Appendix H

Laboratory Reports from Groundwater Investigation

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
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Hydro-Search, Inc.
636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313 / 106
Sample Descript: Groundwater, WOC-MW-7S
Lab Number: 6110795

Sampled: Nov 19, 1996
Received: Nov 20, 1996
Extracted: Dec 2, 1996
Analyzed: Dec 2, 1996
Reported: Dec 5, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	94%
aaa-Trifluorotoluene	100%

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Hydro-Search, Inc.
4636 E. University Drive Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313 / 106
Sample Descript: Groundwater, WOC-MW-7S/Field Dup
Lab Number: 6110796

Sampled: Nov 19, 19
Received: Nov 20, 19
Extracted: Dec 2, 1996
Analyzed: Dec 2, 1996
Reported: Dec 5, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	99%
aaa-Trifluorotoluene	101%

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ydro-Search, Inc.
636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313 / 106
Sample Descript: Water, WOC-MW-7S/Field Blank
Lab Number: 6110798

Sampled: Nov 19, 1996
Received: Nov 20, 1996
Extracted: Dec 3, 1996
Analyzed: Dec 3, 1996
Reported: Dec 5, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
-Dichloroethene	0.50	N.D.
is-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	97%
aaa-Trifluorotoluene	100%

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313 / 106
Sample Descript: Groundwater, WOC-MW-2S
Lab Number: 6110793

Sampled: Nov 19, 1
Received: Nov 20, 19
Extracted: Nov 20-27, 1996
Analyzed: Nov 20-27, 1996
Reported: Dec 5, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	SM2320B	2.0	190
Ammonia*	350.3	0.50	N.D.
Chloride	300.0	5.0**	170
Chemical Oxygen Demand*	410.4	20	N.D.
Specific Conductance (µmhos/cm)	120.1	1.0	1,000
Cyanide*	SM4500-CN-C,E	0.025	N.D.
Sulfate	300.0	5.0**	72
Total Dissolved Solids	SM2540C	5.0	530
Total Organic Carbon*	415.2	1.0	4.5
Total Suspended Solids	160.2	5.0	130

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

****Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and / or other factors, the sample required dilution. Detection limits for this sample have been raised by a factor of 10.**

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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dro-Search, Inc.
636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313 / 106
Sample Descript: Groundwater, WOC-MW-7S
Lab Number: 6110795

Sampled: Nov 19, 1996
Received: Nov 20, 1996
Extracted: Nov 20-27, 1996
Analyzed: Nov 20-27, 1996
Reported: Dec 5, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	SM2320B	2.0	94
Ammonia*	350.3	0.50	N.D.
Chloride	300.0	5.0**	150
Chemical Oxygen Demand*	410.4	20	N.D.
Specific Conductance (µmhos/cm)	120.1	1.0	1,300
Cyanide*	SM4500-CN-C,E	0.025	N.D.
Sulfate	300.0	5.0**	110
Total Dissolved Solids	SM2540C	5.0	960
Total Organic Carbon*	415.2	1.0	5.6
Total Suspended Solids	160.2	5.0	80

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

****Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and / or other factors, the sample required dilution. Detection limits for this sample have been raised by a factor of 10.**

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313 / 106
Sample Descript: Groundwater, WOC-MW-7S/Field Dup
Lab Number: 6110796

Sampled: Nov 19, 19
Received: Nov 20, 19
Extracted: Nov 20-27, 1996
Analyzed: Nov 20-27, 1996
Reported: Dec 5, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	SM2320B	2.0	330
Ammonia*	350.3	0.50	N.D.
Chloride	300.0	5.0**	150
Chemical Oxygen Demand*	410.4	20	100
Specific Conductance (µmhos/cm)	120.1	1.0	1,300
Cyanide*	SM4500-CN-C,E	0.025	N.D.
Sulfate	300.0	5.0**	110
Total Dissolved Solids	SM2540C	5.0	930
Total Organic Carbon*	415.2	1.0	5.9
Total Suspended Solids	160.2	5.0	92

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

****Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and / or other factors, the sample required dilution. Detection limits for this sample have been raised by a factor of 10.**

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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dro-Search, Inc.
.636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313 / 106
Sample Descript: Groundwater, RB-1-GW
Lab Number: 6110794

Sampled: Nov 19, 1996
Received: Nov 20, 1996
Extracted: Nov 20-27, 1996
Analyzed: Nov 20-27, 1996
Reported: Dec 5, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	SM2320B	2.0	N.D.
Ammonia*	350.3	0.50	N.D.
Chloride	300.0	0.50	N.D.
Chemical Oxygen Demand*	410.4	20	N.D.
Specific Conductance (µmhos/cm)	120.1	1.0	70
Cyanide*	SM4500-CN-C,E	0.025	N.D.
Sulfate	300.0	0.50	N.D.
Total Dissolved Solids	SM2540C	5.0	N.D.
Total Organic Carbon*	415.2	1.0	N.D.
Total Suspended Solids	160.2	5.0	N.D.

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-13

Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Method Blank

Extracted: Dec 2,
Analyzed: Dec 2, 19
Reported: Dec 5, 1996
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	92%
aaa-Trifluorotoluene	98%

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 12/02/96

Sample #: P6110795

Batch #: FL025A1W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Mean PR	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	%	RPD	Mean PR
Benzene	0	5.0	4.8	5.1	96	101	5.4	98	<10	70 - 130
Chloroform	0	5.0	4.6	4.8	91	97	5.9	94	<10	70 - 130
1-Dichloroethane	0	5.0	5.0	5.3	101	105	4.7	103	<12	70 - 130
-Dichloroethane	0	5.0	4.9	5.1	98	101	3.5	99	<13	70 - 130
1,1-Dichloroethene	0	5.0	5.1	5.1	101	102	0.76	102	<16	70 - 130
Tetrachloroethene	0	5.0	5.0	5.2	101	103	2.5	102	<14	70 - 130
Toluene	0	5.0	4.9	5.0	99	100	1.7	99	<11	70 - 130
Trichloroethene	0	5.0	5.0	5.2	100	104	3.9	102	<13	70 - 130

Definition of Terms

R1..... Result of Sample Analysis
Sp..... Spike Concentration added to sample
MS..... Matrix Spike Result
MSD..... Matrix Spike Duplicate Result
PR1..... Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2..... Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR..... Mean Percent Recovery
Acceptance Limits..... Determined by in-house Control Charts

Del Mar Analytical

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QC DATA REPORT

EPA METHOD: 415.2
Matrix: Water

DATE: 11/26/96

SAMPLE # FK03990

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Total Organic Carbon	2.8	12.5	15	15	98%	98%	0.0%	98%

Definition of Terms:

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; ((MS-R1) / SP) X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP) X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

Del Mar Analytical

Del Mar Analytical

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

QC DATA REPORT

EPA METHOD: SM 4500-CN-C,E
Matrix: Water

DATE: 11/26/96

SAMPLE # FK03990

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Cyanide	0	0.10	0.083	0.083	83%	83%	0.0%	83%

Definition of Terms:

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; (MS-R1) / SP X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

Del Mar Analytical

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical

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QC DATA REPORT

EPA METHOD: 350.3
Matrix: Water

DATE: 11/25/96

SAMPLE # FK03990

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Ammonia	0	1.0	0.86	0.99	86%	99%	14.1%	93%

Definition of Terms:

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; (MS-R1) / SP X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

Del Mar Analytical

QA/QC CRITERIA: All QA/QC was within acceptance limits.

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

QC DATA REPORT

EPA METHOD 300.0
Instrument: IC
Matrix: Water

DATE: 11/20/96

SAMPLE # P6110799

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Fluoride	0	0.80	0.75	0.73	94%	91%	2.7%	93%
Chloride	2.7	1.2	3.9	3.8	100%	92%	2.6%	96%
Nitrite-N	0	0.24	0.25	0.26	104%	108%	3.9%	106%
Nitrate-N	0	0.90	0.92	0.90	102%	100%	2.2%	101%
Phosphate-HPO4	0	6.0	6.6	6.4	110%	107%	3.1%	108%
Sulfate-SO4	1.7	6.0	7.8	7.7	102%	100%	1.3%	101%

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; (MS-R1) / SP X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

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QA/QC CRITERIA: All QA/QC was within acceptance limits.

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CHAIN OF CUSTODY FORM

Client Name/Address: Hydro-Search, Inc. 4630 E. University, Suite 145 Phoenix, AZ 85034

Project/PO Number: 80870B313/106

Project Manager/Phone Number: Steve Smith/874-2800

Sampler: Mark Nielsen

Analysis Required

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	VOC 601/602	Chloride 300.0	Cyanide 9012	COD 410.4	TOC 415.1	Alkalinity 310.1	TDS 160.1	TSS 160.2	Nitrogen as NH_3 / 350.3	Conductivity 9050	Sulfate 300.0	Special Instructions
WOC-MW-3S	GW	Various	8	11/19/96 1040		X	X	X	X	X	X	X	X	X	X	X	
WOC MW-2S	GW	Various	8	11/19/96 1250		X	X	X	X	X	X	X	X	X	X	X	
3B-1-GW	GW	Various	8	11/19/96 1406		X	X	X	X	X	X	X	X	X	X	X	Rinse Blank
WOC-MW-7S	GW	Various	8	11/19/96 1705		X	X	X	X	X	X	X	X	X	X	X	
WOC-MW-7S/Field Dup	GW	Various	8	11/19/96 1705		X	X	X	X	X	X	X	X	X	X	X	
WOC-MW-7S-MS/MSD	GW	Various	7	11/19/96 1705		X	X	X	X	X	X			X		X	Matrix Spike
Field Blank/WOC-MW-7S	W	VOA	1	11/19/96 1705		X											
												MM 12/12/96					
												SAMPLE	WOC-	MW-	7S-	MS,	MSD
												IS	FOR	QC,	QA	ONLY	
												DO	NOT	ANALYZE		AS	SAMPLE

Relinquished By: Mark Nielsen Date /Time: 11/20/96 9:00 am

Received by: Date /Time:

Relinquished By: Date /Time:

Received by: Date /Time:

Relinquished By: Date /Time:

Received in Lab by: [illegible] Date /Time: [illegible]

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal ✓

Sample Integrity: (Check)
intact ✓ on ice ____

Note: Sample(s) will be disposed of after 30 days

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ydro-Search, Inc.
+636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/106
Sample Descript: Water, WOC-MW-6S
Lab Number: 6110905

Sampled: Nov 20, 1996
Received: Nov 21, 1996
Extracted: Nov 27, 1996
Analyzed: Nov 27, 1996
Reported: Dec 4, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	**0.50**	**0.59**
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	**0.50**	**0.87**
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	97%
aaa-Trifluorotoluene	101%

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/106

Sample Descript: Water, Trip Blank
Lab Number: 6110920

Received: Nov 21, 1996
Extracted: Nov 27, 1996
Analyzed: Nov 27, 1996
Reported: Dec 4, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	94%
aaa-Trifluorotoluene	100%

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dro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/106

Sample Descript: Water,WOC-MW-6S
Lab Number: 6110905

Sampled: Nov 20, 1996
Received: Nov 21, 1996
Extracted: 11/21-12/2, 1996
Analyzed: 11/21-12/2, 1996
Reported: Dec 4, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	SM2320B	2.0	230
Ammonia*	350.3	0.50	N.D.
Chloride	300.0	5.0**	120
Cyanide*	SM4500-CN, C-E	0.025	N.D.
Chemical Oxygen Demand	410.4	20	34
Specific Conductance (µhmos/cm)	120.1	1.0	970
Sulfate	300.0	5.0**	76
Total Dissolved Solids	SM2540C	5.0	590
Total Organic Carbon*	415.2	1.0	3.7
Total Suspended Solids	160.2	5.0	62

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

**Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and / or other factors, the sample required dilution. Detection limits for this sample have been raised by a factor of 10.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Method Blank

Extracted: Nov 27, 1
Analyzed: Nov 27, 1996
Reported: Dec 4, 1996
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	96%
aaa-Trifluorotoluene	100%

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 11/27/96
Sample #: P6110624
Batch #: N27A005

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Mean PR	Acceptance Limits	
	ppm	ppm	ppm	ppm	%	%	%	%	RPD	Mean PR
Benzene	0	5.0	4.2	4.4	84	88	2.3	86	≤ 20	70-130
Chloroform	0	5.0	4.1	4.7	82	94	6.8	88	≤ 20	70-130
1,1-Dichloroethane	0	5.0	4.9	5.5	98	110	5.8	104	≤ 20	70-130
1,2-Dichloroethane	0	5.0	5.5	6.7	110	134	9.8	122	≤ 20	70-130
1,1-Dichloroethene	0	5.0	4.2	5.0	82	100	2.2	91	≤ 20	70-130
Tetrachloroethene	0	5.0	4.5	5.5	90	110	10	100	≤ 20	70-130
Toluene	0	5.0	4.3	5.5	86	110	12	98	≤ 20	70-130
Trichloroethene	0	5.0	4.7	4.5	94	90	2.2	92	≤ 20	70-130

Definition of Terms

R1..... Result of Sample Analysis
Sp..... Spike Concentration added to sample
MS..... Matrix Spike Result
MSD..... Matrix Spike Duplicate Result
PR1..... Percent Recovery of MS; ((MS-R1)/SP) x 100
PR2..... Percent Recovery of MSD; ((MSD-R1)/SP) x 100
RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) x 100
Mean PR..... Mean Percent Recovery
Acceptance Limits..... Determined by In-House Control Charts

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

QC DATA REPORT

EPA METHOD: 350.3
Matrix: Water

DATE: 11/25/96

SAMPLE # FK03990

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Ammonia	0	1.0	0.86	0.99	86%	99%	14.1%	93%

Definition of Terms:

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; (MS-R1) / SP X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

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QA/QC CRITERIA: All QA/QC was within acceptance limits.

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QC DATA REPORT

EPA METHOD: **SM 4500-CN-C,E**
Matrix: Water

DATE: 12/2/96

SAMPLE # Blank

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Cyanide	0	0.10	0.11	0.10	110%	100%	9.5%	105%

Definition of Terms:

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; (MS-R1) / SP X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

Del Mar Analytical

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-133

QC DATA REPORT

EPA METHOD: 415.2
Matrix: Water

DATE: 11/26/96

SAMPLE # FK03990

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Total Organic Carbon	2.8	12.5	15	15	98%	98%	0.0%	98%

Definition of Terms:

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; ((MS-R1) / SP) X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP) X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

Del Mar Analytical

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

QC DATA REPORT

EPA METHOD 300.0
Instrument: IC
Matrix: Water

DATE: 12/2/96

SAMPLE # P6111012

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Chloride	8.0	1.2	9.4	9.0	117%	83%	4.3%	100%
Nitrite-N	0	0.24	0.21	0.22	88%	92%	4.7%	90%
Nitrate-N	0.13	0.90	0.97	0.96	93%	92%	1.0%	93%
Sulfate-SO4	3.8	6.0	10	9.7	103%	98%	3.0%	101%

R1. . . . . Result of Sample Analysis

. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; (MS-R1) / SP X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

Del MAr Analytical
QA/QC CRITERIA: All QA/QC was within acceptance limits.

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CHAIN OF CUSTODY FORM

Client Name/Address: Hydro-Search, Inc. 4656 E. University Dr, Colton, CA

Project/PO Number: 808708313/106

Project Manager/Phone Number: Steve Smith / 874-2800

Sampler: Mark Nielsen

Analysis Required

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	VOCs 601/602	Chloride 300.0	Cyanide 9012	COD 410.4	TOC 415.1	TDS 160.1	TSS 160.2	Nitrogen as NH3/350.3	Conductivity 9050	Sulfate	Alkalinity	Special Instructions
WOC-MW-GS	W	Multi.	8	11/20/96 12:00	4C	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
WOC-MW-US	W	Poly	1	11/20/96 1040	NaOH 4C				✓	✓			✓	✓	✓	per	Matt Kinney 11/21/96
TRIP BLANK	W	40ml	1			✓											

Relinquished By:	Date /Time:	Received by:	Date /Time:
Mark Nielsen	11/20/96 1820	[illegible]	11/20/96 1820
[illegible]	11/21/96 926	[illegible]	11/21/96 9:26
[illegible]	11/21/96 928	Received in Lab by: [illegible]	11/21/96 9:28

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal ✓

Sample Integrity: (Check)
intact ✓ on ice ✓

Note: Sample(s) will be disposed of after 30 days.

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Date: January 7, 1997

Client: Hydro-Search, Inc.
Street Address: 4636 E. University Drive, Suite 145
City/State Zip Code: Phoenix, AZ 85034

Attention: Steve Smith

Subject: Project Number: 808708313

Dear Mr. Smith:

Please find enclosed a revised copy of the final report for project: 808708313. Upon sending this report via computer transmittal, I noticed that Ammonia was not listed as Ammonia-NH3. The number reported is Ammonia as NH3, but I went ahead and added the proper suffix to indicate this. I also noticed that the sample description for our laboratory number 6111132, was reported as WOC-WCP-2. The correct sample description given to us on the chain-of-custody is WOC-RB-2.

If you have any questions regarding these changes, please do not hesitate to contact Jeff Matsumoto or myself.

Sincerely yours,

Del Mar Analytical

Denise VanRooy

Denise Van Rooy
Office Manager

Del Mar Analytical

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313
Sample Descript: Water, WOC-MW-4M
Lab Number: 6120004

Sampled: Dec 2, 1
Received: Dec 2, 1
Extracted: Dec 3, 1996
Analyzed: Dec 3, 1996
Reported: Dec 3, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**6.3**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	95%
aaa-Trifluorotoluene	98%

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dro-Search, Inc.
.636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313
Sample Descript: Water, WOC-MW-4M
Lab Number: 6120004

Sampled: Dec 2, 1996
Received: Dec 2, 1996
Extracted: Dec 2-9, 1996
Analyzed: Dec 2-9, 1996
Reported: Dec 13, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	SM 2320B	2.0	160
Ammonia-NH3*	350.3	0.50	N.D.
Chemical Oxygen Demand	410.4	20	110
Chloride	300.0	5.0**	200
Cyanide*	SM 4500-CN,C-E	0.025	N.D.
Specific Conductance (µmhos/cm)	SM 2510B	1.0	1,000
Sulfate	300.0	5.0**	72
Total Dissolved Solids	SM 2540C	5.0	650
Total Organic Carbon*	415.2	1.0	3.4
Total Suspended Solids	160.2	5.0	7.0

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

****Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and / or other factors, the sample required dilution. Detection limits for this sample have been raised by a factor of 10.**

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Method Blank

Extracted: Dec 2, 1
Analyzed: Dec 2, 199
Reported: Dec 3, 1996
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	92%
aaa-Trifluorotoluene	98%

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CHAIN OF CUSTODY FORM

ient Name/Address: Hydro-Search 4636 E. University

Project/PO Number: 808708313

oject Manager/Phone Number: Steve Smith 894-2800

Sampler: Mark Nielsen

Analysis Required

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	VOCs 601/602	Chloride 300.0	Cyanide 9012	COD 4194 TOC 415.1	TDS 160.1 Alkalinity 310.1	TSS 160.2	Nitrogen as NH_3 - 3503	Conductivity 9050	Sulfate	Special Instructions
10C-MW-4M	H2O	Mult	8	12/2/96 1230	see bottle	X	X	X	X	X	X	X	X	X	24hr needed for 601 & 602

inquished By: Date /Time: 12/2/96 1250
Received by: Date /Time: 12/2/96 1250

inquished By: Date /Time:
Received by: Date /Time:

inquished By: Date /Time: 12/2/96 1335
Received in Lab by: Date /Time: 12-2-96 13:35

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours 601/602 5 days ____
48 hours ____ normal OTHERS

Sample Integrity: (Check)
intact ✓ on ice ✓

e: Sample(s) will be disposed of after 30 days.

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 12/02/96

Sample #: P6110795

Batch #: FL025A1W

Analyte	R1 ppb	Sp ppb	MS ppb	MSD ppb	PR1 %	PR2 %	RPD %	Mean PR %	Acceptance Limits RPD	Acceptance Limits Mean PR
Benzene	0	5.0	4.8	5.1	96	101	5.4	98	≤10	70 - 130
Chloroform	0	5.0	4.6	4.8	91	97	5.9	94	≤10	70 - 130
1,1-Dichloroethane	0	5.0	5.0	5.3	101	105	4.7	103	≤12	70 - 130
1,2-Dichloroethane	0	5.0	4.9	5.1	98	101	3.5	99	≤13	70 - 130
1,1-Dichloroethene	0	5.0	5.1	5.1	101	102	0.76	102	≤16	70 - 130
Tetrachloroethene	0	5.0	5.0	5.2	101	103	2.5	102	≤14	70 - 130
Toluene	0	5.0	4.9	5.0	99	100	1.7	99	≤11	70 - 130
Trichloroethene	0	5.0	5.0	5.2	100	104	3.9	102	≤13	70 - 130

Definition of Terms

R1. . . . . Result of Sample Analysis
Sp. . . . . Spike Concentration added to sample
MS. . . . . Matrix Spike Result
MSD. . . . . Matrix Spike Duplicate Result
PR1. . . . . Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2. . . . . Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR. . . . . Mean Percent Recovery
Acceptance Limits . . . . . Determined by in-house Control Charts

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ydro-Search, Inc.
.636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313 / 106
Sample Descript: Groundwater, WOC-MW-2S
Lab Number: 6110793

Sampled: Nov 19, 1996
Received: Nov 20, 1996
Extracted: Dec 2, 1996
Analyzed: Dec 2, 1996
Reported: Dec 5, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
2-Dichloroethane	0.50	N.D.
-Dichloroethene	0.50	N.D.
s-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**1.6**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	93%
aaa-Trifluorotoluene	97%

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313 / 106
Sample Descript: Groundwater, RB-1-GW
Lab Number: 6110794

Sampled: Nov 19, 19
Received: Nov 20, 1
Extracted: Dec 2, 1996
Analyzed: Dec 2, 1996
Reported: Dec 5, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	**0.50**	**0.78**
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	99%
aaa-Trifluorotoluene	101%

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CHAIN OF CUSTODY FORM

Client Name/Address:
Hydro-Search, Inc.
4636 E. University, Suite 145
Phoenix, AZ 85034

Project/PO Number:
80870831 3/107

Project Manager/Phone Number:
Steve Smith
894-2800

Sampler:
Mark Nielsen
894-2800

Analysis Required

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	VOC's 601/602	Chloride 300.0	Cyanide 9012	COD 410.4	TOC 415.1	Alkalinity 310.1	TDS 160.1	TSS	Nitrogen as NH3 350.3	Conductivity 9050	Sulfate 300.0	Special Instructions
WOC - WEP-11	W	Multi	8	11/22/96 1040													
WOC - WEP-13	W	Multi	8	11/22/96 1250													
WOC - WEP-10	W	Multi	8	11/22/96 1500													

Relinquished By: [signature] Date /Time: 11/22/96 1702
Received by: Date /Time:

Relinquished By: Date /Time:
Received by: Date /Time:

Relinquished By: Date /Time:
Received in Lab by: [signature] Date /Time: 11/22/96 1702

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal ✓

Sample Integrity: (Check)
intact ✓ on ice: ____

Note: Sample(s) will be disposed of after 30 days.

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968

QC DATA REPORT

EPA METHOD 300.0
Instrument: IC
Matrix: Water

DATE: 11/26/96

SAMPLE # P6111081

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Fluoride	0	0.80	0.76	0.73	95%	91%	4.0%	93%
Chloride	2.1	1.2	3.4	3.4	108%	108%	0.0%	108%
Nitrite-N	0	0.24	0.23	0.24	96%	100%	4.3%	98%
Nitrate-N	0	0.90	0.88	0.85	98%	94%	3.5%	96%
Phosphate-HPO4	0	6.0	5.8	5.7	97%	95%	1.7%	96%
Sulfate-SO4	0.87	6.0	7.0	6.8	102%	99%	2.9%	101%

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; (MS-R1) / SP X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

Del MAr Analytical
QA/QC CRITERIA: All QA/QC was within acceptance limits.

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

LCS DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 12/06/96

Batch #: FL065A1W

Analyte	Spike Conc.	Result	% Recovery	ACP
Benzene	5.0	4.9	98	80 - 120 %
Chloroform	5.0	4.1	82	80 - 120 %
1,1-Dichloroethane	5.0	5.2	104	80 - 120 %
1,2-Dichloroethane	5.0	5.1	102	80 - 120 %
1,1-Dichloroethene	5.0	4.8	95	80 - 120 %
Tetrachloroethene	5.0	5.0	100	80 - 120 %
Toluene	5.0	4.8	97	80 - 120 %
Trichloroethene	5.0	5.1	102	80 - 120 %

Definition of Terms

LCS ..... Laboratory Control Sample
Spike Conc ..... Result of Sample Analysis
Result ..... Result of Laboratory Control Sample Analysis
%Recovery ..... Percent Recovery of LCS; ((Result - Spike Conc.) / Spike Conc.) X 100
ACP ..... Acceptance Limits for Percent Recovery

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 12/06/96

Sample #: P6111080

Batch #: FL065A1W

Analyte	R1 ppb	Sp ppb	MS ppb	MSD ppb	PR1 %	PR2 %	RPD %	Mean PR %	Acceptance Limits RPD	Acceptance Limits Mean PR
Benzene	0	5.0	4.5	4.6	90	93	2.7	92	<10	70 - 130
Chloroform	0	5.0	4.9	3.7	98	73	30 *	86	<10	70 - 130
1,1-Dichloroethane	0	5.0	4.7	3.6	95	73	27 *	84	<12	70 - 130
Dichloroethane	0	5.0	3.9	4.9	78	98	24 *	88	<13	70 - 130
1,1-Dichloroethene	0	5.0	4.5	4.5	91	90	0.22	91	<16	70 - 130
Tetrachloroethene	0	5.0	5.0	4.5	101	89	13	95	<14	70 - 130
Toluene	0	5.0	4.5	4.7	89	93	4.6	91	<11	70 - 130
Trichloroethene	0	5.0	4.7	4.7	95	94	0.75	94	<13	70 - 130

* QC results are not within acceptance limits
When applicable, see corrective action report

Definition of Terms

R1. . . . . Result of Sample Analysis
Sp. . . . . Spike Concentration added to sample
MS. . . . . Matrix Spike Result
MSD. . . . . Matrix Spike Duplicate Result
PR1. . . . . Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2. . . . . Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR. . . . . Mean Percent Recovery
Acceptance Limits . . . . . Determined by in-house Control Charts

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

CORRECTIVE ACTION REPORT

Department:	GC	Method:	601/602
Date:	12/06/96	Matrix:	Water

Identification and Definition of Problem:

The Relative Percent Difference was flagged as outside of in-house acceptance limits for Chloroform, 1,1-Dichloroethane and 1,2-Dichloroethene.

Determination of the Cause of the Problem:

It is possible that an active site was created on the port in which the Matrix Spike Duplicate (MSD) was ran. An active site is created from build up of previous samples ran on that same port that may have contained other compounds that are not detected with this type of instrumentation.

Corrective Action:

Every Auto Sampler port was baked out. However, the Mean Percent Recovery, Midpoint and Laboratory Control Sample (LCS) are all still within EPA acceptance limits.

Jennifer A. Vilaboy: J A Vilaboy Date: 12/27/96
Laboratory Manager

Del Mar Analytical

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Hydro-Search, Inc.
636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Method Blank

Extracted: Dec 6, 1
Analyzed: Dec 6, 1996
Reported: Dec 9, 1996
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	93%
aaa-Trifluorotoluene	99%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Hydro-Search, Inc.
336 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/107

Sample Descript: Water, WOC-WCP-10
Lab Number: 6111081

Sampled: Nov 22, 19
Received: Nov 22, 19
Extracted: 11/25-12/6, 1996
Analyzed: 11/25-12/6, 1996
Reported: Dec 9, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	SM2320B	2.0	240
Ammonia-NH3*	350.3	0.50	N.D.
Chloride	300.0	50**	210
Chemical Oxygen Demand	410.4	20	28
Cyanide*	SM4500-CN, C-E	0.025	N.D.
Specific Conductance (µmhos/cm)	SM2510B	1.0	1,400
Sulfate	300.0	5.0**	91
Total Dissolved Solids	SM2540C	5.0	780
Total Organic Carbon*	415.2	1.0	3.7
Total Suspended Solids	160.2	5.0	200

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

****Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and / or other factors, the sample required dilution. Detection limits for this sample have been raised.**

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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Hydro-Search, Inc.
636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/107

Sample Descript: Water, WOC-WCP-13
Lab Number: 6111080

Sampled: Nov 22, 1996
Received: Nov 22, 1996
Extracted: 11/25-12/6, 1996
Analyzed: 11/25-12/6, 1996
Reported: Dec 9, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	SM2320B	2.0	190
Ammonia-NH3*	350.3	0.50	N.D.
Chloride	300.0	5.0**	210
Chemical Oxygen Demand	410.4	20	31
Cyanide*	SM4500-CN, C-E	0.025	N.D.
Specific Conductance (µmhos/cm)	SM2510B	1.0	1,100
Sulfate	300.0	5.0**	76
Total Dissolved Solids	SM2540C	5.0	610
Total Organic Carbon*	415.2	1.0	2.9
Total Suspended Solids	160.2	5.0	750

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

****Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and / or other factors, the sample required dilution. Detection limits for this sample have been raised.**

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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Hydro-Search, Inc.
636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/107

Sample Descript: Water, WOC-WCP-11
Lab Number: 6111079

Sampled: Nov 22, 19
Received: Nov 22, 19
Extracted: 11/25-12/6, 1996
Analyzed: 11/25-12/6, 1996
Reported: Dec 9, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	SM2320B	2.0	240
Ammonia-NH3*	350.3	0.50	N.D.
Chloride	300.0	5.0**	140
Chemical Oxygen Demand	410.4	20	37
Cyanide*	SM4500-CN, C-E	0.025	N.D.
Specific Conductance (µmhos/cm)	SM2510B	1.0	870
Sulfate	300.0	5.0**	61
Total Dissolved Solids	SM2540C	5.0	480
Total Organic Carbon*	415.2	1.0	4.2
Total Suspended Solids	160.2	5.0	1,400

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

****Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and / or other factors, the sample required dilution. Detection limits for this sample have been raised.**

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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'ydro-Search, Inc.
336 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/107
Sample Descript: Water, WOC-WCP-10
Lab Number: 6111081

Sampled: Nov 22, 19[illegible]
Received: Nov 22, 1996
Extracted: Dec 6, 1996
Analyzed: Dec 6, 1996
Reported: Dec 9, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1-Dichloroethene	0.50	N.D.
s-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**16**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	88%
aaa-Trifluorotoluene	99%

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Hydro-Search, Inc.	Client Project ID: 808708313/107	Sampled: Nov 22, 19
536 E. University Drive, Ste. 145		Received: Nov 22, 19
Phoenix, AZ 85034	Sample Descript: Water, WOC-WCP-13	Extracted: Dec 6, 1996
Attention: Steve Smith	Lab Number: 6111080	Analyzed: Dec 6, 1996
		Reported: Dec 9, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	100%
aaa-Trifluorotoluene	100%

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2465 W. 12th St., Suite I, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968

Hydro-Search, Inc.
636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/107

Sample Descript: Water, WOC-WCP-11
Lab Number: 6111079

Sampled: Nov 22, 1996
Received: Nov 22, 1996
Extracted: Dec 6, 1996
Analyzed: Dec 6, 1996
Reported: Dec 9, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	93%
aaa-Trifluorotoluene	102%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

CHAIN OF CUSTODY FORM

Client Name/Address: Hydro-Search, Inc. 4636 E. University, Suite 145 Phoenix, AZ 85034

Project/PO Number: 808708313/106

Project Manager/Phone Number: Steve Smith/894-2800

Sampler: Mark Nielsen

Analysis Required

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	VOC's 601/602	Chloride 300.0	Cyanide 9012	COD 410.4	TOC 415.1	Alkalinity 310.1	TDS 160.1	TSS 160.2	Nitrogen as NH_3 /350.3	Conductivity 9050	Sulfate 300.0	Special Instructions
WOC-MW-3S	GW	Various	8	11/19/96 1040		X	X	X	X	X	X	X	X	X	X	X	
WOC-MW-2S	GW	Various	8	11/19/96 1230		X	X	X	X	X	X	X	X	X	X	X	
RB-1-GW	GW	Various	8	11/19/96 1406		X	X	X	X	X	X	X	X	X	X	X	Rinse Blank
WOC-MW-7S	GW	Various	8	11/19/96 1705		X	X	X	X	X	X	X	X	X	X	X	
WOC-MW-7S/Field Dup.	GW	Various	8	11/19/96 1705		X	X	X	X	X	X	X	X	X	X	X	
WOC-MW-7S-MS/MSD	GW	Various	7	11/19/96 1705		X	X	X	X	X	NA			X		X	Matrix Spike
Field Blank/WOC-MW-7S	W	VOA	1	11/19/96 1765		X											

JM 12/12/96
SAMPLE WOC-MW-7S-MS/MSD
IS FOR QC/QA ONLY -
DO NOT ANALYZE AS SAMPLE

Relinquished By: Mark Nielsen Date /Time: 11/20/96 9:00 am

Received by: Date /Time:

Relinquished By: Date /Time:

Received by: Date /Time:

Relinquished By: Date /Time:

Received in Lab by: JM Ell Date /Time: 11-20-96 9:00AM

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal ✓

Sample Integrity: (Check)
intact ✓ on ic ____

Note: Sample(s) be disposed of after 30 days.

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Hydro-Search, Inc.
636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313 / 106
Sample Descript: Groundwater, WOC-MW-3S
Lab Number: 6110792

Sampled: Nov 19, 1996
Received: Nov 20, 1996
Extracted: Dec 2, 1996
Analyzed: Dec 2, 1996
Revised: Jan 22, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	95%
aaa-Trifluorotoluene	99%

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CHAIN OF CUSTODY FORM

Client Name/Address: HYDRO-SEARCH, INC

Project/PO Number: E08708313/106

Project Manager/Phone Number: Steve Smith/894-2800

Sampler: M. A. Nelson

Analysis Required

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	VOC's 601/602	chloride 300.0	CYANIDE 9012	COD 410.4	TOC 415.1	alkalinity 310.1	TDS 160.1	TSS 160.2	nitrogenous NH_3 350.3	Conductivity 9050	Sulfate 200.0	Special Instructions
WOC-MW-15s	W	multi	8	11/18/96 1310		X	X	X	X	X	X	X	X	X	X	X	
WOC-MW-28ss	W	multi	8	11/18/96 1440		X	X	X	X	X	X	X	X	X	X	X	
WOC-MW-45	W	multi	8	11/18/96 1620		X	X	X	X	X	X	X	X	X	X	X	
TRIP BLANK #1 (11/19)	W	VOA	1			X			Cancelled					Cancelled			
												12-3-96					
												per client request		11/19/96			

Relinquished By:	Date /Time:	Received by:	Date /Time:	Turnaround Time: (check)	
Mark Nelson	11/18/96 1745			same day ____	72 hours ____
Relinquished By:	Date /Time:	Received by:	Date /Time:	24 hours ____	5 days ____
				48 hours ____	normal ____
Relinquished By:	Date /Time:	Received in Lab by:	Date /Time:	Sample Integrity: (Check)	
		[illegible]	11/18/96 1745	intact ✓	on ice ✓

Note: Sample(s) will be disposed of after 30 days.

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QC DATA REPORT

EPA METHOD: 415.2
Matrix: Water

DATE: 11/25/96

SAMPLE # FK03452

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Total Organic Carbon	2.0	12.5	14	14	96%	96%	0.0%	96%

Definition of Terms:

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; ((MS-R1) / SP) X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP) X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

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QC DATA REPORT

EPA METHOD: **SM 4500-CN-C,E**
Matrix: Water

DATE: 11/25/96

SAMPLE # FK03493

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Cyanide	0	0.10	0.10	0.10	100%	100%	0.0%	100%

Definition of Terms:

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; (MS-R1) / SP X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

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QA/QC CRITERIA: All QA/QC was within acceptance limits.

