		10
4-Nitroaniline	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIHATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WAPBNA1 JOB NUMBER : 9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : ACID PHENOL % BNA UNITS : UG/L
SAMPLE ID LAB : METHOD BLANK 1 MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
Phenol	ND		lo
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Methylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Methylphenol	ND		10
4-Methylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WBNBNA1 JOB NUMBER : 9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL % BNA UNITS : UG/L
SAMPLE ID LAB : METHOD BLANK 2 MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(2-Chloroethyl)Ether	ND		lo
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Eexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
Hexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	N D		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	PRESENT	L	10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	PRESENT	L	10
Chrysene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
3 = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WBNBNA1 JOB NUMBER : 9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAUE : BASE NEUTRAL % BNA UNITS : UG/L
SAUPLE ID LAB : METHOD BLANK 2 MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
Di-N-Octyl Phthalate	ND		lo
Benzo(B)Fluoranthene	ND		10
Benzo(K)Fluoranthene	ND		10
Benzo(A)Pyrene	ND		10
Indeno(1,2,3-cd)Pyrene	ND		10
Dibenzo(A,H)Anthracene	ND		10
Benzo(G,H,I)Perlyene	ND		10
Benzyl Alcohol	ND		10
4-Chloroaniline	ND		10
2-Methylnaphthalene	ND		10
2-Nitroaniline	ND		50
3-Nitroaniline	ND		50
Dibenzofuran	ND		10
4-Nitroaniline	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WAPBNA1 JOB NUMBER : 9000.731

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : ACID PHENOL % BNA UNITS : UG/L
SAMPLE ID LAB : METHOD BLANK 2 MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
Phenol	ND		lo
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Methylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Methylphenol	ND		10
4-Methylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

QUALITY CONTROL FOR ACCURACY AND PRECISION:
PERCENT RECOVERY AND RELATIVE PERCENT DIFFERENCE (RPD)
OF WATER MATRIX SPIKE (US) AND MATRIX SPIKE DUPLICATE (MSD)
(Sample # 70489)

9000.745

(ug/L)

Compound	Original Result	Amount Added	Amount Determined US	Amount Determined USD	Percent Recovery US	Percent Recovery USD	RPD
1,1-Dichloroethene	ND	50	48	50	96	100	4
Trichloroethene	ND	50	53	53	106	106	0
Chlorobenzene	150	50	42	40	84	80	5
Toluene	ND	50	59	57	118	114	3
Benzene	ND	50	59	59	118	118	0

These recoveries and RPDs are within E & E, Inc. limits.

QUALITY CONTROL FOR ACCURACY: PERCENT RECOVERY OF SURROGATE SPIKES

9000.745

Compound	E & E Laboratory No. 90-	Amount Added	Amount Determined	Percent Recovery
		(ug/L)		
1,2-dichloroethane-D4	70484	50	55	110
	70485	50	56	112
	70486	50	50	100
	70487	50	52	104
	70488	50	51	102
	70489	50	48	96
	70490	50	51	102
	70491	50	51	102
toluene-D8	70484	50	51	102
	70485	50	51	102
	70486	50	52	104
	70487	50	52	104
	70488	50	53	106
	70489	50	48	96
	70490	50	52	104
	70491	50	51	102
4-bromofluorobenzene	70484	50	47	94
	70485	50	48	96
	70486	50	46	92
	70487	50	48	96
	70488	50	47	94
	70489	50	44	88
	70490	50	47	94
	70491	50	47	94

These recoveries are acceptable to E & E, Inc. guidelines.

TEST CODE :WPURG 1 JOB NUMBER : 9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : PURGEABLES UNITS : UG/L
SAMPLE ID LAB : METHOD BLANK 1 MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIHIT
Chloromethane	ND		10
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chlorethane	ND		10
Methylene Chloride	10		5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
trans-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichlorornethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromoethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	26		10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Eexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WPURG 1 JOB NUMBER : 9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : 'PURGEABLES UNITS : UG/L
SAMPLE ID LAB : METHOD BLANK 2 MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
Chloromethane	ND		10
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chlorethane	ND		10
Methylene Chloride	6.0		5.0
1,1-Dichloroethene	ND		5.0
1,l-Dichloroethane	ND		5.0
trans-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Broaodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromoethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	44		10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Eexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT. ND = NOT DETECTED
J = ESTIHATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

QUALITY CONTROL FOR ACCURACY: PERCENT RECOVERY OF SURROGATE SPIKES

9000.745

Compound	E & E Laboratory No. 90-	Amount Added	Amount Determined	Percent Recovery
		(ug)		
nitrobenzene-D5	70484	100	76	76
	70485	100	57	57
	70486	100	47	47
	70487	100	28	28
	70488	100	53	53
	70489	100	27	27
	Blank 1	100	37	37
2-fluorobiphenyl	70484	100	74	74
	70485	100	65	65
	70486	100	53	53
	70487	100	31	31
	70488	100	61	61
	70489	100	37	37
	Blank 1	100	54	54
terphenyl-D14	70484	100	103	103
	70485	100	106	106
	70486	100	92	92
	70487	100	91	91
	70488	100	126	126
	70489	100	96	96
	Blank 1	100	136	136

These recoveries are acceptable to E & E, Inc. guidelines.

QUALITY CONTROL FOR ACCURACY: PERCENT RECOVERY OF SURROGATE SPIKES

9000.745

Compound	E & E Laboratory No. 90-	Amount Added	Amount Determined	Percent Recovery
		(ug)		
2-fluorophenol	70484	200	74	37
	70485	200	74	37
	70486	200	77	38
	70487	200	68	34
	70488	200	93	46
	70489	200	72	36
	Blank 1	200	44	22
phenol-D5	70484	200	52	26
	70485	200	56	28
	70486	200	58	29
	70487	200	50	25
	70488	200	68	34
	70489	200	52	26
	Blank 1	200	31	16
2,4,6-tribromophenol	70484	200	187	94
	70485	200	148	74
	70486	200	161	80
	70487	200	168	84
	70488	200	183	92
	70489	200	164	82
	Blank 1	200	116	58

These recoveries are acceptable to E & E, Inc. guidelines.

TEST CODE :WBNBNA1 JOB NUMBER : 9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL % BNA UNITS : UG/L
SAMPLE ID LAB : METHOD BLANK MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIMIT
Bis(2-Chloroethyl)Ether	ND		lo
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
Hexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	PRESENT	L	10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	25		10
Chrysene	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :WBNBNA1 JOB NUMBER : 9000.745

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH5000 USN SOUTHERN DIVISION
TEST NAME : BASE NEUTRAL % BNA UNITS : UG/L
SAMPLE ID LAB : METHOD BLANK MATRIX: WATER

PARAMETER	RESULTS	Q	DET. LIHIT
Di-N-Octyl Phthalate	ND		lo
Benzo(B)Fluoranthene	ND		10
Benzo(K)Fluoranthene	ND		10
Benzo(A)Pyrene	ND		10
Indeno(1,2,3-cd)Pyrene	ND		10
Dibenzo(A,H)Anthracene	ND		10
Benzo(G,H,I)Perlyene	ND		10
Benzyl Alcohol	ND		10
4-Chloroaniline	ND		10
2-Methylnaphthalene	ND		10
2-Nitroaniline	ND		50
3-Nitroaniline	ND		50
Dibenzofuran	ND		10
4-Nitroaniline	ND		50

QUALIFIERS: C = COHHENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

QUALITY CONTROL FOR PRECISION
RESULTS OF ANALYSIS OF REPLICATE
ANALYSES OF WATER SAHPLES

9000.745

(UG/L)

Parameter	E C B Laboratory No. 90-70490	Original Analysis	Replicate Analysis	Relative Percent Difference (RPD)
Silver		ND	ND	--
Barium		ND	ND	--
Cadmium		ND	ND	--
Chromium		ND	ND	--
Cobalt		ND	ND	--
Copper		ND	73	--
Iron		ND	ND	--
Manganese		ND	ND	--
Sodium		380	400	5.1
Nickel		ND	ND	--
Lead		ND	ND	--
Antimony		ND	ND	--
Tin		ND	ND	--
Vanadium		ND	ND	--
Zinc		ND	53	--

QUALITY CONTROL FOR ACCURACY: PERCENT RECOVERY
FOR SPIKED WATER SAMPLES

9000.745

(UG/L)

Parameter	E & E Laboratory No. 90-70490	Original Value	Amount Added	Amount Determined	Percent Recovery
Silver		ND	50	43.7	87
Barium		ND	2000	1885	94
Cadmium		ND	50	43.9	88
Chromium		ND	200	175	87
Cobalt		ND	500	465	93
Copper		ND	250	239	95
Iron		ND	1000	922	92
Manganese		ND	500	466	93
Nickel		ND	500	461	92
Lead		ND	500	444	89
Antimony		ND	500	452	90
Vanadium		ND	500	491	98
Zinc		ND	500	508	102

03/30/9[illegible].45

blank	rep	1	SB	em	74.5	
	rep	1	PB	em	137.1	
	rep	1	SN	em	34.6	
	rep	1	ZN	em	60.4	
	rep	1	CD	em	28.2	
	rep	1	CO	em	57.1	
	rep	1	NI	em	158.7	
	rep	1	MN	em	-1.7	
	rep	1	FE	em	21.3	
	rep	1	CR	em	184.3	
	rep	1	VZ	em	61.2	
	rep	1	BE	em	10.5	window edge
	rep	1	CA	em	0.2	
	rep	1	CU	em	204.4	
	rep	1	AG	em	327.0	
	rep	1	MG	em	1.3	
	rep	1	AL	em	11.2	
	rep	1	BA	em	33.5	
	rep	1	NA	em	451.6	
	rep	1	KZ	em	37.5	
	rep	2	SB	em	95.0	
	rep	2	PB	em	180.2	
	rep	2	SN	em	16.0	
	rep	2	ZN	em	44.2	
	rep	2	CD	em	13.1	
	rep	2	CO	em	59.5	
	rep	2	NI	em	77.8	
	rep	2	MN	em	20.9	
	rep	2	FE	em	-1.2	
	rep	2	CR	em	70.6	
	rep	2	VZ	em	71.9	
	rep	2	BE	em	27.1	
	rep	2	CA	em	0.4	
	rep	2	CU	em	85.8	
	rep	2	AG	em	-0.7	
	rep	2	MG	em	0.2	window edge
	rep	2	AL	em	2.4	
	rep	2	BA	em	17.5	
	rep	2	NA	em	392.1	
	rep	2	KZ	em	44.2	

blank
03/30/90 15.51

SB	av	84.77	sd	14.541	%cv	17.15
PB	av	158.66	sd	30.498	%cv	19.22
SN	av	35.33	sd	13.141	%cv	51.88
ZN	av	52.30	sd	11.476	%cv	21.94
CD	av	20.66	sd	10.687	%cv	51.72
CO	av	58.29	sd	1.686	%cv	2.89
NI	av	118.28	sd	57.215	%cv	48.37
MN	av	9.58	sd	15.972	%cv	165.94
FE	av	10.02	sd	15.902	%cv	158.72
CR	av	127.46	sd	80.431	%cv	63.10
VZ	av	66.54	sd	7.564	%cv	11.37
BE	av	18.78	sd	11.737	%cv	62.51
CA	av	0.31	sd	0.154	%cv	50.39
CU	av	145.57	sd	83.137	%cv	57.11
AG	av	163.15	sd	231.696	%cv	142.01
MG	av	0.77	sd	0.763	%cv	99.01
AL	av	6.80	sd	6.224	%cv	91.50

BA	av	25.51	sd	11.287	%cv	44.24	
NA	av	421.86	sd	42.072	%cv	9.97	
KZ	av	40.86	sd	4.741	%cv	11.60	

03/30/90 15 5

standard	rep	1	ZN	em	14656.8	conc	1000.00
	rep	1	CD	em	9830.9	conc	1000.00
	rep	1	CO	em	15449.7	conc	1000.00
	rep	1	NI	em	10742.2	conc	1000.00
	rep	1	MN	em	12652.3	conc	1000.00
	rep	1	FE	em	2534.1	conc	1.0000
	rep	1	CR	em	14468.2	conc	1000.00
	rep	1	VZ	em	16634.1	conc	1000.00
	rep	1	BE	em	15596.7	conc	1000.00
	rep	1	CU	em	16322.8	conc	1000.00
	rep	1	AG	em	24647.4	conc	1000.00
	rep	1	AL	em	171.6	conc	1.0000
	rep	1	BA	em	23412.6	conc	1000.00
	rep	2	ZN	em	15007.5	conc	1000.00
	rep	2	CD	em	9913.1	conc	1000.00
	rep	2	CO	em	15672.1	conc	1000.00
	rep	2	NI	em	10721.3	conc	1000.00
	rep	2	MN	em	12772.4	conc	1000.00
	rep	2	FE	em	2522.3	conc	1.0000
	rep	2	CR	em	14424.1	conc	1000.00
	rep	2	VZ	em	16139.5	conc	1000.00
	rep	2	BE	em	15594.1	conc	1000.00
	rep	2	CU	em	16494.1	conc	1000.00
	rep	2	AG	em	24368.5	conc	1000.00
	rep	2	AL	em	168.1	conc	1.0000
	rep	2	BA	em	23831.4	conc	1000.00

standard
03/30/90 16 1

ZN	av	14832.14	sd	248.013	%cv	1.67	conc 1000.00
CD	av	9872.01	sd	58.131	%cv	0.59	conc 1000.00
CO	av	15560.90	sd	157.210	%cv	1.01	conc 1000.00
NI	av	10731.71	sd	14.782	%cv	0.14	conc 1000.00
MN	av	12712.35	sd	84.989	%cv	0.67	conc 1000.00
FE	av	2528.2200	sd	8.37186	%cv	0.33	conc 1.0000
CR	av	14446.17	sd	31.155	%cv	0.22	conc 1000.00
VZ	av	16386.79	sd	349.604	%cv	2.13	conc 1000.00
BE	av	15595.40	sd	1.884	%cv	0.01	conc 1000.00
CU	av	16408.47	sd	121.133	%cv	0.74	conc 1000.00
AG	av	24507.96	sd	197.216	%cv	0.80	conc 1000.00
AL	av	169.9857	sd	2.47344	%cv	1.46	conc 1.0000
BA	av	23647.03	sd	331.500	%cv	1.40	conc 1000.00

03/30/90 16 04

1000 PPB	rep	1	ZN	conc	1006.54	ug/L
	rep	1	CD	conc	970.29	ug/L
	rep	1	CO	conc	999.73	ug/L
	rep	1	NI	conc	1021.60	ug/L
	rep	1	MN	conc	1008.08	ug/L
	rep	1	FE	conc	0.9961	mg/L
	rep	1	CR	conc	1000.37	ug/L
	rep	1	VZ	conc	972.91	ug/L
	rep	1	BE	conc	1023.15	ug/L
	rep	1	CU	conc	975.53	ug/L
	rep	1	AG	conc	987.27	ug/L
	rep	1	AL	conc	1.0029	mg/L

```
                rep   1  BA          conc     924 44 ug/L
                rep   2  ZN          conc     987.14 ug/L
                rep   2  CD          conc     990 89 ug/L
                rep   2  CO          conc     985 18 ug/L
                rep   2  NI          conc     004.21 ug/L
                rep   2  MN          conc     001.25 ug/L
                rep   2  FE          cunc     0 9994 mg/L
                rep   2  CR          conc     000 84 ug/L
                rep   2  VZ          conc     974 37 ug/L
                rep   2  LIE         conc     989.69 ug/L
                rep   2  CU          conc    1002.78 ug/L
                rep   2  AG          conc     980 92 uylL
                rep   2  AL          cunc     0.9909 mg/L
100             rep   2  BA          conc    1003.58 ug/L
0000 PPE
03130190 io 09
    ZN          av     996.84 ug/L          sd     13 716 %cv    1.38
    CD          av     980.59 ug/L          sd     14.564 %cv    1.49
    CO          av     992.45 uylL          sd     10.283 %cv    1.04
    NI          av    1012.91 ug/L          sd     12.300 %cv    1 21
    MN          av    1004.67 ug/L          sd      9.827 Ycv    0.48
    FE          av     0.9971 mg/L          sd   0.00233 %cv    0.23
    CR          av    1000.61 uylL          sd      0.331 %cv    0.03
    VZ          av     973.64 ug/L          sd      1.032 %cv    0.11
    BE          av    1006.42 ug/L          sd     23.659 %cv    2.35
    CU          av     999.16 ug/L          sd      5.122 %cv    0.51
    AG          av     984.09 ug/L          sd      4.485 %cv    0.46
    AL          av     0.9969 mg/L          sd   0.00344 %cv    0.85
3BA90 14.       av     999 01 ug/L          sd      6.461 %cv    0.65

            16
standard        rep   1  SB          em       3348.6 conc 2000.00
                rep   1  PB          am       8263.5 conc 2000 00
                rep   2  SB          em       3356 8 conc 2000.00
                rep   2  PB          em       8035 1 conc 2000 00
standard
03/30/90 16 .7
    SB          av    3352.70               sd      5.802 %cv    0 17 conc 2000 00
    PB          av    8149.29               sd    161.475 %cv    1.98 conc 2000.00

03/30/90 16 18
2000 PPB        rep   1  SB          conc    2039.59 ug/L
                rep   1  PB          conc    2021.34 ug/L
                rep   2  SB          conc    1957 20 uylL
                rep   2  PB          conc    2011.73 ug/L
2000 PPB
03/30/90 16.19
    SB          av    1998 40 ug/L          sd     58 260 %cv    2.92
    PB          av    2016.54 ug/L          sd      6 808 %cv    0 34

03/30/90 16 20
standard        rep   1  CA          em       1447 6 conc 100 000
                rep   1  MG          em       2153.0 conc 100 000
                rep   1  NA          em      79198 1 conc 100.000
                rep   1  KZ          am       2058 9 conc 100 000
                rep   2  CA          em       1464 1 conc 100 000
                rep   2  MG          am       2146 0 conc 100 000
                rep   2  NA          em      78903 7 crnc 100 000
                rep   2  KZ          em       2046 5 conc 100 000
standard
```

```
03/30/90 [illegible] 21
    CA          av  1455 830            sd    11.7032 %cv   0 80 conc 100 000
    MG          av  2149.528            sd     4 9413 %cv   U 23 con.: 100 000
    NA          av 79050.914            sd   208 2208 %cv   0.26 conc 100 000
    KZ          av  9052.444            sd     8.4570 %cv   0 09 conc 100 000

03/30/90 16 23
100 PPM         rep   1  CA        cone     99 457 mg/L
                rep   1  MG        conc     99 335 mg/L
                rep   1  NA        conc    100 277 mg/L
                rep   1  n2        conc     99.344 mg/L
                rep   3  CA        conc     98.649 mg/L
                rep   2  MG        conc     99 473 mg/L
                rep   2  NA        conc    100 147 mg/L
                rep   2  KZ        aonc     99.938 mg/L
100 PPM
03/30/90 16 24
    CA          av    99 053 mg/L       sd     0 5[illegible]13 %cv   0.58
    MG          av    99.404 mg/L       sd     0.0973 %cv   0 10
    NA          av   100.212 mg/L       sd     0 0916 %cv   0.09
    KZ          av    99.641 mg/L       sd     0 4206 %cv   0.42

03/30190 16 28
standard        rep   1  SN        en       9074.5 conc 10000.0
                rep   2  SN        em       8778.1 conc 10000.0
standard
03/30/90 16 28
    SN          av    8926 3            sd     209.58 %cv   2.35 conc 10000.0

03/30/90 16.29
10.0 PPM        rep   1  SN        conc     9900.8 ug/L
                rep   2  SN        conc     9788.8 ug/L
10.0 PPM
03/30/90 16.29
    SN          av    9844.8 ug/L       sd      79.20 %cv   0.80

03/30/90 16.31
CCVS            rep      SB        conc    1007 19 ug/L
                rep   1  PB        conc     980.67 ug/L
                rep   1  SN        conc      974.3 ug/L
                rep   1  ZN        conc     511.7: ug/L
                rep   1  CD        cone     486.54 ug/L
                rep   I  CO        cone     479.33 ug/L
                rep   1  NI        cone     494.30 ug/L
                rep      MN        conc     507 54 ug/L
                rep   1  FE        conc     0 4915 mg/L
                rep   1  CR        cone     49: 53 ug/L
                rep   1  VZ        conc     537.47 ug/L
                rep   I  BE        conc     509.10 ug/L
                rep   I  CA        conc     20.619 mg/L
                rep   I  CU        conc     437.24 ug/L
                rep   1  AG        conc     489 00 ug/L
                rep   1  MC        conc     20.590 mg/L
                rep   1  AL        conc     0 5125 mg/L
                rep      BA        conc     502 63 ug/L
                rep      NA        conc     21.163 mg/L
                rep   1  KZ        conc     19 818 mg/L
                rep   2  SB        conc    1037.56 ug/L
                rep   2  PB        conc    1022 47 ug/L
                rep   2  SN        conc     1051.0 ug/L
```

rep	2	ZN	conc	504 23	ug/L
rep	2	CD	conc	486 53	ug/L
rep	2	CO	conc	494 90	ug/L
rep	2	NI	conc	503.56	ug/L
rep	2	MN	conc	500 3:	ug/L
rep	2	FE	conc	0.4961	mg/L
rep	2	CR	conc	496 15	ug/L
rep	3	VZ	conc	535 30	ug/L
rep	2	BE	conc	191.21	ug/L
rep	2	CA	conc	20.608	mg/L
rep	2	CU	conc	199.26	ug/L
rep	2	AG	conc	490.73	uqlL
rep	2	MG	conc	21 041	mg/L
rep	2	AL	conc	0 4450	mg/L
rep	2	BA	conc	508.90	ug/L
rep	2	NA	conc	21 511	mg/L
rep	a	XZ	conc	20.385	mg/L

ccvs
03/30/90 15.37

SB	av	1022.37	ug/L	sd	21.474	%cv 2.10
PB	av	1001.57	ug/L	sd	29.552	%cv 2.95
SN	av	1012.7	ug/L	sd	54.19	%cv 5.35
ZN	av	507.97	ug/L	sd	5.289	%cv I 04
CD	av	483.54	ug/L	sd	4.248	%cv 0.88
CO	av	487.12	ug/L	sd	11.011	%cv 2 26
NI	av	498.93	ug/L	sd	6.544	%cv 1 31
MN	av	503.93	uqlL	sd	5.110	wcv 1 01
FE	av	0.4938	mg/L	sd	0.00324	%cv 0.66
CR	av	493.84	ug/L	sd	3.270	%cv 0 66
VZ	av	536 39	ug/L	sd	1.538	%cv 0.29
BE	av	503 IS	ug/L	sd	8.410	Acv 1 67
CA	av	26 613	mg/L	sd	0 0083	%cv 0.04
CU	av	493.25	ug/L	sd	8.497	%cv 1 72
AG	av	189.86	ug/L	sd	1.124	%cv 0.25
MG	av	20.815	mg/L	sd	0 3195	%cv 1 53
AL	av	0 4788	mg/L	sd	0.04778	%cv 9 ?E
BA	av	505.77	ug/L	sd	4.427	%cv 0 88
NA	av	21 337	mg/L	sd	0 2464	%cv 1.15
XZ	av	20.102	mg/L	sd	0.4008	wcv 1.99