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16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-184
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-133

QC DATA REPORT

EPA METHOD: **350.3**
Matrix: Water

DATE: 11/25/96

SAMPLE # FK03990

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Ammonia	0	1.0	0.86	0.99	86%	99%	14.1%	93%

Definition of Terms:

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; (MS-R1) / SP X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

Del Mar Analytical

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

QC DATA REPORT

EPA METHOD 300.0
Instrument: IC
Matrix: Water

DATE: 11/19/96

SAMPLE # P6110715

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Fluoride	0	0.80	0.76	0.75	95%	94%	1.3%	94%
Chloride	1.5	1.2	2.7	2.7	100%	100%	0.0%	100%
Nitrite-N	0	0.24	0.25	0.25	104%	104%	0.0%	104%
Nitrate-N	0	0.90	0.94	0.95	104%	106%	1.1%	105%
Phosphate-HPO4	0	6.0	6.1	6.6	102%	110%	7.9%	106%
Sulfate-SO4	0.69	6.0	7.9	7.2	120%	109%	9.3%	114%

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; (MS-R1) / SP X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

Del MAr Analytical
QA/QC CRITERIA: All QA/QC was within acceptance limits.

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 11/27/96
Sample #: P6110624
Batch #: N27A005

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Mean PR	Acceptance Limits	
	ppm	ppm	ppm	ppm	%	%	%	%	RPD	Mean PR
Benzene	0	5.0	4.2	4.4	84	88	2.3	86	≤ 20	70-130
Chloroform	0	5.0	4.1	4.7	82	94	6.8	88	≤ 20	70-130
1,1-Dichloroethane	0	5.0	4.9	5.5	98	110	5.8	104	≤ 20	70-130
1,2-Dichloroethane	0	5.0	5.5	6.7	110	134	9.8	122	≤ 20	70-130
1,1-Dichloroethene	0	5.0	4.2	5.0	82	100	2.2	91	≤ 20	70-130
Tetrachloroethene	0	5.0	4.5	5.5	90	110	10	100	≤ 20	70-130
Toluene	0	5.0	4.3	5.5	86	110	12	98	≤ 20	70-130
Trichloroethene	0	5.0	4.7	4.5	94	90	2.2	92	≤ 20	70-130

Definition of Terms

R1..... Result of Sample Analysis
Sp..... Spike Concentration added to sample
MS..... Matrix Spike Result
MSD..... Matrix Spike Duplicate Result
PR1..... Percent Recovery of MS; ((MS-R1)/SP) x 100
PR2..... Percent Recovery of MSD; ((MSD-R1)/SP) x 100
RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) x 100
Mean PR..... Mean Percent Recovery
Acceptance Limits..... Determined by In-House Control Charts

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Hydro-Search, Inc.
336 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Method Blank

Extracted: Nov 27, 19
Analyzed: Nov 27, 1996
Reported: Dec 3, 1996
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1-Dichloroethene	0.50	N.D.
s-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	96%
aaa-Trifluorotoluene	100%

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2465 W. 12th St., Suite I, Tempe, AZ 85281 (602) 968-8272 FAX (602)

lydro-Search, Inc.
+636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/106

Sample Descript: Water, Trip Blank
Lab Number: 6110716

Received: Nov 18, 1996
Extracted: Nov 27, 1996
Analyzed: Nov 27, 1996
Reported: Dec 3, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1-Dichloroethene	0.50	N.D.
is-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	95%
aaa-Trifluorotoluene	98%

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ydro-Search, Inc.
36 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/106

Sample Descript: Water, WOC-MW-5S
Lab Number: 6110714

Sampled: Nov 18, 19
Received: Nov 18, 1996
Extracted: Nov 19-26, 1996
Analyzed: Nov 19-26, 1996
Reported: Dec 3, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	SM2320B	2.0	220
Ammonia-NH3*	350.3	0.50	N.D.
Chloride	300.0	5.0**	140
Chemical Oxygen Demand	410.4	20	N.D.
Cyanide*	SM4500-CN-C,E	0.025	N.D.
Specific Conductance (µmhos/cm)	SM2510B	1.0	1,000
Sulfate	300.0	5.0**	67
Total Dissolved Solids	SM2540C	5.0	560
Total Organic Carbon*	415.2	1.0	3.9
Total Suspended Solids	160.2	5.0	18

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

**Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and / or other factors, the sample required dilution. Detection limits for this sample have been raised by a factor of 10.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 9

'ydro-Search, Inc.
.636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/106

Sample Descript: Water, WOC-MW-5S
Lab Number: 6110714

Sampled: Nov 18, 19
Received: Nov 18, 1996
Extracted: Nov 27, 1996
Analyzed: Nov 27, 1996
Reported: Dec 3, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	25	N.D.
Bromoform	25	N.D.
Bromomethane	50	N.D.
Carbon tetrachloride	25	N.D.
Chlorobenzene	25	N.D.
Chloroethane	130	N.D.
2-Chloroethylvinyl ether	130	N.D.
Chloroform	25	N.D.
Chloromethane	50	N.D.
Dibromochloromethane	25	N.D.
1,2-Dichlorobenzene	50	N.D.
1,3-Dichlorobenzene	50	N.D.
1,4-Dichlorobenzene	50	N.D.
1,1-Dichloroethane	25	N.D.
1,2-Dichloroethane	25	N.D.
1-Dichloroethene	**25**	**86**
ıs-1,2-Dichloroethene	25	N.D.
trans-1,2-Dichloroethene	25	N.D.
1,2-Dichloropropane	25	N.D.
cis-1,3-Dichloropropene	25	N.D.
trans-1,3-Dichloropropene	25	N.D.
Methylene chloride	250	N.D.
1,1,2,2-Tetrachloroethane	25	N.D.
Tetrachloroethene	25	N.D.
1,1,1-Trichloroethane	25	N.D.
1,1,2-Trichloroethane	25	N.D.
Trichloroethene	**25**	**480**
Trichlorofluoromethane	25	N.D.
Vinyl chloride	50	N.D.
Benzene	25	N.D.
Ethylbenzene	25	N.D.
Toluene	25	N.D.
Total Xylenes	75	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and/or other factors, the sample required dilution. Detection limits for this sample have been raised by a factor of 50.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	105%
aaa-Trifluorotoluene	100%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

ydro-Search, Inc.
36 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/106

Sample Descript: Water, WOC-MW-4S
Lab Number: 6110715

Sampled: Nov 18, 19
Received: Nov 18, 199
Extracted: Nov 19-26, 1996
Analyzed: Nov 19-26, 1996
Reported: Dec 3, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	SM2320B	2.0	200
Chloride	300.0	50**	150
Cyanide*	SM4500-CN-C,E	0.025	N.D.
Specific Conductance (µmhos/cm)	SM2510B	1.0	1,100
Sulfate	300.0	50**	69
Total Dissolved Solids	SM2540C	5.0	620
Total Suspended Solids	160.2	5.0	60

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

**Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and / or other factors, the sample required dilution. Detection limits for this sample have been raised by a factor of 100.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 96

Hydro-Search, Inc.
636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/106

Sample Descript: Water, WOC-MW-1S
Lab Number: 6110713

Sampled: Nov 18, 1996
Received: Nov 18, 1996
Extracted: Nov 19-26, 1996
Analyzed: Nov 19-26, 1996
Reported: Dec 3, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	SM2320B	2.0	170
Ammonia-NH3*	350.3	0.50	N.D.
Chloride	300.0	5.0**	160
Chemical Oxygen Demand	410.4	20	N.D.
Cyanide*	SM4500-CN-C,E	0.025	N.D.
Specific Conductance (µmhos/cm)	SM2510B	1.0	940
Sulfate	300.0	5.0**	57
Total Dissolved Solids	SM2540C	5.0	440
Total Organic Carbon*	415.2	1.0	4.6
Total Suspended Solids	160.2	5.0	90

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

**Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and / or other factors, the sample required dilution. Detection limits for this sample have been raised by a factor of 10.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

QC DATA REPORT

EPA METHOD: 350.3
Matrix: Water

DATE: 12/9/96

SAMPLE # FK01045

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Ammonia	0	1.0	0.81	0.89	81%	89%	9.4%	85%

Definition of Terms:

. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; (MS-R1) / SP X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

Del Mar Analytical

QA/QC CRITERIA: All QA/QC was within acceptance limits.

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602)

QC DATA REPORT

EPA METHOD 300.0
Instrument: IC
Matrix: Water

DATE: 12/2/96

SAMPLE # P6111012

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Chloride	8.0	1.2	9.4	9.0	117%	83%	4.3%	100%
Nitrite-N	0	0.24	0.21	0.22	88%	92%	4.7%	90%
Nitrate-N	0.13	0.90	0.97	0.96	93%	92%	1.0%	93%
Sulfate-SO4	3.8	6.0	10	9.7	103%	98%	3.0%	101%

R1..... Result of Sample Analysis

Sp..... Spike Concentration Added to Sample

MS..... Matrix Spike Result

MSD..... Matrix Spike Duplicate Result

PR1..... Percent Recovery of MS; (MS-R1) / SP X 100

PR2..... Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

Del MAr Analytical
QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical

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16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

QC DATA REPORT

EPA METHOD: **SM 4500-CN-C,E**
Matrix: Water

DATE: 12/9/96

SAMPLE # FL00008

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Cyanide	0	0.10	0.082	0.098	82%	98%	17.8%	90%

Definition of Terms:

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; (MS-R1) / SP X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

Del Mar Analytical

QA/QC CRITERIA: All QA/QC was within acceptance limits.

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QC DATA REPORT

EPA METHOD: 415.2
Matrix: Water

DATE: 12/6/96

SAMPLE # FK04884

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Total Organic Carbon	2.9	12.5	15	15	97%	97%	0.0%	97%

Definition of Terms:

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; ((MS-R1) / SP) X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP) X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

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CHAIN OF CUSTODY FORM

Client Name/Address: Hydro-Search 4636 E. University

Project/PO Number: 508708313

Project Manager/Phone Number: Steve Smith 894-2800

Sampler: Mark Nielsen

Analysis Required

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	VOCs 601/602	Chloride 300.00	Cyanide 9012	COD 410.4 TOC 415.1	TDS 160.1 Alkalinity 310.1	TSS 160.2	Nitrogen as NH_3 350.3	Conductivity 9050	Sulfate	Special Instructions
VOC-MW-4M	H_2O	MvH	8	12/2/96 1230	see bottle	X	X	X	X	X	X	X	X	X	24hr needed for 601 & 602

Relinquished By: [signature] Date /Time: 12/2/96 1250

Received by: [signature] Date /Time: 12/2/96 1250

Relinquished By: Date /Time:

Received By: Date /Time:

Relinquished By: [signature] Date /Time: 12/2/96 1335

Received in Lab by: [signature] Date /Time: 12-2-96 13:35

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours 601/602 5 days ____
48 hours ____ normal OTHERS

Sample Integrity: (Check)
intact ✓ on ice ✓

Note: Sample(s) will be disposed of after 30 days.

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o-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/107
Sample Descript: Water, WOC-SW-1
Lab Number: 6111192

Sampled: Nov 26, 1996
Received: Nov 26, 1996
Extracted: Dec 9, 1996
Analyzed: Dec 9, 1996
Reported: Dec 10, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
hloroethane	0.50	N.D.
ichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
ans-1,2-Dichloroethene	0.50	N.D.
,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
ans-1,3-Dichloropropene	0.50	N.D.
lethylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1-Trichloroethane	0.50	N.D.
1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
richlorofluoromethane	0.50	N.D.
nyl chloride	1.0	N.D.
Benzene	0.50	N.D.
thylbenzene	0.50	N.D.
oluene	0.50	N.D.
otal Xylenes	1.5	N.D.

ID/ELCD were used in series for this analysis.

nalytes reported as N.D. were not present above the stated limit of detection.

E AR ANALYTICAL, PHOENIX (AZ0426)

eff Matsumoto
oject Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	84%
aaa-Trifluorotoluene	99%

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/107
Sample Descript: Water, WOC-SW-2
Lab Number: 6111193

Sampled: Nov 26, 1996
Received: Nov 26, 1996
Extracted: Dec 9, 1996
Analyzed: Dec 9, 1996
Reported: Dec 10, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	88%
aaa-Trifluorotoluene	100%

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2465 W. 12th St., Suite I, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

-Search, Inc.	Client Project ID: 808708313/107	Sampled: Nov 26, 1996
4636 E. University Drive, Ste. 145		Received: Nov 26, 1996
Phoenix, AZ 85034	Sample Descript: Water, Trip Blank	Extracted: Dec 9, 1996
Attention: Steve Smith	Lab Number: 6111194	Analyzed: Dec 9, 1996
		Reported: Dec 10, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
,2-Dichlorobenzene	1.0	N.D.
,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
hloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
ans-1,2-Dichloroethene	0.50	N.D.
,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
ans-1,3-Dichloropropene	0.50	N.D.
lethylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
,1,1-Trichloroethane	0.50	N.D.
,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
richlorofluoromethane	0.50	N.D.
inyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
oluene	0.50	N.D.
otal Xylenes	1.5	N.D.

PID/ELCD were used in series for this analysis.

alytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

eff Matsumoto
oject Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	89%
aaa-Trifluorotoluene	98%

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/107
Sample Descript: Water, WOC-SW-1
Lab Number: 6111192

Sampled: Nov 26, 1996
Received: Nov 26, 1996
Extracted: Dec 2-9, 1996
Analyzed: Dec 2-9, 1996
Reported: Dec 10, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	SM 2320B	2.0	150
Ammonia-NH3*	350.3	0.50	N.D.
Chemical Oxygen Demand	410.4	20	N.D.
Chloride	300.0	5.0**	95
Cyanide*	SM4500-CN-C,E	0.025	N.D.
Specific Conductance	SM 2510B	1.0	1,000
Sulfate	300.0	5.0**	230
Total Dissolved Solids	SM2540C	5.0	610
Total Organic Carbon*	415.2	1.0	6.3
Total Suspended Solids	160.2	5.0	N.D.

*Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).

**Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix and/or other factors, the sample required dilution. Detection limits for this sample were raised by a factor of 10.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/107
Sample Descript: Water, WOC-SW-2
Lab Number: 6111193

Sampled: Nov 26, 1996
Received: Nov 26, 1996
Extracted: Dec 2-9, 1996
Analyzed: Dec 2-9, 1996
Reported: Dec 10, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	SM 2320B	2.0	180
Ammonia-NH3*	350.3	0.50	N.D.
Chemical Oxygen Demand	410.4	20	32
Chloride	300.0	5.0**	95
Cyanide*	SM4500-CN-C,E	0.025	N.D.
Specific Conductance	SM 2510B	1.0	1,000
Sulfate	300.0	5.0**	230
Total Dissolved Solids	SM2540C	5.0	610
Total Organic Carbon*	415.2	1.0	5.8
Total Suspended Solids	160.2	5.0	580

*Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).

Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix and/or other factors, the sample required dilution. Detection limits for this sample were raised by a factor of 10.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Method Blank

Extracted: Dec 9, 1996
Analyzed: Dec 9, 1996
Reported: Dec 10, 1996
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	96%
aaa-Trifluorotoluene	100%

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CORRECTIVE ACTION REPORT

Department:	GC	Method:	601/602
Date:	12/09/96	Matrix:	Water

Identification and Definition of Problem:

The Relative Percent Difference was flagged as outside of in-house acceptance limits for 1,1-Dichloroethane and Trichloroethene.

Determination of the Cause of the Problem:

Matrix interference in the sample may have affected the area around the retention time of 1,1-Dichloroethane. Due to high levels of precision and accuracy in past sample batches, the in-house acceptance level for Trichloroethene becomes very narrow and therefore does not reflect a true range of acceptance.

Corrective Action:

The Laboratory Control Sample and the Midpoint are within EPA acceptance limits for 1-1-Dichloroethane. The Relative Percent Difference for Trichloroethene is also within EPA acceptance limits. No corrective action was necessary.

Jennifer A. Vilaboy: JA Vilaboy Date: 12/23/96
Laboratory Manager

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 12/09/96

Sample #: P6111131

Batch #: FL095A1W

Analyte	R1 ppb	Sp ppb	MS ppb	MSD ppb	PR1 %	PR2 %	RPD %	Mean PR %	Acceptance Limits RPD	Acceptance Limits Mean PR
enzene	0	5.0	4.8	4.7	97	93	3.9	95	<10	70 - 130
hloroform	0	5.0	4.0	4.1	81	82	1.3	81	<10	70 - 130
1-Dichloroethane	0	5.0	4.1	5.6	82	112	31 *	97	<12	70 - 130
2-Dichloroethane	0	5.0	4.3	4.2	86	84	2.3	85	<13	70 - 130
1-Dichloroethene	0	5.0	4.9	4.6	97	92	5.5	95	<16	70 - 130
trachloroethene	0	5.0	4.0	3.9	79	78	2.3	79	<14	70 - 130
luene	0	5.0	4.7	4.7	94	95	0.31	94	<11	70 - 130
chloroethene	0	5.0	4.7	4.0	94	80	16 *	87	<13	70 - 130

* QC results are not within acceptance limits
When applicable, see corrective action report

Definition of Terms

R1. . . . . Result of Sample Analysis
Sp. . . . . Spike Concentration added to sample
MS. . . . . Matrix Spike Result
MSD. . . . . Matrix Spike Duplicate Result
PR1. . . . . Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2. . . . . Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR. . . . . Mean Percent Recovery
Acceptance Limits . . . . . Determined by in-house Control Charts

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

QC DATA REPORT

EPA METHOD: **SM 4500-CN-C,E**
Matrix: Water

DATE: 12/6/96

SAMPLE # FK04880

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Cyanide	0	0.10	0.10	0.096	100%	96%	4.1%	98%

Definition of Terms:

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; (MS-R1) / SP X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

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QA/QC CRITERIA: All QA/QC was within acceptance limits.

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QC DATA REPORT

EPA METHOD: 415.2
Matrix: Water

DATE: 12/6/96

SAMPLE # FK04884

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Total Organic Carbon	2.9	12.5	15	15	97%	97%	0.0%	97%

Definition of Terms:

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; ((MS-R1) / SP) X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP) X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

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QC DATA REPORT

EPA METHOD: 350.3
Matrix: Water

DATE: 12/9/96

SAMPLE # FK01045

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Ammonia	0	1.0	0.81	0.89	81%	89%	9.4%	85%

Definition of Terms:

R1 . . . . . Result of Sample Analysis

Sp . . . . . Spike Concentration Added to Sample

MS . . . . . Matrix Spike Result

MSD . . . . . Matrix Spike Duplicate Result

PR1 . . . . . Percent Recovery of MS; (MS-R1) / SP X 100

PR2 . . . . . Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD . . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

Del Mar Analytical

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical

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QC DATA REPORT

EPA METHOD 300.0
Instrument: IC
Matrix: Water

DATE: 12/2/96

SAMPLE # P6111012

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Chloride	8.0	1.2	9.4	9.0	117%	83%	4.3%	100%
Nitrite-N	0	0.24	0.21	0.22	88%	92%	4.7%	90%
Nitrate-N	0.13	0.90	0.97	0.96	93%	92%	1.0%	93%
Sulfate-SO4	3.8	6.0	10	9.7	103%	98%	3.0%	101%

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; (MS-R1) / SP X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

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QA/QC CRITERIA: All QA/QC was within acceptance limits.

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CHAIN OF CUSTODY FORM

Client Name/Address:
Hydro-Search, Inc.
4636 E. University, Suite 145
Phoenix AZ 85034

Project/PO Number:
8087083 13/107

Project Manager/Phone Number:
Steve A. Smith
894-2800

Sampler:
Mark Nielsen/894-2800

Analysis Required

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	VOC's 601/602	Chloride 300.0	Cyanide 9012	COD 410.4	TOC 415.1	Alkalinity 310.1	TDS 160.1	TSS 160.2	Nitrogen as NH3 / 350.2	Conductivity 9050	Sulfate 300	Special Instructions
WOC-SW-1	W	Multi	8	11/26/96 1030													
WOC-SW-2	W	Multi	8	11/26/96 1115													
Trip Blank	W	40ml VOA	1			X											

Relinquished By: Mark Nielsen Date /Time: 11/26/96 1636
Received by: Date /Time:

Relinquished By: Date /Time:
Received by: Date /Time:

Relinquishe[illegible] Date /Time:
Received in L[illegible] Date /Time:

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ [illegible]nal X

Sample Integrity: (Ch[illegible]
[illegible]act [illegible] on [illegible]

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dro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313 / 106
Sample Descript: Groundwater, WOC-MW-3~~6~~5 MW.
Lab Number: 6110792

Sampled: Nov 19, 1996
Received: Nov 20, 1996
Extracted: Nov 20-27, 1996
Analyzed: Nov 20-27, 1996
Reported: Dec 5, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	SM2320B	2.0	150
Ammonia*	350.3	0.50	N.D.
Chloride	300.0	5.0**	230
Chemical Oxygen Demand*	410.4	20	N.D.
Specific Conductance (µmhos/cm)	120.1	1.0	1,100
Cyanide*	SM4500-CN-C,E	0.025	N.D.
Sulfate	300.0	5.0**	94
Total Dissolved Solids	SM2540C	5.0	600
Total Organic Carbon*	415.2	1.0	3.8
Total Suspended Solids	160.2	5.0	13

ORIGINALS THAT WERE CORRECTED AND REISSUED

*Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).

**Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and / or other factors, the sample required dilution. Detection limits for this sample have been raised by a factor of 10.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313 / 106
Sample Descript: Groundwater, WOC-MW-3~~5~~ MW-5
Lab Number: 6110792

Sampled: Nov 19, 1996
Received: Nov 20, 1996
Extracted: Dec 2, 1996
Analyzed: Dec 2, 1996
Reported: Dec 5, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	95%
aaa-Trifluorotoluene	99%

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313
Sample Descript: Water, WOC-MW-4M
Lab Number: 6120004

Sampled:	Dec 2, 1996
Received:	Dec 2, 1996
Extracted:	Dec 3, 1996
Analyzed:	Dec 3, 1996
Reported:	Dec 3, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**6.3**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	95%
aaa-Trifluorotoluene	98%

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313
Sample Descript: Water, WOC-MW-4M
Lab Number: 6120004

Sampled: Dec 2, 1
Received: Dec 2, 1996
Extracted: Dec 2-9, 1996
Analyzed: Dec 2-9, 1996
Reported: Dec 13, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	SM 2320B	2.0	160
Ammonia-NH3*	350.3	0.50	N.D.
Chemical Oxygen Demand	410.4	20	110
Chloride	300.0	5.0**	200
Cyanide*	SM 4500-C C,E	0.025	N.D.
Specific Conductivity	SM 2510B	1.0	1,000
Sulfate	300.0	5.0**	72
Total Dissolved Solids	SM 2540C	5.0	650
Total Organic Carbon*	415.2	1.0	3.4
Total Suspended Solids	160.2	5.0	7.0

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

****Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and / or other factors, the sample required dilution. Detection limits for this sample have been raised by a factor of 10.**

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Method Blank

Extracted: Dec 3, 1996
Analyzed: Dec 3, 1996
Reported: Dec 3, 1996
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	92%
aaa-Trifluorotoluene	98%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Method Blank

Extracted: Dec 9, 1
Analyzed: Dec 9, 1
Reported: Dec 10, 1996
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	96%
aaa-Trifluorotoluene	100%

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ydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 6111130
Sample Descript: Water, WOC-WCP-4
Lab Number: 6111134

Sampled: Nov 25, 1996
Received: Nov 25, 1996
Extracted: 11/26-12/6, 1996
Analyzed: 11/26-12/6, 1996
Reported: Dec 10, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	310.1	2.0	140
Ammonia*	350.3	0.50	N.D.
Chloride	300.0	5.0**	170
Cyanide*	SM4500-CN C,E	0.025	N.D.
Chemical Oxygen Demand	410.4	20	78
Specific Conductance (µmhos)	120.1	1.0	890
Sulfate	300	5.0**	53
Total Dissolved Solids	160.1	5.0	470
Total Organic Carbon*	415.2	1.0	2.7
Total Suspended Solids	160.2	5.0	30

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

****Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and / or other factors, the sample required dilution. Detection limits for this sample have been raised.**

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 6111130
Sample Descript: Water, WOC-WCP-8
Lab Number: 6111133

Sampled: Nov 25, 1
Received: Nov 25, 1996
Extracted: 11/26-12/6, 1996
Analyzed: 11/26-12/6, 1996
Reported: Dec 10, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	310.1	2.0	320
Ammonia*	350.3	0.50	N.D.
Chloride	300.0	50**	470
Cyanide*	SM4500-CN C,E	0.025	N.D.
Chemical Oxygen Demand	410.4	20	N.D.
Specific Conductance (µmhos)	120.1	1.0	2,300
Sulfate	300	5.0**	190
Total Dissolved Solids	160.1	5.0	1,400
Total Organic Carbon*	415.2	1.0	6.3
Total Suspended Solids	160.2	5.0	89

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

****Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and / or other factors, the sample required dilution. Detection limits for this sample have been raised.**

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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ydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 6111130
Sample Descript: Water, WOC-WCP-2
Lab Number: 6111132

Sampled: Nov 25, 1996
Received: Nov 25, 1996
Extracted: 11/26-12/6, 1996
Analyzed: 11/26-12/6, 1996
Reported: Dec 10, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	310.1	2.0	N.D.
Ammonia*	350.3	0.50	N.D.
Chloride	300.0	0.50	N.D.
Cyanide*	SM4500-CN C,E	0.025	N.D.
Chemical Oxygen Demand	410.4	20	N.D.
Specific Conductance (µmhos)	120.1	1.0	52
Sulfate	300	0.50	N.D.
Total Dissolved Solids	160.1	5.0	N.D.
Total Organic Carbon*	415.2	1.0	N.D.
Total Suspended Solids	160.2	5.0	N.D.

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 6111130
Sample Descript: Water, WOC-WCP-3
Lab Number: 6111131

Sampled: Nov 25, 19
Received: Nov 25, 19
Extracted: 11/26-12/6, 1996
Analyzed: 11/26-12/6, 1996
Reported: Dec 10, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	310.1	2.0	190
Ammonia*	350.3	0.50	N.D.
Chloride	300.0	5.0**	150
Cyanide*	SM4500-CN C,E	0.025	N.D.
Chemical Oxygen Demand	410.4	20	210
Specific Conductance (µmhos)	120.1	1.0	920
Sulfate	300	5.0**	63
Total Dissolved Solids	160.1	5.0	520
Total Organic Carbon*	415.2	1.0	3.6
Total Suspended Solids	160.2	5.0	N.D.

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

****Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and / or other factors, the sample required dilution. Detection limits for this sample have been raised.**

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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dro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 6111130
Sample Descript: Water, WOC-WCP-12
Lab Number: 6111130

Sampled: Nov 25, 1996
Received: Nov 25, 1996
Extracted: 11/26-12/6, 1996
Analyzed: 11/26-12/6, 1996
Reported: Dec 10, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	310.1	2.0	250
Ammonia*	350.3	0.50	N.D.
Chloride	300.0	5.0**	140
Cyanide*	SM4500-CN C,E	0.025	N.D.
Chemical Oxygen Demand	410.4	20	N.D.
Specific Conductance (µmhos)	120.1	1.0	990
Sulfate	300	5.0**	64
Total Dissolved Solids	160.1	5.0	550
Total Organic Carbon*	415.2	1.0	4.6
Total Suspended Solids	160.2	5.0	110

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

****Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and / or other factors, the sample required dilution. Detection limits for this sample have been raised.**

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 6111130
Sample Descript: Water, Trip Blank
Lab Number: 6111135

Sampled: Nov 25, 19
Received: Nov 25, 19
Extracted: Dec 9, 1996
Analyzed: Dec 9, 1996
Reported: Dec 10, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	87%
aaa-Trifluorotoluene	102%

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ydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 6111130
Sample Descript: Water, WOC-WCP-4
Lab Number: 6111134

Sampled: Nov 25, 1996
Received: Nov 25, 1996
Extracted: Dec 9, 1996
Analyzed: Dec 9, 1996
Reported: Dec 10, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**2.0**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	96%
aaa-Trifluorotoluene	99%

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 6111130
Sample Descript: Water, WOC-WCP-8
Lab Number: 6111133

Sampled: Nov 25, 1
Received: Nov 25, 199
Extracted: Dec 9, 1996
Analyzed: Dec 9, 1996
Reported: Dec 10, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	80%
aaa-Trifluorotoluene	99%

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ydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 6111130
Sample Descript: Water, WOC-RB-2
Lab Number: 6111132

Sampled: Nov 25, 1996
Received: Nov 25, 1996
Extracted: Dec 9, 1996
Analyzed: Dec 9, 1996
Reported: Dec 10, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
2-Dichloroethane	0.50	N.D.
1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	95%
aaa-Trifluorotoluene	103%

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 6111130
Sample Descript: Water, WOC-WCP-3
Lab Number: 6111131

Sampled: Nov 25, 1
Received: Nov 25, 1996
Extracted: Dec 9, 1996
Analyzed: Dec 9, 1996
Reported: Dec 10, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	82%
aaa-Trifluorotoluene	100%

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ydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 6111130
Sample Descript: Water, WOC-WCP-12
Lab Number: 6111130

Sampled: Nov 25, 1996
Received: Nov 25, 1996
Extracted: Dec 9, 1996
Analyzed: Dec 9, 1996
Reported: Dec 10, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
2-Dichloroethane	0.50	N.D.
1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	**0.50**	**1.4**
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**0.71**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	**0.50**	**2.5**
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	92%
aaa-Trifluorotoluene	100%

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/107
Sample Descript: Water, WOC-MW-4L
Lab Number: 6120259

Sampled: Dec 6, 1
Received: Dec 6, 1
Extracted: Dec 9-18, 1996
Analyzed: Dec 9-18, 1996
Reported: Dec 20, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	SM2320B	2.0	130
Ammonia*	350.3	0.50	N.D.
Chemical Oxygen Demand	410.4	20	N.D.
Chloride	300.0	50**	350
Cyanide*	SM4500-CN,C-E	0.025	N.D.
Specific Conductance (µmhos/cm)	120.1	1.0	1,300
Sulfate	300.0	5.0**	69
Total Dissolved Solids	SM2540C	5.0	930
Total Organic Carbon*	415.2	1.0	3.6
Total Suspended Solids	160.2	5.0	1,500

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

****Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and/or other factors, the sample required dilution. Detection limits for this sample have been raised.**

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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ydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/107
Sample Descript: Water, WOC-MW-6M
Lab Number: 6120258

Sampled: Dec 6, 1996
Received: Dec 6, 1996
Extracted: Dec 9-18, 1996
Analyzed: Dec 9-18, 1996
Reported: Dec 20, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	SM2320B	2.0	260
Ammonia*	350.3	0.50	0.57
Chemical Oxygen Demand	410.4	20	N.D.
Chloride	300.0	50*	270
Cyanide*	SM4500-CN,C-E	0.025	N.D.
Specific Conductance (µmhos/cm)	120.1	1.0	1,500
Sulfate	300.0	5.0**	130
Total Dissolved Solids	SM2540C	5.0	950
Total Organic Carbon*	415.2	1.0	4.6
Total Suspended Solids	160.2	5.0	N.D.

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

****Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and/or other factors, the sample required dilution. Detection limits for this sample have been raised.**

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/107

Sample Descript: Water, WOC-MW-2M
Lab Number: 6120204

Sampled: Dec 5, 1
Received: Dec 5, 1996
Extracted: Dec 9-18, 1996
Analyzed: Dec 9-18, 1996
Reported: Dec 19, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	SM2320B	2.0	180
Ammonia-NH3*	350.3	0.50	N.D.
Chemical Oxygen Demand	410.4	20	N.D.
Chloride	300.0	5.0**	240
Cyanide*	SM4500-CN,C-E	0.025	N.D.
Specific Conductance (µmhos/cm)	120.1	1.0	1,100
Sulfate	300.0	5.0*	98
Total Dissolved Solids	SM2540C	5.0	670
Total Organic Carbon*	415.2	1.0	3.2
Total Suspended Solids	160.2	5.0	N.D.

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

****Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and / or other factors, the sample required dilution. Detection limits for this sample have been raised by a factor of 10.**

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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ydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/107

Sample Descript: Water, WOC-MW-7M
Lab Number: 6120205

Sampled: Dec 5, 1996
Received: Dec 5, 1996
Extracted: Dec 9-18, 1996
Analyzed: Dec 9-18, 1996
Reported: Dec 19, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	SM2320B	2.0	170
Ammonia-NH3*	350.3	0.50	N.D.
Chemical Oxygen Demand	410.4	20	N.D.
Chloride	300.0	5.0**	170
Cyanide*	SM4500-CN,C-E	0.025	N.D.
Specific Conductance (µmhos/cm)	120.1	1.0	1,200
Sulfate	300.0	5.0**	71
Total Dissolved Solids	SM2540C	5.0	520
Total Organic Carbon*	415.2	1.0	3.6
Total Suspended Solids	160.2	5.0	N.D.

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

****Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and / or other factors, the sample required dilution. Detection limits for this sample have been raised by a factor of 10.**

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, WOCMW-15
Lab Number: 7020355

Sampled: Feb 10, 1
Received: Feb 10, 1997
Extracted: Feb 12, 1997
Analyzed: Feb 12, 1997
Reported: Feb 13, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**17**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	98%
aaa-Trifluorotoluene	99%

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dro-Search, Inc.
636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/107

Sample Descript: Water, WOC-MW-3M
Lab Number: 6120059

Sampled: Dec 3, 1996
Received: Dec 3, 1996
Extracted: Dec 12, 1996
Analyzed: Dec 12, 1996
Reported: Dec 13, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
-Dichloroethane	0.50	N.D.
-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**7.3**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	100%
aaa-Trifluorotoluene	100%

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/107

Sample Descript: Water, WOC-MW-3M-FIELD DUP
Lab Number: 6120060A

Sampled: Dec 3, 1[illegible]
Received: Dec 3, 1996
Extracted: Dec 12, 1996
Analyzed: Dec 12, 1996
Reported: Dec 13, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**7.0**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	100%
aaa-Trifluorotoluene	101%

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dro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/107
Sample Descript: Water, Trip Blank
Lab Number: 6120062

Received: Dec 3, 1996
Extracted: Dec 12, 1996
Analyzed: Dec 12, 1996
Reported: Dec 13, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
2-Dichloroethane	0.50	N.D.
-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	101%
aaa-Trifluorotoluene	101%

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/107
Sample Descript: Water, WOC-MW-3M
Lab Number: 6120059

Sampled: Dec 3, 1
Received: Dec 3, 1996
Extracted: Dec 3-16, 1996
Analyzed: Dec 3-16, 1996
Reported: Dec 18, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	SM2320B	2.0	180
Ammonia-NH3*	350.3	0.50	N.D.
Chloride	300.0	50**	240
Cyanide*	SM4500-CN-C,E	0.025	N.D.
Chemical Oxygen Demand	410.4	20	N.D.
Specific Conductance (µmhos/cm)	SM2510B	1.0	1,200
Sulfate	300.0	5.0**	97
Total Organic Carbon*	415.2	1.0	3.7
Total Dissolved Solids	160.1	5.0	740
Total Suspended Solids	160.2	5.0	N.D.

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

****Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and / or other factors, the sample required dilution. detection limits for this sample have been raised.**

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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dro-Search, Inc.
636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/107
Sample Descript: Water, WOC-MW-3M/FIELD DUP
Lab Number: 6120060A

Sampled: Dec 3, 1996
Received: Dec 3, 1996
Extracted: Dec 3-16, 1996
Analyzed: Dec 3-16, 1996
Reported: Dec 18, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	SM2320B	2.0	180
Ammonia-NH3*	350.3	0.50	N.D.
Chloride	300.0	50**	230
Cyanide*	SM4500-CN-C,E	0.025	N.D.
Chemical Oxygen Demand	410.4	20	N.D.
Specific Conductance (µmhos/cm)	SM2510B	1.0	1,300
Sulfate	300.0	5.0**	97
Total Organic Carbon*	415.2	1.0	3.0
Total Dissolved Solids	160.1	5.0	730
Total Suspended Solids	160.2	5.0	N.D.

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

****Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and / or other factors, the sample required dilution. detection limits for this sample have been raised.**

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-133

Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/107
Sample Descript: Water, WOC-MW-4S
Lab Number: 6120061

Sampled: Dec 3, 1
Received: Dec 3, 1996
Extracted: Dec 9-16, 1996
Analyzed: Dec 9-16, 1996
Reported: Dec 18, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Ammonia-NH3*	350.3	0.50	0.90
Chemical Oxygen Demand	410.4	20	41
Total Organic Carbon*	415.2	1.0	5.0

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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dro-Search, Inc.
636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Method Blank

Extracted: Dec 12, 1996
Analyzed: Dec 12, 1996
Reported: Dec 13, 1996
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	100%
aaa-Trifluorotoluene	100%

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CORRECTIVE ACTION REPORT

Department:	GC	Method:	601/602
Date:	12/12/96	Matrix:	Water

Identification and Definition of Problem:

The Relative Percent Difference was flagged as outside of in-house acceptance limits for Toluene and Trichloroethene.

Determination of the Cause of the Problem:

Due to a high level of precision and accuracy in past sample batches, the in-house acceptance limits become very narrow and therefore do not reflect a true range of acceptability.

Corrective Action:

The Relative Percent Difference is within EPA acceptance limits. No corrective action was necessary.

Jennifer A. Vilaboy: J A Vilaboy Date: 12/23/96
Laboratory Manager

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 12/12/96
Sample #: P6120060B
Batch #: FL12121W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Mean PR	Acceptance Limits	
	ppm	ppm	ppm	ppm	%	%	%	%	RPD	Mean PR
Benzene	0	5.0	5.5	5.2	120	104	5.9	107	≤ 10	70-130
Chloroform	0	5.0	5.9	6.3	119	126	5.4	122	≤ 10	70-130
1-Dichloroethane	0	5.0	5.9	6.2	118	123	4.7	120	≤ 10	70-130
1,2-Dichloroethane	0	5.0	5.9	6.2	117	125	6.1	121	≤ 10	70-130
1,1-Dichloroethene	0	5.0	5.8	5.5	117	110	5.7	114	≤ 10	70-130
Tetrachloroethene	0	5.0	6.0	6.2	120	123	2.4	122	≤ 10	70-130
Toluene	0	5.0	5.6	4.9	111	97	13*	104	≤ 10	70-130
Trichloroethene	7.0	5.0	12	13	100	120	18*	110	≤ 10	70-130

*QC results are not within acceptance limits.

When applicable, see corrective action report.

Definition of Terms

R1..... Result of Sample Analysis
Sp..... Spike Concentration added to sample
MS..... Matrix Spike Result
MSD..... Matrix Spike Duplicate Result
PR1..... Percent Recovery of MS; ((MS-R1)/SP) x 100
PR2..... Percent Recovery of MSD; ((MSD-R1)/SP) x 100
RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) x 100
Mean PR..... Mean Percent Recovery
Acceptance Limits..... Determined by In-House Control Charts

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

QC DATA REPORT

EPA METHOD: **350.3**
Matrix: Water

DATE: 12/16/96

SAMPLE # FL00907

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Ammonia	0	1.0	0.80	0.80	80%	80%	0.0%	80%

Definition of Terms:

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; (MS-R1) / SP X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

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QA/QC CRITERIA: All QA/QC was within acceptance limits.

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QC DATA REPORT

EPA METHOD: **SM 4500-CN,C-E**
Matrix: Water

DATE: 12/16/96

SAMPLE # FL00907

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Cyanide	0	0.10	0.089	0.091	89%	91%	2.2%	90%

Definition of Terms:

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; (MS-R1) / SP X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

Del Mar Analytical

QA/QC CRITERIA: All QA/QC was within acceptance limits.

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QC DATA REPORT

EPA METHOD 300.0
Instrument: IC
Matrix: Water

DATE: 12/6/96

SAMPLE # P612006013

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Fluoride	0	0.80	0.76	0.76	95%	95%	0.0%	95%
Chloride	2.3	1.2	3.6	3.5	108%	100%	2.8%	104%
Nitrite-N	0	0.24	0.24	0.25	100%	104%	4.1%	102%
Nitrate-N	0	0.90	0.92	0.92	102%	102%	0.0%	102%
Phosphate-HPO4	0	6.0	6.2	6.0	103%	100%	3.3%	102%
Sulfate-SO4	0.96	6.0	7.4	7.3	107%	106%	1.4%	107%

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; (MS-R1) / SP X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

Del MAr Analytical
QA/QC CRITERIA: All QA/QC was within acceptance limits.

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CHAIN OF CUSTODY FORM

Client Name/Address: Hydro-Search, Inc. 1136 E. University Suite 115 Phoenix AZ 85034

Project/PO Number: 508708313/107

Project Manager/Phone Number: Steve Smith / 894-2800

Sampler: Mark Nielsen 894-2800

Analysis Required

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	VOCs Cal/Gc	Chloride 300.0	Cyanide 9010	COD 410.4	TOC 415.1	Alkalinity 310.1	TDS 160.1	TSS 160.2	Nitrogen as NH3 350.3	Conductivity 9050	Sulfate 300.0	Special Instructions
WOC-MW-3m	W	Multi	8	12/3/96 1245													
WOC-MW-3m (Field Dup)	W	Multi	8	12/3/96 12-15													
WOC-MW-3m-MS/MSD	W	Multi	8	12/3/96 1245													
WOC-MW-4S	W	Multi	2	12/3/96 1350													
Trip Blank						X											

Relinquished By: Mark Nielsen Date /Time: 12/3/96 1546

Received by: Date /Time:

Relinquished By: Date /Time:

Received by: Date /Time:

Relinquished By: Date /Time:

Received in Lab by: [illegible] Date /Time: [illegible]

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal ✓

Sample Integrity: (Check)
intact ✓

Note: S[illegible] is w[illegible] dispos[illegible] after [illegible] rs

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dro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/107

Sample Descript: Water, WOC-MW-2M
Lab Number: 6120204

Sampled: Dec 5, 1996
Received: Dec 5, 1996
Extracted: Dec 9-18, 1996
Analyzed: Dec 9-18, 1996
Reported: Dec 19, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	SM2320B	2.0	180
Ammonia-NH3*	350.3	0.50	N.D.
Chemical Oxygen Demand	410.4	20	N.D.
Chloride	300.0	5.0**	240
Cyanide*	SM4500-CN,C-E	0.025	N.D.
Specific Conductance (µmhos/cm)	SM2510B	1.0	1,100
Sulfate	300.0	5.0*	98
Total Dissolved Solids	SM2540C	5.0	670
Total Organic Carbon*	415.2	1.0	3.2
Total Suspended Solids	160.2	5.0	N.D.

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

****Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and / or other factors, the sample required dilution. Detection limits for this sample have been raised by a factor of 10.**

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/107
Sample Descript: Water, WOC-MW-7M
Lab Number: 6120205

Sampled: Dec 5, 1
Received: Dec 5, 1996
Extracted: Dec 9-18, 1996
Analyzed: Dec 9-18, 1996
Reported: Dec 19, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	SM2320B	2.0	170
Ammonia-NH3*	350.3	0.50	N.D.
Chemical Oxygen Demand	410.4	20	N.D.
Chloride	300.0	5.0**	170
Cyanide*	SM4500-CN,C-E	0.025	N.D.
Specific Conductance (µmhos/cm)	SM2510B	1.0	1,200
Sulfate	300.0	5.0**	71
Total Dissolved Solids	SM2540C	5.0	520
Total Organic Carbon*	415.2	1.0	3.6
Total Suspended Solids	160.2	5.0	N.D.

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

****Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and / or other factors, the sample required dilution. Detection limits for this sample have been raised by a factor of 10.**

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

CHAIN OF CUSTODY FORM

Client Name/Address: Hydro-Search, Inc. 4636 E. University Dr. Suite 145 Phoenix AZ 85034

Project/PO Number: 808408313/107

Project Manager/Phone Number: Steve Smith/894-2800

Sampler: Mark Nielsen/894-2800

Analysis Required

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	VOC's 601/602	Chloride 300.0	Cyanide 9012	COD 410.4	TOC 415.1	Alkalinity 310.1	TDS 160.1	TSS 160.2	Nitrogen as NH3 350.3	Conductivity 9050	Sulfate 300.0	Special Instructions
WOC MW-2m	W	multi	8	12/5/96 1432													
WOC-MW-7m	W	multi	8	12/5/96 1650													
Trip Blank	W	40ml. VOA	1			X											
~~Field~~																	
WOC-MW-~~7m~~ 2m MW/Field Blank	W	40ml. VOA	1	12/5/96 1432		X											Field Blank (DI H_2O)

Relinquished By:	Date /Time:	Received by:	Date /Time:
Mark Nielsen	12/5/96 1800		
Relinquished By:	Date /Time:	Received by:	Date /Time:
Relinquished By:	Date /Time:	Received in Lab by:	Date /Time:
		[illegible]	12/5/96 1800

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact X

Note: Sample(s) will be disposed of after 30 days.

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/107
Sample Descript: Water, WOC-MW-6M
Lab Number: 6120258

Sampled: Dec 6, 1[illegible]
Received: Dec 6, 19[illegible]
Extracted: Dec 17, 1996
Analyzed: Dec 17, 1996
Reported: Dec 19, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**6.2**
Trichlorofluoromethane	2.0	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	100%
aaa-Trifluorotoluene	99%

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ydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/107
Sample Descript: Water, WOC-MW-4L
Lab Number: 6120259

Sampled: Dec 6, 1996
Received: Dec 6, 1996
Extracted: Dec 18, 1996
Analyzed: Dec 18, 1996
Reported: Dec 19, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
2-Dichloroethane	0.50	N.D.
1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	2.0	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	102%
aaa-Trifluorotoluene	99%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/107
Sample Descript: Water, Trip Blank
Lab Number: 6120260

Sampled: Dec 6, 19
Received: Dec 6, 1996
Extracted: Dec 18, 1996
Analyzed: Dec 18, 1996
Reported: Dec 19, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	2.0	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	2.0	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	104%
aaa-Trifluorotoluene	99%

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Method Blank

Extracted: Dec 17, 1996
Analyzed: Dec 17, 1996
Reported: Dec 19, 1996
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
,2-Dichloroethane	0.50	N.D.
,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	2.0	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	107%
aaa-Trifluorotoluene	99%

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 12/16/96

Sample #: P6120206

Batch #: FL16121W

Analyte	R1 ppb	Sp ppb	MS ppb	MSD ppb	PR1 %	PR2 %	RPD %	Mean PR %	Acceptance Limits RPD	Acceptance Limits Mean PR
Benzene	0	5.0	4.4	4.6	88	92	3.8	90	<10	70 - 130
Chloroform	0	5.0	4.9	5.2	98	105	6.5	102	<10	70 - 130
1,1-Dichloroethane	0	5.0	5.0	5.3	100	106	6.3	103	<10	70 - 130
1,2-Dichloroethane	0	5.0	5.0	5.2	100	104	3.4	102	<10	70 - 130
1,1-Dichloroethene	0	5.0	4.5	4.9	90	99	9.1	95	<10	70 - 130
Tetrachloroethene	0	5.0	4.8	5.0	95	99	4.4	97	<10	70 - 130
Toluene	0	5.0	5.1	4.6	101	92	9.3	97	<10	70 - 130
Trichloroethene	0	5.0	4.9	5.2	98	105	6.7	102	<10	70 - 130

Definition of Terms

R1..... Result of Sample Analysis
Sp..... Spike Concentration added to sample
MS..... Matrix Spike Result
MSD..... Matrix Spike Duplicate Result
PR1..... Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2..... Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR..... Mean Percent Recovery
Acceptance Limits..... Determined by in-house Control Charts

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QC DATA REPORT

EPA METHOD: **350.3**
Matrix: Water

DATE: 12/16/96

SAMPLE # FL00907

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Ammonia	0	1.0	0.80	0.80	80%	80%	0.0%	80%

Definition of Terms:

R1 . . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; (MS-R1) / SP X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

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QA/QC CRITERIA: All QA/QC was within acceptance limits.

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QC DATA REPORT

EPA METHOD: **SM 4500-CN,C-E**
Matrix: Water

DATE: 12/17/96

SAMPLE # FL01533

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Cyanide	0	0.10	0.094	0.087	94%	87%	7.7%	91%

Definition of Terms:

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; (MS-R1) / SP X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

Del Mar Analytical

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical

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QC DATA REPORT

EPA METHOD 300.0
Instrument: IC
Matrix: Water

DATE: 12/9/96

SAMPLE # P6120258

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Fluoride	0	0.80	0.73	0.71	91%	89%	2.8%	90%
Chloride	2.7	1.2	3.9	4.0	100%	108%	2.5%	104%
Nitrite-N	0	0.24	0.23	0.23	96%	96%	0.0%	96%
Nitrate-N	0	0.90	0.86	0.85	96%	94%	1.2%	95%
Phosphate-HPO4	0	6.0	5.7	5.4	95%	90%	5.4%	93%
Sulfate-SO4	1.5	6.0	7.3	7.2	97%	95%	1.4%	96%

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; (MS-R1) / SP X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

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QA/QC CRITERIA: All QA/QC was within acceptance limits.

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968 8272 FAX (602) 968 1338

CHAIN OF CUSTODY FORM

Client Name/Address: Hydro-Search Inc. 4636 E. University Dr., Suite 145 Phoenix, AZ 85034

Project/PO Number: 808708313/107

Project Manager/Phone Number: Steve Smith / 894-2800

Sampler: Mark Nichen / 894-2800

Analysis Required

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	VOCs 601/602	Chloride 300.0	Cyanide 9012	COD 410.4	TOC 415.1	Alkalinity 310.1	TDS 160.1	TSS 160.2	Nitrogen as NH3 350.3	Conductivity 9050	Sulfate 300.0	Special Instructions
WOC - MW - 6M	W	mult.	8	12/6/96 0956													
WOC - MW - 4L	W	mult.	8	12/6/96 1656													
Trip Blank				12/6/96		X											

Relinquished By: Mark Nichen Date /Time: 12/6/96 1750

Received by: Date /Time:

Relinquished By: Date /Time:

Received by: Date /Time:

Relinquished By: Date /Time:

Received in Lab by: [illegible] Date /Time: 12/6/96 1750

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact X on ____

San[illegible] will [illegible]osed [illegible]er 30

Del Mar Analytical

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: U/L
808708313
Sample Descript: Water, MW-6L
Lab Number: 6120544

Sampled: Dec 11, 1996
Received: Dec 12, 1996
Extracted: Dec 20, 1996
Analyzed: Dec 20, 1996
Reported: Dec 30, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	2.0	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jennifer A. Vilaboy
Laboratory Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	103%
aaa-Trifluorotoluene	100%

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: U/L
808708313
Sample Descript: Water. Trip Blank
Lab Number: 6120545

Received: Dec 12, 1996
Extracted: Dec 20, 1996
Analyzed: Dec 20, 1996
Reported: Dec 30, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	2.0	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jennifer A. Vilaboy
Laboratory Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	103%
aaa-Trifluorotoluene	99%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1358

Hydro-Search, Inc.	Client Project ID: U/L	Sampled: Dec 11, 1996
4636 E. University Drive, Ste. 145	808708313	Received: Dec 12, 1996
Phoenix, AZ 85034	Sample Descript: Water, MW6-L	Extracted: Dec 13-18, 1996
Attention: Steve Smith	Lab Number: 6120544	Analyzed: Dec 13-18, 1996
		Reported: Dec 30, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	SM2320B	2.0	500
Ammonia*	350.3	0.50	Pending
Chloride	300.0	5.0**	47
Cyanide*	SM4500-CN,C-E	0.025	N.D.
Chemical Oxygen Demand	410.4	20	61
Specific Conductance (µmhos/cm)	SM2510B	1.0	530
Sulfate	300.0	5.0**	20
Total Dissolved Solids	SM2540C	5.0	660
Total Organic Carbon*	415.2	1.0	Pending
Total Suspended Solids	160.2	5.0	7,000

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

****Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and/or other factors, the sample required dilution. Detection limits for this sample have been raised by a factor of 10.**

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jennifer A. Vilaboy
Laboratory Manager

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FAX (602) 968-1338

27495

CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

Client Name/Address: Hydro-Search 4636 E University

Project: UIC 80870 8313

Project Manager: Steve Smith

Sampler: David Braermann

Analysis Required

Sample Description	Sample Matrix	Container Type	# of Cont	Sampling Date/Time	Preservatives	601/602	Chloride 300.0	Cyanide 9012	COD 410.4	TOC 415.1	Alkalinity 310.1	TDS 160.1	TSS 160.2	Nitrogen as NH_3 350.3	Conductivity 9050	Sulfate 300.0	Special Instructions
MW6L	H2O	Muff	8	12/11/96 1429		X	X	X	X	X		X	X	X	X	X	
Trip Blank	H2O	40ml VOA	1			X											

Relinquished By: David Braermann Date/Time: 12/12/96 1725

Received By: Date/Time:

Relinquished By: Date/Time:

Received By: Date/Time:

Relinquished By: Date/Time:

Received in Lab By: [illegible] Date/Time: 12/12/96 17[illegible]

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (check)
intact X on ice X

Note: Samples will be disposed of after 30 days.

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Facsimile Cover Sheet

To: Mark
Company: HYS
Fax:

From: Jennifer Vilaboy
Company: Del Mar Analytical
Phone: (602) 968-8272
Fax: (602) 968-1338

Date: 12/30/96
Pages including this cover page: 5.

Comments:

608708313 MW-7L, MW-7LD

pending NH_3, TOC, & CN. due 12/31/96.

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313
Sample Descript: Water, MW-7L
Lab Number: 6120663

Sampled: Dec 13, 1996
Received: Dec 13, 1996
Extracted: Dec 20, 1996
Analyzed: Dec 20, 1996
Reported: Dec 30, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	2.0	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jennifer A. Vilaboy
Laboratory Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	103%
aaa-Trifluorotoluene	99%

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313
Sample Descript: Water, MW-7LD
Lab Number: 6120664

Sampled: Dec 13, 1996
Received: Dec 13, 1996
Extracted: Dec 20, 1996
Analyzed: Dec 20, 1996
Reported: Dec 30, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	2.0	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jennifer A. Vilaboy
Laboratory Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	104%
aaa-Trifluorotoluene	99%

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313

Sample Descript: Water, MW-7L
Lab Number: 6120663

Sampled: Dec 13, 199
Received: Dec 13, 1996
Extracted: Dec 16-23, 1996
Analyzed: Dec 16-23, 1996
Reported: Dec 30, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	SM2320B	2.0	76
Ammonia*	350.3	0.50	Pending
Chloride	300.0	5.0**	190
Cyanide*	SM4500-CN,C-F	0.25	Pending
Chemical Oxygend Demand	410.4	20	N.D.
Specific Conductance (µmhos/cm)	SM2510C	1.0	730
Sulfate	300.0	5.0**	29
Total Dissolved Solids	SM2540C	5.0	400
Total Organic Carbon*	415.2	1.0	Pending
Total Suspended Solids	160.2	5.0	45

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

****Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and/or other factors, the sample required dilution. Detection limits for this sample have been raised by a factor of 10.**

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jennifer A. Vilaboy
Laboratory Manager

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313
Sample Descript: Water, MW-7LD
Lab Number: 6120664

Sampled: Dec 13, 1996
Received: Dec 13, 1996
Extracted: Dec 16-23, 1996
Analyzed: Dec 16-23, 1996
Reported: Dec 30, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	SM2320B	2.0	77
Ammonia*	350.3	0.50	Pending
Chloride	300.0	5.0**	190
Cyanide*	SM4500-CN,C-E	0.25	Pending
Chemical Oxygend Demand	410.4	20	N.D.
Specific Conductance (µmhos/cm)	SM2510C	1.0	700
Sulfate	300.0	5.0**	28
Total Dissolved Solids	SM2540C	5.0	400
Total Organic Carbon*	415.2	1.0	Pending
Total Suspended Solids	160.2	5.0	54

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

****Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and/or other factors, the sample required dilution. Detection limits for this sample have been raised by a factor of 10.**

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

JA Vilaboy

Jennifer A. Vilaboy
Laboratory Manager

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80 870 8313 107

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CHAIN OF CUSTODY FORM

Client Name/Address: Hydro Search

Project/PO Number: 80 870 8313

Project Manager/Phone Number: Steve Smith 544-1800

Sampler: D Freeman

Analysis Required

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	Gd 1/602	Chloride 300.0	Cyanide 9012 COD 410.4	TOC 415.1 Alkalinity 300.1	TDS 160.1 TSS 160.2	Nitrogen as NH3 350.3	Conductivity 9050	Sulfate 300.0		Special Instructions
MW-7L	H2O	Mult	8	12/13/96 1620		X	X	X	X	X	X	X	X		
MW-7LD	H2O	Mult	8	12/13/96 1620		X	X	X	X	X	X	X	X		

Relinquished By: [signature] Date /Time: 12/13/96 1800

Received by: Date /Time:

Relinquished By: Date /Time:

Received by: Date /Time:

Relinquished By: Date /Time:

Received in Lab by: [signature] Date /Time: 12/13/96 1800

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact X
oi

Note: Sample(disposed of after 30 days.

Del Mar Analytical

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2465 W. 12th St., Suite 1
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(602) 968-8272
FAX (602) 968-1338

CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

Client Name/Address: Hydro-Search 4636 E University

Project: UIC 80870 8313

Project Manager: Steve Smith

Sampler: David Broerman

Analysis Required

Sample Description	Sample Matrix	Container Type	# of Cont	Sampling Date/Time	Preservatives	601/602	Chloride 300.0	Cyanide 9012 COD 410.4	TOC 415.1 Alkalinity 310.1	TDS 160.1	TSS 160.2	Nitrogen as NH_3 350.3	Conductivity 9050	5 Hole 300.0	Special Instructions
MW6L	H_2O	Mult	8	12/11/96 1429		X	X	X	X	X	X	X	X	X	
Trip Blank	H_2O	40ml VOA	1			X									

Relinquished By:	Date/Time:	Received By:	Date/Time:
[illegible]	12/12/96 1725		
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received in Lab By:	Date/Time:
		[illegible]	12/12/96 1725

Note: Samples will be disposed of after 30 days.

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (check)
intact X on ice X

Del Mar Analytical

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Date: January 7, 1997

Client: Hydro-Search, Inc.
Street Address: 4636 E. University Drive, Suite 145
City/State Zip Code: Phoenix, AZ 85034

Attention: Steve Smith

Subject: Project Number: 808708313/107

Dear Mr. Smith:

Please find enclosed a set of revised pages for the final report for your project number 808708313. Upon sending this report via computer transmittal, I noticed that Ammonia was not listed as Ammonia-NH3. The number reported is Ammonia as NH3, but I went ahead and added the proper suffix to indicate this. I also noticed that the EPA Method for Specific Conductance was listed incorrectly. The new method used for this analysis is SM2510B, instead of the previous EPA Method 120.1

If you have any questions regarding these changes, please do not hesitate to contact me at the phone number listed above.

Sincerely yours,

Del Mar Analytical

Jeff Matsumoto
Project Manager

Del Mar Analytical

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/107
Sample Descript: Water, WOC-MW-6M
Lab Number: 6120258

Sampled: Dec 6, 19[illegible]
Received: Dec 6, 1996
Extracted: Dec 9-18, 1996
Analyzed: Dec 9-18, 1996
Reported: Dec 20, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	SM2320B	2.0	260
Ammonia-NH3*	350.3	0.50	0.57
Chemical Oxygen Demand	410.4	20	N.D.
Chloride	300.0	50*	270
Cyanide*	SM4500-CN,C-E	0.025	N.D.
Specific Conductance (µmhos/cm)	SM2510B	1.0	1,500
Sulfate	300.0	5.0**	130
Total Dissolved Solids	SM2540C	5.0	950
Total Organic Carbon*	415.2	1.0	4.6
Total Suspended Solids	160.2	5.0	N.D.

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0423).**

****Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and/or other factors, the sample required dilution. Detection limits for this sample have been raised.**

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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ydro-Search, Inc.
+636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/107
Sample Descript: Water, WOC-MW-4L
Lab Number: 6120259

Sampled: Dec 6, 1996
Received: Dec 6, 1996
Extracted: Dec 9-18, 1996
Analyzed: Dec 9-18, 1996
Reported: Dec 20, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	SM2320B	2.0	130
Ammonia-NH3*	350.3	0.50	N.D.
Chemical Oxygen Demand	410.4	20	N.D.
Chloride	300.0	50**	350
Cyanide*	SM4500-CN,C-E	0.025	N.D.
Specific Conductance (µmhos/cm)	SM2510B	1.0	1,300
Sulfate	300.0	5.0**	69
Total Dissolved Solids	SM2540C	5.0	930
Total Organic Carbon*	415.2	1.0	3.6
Total Suspended Solids	160.2	5.0	1,500

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

****Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and/or other factors, the sample required dilution. Detection limits for this sample have been raised.**

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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CHAIN OF CUSTODY FORM

Client Name/Address: Hydro Search

Project/PO Number: 80 870 8313

Project Manager/Phone Number: Steve Smith 844-2800

Sampler: R Bressman

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	Analysis Required: Gas/1602	Chloride 300.0	Cyanide 9012	COD 410.4	TOC 415.1	Alkalinity 3601	TDS 160.1	TSS 160.2	Nitrogen as NH3 350.3	Conductivity 9050	Sulfate 300.0		Special Instructions
MW-7L	H2O	Mult	8	12/13/96 1620		X	X	X	X	X		X		X	X	X		
MW-7LD	H2O	Mult	8	12/13/96 1620		X	X	X	X	X		X		X	X	X		

Relinquished By: Date /Time: 12/13/96 1800

Received by: Date /Time:

Relinquished By: Date /Time:

Received by: Date /Time:

Relinquished By: Date /Time:

Received in Lab by: Date /Time: 12/13/96 1800

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact ✓ on ice ✓

Note: Sample[illegible] be disposed of after 30 days

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Date: January 6, 1997

Client: Hydro-Search, Inc.
Street Address: 4636 E. University Drive, Suite 145
City/State Zip Code: Phoenix, AZ 85034

Attention: Steve Smith

Subject: Project Number: 808708313

Dear Mr. Smith:

Please find enclosed a revised copy of the final report for project: 808708313. Upon sending this report via computer transmittal, I noticed that the extracted and analyzed dates on the Method Blank for EPA 601/602, were incorrect. The date reported was listed as December 3, 1996. The actual date the Method Blank was analyzed was December 2, 1996. The samples and corresponding Method Blank were analyzed on the instrument overnight. I also made the font smaller for the EPA Method for Cyanide, to allow the full method name to be read.

If you have any questions regarding these changes, please do not hesitate to contact Jeff Matsumoto or myself.

Sincerely yours,

Del Mar Analytical

Denise Van Rooy

Denise Van Rooy
Office Manager

Del Mar Analytical

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Hydro-Search, Inc.	Client Project ID: 808708313	Sampled:	Nov 25, 1
4636 E. University Drive, Ste. 145		Received:	Nov 25, 1996
Phoenix, AZ 85034	Sample Descript: Water, WOC-WCP-12	Extracted:	Dec 9, 1996
Attention: Steve Smith	Lab Number: 6111130	Analyzed:	Dec 9, 1996
		Reported:	Dec 10, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	**0.50**	**1.4**
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**0.71**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	**0.50**	**2.5**
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	92%
aaa-Trifluorotoluene	100%

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CHAIN OF CUSTODY FORM

Client Name/Address:
Hydro-Search, Inc.
4636 E. University Dr., Suite 145
Phoenix, AZ 80534

Project/PO Number:
808708313/107

Project Manager/Phone Number:
Steve Smith/894-2800

Sampler:
Mark Nielsen/894-2800

Analysis Required

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	VOC's 601/602	Chloride 300.0	Cyanide 9012	COD 410.4	TOC 415.1	Alkalinity 310.1	TDS 160.1	TSS 160.2	Nitrogen as NH3 350.3	Conductivity 9050	Sulfate 300.0	Special Instructions
WOC-MW-6M	W	multi	8	12/6/96 0956													
WOC-MW-4L	W	multi	8	12/6/96 1656													
Trip Blank				12/6/96		X											

Relinquished By: Mark Nielsen Date /Time: 12/6/96 1750
Received by: Date /Time:

Relinquished By: Date /Time:
Received by: Date /Time:

Relinquished By: Date /Time:
Received in Lab by: Date /Time: 12/6/96 1750

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact X

Note: Samples will be disposed of after 30 days.

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313
Sample Descript: Water, WOC-WCP-3
Lab Number: 6111131

Sampled: Nov 25, 1
Received: Nov 25, 1996
Extracted: Dec 9, 1996
Analyzed: Dec 9, 1996
Reported: Dec 10, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	82%
aaa-Trifluorotoluene	100%

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dro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313
Sample Descript: Water, WOC-RB-2
Lab Number: 6111132

Sampled: Nov 25, 1996
Received: Nov 25, 1996
Extracted: Dec 9, 1996
Analyzed: Dec 9, 1996
Reported: Dec 10, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	95%
aaa-Trifluorotoluene	103%

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313
Sample Descript: Water, WOC-WCP-8
Lab Number: 6111133

Sampled: Nov 25, 1996
Received: Nov 25, 1996
Extracted: Dec 9, 1996
Analyzed: Dec 9, 1996
Reported: Dec 10, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	80%
aaa-Trifluorotoluene	99%

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ydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313
Sample Descript: Water, WOC-WCP-4
Lab Number: 6111134

Sampled: Nov 25, 1996
Received: Nov 25, 1996
Extracted: Dec 9, 1996
Analyzed: Dec 9, 1996
Reported: Dec 10, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
2-Dichloroethane	0.50	N.D.
1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**2.0**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	96%
aaa-Trifluorotoluene	99%

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313
Sample Descript: Water, Trip Blank
Lab Number: 6111135

Sampled: Nov 25, 1996
Received: Nov 25, 1996
Extracted: Dec 9, 1996
Analyzed: Dec 9, 1996
Reported: Dec 10, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	87%
aaa-Trifluorotoluene	102%

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ydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313
Sample Descript: Water, WOC-WCP-12
Lab Number: 6111130

Sampled: Nov 25, 1996
Received: Nov 25, 1996
Extracted: 11/26-12/6, 1996
Analyzed: 11/26-12/6, 1996
Reported: Dec 10, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	310.1	2.0	250
Ammonia-NH3*	350.3	0.50	N.D.
Chloride	300.0	5.0**	140
Cyanide*	SM4500-CN,C-E	0.025	N.D.
Chemical Oxygen Demand	410.4	20	N.D.
Specific Conductance (µmhos)	SM 2510B	1.0	990
Sulfate	300.0	5.0**	64
Total Dissolved Solids	SM 2540C	5.0	550
Total Organic Carbon*	415.2	1.0	4.6
Total Suspended Solids	160.2	5.0	110

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

****Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and / or other factors, the sample required dilution. Detection limits for this sample have been raised.**

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313
Sample Descript: Water, WOC-WCP-3
Lab Number: 6111131

Sampled: Nov 25, 1
Received: Nov 25, 1996
Extracted: 11/26-12/6, 1996
Analyzed: 11/26-12/6, 1996
Reported: Dec 10, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	310.1	2.0	190
Ammonia-NH3*	350.3	0.50	N.D.
Chloride	300.0	5.0**	150
Cyanide*	SM4500-CN,C-E	0.025	N.D.
Chemical Oxygen Demand	410.4	20	210
Specific Conductance (µmhos)	SM 2510B	1.0	920
Sulfate	300.0	5.0**	63
Total Dissolved Solids	SM 2540C	5.0	520
Total Organic Carbon*	415.2	1.0	3.6
Total Suspended Solids	160.2	5.0	N.D.

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

****Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and / or other factors, the sample required dilution. Detection limits for this sample have been raised.**

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

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dro-Search, Inc.
+636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313
Sample Descript: Water, WOC-RB-2
Lab Number: 6111132

Sampled: Nov 25, 1996
Received: Nov 25, 1996
Extracted: 11/26-12/6, 1996
Analyzed: 11/26-12/6, 1996
Reported: Dec 10, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	310.1	2.0	N.D.
Ammonia-NH3*	350.3	0.50	N.D.
Chloride	300.0	0.50	N.D.
Cyanide*	SM4500-CN,C-E	0.025	N.D.
Chemical Oxygen Demand	410.4	20	N.D.
Specific Conductance (µmhos)	SM 2510B	1.0	52
Sulfate	300.0	0.50	N.D.
Total Dissolved Solids	SM 2540C	5.0	N.D.
Total Organic Carbon*	415.2	1.0	N.D.
Total Suspended Solids	160.2	5.0	N.D.

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313
Sample Descript: Water, WOC-WCP-8
Lab Number: 6111133

Sampled: Nov 25, 1
Received: Nov 25, 1
Extracted: 11/26-12/6, 1996
Analyzed: 11/26-12/6, 1996
Reported: Dec 10, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	310.1	2.0	320
Ammonia-NH3*	350.3	0.50	N.D.
Chloride	300.0	50**	470
Cyanide*	SM4500-CN,C-E	0.025	N.D.
Chemical Oxygen Demand	410.4	20	N.D.
Specific Conductance (µmhos)	SM 2510B	1.0	2,300
Sulfate	300.0	5.0**	190
Total Dissolved Solids	SM 2540C	5.0	1,400
Total Organic Carbon*	415.2	1.0	6.3
Total Suspended Solids	160.2	5.0	89

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

****Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and / or other factors, the sample required dilution. Detection limits for this sample have been raised.**

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

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ydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313
Sample Descript: Water, WOC-WCP-4
Lab Number: 6111134

Sampled: Nov 25, 1996
Received: Nov 25, 1996
Extracted: 11/26-12/6, 1996
Analyzed: 11/26-12/6, 1996
Reported: Dec 10, 1996

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	310.1	2.0	140
Ammonia-NH3*	350.3	0.50	N.D.
Chloride	300.0	5.0**	170
Cyanide*	SM4500-CN,C-E	0.025	N.D.
Chemical Oxygen Demand	410.4	20	78
Specific Conductance (µmhos)	SM 2510B	1.0	890
Sulfate	300.0	5.0**	53
Total Dissolved Solids	SM 2540C	5.0	470
Total Organic Carbon*	415.2	1.0	2.7
Total Suspended Solids	160.2	5.0	30

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

****Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and / or other factors, the sample required dilution. Detection limits for this sample have been raised.**

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Method Blank

Extracted: Dec 9, 1
Analyzed: Dec 9, 1996
Reported: Dec 10, 1996
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	96%
aaa-Trifluorotoluene	100%

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CHAIN OF CUSTODY FORM

ient Name/Address:
Hydrosearch, Inc.
1636 E University Suite 145
Phoenix, AZ 85034

Project/PO Number:
508 708313

oject Manager/Phone Number:
Steve Smith
894-2800

Sampler:
Mark Nielsen
894-2800

Analysis Required

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	VOC's 601/602	Chloride 300.0	Cyanide 9012	COD 410.4	TOC 415.1	Alkalinity 310.1	TDS 160.1	TSS 160.2	Nitrogen as NH3 350.3	Conductivity 9050	Sulfate 300	Special Instructions
VOC-WCP-12	W	Multi	8	11/25/96 1115													
VOC-WCP-3	W	Multi	8	11/25/96 1342													
VOC-MWRB-2	W	Multi	8	11/25/96 1606													Rinse Blank (DI H_2O)
VOC-WCP-8	W	Multi	8	11/25/96 1710													
VOC-WCP-4	W	Multi	8	11/25/96 1523													
Trip Blank	W	40ml VOA	1			X											

inquished By: Date /Time: 11/25/96 18:19
Received by: Date /Time:

inquished By: Date /Time:
Received by: Date /Time:

inquished By: Date /Time:
Received in Lab by: Date /Time: 11/25/96 1819

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact X on ice X

e: Sample(s) will be disposed of after 30 days.

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 12/09/96

Sample #: P6111131

Batch #: FL095A1W

Analyte	R1 ppb	Sp ppb	MS ppb	MSD ppb	PR1 %	PR2 %	RPD %	Mean PR %	Acceptance Limits RPD	Acceptance Limits Mean PR
Benzene	0	5.0	4.8	4.7	97	93	3.9	95	< 10	70 - 130
Chloroform	0	5.0	4.0	4.1	81	82	1.3	81	< 10	70 - 130
1,1-Dichloroethane	0	5.0	4.1	5.6	82	112	31 *	97	< 12	70 - 130
1,2-Dichloroethane	0	5.0	4.3	4.2	86	84	2.3	85	< 13	70 - 130
1,1-Dichloroethene	0	5.0	4.9	4.6	97	92	5.5	95	< 16	70 - 130
Tetrachloroethene	0	5.0	4.0	3.9	79	78	2.3	79	< 14	70 - 130
Toluene	0	5.0	4.7	4.7	94	95	0.31	94	< 11	70 - 130
Trichloroethene	0	5.0	4.7	4.0	94	80	16 *	87	< 13	70 - 130

* QC results are not within acceptance limits
When applicable, see corrective action report

Definition of Terms

R1. . . . . Result of Sample Analysis
Sp. . . . . Spike Concentration added to sample
MS. . . . . Matrix Spike Result
MSD. . . . . Matrix Spike Duplicate Result
PR1. . . . . Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2. . . . . Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR. . . . . Mean Percent Recovery
Acceptance Limits . . . . . Determined by in-house Control Charts

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CORRECTIVE ACTION REPORT

Department:	GC	Method:	601/602
Date:	12/09/96	Matrix:	Water

Identification and Definition of Problem:

The Relative Percent Difference was flagged as outside of in-house acceptance limits for 1,1-Dichloroethane and Trichloroethene.