45

rep	1	SB	conc	8.96	ug/L	
rep	1	PB	conc	-18.75	ug/L	
rep	1	SN	conc	4.1	ug/L	
rep	1	ZN	conc	0 07	ug/L	
rep	1	CD	conc	-0.21	ug/L	
rep	1	CO	conc	2 19	ug/L	
rep	1	NI	conc	-24.66	ug/L	
rep	1	MN	conc	0.73	ug/L	
rep	1	FE	conc	0.0028	mg/L	
rep	1	CR	conc	-14.17	ug/L	
rep	1	VZ	conc	2 34	ug/L	
rep	1	BE	conc	0.74	ug/L	
rep	1	CA	conc	-0 002	mg/L	window edge
rep	1	CU	conc	0.03	ug/L	
rep	1	AG	conc	0.40	ug/L	
rep	1	MG	conc	-0.032	mg/L	
rep	1	AL	conc	-0 0423	mg/L	
rep	1	BA	conc	-0 47	ug/L	
rep	1	NA	conc	-0.167	mg/L	

	rep	1	XZ	conc	-0 092	mg/L	
	rep	2	SB	conc	28 55	ug/L	
	rep	2	PB	conc	-28 65	ug/L	
	rep	2	SN	conc	4.4	ug/L	
	rep	2	ZN	conc	-0 84	ug/L	window edge
	rep	2	CD	conc	0 59	ug/L	
	rep	2	CO	conc	3.01	ugIL	
	rep	2	NI	conc	-10.86	ug/L	
	rep	5	FIN	conc	-0 76	ug/L	window edge
	rep	2	FE	conc	0.0105	mg/L	
	rep	2	CR	conc	-3 30	ug/L	
	rep	2	VZ	conc	-0.50	ug/L	
	rep	2	BE	conc	0 40	ug/L	
	rep	2	CA	conc	-0.012	mg/L	window edge
	rep	2	CU	cone	-6 0V	ug/L	
	rep	2	AG	cone	-5.35	ug/L	
	rep	2	MG	conc	-0 088	mg/L	window edge
	rep	2	AL	conc	-0.0685	mg/L	window edge
	rep	2	BA	conc	0 22	ug/L	
	rep	2	NA	conc	-0 221	mu/L	
CAL	rep	2	KZ	ccnc	0 089	mg/L	

03/ BLK

.30190 14 51

SB	av	18.76	ug/L	sd	13.848	%cv	7.83
PB	av	-23.70	ug/L	sd	7 002	lbcv	29 54
SN	av	4 2	ug/L	sd	0 22	ncv	5.22
ZN	av	-0.39	ugIL	sd	0 642	%cv	166 95
CD	av	0 19	ugIL	sd	0.561	%cv	296.83
CO	av	2.60	ug/L	sd	0.584	Kcv	22 47
NI	av	-17 76	ug/L	rd	9.755	Kcv	54.92
MN	av	-0.02	ugIL	rd	1.056	Kcv	6040 6
FE	av	0.0066	mg/L	sd	0.00544	Ecv	81.85
CR	av	-8.74	ug/L	rd	7 680	%cv	87.92
VZ	av	0.92	ug/L	sd	2.009	%cv	218.88
BE	av	0 67	ug/L	sd	0.100	%cv	14.95
CA	av	-0 009	mg/L	sd	0.0047	%cv	52.86
CU	av	-3 03	ug/L	rd	4.333	%cv	142 98
AG	av	-1 97	ug/L	sd	3.364	Kcv	170 43
MG	av	-0.060	mg/L	sd	0 0378	%cv	66 64
AL	av	-0 0569	mg/L	sd	0.01638	%cv	28.78
BA	av	-0.13	ug/L	sd	0.494	%cv	3P3 20
NA	av	-0.194	mg/L	sd	0 0376	kcv	19.38
03/ 3EZ90	av	-0 001	mg/L	sd	0 1283	%cv	7038.6

16 58

LCSAB	rep	1	SB	conc	1049 03	ug/L	
	rep	1	PB	conc	1075 30	ug/L	
	rep	1	SN	conc	14 8	ug/L	
	rep	1	ZN	conc	993 45	ug/L	
	rep	1	CD	conc	982 52	ug/L	
	rep	I	CO	conc	977 23	ug/L	
	rep	I	NI	conc	973 39	ug/L	
	rep	1	MN	conc	1005 67	ug/L	
	rep	1	FE	conc	0 9454	mg/L	
	rep	1	CR	conc	938 37	ug/L	
	rep	1	VZ	conc	1011 51	ug/L	
	rep	1	BE	conc	1019 49	ug/L	
	rep	1	3A	conc	0 981	mg/L	
	rep	1	CU	conc	966 84	ug/L	
	rep	1	AG	conc	973 23	ug/L	

rep	1	MG	conc	1.030	mg/L
rep	1	AL	conc	1.0026	mg/L
rep	1	BA	conc	983.34	ug/L
rep	1	HA	conc	0 986	mg/L
rep	1	KZ	conc	9.954	mg/L
rep	2	SB	conc	1110.46	ug/L
rep	2	ea	conc	1117 98	ug/L
rep	2	SN	conc	35.3	ug/L
rep	2	ZN	conc	1000.12	ug/L
rep	2	CD	eonc	988.71	ug/L
rep	2	CO	conc	1007.92	ug/L
rep	2	NI	conc	996.76	ug/L
rep	2	MN	cone	1011.03	ug/L
rep	2	FE	conc	0.9712	mg/L
rep	2	CR	conc	946 30	ug/L
rep	2	VZ	conc	1041.24	ug/L
rep	1	BE	conc	1032.45	ug/L
rep	2	CA	conc	1.011	mg/L
rep	1	CU	conc	995 00	ug/L
rep	2	AG	conc	986.96	ug/L
rep	2	MG	conc	1 093	mg/L
rep	2	AL	conc	0 9734	mg/L
rep	2	BA	conc	982 02	ug/L
rep	2	NA	conc	0 932	mg/L
rep	2	KZ	conc	9.713	mg/L

LCSAB
03/30/90 17.04

SB	av	1079.74	ug/L	sd	93.53%	%cv	4.02
PB	av	1034.64	ug/L	sd	30.176	%cv	2 75
SN	av	25.I	ug/L	sd	14.48	%cv	57.71
ZN	av	996.78	ug/L	id	4 717	%cv	0.47
CD	av	985 61	ug/L	sd	4.378	%cv	0 44
CO	av	992.58	ug/L	sd	21.701	wcv	2.19
NI	av	985.07	ug/L	sd	16.524	%cv	1.be
MN	av	1008.35	ug/L	sd	3.793	%cv	0.38
FE	av	0.9583	mg/L	sd	0.01824	%cv	1.Sa
CR	av	P42.33	ug/L	sd	5.609	%cv	0.60
VZ	av	1026 38	ug/L	sd	21.021	%cv	2.05
BE	av	.025.97	ug/L	sd	9.161	%cv	0 BY
CA	av	U.996	mg/L	sd	0 0207	%cv	2.08
CU	av	980.90	ug/L	sd	19.914	%cv	2 03
AG	av	980.09	ug/L	sd	9.719	%cv	0.99
MG	av	1.061	mg/L	sd	0 0443	%cv	4.22
AL	av	0.9880	mg/L	sd	0.02063	%cv	2.09
BA	av	982.68	ug/L	sd	0.932	%cv	0.09
NA	av	0.959	mg/L	sd	0.0379	%cv	3.95
KZ	av	9.863	mg/L	sd	0.1278	%cv	1 3.0

03/30/90 17 1:
300ppm

rep	1	FE	conc	307.5072 mg/L
rep	1	AL	conc	296.7039 mg/L
rep	2	FE	conc	310.4163 mg/L
rep	2	AL	conc	295.2719 mg L

300ppm
03/30/90 17.12 7

FE	av	308.9617	mg/L	sd	2.05798	%cv	0.4F
AL	av	295 9879	mg/L	sd	1.01262	%cv	0 3-1

03/30/90 17.13
400ppm

rap	1	CA	conc	376.390 mg L

	rep	1	MG	conc	400.761	mg/L
	rep	1	NA	conc	408.561	mg/L
	rep	1	KZ	conc	399.737	mg/L
	rep	2	CA	conc	375.401	mg/L
	rep	2	MG	conc	393 818	mg/L
	rep	2	NA	conc	413.522	mg/L
	rep	2	KZ	conc	400.598	mg/L

400ppm
03130190 17:14

CA	av	373.896	mg/L	sd	0.6991	%cv 0.19
MG	av	397 289	mg/L	sd	4.9094	%cv 1.24
NA	av	411.041	mg/L	sd	3.5076	%cv 0.85
KZ	av	400.168	mg/L	sd	0.6082	%cv 0 15

03/30/90 17 16
700ppm

rep	1	CA	conc	640 529	mg/L
rep	1	MG	conc	680.590	mg/L
rep	1	NA	conc	752.591	mg/L
rep	1	KZ	conc	694.458	mg/L
rep	2	CA	conc	647.866	mg/L
rep	2	MG	conc	676 725	mg/L
rep	2	NA	conc	762.097	mg/L
rep	2	KZ	cone	697.637	mg/L

700ppm
03/30/90 17 18

CA	av	644.253	mg/L	sd	5.1103	%cv 0.79
MG	av	678.657	mg/L	sd	2.7328	%cv 0 40
NA	av	757.344	mg/L	sd	6.7215	%cv 0.E?
KZ	av	696.048	mg/L	sd	2.2476	%cv 0.32

03130190 17 20
ICS

rep	1	SB	conc	-502 74	ug/L	window edge
rep	1	PB	conc	5031.73	ug/L	
rep	1	SN	conc	-5.9	ug/L	
rep	1	ZN	cone	1009.29	ug/L	
rep	1	CD	conc	903.71	ug/L	
rep	1	CO	conc	435.26	ug/L	
rep		NI	conc	893.59	ug/L	
rep	1	MN	conc	473.17	ug/L	
rep	1	FE	conc	190.8722	mg/L	
rep	1	CA	conc	1H1.79	ug/L	
rep	1	VZ	conc	504 62	ug/L	
rep	1	BE	conc	482.34	ug/L	
rep	1	CA	conc	472.126	mg/L	
rep	1	CU	conc	505.26	ug/L	
rep	1	AG	conc	940.07	ug/L	
rep	1	MG	conc	507 271	mg/L	
rep	1	AL	conc	485 2587	mg/L	
rep	1	BA	conc	477 47	ug/L	
rep	1	NA	conc	1.183	mg/L	
rep	1	KZ	conc	1 460	mg/L	
rep	2	SB	conc	-518 55	ug/L	window edge
rep	2	PB	conc	5046 28	ug/L	
rep	2	SN	conc	31.1	ug/L	
rep	2	ZN	conc	998.50	ug/L	
rep	2	CD	conc	918 16	ug/L	
rep	2	CO	conc	442 53	ug/L	
rep	2	NI	conc	986.14	ug/L	
rep	2	MN	conc	471.92	ug/L	
rep	2	FE	conc	193 0550	mg/L	

	rep	2	CR	conc	491.18	ug/L	
	rep	2	VZ	conc	512.82	ug/L	
	rep	2	BE	conc	481.29	ug/L	
	rep	2	CA	conc	475.003	mg/L	
	rep	2	CU	conc	511 97	ug/L	
	rep	2	AC	conc	946.22	ug/L	
	rep	2	MG	conc	500 144	mg/L	
	rep	2	AL	conc	481.3725	mg/L	
	rep	2	BA	conc	477 31	ug/L	
	rep	2	NA	conc	0.841	mg/L	
	rep	2	KZ	conc	1.050	mg/L	

CS
3130190 17 26

SB	av	-510 64	ug/L	sd	.1 179	%cv	2.19
re	av	5039 01	ug/L	sd	10 284	%cv	0 20
SH	av	12.6	ug/L	sd	26.18	%cv	208.15
ZN	av	1003.89	ug/L	sd	7.620	%cv	0.76
CD	av	910 94	ug/L	sd	10.219	%cv	1.It
CO	av	438.80	ug/L	sd	1 977	%cv	1 I4
NI	av	889.86	ug/L	sd	5.273	%cv	0.59
MN	av	472 55	ug/L	sd	0 884	%cv	0 19
FE	av	191 9636	mg/L	sd	1.54348	%cv	0.80
CR	av	486 48	ug/L	sd	b 638	%cv	. 36
VZ	av	508 72	ug/L	sd	5.804	%cv	1.14
OB	av	482 76	ug/L	sd	0 741	%cv	0 15
CA	av	473 565	mg/L	sd	2 0341	Kcv	0.43
CV	av	508.62	ug/L	sd	4 748	%cv	0.93
AG	av	913 14	ug/L	sd	4.353	%cv	0.46
MG	av	503.708	mg/L	sd	5 0400	Kcv	1 00
AL	av	483 3156	mg/L	sd	2.74798	%cv	0 57
BA	av	477.39	ug/L	sd	0 1.3	%cv	0 02
NA	av	1 012	mg/L	sd	0 2414	%cv	23.85
KZ	av	1.255	mg/L	sd	0 2898	%cv	23 10

03/30/90 17 33

BLK 814	rep	1	SB	conc	-3 23	ug/L	
	rep	1	PO	conc	20.69	ug/L	
	rep	1	SH	conc	24.6	ug/L	
	rep	1	ZN	conc	1 21	ug/L	
	rep	1	CD	conc	0 82	ug/L	
	rep	1	CO	conc	14.19	ug/L	
	rep	1	NI	conc	-1.36	ug/L	
	rep	1	MN	conc	1.37	ug/L	
	rep		FE	conc	0 0034	mg/L	
	rep	1	CR	conc	-6 71	ug/L	
	rep	1	VZ	conc	3.44	ug/L	
	rep	1	BE	conc	1 a7	ug/L	
	rep	1	CV	conc	-4 42	ug/L	
	rep	1	AG	conc	1 96	ug/L	
	rep		BA	conc	-1 44	ug/L	window edge
	rep	1	NA	conc	0 176	mg/L	
	rep	2	SB	conc	-95 22	ug/L	window edge
	rep	2	PO	conc	-73 77	ug/L	window edge
	rep	2	SH	conc	14 3	ug/L	
	rep	2	ZN	conc	1 88	ug/L	
	rep	2	CD	conc	0 21	ug/L	
	rep	2	CO	conc	0 71	ug/L	
	rep	2	NI	conc	-5 41	ug/L	
	rep	2	MN	conc	-1 31	ug/L	
	rep	2	CC	conc	0 0072	mg/L	

	rep	2	CR	conc	-8.01 ug/L	
	rep	2	VZ	conc	2.20 ug/L	
	rep	2	BE	conc	0.76 ug/L	
	rep	2	CU	conc	-9.93 ug/L	window edge
	rep	2	AG	conc	-11.08 ug/L	window edge
	rep	2	BA	conc	-0.23 ug/L	
	rep	2	NA	conc	0.091 mg/L	

BLK 814
03/30/90 17:38

SB	av	-29.23	ug/L <60.0	sd	36.766	%cv	125.79
PB	av	-26.54	ug/L <50.0	sd	66.792	%cv	251.67
SN	av	19.4	ug/L <30.0	sd	7.27	%cv	37.45
ZN	av	1.54	ug/L <10.0	sd	0.471	%cv	30.49
CD	av	0.52	ug/L <5.00	sd	0.435	%cv	84.48
CO	av	7.45	ug/L <10.0	sd	9.532	%cv	127.90
NI	av	-3.38	ug/L <15.0	sd	2.866	%cv	84.74
MN	av	0.03	ug/L <5.00	sd	1.896	%cv	5901.9
FE	av	0.0033	mg/L <0.025	sd	0.00265	%cv	50.19
CR	av	-7.36	ug/L <10.0	sd	0.918	%cv	12.47
VZ	av	2.82	ug/L <10.0	sd	0.872	%cv	30.90
BE	av	0.91	ug/L <2.00	sd	0.221	%cv	24.19
CU	av	-7.18	ug/L <10.0	sd	3.895	%cv	54.28
AG	av	-4.56	ug/L <10.0	sd	9.219	%cv	202.33
BA	av	-0.83	ug/L <10.0	sd	0.855	%cv	102.86
NA	av	0.134	mg/L <0.200	sd	0.0599	%cv	44.76

03/30/90 17:44

70028.012100	rep	1	ZN	conc	1512.07 ug/L	
(9000.726)	rep	2	ZN	conc	1508.27 ug/L	

70028.012100
03/30/90 17:44

ZN	av	1510.17	ug/L	sd	2.679	%cv	0.18

03/30/90 17:51

70485.052100	rep	1	NA	conc	560.986 mg/L	
(9000.745)	rep	2	NA	conc	553.051 mg/L	

70485.052100
03/30/90 17:51

NA	av	557.018	mg/L	sd	5.6112	%cv	1.01

03/30/90 17:52

70486.052100	rep	1	NA	conc	316.125 mg/L	
	rep	2	NA	conc	319.233 mg/L	

70486.052100
03/30/90 17:52

NA	av	317.679	mg/L	sd	2.1977	%cv	0.69

03/30/90 17:53

70487.052100	rep	1	NA	conc	119.310 mg/L	
	rep	2	NA	conc	121.001 mg/L	

70487.052100
03/30/90 17:54

NA	av	120.155	g/L	sd	1.1961	%cv	1.00

03/30/90 17:55

CCVS	rep	1	SB	conc	968.28 ug/L	
	rep	1	PB	conc	1005.40 ug/L	
	rep	1	SN	conc	976.5 ug/L	
	rep	1	ZN	conc	470.67 ug/L	
	rep	1	CD	conc	480.43 ug/L	

reo	I	CO	conc	478 08	ug/L
rep	ī	NI	conc	490 16	ug/L
rep	1	MN	conc	488.83	ug/L
rep	1	FE	conc	0 4576	mg/L
rep	1	CR	conc	46..65	ug/L
rep	ī	VZ	conc	517.37	ug/L
rep	1	BE	conc	481.39	ug/L
rep	1	Ch	conc	89.721	mg/L
rep	I	CU	conc	479 32	ug/L
rep	1	AG	conc	459.08	ug/L
rep	1	MC	cone	19.799	mg/L
rep	1	AL	conc	0.4368	mg/L
rep	1	BA	conc	473.47	ug/L
rep	1	HA	conc	24.153	mg/L
rep	1	KZ	conc	20.245	mg/L
rep		SD	conc	1015.23	ug/L
rep	1	PB	conc	782 20	ug/L
rep	2	SN	conc	976 3	ug/L
rep	2	ZN	conc	503.91	ug/L
rep	2	CD	conc	486.98	ug/L
rep	2	CO	conc	470.43	ug/L
rep	2	HI	conc	497.17	ug/L
rep	2	MN	conc	488.22	ug/L
rep	4	FE	conc	0.4666	mg/L
rep	2	CR	conc	464.51	ug/L
rep	2	VZ	cons	510 10	ug/L
rep	2	BE	conc	478.42	ugIL
rep	2	CA	conc	19.569	mg/L
rep	2	CU	conc	479.94	ug/L
rep		AG	conc	476.05	ug/L
rep	2	MC	conc	19.730	mg/L
rep	1	AL	conc	0 4904	mg/L
rep	2	BA	conc	479.37	ug/L
rep	4	HA	conc	23 291	mg/L
rep	2	KZ	conc	26.689	mg/L