Determination of the Cause of the Problem:

Matrix interference in the sample may have affected the area around the retention time of 1,1-Dichloroethane. Due to high levels of precision and accuracy in past sample batches, the in-house acceptance level for Trichloroethene becomes very narrow and therefore does not reflect a true range of acceptance.

Corrective Action:

The Laboratory Control Sample and the Midpoint are within EPA acceptance limits for 1-1-Dichloroethane. The Relative Percent Difference for Trichloroethene is also within EPA acceptance limits. No corrective action was necessary.

Jennifer A. Vilaboy: J A Vilaboy Date: 12/23/96
Laboratory Manager

Del Mar Analytical

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QC DATA REPORT

EPA METHOD: 415.1
Matrix: Water

DATE: 12/6/96

SAMPLE # FK04884

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Total Organic Carbon	2.9	12.5	15	15	97%	97%	0.0%	97%

Definition of Terms:

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; ((MS-R1) / SP) X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP) X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

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QC DATA REPORT

EPA METHOD: **350.3**
Matrix: Water

DATE: 12/4/96

SAMPLE # FK04880

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Ammonia	0	1.0	0.96	1.1	96%	110%	13.6%	103%

Definition of Terms:

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; (MS-R1) / SP X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

Del Mar Analytical

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical

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QC DATA REPORT

EPA METHOD: **SM 4500-CN-C,E**
Matrix: Water

DATE: 12/6/96

SAMPLE # FK04880

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Cyanide	0	0.10	0.10	0.096	100%	96%	4.1%	98%

Definition of Terms:

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; (MS-R1) / SP X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

Del Mar Analytical

QA/QC CRITERIA: All QA/QC was within acceptance limits.

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QC DATA REPORT

EPA METHOD 300.0
Instrument: IC
Matrix: Water

DATE: 11/26/96

SAMPLE # P6111081

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Fluoride	0	0.80	0.76	0.73	95%	91%	4.0%	93%
Chloride	2.1	1.2	3.4	3.4	108%	108%	0.0%	108%
Nitrite-N	0	0.24	0.23	0.24	96%	100%	4.3%	98%
Nitrate-N	0	0.90	0.88	0.85	98%	94%	3.5%	96%
Phosphate-HPO4	0	6.0	5.8	5.7	97%	95%	1.7%	96%
Sulfate-SO4	0.87	6.0	7.0	6.8	102%	99%	2.9%	101%

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; (MS-R1) / SP X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

Del MAr Analytical
QA/QC CRITERIA: All QA/QC was within acceptance limits.

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CHAIN OF CUSTODY FORM

Client Name/Address: Hydrosearch, Inc. [illegible]

Project/PO Number:

Project Manager/Phone Number: [illegible] 897-2800

Sampler: Mark Nielsen 897-2800

Analysis Required: VOC's 601/602; Chloride 300.0; Cyanide 9012; COD 410.4; TOC 415.1; Alkalinity 310.1; TDS 160.1; TSS 160.2; Nitrogen as NH_3/[illegible]; Conductivity 9050; Sulfate 300

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	VOC's 601/602	Chloride 300.0	Cyanide 9012	COD 410.4	TOC 415.1	Alkalinity 310.1	TDS 160.1	TSS 160.2	Nitrogen as NH_3/[illegible]	Conductivity 9050	Sulfate 300	Special Instructions
[illegible]	W	Multi	8	11/25/96 1115		X										X	
[illegible]	W	Multi	8	11/25/96 1342			X								X		
[illegible]	W	Multi	8	11/25/96 1606				X						X			Rinse Blank (DI Water)
[illegible]	W	Multi	8	11/25/96 1710					X				X				
[illegible]	W	Multi	8	11/25/96 1523		X						X					
Trip Blank	W	40ml VOA	1			X											

Relinquished By:	Date /Time:	Received by:	Date /Time:	Turnaround Time: (check)
Mark Nielsen	11/25/96 18:19			same day ____ 72 hours ____
Relinquished By:	Date /Time:	Received by:	Date /Time:	24 hours ____ 5 days ____
				48 hours ____ normal X
Relinquished By:	Date /Time:	Received in Lab by: Leon Adams	Date /Time: 11/25/96 1819	Sample Integrity: (Check) intact X on ice X

Note: Sample(s) will be disposed of after 30 days.

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dro-Search, Inc.
+636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313 / 106
Sample Descript: Groundwater, WOC-MW-3S
Lab Number: 6110792

Sampled: Nov 19, 1996
Received: Nov 20, 1996
Extracted: Nov 20-27, 1996
Analyzed: Nov 20-27, 1996
Revised: Jan 22, 1997

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	SM2320B	2.0	150
Ammonia*	350.3	0.50	N.D.
Chloride	300.0	5.0**	230
Chemical Oxygen Demand*	410.4	20	N.D.
Specific Conductance (µmhos/cm)	120.1	1.0	1,100
Cyanide*	SM4500-CN-C,E	0.025	N.D.
Sulfate	300.0	5.0**	94
Total Dissolved Solids	SM2540C	5.0	600
Total Organic Carbon*	415.2	1.0	3.8
Total Suspended Solids	160.2	5.0	13

***Analysis was completed at Del Mar Analytical-IRVINE (AZ0428).**

****Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and / or other factors, the sample required dilution. Detection limits for this sample have been raised by a factor of 10.**

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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ydro-Search, Inc.	Client Project ID: 808708313/107	Sampled: Dec 5, 1996
4636 E. University Drive, Ste. 145		Received: Dec 5, 1996
Phoenix, AZ 85034	Sample Descript: Water, WOC-MW-2M	Extracted: Dec 17, 1996
Attention: Steve Smith	Lab Number: 6120204	Analyzed: Dec 17, 1996
		Reported: Dec 19, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	5.0	N.D.
Bromoform	5.0	N.D.
Bromomethane	10	N.D.
Carbon tetrachloride	5.0	N.D.
Chlorobenzene	5.0	N.D.
Chloroethane	25	N.D.
2-Chloroethylvinyl ether	25	N.D.
Chloroform	5.0	N.D.
Chloromethane	10	N.D.
Dibromochloromethane	5.0	N.D.
1,2-Dichlorobenzene	10	N.D.
1,3-Dichlorobenzene	10	N.D.
1,4-Dichlorobenzene	10	N.D.
1,1-Dichloroethane	5.0	N.D.
2-Dichloroethane	5.0	N.D.
1-Dichloroethene	5.0	N.D.
cis-1,2-Dichloroethene	5.0	N.D.
trans-1,2-Dichloroethene	5.0	N.D.
1,2-Dichloropropane	5.0	N.D.
cis-1,3-Dichloropropene	5.0	N.D.
trans-1,3-Dichloropropene	5.0	N.D.
Methylene chloride	50	N.D.
1,1,2,2-Tetrachloroethane	5.0	N.D.
Tetrachloroethene	5.0	N.D.
1,1,1-Trichloroethane	5.0	N.D.
1,1,2-Trichloroethane	5.0	N.D.
Trichloroethene	**5.0**	**75**
Trichlorofluoromethane	20	N.D.
Vinyl chloride	10	N.D.
Benzene	5.0	N.D.
Ethylbenzene	5.0	N.D.
Toluene	5.0	N.D.
Total Xylenes	15	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and/or other factors, the sample required dilution. Detection limits for this sample have been raised by a factor of 10.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	104%
aaa-Trifluorotoluene	98%

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/107
Sample Descript: Water, WOC-MW-7M
Lab Number: 6120205

Sampled: Dec 5, 1996
Received: Dec 5, 1996
Extracted: Dec 17, 1996
Analyzed: Dec 17, 1996
Reported: Dec 19, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**9.7**
Trichlorofluoromethane	2.0	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	101%
aaa-Trifluorotoluene	98%

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ydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: 808708313/107
Sample Descript: Water, Trip Blank
Lab Number: 6120206

Received: Dec 5, 1996
Extracted: Dec 17, 1996
Analyzed: Dec 17, 1996
Reported: Dec 19, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
2-Dichloroethane	0.50	N.D.
1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	2.0	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	101%
aaa-Trifluorotoluene	101%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-133

Hydro-Search, Inc.	Client Project ID: 808708313/107	Sampled: Dec 5, 1
4636 E. University Drive, Ste. 145		Received: Dec 5, 1996
Phoenix, AZ 85034	Sample Descript: Water, Field Blank	Extracted: Dec 17, 1996
Attention: Steve Smith	Lab Number: 6120207	Analyzed: Dec 17, 1996
		Reported: Dec 19, 1996

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	2.0	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	**0.50**	**1.0**
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	105%
aaa-Trifluorotoluene	102%

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Hydro-Search, Inc.
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Method Blank

Extracted: Dec 17, 1996
Analyzed: Dec 17, 1996
Reported: Dec 19, 1996
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	2.0	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	107%
aaa-Trifluorotoluene	99%

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 12/16/96

Sample #: P6120206

Batch #: FL16121W

Analyte	R1 ppb	Sp ppb	MS ppb	MSD ppb	PR1 %	PR2 %	RPD %	Mean PR %	Acceptance Limits RPD	Acceptance Limits Mean PR
Benzene	0	5.0	4.4	4.6	88	92	3.8	90	<10	70 - 130
Chloroform	0	5.0	4.9	5.2	98	105	6.5	102	<10	70 - 130
1,1-Dichloroethane	0	5.0	5.0	5.3	100	106	6.3	103	<10	70 - 130
1,2-Dichloroethane	0	5.0	5.0	5.2	100	104	3.4	102	<10	70 - 130
1,1-Dichloroethene	0	5.0	4.5	4.9	90	99	9.1	95	<10	70 - 130
Tetrachloroethene	0	5.0	4.8	5.0	95	99	4.4	97	<10	70 - 130
Toluene	0	5.0	5.1	4.6	101	92	9.3	97	<10	70 - 130
Trichloroethene	0	5.0	4.9	5.2	98	105	6.7	102	<10	70 - 130

Definition of Terms

R1..... Result of Sample Analysis
Sp..... Spike Concentration added to sample
MS..... Matrix Spike Result
MSD..... Matrix Spike Duplicate Result
PR1..... Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2..... Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR..... Mean Percent Recovery
Acceptance Limits..... Determined by in-house Control Charts

Del Mar Analytical

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QC DATA REPORT

EPA METHOD 300.0
Instrument: IC
Matrix: Water

DATE: 12/6/96

SAMPLE # P612006013

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Fluoride	0	0.80	0.76	0.76	95%	95%	0.0%	95%
Chloride	2.3	1.2	3.6	3.5	108%	100%	2.8%	104%
Nitrite-N	0	0.24	0.24	0.25	100%	104%	4.1%	102%
Nitrate-N	0	0.90	0.92	0.92	102%	102%	0.0%	102%
Phosphate-HPO4	0	6.0	6.2	6.0	103%	100%	3.3%	102%
Sulfate-SO4	0.96	6.0	7.4	7.3	107%	106%	1.4%	107%

R1. . . . . Result of Sample Analysis

SP. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; (MS-R1) / SP X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

Del MAr Analytical
QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical

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QC DATA REPORT

EPA METHOD: 350.3
Matrix: Water

DATE: 12/9/96

SAMPLE # FK01045

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Ammonia	0	1.0	0.81	0.89	81%	89%	9.4%	85%

Definition of Terms:

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; (MS-R1) / SP X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

Del Mar Analytical

QA/QC CRITERIA: All QA/QC was within acceptance limits.

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QC DATA REPORT

EPA METHOD: **SM 4500-CN-C,E**
Matrix: Water

DATE: 12/17/96

SAMPLE # FL01533

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Cyanide	0	0.10	0.094	0.087	94%	87%	7.7%	91%

Definition of Terms:

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; (MS-R1) / SP X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

Del Mar Analytical

QA/QC CRITERIA: All QA/QC was within acceptance limits.

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CHAIN OF CUSTODY FORM

Client Name/Address: Hydro-Search, Inc. 4636 E. University Dr. Suite 145 Phoenix AZ 85034

Project/PO Number: 808408313/107

Project Manager/Phone Number: Steve Smith/894-2800

Sampler: Mark Nielsen/894-2800

Analysis Required

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	601/602 VOCs	Chloride 300.0	Cyanide 9012	COD 410.4	TOC 415.1	Alkalinity 310.1	TDS 160.1	TSS 160.2	Nitrogen as NH3 350.3	Conductivity 9050	Sulfate 300.0	Special Instructions
WOC-MW-2m	W	Multi	8	12/5/96 1432													
WOC-MW-7m	W	Multi	8	12/5/96 1650													
Trip Blank	W	40ml. VOA	1			X											
~~Field~~																	
WOC-MW-~~2m~~ 7m/FieldBlank	W	40ml. VOA	1	12/5/96 1432		X											Field Blank (DI H2O)

Relinquished By: Mark Nielsen Date /Time: 12/5/96 1800

Received by: Date /Time:

Relinquished By: Date /Time:

Received by: Date /Time:

Relinquished By: Date /Time:

Received in Lab by: [illegible signature] Date /Time: 12/5/96 1800

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact X on ice X

Note: Sample(s) will be disposed of after 30 days.

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SI Geotrans	Client Project ID: N386-107	Sampled: Feb 5, 1997
4636 E. University Drive, Ste. 145		Received: Feb 5, 1997
Phoenix, AZ 85034	Sample Descript: Water, WCP-13	Extracted: Feb 10, 1997
Attention: Steve Smith	Lab Number: 7020228	Analyzed: Feb 10, 1997
		Reported: Feb 18, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	101%
aaa-Trifluorotoluene	100%

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, WCP-13D
Lab Number: 7020229

Sampled: Feb 5, 1
Received: Feb 5, 1997
Extracted: Feb 10, 1997
Analyzed: Feb 10, 1997
Reported: Feb 18, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	102%
aaa-Trifluorotoluene	100%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

SI Geotrans	Client Project ID: N386-107	Sampled: Feb 5, 1997
4636 E. University Drive, Ste. 145		Received: Feb 5, 1997
Phoenix, AZ 85034	Sample Descript: Water, WCP-14	Extracted: Feb 10, 1997
Attention: Steve Smith	Lab Number: 7020230	Analyzed: Feb 10, 1997
		Reported: Feb 18, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	101%
aaa-Trifluorotoluene	100%

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, WOCMW-4S
Lab Number: 7020231

Sampled: Feb 5, 1997
Received: Feb 5, 1997
Extracted: Feb 10, 1997
Analyzed: Feb 10, 1997
Reported: Feb 18, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	2.5	N.D.
Bromoform	2.5	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	2.5	N.D.
Chlorobenzene	2.5	N.D.
Chloroethane	13	N.D.
2-Chloroethylvinyl ether	13	N.D.
Chloroform	2.5	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	2.5	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
1,1-Dichloroethane	2.5	N.D.
1,2-Dichloroethane	2.5	N.D.
1,1-Dichloroethene	**2.5**	**3.7**
cis-1,2-Dichloroethene	2.5	N.D.
trans-1,2-Dichloroethene	2.5	N.D.
1,2-Dichloropropane	2.5	N.D.
cis-1,3-Dichloropropene	2.5	N.D.
trans-1,3-Dichloropropene	2.5	N.D.
Methylene chloride	25	N.D.
1,1,2,2-Tetrachloroethane	2.5	N.D.
Tetrachloroethene	**2.5**	**4.5**
1,1,1-Trichloroethane	2.5	N.D.
1,1,2-Trichloroethane	2.5	N.D.
Trichloroethene	**2.5**	**130**
Trichlorofluoromethane	2.5	N.D.
Vinyl chloride	5.0	N.D.
Benzene	2.5	N.D.
Ethylbenzene	2.5	N.D.
Toluene	2.5	N.D.
Total Xylenes	7.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and/or other factors, the sample required dilution. Detection limits for this sample have been raised by a factor of 5.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	99%
aaa-Trifluorotoluene	100%

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, Trip Blank
Lab Number: 7020232

Received: Feb 5, 1997
Extracted: Feb 10, 1997
Analyzed: Feb 10, 1997
Reported: Feb 18, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	101%
aaa-Trifluorotoluene	99%

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, WCP-14
Lab Number: 7020230

Sampled: Feb 5,
Received: Feb 5, 1997
Extracted: Feb 6-12, 1997
Analyzed: Feb 6-12, 1997
Reported: Feb 18, 1997

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	SM2320B	1.0	160
Chemical Oxygen Demand	410.4	20	N.D.
Chloride	300.0	5.0*	210
Specific Conductance (µmhos/cm)	SM2510B	1.0	910
Sulfate	300.0	5.0*	67
Total Dissolved Solids	SM2540C	5.0	600
Total Suspended Solids	160.2	5.0	220

***Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and/or other factors, the sample required dilution. Detection limits for this sample have been raised by a factor of 10.**

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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SI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Method Blank

Extracted: Feb 10, 1997
Analyzed: Feb 10, 1997
Reported: Feb 18, 1997
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
2-Dichloroethane	0.50	N.D.
1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	101%
aaa-Trifluorotoluene	101%

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 02/10/97

Sample #: P7020228

Batch #: GB10121W

Analyte	R1 ppb	Sp ppb	MS ppb	MSD ppb	PR1 %	PR2 %	RPD %	Mean PR %	Acceptance Limits RPD	Acceptance Limits Mean PR
Benzene	0	5.0	4.7	4.6	95	91	3.6	93	< 10	73 - 119
Chloroform	0.026	5.0	5.3	5.1	105	102	2.8	104	< 11	70 - 130
1,1-Dichloroethane	0	5.0	5.1	4.9	102	99	3.6	100	< 17	70 - 130
1,2-Dichloroethane	0	5.0	5.1	5.0	102	100	2.8	101	< 10	74 - 118
1,1-Dichloroethene	0	5.0	4.8	4.6	95	91	4.3	93	< 15	70 - 127
Tetrachloroethene	0.0065	5.0	5.1	5.0	103	100	2.9	101	< 15	70 - 123
Toluene	0.12	5.0	5.2	4.9	102	96	5.7	99	< 14	71 - 121
Trichloroethene	0.0047	5.0	5.3	5.1	105	102	3.5	103	< 16	70 - 130

Definition of Terms

R1. . . . . Result of Sample Analysis
Sp. . . . . Spike Concentration added to sample
MS. . . . . Matrix Spike Result
MSD. . . . . Matrix Spike Duplicate Result
PR1. . . . . Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2. . . . . Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR. . . . . Mean Percent Recovery
Acceptance Limits . . . . . Determined by in-house Control Charts

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MS/MSD DATA REPORT

EPA METHOD 300.0
Instrument: IC
Matrix: Water

DATE: 2/7/97

SAMPLE # P7020258

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Fluoride	0	0.80	0.77	0.78	96%	98%	1.3%	97%
Chloride	0.20	1.2	1.5	1.6	108%	117%	6.5%	113%
Nitrite-N	0	0.24	0.25	0.24	104%	100%	4.1%	102%
Nitrate-N	0	0.90	0.82	0.84	91%	93%	2.4%	92%
Phosphate-HPO4	0	6.0	6.3	6.2	105%	103%	1.6%	104%
Sulfate-SO4	0	6.0	5.8	5.9	97%	98%	1.7%	98%

R1. . . . . Result of Sample Analysis

. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; (MS-R1) / SP X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

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QA/QC CRITERIA: All QA/QC was within acceptance limits.

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CHAIN OF CUSTODY FORM

Client Name/Address: HSI

Project/PO Number: N386-107

Project Manager/Phone Number: Steve Smith 874-1800

Sampler: Mark Nielsen 874-2800

Per Steve Smith 2/6 HSI Bottom Impacted Bottle

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	601/602	Chloride 300.0	Cyanide 335.2	COD 410.4	TOC 415.1	Alkalinity 310.1	TDS 160.1	TSS 160.2	Nitrate 353.3 NH3	Conductivity 9050	Sulfate 300.0	Special Instructions
WCP-13	Water	VOA 40 ml	2	2-5-97 1030	4°C/HCl	X											
WCP-13D	Water	VOA 40 ml	2	2-5-97 1030	4°C/HCl	X											Duplicate
WCP-14	Water	Multi	8	2-5-97 1255	Various	X	X	X	X	X	X	X	X	X	X	X	
WCC MW-4S	Water	40 ml VOA	2	2-5-97 1505	4°C/HCl	X											
Trip Blank	Water	VOA	1		4°C	X											

Relinquished By: Mark Nielsen Date/Time: 2-5-97 1800

Received by: Date/Time:

Relinquished By: Date/Time:

Received by: Date/Time:

Relinquished By: Date/Time:

Received in Lab by: [illegible] Date/Time: 2/5/97 1800

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact ✓ on ice ✓

Note: Sample(s) will be disposed of after 30 days.

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...l Geotrans	Client Project ID: N386-107	Sampled: Feb 6, 1997
4636 E. University Drive, Ste. 145		Received: Feb 6, 1997
Phoenix, AZ 85034	Sample Descript: Water, WCP-12	Extracted: Feb 10, 1997
Attention: Steve Smith	Lab Number: 7020278	Analyzed: Feb 10, 1997
		Reported: Feb 13, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
...-Dichloroethane	0.50	N.D.
...-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	**0.50**	**1.4**
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**1.1**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	**0.50**	**1.7**
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	98%
aaa-Trifluorotoluene	105%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-13

HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, WOCRB-1
Lab Number: 7020279

Sampled: Feb 6, 1
Received: Feb 6, 1997
Extracted: Feb 11, 1997
Analyzed: Feb 11, 1997
Reported: Feb 13, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	**0.50**	**1.2**
Ethylbenzene	**0.50**	**0.60**
Toluene	**0.50**	**4.9**
Total Xylenes	**1.5**	**3.0**

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	98%
aaa-Trifluorotoluene	100%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

...l Geotrans	Client Project ID: N386-107	Sampled: Feb 6, 1997
4636 E. University Drive, Ste. 145		Received: Feb 6, 1997
Phoenix, AZ 85034	Sample Descript: Water, WOCMW4-FB	Extracted: Feb 11, 1997
Attention: Steve Smith	Lab Number: 7020280	Analyzed: Feb 11, 1997
		Reported: Feb 13, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
...2-Dichloroethane	0.50	N.D.
...1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	**0.50**	**1.1**
Ethylbenzene	**0.50**	**0.57**
Toluene	**0.50**	**4.5**
Total Xylenes	**1.5**	**3.2**

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	98%
aaa-Trifluorotoluene	100%

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, WOCMW4-L
Lab Number: 7020281

Sampled: Feb 6, 1
Received: Feb 6, 1997
Extracted: Feb 11, 1997
Analyzed: Feb 11, 1997
Reported: Feb 13, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	98%
aaa-Trifluorotoluene	100%

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, Trip Blank
Lab Number: 7020282

Received: Feb 6, 1997
Extracted: Feb 12, 1997
Analyzed: Feb 12, 1997
Reported: Feb 13, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	101%
aaa-Trifluorotoluene	99%

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Method Blank

Extracted: Feb 10, 1
Analyzed: Feb 10, 1997
Reported: Feb 13, 1997
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	101%
aaa-Trifluorotoluene	101%

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l Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Method Blank

Extracted: Feb 12, 1997
Analyzed: Feb 12, 1997
Reported: Feb 13, 1997
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
2-Dichloroethane	0.50	N.D.
-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	101%
aaa-Trifluorotoluene	101%

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 02/10/97

Sample #: P7020228

Batch #: GB10121W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Mean PR	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	%	RPD	Mean PR
Benzene	0	5.0	4.7	4.6	95	91	3.6	93	<10	73 - 119
Chloroform	0.026	5.0	5.3	5.1	105	102	2.8	104	<11	70 - 130
1,1-Dichloroethane	0	5.0	5.1	4.9	102	99	3.6	100	<17	70 - 130
1,2-Dichloroethane	0	5.0	5.1	5.0	102	100	2.8	101	<10	74 - 118
1,1-Dichloroethene	0	5.0	4.8	4.6	95	91	4.3	93	<15	70 - 127
Tetrachloroethene	0.0065	5.0	5.1	5.0	103	100	2.9	101	<15	70 - 123
Toluene	0.12	5.0	5.2	4.9	102	96	5.7	99	<14	71 - 121
Trichloroethene	0.0047	5.0	5.3	5.1	105	102	3.5	103	<16	70 - 130

Definition of Terms

R1. . . . . Result of Sample Analysis
Sp. . . . . Spike Concentration added to sample
MS. . . . . Matrix Spike Result
MSD. . . . . Matrix Spike Duplicate Result
PR1. . . . . Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2. . . . . Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR. . . . . Mean Percent Recovery
Acceptance Limits . . . . . Determined by in-house Control Charts

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 02/12/97

Sample #: P7020361

Batch #: GB12121W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Mean PR	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	%	RPD	Mean PR
Benzene	0	5.0	4.6	4.5	93	91	1.8	92	<10	74 - 116
Chloroform	0.029	5.0	5.1	5.1	102	101	0.92	102	<10	70 - 122
1,2-Dichloroethane	0	5.0	4.9	4.8	99	96	2.8	97	<18	70 - 126
1,1-Dichloroethane	0	5.0	4.9	4.9	98	98	0.69	98	<10	73 - 117
1,1-Dichloroethene	0	5.0	4.9	4.6	98	93	5.9	95	<15	70 - 120
Tetrachloroethene	0.0048	5.0	4.9	4.9	99	97	1.7	98	<15	70 - 122
Toluene	0.10	5.0	5.1	5.0	101	98	2.9	99	<14	72 - 118
Trichloroethene	0.0063	5.0	5.1	5.0	103	101	2.0	102	<16	70 - 126

Definition of Terms

R1..... Result of Sample Analysis
Sp..... Spike Concentration added to sample
MS..... Matrix Spike Result
MSD..... Matrix Spike Duplicate Result
PR1..... Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2..... Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR..... Mean Percent Recovery
Acceptance Limits ..... Determined by in-house Control Charts

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 02/13/97

Sample #: P7020313

Batch #: GB13121W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Mean PR	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	%	RPD	Mean PR
Benzene	0	5.0	4.5	4.4	91	89	2.1	90	<10	74 - 116
Chloroform	0.0055	5.0	5.0	4.9	100	98	1.9	99	<10	70 - 122
1,1-Dichloroethane	0	5.0	4.8	4.7	97	95	2.1	96	<18	70 - 126
1,2-Dichloroethane	0	5.0	4.8	4.6	96	93	3.7	95	<10	73 - 117
1,1-Dichloroethene	0.14	5.0	5.0	4.8	98	93	4.9	96	<15	70 - 120
Tetrachloroethene	0	5.0	4.9	4.8	97	96	0.97	97	<15	70 - 122
Toluene	0.15	5.0	4.9	4.7	95	91	4.1	93	<14	72 - 118
Trichloroethene	0	5.0	5.2	4.9	103	99	4.4	101	<16	70 - 126

Definition of Terms

R1. . . . . Result of Sample Analysis
Sp. . . . . Spike Concentration added to sample
MS. . . . . Matrix Spike Result
MSD. . . . . Matrix Spike Duplicate Result
PR1. . . . . Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2. . . . . Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR. . . . . Mean Percent Recovery
Acceptance Limits . . . . . Determined by in-house Control Charts

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CHAIN OF CUSTODY FORM

Client Name/Address: HSI

Project/PO Number: N88G-107

Project Manager/Phone Number: Steve Smith 894-2800

Sampler: Mark Nielsen 894-2800

Analysis Required: 8010/8021

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	8010/8021									Special Instructions
WCP-12	W	VOA	2	2-6-97 1145	4°/HCl	X									
WCP RP-1	W	VOA	2	2-6-97 1[illegible]	4°/HCl	X									
WCP MW1-FB	W	VOA	2	2-6-97 1630	4°/HCl	X									
WCP MW1-L	W	VOA	2	2-6-97 1715	4°/HCl	X									
Trip Blank	W	VOA	1		4°/HCl	X									

Relinquished By:	Date /Time:	Received by:	Date /Time:	Turnaround Time: (check)	
[illegible]	2-6-97 1745			same day ____	72 hours ____
Relinquished By:	Date /Time:	Received by:	Date /Time:	24 hours ____	5 days ____
				48 hours ____	normal X
Relinquished By:	Date /Time:	Received in Lab by:	Date /Time:	Sample Integrity: (Check)	
		DM Shannon	2-6-97 1745	intact ✓	on ice ✓

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SI Geotrans	Client Project ID: N386-107	Sampled: Feb 7, 1997
4636 E. University Drive, Ste. 145		Received: Feb 7, 1997
Phoenix, AZ 85034	Sample Descript: Water, WOCMW-6L	Extracted: Feb 13, 1997
Attention: Steve Smith	Lab Number: 7020313	Analyzed: Feb 13, 1997
		Reported: Feb 14, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	100%
aaa-Trifluorotoluene	100%

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, WOCMW-6S
Lab Number: 7020314

Sampled: Feb 7, 1[illegible]
Received: Feb 7, 1[illegible]
Extracted: Feb 12, 1997
Analyzed: Feb 12, 1997
Reported: Feb 14, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	**0.50**	**0.79**
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	100%
aaa-Trifluorotoluene	100%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

·SI Geotrans	Client Project ID: N386-107	Sampled: Feb 7, 1997
·636 E. University Drive, Ste. 145		Received: Feb 7, 1997
Phoenix, AZ 85034	Sample Descript: Water, WCP-3	Extracted: Feb 13, 1997
Attention: Steve Smith	Lab Number: 7020315	Analyzed: Feb 13, 1997
		Reported: Feb 14, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**0.53**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	99%
aaa-Trifluorotoluene	100%

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, WOCMW-5S
Lab Number: 7020316

Sampled: Feb 7, 19[illegible]
Received: Feb 7, 19[illegible]
Extracted: Feb 13, 1997
Analyzed: Feb 13, 1997
Reported: Feb 14, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	5.0	N.D.
Bromoform	5.0	N.D.
Bromomethane	10	N.D.
Carbon tetrachloride	5.0	N.D.
Chlorobenzene	5.0	N.D.
Chloroethane	25	N.D.
2-Chloroethylvinyl ether	25	N.D.
Chloroform	5.0	N.D.
Chloromethane	10	N.D.
Dibromochloromethane	5.0	N.D.
1,2-Dichlorobenzene	10	N.D.
1,3-Dichlorobenzene	10	N.D.
1,4-Dichlorobenzene	10	N.D.
1,1-Dichloroethane	5.0	N.D.
1,2-Dichloroethane	5.0	N.D.
1,1-Dichloroethene	**5.0**	**41**
cis-1,2-Dichloroethene	5.0	N.D.
trans-1,2-Dichloroethene	5.0	N.D.
1,2-Dichloropropane	5.0	N.D.
cis-1,3-Dichloropropene	5.0	N.D.
trans-1,3-Dichloropropene	5.0	N.D.
Methylene chloride	50	N.D.
1,1,2,2-Tetrachloroethane	5.0	N.D.
Tetrachloroethene	**5.0**	**7.5**
1,1,1-Trichloroethane	5.0	N.D.
1,1,2-Trichloroethane	5.0	N.D.
Trichloroethene	**5.0**	**230**
Trichlorofluoromethane	5.0	N.D.
Vinyl chloride	10	N.D.
Benzene	5.0	N.D.
Ethylbenzene	5.0	N.D.
Toluene	5.0	N.D.
Total Xylenes	15	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and/or other factors, the sample required dilution. Detection limits for this sample have been raised by a factor of 10.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	99%
aaa-Trifluorotoluene	101%

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...l Geotrans	Client Project ID: N386-107	
4636 E. University Drive, Ste. 145		Received: Feb 7, 1997
Phoenix, AZ 85034	Sample Descript: Water, Trip Blank	Extracted: Feb 12, 1997
Attention: Steve Smith	Lab Number: 7020317	Analyzed: Feb 12, 1997
		Reported: Feb 14, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
...2-Dichloroethane	0.50	N.D.
...-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	100%
aaa-Trifluorotoluene	100%

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Method Blank

Extracted: Feb 12, 1
Analyzed: Feb 12, 1997
Reported: Feb 14, 1997
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	101%
aaa-Trifluorotoluene	101%

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Method Blank

Extracted: Feb 13, 1997
Analyzed: Feb 13, 1997
Reported: Feb 14, 1997
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	101%
aaa-Trifluorotoluene	100%

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 02/12/97

Sample #: P7020361

Batch #: GB12121W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Mean PR	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	%	RPD	Mean PR
Benzene	0	5.0	4.6	4.5	93	91	1.8	92	<10	74 - 116
Chloroform	0.029	5.0	5.1	5.1	102	101	0.92	102	<10	70 - 122
1,1-Dichloroethane	0	5.0	4.9	4.8	99	96	2.8	97	<18	70 - 126
1,2-Dichloroethane	0	5.0	4.9	4.9	98	98	0.69	98	<10	73 - 117
1,1-Dichloroethene	0	5.0	4.9	4.6	98	93	5.9	95	<15	70 - 120
Tetrachloroethene	0.0048	5.0	4.9	4.9	99	97	1.7	98	<15	70 - 122
Toluene	0.10	5.0	5.1	5.0	101	98	2.9	99	<14	72 - 118
Trichloroethene	0.0063	5.0	5.1	5.0	103	101	2.0	102	<16	70 - 126

Definition of Terms

R1. . . . . Result of Sample Analysis
Sp. . . . . Spike Concentration added to sample
MS. . . . . Matrix Spike Result
MSD. . . . . Matrix Spike Duplicate Result
PR1. . . . . Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2. . . . . Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR. . . . . Mean Percent Recovery
Acceptance Limits . . . . . Determined by in-house Control Charts

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 02/13/97

Sample #: P7020313

Batch #: GB13121W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Mean PR	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	%	RPD	Mean PR
Benzene	0	5.0	4.5	4.4	91	89	2.1	90	<10	74 - 116
Chloroform	0.0055	5.0	5.0	4.9	100	98	1.9	99	<10	70 - 122
1,1-Dichloroethane	0	5.0	4.8	4.7	97	95	2.1	96	<18	70 - 126
1,2-Dichloroethane	0	5.0	4.8	4.6	96	93	3.7	95	<10	73 - 117
1,1-Dichloroethene	0.14	5.0	5.0	4.8	98	93	4.9	96	<15	70 - 120
Tetrachloroethene	0	5.0	4.9	4.8	97	96	0.97	97	<15	70 - 122
Toluene	0.15	5.0	4.9	4.7	95	91	4.1	93	<14	72 - 118
Trichloroethene	0	5.0	5.2	4.9	103	99	4.4	101	<16	70 - 126

Definition of Terms

R1..... Result of Sample Analysis
Sp..... Spike Concentration added to sample
MS..... Matrix Spike Result
MSD..... Matrix Spike Duplicate Result
PR1..... Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2..... Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR..... Mean Percent Recovery
Acceptance Limits..... Determined by in-house Control Charts

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CHAIN OF CUSTODY FORM

WEST OSBORN COMPLEX

Client Name/Address: HSI

Project/PO Number: N3B6-107

Project Manager/Phone Number: Steve Smith [illegible]

Sampler: Mark Nelson [illegible]

Analysis Required: Cal/Leg

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	Cal/Leg									Special Instructions
[illegible]	[illegible]	40ml VOA	2	2-7-97 1343	HCl/ice	X									
[illegible]	water	VOA	2	2-7-97 1440	HCl/ice	X									
[illegible]	water	VOA	2	2-7-97 1537	HCl/ice	X									
[illegible] 55	water	VOA	2	2-7-97 1642	HCl/ice	X									
Trip Blank	[illegible]	VOA	1		HCl/ice	X									

Relinquished By:	Date /Time:	Received by:	Date /Time:
Mark N. [illegible]	2-7-97 1743		
Relinquished By:	Date /Time:	Received by:	Date /Time:
Relinquished By:	Date /Time:	Received in Lab by: [illegible]	Date /Time: 2/7/97 1743

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact O on ice O

Note: Sample(s) will be disposed of after 30 days.