CCVS
03/30/90 18 01

SB	av	991.75	ug/L	sd	33 203	%cv	3.35
PB	av	993.80	ug/L	sd	16 404	%cv	1.65
SN	av	976.7	ugIL	sd	0.26	Ycv	0.03
ZN	av	497.29	ug/L	sd	9.361	%cv	1.88
CD	av	4C3.72	ugIL	sd	4 620	%cv	0.96
CO	av	474.26	ug/L	sd	5 408	%cv	1.14
NI	av	493.46	ugIL	sd	4 957	%cv	1.00
MN	av	488.52	ug/L	id	0.436	%cv	0.09
FE	av	0 4631	mg/L	sd	0 00776	%cv	1.68
CR	av	463 08	ug/L	sd	2 022	%cv	0.44
VZ	av	513 98	ug/L	sd	4.793	%cv	0 93
BE	av	479 31	ug/L	sd	2 099	%cv	0 44
CA	av	19 645	mg/L	sd	0 1074	%cv	0.55
CU	av	479.63	ugIL	sd	0 437	%cv	0 09
AG	av	467.57	ugIL	sd	13 001	hcv	2.57
MC	av	19.775	mg/L	sd	0 0345	%cv	0 17
AL	av	0 4636	mg/L	id	0 03793	%cv	8 18
BA	av	476.52	ug/L	sd	4 027	%cv	U 85
HA	av	~~23 734~~	mg/L	sd	0 6099	%cv	2 57
KZ	av	20.464	mg/L	sd	0 1097	Wcv	1 51

03/30/90 18 08
CAL BLK rep 1 SB conc -53 0:' ug/L

rep	1	PB	conc	-13 35	ug/L	
rep	1	SH	conc	13 4	ug/L	
rep	1	ZN	conc	-0 23	ug/L	
rep	1	CD	conc	-0 26	ug/L	
rep	1	CO	conc	1 63	ug/L	
rep	1	NI	conc	-2 86	ug/L	
rep	1	MN	conc	-0.14	ugIL	
rep	1	FE	conc	0 0047	mg/L	
rep	1	CR	conc	- 7.40	ug/L	
rep	1	VZ	conc	-1 13	ugIL	
rep	1	BE	conc	0.61	ug/L	
rep	1	CA	conc	0.008	mg/L	
rep	1	CU	cunc	-3 23	ug/L	
rep	1	AG	cunc	. - 2.43	ug/L	
rep	1	MG	conc	-0.023	mg/L	
rep	1	AL	conc	-0.0028	mg/L	
rep	1	EA	eonc	-1 54	ug/L	window edge
rep	1	HA	conc	1.314	mg/L	
rep	1	KZ	cone	- 0.017	mg/L	
rep	2	SB	conc	5.92	ug/L	
rep	2	PB	conc	- 1.64	ug/L	
rep	2	SH	conc	27.2	ug/L	
rep	2	ZN	conc	- 1.54	ug/L	window edge
rep	2	CD	conc	-0.37	ug/L	
rep	2	CO	conc	0 28	ug/L	
rep	2	111	conc	-1.76	ug/L	
rep	2	MN	conc	0.90	ug/L	
rep	2	FE	conc	0.0002	mg/L	
rep	2	CR	conc	- 1.09	ug/L	
rep	2	VZ	conc	-0.47	ug/L	
rep	2	BE	conc	0.56	ugIL	
rep	2	CA	cone	-0 026	mg/L	window edge
rep	2	CU	conc	1.25	ugIL	
rep	2	AC	conc	- 3.74	ug/L	
rep	2	MG	conc	0.061	mg/L	
rep	2	AL	conc	- 0.0092	mg/L	
rep	2	BA	conc	- 0.73	ug/L	
rep	2	NA	conc	1.094	mg/L	
rep	2	KZ	conc	0.075	mg/L	

14

SB	av	-23.58	ug/L	sd	41 709	%cv	176.91
PB	av	- 7.50	ug/L	rd	8.281	%cv	110.48
SH	av	20 3	ugIL	sd	9.80	%cv	48.24
ZN	av	-0.89	ugIL	sd	0.924	Kcr	104 35
CD	av	-0.31	ug/L	rd	0 073	%cv	23.14
CO	av	0.95	ugIL	sd	0 957	%cv	100.34
NI	av	-2 31	ugIL	sd	0 776	Ecr	33.60
MN	av	0.38	ug/L	sd	0 737	%cv	195.03
FE	av	0.0025	mg/L	rd	0.00318	%cv	128 96
CR	av	- 7.35	ugIL	sd	0 355	%cv	4.83
VZ	av	-0.80	ugIL	sd	0.472	%cv	59 01
BE	av	0.64	ug/L	sd	0 033	%cv	5 24
CA	av	-0 009	mg/L	sd	0.0242	%cv	265 10
CU	av	- 0.99	ug/L	sd	3 158	%cv	320.36
AG	av	-3 08	ug/L	sd	0 929	%cv	30.13
MG	av	0.019	mg/L	sd	0.0598	%cv	313 80
AL	av	-0.0060	mg/L	sd	0 00453	%cv	75.65
BA	av	-1.13	ugIL	sd	0 571	%cv	50 44
	av	[illegible]	mg/L	sd	0 1556	%cv	12 92

I

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KZ          av     0.029 mg/L        sd    0 0654 %cv 226.44

03/30/90 18 21
blank       rep   1  NA        em      1210.1
            rep   2  NA        em      1168 1
blank
03/30/90 18 21
    NA      av  1189.091        sd   29.6905 %cv   2.50

03/30/90 18.22
standard    rep   1  NA        em     76711.6 conc 100.000
            rep   2  NA        em     76445.6 conc 100 000
standard
03/30/90 I8 22
    NA      av 76578.625        sd  188 0904 %cv   0.25 conc 100.000

03/30/90 18 24
CCVS        rep   1  NA        conc    21.527 mg/L
            rep   2  NA        conc    21.674 mg/L
CCVS
03/30/90 18.24
    NA      av    21.601 mg/L   sd     0.1027 %cv   0.48

03/30/90 18:25
CAL BLK     rep   1  NA        conc     0.067 mg/L
            rep   2  NA        conc    -0.045 mg/L
CAL BLK
03/30/90 18:25
    NA      av     0.011 mg/L   sd     0.0789 %cv 722.94

03/30/90 18.27
70485.052100 rep  1  NA        conc   567.529 mg/L
(9000.745)   r.p  2  NA        conc   563.709 mg/L
70485.052100
03/30/90 18.27
    NA      av   565.619 mg/L  sd     2.7008 %cv   0.48

03/30/90 18.28
70486.052100 rep  1  NA        conc   328.513 mg/L
             rep  2  NA        conc   323 159 mg/L
70486.052100
03130190 18 29
    NA      av   325.836 mg/L  sd     3.7861 %cv   1.16

03/30/90 18 29
10487.052100 rep  1  NA        conc   110.724 mg/L
             rep  2  NA        conc   120 440 mg/L
70487.052100
03130190 18 30
    NA      av   120.582 mg/L  sd     0.2009 %cv   0.17

03/30/90 113.31
70488.052100 rep  1  NA        conc    58.073 mg/L
             rep  2  NA        conc    58.412 mg/L
70488.052100
03/30/90 18 3
    NA      av    58.243 mg/L  sd     0.2390 %cv   0.41

03/30/90 18 32
70489.052100 rep  1  NA        conc   686 140 mg/L
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                rep   2  NA          conc    691.812 mg/L
70489.052100
03130190 18 32
    NA          av    688.976 mg/L        sd     4 0.11 %cv    0 58

03130190 I8 33
ELK 814         rep   1  NA          conc      0.979 mg/L
                rep   2  NA          conc      0.697 mg/L
BLK 814
03/30/90 18:33
    NA          av     0.838 mg/L         sd     0 1994 %cv   23.80

03/30/90 18 34
BLK 814         rep   1  NA          conc      0.419 mg/L
                rep   2  NA          conc      0 343 mg/L
BLK 814
03/30/90 18.35
    NA          av     0.381 mg/L         sd     0.0538 %cv   14.12

03130190 18 35
BLK 814         rep   I  NA          conc      0.297 mg/L
                reo   2  PIA         conc      0.212 mg/L
BLK 814
03/30/90 18 36
    NA          av     0.258 mg/L         sd     0 0602 %cv   23.64

03/30/90 18 36
BLK 814         rep   1  NA          conc      0 196 mg/L
                rep   2  NA          conc      0.155 mg/L
BLK 814
03/30/90 18:37
    NA          av     0.176 mg/L< 0.200  sd     0.0290 %cv   a6.47

03/30/90 18 38
CCVS            rep   1  NA          conc     20.637 mg/L
                rep   2  NA          conc     20.820 mg/L
CCVS
03/30/90 18 38
    NA          av    20.729 mg/L         sd     0.1294 %cv    0.62

03/30/90 18.39
CAL BLK         rep   I  NA          conc     -0 099 mg/L
                rep   2  NA          conc     -0.111 mg/L
CAL BLK
03/30/90 18 39
    NA          av    -0.105 mg/L         rid    0.008'; %cv    8.04

03/30/90 18.40
70490 062100    rep   I  SL          conc      31 30 ug/L
                rep   1  PB          conc     -23 99 ugIL
                rep   1  SH          conc       -2 5 ug/L
                rep   1  IN          conc       6 17 ug/L
                rep   1  CD          conc      -1.16 ug/L
                rep   1  CO          conc       6 42 ug/L
                rep   1  NI          cons      -2 78 ug/L
                rep   1  MN          conc      -0 07 ug/L
                rep   1  FE          cone     0 0248 mg/L
                rep   1  CR          conc      -7 67 ug/L
                rep   1  VZ          conc       I 58 ug/L
                rep   1  CU          conc      -4 75 ug/L
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rep	1	AC	conc	-8.21	ug/L		window edge
rep	1	BA	conc	-0.58	ug/L		
rep	1	NA	conc	0.093	mg/L		
rep	2	SB	conc	-29 71	ug/L		
rep	2	PO	conc	-30.4:	ug/L		
rep	2	SN	conc	-8 3	ug/L		window edge
rep	2	ZN	conc	7.91	uylL		
rep	2	CD	conc	1.61	uylL		
rep	2	CO	conc	5 15	ug/L		
rep	2	NI	conc	-6 27	ug/L		
rep	2	MN	conc	1 60	ug/L		
rep	2	FE	conc	0 0185	mg/L		
rep	2	CR	conc	-4.34	ug/L		
rep	2	VZ	conc	-3 98	ug/L		
rep	2	CU	conc	-0.90	uylL		
rep	2	AG	conc	-3 93	ug/L		
rep	2	BA	conc	-0.27	ug/L		
rep	2	NA	conc	0 009	mg/L		

70490 062100
03/30/90 18:45

SB	av	0.79	uy/L<60.0	sd	43.141	Hcv	5454 9
PB	av	-27.20	uy/L<50.0	sd	4.549	Scv	16.72
SN	av	-5.4	ug/L<20.0	sd	4.12	%cv	71.51
ZN	av	7.04	ug/L<10.0	sd	1.231	Scv	17.50
CD	av	0.23	up/L<5.00	cd	1.961	Ycv	861.11
CO	av	5.70	ug/L<10.0	sd	0.895	%cv	15.48
NI	av	-4.54	uq/L<15.0	sd	2.406	%cv	54.80
MN	av	0.77	ug/L<5.00	rd	1.185	%cv	154 nZ
FE	av	0 0218	mg/L<0.025	sd	0.00428	Ycv	19.64
CR	av	-6.00	ug/L<10.0	sd	2 356	%cv	39.24
VZ	av	-1.20	ug/L<10.0	sd	3.930	%cv	326.45
CU	av	-2.82	ug/L<10.0	rd	2 725	Ycv	96.41
AG	av	-6.07	ug/L<10.0	sd	3.027	wcv	49.84
BA	av	-0 42	ug/L<10.0	sd	0.221	%cv	52 10
NA	av			sd	0.0598	Wcv	116.86

03/30/90 18 51
70490 062110

rep	1	SB	conc	14 48	ug/L	
rep	1	PB	conc	-27 97	ug/L	
rep	1	SN	conc	-28 1	ug/L	window edge
rep	1	ZN	conc	51 30	ug/L	
rep	1	CD	conc	-1 39	ug/L	
rep	1	CO	cone	4 61	ug/L	
rep	1	NI	conc	5 17	ug/L	
rep	1	MN	conc	-0.77	ug/L	
rep	1	FE	conc	0.0066	mg/L	
rep	1	CR	conc	- 2.e2	ug/L	
rep	1	VZ	conc	-1 81	ug/L	
rep	1	CU	conc	72 70	ug/L	
rep	1	AC	conc	-2.33	uylL	
rep	1	BA	conc	-0 62	ug/L	
rep	1	NA	conc	-0 131	mg/L	
rep	2	SB	conc	16 85	ug/L	
rep	2	PB	cane	-28 48	ug/L	
rep	2	SN	conc	5.2	ug/L	
rep	2	ZN	conc	54 42	ug/L	
rep	2	CD	conc	0 06	ug/L	
rep	2	CO	conc	-2 7:	ug/L	
rep	2	NI	conc	-0 70	ug/L	
rep	2	MN	conc	-0 47	ug/L	

rep	2	FE	conc	0 0055	mg/L
rep	2	CR	conc	-3.55	ug/L
rep	2	VZ	conc	-0.61	ug/L
rep	2	CU	conc	73.34	ug/L
rep	2	AG	eonc	-3 24	ug/L
rep	2	BA	conc	-0.57	ug/L
rep	2	NA	conc	-0.103	mg/L

70490.062110
03130190 18 56

SB	av	15.66	ug/L<60.0	sd	1.674	%cv	10.69
PB	av	-28 22	ug/L<50.0	sd	0 3ib	%cv	1 26
SN	av	-11.4	ug/L<20.0	sd	23.53	%cv	206.07
ZN	av	52.86	ug/L	sd	2 205	Yev	4 17
CD	av	-0.66	ug/L<5.00	sd	1.022	%cv	153.75
CO	av	0.95	ug/L<10.0	sd	5.174	5cv	545 83
NI	av	2 14	ug/L<15.0	sd	4 296	%cv	201 59
MN	av	-0.62	ug/L<5.00	sd	0.211	%cv	34 08
FE	av	0.0066	mg/L<0.025	sd	0 00010	%cv	1.47
CR	av	-3.18	ug/L<10.0	sd	0 517	Ycv	16 22
VZ	av	-1.21	ug/L<10.0	sd	0 049	*cv	49 8[illegible]
CU	av	73.02	ug/L	sd	0 456	Kcv	0 62
AG	av	-2 49	ug/L<10.0	sd	0 645	%cv	23.15
EA	av	-0.60	ug/L<10.0	sd	0 036	%cv	6 04
HA	av	~~-0.117 mg/L<0.200~~		rd	0.0199	Wcv	17.01

03/30/90 19 02
70490 062120

rep	1	SB	conc	441.74	ug/L
rep	1	PB	conc	471.41	ug/L
rep	1	SN	conc	22.2	ug/L
rep	1	ZN	conc	510.87	ug/L
rep	1	CD	cone	44.15	ug/L
rep	1	CO	conc	466.45	ug/L
rep	1	NI	conc	443.60	ug/L
rep	1	MN	conc	446.24	ug/L
rep		FE	cone	0.9239	mg/L
rep	1	CR	conc	L74 94	ug/L
rep	1	VZ	conc	468.70	ug/L
rep	1	CU	eonc	239.04	ug/L
rep	1	AC	cone	41.46	ug/L
rep	1	BA	conc	1871 97	ug/L
rep	1	NA	conc	-0.151	mg/L
rep	2	Sa	conc	462.66	ug/L
rep	2	PB	conc	416.59	ug/L
rep	2	SN	cone	5 2	ug/L
rep	1	ZN	conc	504.91	ug/L
rep	2	CD	con.:	43 72	ug/L
rep	2	CO	cone	462.97	ug/L
rep	2	NI	eonc	458 70	ug/L
rep	2	MN	conc	466.17	ug/L
rep	2	FE	conc	0 9206	mg/L
rep	2	CR	conc	174.90	ug/L
rep	2	VZ	conc	492.33	ug/L
rep	2	CU	conc	238.06	ug/L
rep	2	AG	conc	45.91	ug/L
rep	2	BA	conc	1898.16	ug/L
rep	2	NA	conc	-0 178	mg/L

70490 062120
03/30/90 .9 07

SB	av	452.30	ug/L 90% R	sd	14.933	wcv	3.30
PB	av	444 00	ug/L 89%	sd	30 747	%cv	8 73

SN	av	13.7	ug/L <20.0	sd	12.02	%cv	87.98
ZN	av	507.89	ug/L 102% R	sd	4.214	%cv	0.83
CD	av	43.93	ug/L 88%	sd	0.307	%cv	0.70
CO	av	464.71	ug/L 93%	sd	2.461	%cv	0.53
NI	av	461.19	ug/L 92%	sd	3.518	%cv	0.76
MN	av	456.27	ug/L 92%	sd	0.060	%cv	0.01
FE	av	0.9223	mg/L 92%	sd	0.00232	%cv	0.25
CR	av	174.92	ug/L 87%	sd	0.030	%cv	0.02
VZ	av	490.51	ug/L 98%	sd	2.566	%cv	0.52
CU	av	238.55	ug/L 95%	sd	6.691	%cv	0.29
AG	av	43.69	ug/L 87%	sd	3.150	%cv	7.21
BA	av	1885.04	ug/L 94%	sd	18.519	%cv	0.98
NA	av	~~-0.165 mg/L <0.200~~		sd	0.0192	%cv	11.67

03/30/90 19:12
70492 042100

rep	1	SB	conc	3.10	ug/L
rep	1	PB	conc	-2.46	ug/L
rep	1	SN	conc	13.7	ug/L
rep	1	ZN	conc	18.98	ug/L
rep	1	CD	conc	0.89	ug/L
rep	1	CO	conc	3.80	ug/L
rep	1	NI	conc	15.44	ug/L
rep	1	MN	conc	18.05	ug/L
rep	1	FE	conc	1.3748	mg/L
rep	1	CR	conc	15.41	ug/L
rep	1	VZ	conc	-0.41	ug/L
rep	1	CU	conc	0.26	ug/L
rep	1	AG	conc	-4.38	ug/L
rep	1	BA	conc	28.35	ug/L
rep	1	NA	conc	2.982	mg/L
rep	2	SB	conc	-10.86	ug/L
rep	2	PB	conc	6.54	ug/L
rep	2	SN	conc	26.5	ug/L
rep	2	ZN	conc	19.52	ug/L
rep	2	CD	conc	-0.56	ug/L
rep	2	CO	conc	-1.93	ug/L
rep	2	NI	conc	12.04	ug/L
rep	2	MN	conc	18.82	ug/L
rep	2	FE	conc	1.3931	mg/L
rep	2	CR	conc	14.96	ug/L
rep	2	VZ	conc	4.06	ug/L
rep	2	CU	conc	0.55	ug/L
rep	2	AG	conc	-5.96	ug/L
rep	2	BA	conc	26.39	ug/L
rep	2	NA	conc	2.766	mg/L

P32W001

70492.042100
03/30/90 19:[illegible]

SB	av	-3.88	ug/L <60.0	sd	9.870	%cv	254.60
PB	av	2.04	ug/L <50.0	sd	6.366	%cv	312.20
SN	av	20.1	ug/L <20.0	sd	9.07	%cv	45.02
ZN	av	19.25	ug/L	sd	0.381	%cv	1.98
CD	av	0.16	ug/L <5.00	sd	1.027	%cv	625.67
CO	av	0.93	ug/L <10.0	sd	4.055	%cv	434.12
NI	av	13.74	ug/L <15.0	sd	2.406	%cv	17.51
MN	av	19.43	ug/L	sd	0.547	%cv	2.97
FE	av	1.3840	mg/L	sd	0.0288	%cv	0.93
CR	av	15.29	ug/L	sd	0.458	%cv	2.99
VZ	av	1.82	ug/L <10.0	sd	3.[illegible]	%cv	173.59
CU	av	0.41	ug/L <10.0	sd	0.200	%cv	49.32
AG	av	-5.17	ug/L <10.0	sd	1.116	%cv	21.58