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SI Geotrans	Client Project ID: N386-107	Sampled: Feb 10, 1997
4636 E. University Drive, Ste. 145		Received: Feb 10, 1997
Phoenix, AZ 85034	Sample Descript: Water, WCP-10FB	Extracted: Feb 12, 1997
Attention: Steve Smith	Lab Number: 7020356	Analyzed: Feb 12, 1997
		Reported: Feb 13, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	**0.50**	**1.0**
Ethylbenzene	**0.50**	**0.57**
Toluene	**0.50**	**4.4**
Total Xylenes	**1.5**	**3.3**

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	100%
aaa-Trifluorotoluene	102%

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, WCP-10
Lab Number: 7020357

Sampled: Feb 10, 19
Received: Feb 10, 1997
Extracted: Feb 12, 1997
Analyzed: Feb 12, 1997
Reported: Feb 13, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**15**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	98%
aaa-Trifluorotoluene	100%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

...l Geotrans	Client Project ID: N386-107	Sampled: Feb 10, 1997
...636 E. University Drive, Ste. 145		Received: Feb 10, 1997
Phoenix, AZ 85034	Sample Descript: Water, WCP-10D	Extracted: Feb 12, 1997
Attention: Steve Smith	Lab Number: 7020358	Analyzed: Feb 12, 1997
		Reported: Feb 13, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
...-Dichloroethane	0.50	N.D.
...-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**16**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	98%
aaa-Trifluorotoluene	100%

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, WCP-11
Lab Number: 7020359

Sampled: Feb 10, 1997
Received: Feb 10, 1997
Extracted: Feb 12, 1997
Analyzed: Feb 12, 1997
Reported: Feb 13, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	98%
aaa-Trifluorotoluene	100%

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SI Geotrans	Client Project ID: N386-107	Sampled: Feb 10, 1997
4636 E. University Drive, Ste. 145		Received: Feb 10, 1997
Phoenix, AZ 85034	Sample Descript: Water, WCP-4	Extracted: Feb 12, 1997
Attention: Steve Smith	Lab Number: 7020360	Analyzed: Feb 12, 1997
		Reported: Feb 13, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	98%
aaa-Trifluorotoluene	99%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, WOCMW-7S
Lab Number: 7020361

Sampled: Feb 10, 199
Received: Feb 10, 199
Extracted: Feb 12, 1997
Analyzed: Feb 12, 1997
Reported: Feb 13, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	99%
aaa-Trifluorotoluene	100%

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l Geotrans	Client Project ID: N386-107	Sampled: Feb 10, 1997
4636 E. University Drive, Ste. 145		Received: Feb 10, 1997
Phoenix, AZ 85034	Sample Descript: Water, Trip Blank	Extracted: Feb 12, 1997
Attention: Steve Smith	Lab Number: 7020362	Analyzed: Feb 12, 1997
		Reported: Feb 13, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
-Dichloroethane	0.50	N.D.
-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	100%
aaa-Trifluorotoluene	99%

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Method Blank

Extracted: Feb 12, 19
Analyzed: Feb 12, 19
Reported: Feb 13, 1997
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	101%
aaa-Trifluorotoluene	101%

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 02/12/97

Sample #: P7020361

Batch #: GB12121W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Mean PR	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	%	RPD	Mean PR
enzene	0	5.0	4.6	4.5	93	91	1.8	92	<10	74 - 116
hloroform	0.029	5.0	5.1	5.1	102	101	0.92	102	<10	70 - 122
1-Dichloroethane	0	5.0	4.9	4.8	99	96	2.8	97	<18	70 - 126
chloroethane	0	5.0	4.9	4.9	98	98	0.69	98	<10	73 - 117
1-Dichloroethene	0	5.0	4.9	4.6	98	93	5.9	95	<15	70 - 120
etrachloroethene	0.0048	5.0	4.9	4.9	99	97	1.7	98	<15	70 - 122
oluene	0.10	5.0	5.1	5.0	101	98	2.9	99	<14	72 - 118
ichloroethene	0.0063	5.0	5.1	5.0	103	101	2.0	102	<16	70 - 126

Definition of Terms

R1. . . . . Result of Sample Analysis
Sp. . . . . Spike Concentration added to sample
MS. . . . . Matrix Spike Result
MSD. . . . . Matrix Spike Duplicate Result
PR1. . . . . Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2. . . . . Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR. . . . . Mean Percent Recovery
ceptance Limits . . . . . Determined by in-house Control Charts

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CHAIN OF CUSTODY FORM

Client Name/Address: HSI

Project/PO Number: N386-107

Project Manager/Phone Number: Steve Smith 891-2800

Sampler: Mark Nielsen 891-2800

Analysis Required: 601/602

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	601/602									Special Instructions
WOCMW-15	Water	VOA 40ml	2	2-10-97 1245	4°C/HCl	✓									
WCP-10FB	Water	VOA	2	2-10-97 1320	4°C/HCl	✓									
WCP-10	Water	VOA	2	2-10-97 1340	4°C/HCl	✓									
WCP-10D M.N.	Water	VOA	2	2-10-97 1340	4°C/HCl	✓									
WCP-11	Water	VOA	2	2-10-97 1500	4°C/HCl	✓									
WCP-4	Water	VOA	2	2-10-97 1615	4°C/HCl	✓									
WOCMW-7S	Water	VOA	2	2-10-97 1700	4°C/HCl	✓									
Trip Blank	Water	VOA	1	2-10-97		✓									

Relinquished By: M. L. Nielsen Date /Time: 2-10-97 1730
Received by: Date /Time:

Relinquished By: Date /Time:
Received by: Date /Time:

Relinquished By: Date /Time:
Received in Lab by: Ani Ahiney Date /Time: 2-10-97 17:30

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal ✓

Sample Integrity: (Check)
intact ✓ on ice ✓

Note: Sample(s) will be disposed of after 30 days.

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

ɜI Geotrans	Client Project ID: N386-107	Sampled: Feb 4, 1997
4636 E. University Drive, Ste. 145		Received: Feb 4, 1997
Phoenix, AZ 85034	Sample Descript: Water, WOCMW-6M	Extracted: Feb 7, 1997
Attention: Steve Smith	Lab Number: 7020170	Analyzed: Feb 7, 1997
		Revised: Feb 14, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
[illegible]-Dichloroethane	0.50	N.D.
[illegible]-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**6.2**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	99%
aaa-Trifluorotoluene	100%

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, WOCMW-2M
Lab Number: 7020171

Sampled: Feb 4, 19
Received: Feb 4, 19
Extracted: Feb 7, 1997
Analyzed: Feb 7, 1997
Revised: Feb 14, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	2.5	N.D.
Bromoform	2.5	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	2.5	N.D.
Chlorobenzene	2.5	N.D.
Chloroethane	13	N.D.
2-Chloroethylvinyl ether	13	N.D.
Chloroform	2.5	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	2.5	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
1,1-Dichloroethane	2.5	N.D.
1,2-Dichloroethane	2.5	N.D.
1,1-Dichloroethene	2.5	N.D.
cis-1,2-Dichloroethene	2.5	N.D.
trans-1,2-Dichloroethene	2.5	N.D.
1,2-Dichloropropane	2.5	N.D.
cis-1,3-Dichloropropene	2.5	N.D.
trans-1,3-Dichloropropene	2.5	N.D.
Methylene chloride	25	N.D.
1,1,2,2-Tetrachloroethane	2.5	N.D.
Tetrachloroethene	2.5	N.D.
1,1,1-Trichloroethane	2.5	N.D.
1,1,2-Trichloroethane	2.5	N.D.
Trichloroethene	**2.5**	**80**
Trichlorofluoromethane	2.5	N.D.
Vinyl chloride	5.0	N.D.
Benzene	2.5	N.D.
Ethylbenzene	2.5	N.D.
Toluene	2.5	N.D.
Total Xylenes	7.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and/or other factors, the sample required dilution. Detection limits for this sample have been raised by a factor of 5.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	100%
aaa-Trifluorotoluene	99%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

ɜl Geotrans	Client Project ID: N386-107	Sampled:	Feb 4, 1997
.636 E. University Drive, Ste. 145		Received:	Feb 4, 1997
Phoenix, AZ 85034	Sample Descript: Water, WOCMW-3M	Extracted:	Feb 7, 1997
Attention: Steve Smith	Lab Number: 7020172	Analyzed:	Feb 7, 1997
		Revised:	Feb 14, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
-Dichloroethane	0.50	N.D.
-Dichloroethene	0.50	N.D.
ɜis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**1.6**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	99%
aaa-Trifluorotoluene	100%

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, WOCMW-7M
Lab Number: 7020173

Sampled: Feb 4, 1
Received: Feb 4, 1997
Extracted: Feb 7, 1997
Analyzed: Feb 7, 1997
Revised: Feb 14, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**9.7**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	100%
aaa-Trifluorotoluene	100%

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SI Geotrans	Client Project ID: N386-107	Sampled:	Feb 4, 1997
4636 E. University Drive, Ste. 145		Received:	Feb 4, 1997
Phoenix, AZ 85034	Sample Descript: Water, Trip Blank	Extracted:	Feb 7, 1997
Attention: Steve Smith	Lab Number: 7020169	Analyzed:	Feb 7, 1997
		Revised:	Feb 14, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	98%
aaa-Trifluorotoluene	99%

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Method Blank

Extracted: Feb 7, 1
Analyzed: Feb 7, 1997
Revised: Feb 14, 1997
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	102%
aaa-Trifluorotoluene	101%

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CHAIN OF CUSTODY FORM

Client Name/Address: HSI

Project/PO Number: N486-107

Project Manager/Phone Number: Steve Smith 894-2800

Sampler: Mark Nielsen 894-2800

Analysis Required: 601/602

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	601/602									Special Instructions
Trip Blank	Water	VOA	1	~~1-30-97~~ 2-4-97	HCL	X									
VOC MW-6M	Water	VOA	2	2-4-97 1045	4°C/HCl	X									
VOC MW-2M	Water	VOA	2	2-4-97 1402	4°C/HCl	X									
VOC MW-3M	Water	VOA	2	2-4-97 1550	4°C/HCl	X									
VOC MW-7M	Water	VOA	2	2-4-97 1657	4°C/HCl	X									

Relinquished By:	Date /Time:	Received by:	Date /Time:	Turnaround Time: (check)	
Mark Nielsen	2/4/97 1755			same day ____	72 hours ____
Relinquished By:	Date /Time:	Received by:	Date /Time:	24 hours ____	5 days ____
				48 hours ____	normal ✓
Relinquished By:	Date /Time:	Received in Lab by:	Date /Time:	Sample Integrity: (Check)	
		DM Elhurney	2-4-97 17:55	intact ✓	on ice ✓

Note: Sample(s) will be disposed of after 30 days.

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, WOCMW-4M
Lab Number: 7020069

Sampled: Feb 3, 1997
Received: Feb 3, 1997
Extracted: Feb 7, 1997
Analyzed: Feb 7, 1997
Revised: Feb 14, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**5.0**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	98%
aaa-Trifluorotoluene	100%

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SI Geotrans	Client Project ID: N386-107	Sampled: Feb 3, 1997
4636 E. University Drive, Ste. 145		Received: Feb 3, 1997
Phoenix, AZ 85034	Sample Descript: Water, WCP-8	Extracted: Feb 7, 1997
Attention: Steve Smith	Lab Number: 7020070	Analyzed: Feb 7, 1997
		Revised: Feb 14, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	100%
aaa-Trifluorotoluene	99%

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Method Blank

Extracted: Feb 7, 1
Analyzed: Feb 7, 1997
Revised: Feb 14, 1997
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	102%
aaa-Trifluorotoluene	101%

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CHAIN OF CUSTODY FORM

Client Name/Address: HSI

Project/PO Number: N486-107

Project Manager/Phone Number: Steve Smith/894-2800

Sampler: Mark Nidsen/894-2800

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	Analysis Required: 601/602									Special Instructions
WOCMW-4M	Water	40ml VOA	2	1213 2-3-97	HCl/4°C	X									
WCP-8	Water	40ml VOA	2	1507 2-3-97	HCl/4°C	X									

Relinquished By:	Date /Time:	Received by:	Date /Time:
Mark Nidsen	2/3/97 1700		
Relinquished By:	Date /Time:	Received by:	Date /Time:
Relinquished By:	Date /Time:	Received in Lab by: Steve Doherty	Date /Time: 2/3/97 1700

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact ✓ on ice ✓

Note: Sample(s) will be disposed of after 30 days.

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968 8272 FAX (602) 968 1338

CHAIN OF CUSTODY FORM

Client Name/Address: HSI

Project/PO Number: N486-107

Project Manager/Phone Number: Steve Smith/891-2800

Sampler: Mark Nielsen/891-2800

Analysis Required: 601/602

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	601/602									Special Instructions
WCCMW-4M	Water	40ml VOA	2	1213 2-3-97	HCl/4°C	X									
WCP-E1	Water	40ml VOA	2	1507 2-3-97	HCl/4°C	X									

Relinquished By:	Date /Time:	Received by:	Date /Time:	Turnaround Time: (check)	
Mark Nielsen	2/3/97 1700			same day ____	72 hours ____
Relinquished By:	Date /Time:	Received by:	Date /Time:	24 hours ____	5 days ____
				48 hours ____	normal X
Relinquished By:	Date /Time:	Received in Lab by:	Date /Time:	Sample Integrity: (Check)	
		[illegible]	2/3/97 1700	intact ✓	or ✓

Note: Samples will be disposed after 30 days.

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CHAIN OF CUSTODY FORM

Client Name/Address: HSI

Project/PO Number: N486-107

Project Manager/Phone Number: Steve Smith 894-2800

Sampler: Mark Nielsen 894-2800

Analysis Required: 601/602

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	601/602									Special Instructions
Trip Blank	Water	VOA	1	~~1-30-97~~	HCL	X									
WOC MW-6M	Water	VOA	2	2-4-97 1045	4°C/HCl	X									
WOC MW-2M	Water	VOA	2	2-4-97 1402	4°C/HCl	X									
WOC MW-3M	Water	VOA	2	2-4-97 1550	4°C/HCl	X									
WOC MW-7M	Water	VOA	2	2-4-97 1657	4°C/HCl	X									

Relinquished By:	Date /Time:	Received by:	Date /Time:	Turnaround Time: (check)
Mark Nielsen	2/4/97 1755			same day ____ 72 hours ____
Relinquished By:	Date /Time:	Received by:	Date /Time:	24 hours ____ 5 days ____
				48 hours ____ normal ✓
Relinquished By:	Date /Time:	Received in Lab by:	Date /Time:	Sample Integrity: (Check)
		JM Elhinney	2-4-97 17:55	intact ✓ on ice ✓

Note: Sample(s) will be disposed of after 30 days.

OUO 100515-101

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...SI Geotrans	Client Project ID: N386-107	Sampled: Feb 10, 1997
...636 E. University Drive, Ste. 145		Received: Feb 10, 1997
Phoenix, AZ 85034	Sample Descript: Water, WOCMW-1S	Extracted: Feb 12, 1997
Attention: Steve Smith	Lab Number: 7020355	Analyzed: Feb 12, 1997
		Revised: Feb 21, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
...-Dichloroethane	0.50	N.D.
...-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**17**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	98%
aaa-Trifluorotoluene	99%

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CHAIN OF CUSTODY FORM

Client Name/Address: HSI

Project/PO Number: N386-107

Project Manager/Phone Number: Steve Smith 894-2800

Sampler: Mark Nielsen 894-2800

Analysis Required: 601/602

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	601/602									Special Instructions
WOCMW-15	Water	VOA 40ml.	2	2-10-97 1245	4°C/HCl	X									
WCP-10FB M.N.	Water	VOA	2	2-10-97 1320	4°C/HCl	X									
WCP-10	Water	VOA	2	2-10-97 1340	4°C/HCl	X									
WCP-10D M.N.	Water	VOA	2	2-10-97 1340	4°C/HCl	X									
WCP-11	Water	VOA	2	2-10-97 1500	4°C/HCl	X									
WCP-4	Water	VOA	2	2-10-97 1615	4°C/HCl	X									
WOCMW-7S	Water	VOA	2	2-10-97 1700	4°C/HCl	X									
Trip Blank	Water	VOA	1	2-10-97		X									

Relinquished By: [signature] Date /Time: 2-10-97 1730

Relinquished By: Date /Time:

Relinquished By: Date /Time:

Received by: Date /Time:

Received by: Date /Time:

Received in Lab by: [signature] Date /Time: 2-10-97 17:30

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact ✓ on ice ____

Note: Sample(s) will be disposed of after 30 days.

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SI Geotrans	Client Project ID: N386-107	Sampled: Feb 11, 1997
4636 E. University Drive, Ste. 145		Received: Feb 11, 1997
Phoenix, AZ 85034	Sample Descript: Water, WOCMW-3S	Extracted: Feb 14, 1997
Attention: Steve Smith	Lab Number: 7020426	Analyzed: Feb 14, 1997
		Reported: Feb 20, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
-Dichloroethane	0.50	N.D.
-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jennifer A. Vilaboy
Laboratory Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	102%
aaa-Trifluorotoluene	102%

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HSI Geotrans	Client Project ID: N386-107	Sampled: Feb 11, 19[illegible]
4636 E. University Drive, Ste. 145		Received: Feb 11, 1997
Phoenix, AZ 85034	Sample Descript: Water, WOCMW-2S	Extracted: Feb 14, 1997
Attention: Steve Smith	Lab Number: 7020427	Analyzed: Feb 14, 1997
		Reported: Feb 20, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**3.5**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jennifer A. Vilaboy
Laboratory Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	101%
aaa-Trifluorotoluene	102%

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SI Geotrans	Client Project ID: N386-107	Sampled: Feb 11, 1997
4636 E. University Drive, Ste. 145		Received: Feb 11, 1997
Phoenix, AZ 85034	Sample Descript: Water, WOCMW-7LFB	Extracted: Feb 14, 1997
Attention: Steve Smith	Lab Number: 7020428	Analyzed: Feb 14, 1997
		Reported: Feb 20, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	**0.50**	**1.4**
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	**0.50**	**1.3**
Chloromethane	1.0	N.D.
Dibromochloromethane	**0.50**	**1.7**
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jennifer A. Vilaboy
Laboratory Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	111%
aaa-Trifluorotoluene	109%

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, WOCMW-7L
Lab Number: 7020429

Sampled: Feb 11, 1
Received: Feb 11, 1997
Extracted: Feb 14, 1997
Analyzed: Feb 14, 1997
Reported: Feb 20, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jennifer A. Vilaboy
Laboratory Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	98%
aaa-Trifluorotoluene	101%

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SI Geotrans	Client Project ID: N386-107	Sampled: Feb 11, 1997
4636 E. University Drive, Ste. 145		Received: Feb 11, 1997
Phoenix, AZ 85034	Sample Descript: Water, WOCMW-7LD	Extracted: Feb 14, 1997
Attention: Steve Smith	Lab Number: 7020430	Analyzed: Feb 14, 1997
		Reported: Feb 20, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jennifer A. Vilaboy
Laboratory Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	104%
aaa-Trifluorotoluene	102%

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, Trip Blank
Lab Number: 7020432

Sampled: Feb 11, 19[illegible]
Received: Feb 11, 1997
Extracted: Feb 14, 1997
Analyzed: Feb 14, 1997
Reported: Feb 20, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jennifer A. Vilaboy
Laboratory Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	107%
aaa-Trifluorotoluene	101%

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SI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Method Blank

Extracted: Feb 14, 1997
Analyzed: Feb 14, 1997
Reported: Feb 20, 1997
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

J A Vilaboy

Jennifer A. Vilaboy
Laboratory Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	105%
aaa-Trifluorotoluene	101%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-133

MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 02/14/97

Sample #: P7020431

Batch #: GB14121W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Mean PR	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	%	RPD	Mean PR
Benzene	0	5.0	4.6	4.5	91	90	1.3	90	<10	74 - 116
Chloroform	0.017	5.0	5.0	4.9	100	98	2.3	99	<10	70 - 122
1,1-Dichloroethane	0	5.0	4.9	4.8	98	95	3.4	97	<18	70 - 126
1,2-Dichloroethane	0	5.0	4.8	4.8	97	96	0.83	97	<10	73 - 117
1,1-Dichloroethene	0	5.0	4.7	4.6	94	91	3.3	93	<15	70 - 120
Tetrachloroethene	0	5.0	5.0	4.7	100	95	5.8	98	<15	70 - 122
Toluene	0.099	5.0	5.2	5.1	102	100	1.5	101	<14	72 - 118
Trichloroethene	0	5.0	5.1	5.0	102	99	2.8	101	<16	70 - 126

Definition of Terms

R1. . . . . Result of Sample Analysis
Sp. . . . . Spike Concentration added to sample
MS. . . . . Matrix Spike Result
MSD. . . . . Matrix Spike Duplicate Result
PR1. . . . . Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2. . . . . Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR. . . . . Mean Percent Recovery
Acceptance Limits . . . . . Determined by in-house Control Charts

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CHAIN OF CUSTODY FORM

Client Name/Address: HSI

Project/PO Number: N380-107

Project Manager/Phone Number: Steve Smith 894-2800

Sampler: Mark Nelson 894-2800

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	Analysis Required: Cal/Leg									Special Instructions
WOC MW-3S	Water	VOA	2	2-11-97 1315	4°/HCl	X									
WOC MW-8S	Water	VOA	2	2-11-97 1425	4°/HCl	X									
WOC MW-7LFB	Water	VOA	2	2-11-97 1615	4°/HCl	X									Field Blank
WOC MW-7L	Water	VOA	2	2-11-97 1730	4°/HCl	X									
WOC MW-7LD	Water	VOA	2	2-11-97 1730	4°/HCl	X									Dup[illegible]
WOC MW-7L MS/MSD	Water	VOA	2	2-11-97 1730	4°/HCl	X									Matrix spike/ Matrix Spike Dupe
Trip Blank	Water	VOA	1	2-11-97 1730	4°/HCl	X									

Relinquished By: [signature] Date /Time: 2-11-97 1755

Received by: Date /Time:

Relinquished By: Date /Time:

Received by: Date /Time:

Relinquished By: Date /Time:

Received in Lab by: [signature] Date /Time: 2/11/97 1755

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact X on ice X

Note: Sample(s) will be disposed of after 30 days.

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HSI Geotrans	Client Project ID: N386-107	Sampled: Mar 4, 1997
4636 E. University Drive, Ste. 145		Received: Mar 4, 1997
Phoenix, AZ 85034	Sample Descript: Water, SW-1	Extracted: Mar 13, 1997
Attention: Steve Smith	Lab Number: 7030089	Analyzed: Mar 13, 1997
		Reported: Mar 14, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
[illegible]-Dichloroethane	0.50	N.D.
[illegible]1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	106%
aaa-Trifluorotoluene	102%

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, SW-2
Lab Number: 7030090

Sampled: Mar 4, 1[illegible]
Received: Mar 4, 19[illegible]
Extracted: Mar 13, 1997
Analyzed: Mar 13, 1997
Reported: Mar 14, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	99%
aaa-Trifluorotoluene	100%

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HSI Geotrans	Client Project ID: N386-107	Sampled: Mar 4, 1997
4636 E. University Drive, Ste. 145		Received: Mar 4, 1997
Phoenix, AZ 85034	Sample Descript: Water, SW-3	Extracted: Mar 13, 1997
Attention: Steve Smith	Lab Number: 7030091	Analyzed: Mar 13, 1997
		Reported: Mar 14, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	100%
aaa-Trifluorotoluene	103%

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, SW-FB
Lab Number: 7030092

Sampled: Mar 4, 1
Received: Mar 4, 1997
Extracted: Mar 13, 1997
Analyzed: Mar 13, 1997
Reported: Mar 14, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	**0.50**	**2.6**
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	**0.50**	**1.5**
Chloromethane	1.0	N.D.
Dibromochloromethane	**0.50**	**3.3**
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	99%
aaa-Trifluorotoluene	101%

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SI Geotrans	Client Project ID: N386-107	Sampled: Mar 4, 1997
4636 E. University Drive, Ste. 145		Received: Mar 4, 1997
Phoenix, AZ 85034	Sample Descript: Water, Trip Blank	Extracted: Mar 13, 1997
Attention: Steve Smith	Lab Number: 7030093	Analyzed: Mar 13, 1997
		Reported: Mar 14, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
2-Dichloroethane	0.50	N.D.
1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	100%
aaa-Trifluorotoluene	100%

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, SW-1
Lab Number: 7030089

Sampled: Mar 4, 19[illegible]
Received: Mar 4, 19[illegible]
Extracted: Mar 5-17, 1997
Analyzed: Mar 5-17, 1997
Reported: Mar 14-18, 1997

LABORATORY ANALYSIS

Analyte	EPA Method	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	SM2320B	1.0	150
Ammonia-N**	SM4500-NH3F	0.50	N.D.
Chemical Oxygen Demand	410.4	20	N.D.
Chloride	300.0	0.50	82
Cyanide*	SM4500-CN,C-E	0.025	N.D.
Specific Conductance (µmhos/cm)	SM2510B	1.0	810
Sulfate	300.0	0.50	160
Total Dissolved Solids	SM2540C	5.0	520
Total Organic Carbon*	415.1	1.0	5.8
Total Suspended Solids	160.2	5.0	N.D.

***Analysis completed at Del Mar Analytical-IRVINE (AZ0428)**

****Analysis was completed at Del Mar Analytical-COLTON (AZ0062).**

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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SI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, SW-2
Lab Number: 7030090

Sampled: Mar 4, 1997
Received: Mar 4, 1997
Extracted: Mar 5-17, 1997
Analyzed: Mar 5-17, 1997
Reported: Mar 14-18, 1997

LABORATORY ANALYSIS

Analyte	EPA Method	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)
Alkalinity	SM2320B	1.0	150
Ammonia-N**	SM4500-NH3F	0.50	N.D.
Chemical Oxygen Demand	410.4	20	N.D.
Chloride	300.0	0.50	80
Cyanide*	SM4500-CN,C-E	0.025	N.D.
Specific Conductance (µmhos/cm)	SM2510B	1.0	760
Sulfate	300.0	0.50	160
Total Dissolved Solids	SM2540C	5.0	520
Total Organic Carbon*	415.1	1.0	5.9
Total Suspended Solids	160.2	5.0	N.D.

***Analysis completed at Del Mar Analytical-IRVINE (AZ0428)**

****Analysis was completed at Del Mar Analytical-COLTON (AZ0062).**

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Method Blank

Extracted: Mar 13, 1
Analyzed: Mar 13, 1997
Reported: Mar 14, 1997
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-chloro-3-fluorobenzene	101%
aaa-Trifluorotoluene	101%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 03/13/97

Sample #: P7030089

Batch #: GC13121W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Mean PR	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	%	RPD	Mean PR
Benzene	0	5.0	4.9	4.6	98	92	6.3	95	<10	74 - 116
Chloroform	0.0085	5.0	5.5	4.9	109	99	10	104	<10	70 - 122
[illegible]chloroethane	0	5.0	5.6	5.0	111	100	10	106	<18	70 - 126
1,2-Dichloroethane	0	5.0	5.4	5.0	108	101	7.0	105	<10	73 - 117
1,1-Dichloroethene	0	5.0	5.0	4.8	100	96	4.2	98	<15	70 - 120
Tetrachloroethene	0.0035	5.0	5.6	5.0	111	100	11	105	<15	70 - 122
Toluene	0.16	5.0	5.5	5.3	107	103	3.7	105	<14	72 - 118
Trichloroethene	0.0016	5.0	5.4	4.8	108	96	12	102	<16	70 - 126

Definition of Terms

R1. . . . . Result of Sample Analysis
Sp. . . . . Spike Concentration added to sample
MS. . . . . Matrix Spike Result
MSD. . . . . Matrix Spike Duplicate Result
PR1. . . . . Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2. . . . . Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR. . . . . Mean Percent Recovery
Acceptance Limits . . . . . Determined by in-house Control Charts

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-13

MS/MSD DATA REPORT

EPA METHOD: **SM4500NH3F**
Matrix: Water

DATE: 3/17/97

SAMPLE # C7031262

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Ammonia	58	10.0	68	68	100%	100%	0.0%	100%

Definition of Terms:

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; (MS-R1) / SP X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

Del Mar Analytical

QA/QC CRITERIA: All QA/QC was within acceptance limits.

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MS/MSD DATA REPORT

EPA METHOD: **SM4500-CN,C-E**
Matrix: Water

DATE: 3/14/97

SAMPLE # GC01031

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Cyanide	0	0.10	0.11	0.11	110%	110%	0.0%	110%

Definition of Terms:

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; (MS-R1) / SP X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

Del Mar Analytical

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

MS/MSD DATA REPORT

EPA METHOD: 415.1
Matrix: Water

DATE: 3/11/97

SAMPLE # GC01031

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Total Organic Carbon	2.9	7.5	10	10	95%	95%	0.0%	95%

Definition of Terms:

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; ((MS-R1) / SP) X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP) X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

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MS/MSD DATA REPORT

EPA METHOD 300.0
Instrument: IC
Matrix: Water

DATE: 3/6/97

SAMPLE # P7030097

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Fluoride	0	0.80	0.72	0.71	90%	89%	1.4%	89%
Chloride	0	1.2	1.2	1.1	100%	92%	8.7%	96%
Nitrite-N	0	0.24	0.21	0.23	88%	96%	9.1%	92%
Nitrate-N	0	0.90	0.83	0.84	92%	93%	1.2%	93%
Phosphate-HPO4	0	6.0	5.6	5.8	93%	97%	3.5%	95%
Sulfate-SO4	0	6.0	5.8	5.7	97%	95%	1.7%	96%

R1. . . . . Result of Sample Analysis

S. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; (MS-R1) / SP X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

Del MAr Analytical
QA/QC CRITERIA: All QA/QC was within acceptance limits.

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CHAIN OF CUSTODY FORM

ent Name/Address: HSI Geotrans, 4636 E. Washington, Suite 145, Phoenix AZ

Project/PO Number: N380-107

oject Manager/Phone Number: Steve Smith 894-28000

Sampler: Mark Watson 894-28000

Analysis Required

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	Gas/Diesel	Alkalinity	Anions	Cations	Cl-D 418.1	TPH 418.1	TPH 8015	TPH 1664	[illegible]	Chloride 300.0	Sulfate 300.0		Special Instructions
SW-1	Water	Various	8	3-4-97 1350	Various	X	X	X	X	X	X	X	X	X	X	X		[illegible]
SW-2	Water	Various	8	3-4-97 1415	Various	X	X	X	X	X	X	X	X	X	X	X		[illegible]
SW-3	Water	VOA	2	3-4-97 1450	HCl	X												report via E-mail
SW-FB	Water	VOA	2	3-4-97 1430	HCl	X												
Trip Blank	Water	VOA	1			X												

inquished By: [signature] Date /Time: 3-4-97 1700

Received by: Date /Time:

inquished By: Date /Time:

Received by: Date /Time:

inquished By: Date /Time:

Received in Lab by: [signature] Date /Time: 3/4/97 1700

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact X on ice X

e: Sample(s) will be disposed of after 30 days.

Del Mar Analytical

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SI Geotrans
636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, MW-6S
Lab Number: 7050129

Sampled: May 5, 1997
Received: May 5, 1997
Extracted: May 11, 1997
Analyzed: May 11, 1997
Reported: May 14, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	2.0	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	**0.50**	**0.72**
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	96%
aaa-Trifluorotoluene	101%

Celebrating 10 years of service 1987-1997

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, WCP-13
Lab Number: 7050130

Sampled: May 5, 19[illegible]
Received: May 5, 19[illegible]
Extracted: May 11, 1997
Analyzed: May 11, 1997
Reported: May 14, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	2.0	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	96%
aaa-Trifluorotoluene	100%

Celebrating 10 years of service 1987-19[illegible]

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SI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, MW-1S
Lab Number: 7050131

Sampled: May 5, 1997
Received: May 5, 1997
Extracted: May 11, 1997
Analyzed: May 11, 1997
Reported: May 14, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	1.0	N.D.
Bromoform	4.0	N.D.
Bromomethane	10	N.D.
Carbon tetrachloride	1.0	N.D.
Chlorobenzene	1.0	N.D.
Chloroethane	5.0	N.D.
2-Chloroethylvinyl ether	5.0	N.D.
Chloroform	1.0	N.D.
Chloromethane	2.0	N.D.
Dibromochloromethane	1.0	N.D.
1,2-Dichlorobenzene	2.0	N.D.
1,3-Dichlorobenzene	2.0	N.D.
1,4-Dichlorobenzene	2.0	N.D.
1,1-Dichloroethane	1.0	N.D.
1,2-Dichloroethane	1.0	N.D.
1,1-Dichloroethene	1.0	N.D.
cis-1,2-Dichloroethene	1.0	N.D.
trans-1,2-Dichloroethene	1.0	N.D.
1,2-Dichloropropane	1.0	N.D.
cis-1,3-Dichloropropene	1.0	N.D.
trans-1,3-Dichloropropene	1.0	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	1.0	N.D.
Tetrachloroethene	1.0	N.D.
1,1,1-Trichloroethane	1.0	N.D.
1,1,2-Trichloroethane	1.0	N.D.
Trichloroethene	**1.0**	**27**
Trichlorofluoromethane	1.0	N.D.
Vinyl chloride	2.0	N.D.
Benzene	1.0	N.D.
Ethylbenzene	1.0	N.D.
Toluene	1.0	N.D.
Total Xylenes	3.0	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 2.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	103%
aaa-Trifluorotoluene	102%

Celebrating 10 years of service 1987-1997

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, MW-5S
Lab Number: 7050132

Sampled: May 5, 1
Received: May 5, 1997
Extracted: May 11, 1997
Analyzed: May 11, 1997
Reported: May 14, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	10	N.D.
Bromoform	40	N.D.
Bromomethane	100	N.D.
Carbon tetrachloride	10	N.D.
Chlorobenzene	10	N.D.
Chloroethane	50	N.D.
2-Chloroethylvinyl ether	50	N.D.
Chloroform	10	N.D.
Chloromethane	20	N.D.
Dibromochloromethane	10	N.D.
1,2-Dichlorobenzene	20	N.D.
1,3-Dichlorobenzene	20	N.D.
1,4-Dichlorobenzene	20	N.D.
1,1-Dichloroethane	10	N.D.
1,2-Dichloroethane	10	N.D.
1,1-Dichloroethene	**10**	**33**
cis-1,2-Dichloroethene	10	N.D.
trans-1,2-Dichloroethene	10	N.D.
1,2-Dichloropropane	10	N.D.
cis-1,3-Dichloropropene	10	N.D.
trans-1,3-Dichloropropene	10	N.D.
Methylene chloride	100	N.D.
1,1,2,2-Tetrachloroethane	10	N.D.
Tetrachloroethene	10	N.D.
1,1,1-Trichloroethane	10	N.D.
1,1,2-Trichloroethane	10	N.D.
Trichloroethene	**10**	**230**
Trichlorofluoromethane	10	N.D.
Vinyl chloride	20	N.D.
Benzene	10	N.D.
Ethylbenzene	10	N.D.
Toluene	10	N.D.
Total Xylenes	30	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 20.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	97%
aaa-Trifluorotoluene	102%

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SI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, Trip Blank
Lab Number: 7050133

Received: May 5, 1997
Extracted: May 11, 1997
Analyzed: May 11, 1997
Reported: May 14, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	2.0	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	98%
aaa-Trifluorotoluene	99%

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Method Blank

Extracted: May 11, 1
Analyzed: May 11, 19
Reported: May 14, 1997
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	2.0	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	101%
aaa-Trifluorotoluene	102%

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 05/11/97

Sample #: P7050285

Batch #: GE11121W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Mean PR	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	%	RPD	Mean PR
Benzene	0	5.0	4.9	4.9	97	98	0.61	98	< 10	86 - 102
Chloroform	0	5.0	5.0	5.0	101	100	1.1	100	< 10	82 - 106
[illegible]chloroethane	0	5.0	5.1	5.1	101	102	0.74	102	< 10	82 - 106
1,2-Dichloroethane	0	5.0	5.1	5.1	102	102	0.037	102	< 13	81 - 107
1,1-Dichloroethene	0	5.0	4.7	4.8	93	95	2.2	94	< 10	72 - 116
Tetrachloroethene	0.0086	5.0	5.3	5.1	106	102	3.5	104	< 10	84 - 104
Toluene	0.13	5.0	4.9	4.9	96	96	0.10	96	< 10	78 - 110
Trichloroethene	0	5.0	5.5	5.5	111	110	1.0	110 *	< 21	79 - 109

* Refer to LCS for batch validation.

Definition of Terms

R1. . . . . Result of Sample Analysis
Sp. . . . . Spike Concentration added to sample
MS. . . . . Matrix Spike Result
MSD. . . . . Matrix Spike Duplicate Result
PR1. . . . . Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2. . . . . Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR. . . . . Mean Percent Recovery
Acceptance Limits . . . . . Determined by in-house Control Charts

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-133

LCS DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 05/11/97

Batch #: GE11121W

Analyte	Spike Conc.	Result	% Recovery	ACP
Benzene	5.0	4.7	93	80 - 120 %
Chloroform	5.0	4.6	92	80 - 120 %
1,1-Dichloroethane	5.0	4.7	94	80 - 120 %
1,2-Dichloroethane	5.0	4.9	98	80 - 120 %
1,1-Dichloroethene	5.0	4.2	85	80 - 120 %
Tetrachloroethene	5.0	4.8	95	80 - 120 %
Toluene	5.0	4.4	89	80 - 120 %
Trichloroethene	5.0	4.9	97	80 - 120 %

Definition of Terms

LCS ..... Laboratory Control Sample

Spike Conc ..... Result of Sample Analysis

Result ..... Result of Laboratory Control Sample Analysis

%Recovery ..... Percent Recovery of LCS; ((Result - Spike Conc.) / Spike Conc.) X 100

ACP ..... Acceptance Limits for Percent Recovery

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CHAIN OF CUSTODY FORM

ent Name/Address: HSI Geotrans

Project/PO Number: N 366-107

oject Manager/Phone Number: [illegible] / 894-2600

Sampler: Mark Nielsen / [illegible]

Analysis Required: 601/602

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	601/602									Special Instructions
MW-6S	Water	VOA	2	5-5-97 1145	4°C/HCl	X									
LCP-12	Water	VOA	2	5-5-97 1300	4°C/HCl	X									
MW-1S	Water	VOA	2	5-5-97 1430	4°C/HCl	X									
MW-5S	Water	VOA	2	5-5-97 1535	4°C/HCl	X									
Trip Blank	Water	VOA	1		4°C/HCl	X									

elinquished By: [illegible] Date /Time: 5-5-97 1635

Received by: Date /Time:

elinquished By: Date /Time:

Received by: Date /Time:

elinquished By: Date /Time:

Received in Lab by: [illegible] Date /Time: 5-5-97 16:35.

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact ✓ on ice ✓

ote: Sample(s) will be disposed of after 30 days.

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

SI Geotrans	Client Project ID: N386-107	Sampled: May 6, 1997
4636 E. University Drive, Ste. 145		Received: May 6, 1997
Phoenix, AZ 85034	Sample Descript: Water, MW-6M	Extracted: May 15, 1997
Attention: Steve Smith	Lab Number: 7050199	Analyzed: May 15, 1997
		Reported: May 16, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**8.4**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

Celebrating 10 years of service 1987-1997

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	98%
aaa-Trifluorotoluene	101%

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, MW-6L
Lab Number: 7050200

Sampled: May 6, 1
Received: May 6, 1997
Extracted: May 15, 1997
Analyzed: May 15, 1997
Reported: May 16, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	100%
aaa-Trifluorotoluene	102%

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, WCP-4
Lab Number: 7050201

Sampled: May 6, 1997
Received: May 6, 1997
Extracted: May 15, 1997
Analyzed: May 15, 1997
Reported: May 16, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

Celebrating 10 years of service 1987-1997

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	101%
aaa-Trifluorotoluene	101%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-133

HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, WCP-11
Lab Number: 7050202

Sampled: May 6, 1
Received: May 6, 1997
Extracted: May 15, 1997
Analyzed: May 15, 1997
Reported: May 16, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	98%
aaa-Trifluorotoluene	101%

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, WCP-14
Lab Number: 7050203

Sampled: May 6, 1997
Received: May 6, 1997
Extracted: May 15, 1997
Analyzed: May 15, 1997
Reported: May 16, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

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DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	103%
aaa-Trifluorotoluene	104%

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, MW-4S
Lab Number: 7050204

Sampled: May 6, 1
Received: May 6, 1997
Extracted: May 15, 1997
Analyzed: May 15, 1997
Reported: May 16, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	25	N.D.
Bromoform	25	N.D.
Bromomethane	50	N.D.
Carbon tetrachloride	25	N.D.
Chlorobenzene	25	N.D.
Chloroethane	130	N.D.
2-Chloroethylvinyl ether	130	N.D.
Chloroform	25	N.D.
Chloromethane	50	N.D.
Dibromochloromethane	25	N.D.
1,2-Dichlorobenzene	50	N.D.
1,3-Dichlorobenzene	50	N.D.
1,4-Dichlorobenzene	50	N.D.
1,1-Dichloroethane	25	N.D.
1,2-Dichloroethane	25	N.D.
1,1-Dichloroethene	25	N.D.
cis-1,2-Dichloroethene	25	N.D.
trans-1,2-Dichloroethene	25	N.D.
1,2-Dichloropropane	25	N.D.
cis-1,3-Dichloropropene	25	N.D.
trans-1,3-Dichloropropene	25	N.D.
Methylene chloride	250	N.D.
1,1,2,2-Tetrachloroethane	25	N.D.
Tetrachloroethene	25	N.D.
1,1,1-Trichloroethane	25	N.D.
1,1,2-Trichloroethane	25	N.D.
Trichloroethene	**25**	**600**
Trichlorofluoromethane	25	N.D.
Vinyl chloride	50	N.D.
Benzene	25	N.D.
Ethylbenzene	25	N.D.
Toluene	25	N.D.
Total Xylenes	75	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 50.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	98%
aaa-Trifluorotoluene	101%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

SI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, MW-44
Lab Number: 7050205

Sampled: May 6, 1997
Received: May 6, 1997
Extracted: May 15, 1997
Analyzed: May 15, 1997
Reported: May 16, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	25	N.D.
Bromoform	25	N.D.
Bromomethane	50	N.D.
Carbon tetrachloride	25	N.D.
Chlorobenzene	25	N.D.
Chloroethane	130	N.D.
2-Chloroethylvinyl ether	130	N.D.
Chloroform	25	N.D.
Chloromethane	50	N.D.
Dibromochloromethane	25	N.D.
1,2-Dichlorobenzene	50	N.D.
1,3-Dichlorobenzene	50	N.D.
1,4-Dichlorobenzene	50	N.D.
1,1-Dichloroethane	25	N.D.
1,2-Dichloroethane	25	N.D.
1,1-Dichloroethene	25	N.D.
cis-1,2-Dichloroethene	25	N.D.
trans-1,2-Dichloroethene	25	N.D.
1,2-Dichloropropane	25	N.D.
cis-1,3-Dichloropropene	25	N.D.
trans-1,3-Dichloropropene	25	N.D.
Methylene chloride	250	N.D.
1,1,2,2-Tetrachloroethane	25	N.D.
Tetrachloroethene	25	N.D.
1,1,1-Trichloroethane	25	N.D.
1,1,2-Trichloroethane	25	N.D.
Trichloroethene	**25**	**610**
Trichlorofluoromethane	25	N.D.
Vinyl chloride	50	N.D.
Benzene	25	N.D.
Ethylbenzene	25	N.D.
Toluene	25	N.D.
Total Xylenes	75	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 50.

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DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	101%
aaa-Trifluorotoluene	102%

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, MW-4FB
Lab Number: 7050206

Sampled: May 6, 1
Received: May 6, 1997
Extracted: May 15, 1997
Analyzed: May 15, 1997
Reported: May 16, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	**0.50**	**0.76**
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	**0.50**	**8.2**
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	99%
aaa-Trifluorotoluene	103%

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GI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, Trip Blank
Lab Number: 7050207

Received: May 6, 1997
Extracted: May 15, 1997
Analyzed: May 15, 1997
Reported: May 16, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	99%
aaa-Trifluorotoluene	101%

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Method Blank

Extracted: May 15, 1
Analyzed: May 15, 1997
Reported: May 16, 1997
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

Celebrating 10 years of service 1987-19

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	100%
aaa-Trifluorotoluene	102%

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 05/15/97

Sample #: P7050200

Batch #: GE15121W

Analyte	R1 ppb	Sp ppb	MS ppb	MSD ppb	PR1 %	PR2 %	RPD %	Mean PR %	Acceptance Limits RPD	Acceptance Limits Mean PR
Benzene	0	5.0	4.8	4.8	96	97	0.70	96	<10	86 - 102
Chloroform	0	5.0	5.4	5.4	107	108	0.83	108 *	<10	82 - 106
[illegible]chloroethane	0	5.0	4.9	5.2	98	104	5.9	101	<10	82 - 106
1,[illegible]-Dichloroethane	0	5.0	5.1	5.5	102	109	6.8	106	<13	81 - 107
[illegible],1-Dichloroethene	0.29	5.0	5.3	5.3	99	101	1.6	100	<10	72 - 116
Tetrachloroethene	0	5.0	5.5	5.2	109	105	4.1	107 *	<10	84 - 104
Toluene	0.22	5.0	5.1	5.0	97	95	2.3	96	<10	78 - 110
Trichloroethene	0	5.0	5.6	5.7	113	115	1.6	114 *	<21	79 - 109

* Refer to LCS for batch validation.

Definition of Terms

R1. . . . . Result of Sample Analysis
Sp. . . . . Spike Concentration added to sample
MS. . . . . Matrix Spike Result
MSD. . . . . Matrix Spike Duplicate Result
PR1. . . . . Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2. . . . . Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR. . . . . Mean Percent Recovery
Acceptance Limits . . . . . Determined by in-house Control Charts

Celebrating 10 years of service 1987-1997

Del Mar Analytical

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

LCS DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 05/15/97

Batch #: GE15121W

Analyte	Spike Conc.	Result	% Recovery	ACP
Benzene	5.0	4.6	92	80 - 120 %
Chloroform	5.0	4.9	98	80 - 120 %
1,1-Dichloroethane	5.0	4.7	93	80 - 120 %
1,2-Dichloroethane	5.0	5.1	102	80 - 120 %
1,1-Dichloroethene	5.0	4.4	88	80 - 120 %
Tetrachloroethene	5.0	5.0	101	80 - 120 %
Toluene	5.0	4.7	95	80 - 120 %
Trichloroethene	5.0	5.3	105	80 - 120 %

Definition of Terms

LCS ..... Laboratory Control Sample

Spike Conc ..... Result of Sample Analysis

Result ..... Result of Laboratory Control Sample Analysis

%Recovery ..... Percent Recovery of LCS; ((Result - Spike Conc.) / Spike Conc.) X 100

ACP ..... Acceptance Limits for Percent Recovery

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Celebrating 10 years of service 1987-1

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CHAIN OF CUSTODY FORM

Client Name/Address: HSI GeoTrans

Project/PO Number: N38E-107

Project Manager/Phone Number: [illegible] 894-[illegible]

Sampler: Mark Nielsen 894-[illegible]

Analysis Required: 601/602

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	601/602									Special Instructions
MW-6M	Water	VOA	2	5-6-97 1010	4°C/HCl	X									
MW-6L	Water	VOA	2	5-6-97 1135	4°C/HCl	X									
WCP-11	Water	VOA	2	5-6-97 1410	4°C/HCl	X									
WCP-11	Water	VOA	2	5-6-97 1250	4°C/HCl	X									
WCP-14	Water	VOA	2	5-6-97 1510	4°C/HCl	X									
MW-4S	Water	VOA	2	5-6-97 1615	4°C/HCl	X									
MW-4I	Water	VOA	2	5-6-97 1620	4°C/HCl	X									
MW-4FD	Water	VOA	2	5-6-97 1620	4°C/HCl	X									
Trip Blank	Water	VOA	1	~~5-6-97~~	4°C/HCl	X									

Relinquished By:	Date /Time:	Received by:	Date /Time:	Turnaround Time: (check)
[signature]	5/6/97 1740			same day ____ 72 hours ____
Relinquished By:	Date /Time:	Received by:	Date /Time:	24 hours ____ 5 days ____
				48 hours ____ normal X
Relinquished By:	Date /Time:	Received in Lab by: [signature]	Date /Time: 5/6/97 1740	Sample Integrity: (Check) intact ✓ on ice ✓

Note: Sample(s) will be disposed of after 30 days.

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

...SI Geotrans	Client Project ID: N386-107	Sampled: May 7, 1997
...4636 E. University Drive, Ste. 145		Received: May 7, 1997
Phoenix, AZ 85034	Sample Descript: Water, MW-RB-1	Extracted: May 16, 1997
Attention: Steve Smith	Lab Number: 7050238	Analyzed: May 16, 1997
		Reported: May 19, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	**0.50**	**0.62**
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	**0.50**	**7.1**
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

Celebrating 10 years of service 1987-1997

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	103%
aaa-Trifluorotoluene	102%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, MW-3M
Lab Number: 7050239

Sampled: May 7, 1
Received: May 7, 1997
Extracted: May 16, 1997
Analyzed: May 16, 1997
Reported: May 19, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	2.5	N.D.
Bromoform	2.5	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	2.5	N.D.
Chlorobenzene	2.5	N.D.
Chloroethane	13	N.D.
2-Chloroethylvinyl ether	13	N.D.
Chloroform	2.5	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	2.5	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
1,1-Dichloroethane	2.5	N.D.
1,2-Dichloroethane	2.5	N.D.
1,1-Dichloroethene	2.5	N.D.
cis-1,2-Dichloroethene	2.5	N.D.
trans-1,2-Dichloroethene	2.5	N.D.
1,2-Dichloropropane	2.5	N.D.
cis-1,3-Dichloropropene	2.5	N.D.
trans-1,3-Dichloropropene	2.5	N.D.
Methylene chloride	25	N.D.
1,1,2,2-Tetrachloroethane	2.5	N.D.
Tetrachloroethene	2.5	N.D.
1,1,1-Trichloroethane	2.5	N.D.
1,1,2-Trichloroethane	2.5	N.D.
Trichloroethene	**2.5**	**83**
Trichlorofluoromethane	2.5	N.D.
Vinyl chloride	5.0	N.D.
Benzene	2.5	N.D.
Ethylbenzene	2.5	N.D.
Toluene	2.5	N.D.
Total Xylenes	7.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 5.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	100%
aaa-Trifluorotoluene	102%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

SI Geotrans	Client Project ID: N386-107	Sampled: May 7, 1997
4636 E. University Drive, Ste. 145		Received: May 7, 1997
Phoenix, AZ 85034	Sample Descript: Water, MW-3S	Extracted: May 16, 1997
Attention: Steve Smith	Lab Number: 7050240	Analyzed: May 16, 1997
		Reported: May 19, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
-Dichloroethane	0.50	N.D.
1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

Celebrating 10 years of service 1987-1997

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	102%
aaa-Trifluorotoluene	101%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, MW-2S
Lab Number: 7050241

Sampled: May 7, 1[illegible]
Received: May 7, 1997
Extracted: May 16, 1997
Analyzed: May 16, 1997
Reported: May 19, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**1.7**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	101%
aaa-Trifluorotoluene	104%

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SI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, MW-2M
Lab Number: 7050242

Sampled: May 7, 1997
Received: May 7, 1997
Extracted: May 16, 1997
Analyzed: May 16, 1997
Reported: May 19, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	2.5	N.D.
Bromoform	2.5	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	2.5	N.D.
Chlorobenzene	2.5	N.D.
Chloroethane	13	N.D.
2-Chloroethylvinyl ether	13	N.D.
Chloroform	2.5	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	2.5	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
1,1-Dichloroethane	2.5	N.D.
1,2-Dichloroethane	2.5	N.D.
1,1-Dichloroethene	2.5	N.D.
cis-1,2-Dichloroethene	2.5	N.D.
trans-1,2-Dichloroethene	2.5	N.D.
1,2-Dichloropropane	2.5	N.D.
cis-1,3-Dichloropropene	2.5	N.D.
trans-1,3-Dichloropropene	2.5	N.D.
Methylene chloride	25	N.D.
1,1,2,2-Tetrachloroethane	2.5	N.D.
Tetrachloroethene	2.5	N.D.
1,1,1-Trichloroethane	2.5	N.D.
1,1,2-Trichloroethane	2.5	N.D.
Trichloroethene	**2.5**	**72**
Trichlorofluoromethane	2.5	N.D.
Vinyl chloride	5.0	N.D.
Benzene	2.5	N.D.
Ethylbenzene	2.5	N.D.
Toluene	2.5	N.D.
Total Xylenes	7.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 5.

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DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	102%
aaa-Trifluorotoluene	102%

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HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, MW-7S
Lab Number: 7050243

Sampled: May 7, 1
Received: May 7, 1997
Extracted: May 17, 1997
Analyzed: May 17, 1997
Reported: May 19, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	103%
aaa-Trifluorotoluene	101%

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HSI Geo Trans, Inc.
[illegible]65 South Ash Ave.,Ste G-1
[illegible]mpe, AZ 85282
Attention: Steve Smith

Method Blank

Extracted: Aug 14, 199[illegible]
Analyzed: Aug 14, 199[illegible]
Reported: Aug 15, 1997
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
[illegible]1,2-Dichloroethene	0.50	N.D.
[illegible]ans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accpet. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	99%
aaa-Trifluorotoluene(80-120).....	102%

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'SI Geo Trans, Inc.
,665 South Ash Ave.,Ste G-1
Tempe, AZ 85282
Attention: Steve Smith

Method Blank

Extracted: Aug 13, 1997
Analyzed: Aug 13, 1997
Reported: Aug 15, 1997
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1-Dichloroethene	0.50	N.D.
,s-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accpet. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	96%
aaa-Trifluorotoluene(80-120).....	98%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

HSI Geo Trans, Inc.
65 South Ash Ave.,Ste G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, MW-2M
Lab Number: PGH00366

Sampled: Aug 8, 199
Received: Aug 11, 1997
Extracted: Aug 13, 1997
Analyzed: Aug 13, 1997
Reported: Aug 15, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	2.5	N.D.
Bromoform	2.5	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	2.5	N.D.
Chlorobenzene	2.5	N.D.
Chloroethane	13	N.D.
2-Chloroethylvinyl ether	13	N.D.
Chloroform	2.5	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	2.5	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
1,1-Dichloroethane	2.5	N.D.
1,2-Dichloroethane	2.5	N.D.
1,1-Dichloroethene	2.5	N.D.
cis-1,2-Dichloroethene	2.5	N.D.
trans-1,2-Dichloroethene	2.5	N.D.
1,2-Dichloropropane	2.5	N.D.
cis-1,3-Dichloropropene	2.5	N.D.
trans-1,3-Dichloropropene	2.5	N.D.
Methylene chloride	50	N.D.
1,1,2,2-Tetrachloroethane	2.5	N.D.
Tetrachloroethene	2.5	N.D.
1,1,1-Trichloroethane	2.5	N.D.
1,1,2-Trichloroethane	2.5	N.D.
Trichloroethene	**2.5**	**61**
Trichlorofluoromethane	2.5	N.D.
Vinyl chloride	5.0	N.D.
Benzene	2.5	N.D.
Ethylbenzene	2.5	N.D.
Toluene	2.5	N.D.
Total Xylenes	7.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 5.

Celebrating 10 years of service 1987-199

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	84%
aaa-Trifluorotoluene(80-120).....	89%

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ISI Geo Trans, Inc.
,665 South Ash Ave.,Ste G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, MW-6M
Lab Number: PGH00365

Sampled: Aug 8, 19[illegible]
Received: Aug 11, 1997
Extracted: Aug 13, 1997
Analyzed: Aug 13, 1997
Reported: Aug 13, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**8.3**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	90%
aaa-Trifluorotoluene(80-120).....	97%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

HSI Geo Trans, Inc.
65 South Ash Ave.,Ste G-1
mpe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, MW-6M FB
Lab Number: PGH00364

Sampled: Aug 8, 19
Received: Aug 11, 199
Extracted: Aug 14, 1997
Analyzed: Aug 14, 1997
Reported: Aug 15, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	**0.50**	**0.61**
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	**0.50**	**4.9**
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
-1,2-Dichloroethene	0.50	N.D.
ans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	95%
aaa-Trifluorotoluene(80-120).....	105%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

'SI Geo Trans, Inc.
665 South Ash Ave.,Ste G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, Trip Blank
Lab Number: PGH00363

Sampled: Aug 8, 19
Received: Aug 11, 1997
Extracted: Aug 14, 1997
Analyzed: Aug 14, 1997
Reported: Aug 15, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1-Dichloroethene	0.50	N.D.
s-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	85%
aaa-Trifluorotoluene(80-120).....	97%

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HSI Geo Trans, Inc.
[illegible]65 South Ash Ave.,Ste G-1
[illegible]mpe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, MW-6MD
Lab Number: PGH00362

Sampled: Aug 8, 19[illegible]
Received: Aug 11, 1997
Extracted: Aug 14, 1997
Analyzed: Aug 14, 1997
Reported: Aug 15, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
[illegible]-1,2-Dichloroethene	0.50	N.D.
[illegible]ans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**9.1**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	98%
aaa-Trifluorotoluene(80-120).....	101%

Celebrating 10 years of service 1987-199[illegible]

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ISI Geo Trans, Inc.
4665 South Ash Ave.,Ste G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Report Number: PGH00362

Sampled: Aug 8, 1[illegible]
Received: Aug 11, 1997
Extracted: Aug 13-14, 1997
Analyzed: Aug 13-14, 1997
Reported: Aug 15, 1997

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	EPA ANALYSES
PGH00362	MW-6MD	Water	601/602
PGH00363	Trip Blank	Water	601/602
PGH00364	MW-6M FB	Water	601/602
PGH00365	MW-6M	Water	601/602
PGH00366	MW-2M	Water	601/602

SAMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation.

HOLDING TIMES: Holding times were met.

PROBLEMS ENCOUNTERED: No problems were encountered during sample analysis.

QA/QC CRITERIA: All QA/QC met acceptance criteria.

OBSERVATIONS: No significant observations were made.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Celebrating 10 years of service 1987-19[illegible]

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CHAIN OF CUSTODY FORM

Page _____ of _____

ent Name/Address: HSI GeoTrans

Project/PO Number: N386-107

oject Manager: Steve Smith

Phone Number: 839-2800

mpler: Mark Nielsen

Fax Number: 839-2828

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Analysis Required: 601/602									Special Instructions
MW-4M	Water	VOA	2	8/6/97 1110	4°C/HCl	X									
MW-4L	Water	VOA	2	8/6/97 0955	4°C/HCl	X									
MW-7L	Water	VOA	2	8/6/97 1410	4°C/HCl	X									
MW-7M	Water	VOA	2	8/6/97 1514	4°C/HCl	X									
MW-6L	Water	VOA	2	8/6/97 1742	4°C/HCl	X									
Trip Blank	Water	VOA	1	8/6/97	4°C/HCl	X									

nquished By: [signature] Date /Time: 8/7/97 1615

Received by: Date /Time:

nquished By: Date /Time:

Received by: Date /Time:

nquished By: Date /Time:

Received in Lab by: [signature] Date /Time: 7AUG97 1615

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact X on ice X

e: By relinquishing [illegible]ples to Del Mar Analytical, client agrees to pay for the services requested on this [illegible]n of custody form and any additional analyses performed on this project. Payme[illegible] services is within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

Del Mar Analytical

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 08/13/97

Sample #: PGH00308

Batch #: GH13121W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Mean PR	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	%	RPD	Mean PR
Benzene	0	5.0	4.3	4.2	87	83	3.5	85	<30	39 - 150
Chloroform	0	5.0	5.4	4.8	109	96	13	102	<30	49 - 133
1 chloroethane	0	5.0	5.1	4.5	102	90	13	96	<30	47 - 132
1,2-Dichloroethane	0	5.0	5.1	4.5	102	89	13	96	<30	51 - 147
1,1-Dichloroethene	0	5.0	4.6	4.4	93	87	5.7	90	<30	28 - 167
Tetrachloroethene	0	5.0	5.4	4.7	109	95	14	102	<30	26 - 162
Toluene	0	5.0	4.8	4.7	97	94	2.8	95	<30	46 - 148
Trichloroethene	0	5.0	5.5	4.7	110	95	15	102	<30	35 - 146

Definition of Terms

R1. . . . . Result of Sample Analysis
Sp. . . . . Spike Concentration added to sample
MS. . . . . Matrix Spike Result
MSD. . . . . Matrix Spike Duplicate Result
PR1. . . . . Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2. . . . . Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR. . . . . Mean Percent Recovery
cceptance Limits . . . . . Determined by EPA Method 601/602

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HSI Geo Trans, Inc.
65 South Ash Ave., Ste. G-1
mpe, AZ 85282
Attention: Steve Smith

Method Blank

Extracted: Aug 13, 19
Analyzed: Aug 13, 1997
Reported: Aug 14, 1997
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
-1,2-Dichloroethene	0.50	N.D.
ans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

Celebrating 10 years of service 1987-19

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accpet. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	96%
aaa-Trifluorotoluene(80-120).....	98%

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ISI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, Trip Blank
Lab Number: PGH00312

Sampled: Aug 6, 1
Received: Aug 7, 1997
Extracted: Aug 13, 1997
Analyzed: Aug 13, 1997
Reported: Aug 14, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	88%
aaa-Trifluorotoluene(80-120).....	94%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

HSI Geo Trans, Inc.
65 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, MW-6L
Lab Number: PGH00311

Sampled: Aug 6, 19
Received: Aug 7, 1997
Extracted: Aug 13, 1997
Analyzed: Aug 13, 1997
Reported: Aug 14, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	97%
aaa-Trifluorotoluene(80-120).....	100%

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ISI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, MW-7M
Lab Number: PGH00310

Sampled: Aug 6, 1997
Received: Aug 7, 1997
Extracted: Aug 13, 1997
Analyzed: Aug 13, 1997
Reported: Aug 14, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
,1-Dichloroethene	**0.50**	**1.1**
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**21**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	97%
aaa-Trifluorotoluene(80-120).....	101%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

HSI Geo Trans, Inc.
[illegible]65 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, MW-7L
Lab Number: PGH00309

Sampled: Aug 6, 19[illegible]
Received: Aug 7, 1997
Extracted: Aug 13, 1997
Analyzed: Aug 13, 1997
Reported: Aug 14, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
[illegible]-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

Celebrating 10 years of service 1987-19[illegible]

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	98%
aaa-Trifluorotoluene(80-120).....	102%

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ISI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, MW-4L
Lab Number: PGH00308

Sampled: Aug 6, 1
Received: Aug 7, 1997
Extracted: Aug 13, 1997
Analyzed: Aug 13, 1997
Reported: Aug 14, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

Celebrating 10 years of service 1987-19

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	94%
aaa-Trifluorotoluene(80-120).....	98%

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HSI Geo Trans, Inc.
[illegible]65 South Ash Ave., Ste. G-1
[illegible]empe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, MW-4M
Lab Number: PGH00307

Sampled: Aug 6, 19[illegible]
Received: Aug 7, 1997
Extracted: Aug 13, 1997
Analyzed: Aug 13, 1997
Reported: Aug 14, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
[illegible]-1,2-Dichloroethene	0.50	N.D.
[illegible]ans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**3.2**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	84%
aaa-Trifluorotoluene(80-120).....	86%

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SI Geo Trans, Inc.
665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Report Number: PGH00307

Sampled: Aug 6, 1997
Received: Aug 7, 1997
Extracted: Aug 13, 1997
Analyzed: Aug 13, 1997
Reported: Aug 14, 1997

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	EPA ANALYSES
PGH00307	MW-4M	Water	601/602
PGH00308	MW-4L	Water	601/602
PGH00309	MW-7L	Water	601/602
PGH00310	MW-7M	Water	601/602
PGH00311	MW-6L	Water	601/602
PGH00312	Trip Blank	Water	601/602

SAMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation.

HOLDING TIMES: Holding times were met.

PROBLEMS ENCOUNTERED: No problems were encountered during sample analysis.

QA/QC CRITERIA: All QA/QC met acceptance criteria.

OBSERVATIONS: No significant observations were made.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Celebrating 10 years of service 1987-1997

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

CHAIN OF CUSTODY FORM

ent Name/Address: HSI GeoTrans

Project/PO Number: N386-107

ject Manager/Phone Number: Steve Smith / 837-2800

Sampler: Mark Nelson / 837-2800

Analysis Required: 601/602

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	601/602									Special Instructions
JCP-10	GW	40mNOA	2	8/4/97 0950	4°/HCl	X									
JCP-3	GW	VOA	2	8/4/97 1050	4°/HCl	X									
MW-5S	GW	VOA	2	8/4/97 1450	4°/HCl	X									
MW-4S	GW	VOA	2	8/4/97 1500	4°/HCl	X									
MW-2S	GW	VOA	2	8/4/97 1620	4°/HCl	X									
MW-7S	GW	VOA	2	8/4/97 1715	4°/HCl	X									
JCP-14	GW	VOA	2	8/4/97 1845	4°/HCl	X									
Trip Blank	Water	VOA	2		4°/HCl	X									

Relinquished By:	Date /Time:	Received by:	Date /Time:
[illegible]	8/4/97 1930 pm	[illegible]	8/5/97 0900
Relinquished By:	Date /Time:	Received by:	Date /Time:
	8-5-97 0900		
Relinquished By:	Date /Time:	Received in Lab by:	Date /Time:
[illegible]	8-5-97 0910	M. Velasco	8-5-97 9:10

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact X on ice X

Sample(s) will be disposed of after 30 days.

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 96[illegible]338

MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 08/07/97

Sample #: PGH00186

Batch #: GH07111W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Mean PR	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	%	RPD	Mean PR
Benzene	0	5.0	4.8	4.9	96	97	0.74	97	<30	39 - 150
Chloroform	0	5.0	5.8	5.9	115	119	3.0	117	<30	49 - 133
,[illegible]chloroethane	0	5.0	5.5	5.6	110	113	2.3	112	<30	47 - 132
,2-Dichloroethane	0	5.0	5.2	5.2	103	105	1.2	104	<30	51 - 147
,1-Dichloroethene	0	5.0	5.5	5.8	110	116	5.2	113	<30	28 - 167
Tetrachloroethene	0	5.0	5.9	5.8	117	115	1.5	116	<30	26 - 162
Toluene	0	5.0	5.1	5.1	101	103	1.4	102	<30	46 - 148
Trichloroethene	0	5.0	6.1	6.5	121	129	6.7	125	<30	35 - 146

Definition of Terms

R1..... Result of Sample Analysis
Sp..... Spike Concentration added to sample
MS..... Matrix Spike Result
MSD..... Matrix Spike Duplicate Result
PR1..... Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2..... Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR..... Mean Percent Recovery
Acceptance Limits..... Determined by EPA Method 601/602

Celebrating 10 years of service 1987-199[illegible]

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 08/06/97

Sample #: PGH00147

Batch #: GH06111W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Mean PR	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	%	RPD	Mean PR
Benzene	0	5.0	4.8	4.9	96	97	1.8	96	<30	39 - 150
Chloroform	0	5.0	5.7	5.7	114	115	0.18	115	<30	49 - 133
1,1-Dichloroethane	0	5.0	5.6	5.6	113	112	0.49	112	<30	47 - 132
1,2-Dichloroethane	0	5.0	5.1	5.1	101	102	0.90	102	<30	51 - 147
1,1-Dichloroethene	0	5.0	5.7	5.6	113	113	0.43	113	<30	28 - 167
Tetrachloroethene	0	5.0	5.9	5.6	119	111	6.5	115	<30	26 - 162
Toluene	0	5.0	4.8	5.0	96	100	3.6	98	<30	46 - 148
Trichloroethene	0	5.0	5.9	6.0	118	121	2.0	120	<30	35 - 146

Definition of Terms

R1..... Result of Sample Analysis
Sp..... Spike Concentration added to sample
MS..... Matrix Spike Result
MSD..... Matrix Spike Duplicate Result
PR1..... Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2..... Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR..... Mean Percent Recovery
Acceptance Limits..... Determined by EPA Method 601/602

Celebrating 10 years of service 1987-19

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!SI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Method Blank

Extracted: Aug 7, 1
Analyzed: Aug 7, 1997
Reported: Aug 8, 1997
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accpet. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	106%
aaa-Trifluorotoluene(80-120).....	103%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

HSI Geo Trans, Inc.
365 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Method Blank

Extracted: Aug 6, 19
Analyzed: Aug 6, 1997
Reported: Aug 8, 1997
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accpet. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	94%
aaa-Trifluorotoluene(80-120).....	100%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

ISI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, Trip Blank
Lab Number: PGH00148

Sampled: Aug 4, 1997
Received: Aug 5, 1997
Extracted: Aug 7, 1997
Analyzed: Aug 7, 1997
Reported: Aug 8, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

Celebrating 10 years of service 1987-19

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	103%
aaa-Trifluorotoluene(80-120).....	109%

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HSI Geo Trans, Inc.
65 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, WCP-14
Lab Number: PGH00147

Sampled: Aug 4, 19
Received: Aug 5, 1997
Extracted: Aug 6, 1997
Analyzed: Aug 6, 1997
Reported: Aug 8, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	103%
aaa-Trifluorotoluene(80-120).....	101%

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ISI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, MW-7S
Lab Number: PGH00146

Sampled: Aug 4, 1997
Received: Aug 5, 1997
Extracted: Aug 6, 1997
Analyzed: Aug 6, 1997
Reported: Aug 8, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	100%
aaa-Trifluorotoluene(80-120).....	100%

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I Geo Trans, Inc.
65 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, MW-2S
Lab Number: PGH00145

Sampled: Aug 4, 199
Received: Aug 5, 1997
Extracted: Aug 6, 1997
Analyzed: Aug 6, 1997
Reported: Aug 8, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**2.0**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	97%
aaa-Trifluorotoluene(80-120).....	102%

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ISI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, MW-4S
Lab Number: PGH00144

Sampled: Aug 4, 1997
Received: Aug 5, 1997
Extracted: Aug 7, 1997
Analyzed: Aug 7, 1997
Reported: Aug 8, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	10	N.D.
Bromoform	10	N.D.
Bromomethane	20	N.D.
Carbon tetrachloride	10	N.D.
Chlorobenzene	10	N.D.
Chloroethane	50	N.D.
2-Chloroethylvinyl ether	50	N.D.
Chloroform	10	N.D.
Chloromethane	20	N.D.
Dibromochloromethane	10	N.D.
1,2-Dichlorobenzene	20	N.D.
1,3-Dichlorobenzene	20	N.D.
1,4-Dichlorobenzene	20	N.D.
1,1-Dichloroethane	10	N.D.
1,2-Dichloroethane	10	N.D.
,1-Dichloroethene	**10**	**11**
cis-1,2-Dichloroethene	10	N.D.
trans-1,2-Dichloroethene	10	N.D.
1,2-Dichloropropane	10	N.D.
cis-1,3-Dichloropropene	10	N.D.
trans-1,3-Dichloropropene	10	N.D.
Methylene chloride	200	N.D.
1,1,2,2-Tetrachloroethane	10	N.D.
Tetrachloroethene	**10**	**18**
1,1,1-Trichloroethane	10	N.D.
1,1,2-Trichloroethane	10	N.D.
Trichloroethene	**10**	**480**
Trichlorofluoromethane	10	N.D.
Vinyl chloride	20	N.D.
Benzene	10	N.D.
Ethylbenzene	10	N.D.
Toluene	10	N.D.
Total Xylenes	30	N.D.

PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 20.

Celebrating 10 years of service 1987-19

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	99%
aaa-Trifluorotoluene(80-120).....	101%

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HSI Geo Trans, Inc.
565 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, MW-5S
Lab Number: PGH00143

Sampled: Aug 4, 19
Received: Aug 5, 1997
Extracted: Aug 6, 1997
Analyzed: Aug 6, 1997
Reported: Aug 8, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	2.5	N.D.
Bromoform	2.5	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	2.5	N.D.
Chlorobenzene	2.5	N.D.
Chloroethane	13	N.D.
2-Chloroethylvinyl ether	13	N.D.
Chloroform	2.5	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	2.5	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
1,1-Dichloroethane	2.5	N.D.
1,2-Dichloroethane	2.5	N.D.
1,1-Dichloroethene	2.5	29
cis-1,2-Dichloroethene	2.5	N.D.
trans-1,2-Dichloroethene	2.5	N.D.
1,2-Dichloropropane	2.5	N.D.
cis-1,3-Dichloropropene	2.5	N.D.
trans-1,3-Dichloropropene	2.5	N.D.
Methylene chloride	50	N.D.
1,1,2,2-Tetrachloroethane	2.5	N.D.
Tetrachloroethene	2.5	6.0
1,1,1-Trichloroethane	2.5	N.D.
1,1,2-Trichloroethane	2.5	N.D.
Trichloroethene	2.5	140
Trichlorofluoromethane	2.5	N.D.
Vinyl chloride	5.0	N.D.
Benzene	2.5	N.D.
Ethylbenzene	2.5	N.D.
Toluene	2.5	N.D.
Total Xylenes	7.5	N.D.

PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 5.

Celebrating 10 years of service 1987-199

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):
1-Chloro-3-fluorobenzene(80-120).....
aaa-Trifluorotoluene(80-120).....

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SI Geo Trans, Inc.
665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, WCP-3
Lab Number: PGH00142

Sampled: Aug 4, 1997
Received: Aug 5, 1997
Extracted: Aug 6, 1997
Analyzed: Aug 6, 1997
Reported: Aug 8, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**0.92**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	97%
aaa-Trifluorotoluene(80-120).....	100%

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[illegible]I Geo Trans, Inc.	Client Project ID: N386-107	Sampled:	Aug 4, 19[illegible]
[illegible]65 South Ash Ave., Ste. G-1		Received:	Aug 5, 1997
Tempe, AZ 85282	Sample Descript: Water, WCP-10	Extracted:	Aug 6, 1997
Attention: Steve Smith	Lab Number: PGH00141	Analyzed:	Aug 6, 1997
		Reported:	Aug 8, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
[illegible]-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**19**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

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DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	103%
aaa-Trifluorotoluene(80-120).....	102%

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SI Geo Trans, Inc.
665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Report Number: PGH00141

Sampled: Aug 4, 1997
Received: Aug 5, 1997
Extracted: Aug 6-7, 1997
Analyzed: Aug 6-7, 1997
Reported: Aug 8, 1997

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	EPA ANALYSES
PGH00141	WCP-10	Water	601/602
PGH00142	WCP-3	Water	601/602
PGH00143	MW-5S	Water	601/602
PGH00144	MW-4S	Water	601/602
PGH00145	MW-2S	Water	601/602
PGH00146	MW-7S	Water	601/602
PGH00147	WCP-14	Water	601/602
PGH00148	Trip Blank	Water	601/602

SAMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation.

HOLDING TIMES: Holding times were met.

PROBLEMS ENCOUNTERED: No problems were encountered during sample analysis.

QA/QC CRITERIA: All QA/QC met acceptance criteria.

OBSERVATIONS: No significant observations were made.

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DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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CHAIN OF CUSTODY FORM

Client Name/Address: HSI GeoTrans

Project/PO Number: N386-107

Project Manager/Phone Number: Steve Smith 874-2800

Sampler: Mark Nielsen 874-2800

Analysis Required: 601/602

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	601/602									Special Instructions
WCP-8	Water	10ml. VOA	2	5-9-97 1100	4°c/HCl	X									
WCP-12	Water	VOA	2	5-9-97 1345	4°c/HCl	X									
MW-RB2	Water	VOA	2	5-9-97 1500	4°c/HCl	X									
MW-7FB	Water	VOA	2	5-7-97 1700	4°c/HCl	X									
MW-7M	Water	VOA	2	5-7-97 1710	4°c/HCl	X									
MW-7MD	Water	VOA	2	5-7-97 1715	4°c/HCl	X									
MW-7 MS/MSD	Water	VOA	2	5-7-97 1717	4°c/HCl	X									Matrix Spike/Dup
Trip Blank	Water	VOA	1	5-7-97	4°c/HCl	X									
SW-1	Water	VOA	2	5-9-97 1120	4°c/HCl	X									
SW-1D	Water	VOA	2	5-9-97 1125	4°c/HCl	X									
SW-2	Water	VOA	2	5-9-97 1135	4°c/HCl	X									

Relinquished By: Mark Nielsen Date /Time: 5-9-97 1750

Received by: Date /Time:

Relinquished By: Date /Time:

Received by: Date /Time:

Relinquished By: Date /Time:

Received in Lab by: Jim Elkhoney Date /Time: 5/9/97 17:50

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact ✓ on ice ✓

Note: Sample(s) will be disposed of after 30 days.

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LCS DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 05/21/97

Batch #: GE21121W

Analyte	Spike Conc.	Result	% Recovery	ACP
Benzene	5.0	4.7	93	80 - 120 %
Chloroform	5.0	5.3	106	80 - 120 %
1,1-Dichloroethane	5.0	5.2	103	80 - 120 %
1,2-Dichloroethane	5.0	5.1	101	80 - 120 %
1,1-Dichloroethene	5.0	4.7	93	80 - 120 %
Tetrachloroethene	5.0	5.3	106	80 - 120 %
Toluene	5.0	4.9	97	80 - 120 %
Trichloroethene	5.0	5.4	108	80 - 120 %

Definition of Terms

LCS ..... Laboratory Control Sample
Spike Conc ..... Result of Sample Analysis
Result ..... Result of Laboratory Control Sample Analysis
%Recovery ..... Percent Recovery of LCS; ((Result - Spike Conc.) / Spike Conc.) X 100
ACP ..... Acceptance Limits for Percent Recovery

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 05/21/97

Sample #: P7050353

Batch #: GE21121W

Analyte	R1 ppb	Sp ppb	MS ppb	MSD ppb	PR1 %	PR2 %	RPD %	Mean PR %	Acceptance Limits RPD	Acceptance Limits Mean PR
Benzene	0	5.0	4.8	4.7	96	94	1.8	95	<10	86 - 102
Chloroform	0	5.0	5.4	5.4	109	108	0.78	108 *	<10	82 - 106
1,[illegible]-Dichloroethane	0	5.0	5.4	5.3	108	106	1.8	107 *	<10	82 - 106
1,2-Dichloroethane	0	5.0	5.2	4.9	105	98	7.1	101	<13	81 - 107
1,1-Dichloroethene	0	5.0	4.9	4.8	97	96	1.6	96	<10	72 - 116
Tetrachloroethene	0	5.0	5.4	5.5	109	110	1.1	110 *	<10	84 - 104
Toluene	0.16	5.0	5.0	5.0	97	97	0.0030	97	<10	78 - 110
Trichloroethene	0	5.0	5.7	5.8	114	116	2.2	115 *	<21	79 - 109

* Refer to LCS for batch validation.

Definition of Terms

R1. . . . . Result of Sample Analysis
Sp. . . . . Spike Concentration added to sample
MS. . . . . Matrix Spike Result
MSD. . . . . Matrix Spike Duplicate Result
PR1. . . . . Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2. . . . . Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR. . . . . Mean Percent Recovery
Acceptance Limits . . . . . Determined by in-house Control Charts

Celebrating 10 years of service 1987-19[illegible]

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LCS DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 05/20/97

Batch #: GE20121W

Analyte	Spike Conc.	Result	% Recovery	ACP
Benzene	5.0	4.8	96	80 - 120 %
Chloroform	5.0	5.5	110	80 - 120 %
1,1-Dichloroethane	5.0	5.2	104	80 - 120 %
1,2-Dichloroethane	5.0	5.2	103	80 - 120 %
1,1-Dichloroethene	5.0	4.8	96	80 - 120 %
Tetrachloroethene	5.0	5.4	108	80 - 120 %
Toluene	5.0	5.0	100	80 - 120 %
Trichloroethene	5.0	5.5	111	80 - 120 %

Definition of Terms

LCS ..... Laboratory Control Sample

Spike Conc ..... Result of Sample Analysis

Result ..... Result of Laboratory Control Sample Analysis

%Recovery ..... Percent Recovery of LCS; ((Result - Spike Conc.) / Spike Conc.) X 100

ACP ..... Acceptance Limits for Percent Recovery

Del Mar Analytical

Celebrating 10 years of service 1987-199

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 5/20/97
Sample #: P7050349
Batch #: GE20121W

Analyte	R1 ppb	Sp ppb	MS ppb	MSD ppb	PR1 %	PR2 %	RPD %	Mean PR %	Acceptance Limits RPD	Acceptance Limits Mean PR
Benzene	0	5.0	4.8	4.7	95	95	0.46	95	≤ 10	86-102
Chloroform	0	5.0	5.5	5.5	109	110	0.49	110*	≤ 10	82-106
1-Dichloroethane	0	5.0	5.5	5.4	110	109	1.0	109*	≤ 10	82-106
1,2-Dichloroethane	0	5.0	5.3	5.0	106	100	5.3	103	≤ 13	81-107
1,1-Dichloroethene	0.23	5.0	5.1	5.0	97	96	0.48	96	≤ 10	72-116
Tetrachloroethene	0	5.0	5.7	5.9	114	118	3.0	116*	≤ 10	84-104
Toluene	0.16	5.0	4.6	5.0	90	97	7.5	93	≤ 10	78-110
Trichloroethene	13	5.0	18	18	100	100	0	100*	≤ 21	79-109

* Refer to LCS for batch validation.

Definition of Terms

R1..... Result of Sample Analysis
Sp..... Spike Concentration added to sample
MS..... Matrix Spike Result
MSD..... Matrix Spike Duplicate Result
PR1..... Percent Recovery of MS; ((MS-R1)/SP) x 100
PR2..... Percent Recovery of MSD; ((MSD-R1)/SP) x 100
RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) x 100
ean PR..... Mean Percent Recovery
Acceptance Limits..... Determined by In-House Control Charts

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SI Geotrans
36 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Method Blank

Extracted: May 21, 19
Analyzed: May 21, 1997
Reported: May 22, 1997
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	100%
aaa-Trifluorotoluene	102%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-133

HSI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Method Blank

Extracted: May 20, 1997
Analyzed: May 20, 1997
Reported: May 22, 1997
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	102%
aaa-Trifluorotoluene	102%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

SI Geotrans
36 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, SW-2
Lab Number: 7050354

Sampled: May 9, 19
Received: May 9, 199
Extracted: May 20, 1997
Analyzed: May 20, 1997
Reported: May 22, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	103%
aaa-Trifluorotoluene	100%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

'SI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, SW-1D
Lab Number: 7050353

Sampled: May 9, 1997
Received: May 9, 1997
Extracted: May 21, 1997
Analyzed: May 21, 1997
Reported: May 22, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

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DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	104%
aaa-Trifluorotoluene	103%

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HSI Geotrans
536 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, SW-1
Lab Number: 7050352

Sampled: May 9, 19
Received: May 9, 1997
Extracted: May 20, 1997
Analyzed: May 20, 1997
Reported: May 22, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	105%
aaa-Trifluorotoluene	100%

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ISI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, Trip Blank
Lab Number: 7050351

Sampled: May 9, 1997
Received: May 9, 1997
Extracted: May 20, 1997
Analyzed: May 20, 1997
Reported: May 22, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	99%
aaa-Trifluorotoluene	101%

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GI Geotrans
336 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, MW-7MD
Lab Number: 7050350

Sampled: May 9, 19
Received: May 9, 1997
Extracted: May 20, 1997
Analyzed: May 20, 1997
Reported: May 22, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**13**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

Celebrating 10 years of service 1987-1997

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	100%
aaa-Trifluorotoluene	101%

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SI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, MW-7M
Lab Number: 7050349

Sampled: May 9, 1997
Received: May 9, 1997
Extracted: May 20, 1997
Analyzed: May 20, 1997
Reported: May 22, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**13**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

Celebrating 10 years of service 1987-199

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	103%
aaa-Trifluorotoluene	104%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

SI Geotrans
36 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, MW-7FB
Lab Number: 7050348

Sampled: May 9, 19
Received: May 9, 1997
Extracted: May 20, 1997
Analyzed: May 20, 1997
Reported: May 22, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	**0.50**	**0.67**
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	**0.50**	**7.5**
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

Celebrating 10 years of service 1987-1997

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	91%
aaa-Trifluorotoluene	104%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

'SI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, MW-RB2
Lab Number: 7050347

Sampled: May 9, 1997
Received: May 9, 1997
Extracted: May 20, 1997
Analyzed: May 20, 1997
Reported: May 22, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	**0.50**	**0.64**
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	**0.50**	**7.2**
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	99%
aaa-Trifluorotoluene	104%

Celebrating 10 years of service 1987-19

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

SI Geotrans
336 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, WCP-12
Lab Number: 7050346

Sampled: May 9, 19
Received: May 9, 199
Extracted: May 20, 1997
Analyzed: May 20, 1997
Reported: May 22, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	**0.50**	**2.5**
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**0.53**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	**0.50**	**1.5**
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	102%
aaa-Trifluorotoluene	103%

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'SI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, WCP-8
Lab Number: 7050345

Sampled: May 9, 1997
Received: May 9, 1997
Extracted: May 20, 1997
Analyzed: May 20, 1997
Reported: May 22, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	102%
aaa-Trifluorotoluene	101%

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'SI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, MW-4M
Lab Number: 7050298

Sampled: May 8, 1997
Received: May 8, 1997
Extracted: May 19, 1997
Analyzed: May 19, 1997
Reported: May 20, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**12**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

Celebrating 10 years of service 1987-1

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	102%
aaa-Trifluorotoluene	101%

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ISI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, MW-FB2
Lab Number: 7050300

Sampled: May 8, 1997
Received: May 8, 1997
Extracted: May 19, 1997
Analyzed: May 19, 1997
Reported: May 20, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	**0.50**	**0.58**
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	**0.50**	**6.7**
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	103%
aaa-Trifluorotoluene	102%

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ISI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, WCP-10
Lab Number: 7050302

Sampled: May 8, 19
Received: May 8, 1997
Extracted: May 19, 1997
Analyzed: May 19, 1997
Reported: May 20, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**20**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	99%
aaa-Trifluorotoluene	101%

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ISI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, MW-7L
Lab Number: 7050304

Sampled: May 8, 1997
Received: May 8, 1997
Extracted: May 19, 1997
Analyzed: May 19, 1997
Reported: May 20, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	101%
aaa-Trifluorotoluene	101%

Celebrating 10 years of service 1987-19[illegible]

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ISI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Method Blank

Extracted: May 19, 1997
Analyzed: May 19, 1997
Reported: May 20, 1997
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

Celebrating 10 years of service 1987-1997

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	98%
aaa-Trifluorotoluene	101%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 9[illegible]38

LCS DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 05/19/97

Batch #: GE19121W

Analyte	Spike Conc.	Result	% Recovery	ACP
Benzene	5.0	4.8	96	80 - 120 %
Chloroform	5.0	5.4	109	80 - 120 %
1,1-Dichloroethane	5.0	5.4	108	80 - 120 %
1,2-Dichloroethane	5.0	5.3	106	80 - 120 %
1,1-Dichloroethene	5.0	4.6	92	80 - 120 %
Tetrachloroethene	5.0	5.5	109	80 - 120 %
Toluene	5.0	5.0	100	80 - 120 %
Trichloroethene	5.0	5.7	114	80 - 120 %

Definition of Terms

LCS ..... Laboratory Control Sample

Spike Conc ..... Result of Sample Analysis

Result ..... Result of Laboratory Control Sample Analysis

%Recovery ..... Percent Recovery of LCS; ((Result - Spike Conc.) / Spike Conc.) X 100

ACP ..... Acceptance Limits for Percent Recovery

Celebrating 10 years of service 1987-1997

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CHAIN OF CUSTODY FORM

Client Name/Address: HSI GeoTrans

Project/PO Number: N386.67

Project Manager/Phone Number: Steve Smith 858-[illegible]

Sampler: Mark Nielsen 858-[illegible]

Analysis Required: 601/602

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	601/602									Special Instructions
MW-4M	Water	40ml VOA	2	5-8-97 1020	4°C/HCl	X									
MW-4D	Water	VOA	50	5-8-97 1032	4°C/HCl	X									
MW-FB2	Water	VOA	2	5-8-97 1034	4°C/HCl	X									
MW-4MS/MSD	Water	VOA	2	5-8-97 1036	4°C/HCl	X									MS/MSD
MW-4L	Water	VOA	2	5-8-97 1235	4°C/HCl	X									
WCP-10	Water	VOA	2	5-8-97 1350	4°C/HCl	X									
WCP-3	Water	VOA	2	5-8-97 1440	4°C/HCl	X									
MW-7L	Water	VOA	2	5-8-97 1730	4°C/HCl	X									
Trip Blank	Water	VOA	1	5-8-97	4°C/HCl	X									

Relinquished By: [signature] Date /Time: 5-8-97 1800

Relinquished By: Date /Time:

Relinquished By: Date /Time:

Received by: Date /Time:

Received by: Date /Time:

Received in Lab by: [signature] Date /Time: 5/8/97 1800

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact ✓ on ice ✓

Note: Sample(s) will be disposed of after 30 days.

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CHAIN OF CUSTODY FORM

Client Name/Address: HST GeoTrans

Project/PO Number: N 386-107

Project Manager/Phone Number: Steve Smith / 874-3800

Sampler: Mark Nielsen / [illegible]

Analysis Required: 601/602

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	601/602									Special Instructions
MW-PB 1	Water	40ml VOA	-	5-7-97 0700	4°C/HCl	X									
MW-3M	Water	VOA	-	5-7-97 1055	4°C/HCl	X									
MW-3S	Water	VOA	2	5-7-97 1150	4°C/HCl	X									
MW-2S	Water	VOA	2	5-7-97 1400	4°C/HCl	X									
MW-2M	Water	VOA	2	5-7-97 1530	4°C/HCl	X									
MW-7S	Water	VOA	2	5-7-97 1625	4°C/HCl	X									
Trip Blank	Water	VOA	1	5-7-97	4°C/HCl	X									

Relinquished By:	Date /Time:	Received by:	Date /Time:	Turnaround Time: (check)	
Mark Nielsen	5/7/97 17:30			same day ____	72 hours ____
Relinquished By:	Date /Time:	Received by:	Date /Time:	24 hours ____	5 days ____
				48 hours ____	normal X
Relinquished By:	Date /Time:	Received in Lab by:	Date /Time:	Sample Integrity: (Check)	
		[illegible]	17:30 5/7/97	intact ✓	on ice ✓

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LCS DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 05/16/97

Batch #: GE16122W

Analyte	Spike Conc.	Result	% Recovery	ACP
Benzene	5.0	4.7	95	80 - 120 %
Chloroform	5.0	5.6	112	80 - 120 %
1,1-Dichloroethane	5.0	5.4	108	80 - 120 %
1,2-Dichloroethane	5.0	5.3	106	80 - 120 %
1,1-Dichloroethene	5.0	4.7	93	80 - 120 %
Tetrachloroethene	5.0	5.5	111	80 - 120 %
Toluene	5.0	4.9	98	80 - 120 %
Trichloroethene	5.0	5.9	117	80 - 120 %

Definition of Terms

LCS ..... Laboratory Control Sample

Spike Conc ..... Result of Sample Analysis

Result ..... Result of Laboratory Control Sample Analysis

%Recovery ..... Percent Recovery of LCS; ((Result - Spike Conc.) / Spike Conc.) X 100

ACP ..... Acceptance Limits for Percent Recovery

Celebrating 10 years of service 1987-1997

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 05/16/97

Sample #: P7050245

Batch #: GE16121W

Analyte	R1 ppb	Sp ppb	MS ppb	MSD ppb	PR1 %	PR2 %	RPD %	Mean PR %	Acceptance Limits RPD	Acceptance Limits Mean PR
Benzene	0	5.0	4.7	4.7	94	93	0.55	94	<10	86 - 102
Chloroform	0	5.0	5.4	5.3	109	106	2.6	107 *	<10	82 - 106
Dichloroethane	0	5.0	5.4	5.1	107	101	5.7	104	<10	82 - 106
1,2-Dichloroethane	0	5.0	5.3	5.1	105	103	2.8	104	<13	81 - 107
1,1-Dichloroethene	0	5.0	4.7	4.6	94	91	3.0	93	<10	72 - 116
Tetrachloroethene	0	5.0	5.5	5.2	111	105	5.8	108 *	<10	84 - 104
Toluene	0.22	5.0	4.7	4.7	89	89	0.28	89	<10	78 - 110
Trichloroethene	0	5.0	5.6	5.4	111	107	3.9	109	<21	79 - 109

* Refer to LCS for batch validation.

Definition of Terms

R1..... Result of Sample Analysis
Sp..... Spike Concentration added to sample
MS..... Matrix Spike Result
MSD..... Matrix Spike Duplicate Result
PR1..... Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2..... Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR..... Mean Percent Recovery
Acceptance Limits..... Determined by in-house Control Charts

Celebrating 10 years of service 1987-1

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HSI Geotrans
336 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Method Blank

Extracted: May 16, 19
Analyzed: May 16, 1997
Reported: May 19, 1997
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1-Dichloroethene	0.50	N.D.
s-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

Celebrating 10 years of service 1987-199

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	100%
aaa-Trifluorotoluene	102%

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ISI Geotrans
4636 E. University Drive, Ste. 145
Phoenix, AZ 85034
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, Trip Blank
Lab Number: 7050244

Sampled: May 7, 1997
Received: May 7, 1997
Extracted: May 17, 1997
Analyzed: May 17, 1997
Reported: May 19, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

Celebrating 10 years of service 1987-19

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries:	
1-Chloro-3-fluorobenzene	103%
aaa-Trifluorotoluene	100%

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 08/14/97

Sample #: PGH00372

Batch #: GH14121W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Mean PR	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	%	RPD	Mean PR
Benzene	0	5.0	4.5	4.5	91	91	0.042	91	<30	39 - 150
Chloroform	0	5.0	6.0	5.9	120	119	0.80	119	<30	49 - 133
Trichloroethane	0	5.0	5.7	5.6	114	111	2.3	113	<30	47 - 132
1,2-Dichloroethane	0	5.0	5.7	5.6	114	111	2.2	113	<30	51 - 147
1,1-Dichloroethene	0	5.0	4.8	4.9	97	99	2.1	98	<30	28 - 167
Tetrachloroethene	0	5.0	6.0	5.7	120	115	4.3	117	<30	26 - 162
Toluene	0	5.0	4.6	5.2	92	103	11	98	<30	46 - 148
Trichloroethene	0	5.0	6.7	0	134	0	0	67	<30	35 - 146

Definition of Terms

R1. . . . . Result of Sample Analysis
Sp. . . . . Spike Concentration added to sample
MS. . . . . Matrix Spike Result
MSD. . . . . Matrix Spike Duplicate Result
PR1. . . . . Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2. . . . . Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR. . . . . Mean Percent Recovery
Acceptance Limits . . . . . Determined by EPA Method 601/602

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 08/13/97

Sample #: PGH00308

Batch #: GH13121W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Mean PR	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	%	RPD	Mean PR
Benzene	0	5.0	4.3	4.2	87	83	3.5	85	<30	39 - 150
Chloroform	0	5.0	5.4	4.8	109	96	13	102	<30	49 - 133
1,1-Dichloroethane	0	5.0	5.1	4.5	102	90	13	96	<30	47 - 132
1,2-Dichloroethane	0	5.0	5.1	4.5	102	89	13	96	<30	51 - 147
1,1-Dichloroethene	0	5.0	4.6	4.4	93	87	5.7	90	<30	28 - 167
Tetrachloroethene	0	5.0	5.4	4.7	109	95	14	102	<30	26 - 162
Toluene	0	5.0	4.8	4.7	97	94	2.8	95	<30	46 - 148
Trichloroethene	0	5.0	5.5	4.7	110	95	15	102	<30	35 - 146

Definition of Terms

R1..... Result of Sample Analysis
Sp..... Spike Concentration added to sample
MS..... Matrix Spike Result
MSD..... Matrix Spike Duplicate Result
PR1..... Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2..... Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR..... Mean Percent Recovery
Acceptance Limits..... Determined by EPA Method 601/602

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CHAIN OF CUSTODY FORM

Client Name/Address: HSI GeoTrans, 4665 S. Ash Ave., Ste. G-1

Project/PO Number: N 386-107

Project Manager/Phone Number: Steve Smith

Sampler: Phil Odentirk

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	601/602									Special Instructions
MW-6M MS/MSD	AQ	VOA	2	8.8.97/1430	HCL, 4°C	X									Matrix Spike
MW-6MD	AQ	VOA	2	8.8.97/1430	HCL, 4°C	X									
Trip Blank	AQ	VOA	1		HCL, 4°C	X									
~~MW-6FB~~ MW-6M FB	AQ	VOA	2	8.8.97/1430	HCL, 4°C	X									
MW-6M	AQ	VOA	2	8.8.97/1430	HCL, 4°C	X									
MW-2M	AQ	VOA	2	8.8.97/1610	HCL, 4°C	X									

Analysis Required

Relinquished By:	Date /Time:	Received by:	Date /Time:
[signature]	8.8.97/1750		
Relinquished By:	Date /Time:	Received by:	Date /Time:
Relinquished By:	Date /Time:	Received in Lab by: [signature]	Date /Time: 8/08/97 1750

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal ✓

Sample Integrity: (Check)
intact X on ice X

Note: Sample(s) will be disposed of after 30 days.

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SI Geo Trans, Inc.
4665 South Ash Ave.,Ste G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: NE 386-107

Report Number: PGH00371

Sampled: Aug 9, 1997
Received: Aug 11, 1997
Extracted: Aug 14, 1997
Analyzed: Aug 14, 1997
Reported: Aug 15, 1997

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	EPA ANALYSES
PGH00371	MW-3M	Water	601/602
PGH00372	WCP-4	Water	601/602
PGH00373	WCP-8	Water	601/602
PGH00374	Trip Blank	Water	601/602

SAMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation.

HOLDING TIMES: Holding times were met.

PROBLEMS ENCOUNTERED: No problems were encountered during sample analysis.

QA/QC CRITERIA: All QA/QC met acceptance criteria.

OBSERVATIONS: No significant observations were made.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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HSI Geo Trans, Inc.
4665 South Ash Ave.,Ste G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: NE 386-107

Sample Descript: Water, MW-3M
Lab Number: PGH00371

Sampled: Aug 9, 19
Received: Aug 11, 19
Extracted: Aug 14, 1997
Analyzed: Aug 14, 1997
Reported: Aug 15, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**3.1**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	102%
aaa-Trifluorotoluene(80-120).....	101%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

SI Geo Trans, Inc.
4665 South Ash Ave.,Ste G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: NE 386-107

Sample Descript: Water, WCP-4
Lab Number: PGH00372

Sampled: Aug 9, 1997
Received: Aug 11, 1997
Extracted: Aug 14, 1997
Analyzed: Aug 14, 1997
Reported: Aug 15, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**0.58**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	101%
aaa-Trifluorotoluene(80-120).....	102%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

HSI Geo Trans, Inc.
4665 South Ash Ave.,Ste G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: NE 386-107

Sample Descript: Water, WCP-8
Lab Number: PGH00373

Sampled: Aug 9, 19
Received: Aug 11, 19
Extracted: Aug 14, 1997
Analyzed: Aug 14, 1997
Reported: Aug 15, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	**0.50**	**1.0**
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	98%
aaa-Trifluorotoluene(80-120).....	101%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

SI Geo Trans, Inc.
4665 South Ash Ave.,Ste G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: NE 386-107

Sample Descript: Water, Trip Blank
Lab Number: PGH00374

Sampled: Aug 9, 1997
Received: Aug 11, 1997
Extracted: Aug 14, 1997
Analyzed: Aug 14, 1997
Reported: Aug 15, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	99%
aaa-Trifluorotoluene(80-120).....	101%

Celebrating 10 years of service 1987-1997

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

HSI Geo Trans, Inc.
4665 South Ash Ave.,Ste G-1
Tempe, AZ 85282
Attention: Steve Smith

Method Blank

Extracted: Aug 14, 19
Analyzed: Aug 14, 19
Reported: Aug 15, 1997
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accpet. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	99%
aaa-Trifluorotoluene(80-120).....	102%

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 08/14/97

Sample #: PGH00372

Batch #: GH14121W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Mean PR	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	%	RPD	Mean PR
Benzene	0	5.0	4.5	4.5	91	91	0.042	91	<30	39 - 150
Chloroform	0	5.0	6.0	5.9	120	119	0.80	119	<30	49 - 133
chloroethane	0	5.0	5.7	5.6	114	111	2.3	113	<30	47 - 132
1,2-Dichloroethane	0	5.0	5.7	5.6	114	111	2.2	113	<30	51 - 147
1-Dichloroethene	0	5.0	4.8	4.9	97	99	2.1	98	<30	28 - 167
Tetrachloroethene	0	5.0	6.0	5.7	120	115	4.3	117	<30	26 - 162
Toluene	0	5.0	4.6	5.2	92	103	11	98	<30	46 - 148
Trichloroethene	0	5.0	6.7	0	134	0	0	67	<30	35 - 146

Definition of Terms

R1. . . . . Result of Sample Analysis
Sp. . . . . Spike Concentration added to sample
MS. . . . . Matrix Spike Result
MSD. . . . . Matrix Spike Duplicate Result
PR1. . . . . Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2. . . . . Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR. . . . . Mean Percent Recovery
Acceptance Limits . . . . . Determined by EPA Method 601/602

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

CHAIN OF CUSTODY FORM

t Name/Address: HSI GeoTRANS 4665 S. ASH Ave, Ste. G-1 Tempe, AZ 85282

Project/PO Number: N386-107

ect Manager: Steve SMITH

Phone Number: 602-839-2800

pler: Phil Odenkirk

Fax Number: 602-839-2828

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	601/602									Special Instructions
J-3M	AQ	VOA	2	8.9/825	HCL, 4°C	X									
CP-4	AQ	VOA	2	8.9/1500	HCL, 4°C	X									
CP-8	AQ	VOA	2	8.9/1330	HCL, 4°C	X									
Trip Blank	AQ	VOA	1		HCL, 4°C	X									

Analysis Required

quished By: Phil Odenkirk	Date /Time: 8/11/97 /0715	Received by: Matthew Conway	Date /Time: 8/11/97/08:23
quished By: Matthew Conway	Date /Time: 8/11/97/0955	Received by:	Date /Time:
quished By:	Date /Time:	Received in Lab by:	Date /Time: 8/11/97 0955

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact X on ice X

By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is ithin 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

Del Mar Analytical

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

SI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Report Number: PGH00184

Sampled: Aug 5, 1997
Received: Aug 5, 1997
Extracted: Aug 7-8, 1997
Analyzed: Aug 7-8, 1997
Reported: Aug 12, 1997

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	EPA ANALYSES
PGH00184	WCP-13	Water	601 & 602
PGH00185	WCP-13D	Water	601 & 602
PGH00187	WCP-13FB	Water	601 & 602
PGH00188	WOC-EB	Water	601 & 602
PGH00189	WCP-11	Water	601 & 602
PGH00190	MW-3S	Water	601 & 602
PGH00191	MW-1S	Water	601 & 602
PGH00192	MW-6S	Water	601 & 602
PGH00193	WCP-12	Water	601 & 602
PGH00194	Trip Blank	Water	601 & 602

SAMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation.

HOLDING TIMES: Holding times were met.

PROBLEMS ENCOUNTERED: No problems were encountered during sample analysis.

QA/QC CRITERIA: All QA/QC met acceptance criteria.

OBSERVATIONS: No significant observations were made.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Celebrating 10 years of service 1987-1997

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, WCP-13
Lab Number: PGH00184

Sampled: Aug 5, 199
Received: Aug 5, 19
Extracted: Aug 7, 1997
Analyzed: Aug 7, 1997
Reported: Aug 12, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	99%
aaa-Trifluorotoluene(80-120).....	102%

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SI Geo Trans, Inc.
+665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, WCP-13D
Lab Number: PGH00185

Sampled: Aug 5, 1997
Received: Aug 5, 1997
Extracted: Aug 7, 1997
Analyzed: Aug 7, 1997
Reported: Aug 12, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)	99%
aaa-Trifluorotoluene(80-120)	100%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, WCP-13FB
Lab Number: PGH00187

Sampled: Aug 5, 199
Received: Aug 5, 19
Extracted: Aug 7, 1997
Analyzed: Aug 7, 1997
Reported: Aug 12, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	**0.50**	**0.64**
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	**0.50**	**1.4**
Total Xylenes	**1.5**	**3.4**

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

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DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	102%
aaa-Trifluorotoluene(80-120).....	105%

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l Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, WOC-EB
Lab Number: PGH00188

Sampled: Aug 5, 1997
Received: Aug 5, 1997
Extracted: Aug 7, 1997
Analyzed: Aug 7, 1997
Reported: Aug 12, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	**0.50**	**13**
Bromoform	**0.50**	**0.64**
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	**0.50**	**18**
Chloromethane	1.0	N.D.
Dibromochloromethane	**0.50**	**9.1**
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	103%
aaa-Trifluorotoluene(80-120).....	101%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, WCP-11
Lab Number: PGH00189

Sampled: Aug 5, 19
Received: Aug 5, 19
Extracted: Aug 7, 1997
Analyzed: Aug 7, 1997
Reported: Aug 12, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**1.5**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	103%
aaa-Trifluorotoluene(80-120).....	105%

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I Geo Trans, Inc.
65 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, MW-3S
Lab Number: PGH00190

Sampled: Aug 5, 1997
Received: Aug 5, 1997
Extracted: Aug 8, 1997
Analyzed: Aug 8, 1997
Reported: Aug 12, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	105%
aaa-Trifluorotoluene(80-120).....	101%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, MW-1S
Lab Number: PGH00191

Sampled: Aug 5, 19[illegible]
Received: Aug 5, 19[illegible]
Extracted: Aug 8, 1997
Analyzed: Aug 8, 1997
Reported: Aug 12, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	2.5	N.D.
Bromoform	2.5	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	2.5	N.D.
Chlorobenzene	2.5	N.D.
Chloroethane	13	N.D.
2-Chloroethylvinyl ether	13	N.D.
Chloroform	2.5	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	2.5	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
1,1-Dichloroethane	2.5	N.D.
1,2-Dichloroethane	2.5	N.D.
1,1-Dichloroethene	2.5	N.D.
cis-1,2-Dichloroethene	2.5	N.D.
trans-1,2-Dichloroethene	2.5	N.D.
1,2-Dichloropropane	2.5	N.D.
cis-1,3-Dichloropropene	2.5	N.D.
trans-1,3-Dichloropropene	2.5	N.D.
Methylene chloride	50	N.D.
1,1,2,2-Tetrachloroethane	2.5	N.D.
Tetrachloroethene	2.5	N.D.
1,1,1-Trichloroethane	2.5	N.D.
1,1,2-Trichloroethane	2.5	N.D.
Trichloroethene	**2.5**	**73**
Trichlorofluoromethane	2.5	N.D.
Vinyl chloride	5.0	N.D.
Benzene	2.5	N.D.
Ethylbenzene	2.5	N.D.
Toluene	2.5	N.D.
Total Xylenes	7.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 5.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	102%
aaa-Trifluorotoluene(80-120).....	102%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

I Geo Trans, Inc.	Client Project ID: N386-107	Sampled: Aug 5, 1997
665 South Ash Ave., Ste. G-1		Received: Aug 5, 1997
Tempe, AZ 85282	Sample Descript: Water, MW-6S	Extracted: Aug 8, 1997
Attention: Steve Smith	Lab Number: PGH00192	Analyzed: Aug 8, 1997
		Reported: Aug 12, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	**0.50**	**0.52**
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
-Dichloroethane	0.50	N.D.
-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

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DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	101%
aaa-Trifluorotoluene(80-120).....	101%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, WCP-12
Lab Number: PGH00193

Sampled: Aug 5, 199
Received: Aug 5, 19
Extracted: Aug 8, 1997
Analyzed: Aug 8, 1997
Reported: Aug 12, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	**0.50**	**2.1**
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**0.99**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

Celebrating 10 years of service 1987-19

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	106%
aaa-Trifluorotoluene(80-120).....	111%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

GI Geo Trans, Inc.
365 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, Trip Blank
Lab Number: PGH00194

Sampled: Aug 5, 1997
Received: Aug 5, 1997
Extracted: Aug 8, 1997
Analyzed: Aug 8, 1997
Reported: Aug 12, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	107%
aaa-Trifluorotoluene(80-120).....	104%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Method Blank

Extracted: Aug 7, 199
Analyzed: Aug 7, 199
Reported: Aug 12, 199
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accpet. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	106%
aaa-Trifluorotoluene(80-120).....	103%

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I Geo Trans, Inc.
665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Method Blank

Extracted: Aug 8, 1997
Analyzed: Aug 8, 1997
Reported: Aug 12, 1997
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
-Dichloroethane	0.50	N.D.
-Dichloroethene	0.50	N.D.
s-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accpet. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	107%
aaa-Trifluorotoluene(80-120).....	104%

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 08/07/97

Sample #: PGH00186

Batch #: GH07111W

Analyte	R1 ppb	Sp ppb	MS ppb	MSD ppb	PR1 %	PR2 %	RPD %	Mean PR %	Acceptance Limits RPD	Acceptance Limits Mean PR
Benzene	0	5.0	4.8	4.9	96	97	0.74	97	<30	39 - 150
Chloroform	0	5.0	5.8	5.9	115	119	3.0	117	<30	49 - 133
1,1-Dichloroethane	0	5.0	5.5	5.6	110	113	2.3	112	<30	47 - 132
1,2-Dichloroethane	0	5.0	5.2	5.2	103	105	1.2	104	<30	51 - 147
1,1-Dichloroethene	0	5.0	5.5	5.8	110	116	5.2	113	<30	28 - 167
Tetrachloroethene	0	5.0	5.9	5.8	117	115	1.5	116	<30	26 - 162
Toluene	0	5.0	5.1	5.1	101	103	1.4	102	<30	46 - 148
Trichloroethene	0	5.0	6.1	6.5	121	129	6.7	125	<30	35 - 146

Definition of Terms

R1..... Result of Sample Analysis
Sp..... Spike Concentration added to sample
MS..... Matrix Spike Result
MSD..... Matrix Spike Duplicate Result
PR1..... Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2..... Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR..... Mean Percent Recovery
Acceptance Limits..... Determined by EPA Method 601/602

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 08/08/97

Sample #: PGH00192

Batch #: GH08111W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Mean PR	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	%	RPD	Mean PR
Benzene	0	5.0	4.9	4.9	99	97	1.8	98	<30	39 - 150
Chloroform	0	5.0	6.8	6.4	136	129	5.9	132	<30	49 - 133
Chloroethane	0	5.0	6.2	5.8	125	116	7.4	120	<30	47 - 132
1,2-Dichloroethane	0	5.0	5.2	5.1	103	103	0.82	103	<30	51 - 147
1,1-Dichloroethene	0	5.0	6.4	5.8	129	115	11	122	<30	28 - 167
Tetrachloroethene	0	5.0	6.4	5.8	127	116	9.3	122	<30	26 - 162
Toluene	0	5.0	4.9	5.0	99	100	1.5	99	<30	46 - 148
Trichloroethene	0	5.0	6.7	6.3	133	126	5.8	130	<30	35 - 146

Definition of Terms

R1. . . . . Result of Sample Analysis
Sp. . . . . Spike Concentration added to sample
MS. . . . . Matrix Spike Result
MSD. . . . . Matrix Spike Duplicate Result
PR1. . . . . Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2. . . . . Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR. . . . . Mean Percent Recovery
Acceptance Limits . . . . . Determined by EPA Method 601/602

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

CHAIN OF CUSTODY FORM

nt Name/Address: HSI-GeoTrans, Inc

Project/PO Number: N386-107

ect Manager: Steve Smith

Phone Number: 839-2800

npler: P. Odenkirk

Fax Number: 839-2828

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Analysis Required: 601/602									Special Instructions
ICP-13	Aqueous	VOA	2	8-5/745		X									
VCP-13D				8-5/745		X									
VCP-13 MS/MSD				8-5/745		X									Matrix Spike
VCP-13FB				8-5/750		X									
IOC-EB				8-5/830		X									Equipment Blank
ICP-11				8-5/940		X									
IW-35				8-5/1130		X									
IW-15				8-5/1300		X									
IW-65				8-5/1425		X									
CP-12				8-5/1540		X									
Eip Blank	Aqueous	VOA	1	~~8-5~~		X									

quished By:	Date /Time: 8-5-97 / 17:44	Received by:	Date /Time:
quished By:	Date /Time:	Received by:	Date /Time:
quished By:	Date /Time:	Received in Lab by:	Date /Time: 8/05/97 1744

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal ✓

Sample Integrity: (Check)
intact X on ice X

By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

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l Geo Trans, Inc.
,665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Report Number: PGH00424

Sampled: Aug 5, 1997
Relogged: Aug 12, 1997
Extracted: Aug 14, 1997
Analyzed: Aug 14, 1997
Reported: Aug 15, 1997

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	EPA ANALYSES
PGH00424	MW-1S	Water	601 & 602

SAMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation.