BA	av	27.37	ug/L	sd	1.380	%cv	5.04	
NA	av	[illegible]	mg/L	sd	0.1533	%cv	5.33	

03/30/90 19 22
70493 042100

rep	1	SB	conc	-1486.10	ug/L		window edge
rep	1	PB	conc	361.03	ug/L		window edge
rep	1	SN	conc	-6.8	ug/L		
rep	1	ZN	conc	267.43	ug/L		
rep	1	CD	conc	42.75	ug/L		
rep	1	CO	conc	-1.37	ug/L		
rep	1	NI	conc	84.24	ug/L		
rep	1	MN	conc	1622.91	ug/L		
rep	1	FE	conc	380.3041	mg/L		
rep	1	CR	conc	208.64	ug/L		
rep	1	VZ	conc	286.68	ug/L		
rep	1	CU	conc	-0.76	ug/L		window edge
rep	1	AG	conc	-53.34	ug/L		window edge
rep	1	BA	conc	29.03	ug/L		
rep	1	NA	conc	792.712	mg/L		
rep	2	SB	conc	-1235.20	ug/L		window edge
rep	2	PB	conc	391.13	ug/L		window edge
rep	2	SN	conc	25.4	ug/L		
rep	2	ZN	conc	268.66	ug/L		
rep	2	CD	conc	43.76	ug/L		
rep	2	CO	conc	4.01	ug/L		
rep	2	NI	conc	87.22	ug/L		
rep	2	MN	conc	1632.22	ug/L		
rep	2	FE	conc	385.2665	mg/L		
rep	2	CR	conc	209.93	ug/L		
rep	2	VZ	conc	282.32	ug/L		
rep	2	CU	conc	3.16	ug/L		window edge
rep	2	AG	conc	-67.12	ug/L		window edge
rep	2	BA	conc	28.75	ug/L		
rep	2	NA	conc	811.453	mg/L		

70493.042100
03/30/90 20.27

P32W066

SB	av	-1360.65	ug/L	<60.0	sd	177.418	%cv	13.04
PB	av	376.08	ug/L		sd	21.278	%cv	5.66
SN	av	10.8	ug/L	<20.0	sd	24.88	%cv	230.95
ZN	av	268.04	ug/L		sd	0.865	%cv	0.32
CD	av	43.26	ug/L		sd	0.712	%cv	1.65
CO	av	1.32	ug/L	<10.0	sd	3.806	%cv	287.80
NI	av	86.73	ug/L		sd	3.520	%cv	4.06
MN	av	1627.57	ug/L		sd	6.579	%cv	0.40
FE	av	~~382.7853~~	mg/L		sd	3.50893	%cv	0.92
CR	av	209.28	ug/L		sd	0.913	%cv	0.44
VZ	av	284.50	ug/L		sd	3.087	%cv	1.09
CU	av	1.20	ug/L	<10.0	sd	2.772	%cv	231.79
AG	av	-60.23	ug/L	<10.0	sd	9.742	%cv	16.18
BA	av	28.59	ug/L		sd	0.196	%cv	0.68
NA	av	~~802.082~~	mg/L		sd	13.2516	%cv	1.65

03/30/90 19 36
70493 1/10

rep	1	FE	conc	37.9920	mg/L
rep	1	NA	conc	79.875	mg/L
rep	2	FE	conc	38.1205	mg/L
rep	2	NA	conc	79.437	mg/L

70493 1/10
03/30/90 19 36

FE	av	38.0562 ~~mg/L~~ → 381 mg/L	sd	0.09084	%cv	0.24	

NA av ~~[illegible] 797mg/L~~ sd 0 3102 %cv 0 39

03130190 19.38
70494.042100

rep	1	SB	conc	-32 96	ug/L	
rep	1	PB	conc	-37.01	ug/L	
rep	1	SN	conc	11 8	ug/L	
rep	1	ZN	conc	2 78	ug/L	
rep	1	CD	conc	1 40	ug/L	
rep	1	CO	conc	5.72	ug/L	
rep	1	NI	conc	-5.99	ug/L	
rep	1	MN	conc	11 51	ug/L	
rep	1	FE	conc	0.0396	mg/L	
rep	1	CR	conc	-7 16	ug/L	
rep	1	VZ	conc	-0.40	ug/L	
rep	1	CU	conc	-4 81	ug/L	
rep	1	AG	conc	-11.19	ug/L	window edge
rep	1	EA	conc	0 19	ug/L	
rep	1	NA	conc	0.167	mg/L	
rep	2	SB	conc	-18.44	ug/L	
rep	2	PB	conc	-62.16	ug/L	
rep	2	SN	conc	-12 6	ug/L	
rep	2	ZN	conc	2.66	ug/L	
rep	2	CD	conc	-0 74	ug/L	
rep	2	CO	conc	-5.41	ug/L	
rep	2	NI	conc	-0 15	ug/L	
rep	2	MN	conc	11 05	ug/L	
rep	2	FE	conc	0.0428	mg/L	
rep	2	CR	conc	-5.46	ug/L	
rep	2	VZ	conc	-4 47	ug/L	
rep	2	CU	conc	-2.68	ug/L	
rep	2	AC	conc	-3.93	ug/L	
rep	2	SA	conc	-0 13	ug/L	
rep	2	NA	conc	0 u20	mg/L	

70494.042100
03130190 19 42

P32WFB02

SB	av	-25.70	ug/L <60.0	sd	10.266	%cv	39.94
PO	av	-49 89	ug/L <50.0	sd	17.363	%cv	34 80
SN	av	-0.4	ug/L <20.0	sd	17.27	%cv	4241 4
ZN	av	2.72	ug/L <10.0	sd	0.085	%cv	3 11
CD	av	0 33	ug/L <5.00	sd	1 509	%cv	459.10
CO	av	0.16	ug/L <10.0	sd	7.869	%cv	4998 9
NI	av	-3.07	ug/L <5.00	sd	4.131	%cv	134.71
MN	av	11.28	ug/L	sd	0.322	%cv	2.86
FE	av	0.0412	mg/L	sd	0.00226	%cv	5.48
CR	av	-6.31	ug/L <10.0	sd	1.204	%cv	19.08
VZ	av	-2.43	ug/L <10.0	sd	2.878	%cv	118 35
CU	av	-3.74	ug/L <10.0	sd	1.508	%cv	40 26
AG	av	-7 56	ug/L <10.0	sd	5.136	%cv	67.91
BA	av	0.03	ug/L <10.0	sd	0 227	%cv	693 33
NA	av	0.094	mg/L <0.200	sd	0 1040	%cv	110 94

03/30/90 21 05
CCVS

rep	1	SB	conc	954 49	ug/L
rep	1	PB	conc	964.92	ug/L
rep	1	911	conc	970 7	ug/L
rep	1	ZN	conc	499.23	ug/L
rep	1	CD	conc	448 39	ug/L
rep	1	CO	conc	440 96	ug/L
rep	1	NI	conc	463 14	ug/L
rep	1	MN	conc	457 16	ug/L

rep	1	FE	conc	0.4674	mg/L
rep	1	CR	conc	455.01	ug/L
rep	1	VZ	conc	505 50	ug/L
rep	1	CU	conc	456.46	ug/L
rep	1	AG	conc	465.74	ug/L
rep	1	BA	conc	459.54	ug/L
rep	1	NA	conc	19.994	mg/L
rep	2	SB	conc	1010.28	ug/L
rep	2	PB	conc	943.13	ug/L
rep	2	SN	conc	1004 2	ug/L
rep	2	ZN	conc	40'1.80	ug/L
rep	2	CD	conc	436.79	ug/L
rep	2	CO	conc.	446.92	ug/L
rep	2	NI	conc	457.65	ug/L
rep	2	MN	conc	460.85	ug/L
rep	2	FE	conc	0 4584	mg/L
rep	2	CW	conc	462.20	ug/L
rep	2	VZ	conc	507 79	ug/L
rep		CU	conc	463 7%	ug/L
rep	2	AG	conc	469 n0	ug/L
rep	2	BA	conc	459.15	ug/L
rep	2	NA	conc	20.259	mg/L

CCVS
03/30/90 21 11

SB	av	986.38	ug/L	sd	45 110	%cv	4.57
PB	av	954 17	ug/L	sd	If 198	%cv	1.59
SN	av	987.5	ug/L	sd	23.73	%cv	2.40
ZN	av	492 51	ug/L	sd	9 492	%cv	1 93
CD	av	[illegible]9	ug/L	sd	6 790	%cv	1.53
CO	av	[illegible]4	ug/L	Id	4.217	%cv	0.95
NI	av	460.49	ug/L	sd	4 023	kcv	0.87
MN	av	459 01	ug/L	sd	2 606	kcv	0.57
FE	av	0.4629	mg/L	sd	0 00633	%cv	1.37
CR	av	458.61	ug/L	sd	5 081	%cv	1.11
VZ	av	506 64	ug/L	sd	1 621	%cv	0.32
CU	av	460.12	ug/L	sd	5 173	Kcv	I 12
AG	av	467.77	ug/L	sd	2 869	%cv	0.61
BA	av	459.34	ug/L	sd	a 278	%cv	0.06
NA	av	20 126	mg/L	sd	0 1871	%cv	0 93

03/30/90 21

CCVO

rep	1	CD	conc	460.96	ug/L	
rep	1	CO	conc	474.05	ug/L	
rep	2	CD	conc	447.66	ug/L	
rep	2	CO	conc	447.79	ug/L	

CCVS

03/30/90 21 21

CD	av	454.31	ug/L	sd	9.402	wcv	2.07
CO	av	460.70	ug/L	sd	18.588	%cv	4.03

03/30/90 21:23

CAL BLK

rep	1	SO	conc	-26.57	ug/L	
rep	1	PB	conc	-25.3:	ug/L	
rep	1	SN	conc	-33.7	ug/L	window edge
rep	1	ZN	conc	-1.47	ug/L	
rep	1	CD	conc	-1.95	ug/L	
rep	1	CO	conc	-3.73	ug/L	
rep	1	NI	conc	-7.75	ug/L	
rep	1	MN	conc	-1.47	ug/L	
rep	1	FC	conc	-0.0029	mg/L	
rep	1	CR	conc	-5.90	ug/L	
rep	1	VZ	conc	0.92	ug/L	
rep	1	CU	conc	-10.36	ug/L	window edge
rep	1	AG	conc	-4.50	ug/L	
rep	1	BA	conc	-0.79	ug/L	
rep	1	NA	conc	-1.035	mgIL	
rep	2	SB	conc	-31.36	ug/L	
rep	2	PB	conc	-2.58	ug/L	
rep	2	SN	conc	-15.7	ug/L	
rep	2	ZN	conc	-0.44	ug/L	
rep		CD	conc	-2.57	ug/L	window edge
rep	2	CO	conc	-0.71	ug/L	
rep	2	NI	conc	-7.38	ug/L	window edge
rep		MN	conc	-1.76	ug/L	window edge
rep	2	FE	con:	-0.0010	mgIL	
rep	2	CR	conc	-6.84	ug/L	
rep	2	VZ	conc	-1.91	ug/L	
rep	2	CU	conc	-4.48	ug/L	
rep	2	AG	conc	-5.98	ug/L	
rep	2	EA	conc	-0.46	ug/L	
rep	2	NA	conc	-1.053	mgIL	

CAL BLK

03/30/90 21 27

SB	av	-28.97	ug/L	sd	3.385	%cv	11.69
PB	av	-13.95	ug/L	sd	16.075	%cv	115.26
SN	av	-24.2	ug/L	sd	12.04	%cv	49.76
ZN	av	-0.97	ug/L	sd	0.743	%cv	76.80
CD	av	-2.26	ug/L	sd	0.441	%cv	19.51
CO	av	-2.22	ug/L	sd	2.132	%cv	95.99
NI	av	-7.57	ug/L	sd	0.263	%cv	3.47
MN	av	-1.61	ug/L	sd	0.210	%cv	12.99
FE	av	0.0020	mg/L	sd	0.00137	%cv	69.82
CR	av	-6.37	ug/L	sd	0.670	%cv	10.52
VZ	av	-0.50	ug/L	sd	1.997	%cv	401.79
CU	av	-7.42	ug/L	sd	4.156	%cv	56.00
AG	av	-5.24	ug/L	sd	1.046	%cv	19.98
BA	av	-0.62	ug/L	sd	0.235	%cv	37.69
NA	av	-1.044	mg/L	sd	0.0128	%cv	1.22

03/30/90 21 32

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CAD BLK          rep   1  NA        conc     -1.085 mg/L
                 rep   2  NA        conc     -1.077 mg/L
CAL BLK
03/30/90 21:33
    NA           av     -1.082 mg/L        sd     0.0045 %cv    0.42

03/30/90 21:34
blank            rep   1  NA        em        371.7
                 rep   2  NA        em        367.4
blank
03/30/90 21:35
    NA           av   369.680              sd     3.1778 %cv    0.86

03/30/90 21:35
standard         rep   1  NA        em      74217.5 conc 100.000
                 rep   2  NA        em      73678.6 conc 100.000
stand * 2
03/30/90 21:36
    ND           av 73958.0[illegible]      sd   066.9000 mcv    0.50 conc 100.000

03/30/90 21:37
CCVS             rep   1  NA        conc     21.283 mg/L
                 rep   2  NA        conc     21.225 mg/L
CCVS
03/30/90 21:37
    NA           av    21.254 mg/L        sd     0.0410 %cv    0.19

03/30/90 21:38
CAL BLK          rep   1  NA        conc      0.083 mg/L
                 rep   2  NA        conc      0.070 mg/L
CAL BLK
03/30/90 21:38
    NA           av     0.077 mg/L        sd     0.0089 %cv   11.57

03/30/90 21:39
70490            rep   1  NA        conc      0.355 mg/L
                 rep   2  NA        conc      0.413 mg/L
70490
03/30/90 21:40
    NA           av     0.384 mg/L        sd     0.0413 %cv   10.75

03/30/90 21:41
~~Sample-00~~    rep   1  NA        conc      0.409 mg/L
70490D           rep   2  NA        conc      0.388 mg/L
Sample.001
03/30/90 21:41
    NA           av     0.398 mg/L        sd     0.0148 %cv    0.72

03/30/90 21:42
70490 S          rep   1  NA        conc      0.447 mg/L
                 rep   2  NA        conc      0.442 mg/L
70490 S
03/30/90 21:42
    NA           av     0.445 mg/L        sd     0.0030 %cv    0.86

03/30/90 21:43
70492            rep   1  NA        conc      0.679 mg/L
                 rep   2  NA        conc      0.779 mg/L
70492
03/30/90 21:44
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    NA          av    3.739 mg/L          sd    0.0563 %cv    1.51

0'1130190 21 45
70493 1/10      rep   1  NA          conc    82.879 mg/L
                rep   2  NA          conc    82 G34 mg/L
70493 1/10
03130190 21 45
    NA          av    82.467 mg/L → 825 mg/L  sd    0.5828 %cv    0.71

03/30/90 21 46
70494           rep   1  NA          conc     0.339 mg/L
                rep   2  NA          conc     0.272 mg/L
70494
03/30/90 21:46
    NA          av    0.305 mg/L          sd    0.0476 Wcv   15.60

03/30/90 21 47
CCVS            rep   1  NA          con::   20 811 mg/L
                rep   2  NA          conc    LO 743 mg/L
CCVS
03/30/90 21 48
    NA          av    20.777 mg/L         sd    0.0481 %cv    0 23

03130190 21 48
CAL ELK         rep   1  NA          conc     0 026 mg/L
                rep   2  NA          conc     0.017 mg/L

CAL BLK
03/30/90 21:49  av     0.021 mg/L         sd    0 0069 kcv   32.31
    NA
03/30/90 21 50
70781.042100    rep   1  SB          conc   -14.89 ug/L
                rep   1  PB          conc    -8 92 ug/L
                rep   1  ZN          conc  7019.24 ug/L
                rep   1  CD          conc    -4.5: ug/L          window edge
                rep   1  NI          conc     1 78 ug/L
                rep   1  CR          conc    -4.09 ug/L
                rep   1  BE          conc     0.59 ug/L
                rep   1  CU          conc    31.45 ug/L
                rep   1  AG          conc    -4.82 ug/L
                rep   2  SB          conc    24.99 ug/L
                rep   2  PB          conc    21.77 ug/L
                rep   2  ZN          conc  7070.04 ug/L
                rep   2  CD          conc    -3.23 ug/L
                rep   2  NI          conc    -0.62 ug/L
                rep   2  CR          conc    -4.54 ug/L
                rep   2  BE          conc     0 .5 ug/L
(9000.771)      rep   2  CU          conc    27.39 ug/L
                rep   2  AG          conc    -8.43 ug/L          window edge
70781.042100
03/30/90 21 53
    SB          av     5.05 ug/L<60.0     sd    28.205 %cv  558 47
    PB          av     6.42 ug/L<50.0     sd    21 700 %cv  337 88
    ZN          av  9044 64 ug/L          sd    25 717 %cv    0.40
    CD          av    -3 88 ug/L<5.00     sd     0.914 %cv   23.57
    NI          av     0.58 ug/L<15.0     sd     1 691 %cv  291 43
    CR          av    -4 31 ug/L<10.0     sd     0 317 %cv    7 36
    BE          av     0 67 ug/L<2.00     sd     0 110 %cv   16 37
    CU          av    27 42 ug/L          sd     2 872 %cv    9 75
    AG          av    -6 62 ug/L<10.0     sd     2.550 %cv   38.50
```

3

```
03/30/90 23 16
    SB          av     -32 05 ug/L          sd      8.826 %cv  27.54

03/30/90 23 17
70222.042100    rep    1  SB          conc    -25.94 ug/L
                rep    2  SB          conc    -31 06 ug/L
7012Z.042100
03/30/90 23 18
    SB          av     -20.50 ug/L <60.0    sd      3.615 %cv  12.12

03/30/90 23.19
7022S.042100    rep    1  SB          conc    -44.49 ug/L
                rep    2  88          conc     -2.01 ug/L
70225 042100
03130190 23 19
    SO          av     -23.25 ug/L <60.0    sd     30 037 %cv 129.18

03/30/90 23 30
70493 L         rep    1  ZN          conc     55.19 ug/L
                rep    1  MN          conc    320.14 ug/L
                rep    1  FE          cone   66.2641 mg/L
                rep    1  CR          conc     33.10 ug/L
                rep    1  VZ          conc     55.98 ug/L
                rep    1  NA          conc   146.937 mg/L
                rep    2  ZN          conc     54.67 ug/L
                rep    2  MN          conc    310.90 ug/L
                rep    2  FE          conc   68.1400 mg/L
                rep    2  CR          conc     35 .4 ug/L
                rep    2  VZ          cone     57.56 ug/L
                rep    2  NA          conc   145.222 mg/L
70493 L
03/30/90 23 32
    ZN          av     54.93 ug/L 275       sd      0.371 %cv   0 LO
    MN          av    317 52 ug/L 1598      sd      0 875 %cv   0 27
    FE          av    67 2021 mg/L 336      sd    1.32650 %cv   1.97
    CR          av     34 12 ug/L 171       sd      1 443 %cv   4 29
    VZ          av     56.77 ug/L 284       sd      1.116 %cv   1 .0
    NA          av    146 079 mg/L 730      sd     1.2128 %cv   0.03

03/30190 23 35
CCVS            rep    1  SB          conc    991 47 ug/L
                rep    1  ZN          conc    497 74 ug/L
                rep    1  MN          conc    434.64 ug/L
                rep    1  FE          conc    0 4611 mg/L
                rep    1  CR          conc    445 02 ug/L
                rep    1  VZ          conc    517.53 ug/L
                rep    1  NA          conc    21 30u mg/L
                rep    2  SB          conc    945 52 ug/L
                rep    2  ZN          conc    487.73 ug/L
                rep    2  MN          conc    451 14 ug/L
                rep    2  FE          conc    0 4370 mg/L
                rep    2  CR          conc    446 09 ug/L
                rep    2  VZ          conc    iu3 57 ug/L
CCV             rep    2  NA          conc    7?.123 mg/L
QBVS
03/30/90 23 37
    SB          av     960 47 ug/L          sd     32 49: %cv   3 35
    ZN          av     492 73 ug/L          sd      7 079 Kev   1.84
    MN          av     452.90 ug/L          sd      2 459 %cv     54
    FE          av     0.4470 mg/L          sd    0.01708 %cv   3 50
```

CR	av	~~183.75~~ ug/L		sd	2.639 Ycv		0.59
VZ	av	510 53 ug/L		sd	9.866 %cv		
NA	av	21.216 mg/L		sd	0.1305 %cv		0.62
							1.93
							0.62

03130190 23 51

CCVS	rep	1	FE	conc	0.4486 mg/L
	rep	1	CR	cunc	592.69 ug/L
	rep	2	FE	conc	0.4498 mg/L
	rep	2	CA	conc	460.89 ug/L

CCVS
03/30/90 23 52

FE	av	~~0.4493~~ mg/L	sd	0.00087 Wcv		0.19
CR	av	476.79 ug/L	sd	22.484		4.72

03/30/90 23 53

CCVS	rep	1	FE	conc	0.4683 mg/L
	rep	2	FE	conc	0 4463 mg/L

CCVS
03130190 23 53

FE	av	0.4673 mg/L	sd	0.00144 Ycv		0.31

03130190 23.54

CAL BLK	rep	1	Sa	conc	22.73 ug/L
	rep	1	P.B	cunc	-25.89 ug/L
	rep	1	ZN	conc	1.31 ug/L
	rep	1	CD	conc	-2.75 ug/L
	rep	1	MN	conc	-0.47 ug/L
	rep	1	FE	conc	-0 0017 mg/L
	rep	1	CR	conc	-5.90 ug/L
	rep	1	VZ	cunc	-2.71 ug/L
	rep	I	NA	cunc	-0.043 mg/L
	rep	2	SB	conc	-1 90 ug/L
	rep	2	ZN	conc	0 37 ug/L
	rep	2	MN	conc	-0.62 ug/L
	rep	2	PE	conc	0.0051 mg/L
	rep	2	CH	conc	-4.56 ug/L
	rep	a	Vi	conc	-6.50 ug/L
	rep	2	NA	conc	-0.137 mg/L

CAL BLK
03/30/90 23.57

SB	av	10 41 ug/L	sd	17 416 %cv	167	24
ZN	av	0.84 ug/L	sd	0 666 %cv	79	04
MN	av	-0.65 ug/L	sd	0 038 %cv	5	82
FE	av	0.0018 mg/L	3d	0 00487 %cv	270	57
CR	av	-5.23 ug/L	sd	0 950 Ycv	18	17
VZ	av	-4.44 ug/L	sd	2 7:9 %cv	58	71
NA	av	-0.090 mg/L	sd	0 0664 %cv	73	53

03131IV0 00.00

ICS	rep	1	SB	conc	-380.39 ug/L	Window Ydge
	rep	1	PB	conc	4444 73 ug/L	
	rep	1	SN	conc	30 4 ug/L	
	rep	1	ZN	conc	934 40 ug/L	
	rep	1	CD	conc	762.34 ug/L	
	rep	1	CO	conc	380 56 ug/L	
	rep	1	NI	conc	700 81 ug/L	
	rep	1	MN	conc	410 27 ug/L	
	rep	1	FC	conc	172 9483 mg/L	
	rep	1	CR	conc	438 39 ug/L	
	rep	1	VZ	conc	478.95 ug/L	

rep	1	BE	conc	427 05	ug/L	
rep	1	CA	conc	431.243	mg/L	
rep	1	CU	conc	455 77	ug/L	
rep	1	AG	conc	882.15	ug/L	
rep	1	MG	conc	455.069	mg/L	
rep	1	AL	conc	441 9872	mg/L	
rep	1	PA	conc	429.05	ug/L	
rep	1	NA	conc	0.455	mg/L	
rep	1	KZ	conc	-0 170	mg/L	
rep	2	SO	conc	-493 94	ug/L	window edge
rep	2	PB	conc	4565.31	ug/L	
rep	2	SH	conc	45.4	ug/L	
rep	2	ZN	conc	956.89	ug/L	
rep	2	CD	conc	788 95	ug/L	
rep	1	CO	conc	392.41	ug/L	
rep	2	HI	conc	800.83	ug/L	
rep	2	MN	cone	421.06	ug/L	
rep	2	FE	conc	178 4752	mg/L	
rep	2	CR	conc	458.89	ug/L	
rep	2	VZ	conc	476.78	ug/L	
rep	2	BE	conc	436 18	ug/L	
rep	2	CA	conc	436.112	mg/L	
rep	2	CU	conc	463 41	ug/L	
rep	2	AG	conc	883.06	ug/L	
rep	2	MG	conc	462.390	mg/L	
rep	2	AL	conc	447 1769	rqlt	
rep		BA	conc	441.89	ug/L	
rep	2	NA	conc	0.421	mg/L	
rep	2	KZ	conc	-0 138	mg/L	

ICS
03/31/90 00 06

BE	av	-441 18	ug/L	sd	74.654	%cv 16.92
PB	av	4516 02	ug/L	sd	97.986	%cv 2 17
SH	av	37 9	ug/L	sd	10.55	%cv 27.85
ZN	av	946 74	ug/L	sd	14.346	%cv 1 52
CD	av	785 64	ug/L	sd	4.473	%cv 0 59
CO	av	386.49	ug/L	rd	8.380	%cv 2.17
HI	av	790 a2	ug/L	sd	14.159	%cv 1.79
MN	av	415 67	ug/L	sd	7.627	%cv 1 83
FE	av	175.7117	mg/L	rd	3.90812	%cv 2.22
CR	av	448 44	ug/L	sd	14 493	%cv 3.23
VZ	av	477 86	ug/L	sd	1.534	%cv 0.32
BE	av	431 62	ug/L	sd	6.458	%cv 1.50
CA	av	433 688	mg/L	sd	3.4290	%cv 0.79
CU	av	459 59	ug/L	sd	5.402	%cv 1 18
AC	av	882 60	ug/L	sd	0.643	%cv 0.07
MG	av	458 980	mg/L	sd	5.5308	%cv 1.21
AL	av	444 5820	mg/L	sd	3.66965	%cv 0 83
BA	av	435 47	ug/L	sd	9.075	%cv 2.08
NA	av	0 438	mg/L	sd	0.0240	%cv 5 49
AT	av	-0 IS4	mg/L	sd	0 0214	%cv 14 52

04/18/90 [illegible]

blank	rep	1	SB	em	53.2	
	rep	1	PB	em	159.9	
	rep	1	CD	em	2.8	
	rep	1	NI	em	-13.1	window edge
	rep	1	MN	em	-2.6	
	rep	1	FE	em	-18.0	window edge
	rep	1	CR	em	105.4	
	rep	1	BE	em	21.7	
	rep	1	AG	em	141.6	
	rep	1	NA	em	21.9	
	rep	2	SB	em	-9.7	window edge
	rep	2	PB	em	22.2	
	rep	2	CD	em	19.4	
	rep	2	NI	em	-24.3	
	rep	2	MN	em	17.0	
	rep	2	FE	em	0.7	
	rep	2	CR	em	32.2	
	rep	2	BE	em	26.6	
	rep	2	AG	em	224.1	
	rep	2	NA	em	70.0	

blank [illegible]
04/18/90 11:12

SB	av	21.75	sd	44.537	%cv	204.79
PB	av	91.04	sd	97.309	%cv	106.88
CD	av	11.08	sd	11.779	%cv	106.30
NI	av	-18.68	sd	7.938	%cv	42.49
MN	av	7.60	sd	14.411	%cv	189.68
FE	av	-8.66	sd	13.209	%cv	152.59
CR	av	68.78	sd	51.737	%cv	75.22
BE	av	24.17	sd	3.437	%cv	14.22
AG	av	183.89	sd	59.755	%cv	32.50
NA	av	45.92	sd	33.987	%cv	74.01

04/18/90 [illegible]

standard	rep	1	SB	em	3114.3	conc 2000.00
	rep	1	PB	em	8009.4	conc 2000.00
	rep	1	CD	em	9225.2	conc 1000.00
	rep	1	NI	em	9962.1	conc 1000.00
	rep	1	MN	em	11656.6	conc 1000.00
	rep	1	FE	em	2240.8	conc 1.0000
	rep	1	CR	em	13393.7	conc 1000.00
	rep	1	BE	em	14927.2	conc 1000.00
	rep	1	AG	em	22483.0	conc 1000.00
	rep	2	SB	em	2905.6	conc 2000.00
	rep	2	PB	em	8002.0	conc 2000.00
	rep	2	CD	em	9198.1	conc 1000.00
	rep	2	NI	em	10032.0	conc 1000.00
	rep	2	MN	em	11599.8	conc 1000.00
	rep	2	FE	em	2292.8	conc 1.0000
	rep	2	CR	em	13247.4	conc 1000.00
	rep	2	BE	em	15202.5	conc 1000.00
	rep	2	AG	em	22495.4	conc 1000.00

standard
04/18/90 11:22

SB	av	3009.95	sd	147.641	%cv	4.91 conc 2000.00
PB	av	8005.57	sd	5.240	%cv	0.07 conc 2000.00
CD	av	9211.67	sd	19.14[illegible]	%cv	0.2[illegible] conc 1000.00
NI	av	9997.45	sd	47.958	%cv	0.50 conc 1000.00
MN	av	11620.19	sd	40.294	%cv	0.35 conc 1000.00

FE	av	2236.7717	sd	50.88320	%cv	2.25	conc 1.0000
CR	av	13320.54	sd	103.455	%cv	0.78	conc 1000.00
BE	av	15064.85	sd	194.722	%cv	1.29	conc 1000.00
AG	av	22444.22	sd	54.875	%cv	0.24	conc 1000.00

04/18/90 11:25

standard	rep	1	SB	em	3141.5	conc 2000.00
	rep	1	FE	em	2242.3	conc 1.0000
	rep	1	BE	em	15741.7	conc 1000.00
	rep	2	SB	em	3102.4	conc 2000.00
	rep	2	FE	em	2279.7	conc 1.0000
	rep	2	BE	em	15151.4	conc 1000.00

standard
04/18/90 11:26

SB	av	3121.95	sd	27.651	%cv	0.89 conc 2000.00
FE	av	2211.0198	sd	44.27168	%cv	2.00 conc 1.0000
BE	av	15163.02	sd	16.504	%cv	0.11 conc 1000.00

04/18/90 11:27

1000 PPB	rep	1	SB	conc	1979.80 ug/L
	rep	1	PB	conc	1948.08 ug/L
	rep	1	ZN	conc	990.96 ug/L
	rep	1	CD	conc	980.28 ug/L
	rep	1	NI	conc	988.00 ug/L
	rep	1	MN	conc	996.62 ug/L
	rep	1	FE	conc	0.9939 mg/L
	rep	1	CR	conc	983.45 ug/L
	rep	1	BE	conc	970.40 ug/L
	rep	1	CU	conc	1004.56 ug/L
	rep	1	AG	conc	1023.33 ug/L
	rep	2	SB	conc	1976.75 ug/L
	rep	2	PB	conc	1921.42 ug/L
	rep	2	ZN	conc	1011.54 ug/L
	rep	2	CD	conc	993.74 ug/L
	rep	2	NI	conc	976.69 ug/L
	rep	2	MN	conc	1004.07 ug/L
	rep	2	FE	conc	1.0160 mg/L
	rep	2	CR	conc	1000.86 ug/L
	rep	2	BE	conc	985.33 ug/L
	rep	2	CU	conc	988.93 ug/L
	rep	2	AG	conc	1034.52 ug/L

1000 PPB
04/18/90 11:30

SB	av	1978.27 ug/L	sd	2.53	%cv	0.11
PB	av	1924.75 ug/L	sd	18.855	%cv	0.97
ZN	av	1001.25 ug/L	sd	14.554	%cv	1.45
CD	av	987.01 ug/L	sd	7.518	%cv	0.76
NI	av	992.25 ug/L	sd	8.000	%cv	0.81
MN	av	1000.35 ug/L	sd	5.268	%cv	0.53
FE	av	1.0050 mg/L	sd	0.05578	%cv	5.55
CR	av	992.15 ug/L	sd	12.311	%cv	1.24
BE	av	977.86 ug/L	sd	10.557	%cv	1.08
CU	av	996.74 ug/L	sd	11.053	%cv	1.11
AG	av	1029.92 ug/L	sd	7.908	%cv	0.77

04/18/90 11:35

standard	rep	1	NA	em	76460.7 conc 100.000
	rep	2	NA	em	75947.3 conc 100.000

standard
04/18/90 11:35

```
    NA          av 762.4 000              sd   340 9572 %cv    0 46 conc :00 000

04/18/90 11 36
.00 PPM         rep   1  NA          conc    100 146 mg/L
                rep   2  NA          conc     99 989 mg/L
100 PPM
04/18/90 11 36
    NA          av    100 047 mg/L        sd     0 117 %cv    0 11

04/18/90 11 38
CAL BLK         rep   1  SB          conc     83.24 ug/L
                rep   1  PB          conc    -28.22 ug/L
                rep   1  ZN          conc     -1.51 ug/L
                rep   1  CD          conc      0 52 ug/L
                rep   1  NI          conc     10.81 ug/L
                rep   1  MN          conc     -0.27 ug/L
                rep   1  FE          conc    0.0120 mg/L
                rep   1  CR          conc     -5.38 ug/L
                rep   1  BE          conc      0.15 ug/L
                rep   1  CU          conc      0.15 ug/L
                rep   1  AG          conc    -14.38 ug/L          indow edge
                rep   1  NA          conc    -0.011 mg/L
                rep   2  SB          conc     34.75 ug/L
                rep   2  PB          conc      4.93 ug/L
                rep   2  ZN          conc     -2.05 ug/L
                rep   2  CD          conc     -0.84 ug/L
                rep   2  NI          conc      5.18 ug/L
                rep   2  MN          conc      0.87 ug/L
                rep   2  FE          conc    0.0010 mg/L          indow edge
                rep   2  CR          conc      1.19 ug/L          o peak
                rep   2  BE          conc      0.35 ug/L
                rep   2  CU          conc      0 07 ug/L
                rep   2  AG          conc     -4.40 ug/L
                rep   2  NA          conc     0.009 mg/L
CAL BLK
04/18/90 11 41
    SB          av     59 05 ug/L        sd    34.360 %cv   58.19
    PB          av    -11.64 ug/L        sd    23.444 %cv  201.33
    ZN          av     -1.78 ug/L        sd     0 386 %cv   21.65
    CD          av     -0.16 ug/L        sd     0.962 %cv  600.49
    NI          av      8.00 ug/L        sd     3 983 %cv   49 81
    MN          av      0.30 ug/L        sd     0.804 %cv  270 68
    FE          av    0.0065 mg/L        sd   0.00779 %cv  119.25
    CR          av     -2.10 ug/L        sd     4.649 %cv  221.66
    BE          av      0.25 ug/L        sd     0.140 %cv   56.96
    CU          av      0.1 ug/L         sd     0.057 %cv   50.73
    AG          av     -9.39 ug/L        sd     7.054 %cv   75.12
    NA          av    -0.001 mg/L        sd    0.0144 %cv 2026 8

04/18/90 11 46
ECVS            rep   1  SB          conc    .026 96 ug/L
                rep   1  PB          conc   1001 74 ug/L
                rep   1  ZN          conc    504.99 ug/L
                rep   1  CD          conc    476 00 ug/L
                rep   1  NI          conc    499.75 ug/L
                rep   1  MN          conc    493 32 ug/L
                rep   1  FE          conc    0.5074 mg/L
                rep   1  CR          conc    495 20 ug/L
                rep   1  BE          conc    505.76 ug/L
                rep   1  CU          con     467 14 ug/L
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rep	1	AG	conc	493.70	ug/L
rep	1	NA	conc	20.976	mg/L
rep	2	SB	conc	1021.16	ug/L
rep	2	PB	conc	924.55	ug/L
rep	2	ZN	conc	514.68	ug/L
rep	2	CD	conc	482.28	ug/L
rep	2	NI	conc	499.22	ug/L
rep	2	MN	conc	489.21	ug/L
rep	2	FE	conc	0.5217	mg/L
rep	2	CR	conc	497.61	ug/L
rep	2	BE	conc	498.28	ug/L
rep	2	CU	conc	509.32	ug/L
rep	2	AG	conc	504.91	ug/L
rep	2	NA	conc	20.985	mg/L

CCVS
04/18/90 11:50

SB	av	1023.61	ug/L	sd	3.461	%cv 0.34
PB	av	968.15	ug/L	sd	47.512	%cv 4.91
ZN	av	509.84	ug/L	sd	6.854	%cv 1.34
CD	av	489.14	ug/L	sd	9.698	%cv 1.98
NI	av	499.49	ug/L	sd	0.380	%cv 0.08
MN	av	491.27	ug/L	sd	2.910	%cv 0.59
FE	av	0.5145	mg/L	sd	0.01007	%cv 1.96
CR	av	496.40	ug/L	sd	1.703	%cv 0.34
BE	av	502.02	ug/L	sd	5.293	%cv 1.05
CU	av	488.23	ug/L	sd	29.826	%cv 6.11
AG	av	499.30	ug/L	sd	7.927	%cv 1.59
NA	av	20.980	mg/L	sd	0.0060	%cv 0.03

04/18/90 11:55
LCSW

rep	1	SB	conc	1083.25	ug/L
rep	1	PB	conc	1010.97	ug/L
rep	1	ZN	conc	1036.57	ug/L
rep	1	CD	conc	988.30	ug/L
rep	1	NI	conc	1002.26	ug/L
rep	1	MN	conc	1000.99	ug/L
rep	1	FE	conc	1.0903	mg/L
rep	1	CR	conc	988.19	ug/L
rep	1	BE	conc	1064.35	ug/L
rep	1	CU	conc	1013.88	ug/L
rep	1	AG	conc	1013.71	ug/L
rep	1	NA	conc	1.117	mg/L
rep	2	SB	conc	1143.61	ug/L
rep	2	PB	conc	1058.80	ug/L
rep	2	ZN	conc	1055.02	ug/L
rep	2	CD	conc	991.12	ug/L
rep	2	NI	conc	1007.85	ug/L
rep	2	MN	conc	1005.53	ug/L
rep	2	FE	conc	1.0800	mg/L
rep	2	CR	conc	990.78	ug/L
rep	2	BE	conc	1041.86	ug/L
rep	2	CU	conc	1017.57	ug/L
rep	2	AG	conc	1001.09	ug/L
rep	2	NA	conc	1.104	mg/L

LCSW
04/18/90 1:59

SB	av	1113.43	ug/L	sd	42.680	%cv 3.83
PB	av	1034.98	ug/L	sd	33.822	%cv 3.27
ZN	av	1045.79	ug/L	sd	13.047	%cv 1.25
CD	av	989.71	ug/L	sd	2.000	%cv 0.20

```
NI          av   1005.06 ug/L        sd      3.956 %cv    0.39
MN          av   1003.31 ug/L        sd      3.283 %cv    0.33
FE          av    1.0851 mg/L        sd    0.00725 %cv    0.67
CR          av    989.49 ug/L        sd      1.833 %cv    0.19
BE          av   1053.10 ug/L        sd     15.903 %cv    1.51
CU          av   1015.73 ug/L        sd      2.611 %cv    0.26
AG          av   1007.40 ug/L        sd      8.919 %cv    0.89
NA          av     1.110 mg/L        sd     0.0092 %cv    0.83

04/18/90  2 04
1.00 PPM        rep   1  PB        conc   9819.58 ug/L
                rep   1  ZN        conc  10266.64 ug/L
                rep   1  CD        conc   9884.32 ug/L
                rep   1  NI        conc  10071.03 ug/L
                rep   1  MN        conc   9969.53 ug/L
                rep   1  FE        conc   10.1267 mg/L
                rep   1  CR        conc  10096.95 ug/L
                rep   1  BE        conc  10066.39 ug/L
                rep   1  CU        conc  10315.26 ug/L
                rep   2  PB        conc   9905.69 ug/L
                rep   2  ZN        conc  10230.00 ug/L
                rep   2  CD        conc   9797.05 ug/L
                rep   2  NI        conc   9998.41 ug/L
                rep   2  MN        conc   9971.44 ug/L
                rep   2  FE        conc   10.2100 mg/L
                rep   2  CR        conc  10191.01 ug/L
                rep   2  BE        conc  10103.77 ug/L
                rep   2  CU        conc   9986.00 ug/L
10.0 PPM
04/18/90 12 06
    PB          av   9867.63 ug/L        sd     53.825 %cv    0.55
    ZN          av  10248.32 ug/L        sd     25.911 %cv    0.25
    CD          av   9840.69 ug/L        sd     61.706 %cv    0.63
    NI          av  10034.72 ug/L        sd     51.349 %cv    0.51
    MN          av   9970.48 ug/L        sd      1.356 %cv    0.01
    FE          av   10.1683 mg/L        sd   0.05888 %cv    0.58
    CR          av  10143.98 ug/L        sd     66.514 %cv    0.66
    BE          av  10005.08 ug/L        sd     26.432 %cv    0.26
    CU          av  10150.63 ug/L        sd    232.818 %cv    2.29

04/18/90 12 11
300 PPM         rep   1  PB        conc 256559.27 ug/L          over range
                rep   1  FE        conc   346.8530 mg/L
                rep   2  PB        conc 257257.03 ug/L          over range
                rep   2  FE        conc   278.1915 mg/L
300 PPM
04/18/90 12  0
    PB          over range
    FE          av  312.5233 mg/L        sd   48.55246 %cv   15.54

04/18/90 12 13
100 PPM         rep   1  FE        conc 109390.66 ug/L
                rep   2  PB        conc 107080.55 ug/L
100 PPM
04/18/90 12 13
    PB          av 108635.67 ug/L        sd  1067.723 %cv    0.98

04/18/90 12 14
700 PPM         rep   1  FE        conc     571.70 ug/L
                rep   2  PB        conc      19.89 ug/L          window edge
```

~~700 PPM~~
04/18/90 12:12

PB	av	[illegible] ug/L	sd	390.188	%cv	131.91

04/18/90 12:14

700 PPM	rep	1	NA	conc	728.461 mg/L
	rep	2	NA	conc	726.687 mg/L

700 PPM
04/18/90 12:16

NA	av	727.574 mg/L	sd	1.2539	Ycv	0.17

04/18/90 12:19

ICS	rep	1	SB	conc	-53.62 ug/L
	rep	1	PB	conc	4612.49 ug/L
	rep	1	ZN	conc	1040.05 ug/L
	rep	1	CD	conc	908.33 ug/L
	rep	1	NI	conc	879.90 ug/L
	rep	1	MN	conc	473.69 ug/L
	rep	1	FE	conc	204.5104 mg/L
	rep	1	CA	conc	526.73 ug/L
	rep	1	BE	conc	499.28 ug/L
	rep	1	CU	conc	502.78 ug/L
	rep	1	AG	conc	963.41 ug/L
	rep	1	NA	conc	0.385 mg/L
	rep	f	YE	conc	-56.01 ug/L
	r+p	2	PB	conc	4816.69 ug/L
	rep	2	ZN	conc	1035.42 ug/L
	trp	2	CD	conc	916.e3 ug/L
	rep	2	NI	conc	895.81 ug/L
	rep	2	MN	conc	475.28 ug/L
	rep	2	FE	conc	206.1300 mg/L
	rep	2	CH	conc	513.75 ug/L
	rep	2	BE	conc	502.53 ug/L
	rep	2	CU	conc	495.17 ug/L
	rep	2	AG	conc	948.77 ug/L
	rep	2	NA	conc	0.369 mg/L

ICS
04/18190 12:21

SB	av	-54.81 ug/L	sd	1.693	%cv	3.09
PB	av	4714.59 ug/L	sd	144.388	%cv	3.06
ZN	av	1037.74 ug/L	sd	3.274	%cv	0.32
CG	av	912.58 ug/L	sd	6.012	%cv	0.66
NI	av	887.85 uy/L	sd	11.247	%cv	1.27
MN	av	474.48 ug/L	sd	1.125	%cv	0.24
FE	av	205.3202 mg/L	sd	1.14521	%cv	0.56
CR	av	520.24 ug/L	sd	9.187	%cv	1.77
BE	av	500.90 ug/L	sd	2.300	%cv	0.46
CU	av	498.98 ug/L	sd	5.384	%cv	1.08
AG	av	956.09 ug/L	sd	10.351	%cv	1.08
NA	av	0.347 mg/L	sd	0.0541	%cv	15.57

(9000.745)

```
04/18/90 12 2
BLK 814          rep  1  BE        conc      0.35 ug/L
                 rep  2  BE        conc      0.21 ug/L
BLK 814
04/18/90 12.27
    BE           av      0 28 ug/L <2.00  sd      0.103 %cv  37 10

04/18/90 12 27
70490 062100     rep  1  BE        conc      0.16 ug/L
                 rep  2  BE        conc      0.11 ug/L
70490 062100
04/18/90 12.28
    BE           av      0 19 ug/L <2.00  sd      0.106 %cv  57.21

04/18/90 12 28
70490 062110     rep  1  BE        conc      0 17 ug/L
                 rep  2  BE        conc     -0 18 ug/L
70490 062110
04/18/90 12.28
    BE           av     -0 15 ug/L <2.00  sd      1.460 %cv 300 81

04/18/90 12:29
70490 062120     rep  1  BE        conc     49.74 ug/L
                 rep  2  BE        conc     49.87 ug/L
70490 062120
04/18/90 12 29
    BE           av     49 80 ug/L 100% K sd      0.093 %cv   0 19

04/18/90 12 30
70492 042100     rep  1  BE        conc     -0.04 ug/L
                 rep  2  BE        conc      0.59 ug/L
70492.042100
04/18/90 12:30
    BE           av      0.28 ug/L <2.00  sd      0.446 %cv 161.57

04/18/90 12 31
70493 042100     rep  1  BE        conc     96 16 ug/L
                 rep  2  BE        conc     95 45 ug/L
70493.042100
04/18/90 12 31
    BE           av     95 81 ug/L        sd      0 499 %cv   0.52

04/18/90 12 32
70494.042100     rep  1  BE        conc     -0.08 ug/L
                 rep  2  BE        conc      0.54 ug/L
70494 042100
04/18/90 12.32
    BE           av     -0.02 ug/L <2.00  sd      0.086 %cv 399 15

04/18/90 12 33
CAL BLK          rep  1  BE        conc     -0.11 ug/L
                 rep  2  BE        conc     -0 32 ug/L
CAL BLK
04/18/90 12 33
    BE           av     -0 22 ug/L        sd      0 150 %cv  69.40

04/18/90 12 34
CCVS             rep  1  BE        conc    508.12 ug/L
                 rep  2  BE        conc    507 53 ug/L
CCVS
```

P32W001

P32W064

P32WFB02

04/18/90 12 3
BE 500 08 ug/L 0 595 %cv 0 12

Project No.
Book No. TITLE

Page No. Az
Test Performed: 25.0 IDL 1.00 ug/l
Date Received: 4/3/90
Work Performed By: 100.0

Job No.	ID No.	Secure Storage Area Received From	1	25.0	REC	DF	AMT	UNT	CONC	
	NBS 3130		52.6	75.4	91.2			ug/l	52.6	
	CB		-0.3	27.6	110				<1.00	
	50.0		52.6	75.7	92.4				52.6	
	PB ~~795~~ 811		-0.6	28.3	113				<1.00	
7000731	70211 0622		0.4	26.7	107					
	70212		0.3	27.6	110					
	70213		-0.3	27.3	109					
	70214		-0.1	28.8	115					
	70215		0.7	29.1	116					
	70216		0.1	28.3	113					
	70217		0.3	28.7	115					
	70218		0.4	28.3	113					
	70219		0.0	26.9	108					
	CB		-0.1	25.9	104				<1.00	
	50.0		50.1	72.7	90.4				50.1	
	70220 0622		0.1	27.6	110				<1.00	
	06221		-0.1	27.1	108					RPD N/C
	06222		45.2	69.5	97.2				45.2	113% REC
	70221 0622		-0.4	26.7	107				<1.00	
	70222		0.8	29.4	118					
	70225 0422		-0.2	27.5	110					
	PB 795		-0.3	26.0	104					
7000697	69400 0322		-0.2	27.3	109					
	PB 815		-0.2	26.9	108					
[illegible]	70490 0622		-0.6	29.9	120					
	CB		-0.5	28.9	116				<1.00	
	50.0		49.6	74.5	99.6				49.6	
	70490 06221		-0.2	28.0	112				<1.00	RPD N/C
	06222		43.5	71.9	114				43.5	109% REC
	70492 0422		0.6	31.9	128				<1.00	
	70493 0422		-47.5	-43.9						dil
	70494 0422		-0.4	30.1	120				<1.00	

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Witnessed & Understood by me, | Date | Invented by | Date 4.3.90

From Page No. 154

Performed: [redacted]
Date Received: 4/3/90
Work Performed By: acl

Job No.	ID No.	Secure Storage Area Received From	1	25.0	REC	DF	LIMIT	UNIT	CONC	
9000771	~~PB~~ 70781042		0.8	27.9	112			ug/l	<1.00	
	CB		-0.5	28.7	115				<1.00	
	50.0		45.6	76.7	124				45.6	
	70782 0422		3	24.5	98				<1.0	
	70783		4.8	29.9	100				4.8	
	70784		1.2	26.5	101				1.2	
	70785		5.5	32.1	106				5.5	
	70786		3.5	30.4	108				3.5	
	PB 819		-0.2	24.9	99				<1.0	
9000777	70805 0122		10.6	36.5	104				10.6	
	70806 0122		0.5	25.8	103				<1.0	
	01221		1.0	26.5	106				1.0	RPD N/C
	01222		45.1	69.5	98				45.1	113% REC
	CB		-0.4	25.5	102				<1.00	
	50.0		52.3	75.3	92				52.3	
	70807 0122		7.8	33.0	101				7.8	
9000781	70814 1022		16.1	43.0	108				16.1	
	70815		15.5	42.3	107				15.5	
	CB		-$*	25.3	101				<1.00	
	50.0			76.2	102				50.6	
~~9000745~~	70493.0422		-3.1	17.9	72	1->10			<10.0	see fwd. dil
	carblk		-0.1	24.4	98				<1.0	
	50.0ppb		52.1	75.1	92				52.1	
	70493.0422		-0.8	24.5	90	1->20			<20.0	
	carblk		-0.2	25.2	101				<1.0	
	50.0ppb		53.4	76.0	90				53.4	

AAR

To Page No.

Witnessed & Understood by me, | Date | Invented by | Date 4-3-90

Reported by acl

Project No.
Book No. TITLE

C 11

Page No.
Test Performed: PD
Date Received: 4/3/90
Work Performed By: acu.

Az
25.0
100.0
IDL 1.00 ug/l

Job No.	ID No.	Secure Storage Area Received From	1	25.0	REC	DF	AMT	UNT	CONC	
	NBS1643b		22.9	47.7	99			ug/l	22.9	
	CB		0.6	23.0	92				<1.00	
	50.0		48.5	75.1	106				48.5	
	PB 811		0.7	23.9	96				<1.00	
9000731	70211 0622		1.2	23.3	88				1.2	
	70212		1.2	23.9	91				1.2	
	70213		0.5	23.8	95				<1.0	
	70214		1.2	24.2	92				1.2	
	70215		1.9	25.4	94				1.9	
	70216		1.4	26.3	99				1.4	
	70217		0.6	24.5	98				<1.0	
	70218		1.5	25.6	96				1.5	
	70219		1.1	23.8	91				1.1	
	CB		0.6	24.4	98				<1.00	
	50.0		49.6	75.7	104				49.6	
	70220 0622		0.4	24.8	99				<1.0	RPD(NC)
	06221		0.7	24.4	98				<1.0	
	06222		41.6	68.7	108				41.6	104% rec
	70221 0622		0.9	24.9	99				<1.0	
	70222		0.9	24.6	98				<1.0	
	70225		0.7	24.0	96				<1.0	
	PB 815		~~0.6~~ 0.7	24.3	97				<1.0	
9000745	70490 0622		0.6	25.1	100				<1.0	RPD(NC)
	06221		0.4	28.0	112				<1.0	
	06222		44.7	72.9	113				<44.7	112% rec
	CB		0.7	25.3	101				<1.00	
	50.0		50.2	78.9	115				50.2	
	70492 0422		4.7	31.5	107				4.7	
	70493		0.1	15.6	62				—	dil
	70494		0.7	26.1	104				<1.0	
9000771	70781 0422		3.3	29.4	100				3.3	
	70782 0422		9.6	34.0	98				9.6	

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Witnessed & Understood by me, | Date | Invented by | Date 4-3-90

4/13/90

Page No. 70 Pb (cont 4)
Performed:
Date Received: 4/3/90
Work Performed By: ade

Job No.	ID No.	Secure Storage Area Received From	1	25.0	REC	DF	AMT	UNT	CONC	
9000771	70783 0422		4.0	28.2	97			ug/l	4.0	
	CB		0.5	24.5	98				<1.0	
	50.0		49.7	76.1	106				49.7	
	70784 0422		67.4	96.0	114				67.4	
	70785		6.7	34.2	110				6.7	
	70786		289.7	over-r	over-r					dil
	PB 819		0.6	25.7	103				<1.0	
9000770	70805 0122		398.3	over-r	over-r					dil
	70806 0122 D		693.9							
	70806 0122		675.7							
	70806 0122		669.3							
	70807 0122		25.7	55.5	119				25.7	
781	70814 1022		91.8	121.8	120				91.8	
	CB		0.8						<1.0	
	50.0		51.0						51.0	
	70815 1022		12.7	36.4	95				12.7	
	CB		0.6						<1.0	
	50.0		50.2						50.2	
9000745	70493.0422		1.3	22.7	86	1→2		ug/L	2.6	
9000771	70786.0422		25.9	50.5	98	1→10			259.0	
9000777	70805.0122		32.9	57.4	98	1→10			329.0	
	70806.0122		70.8	98.8	112	1→10			708.0	2.7% RPD
	70806.0122 1		68.9	96.4	110	1→10			689.0	
	70806.0122 2		73.4	100.3	108	1→10			734.0	65% REC
	cal blk		0.6						<1.0	
	50.0 ppb		53.1						53.1	PAR

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Witnessed & Understood by me, Date nvented by Date 4-3-90
Recorded by PAR

Project No.
Book No. TITLE

4/13/90

No. AZ
[redacted]: 25.0
Date Received: 4-3-90 100.0
Work Performed By: PHP

Job No.	ID No.	Secure Storage Area Received From	ppb found	25.0 spike	% rec	df	amt	unit	final conc	
	NBS		9.6	40.2	122			ug/L	9.6	
	calblk		0.1	29.4	118				<1.0	
	50.0ppb		49.1	78.3	117				49.1	
	PB 811		-0.0	28.5	114				<1.0	
200.731	70211. 0622		1.0	23.9	92				1.0	
	70212.		0.4	24.4	98				<1.0	
	70213.		0.3	29.7	119				<1.0	
	70214.		0.1	22.2	89				<1.0	
	70215.		-0.2	22.1	88				<1.0	
	70216.		0.1	27.9	112				<1.0	
	calblk		-0.1	29.9	120				<1.0	
	50.0ppb		48.6	77.5	116				48.6	
	70217. 0622		0.4	27.0	108				<1.0	
	70218.		-0.3	24.3	97				<1.0	
	70219.		0.7	28.8	115				<1.0	
	70220.		0.1	28.9	116				<1.0	RPD (NC)
	70220. 06221		-0.3	29.1	116				<1.0	
	70220. 06222		10.3	37.6	109				10.3	103% rec
	70221. 06220		-0.0	26.9	108				<1.0	
	70222.		-0.0	~~29.3~~ 26.0	104				<1.0	
	70225. 0422		-0.2	27.8	111				<1.0	
	PB 815		0.1	28.7	115				<1.0	
	calblk		-0.4	29.0	116				<1.0	
	50.0ppb		48.2	83.1	140				48.2	
[redacted]	70490. 0622		-0.3	28.5	114				<1.0	RPD (NC)
	70490. 06221		0.2	28.7	115				<1.0	
	70490. 06222		10.2	40.6	122				10.2	102% rec
	70492. 04220		0.3	27.8	111				<1.0	
	70493. 04220		-7.1	39.7	—				—	dil

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Witnessed & Understood by me, Date

Invented by Date 4-3-90

Recorded by PAR

n Page No. 156
Date Re: [redacted] 3-90
Work Pe: PAR

Job No.	Secure Storage Area Received From	ppb found	25.0 spike	% rec	df	amt	unit	final conc	
[redacted]	70494.0422D	0.2	26.9	108			ug/L	<1.0	
9000.771	70791.0422D	0.6	23.6	94				<1.0	
	70792. ↓	-0.4	25.4	102				<1.0	
	70783. ↓	-0.0	22.6	90				<1.0	
	cal blk	-0.1	27.9	112				<1.0	
	50.0ppb	52.2	36.3	136				52.2	
	70784.0422	-0.1	26.0	104				<1.0	
	70785. ↓	-0.3	17.8	71				<1.0	
	70786. ↓	0.4	17.8	71				<1.0	
	PB 819	0.2	30.8	123				<1.0	
9000.777	70805.0122	7.3	33.8	106				7.3	
	70806. ↓	-0.2	21.4	86				<1.0	RP. Inc
	70806.01221	0.0	22.6	90				<1.0	
	70806.01222	7.9	30.8	92				7.9	79%
	70807.01220	4.7	32.8	112				4.7	
9000.791	70814.1022	-0.7	13.6	54				<1.0	
	cal blk	-0.1	29.3	117				<1.0	
	50.0ppb	53.4	89.3	144				53.4	
	70815.1022	-0.2	21.7	87				<1.0	
	PB 795	-0.1	28.6	114				<1.0	
9000.697	69400.0322	-0.3	28.3	113				<1.0	
	cal blk	-0.3	28.0	112				<1.0	
	50.0ppb	49.2	30.9	126				49.2	
[redacted]	70493.0422	-1.5	1.5	6.0	1→5			—	
	70493.0422	-0.9	5.1	20	1→10			—	
	70493.0422	-0.7	10.2	41	1→20			<20.0	
	cal blk	-0.3						<1.0	
	50.0ppb	49.6						49.6	

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Witnessed & Understood by me, | Date | Invented by | Date 4-3-90
Recorded by PAR

4/13/90 11

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Project No._____
Book No._____ TITLE _____

Item/Page No. 11
Date Received: 4-3-90
Work Performed By: PAR

AZ
25.0
100.0

ADC 2.00 ug/l

Job No.	ID No.	Secure Storage Area Received From	ppb found	25.0 spike	% rec	df	amt	unit	final conc
	NBS		8.5	36.8	113			ug/L	8.50
	cal blk		-0.1	26.4	106				<2.00
	50.0 ppb		46.5	84.2	151				46.5
	PB811		-0.1	25.3	101				<2.00
9000.731	70211. 0622		0.2	23.4	93.6				
	70212.		0.1	23.0	92.0				
	70213.		0.5	25.3	101				
	70214.		0.3	23.0	92.0				
	70215.		0.7	23.1	92.4				
	70216.		0.1	22.9	91.6				
	cal blk		0.6	23.7	94.8				
	50.0 ppb		48.9	79.3	122				48.9
	70217. 0622		0.7	23.3	93.2				<2.00
	70218.		0.9	22.5	90.0				
	70219.		-0.2	17.3	69.2				del
	70220.		0.3	24.3	97.2				<2.00
	70220. 06221		-0.3	22.8	91.2				RPD NC
	70220. 06222		50.0	78.8	115				50.0 100% Rec
	70221. 0622		0.4	21.4	85.6				<2.00
	70222.		0.6	22.1	88.4				
	70225. 0422		0.6	22.3	89.2				
	PB815		0.2	22.7	90.8				
	cal blk		0.1	21.7	86.8				
	50.0 ppb		50.2	71.4	84.8				50.2
9000.745	70490. 0622		0.5	21.8	87.2				<2.00
	70490. 06221		0.3	20.6	82.4				RPD NC
	70490. 06222		48.3	74.5	105				48.3 96.6% Rec
	70492. 0422		0.5	21.8	87.2				<2.00
	70493. 0422		-0.2	16.6	66.4				del
									~~<2.00~~

To Page No. 73

Witnessed & Understood by me, | Date | Invented by | Date 4-3-90
Recorded by PAR

Project No.
Book No.

Test Performed: Fol ortho
Date Received: 4-3-90
Work Performed by: PHL

Job No.	ID No.	Secure Storage Area Received From	ppb found	25.0 spike	% rec	df	amt	unit	final conc	
	70494.04220		0.1	24.1	96.4			ug/L	<2.00	
90.771	70791.04220		0.4	22.7	90.8					
	70792.04220		-0.3	20.1	80.4					
	70793.04220		0.7	22.4	89.6					
	cal blk		0.1	23.3	93.2					
	50.0ppb		54.3	80.1	103				54.3	
	70794.0422		0.1	21.1	84.4				<2.00	
	70795.		0.0	23.8	95.2					
	70796.		0.5	23.8	95.2					
	PB919		0.0	24.7	98.8					
777	70805.0122		0.0	23.3	93.2					
	70806.0122		0.3	24.3	97.2					
	70806.0122 1		0.2	24.6	98.2					RPD N/C
	70806.0122		50.1	88.6	154				50.1	10.76 Rec
	70807.01220		0.0	24.7	98.8				<2.00	
90.791	70814.10220		0.3	25.1	100					
	cal blk		0.5	24.3	97.2					
	50.0ppb		54.6	83.7	116				54.6	
	70815.1022		0.3	23.8	95.2				<2.00	
	cal blk		0.3	23.6	94.4					
	50.0ppb		48.3	79.3	124				48.3	
90.831	70219.0622		0.5	22.0	30	1-72		ug/L	<4.0	
90.795	70493.0422		0.2	22.2	89	1-72			<4.0	
	cal blk		0.3						<2.0	
	50.0ppb		51.4						51.4	

To Page No.

Witnessed & Understood by me. | Date | Invented by | Date 4-5-90
Recorded by PAR

Project No.
Book No. TITLE

From Page No.
Performed: Hg
Reviewed: 4-5-90
Performed by: PAR

Job No.	ID No.	Secure Storage Area Received From	Read	Conc	DF	Amt	Unit	Final Conc	
									r=0.1963
71	BLK		0						y=21x+0.43
151	0.2		3						
101	0.4		8						
148	0.8		17						
131	2.0		42						
104	4.0		95						
126	8.0		163						
129	ICV-5		109	5.18		100 ml	ug/L	5.18	CV=4.9, 106%
158	ICB		1	<0.20		↓	↓	<0.20	
90	LCS-S		115	5.46		0.05	mg/kg	10.9	
150	LCS-S		166	7.91		0.05	↓	15.8	
9000.720	69806.01		112	5.32		100 ml	ug/L	5.32	
0.641	68794.01		23	1.06		↓	↓	1.06	
0.612	68415.01		117	5.56		↓	↓	5.56	
	68416.01		26	1.20		↓	↓	1.20	
9000.744	70469.03		16	0.72		0.23	mg/kg	0.31	3.3% RPD
	70469.03R		15	0.67		0.22	↓	0.30	
130	70469.03S		35	1.63		0.22	↓	0.74	96% rec
77	CCV		23	1.06		100 ml	ug/L	1.06	
149	CCB		0	<0.20		↓	↓	<0.20	
122	70470.03		2	<0.20		0.31	mg/kg	<0.10	
166	70471.03		2	<0.20		0.20		<0.10	
119	70472.03		8	0.34		0.20		0.17	foamy sample
136	70473.03		2	<0.20		0.20		<0.10	
82	70474.03		138	6.57		0.23	↓	2.95	

To Page No. 145

Witnessed & Understood by me, Date

Invented by Date 4-5-90

Recorded by PAR

TITLE _____ Project No. _____ Book No. _____

4/13/90

From Page No. 154 ~~Hg con't~~

Test Performed 4-5-90

Received

Test Performed PAR

Job No.	ID No.	Secure Storage Area Received From	Read	Conc	DF	Amt	Unit	Final Conc
							mg/kg	
9000.744 con't	12	704175.03	2	<0.20		0.22		<0.10
	12	704176.03	2	<0.20		0.21		<0.10
107		704177.03	28	1.30		0.21		0.62
129		704178.03	4	0.15		0.28		<0.10
139		704179.03	7	0.29		0.20		0.14
161		CCV	23	1.06		100ml	ug/L	1.06
17		CCB	1	<0.20				<0.20
143		704180.03	13	0.58		0.21	mg/kg	0.28
143		704181.03	2	<0.20		0.21		<0.10
9000.747	117	70518.06	2	<0.20		100ml	ug/L	<0.20
	104	70519.06	2	<0.20				<0.20
9000.769	70	70771.01	9	0.39		0.26	mg/kg	0.15
			8	0.34		0.23		0.15
			9	0.34		0.21		0.16
9000.744	117	704182.06	2	<0.20		100ml	ug/L	<0.20
9000.744	118	704190.06	0	<0.20				<0.20
139		704192.06	1	<0.20				<0.20
123		CCV	23	1.06				1.06
141		CCB	0	<0.20				<0.20
112		704193.04	1	<0.20		100ml	ug/L	<0.20 U
112		704194.04	0	<0.20				<0.20
9000.777	59	70805.01	0	<0.20				<0.20
	155	70806.01	0	<0.20				<0.20
126		70307.01	1	<0.20				<0.20
9000.781	154	70314.10	2	<0.20				<0.20
103		70315.10	0	<0.20				<0.20

To Page N

Witnessed & Understood by me, | Date | Invented by | Date 4-5-90

From Page No. 145

Test Performed: Hg con't

Date Received: 4-5-90

Work Performed By: PAR

Job No.	ID No.	Secure Storage Area Received From:	Read	Conc	DF	Amt	Unit	Final conc	
9000.799	70941.02		2	<0.20		100ml	ug/L	<0.20	
9000.757	70728.01		3	<0.20				<0.20	CP⊖
	70729.01		2	<0.20				<0.20	
161	CCV		23	1.06		100ml		1.06	
125	CCB		1	<0.20				<0.20	
9000.768	70764.01		3	<0.20		0.21	mg/kg	<0.10	RPD(NC)
			1	<0.20		0.21		<0.10	
	M	+1.0 ppb	12	0.53		0.20		0.26	52% rec
161	CCV		21	0.96			ug/L	0.96	
159	CCB		1	<0.20				<0.20	

To Page No. ____

Witnessed & Understood by me, RW Date

Invented by

Recorded by PAR

Date, 4-5-90

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CHAIN-OF-CUSTODY RECORD

Project No.: U15000
Project Name: NASP IWTP RCRA Sampling - Feb.
Project Manager: Brian Caldwell
Samplers: (Signatures) B Caldwell / Justin Stinchcomb
Field Team Leader: Brian Caldwell

	STATION NUMBER	DATE 1990	TIME	SAMPLE TYPE COMP	GRAB	AIR	SAMPLE INFORMATION / EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	Chloride + Sulfate	Metals (List III)*	Cyanide *	EPA 8270 (completed)	EPA 8270 + TICs	Sodium *	Chloride	REMARKS
P32	WPB01	3/20	1000		X		Low Level	Preservative Blank	2		1	1					
P32	WRB01	3/20	1000		X		" "	Rinsate Blank	4	1	1	1		1			* List III Metals: As, Ba, Cd,
P32	WFB01	3/20	1000		X		" "	Field Blank	4	1	1	1		1			Cr, Pb, Hg, Se, Ag, Cu, Zn, Fe,
P32	W071	3/20	1318		X		" "	GM-71	2						1	1	Mn, Sb, Tl, Ni, and Na.
P32	W072	3/20	1400		X		" "	GM-72	2						1	1	
P32	W076	3/20	1322		X		" "	GM-76	2						1	1	* Metals preserved w/ HNO_3.
P32	W077	3/20	1255		X		" "	GM-77	2						1	1	* Sodium preserved w/ HNO_3.
P32	W078	3/20	1232		X		" "	GM-78	2						1	1	
P32	W079	3/20	1203		X		" "	GM-79	2						1	1	** Cyanides preserved with
P32	W083	3/20	1130		X		" "	GM-83	2						1	1	NaOH —
P32	W084	3/20	1437		X		" "	GM-84	3				1		1	1	
P32	W068	3/21	1305		X		" "	GM-68	3				1		1	1	

Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)
B. Caldwell	3/21/90 1845				
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)	Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)
Fed Ex	3-22-90 0900	M Bennett			

Ship Via: Federal Express
BL/Airbill Number: 6902961015
Date: 3/21/90

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files
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*Analyze all parameters according Site Specific QAP for this project (see Marcia Meredith)

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International Specialists in the Environment

CHAIN-OF-CUSTODY RECORD

Project No.: UH5000
Project Name: NASP IWTP RCRA Sampling - Feb.
Project Manager: Brian Caldwell
Samplers: (Signatures) B. Caldwell
Field Team Leader: Brian Caldwell

	STATION NUMBER	DATE	TIME	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE TYPE AIR	SAMPLE INFORMATION / EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	Cyanides (Complexed)*	Metals (List III)**	Sulfide + Cyanide	EPA 8270 + TICs	Sodium**	Chloride	Additional 50% sample for internal lab QC	REMARKS
P32	W009	3/21	0739		X		Low Level	GM-9	1	1							* Cyanides preserved w/ NaOH
P32	W008D	3/21	1131		X		" "	GM-8 Duplicate	4	1	1	1	1				
P32	W008	3/21	1131		X		" "	GM-8	5	1	1	1	1			1	
P32	W013	3/21	0924		X		" "	GM-13	4	1	1	1	1				** List III Metals: As, Ba,
P32	W014	3/21	1602		X		" "	GM-14	4	1	1	1	1				Cd, Cr, Pb, Hg, Se, Ag,
P32	WR1-6	3/21	1200	X			" "	RW1-6	2					1	1		Cu, Zn, Fe, Mn, Sb,
																	Tl, Ni, and Na.
																	** Metals preserved w/ HNO_3
																	** Sodium preserved w/ HNO_3

Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)
B. Caldwell	3-21-90/1815				
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)	Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)

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Date: 3/21/90

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*See CONCENTRATIONRANGE on back of form.

* Analyze all parameters according to specific QAP for this project (see Marcia Meredith)

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CHAIN-OF-CUSTODY RECORD

Project No.: UH5000
Project Name: NASP IWTP RCRA Sampling - Feb.
Project Manager: Brian Caldwell
Samplers: (Signatures) B. Caldwell / J. Stoffel
Field Team Leader: Brian Caldwell

	STATION NUMBER	DATE	TIME	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE TYPE AIR	SAMPLE INFORMATION / EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	Cyanides (Complexed)*	Metals ** (List III)	Sulfate + Chloride	EPA 8270 + TICs			REMARKS
P32	W010	3/21	1040		X		Low Level	GM-10	4	1	1	1	1			*Cyanides preserved with NaOH.
P32	W010D	3/21	1040		X		" "	GM-10 Duplicate	4	1	1	1	1			
P32	W011	3/21	0811		X		" "	GM-11	4	1	1	1	1			
P32	W012R	3/21	0845		X		" "	GM-12R	4	1	1	1	1			** List III Metals: As, Ba, Cd,
P32	W009	3/21	0739		X		" "	GM-9	3		1	1	1			Cr, Pb, Hg, Se, Ag, Cu, Zn, Fe, Mn, Sb, Tl, Ni and Na.
																** Metals preserved w/ HNO_3

Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Ship Via:
B. Caldwell	3-21-90/1845					Federal Express
Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	BL/Airbill Number: 6902961015
Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)	Date: 3/21/90

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*Analyze all parameters according to Site Specific QAP for this project (see Marcia Meredith)

CHAIN-OF-CUSTODY RECORD

Project No.: UH5000
Project Name: NASP IWTP RCRA Sampling - Feb.
Project Manager: Brian Caldwell
Samplers: (Signatures) B. Caldwell
Field Team Leader: Brian Caldwell

	STATION NUMBER	DATE	TIME	SAMPLE TYPE COMP	GRAB	AIR	SAMPLE INFORMATION EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	EPA 8240	EPA 8240 + TICs					REMARKS
P32	WTB01	3/20	1700		X		Low Level	Trip blank	2		1					
P32	WRB01	3/20	1600		X		" "	Rinsate blank #1	2		1					
P32	PB01	3/20	1700		X		" "	Preservative blank	2		1					
P32	FB01	3/20	1700		X		" "	Field blank	2		1					
P32	W084	3/20	1457		X		" "	GM-84	2	1	1					
P32	W008	3/21	1131		X		" "	GM-8	2		1					
P32	W009	3/21	0739		X		" "	GM-9	2		1					
P32	W010	3/21	1040		X		" "	GM-10	2		1					
P32	W011	3/21	0811		X		" "	GM-11	2		1					
P32	W012R	3/21	0845		X		" "	GM-12R	2		1					
P32	W013	3/21	0929		X		" "	GM-13	2		1					
P32	W014	3/21	1022		X		" "	GM-14	2		1					
P32	W068	3/21	~~1200~~ 1505	Bc	X		" "	GM-68	2	1	1					
P32	WRB02	3/21	0710		X		" "	Rinsate blank #2	2		1					

Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)
B. Caldwell	3-21-90/1845				
Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)
Relinquished By: (Signature)	Date/Time: 0900	Received For Laboratory By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)
Fed Ex	3-22-90	M Burnett			

Ship Via: Federal Express
BL/Airbill Number: 6902961015
Date: 3/21/90

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+Analyze all parameters according to Site Specific QAP for this project (See Marcia Meredith)

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CHAIN-OF-CUSTODY RECORD

Project No.: UH5000
Project Name: NASP IWTP RCRA Sampling - Feb.
Project Manager: Brian Caldwell
Samplers: (Signatures) B. Caldwell
Field Team Leader: Brian Caldwell

	STATION NUMBER	DATE	TIME	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE TYPE AIR	SAMPLE INFORMATION / EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	EPA 8240	EPA 8240 + TICs	EPA 8270 + TICs	Metals + Cyanides (List III)	Cyanides (complex)** Sulfide and Chloride		REMARKS
P32	W01OD	3/21	1040		X		Low Level	GM-10 Duplicate	2		1					* List III Metals: As, Ba, Cd,
P32	W00RD	3/21	1131		X		" "	GM-8	2		1					Cr, Pb, Hg, Se, Ag, Cu, Zn,
P32	WRB02	3/21	0710		X		" "	Rinsate blank	4			1	1	1	1	Fe, Mn, Sb, Tl, Ni, and
																Na.
																* Metals preserved with HNO_3
																** Cyanides preserved w/ ~~HNO_3~~ NaOH

Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Ship Via:
B. Caldwell	3-21-90/1045					Federal Express
Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	BL/Airbill Number: 6902961015 — Date: 3/21/90
Relinquished By: (Signature) Fed Ex	Date/Time: 0900 3-22-90	Received For Laboratory By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)	

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234058

*Analyze all parameters according to Site Specific QAP for this project (see Marcia Meredith)

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CHAIN-OF-CUSTODY RECORD

Page ___ of ___

Project No.: UH5000
Project Name: NASP IWTP RCRA Sampling - Feb
Project Manager: Brian Caldwell
Samplers: (Signatures) B Caldwell / [illegible]
Field Team Leader: BCaldwell

STATION NUMBER	DATE	TIME	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE TYPE AIR	SAMPLE INFORMATION EXPCD E [redacted] (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	Cyanides (comp)(4-D)*	Metals (List III)**	Chloride	Sodium	Chloride + Sulfate	EPA 8270 + TICs	REMARKS
WRB03	3/22	0700		X		Low Level	Rinsate blank 3	4	1	1			1	1	*Cyanides preserved with NaOH
W062	3/22	0942		X		" "	GM-62	1						1	
W063	3/22	0907		X		" "	GM-63	3			1	1	1	1	
W064	3/22	0906		X		" "	GM-64	3			1	1		1	**List III Metals:
W065	3/22	1130		X		" "	GM-65	3			1	1	1	1	
W067	3/21	1655		X		" "	GM-67	3			1	1	1	1	
W069	3/21	1543		X		" "	GM-10	3			1	1	1	1	

**Metals preserved with HNO_3

Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Ship Via:
B. Caldwell	3-22-90/1045	FED. EXP.				Federal Express
Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	BL/Airbill Number: 6902961041
FED. EXP	3/23/90	R. Marsh	Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)	Date: 3/22/90

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234055

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International Specialists in the Environment

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project No.: UH5000
Project Name: NASP IWTP RCRA Sampling - Feb
Project Manager: Brian Caldwell
Samplers: (Signatures) B Caldwell
Field Team Leader: B Caldwell

	STATION NUMBER	DATE	TIME	SAMPLE TYPE COMP	GRAB	AIR	SAMPLE INFORMATION / EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	EPA 8240 ****	EPA 8240 + TICs ****	Sulfide *	Metals (App. IX) **	Chloride	Cyanides (complex) ***	REMARKS
P32	W062	3/22	0942		X		Low Level	GM-62	2	1						**** - 8240 and 8240 + TICs preserved with HCl.
P32	W063	3/22	0907		X		" "	GM-63	2	1						* Sulfide preserved with NaOH and Zinc Acetate
P32	W064	3/22	0908		X		" "	GM-64	2	1						** Metals:
P32	W065	3/22	1130		X		" "	GM-65	2	1						
P32	W067	3/22	1655		X		" "	GM-67	2	1						
P32	W069	3/22	1543		X		" "	GM-69	2	1						** Metals preserved with HNO_3
P32	WFB03	3/22	0700		X		" "	Rinsate blank 3	2		1					*** Cyanides preserved with NaOH.
P32	WFB02	3/22	0700		X		" "	Trip blank	2		1					
P32	W066	3/22	1600		X		" "	GM-66	4			1	1	1	1	
P32	WFB02	3/22	1630		X		" "	Field blank 2	4			1	1	1	1	* Sulfides, Metals, Chloride and Cyanides analyzed according to QAP & Appendix IX (see Marcia Meredith).
P32	W001	3/22	1641		X		" "	UG-1	4			1	1	1	1	

Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)
Brian Caldwell	3-22-90/1845	FED.EXP.			
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)	Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)
FED. EXP	3/23/90	R. Marsh			

Ship Via: Federal Express
BL/Airbill Number: 6911291...
Date: 3/22/90

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files
*See CONCENTRATION RANGE on back of form

JOB NUMBER : 9000.731

Ecology and Environment, Inc.
SAMPLE TRACKING REPORT

LAB SAMPLE ID	CLIENT SAMPLE ID	TEST CODE	DATE SAMPLED	DATE ANALYZED
70211.01	P32W008	WPURG 1	03/21/90	04/02/90
70211.03	P32W008	WAPBNA1	03/21/90	04/09/90
		WBNBNAl	03/21/90	04/09/90
70211.04	P32W008	WCL 1	03/21/90	04/16/90
		WS04 1	03/21/90	04/16/90
70211.05	P32W008	WCNCMP1	03/21/90	04/03/90
70211.06	P32W008	WAGICPl	03/21/90	03/28/90
		WASFU 1	03/21/90	04/03/90
		WBAICP1	03/21/90	03/28/90
		WCDICP1	03/21/90	03/28/90
		WCRICP1	03/21/90	03/28/90
		WCUICP1	03/21/90	03/28/90
		WFEICP1	03/21/90	03/28/90
		WHGVAP1	03/21/90	03/28/90
		WMNICP1	03/21/90	03/28/90
		WNAICP1	03/21/90	03/28/90
		WNIICP1	03/21/90	03/28/90
		WPBFU 1	03/21/90	04/03/90
		WSBICPl	03/21/90	03/29/90
		WSEFU 1	03/21/90	04/03/90
		WTLFU 1	03/21/90	04/03/90
		WZNICP1	03/21/90	03/28/90
70212.01	P32W008D	WPURG 1	03/21/90	04/02/90
70212.03	P32W008D	WAPBNAl	03/21/90	04/09/90
		WBNBNAl	03/21/90	04/09/90
70212.04	P32W008D	WCL 1	03/21/90	04/16/90
		WS04 1	03/21/90	04/16/90
70212.05	P32W008D	WCNCMP1	03/21/90	04/03/90
70212.06	P32W008D	WAGICP1	03/21/90	03/28/90
		WASFU 1	03/21/90	04/03/90
		WBAICPl	03/21/90	03/28/90
		WCDICP1	03/21/90	03/28/90
		WCRICP1	03/21/90	03/28/90
		WCUICP1	03/21/90	03/28/90
		WFEICP1	03/21/90	03/28/90
		WHGVAP1	03/21/90	03/28/90
		WMNICP1	03/21/90	03/28/90
		WNAICP1	03/21/90	03/28/90
		WNIICP1	03/21/90	03/28/90
		WPBFU 1	03/21/90	04/03/90
		WSBICPl	03/21/90	03/29/90
		WSEFU 1	03/21/90	04/03/90
		WTLFU 1	03/21/90	04/03/90
		WZNICP1	03/21/90	03/28/90
70213.01	P32W009	WPURG 1	03/21/90	04/02/90
70213.03	P32W009	WAPBNA1	03/21/90	04/06/90
		WBNBNAl	03/21/90	04/06/90

JOB NUMBER : 9000.731

Ecology and Environment, Inc.
SAMPLE TRACKING REPORT

LAB SAMPLE ID	CLIENT SAMPLE ID	TEST CODE	DATE SAMPLED	DATE ANALYZED
70213.04	P32W009	WCL 1	03/21/90	04/16/90
		WS04 1	03/21/90	04/16/90
70213.05	P32W009	WCNCMP1	03/21/90	04/03/90
70213.06	P32W009	WAGICP1	03/21/90	03/28/90
		UASFU 1	03/21/90	04/03/90
		WBAICP1	03/21/90	03/28/90
		WCDICP1	03/21/90	03/28/90
		WCRICP1	03/21/90	03/28/90
		WCUICP1	03/21/90	03/28/90
		WFEICP1	03/21/90	03/28/90
		WHGVAP1	03/21/90	03/28/90
		WMNICP1	03/21/90	03/28/90
		WNAICP1	03/21/90	03/28/90
		WNIICP1	03/21/90	03/28/90
		WPBFU 1	03/21/90	04/03/90
		WSBICP1	03/21/90	03/29/90
		WSEFU 1	03/21/90	04/03/90
		WTLFU 1	03/21/90	04/03/90
		WZNICP1	03/21/90	03/28/90
70214.01	P32W010	WPURG 1	03/21/90	03/30/90
70214.03	P32W010	WAPBNA1	03/21/90	04/06/90
		WBNBNA1	03/21/90	04/06/90
70214.04	P32W010	WCL 1	03/21/90	04/16/90
		WS04 1	03/21/90	04/16/90
70214.05	P32W010	WCNCMP1	03/21/90	04/03/90
70214.06	P32W010	WAGICP1	03/21/90	03/28/90
		WASFU 1	03/21/90	04/03/90
		WBAICP1	03/21/90	03/28/90
		WCDICP1	03/21/90	03/28/90
		WCRICP1	03/21/90	03/28/90
		WCUICP1	03/21/90	03/28/90
		WFEICP1	03/21/90	03/28/90
		WHGVAP1	03/21/90	03/28/90
		WMNICP1	03/21/90	03/28/90
		WNAICP1	03/21/90	03/28/90
		WNIICP1	03/21/90	03/28/90
		WPBFU 1	03/21/90	04/03/90
		WSBICP1	03/21/90	03/29/90
		WSEFU 1	03/21/90	04/03/90
		WTLFU 1	03/21/90	04/03/90
		WZNICP1	03/21/90	03/28/90
70215.01	P32W010D	WPURG 1	03/21/90	03/30/90
70215.03	P32W010D	WAPBNA1	03/21/90	04/06/90
		WBNBNA1	03/21/90	04/06/90
70215.04	P32W010D	WCL 1	03/21/90	04/16/90
		US04 1	03/21/90	04/16/90
70215.05	P32W010D	WCNCMP1	03/21/90	04/03/90

JOB NUMBER : 9000.731

Ecology and Environment, Inc.
SAMPLE TRACKING REPORT

LA[redacted] SA[redacted] ID	CLIENT SAMPLE ID	TEST CODE	DATE SAMPLED	DATE ANALYZED
70215.06	P32W010D	WAGICP1	03/21/90	03/28/90
		WASFU 1	03/21/90	04/03/90
		WBAICPl	03/21/90	03/28/90
		WCDICP1	03/21/90	03/28/90
		WCRICP1	03/21/90	03/28/90
		WCUICP1	03/21/90	03/28/90
		WFEICP1	03/21/90	03/28/90
		WHGVAP1	03/21/90	03/28/90
		WMNICP1	03/21/90	03/28/90
		WNAICP1	03/21/90	03/28/90
		WNIICP1	03/21/90	03/28/90
		UPBFU 1	03/21/90	04/03/90
		WSBICP1	03/21/90	03/29/90
		WSEFU 1	03/21/90	04/03/90
		WTLFU 1	03/21/90	04/03/90
		WZNICP1	03/21/90	03/28/90
70216.01	P32W011	WPURG 1	03/21/90	04/03/90
70216.03	P32W011	WAPBNA1	03/21/90	04/09/90
		WBNBNAl	03/21/90	04/09/90
70216.04	P32W011	WCL 1	03/21/90	04/16/90
		WS04 1	03/21/90	04/16/90
70216.05	P32W011	WCNCMP1	03/21/90	04/04/90
70216.06	P32W011	WAGICP1	03/21/90	03/28/90
		WASFU 1	03/21/90	04/03/90
		WBAICPl	03/21/90	03/28/90
		WCDICP1	03/21/90	03/28/90
		WCRICP1	03/21/90	03/28/90
		WCUICP1	03/21/90	03/28/90
		WFEICP1	03/21/90	03/28/90
		WHGVAP1	03/21/90	03/28/90
		WMNICP1	03/21/90	03/28/90
		WNAICP1	03/21/90	03/28/90
		WNIICP1	03/21/90	03/28/90
		WPBFU 1	03/21/90	04/03/90
		WSBICP1	03/21/90	03/29/90
		WSEFU 1	03/21/90	04/03/90
		WTLFU 1	03/21/90	04/03/90
		WZNICP1	03/21/90	03/28/90
70217.01	P32W012R	WPURG 1	03/21/90	04/03/90
70217.03	P32W012R	WAPBNA1	03/21/90	04/09/90
		WBNBNAl	03/21/90	04/09/90
70217.04	P32W012R	WCL 1	03/21/90	04/16/90
		WS04 1	03/21/90	04/16/90
70217.05	P32W012R	WCNCMP1	03/21/90	04/04/90
70217.06	P32W012R	WAGICP1	03/21/90	03/28/90
		WASFU 1	03/21/90	04/03/90
		WBAICPl	03/21/90	03/28/90

JOB NUMBER : 9000.731

Ecology and Environment, Inc.
SAMPLE TRACKING REPORT

LAB SAMPLE ID	CLIENT SAUPLE ID	TEST CODE	DATE SAMPLED	DATE ANALYZED
70217.06	P32W012R	WCDICPl	03/21/90	03/28/90
		WCRICPl	03/21/90	03/28/90
		WCUICPl	03/21/90	03/28/90
		WFEICPl	03/21/90	03/28/90
		WHGVAP1	03/21/90	03/28/90
		WMNICP1	03/21/90	03/28/90
		WNAICP1	03/21/90	03/28/90
		WNIICP1	03/21/90	03/28/90
		WPBFU 1	03/21/90	04/03/90
		WSBICPl	03/21/90	03/29/90
		WSEFU 1	03/21/90	04/03/90
		WI'LFU 1	03/21/90	04/03/90
		WZNICP1	03/21/90	03/28/90
70218.01	P32W013	WPURG 1	03/21/90	04/03/90
70218.03	P32W013	WAPBNA1	03/21/90	04/09/90
		WBNBNA1	03/21/90	04/09/90
70218.04	P32W013	WCL 1	03/21/90	04/16/90
		WS04 1	03/21/90	04/16/90
70218.05	P32W013	WCNCMP1	03/21/90	04/04/90
70218.06	P32W013	WAGICP1	03/21/90	03/28/90
		WASFU 1	03/21/90	04/03/90
		WBAICPl	03/21/90	03/28/90
		WCDICPl	03/21/90	03/28/90
		WCRICP1	03/21/90	03/28/90
		WCUICPl	03/21/90	03/28/90
		WFEICPl	03/21/90	03/28/90
		WHGVAP1	03/21/90	03/28/90
		WMNICP1	03/21/90	03/28/90
		WNAICP1	03/21/90	03/28/90
		WNIICP1	03/21/90	03/28/90
		WPBFU 1	03/21/90	04/03/90
		WSBICP1	03/21/90	03/29/90
		WSEFU 1	03/21/90	04/03/90
		WI'LFU 1	03/21/90	04/03/90
		WZNICP1	03/21/90	03/28/90
70219.01	P32W014	WPURG 1	03/21/90	04/03/90
70219.03	P32W014	WAPBNA1	03/21/90	04/09/90
		WBNBNA1	03/21/90	04/09/90
70219.04	P32W014	WCL 1	03/21/90	04/16/90
		WS04 1	03/21/90	04/17/90
70219.05	P32W014	WCNCMP1	03/21/90	04/04/90
70219.06	P32W014	WAGICP1	03/21/90	03/28/90
		WASFU 1	03/21/90	04/03/90
		WBAICPl	03/21/90	03/28/90
		WCDICPl	03/21/90	03/28/90
		WCRICPl	03/21/90	03/28/90
		WCUICPl	03/21/90	03/28/90

JOB NUMBER : 9000.731

Ecology and Environment, Inc.
SAMPLE TRACKING REPORT

LAB SAMPLE ID	CLIENT SAMPLE ID	TEST CODE	DATE SAMPLED	DATE ANALYZED
70219.06	P32W014	WFEICP1	03/21/90	03/28/90
		WHGVAPl	03/21/90	03/28/90
		WMNICP1	03/21/90	03/28/90
		WNAICP1	03/21/90	03/28/90
		WNIICP1	03/21/90	03/28/90
		UPBFU 1	03/21/90	04/03/90
		WSBICPl	03/21/90	03/29/90
		WSEFU 1	03/21/90	04/03/90
		WTLFU 1	03/21/90	04/03/90
		WZNICP1	03/21/90	03/28/90
70220.01	P32WRB01	WPURG 1	03/20/90	04/03/90
70220.03	P32WRB01	WAPBNA1	03/20/90	04/06/90
		WBNBNAl	03/20/90	04/06/90
70220.04	P32WRB01	WCL 1	03/20/90	04/16/90
		WSO4 1	03/20/90	04/16/90
70220.05	P32WRB01	WCNCMP1	03/20/90	04/02/90
70220.06	P32WRB01	WAGICP1	03/20/90	03/28/90
		WASFU 1	03/20/90	04/03/90
		WBAICP1	03/20/90	03/28/90
		WCDICP1	03/20/90	03/28/90
		WCRICP1	03/20/90	03/28/90
		WCUICP1	03/20/90	03/28/90
		WFEICP1	03/20/90	03/28/90
		WHGVAPl	03/20/90	03/28/90
		WMNICP1	03/20/90	03/28/90
		WNAICP1	03/20/90	03/28/90
		WNIICP1	03/20/90	03/28/90
		WPBFU 1	03/20/90	04/03/90
		WSBICP1	03/20/90	03/29/90
		WSEFU 1	03/20/90	04/03/90
		WTLFU 1	03/20/90	04/03/90
		WZNICP1	03/20/90	03/28/90
70221.01	P32WFB01	WPURG 1	03/20/90	04/03/90
70221.03	P32WFB01	WAPBNA1	03/20/90	04/06/90
		WBNBNAl	03/20/90	04/06/90
70221.04	P32WFB01	WCL 1	03/20/90	04/16/90
		WSO4 1	03/20/90	04/16/90
70221.05	P32WFB01	WCNCMP1	03/20/90	04/02/90
70221.06	P32WFB01	WAGICP1	03/20/90	03/28/90
		WASFU 1	03/20/90	04/03/90
		WBAICP1	03/20/90	03/28/90
		WCDICP1	03/20/90	03/28/90
		WCRICP1	03/20/90	03/28/90
		WCUICP1	03/20/90	03/28/90
		WFEICP1	03/20/90	03/28/90
		WHGVAPl	03/20/90	03/28/90
		WMNICP1	03/20/90	03/28/90

JOB NUMBER : 9000.731

Ecology and Environment, Inc.
SAMPLE **TRACKING** REPORT

LAB SAMPLE ID	CLIENT SAMPLE ID	TEST CODE	DATE SAHPLED	DATE ANALYZED
70225.04	**P32WPB01**	WFEICP1	03/20/90	03/28/90
		WHGVAP1	03/20/90	03/28/90
		WMNICP1	03/20/90	03/28/90
		WNAICPl	03/20/90	03/28/90
		WNIICP1	03/20/90	03/28/90
		WPBFU 1	03/20/90	04/03/90
		WSBICP1	03/20/90	03/29/90
		WSEFU 1	03/20/90	04/03/90
		WTLFU 1	03/20/90	04/03/90
		WZNICP1	03/20/90	03/28/90
70226.01	P32WTB01	WPURG 1	03/20/90	04/03/90
70227.01	P32W071	WCL 1	03/20/90	04/16/90
70227.02	P32W071	WNAICPl	03/20/90	03/28/90
70228.01	P32W072	WCL 1	03/20/90	04/16/90
70228.02	P32W072	WNAICPl	03/20/90	03/28/90
70229.01	P32W076	WCL 1	03/20/90	04/16/90
70229.02	P32W076	WNAICPl	03/20/90	03/28/90
70230.01	P32W077	WCL 1	03/20/90	04/16/90
70230.02	P32W077	WNAICP1	03/20/90	03/28/90
70231.01	P32W078	WCL 1	03/20/90	04/16/90
70231.02	P32W078	WNAICP1	03/20/90	03/28/90
70232.01	P32W079	WCL 1	03/20/90	04/16/90
70232.02	P32W079	WNAICPl	03/20/90	03/28/90
70233.01	P32W083	WCL 1	03/20/90	04/16/90
70233.02	P32W083	WNAICPl	03/20/90	03/28/90
70234.01	P32WR1-6	WCL 1	03/21/90	04/16/90
70234.02	P32WR1-6	WNAICPl	03/21/90	03/28/90

STATISTICS FOR JOB

JOB_NO	REP_FORM	CT_TEST	TESTS	REPORT TYPE
9000.745	11	WAGICP1	4.000	GEN MET 1
		WASFU 1	4.000	GEN MET 1
		WBAICP1	4.000	GEN MET 1
		WBEICP1	3.000	GEN MET 1
		WCDICP1	4.000	GEN MET 1
		WCL 1	9.000	GEN MET 1
		WCNCMP1	1.000	GEN MET 1
		WCNT 1	3.000	GEN MET 1
		WCOICP1	3.000	GEN MET 1
		WCRICP1	4.000	GEN MET 1
		WCUICP1	4.000	GEN MET 1
		WFEICP1	4.000	GEN MET 1
		WHARD 1	4.000	GEN MET 1
		WHGVAP1	4.000	GEN MET 1
		WMNICP1	4.000	GEN MET 1
		WNAICP1	9.000	GEN MET 1
		WNIICP1	4.000	GEN MET 1
		WPBFU 1	4.000	GEN MET 1
		WSBICP1	4.000	GEN MET 1
		USEFU 1	4.000	GEN MET 1
		WSNICP1	3.000	GEN MET 1
		WSULFD1	3.000	GEN MET 1
		WTLFU 1	4.000	GEN MET 1
		WVICP 1	3.000	GEN MET 1
		WZNICP1	4.000	GEN MET 1
	31	WAPBNA1	6.000	ORG 1
		WBNBNA1	6.000	ORG 1
		UPURG 1	8.000	ORG 1

JOB NUMBER : 9000.745

Ecology and Environment, Inc.
SAMPLE TRACKING REPORT

LAB SAMPLE ID	CLIENT SAMPLE ID	TEST CODE	DATE SAMPLED	DATE ANALYZED
70484.01	P32W062	WPURG 1	03/22/90	04/17/90
70484.03	P32W062	WAPBNAl	03/22/90	04/09/90
		WBNBNAl	03/22/90	04/09/90
70485.01	P32W063	WPURG 1	03/22/90	04/17/90
70485.03	P32W063	WAPBNAl	03/22/90	04/09/90
		WBNBNAl	03/22/90	04/09/90
70485.04	P32W063	WCL 1	03/22/90	04/16/90
70485.05	P32W063	WNAICPl	03/22/90	04/02/90
70486.01	P32W064	WPURG 1	03/22/90	04/17/90
70486.03	P32W064	WAPBNAl	03/22/90	04/09/90
		WBNBNAl	03/22/90	04/09/90
70486.04	P32W064	WCL 1	03/22/90	04/16/90
70486.05	P32W064	WNAICPl	03/22/90	04/02/90
70487.01	P32W065	WPURG 1	03/22/90	04/17/90
70487.03	P32W065	WAPBNAl	03/22/90	04/09/90
		WBNBNAl	03/22/90	04/09/90
70487.04	P32W065	WCL 1	03/22/90	04/16/90
70487.05	P32W065	WNAICPl	03/22/90	04/02/90
70488.01	P32W067	'WPURG 1	03/21/90	04/17/90
70488.03	P32W067	WAPBNAl	03/21/90	04/09/90
		WBNBNAl	03/21/90	04/09/90
70488.04	P32W067	WCL 1	03/21/90	04/16/90
70488.05	P32W067	WNAICPl	03/21/90	04/02/90
70489.01	P32W069	WPURG 1	03/21/90	04/17/90
70489.03	P32W069	WAPBNAl	03/21/90	04/09/90
		WBNBNAl	03/21/90	04/09/90
70489.04	P32W069	WCL 1	03/21/90	04/16/90
70489.05	P32W069	WNAICPl	03/21/90	04/02/90
70490.01	P32WRB03	WPURG 1	03/22/90	04/17/90
70490.04	P32WRB03	WCL 1	03/22/90	04/16/90
70490.05	P32WRB03	WCNCMP1	03/22/90	04/04/90
70490.06	P32WRB03	WAGICP1	03/22/90	04/02/90
		WASFU 1	03/22/90	04/03/90
		WBAICP1	03/22/90	04/02/90
		WCDICP1	03/22/90	04/02/90
		WCRICP1	03/22/90	04/02/90
		WCUICP1	03/22/90	04/02/90
		WFEICP1	03/22/90	04/02/90
		WHARD 1	03/22/90	04/17/90
		WHGVAP1	03/22/90	04/05/90
		WMNICP1	03/22/90	04/02/90
		WNAICPl	03/22/90	04/02/90
		WNIICP1	03/22/90	04/02/90
		WPBFU 1	03/22/90	04/03/90
		WSBICP1	03/22/90	04/02/90
		WSEFU 1	03/22/90	04/03/90
		WTLFU 1	03/22/90	04/03/90

JOB NUMBER : 9000.745

Ecology and Environment, Inc.
SAMPLE TRACKING REPORT

LAB SAMPLE ID	CLIENT SAHPLE ID	TEST CODE	DATE SAMPLED	DATE ANALYZED
70490.06	P32WRB03	WZNICP1	03/22/90	04/02/90
70491.01	P32WTB02	WPURG 1	03/22/90	04/17/90
70492.01	P32W001	WCL 1	03/22/90	04/16/90
70492.02	P32W001	WSULFD1	03/22/90	04/17/90
70492.03	P32W001	WCNT 1	03/22/90	03/29/90
70492.04	P32W001	WAGICP1	03/22/90	04/02/90
		WASFU 1	03/22/90	04/03/90
		WBAICP1	03/22/90	04/02/90
		WBEICPl	03/22/90	04/03/90
		WCDICP1	03/22/90	04/02/90
		WCOICP1	03/22/90	04/02/90
		WCRICP1	03/22/90	04/02/90
		WCUICP1	03/22/90	04/02/90
		WFEICP1	03/22/90	04/02/90
		WHARD 1	03/22/90	04/17/90
		WHGVAP1	03/22/90	04/05/90
		WMNICP1	03/22/90	04/02/90
		WNAICP1	03/22/90	04/02/90
		WNIICP1	03/22/90	04/02/90
		WPBFU 1	03/22/90	04/03/90
		WSBICP1	03/22/90	04/02/90
		WSEFU 1	03/22/90	04/03/90
		WSNICP1	03/22/90	04/02/90
		WTLFU 1	03/22/90	04/03/90
		WVICP 1	03/22/90	04/02/90
		WZNICP1	03/22/90	04/02/90
70493.01	P32W066	WCL 1	03/22/90	04/16/90
70493.02	P32W066	WSULFD1	03/22/90	04/17/90
70493.03	P32W066	WCNT 1	03/22/90	03/29/90
70493.04	P32W066	WAGICP1	03/22/90	04/02/90
		WASFU 1	03/22/90	04/03/90
		WBAICP1	03/22/90	04/02/90
		WBEICP1	03/22/90	04/03/90
		WCDICP1	03/22/90	04/02/90
		WCOICP1	03/22/90	04/02/90
		WCRICP1	03/22/90	04/02/90
		WCUICP1	03/22/90	04/02/90
		WFEICPl	03/22/90	04/02/90
		WHARD 1	03/22/90	04/17/90
		WHGVAP1	03/22/90	04/05/90
		WMNICP1	03/22/90	04/02/90
		WNAICP1	03/22/90	04/02/90
		WNIICP1	03/22/90	04/02/90
		WPBFU 1	03/22/90	04/03/90
		WSBICP1	03/22/90	04/02/90
		WSEFU 1	03/22/90	04/03/90
		WSNICP1	03/22/90	04/02/90

JOB NUMBER : 9000.745

Ecology and Environment, Inc.
SAMPLE TRACKING REPORT

LAB SAMPLE ID	CLIENT SAHPLE ID	TEST CODE	DATE SAMPLED	DATE ANALYZED
70493.04	P32W066	WILFU 1	03/22/90	04/03/90
		WICP 1	03/22/90	04/02/90
		WZNICP1	03/22/90	04/02/90
70494.01	P32WFB02	WCL 1	03/22/90	04/16/90
70494.02	P32WFB02	WSULFD1	03/22/90	04/17/90
70494.03	P32WFB02	WCNT 1	03/22/90	03/29/90
70494.04	P32WFB02	WAGICP1	03/22/90	04/02/90
		WASFU 1	03/22/90	04/03/90
		WBAICP1	03/22/90	04/02/90
		WBEICP1	03/22/90	04/03/90
		WCDICP1	03/22/90	04/02/90
		WCOICP1	03/22/90	04/02/90
		WCRICP1	03/22/90	04/02/90
		WCUICP1	03/22/90	04/02/90
		WFEICP1	03/22/90	04/02/90
		WHARD 1	03/22/90	04/17/90
		WHGVAP1	03/22/90	04/05/90
		WMNICP1	03/22/90	04/02/90
		WNAICP1	03/22/90	04/02/90
		WNIICP1	03/22/90	04/02/90
		WPBFU 1	03/22/90	04/03/90
		WSBICP1	03/22/90	04/02/90
		WSEFU 1	03/22/90	04/03/90
		WSNICP1	03/22/90	04/02/90
		WILFU 1	03/22/90	04/03/90
		WICP 1	03/22/90	04/02/90
		WZNICP1	03/22/90	04/02/90

ATTACHMENT F

DATA VALIDATION SUMMARY

MEMORANDUM

TO: Brian Caldwell

FROM: Raymond Piccione
QA/QC Officer, Analytical Services Center

DATE: April 18, 1990

SUBJECT: UH5000 USN Southern Division Report

RE: 9000.731, 9000.745 QC

CC: Lab File

For case 9000.745, all samples were analyzed within hold times. Sulfate, semi-volatile and TIC analysis was inadvertently not performed on the rinsate blank WRB03 because of a laboratory misassignment. As the rinsate blank sample is well beyond hold times, running the analysis would bring no new information to judging the samples, given that other field blanks and method blanks can be used to qualify the samples and that the samples in themselves are relatively free of compound hits. No semi-volatile matrix spike/matrix spike duplicate (MS/MSD) was performed on this set of samples.

For case 9000.745, the common laboratory contaminants methylene chloride, acetone, di-n-butyl phthalate and bis(2-ethylhexyl) phthalate were found in the method blanks. All samples had comparable levels of these compounds and therefore should be considered suspect for these compounds.

Surrogate and MS/MSD recoveries were within E & E limits, indicating efficient purging or extraction.

A metals duplicate analysis performed on rinsate blank P32WRB03 showed zinc and copper significantly above detection limits in the duplicate, but undetected in the sample. Additionally, the metals spike result on this sample was within acceptable limits. While QA/QC blanks are normally not chosen for duplicate and spike analyses, the choice of P32WRB03 was the result of a blind selection process, and was therefore not biased. Because of the low initial concentration of metals in P32WRB03, these duplicate results should not be used to qualify the remaining samples for matrix effects. However, the digestion method blank results were below detection for all metals.

Sodium was determined at 380 ug/L in the rinsate blank WRB03. This has no effect on the data because the samples themselves had sodium at much greater concentrations.

For case 9000.731, it has been determined with a high level of certainty that the sample containers for P32W009 (EE-90-70213) and for P32WRB02 (EE-90-70222) were switched in the field. These samples were collected sequentially at 0710 and 0734 hours, and a check at the laboratory indicated the samples marked P32WRB02 were turbid. The following case narrative incorporates this probable sample designation switch.

For case 9000.731, the common laboratory contaminants methylene chloride, acetone, di-n-butyl phthalate and bis(2-ethylhexyl) phthalate were found in the method blanks. All samples had comparable levels of methylene chloride except P32W009, which was high, and P32WRB02, which was low. All samples had comparable concentrations of acetone except for a low value reported for P32WRB03. All samples were affected for di-n-butyl phthalate. All samples except P32W008D were affected for bis(2-ethylhexyl) phthalate, and therefore those samples' results should be considered suspect for the mentioned compounds.

A separate review of the sampling/field procedures documentation (i.e., field log books, chain-of-custody forms, etc.) showed no procedure problems or inadequacies other than the switching of sample containers for P32W009 and P32WRB02, as noted above.

Overall, the data quality is good, technically valid, and acceptable for use with the qualifications noted above.

RP:emc
enclosure