HOLDING TIMES: Holding times were met.

PROBLEMS ENCOUNTERED: No problems were encountered during sample analysis.

QA/QC CRITERIA: All QA/QC met acceptance criteria.

OBSERVATIONS: Trichloroethene has been reported as an Estimated Value. No other significant observations were made.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, MW-1S
Lab Number: PGH00424

Sampled: Aug 5, 19
Received: Aug 12, 19
Extracted: Aug 14, 1997
Analyzed: Aug 14, 1997
Reported: Aug 15, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	**0.50**	**0.54**
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	**0.50**	**1.3**
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	**0.50**	**0.70**
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**62****
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

**Estimated Value. Concentration is not within reportable calibration range.
Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	90%
aaa-Trifluorotoluene(80-120).....	103%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

l Geo Trans, Inc.
665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Method Blank

Extracted: Aug 14, 1997
Analyzed: Aug 14, 1997
Reported: Aug 15, 1997
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
-Dichloroethane	0.50	N.D.
-Dichloroethene	0.50	N.D.
is-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accpet. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	99%
aaa-Trifluorotoluene(80-120).....	102%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 08/14/97

Sample #: PGH00372

Batch #: GH14121W

Analyte	R1 ppb	Sp ppb	MS ppb	MSD ppb	PR1 %	PR2 %	RPD %	Mean PR %	Acceptance Limits RPD	Acceptance Limits Mean PR
Benzene	0	5.0	4.5	4.5	91	91	0.042	91	<30	39 - 150
Chloroform	0	5.0	6.0	5.9	120	119	0.80	119	<30	49 - 133
1,1-Dichloroethane	0	5.0	5.7	5.6	114	111	2.3	113	<30	47 - 132
1,2-Dichloroethane	0	5.0	5.7	5.6	114	111	2.2	113	<30	51 - 147
1,1-Dichloroethene	0	5.0	4.8	4.9	97	99	2.1	98	<30	28 - 167
Tetrachloroethene	0	5.0	6.0	5.7	120	115	4.3	117	<30	26 - 162
Toluene	0	5.0	4.6	5.2	92	103	11	98	<30	46 - 148
Trichloroethene	0	5.0	6.7	0	134	0	0	67	<30	35 - 146

Definition of Terms

R1..... Result of Sample Analysis
Sp..... Spike Concentration added to sample
MS..... Matrix Spike Result
MSD..... Matrix Spike Duplicate Result
PR1..... Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2..... Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR..... Mean Percent Recovery
Acceptance Limits..... Determined by EPA Method 601/602

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18525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (81[illegible]) [illegible] FAX (818) [illegible]79-1843
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (61[illegible]) [illegible]596 FAX (619) 505-9689
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1[illegible]38

CHAIN OF CUSTODY FORM

Client Name/Address: HSI-GEOTRANS INC

Project/PO Number: N 35[illegible]-107

Project Manager: STEVE SMITH

Phone Number: 839-2710

Sampler: P. Cederkirk

Fax Number: 839-2828

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Analysis Required: 601/602									Special Instructions
DCP-13	Aqueous	VOA	2	8-5/745		X									
NCP-13D				8-5/745		X									
NCP-13 MS/MSD				8-5/745		X									Matrix Spike
NCP-13FB				8-5/750		X									
DOC-EB				8-5/830		X									Equipment Blank
DCP-11				8-5/940		X									
MW-35				8-5/1130		X									
MW-15				8-5/1300		X									
MW-65				8-5/1425		X									
DCP-12				8-5/1540		X									
Eqp Blank	Aqueous	VOA	1	~~8-5~~		X									

Relinquished By:	Date /Time:	Received by:	Date /Time:
[signature]	8-5-97 / 17:44		
Relinquished By:	Date /Time:	Received by:	Date /Time:
Relinquished By:	Date /Time:	Received in Lab by: [signature]	Date /Time: 8/05/97 1744

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal ✓

Sample Integrity: (Check)
intact X on ice X

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

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SI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Report Number: PGH00395

Sampled: Aug 4, 1997
Relogged: Aug 12, 1997
Extracted: Aug 14, 1997
Analyzed: Aug 14, 1997
Reported: Aug 15, 1997

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	EPA ANALYSES
PGH00395	MW-5S	Water	601/602

SAMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation.

HOLDING TIMES: Holding times were met.

PROBLEMS ENCOUNTERED: No problems were encountered during sample analysis.

QA/QC CRITERIA: All QA/QC met acceptance criteria.

OBSERVATIONS: Trichloroethene has been reported as an Estimated Value. No other significant observations were made.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, MW-5S
Lab Number: PGH00395

Sampled: Aug 4, 19[illegible]
Relogged: Aug 12, 19[illegible]
Extracted: Aug 14, 1997
Analyzed: Aug 14, 1997
Reported: Aug 15, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	**0.50**	**0.60**
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	**0.50**	**24**
cis-1,2-Dichloroethene	**0.50**	**1.4**
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	**0.50**	**5.2**
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**110****
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

**Estimated Value. Concentration is not within reportable calibration range.
Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	94%
aaa-Trifluorotoluene(80-120).....	102%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Method Blank

Extracted: Aug 14, 1997
Analyzed: Aug 14, 1997
Reported: Aug 15, 1997
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accpet. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	99%
aaa-Trifluorotoluene(80-120).....	102%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 08/14/97

Sample #: PGH00372

Batch #: GH14121W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Mean PR	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	%	RPD	Mean PR
Benzene	0	5.0	4.5	4.5	91	91	0.042	91	<30	39 - 150
Chloroform	0	5.0	6.0	5.9	120	119	0.80	119	<30	49 - 133
1,1-Dichloroethane	0	5.0	5.7	5.6	114	111	2.3	113	<30	47 - 132
1,2-Dichloroethane	0	5.0	5.7	5.6	114	111	2.2	113	<30	51 - 147
1,1-Dichloroethene	0	5.0	4.8	4.9	97	99	2.1	98	<30	28 - 167
Tetrachloroethene	0	5.0	6.0	5.7	120	115	4.3	117	<30	26 - 162
Toluene	0	5.0	4.6	5.2	92	103	11	98	<30	46 - 148
Trichloroethene	0	5.0	6.7	0	134	0	0	67	<30	35 - 146

Definition of Terms

R1..... Result of Sample Analysis
Sp..... Spike Concentration added to sample
MS..... Matrix Spike Result
MSD..... Matrix Spike Duplicate Result
PR1..... Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2..... Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR..... Mean Percent Recovery
Acceptance Limits..... Determined by EPA Method 601/602

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CHAIN OF CUSTODY FORM

ent Name/Address: HSI GeoTrans

Project/PO Number: N386-107

oject Manager/Phone Number: teve Smith / 839-2800

Sampler: Mark Nielsen / 839-2800

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	Analysis Required: 601/602									Special Instructions
NCP-10	GW	40mNA	2	8/4/97 0950	4°/HCl	X									
NCP-3	GW	VOA	2	8/4/97 1050	4°/HCl	X									
MW-5S	GW	VOA	2	8/4/97 1450	4°/HCl	X									
MW-4S	GW	VOA	2	8/4/97 1500	4°/HCl	X									
MW-2S	GW	VOA	2	8/4/97 1620	4°/HCl	X									
MW-7S	GW	VOA	2	8/4/97 1715	4°/HCl	X									
NCP-14	GW	VOA	2	8/4/97 1845	4°/HCl	X									
Trip Blank	Water	VOA	1		4°/HCl	X									

quished By: Mark Nielsen	Date /Time: 8/4/97 4:30 pm	Received by: O Richardson	Date /Time: 8/5/97 0900
quished By:	Date /Time: 8-5-97 0900	Received by:	Date /Time:
quished By: O Richardson 8/5/97	Date /Time: 0910	Received in Lab by: M. Valdez	Date /Time: 8-5-97 9:10

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact X on ice X

: Sample(s) will be disposed of after 30 days.

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SI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Report Number: PGK00558

Sampled: Nov 13, 1997
Received: Nov 13, 1997
Extracted: Nov 17-18, 1997
Analyzed: Nov 17-18, 1997
Reported: Nov 20, 1997

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	EPA ANALYSES
PGK00558	MW-FB1	Water	601 & 602
PGK00559	MW-5S	Water	601 & 602
PGK00560	MW-5SD	Water	601 & 602
PGK00561	WCP-14	Water	601 & 602
PGK00562	WCP-13	Water	601 & 602
PGK00563	WCP-8	Water	601 & 602
PGK00564	MW-7S	Water	601 & 602
PGK00565	Trip Blank	Water	601 & 602

SAMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation.

HOLDING TIMES: Holding times were met.

PROBLEMS ENCOUNTERED: No problems were encountered during sample analysis.

QA/QC CRITERIA: All QA/QC met acceptance criteria.

OBSERVATIONS: No significant observations were made.

Celebrating 10 years of service 1987-1997

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, MW-FB1
Lab Number: PGK00558

Sampled: Nov 13, 1[illegible]
Received: Nov 13, 19[illegible]
Extracted: Nov 18, 1997
Analyzed: Nov 18, 1997
Reported: Nov 20, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	85%
aaa-Trifluorotoluene(80-120).....	106%

Celebrating 10 years of service 1987-19[illegible]

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

SI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, MW-5S
Lab Number: PGK00559

Sampled: Nov 13, 1997
Received: Nov 13, 1997
Extracted: Nov 18, 1997
Analyzed: Nov 18, 1997
Reported: Nov 20, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	2.5	N.D.
Bromoform	2.5	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	2.5	N.D.
Chlorobenzene	2.5	N.D.
Chloroethane	13	N.D.
Chloroform	2.5	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	2.5	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
1,1-Dichloroethane	2.5	N.D.
1,2-Dichloroethane	2.5	N.D.
1,1-Dichloroethene	**2.5**	**14**
cis-1,2-Dichloroethene	2.5	N.D.
trans-1,2-Dichloroethene	2.5	N.D.
1,2-Dichloropropane	2.5	N.D.
cis-1,3-Dichloropropene	2.5	N.D.
trans-1,3-Dichloropropene	2.5	N.D.
Methylene chloride	50	N.D.
1,1,2,2-Tetrachloroethane	2.5	N.D.
Tetrachloroethene	**2.5**	**3.4**
1,1,1-Trichloroethane	2.5	N.D.
1,1,2-Trichloroethane	2.5	N.D.
Trichloroethene	**2.5**	**97**
Trichlorofluoromethane	2.5	N.D.
Vinyl chloride	5.0	N.D.
Benzene	2.5	N.D.
Ethylbenzene	2.5	N.D.
Toluene	2.5	N.D.
Total Xylenes	7.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 5.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Celebrating 10 years of service 1987-1997

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	95%
aaa-Trifluorotoluene(80-120).....	103%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, MW-5SD
Lab Number: PGK00560

Sampled: Nov 13, 1
Received: Nov 13, 1
Extracted: Nov 18, 1997
Analyzed: Nov 18, 1997
Reported: Nov 20, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	2.5	N.D.
Bromoform	2.5	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	2.5	N.D.
Chlorobenzene	2.5	N.D.
Chloroethane	13	N.D.
Chloroform	2.5	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	2.5	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
1,1-Dichloroethane	2.5	N.D.
1,2-Dichloroethane	2.5	N.D.
1,1-Dichloroethene	**2.5**	**14**
cis-1,2-Dichloroethene	2.5	N.D.
trans-1,2-Dichloroethene	2.5	N.D.
1,2-Dichloropropane	2.5	N.D.
cis-1,3-Dichloropropene	2.5	N.D.
trans-1,3-Dichloropropene	2.5	N.D.
Methylene chloride	50	N.D.
1,1,2,2-Tetrachloroethane	2.5	N.D.
Tetrachloroethene	**2.5**	**3.2**
1,1,1-Trichloroethane	2.5	N.D.
1,1,2-Trichloroethane	2.5	N.D.
Trichloroethene	**2.5**	**94**
Trichlorofluoromethane	2.5	N.D.
Vinyl chloride	5.0	N.D.
Benzene	2.5	N.D.
Ethylbenzene	2.5	N.D.
Toluene	2.5	N.D.
Total Xylenes	7.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 5.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	99%
aaa-Trifluorotoluene(80-120).....	107%

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SI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, WCP-14
Lab Number: PGK00561

Sampled: Nov 13, 1997
Received: Nov 13, 1997
Extracted: Nov 18, 1997
Analyzed: Nov 18, 1997
Reported: Nov 20, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	93%
aaa-Trifluorotoluene(80-120).....	103%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, WCP-13
Lab Number: PGK00562

Sampled: Nov 13, 19
Received: Nov 13, 19
Extracted: Nov 18, 1997
Analyzed: Nov 18, 1997
Reported: Nov 20, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	94%
aaa-Trifluorotoluene(80-120).....	103%

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ISI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, WCP-8
Lab Number: PGK00563

Sampled: Nov 13, 1997
Received: Nov 13, 1997
Extracted: Nov 18, 1997
Analyzed: Nov 18, 1997
Reported: Nov 20, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
-Dichloroethene	0.50	N.D.
s-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

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DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	103%
aaa-Trifluorotoluene(80-120).....	105%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, MW-7S
Lab Number: PGK00564

Sampled: Nov 13, 19[illegible]
Received: Nov 13, 1997
Extracted: Nov 18, 1997
Analyzed: Nov 18, 1997
Reported: Nov 20, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)	101%
aaa-Trifluorotoluene(80-120)	104%

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GI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, Trip Blank
Lab Number: PGK00565

Sampled: Nov 13, 1997
Received: Nov 13, 1997
Extracted: Nov 17, 1997
Analyzed: Nov 17, 1997
Reported: Nov 20, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)	96%
aaa-Trifluorotoluene(80-120)	103%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Method Blank

Extracted: Nov 17, 1
Analyzed: Nov 17, 1
Reported: Nov 20, 1997
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accpet. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	93%
aaa-Trifluorotoluene(80-120).....	104%

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.SI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Method Blank

Extracted: Nov 18, 1997
Analyzed: Nov 18, 1997
Reported: Nov 20, 1997
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
-Dichloroethene	0.50	N.D.
s-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

Celebrating 10 years of service 1987-1997

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accpet. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	89%
aaa-Trifluorotoluene(80-120).....	102%

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 11/17/97

Sample #: PGK00416

Batch #: GK177B1W

Analyte	R1 ppb	Sp ppb	MS ppb	MSD ppb	PR1 %	PR2 %	RPD %	Mean PR %	Acceptance Limits RPD	Acceptance Limits Mean PR
Benzene	0	5.0	4.8	4.9	97	97	0.65	97	<30	39 - 150
Chloroform	0	5.0	5.4	5.4	108	108	0.036	108	<30	49 - 133
1,1-Dichloroethane	0	5.0	5.1	5.2	102	103	1.0	103	<30	47 - 132
1,2-Dichloroethane	0	5.0	5.2	5.2	103	104	0.93	104	<30	51 - 147
1,1-Dichloroethene	0	5.0	4.7	4.7	94	94	0.27	94	<30	28 - 167
Tetrachloroethene	0	5.0	5.3	5.5	106	111	4.6	108	<30	26 - 162
Toluene	0.41	5.0	5.2	5.2	96	96	0.37	96	<30	46 - 148
Trichloroethene	0.011	5.0	5.0	5.2	100	103	2.7	102	<30	35 - 146

Definition of Terms

R1..... Result of Sample Analysis
Sp..... Spike Concentration added to sample
MS..... Matrix Spike Result
MSD..... Matrix Spike Duplicate Result
PR1..... Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2..... Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR..... Mean Percent Recovery
Acceptance Limits..... Determined by EPA Method 601/602

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 11/18/97

Sample #: PGK00558

Batch #: GK187B1W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Mean PR	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	%	RPD	Mean PR
Benzene	0.048	5.0	4.8	4.8	96	95	0.99	95	<30	39 - 150
h[illegible]form	0	5.0	5.0	5.0	100	100	0.19	100	<30	49 - 133
1, [illegible]ichloroethane	0	5.0	4.3	4.8	87	97	11	92	<30	47 - 132
[illegible]2-Dichloroethane	0	5.0	4.8	4.9	96	98	2.1	97	<30	51 - 147
[illegible],1-Dichloroethene	0	5.0	4.4	4.6	87	91	4.2	89	<30	28 - 167
Tetrachloroethene	0.0041	5.0	4.9	5.5	98	111	12	104	<30	26 - 162
[illegible]oluene	0.47	5.0	5.2	5.1	94	93	0.76	93	<30	46 - 148
Trichloroethene	0.22	5.0	4.8	4.8	91	92	1.0	91	<30	35 - 146

Definition of Terms

R1. . . . . Result of Sample Analysis
Sp. . . . . Spike Concentration added to sample
MS. . . . . Matrix Spike Result
MSD. . . . . Matrix Spike Duplicate Result
PR1. . . . . Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2. . . . . Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
[illegible]ean PR. . . . . Mean Percent Recovery
[illegible]cceptance Limits . . . . . Determined by EPA Method 601/602

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

CHAIN OF CUSTODY FORM

Client Name/Address: HSI GeoTrans, 4665 S. Ash Ave, G-1, Tempe, AZ 85282

Project/PO Number: ~~J014~~ N386-107

Project Manager/Phone Number: Steve Smith/839-2800

Sampler: P. Odenkirk

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	Analysis Required: 601/602									Special Instructions
MW-FB1	AQ	VOA	2	11·13·97/1110	HCL	X									
MW-5S	AQ	VOA	2	11·13·97/1115	4°C/HCL	X									
MW-5S MS/MSD	AQ	VOA	2	11·13·97/1120	HCL	X									Matrix Spike/Dup.
MW-5SD	AQ	VOA	2	11·13·97/1125	HCL	X									
WCP-14	AQ	VOA	2	11·13·97/1300	HCL	X									
WCP-13	AQ	VOA	2	11·13·97/1435	HCL	X									
WCP-8	AQ	VOA	2	11·13·97/1530	HCL	X									
MW-7S	AQ	VOA	2	11·13·97/1700	HCL	X									
Trip Blank	AQ	VOA	1	---	HCL	X									

Relinquished By: [signature] Date /Time: 11·13·97/1747

Received by: Date /Time:

Relinquished By: Date /Time:

Received by: Date /Time:

Relinquished By: Date /Time:

Received in Lab by: [signature] Date /Time: 11/13/97 1747

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact X on ice ____

Sam[illegible] will be [illegible]sed [illegible] 30 d[illegible]

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SI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Report Number: PGK00675

Sampled: Nov 14, 1997
Received: Nov 14, 1997
Extracted: Nov 17-18, 1997
Analyzed: Nov 17-18, 1997
Reported: Nov 20, 1997

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	EPA ANALYSES
PGK00675	EB-1	Water	601 & 602
PGK00676	WCP-11	Water	601 & 602
PGK00677	WCP-4	Water	601 & 602
PGK00678	WCP-10	Water	601 & 602
PGK00679	WCP-12	Water	601 & 602
PGK00680	Trip Blank	Water	601 & 602

SAMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation.

HOLDING TIMES: Holding times were met.

PROBLEMS ENCOUNTERED: No problems were encountered during sample analysis.

QA/QC CRITERIA: All QA/QC met acceptance criteria.

OBSERVATIONS: No significant observations were made.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Celebrating 10 years of service 1987-1997

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, EB-1
Lab Number: PGK00675

Sampled: Nov 14, 19
Received: Nov 14, 19
Extracted: Nov 18, 1997
Analyzed: Nov 18, 1997
Reported: Nov 20, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	**0.50**	**0.55**
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	**0.50**	**1.1**
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	100%
aaa-Trifluorotoluene(80-120).....	104%

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SI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, WCP-11
Lab Number: PGK00676

Sampled: Nov 14, 1997
Received: Nov 14, 1997
Extracted: Nov 18, 1997
Analyzed: Nov 18, 1997
Reported: Nov 20, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**2.1**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	97%
aaa-Trifluorotoluene(80-120).....	103%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, WCP-4
Lab Number: PGK00677

Sampled: Nov 14, 19
Received: Nov 14, 19
Extracted: Nov 18, 1997
Analyzed: Nov 18, 1997
Reported: Nov 20, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**0.76**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	98%
aaa-Trifluorotoluene(80-120).....	106%

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SI Geo Trans, Inc.	Client Project ID: N386-107	Sampled: Nov 14, 1997
4665 South Ash Ave., Ste. G-1		Received: Nov 14, 1997
Tempe, AZ 85282	Sample Descript: Water, WCP-10	Extracted: Nov 18, 1997
Attention: Steve Smith	Lab Number: PGK00678	Analyzed: Nov 18, 1997
		Reported: Nov 20, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	1.0	N.D.
Bromoform	1.0	N.D.
Bromomethane	2.0	N.D.
Carbon tetrachloride	1.0	N.D.
Chlorobenzene	1.0	N.D.
Chloroethane	5.0	N.D.
Chloroform	1.0	N.D.
Chloromethane	2.0	N.D.
Dibromochloromethane	1.0	N.D.
1,2-Dichlorobenzene	2.0	N.D.
1,3-Dichlorobenzene	2.0	N.D.
1,4-Dichlorobenzene	2.0	N.D.
1,1-Dichloroethane	1.0	N.D.
1,2-Dichloroethane	1.0	N.D.
1,1-Dichloroethene	1.0	N.D.
cis-1,2-Dichloroethene	1.0	N.D.
trans-1,2-Dichloroethene	1.0	N.D.
1,2-Dichloropropane	1.0	N.D.
cis-1,3-Dichloropropene	1.0	N.D.
trans-1,3-Dichloropropene	1.0	N.D.
Methylene chloride	20	N.D.
1,1,2,2-Tetrachloroethane	1.0	N.D.
Tetrachloroethene	1.0	N.D.
1,1,1-Trichloroethane	1.0	N.D.
1,1,2-Trichloroethane	1.0	N.D.
Trichloroethene	**1.0**	**29**
Trichlorofluoromethane	1.0	N.D.
Vinyl chloride	2.0	N.D.
Benzene	1.0	N.D.
Ethylbenzene	1.0	N.D.
Toluene	1.0	N.D.
Total Xylenes	3.0	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 2.

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DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	93%
aaa-Trifluorotoluene(80-120).....	103%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, WCP-12
Lab Number: PGK00679

Sampled: Nov 14, 19
Received: Nov 14, 1
Extracted: Nov 18, 1997
Analyzed: Nov 18, 1997
Reported: Nov 20, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	**0.50**	**1.4**
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**0.74**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

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DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	98%
aaa-Trifluorotoluene(80-120).....	105%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

SI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, Trip Blank
Lab Number: PGK00680

Sampled: Nov 14, 1997
Received: Nov 14, 1997
Extracted: Nov 18, 1997
Analyzed: Nov 18, 1997
Reported: Nov 20, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
-Dichloroethene	0.50	N.D.
s-1,2-Dichloroethene	0.50	N.D.
rans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

Celebrating 10 years of service 1987-1997

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	84%
aaa-Trifluorotoluene(80-120).....	104%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Method Blank

Extracted: Nov 17, 1
Analyzed: Nov 17, 1
Reported: Nov 20, 1997
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accpet. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	93%
aaa-Trifluorotoluene(80-120).....	104%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

I Geo Trans, Inc.
665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Method Blank

Extracted: Nov 18, 1997
Analyzed: Nov 18, 1997
Reported: Nov 20, 1997
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accpet. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	89%
aaa-Trifluorotoluene(80-120).....	102%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 11/18/97

Sample #: PGK00558

Batch #: GK187B1W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Mean PR	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	%	RPD	Mean PR
Benzene	0.048	5.0	4.8	4.8	96	95	0.99	95	<30	39 - 150
Chloroform	0	5.0	5.0	5.0	100	100	0.19	100	<30	49 - 133
1,1-Dichloroethane	0	5.0	4.3	4.8	87	97	11	92	<30	47 - 132
1,2-Dichloroethane	0	5.0	4.8	4.9	96	98	2.1	97	<30	51 - 147
1,1-Dichloroethene	0	5.0	4.4	4.6	87	91	4.2	89	<30	28 - 167
Tetrachloroethene	0.0041	5.0	4.9	5.5	98	111	12	104	<30	26 - 162
Toluene	0.47	5.0	5.2	5.1	94	93	0.76	93	<30	46 - 148
Trichloroethene	0.22	5.0	4.8	4.8	91	92	1.0	91	<30	35 - 146

Definition of Terms

R1..... Result of Sample Analysis
Sp..... Spike Concentration added to sample
MS..... Matrix Spike Result
MSD..... Matrix Spike Duplicate Result
PR1..... Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2..... Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR..... Mean Percent Recovery
Acceptance Limits..... Determined by EPA Method 601/602

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CHAIN OF CUSTODY FORM

Client Name/Address: HSI GeoTrans, 4665 S Ash Ave., G-1, Tempe, AZ 85282

Project/PO Number: N386-107

Project Manager/Phone Number: Steve Smith / 839-2800

Sampler: P. Olentirk

Analysis Required: 601/602

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	601/602									Special Instructions
EB-1	AQ	VOA	2	11-14-97/0900	HCL	X									
WCP-11	AQ	VOA	2	11-14-97/1115	HCL	X									
WCP-4	AQ	VOA	2	11-14-97/1230	HCL	X									
WCP-10	AQ	VOA	2	11-14-97/1550	HCL	X									
WCP-12	AQ	VOA	2	11-14-97/1420	HCL	X									
Trip Blank	AQ	VOA	1	—	HCL	X									

Relinquished By: [signature] Date /Time: 11-14-97/1645

Received by: Date /Time:

Relinquished By: Date /Time:

Received by: Date /Time:

Relinquished By: Date /Time:

Received in Lab by: [signature] Date /Time: 11/14/97 1645

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact ✓ on ice ✓

Note: Sample(s) will be disposed of after 30 days

N386 107 file

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-3401

Del Mar Analytical

...l Geo Trans, Inc.	Client Project ID: N386-107	Sampled: Nov 17, 1997
4665 South Ash Ave., Ste. G-1		Received: Nov 18, 1997
Tempe, AZ 85282		Extracted: Nov 24, 1997
Attention: Steve Smith	Report Number: PGK00698	Analyzed: Nov 24, 1997
		Reported: Nov 25, 1997

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	EPA ANALYSES
PGK00698	MW-4S	Water	601 & 602
PGK00699	EB-2	Water	601 & 602
PGK00700	MW-4M	Water	601 & 602
PGK00701	WCP-3	Water	601 & 602
PGK00702	MW-6S	Water	601 & 602
PGK00703	Trip Blank	Water	601 & 602
PGK00704	MW-44	Water	601 & 602

SAMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation.

HOLDING TIMES: Holding times were met.

PROBLEMS ENCOUNTERED: No problems were encountered during sample analysis.

QA/QC CRITERIA: All QA/QC met acceptance criteria.

OBSERVATIONS: No significant observations were made.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-3401

HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, MW-4S
Lab Number: PGK00698

Sampled: Nov 17, 19
Received: Nov 18, 19
Extracted: Nov 24, 1997
Analyzed: Nov 24, 1997
Reported: Nov 25, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	5.0	N.D.
Bromoform	5.0	N.D.
Bromomethane	10	N.D.
Carbon tetrachloride	5.0	N.D.
Chlorobenzene	5.0	N.D.
Chloroethane	25	N.D.
Chloroform	5.0	N.D.
Chloromethane	10	N.D.
Dibromochloromethane	5.0	N.D.
1,2-Dichlorobenzene	10	N.D.
1,3-Dichlorobenzene	10	N.D.
1,4-Dichlorobenzene	10	N.D.
1,1-Dichloroethane	5.0	N.D.
1,2-Dichloroethane	5.0	N.D.
1,1-Dichloroethene	5.0	N.D.
cis-1,2-Dichloroethene	5.0	N.D.
trans-1,2-Dichloroethene	5.0	N.D.
1,2-Dichloropropane	5.0	N.D.
cis-1,3-Dichloropropene	5.0	N.D.
trans-1,3-Dichloropropene	5.0	N.D.
Methylene chloride	100	N.D.
1,1,2,2-Tetrachloroethane	5.0	N.D.
Tetrachloroethene	**5.0**	**5.5**
1,1,1-Trichloroethane	5.0	N.D.
1,1,2-Trichloroethane	5.0	N.D.
Trichloroethene	**5.0**	**170**
Trichlorofluoromethane	5.0	N.D.
Vinyl chloride	10	N.D.
Benzene	5.0	N.D.
Ethylbenzene	5.0	N.D.
Toluene	5.0	N.D.
Total Xylenes	15	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 10.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	100%
aaa-Trifluorotoluene(80-120).....	103%

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SI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, EB-2
Lab Number: PGK00699

Sampled: Nov 17, 1997
Received: Nov 18, 1997
Extracted: Nov 24, 1997
Analyzed: Nov 24, 1997
Reported: Nov 25, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	**0.50**	**0.91**
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	107%
aaa-Trifluorotoluene(80-120).....	109%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, MW-4M
Lab Number: PGK00700

Sampled: Nov 17, 19[illegible]
Received: Nov 18, 199[illegible]
Extracted: Nov 24, 1997
Analyzed: Nov 24, 1997
Reported: Nov 25, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**8.3**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	111%
aaa-Trifluorotoluene(80-120).....	114%

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SI Geo Trans, Inc.
665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, WCP-3
Lab Number: PGK00701

Sampled: Nov 17, 1997
Received: Nov 18, 1997
Extracted: Nov 24, 1997
Analyzed: Nov 24, 1997
Reported: Nov 25, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
-Dichloroethene	0.50	N.D.
s-1,2-Dichloroethene	0.50	N.D.
ans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**0.68**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	107%
aaa-Trifluorotoluene(80-120).....	110%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-3401

HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, MW-6S
Lab Number: PGK00702

Sampled: Nov 17, 199
Received: Nov 18, 199
Extracted: Nov 24, 1997
Analyzed: Nov 24, 1997
Reported: Nov 25, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	112%
aaa-Trifluorotoluene(80-120).....	115%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-3401

SI Geo Trans, Inc.
.665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, Trip Blank
Lab Number: PGK00703

Sampled: Nov 17, 1997
Received: Nov 18, 1997
Extracted: Nov 24, 1997
Analyzed: Nov 24, 1997
Reported: Nov 25, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
-Dichloroethene	0.50	N.D.
s-1,2-Dichloroethene	0.50	N.D.
ans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	106%
aaa-Trifluorotoluene(80-120).....	108%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, MW-44
Lab Number: PGK00704

Sampled: Nov 17, 19[illegible]
Received: Nov 18, 19[illegible]
Extracted: Nov 24, 1997
Analyzed: Nov 24, 1997
Reported: Nov 25, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**7.8**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	103%
aaa-Trifluorotoluene(80-120).....	109%

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GI Geo Trans, Inc.
665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Method Blank

Extracted: Nov 24, 1997
Analyzed: Nov 24, 1997
Reported: Nov 25, 1997
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accpet. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	100%
aaa-Trifluorotoluene(80-120).....	104%

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 11/24/97

Sample #: PGK00699

Batch #: GK24121W

Analyte	R1 ppb	Sp ppb	MS ppb	MSD ppb	PR1 %	PR2 %	RPD %	Mean PR %	Acceptance Limits RPD	Acceptance Limits Mean PR
Benzene	0	5.0	4.5	4.5	90	90	0.092	90	<30	39 - 150
Chloroform	0.26	5.0	6.0	6.1	114	118	2.6	116	<30	49 - 133
1,1-Dichloroethane	0	5.0	5.5	5.7	110	114	3.5	112	<30	47 - 132
1,2-Dichloroethane	0	5.0	5.3	5.4	106	109	2.6	107	<30	51 - 147
1,1-Dichloroethene	0	5.0	4.7	4.7	95	94	0.68	94	<30	28 - 167
Tetrachloroethene	0.0041	5.0	5.8	5.9	116	118	1.7	117	<30	26 - 162
Toluene	0.42	5.0	5.2	5.3	96	97	1.5	96	<30	46 - 148
Trichloroethene	0	5.0	5.7	5.8	115	115	0.35	115	<30	35 - 146

Definition of Terms

R1..... Result of Sample Analysis
Sp..... Spike Concentration added to sample
MS..... Matrix Spike Result
MSD..... Matrix Spike Duplicate Result
PR1..... Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2..... Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR..... Mean Percent Recovery
Acceptance Limits..... Determined by EPA Method 601/602

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CHAIN OF CUSTODY FORM

lient Name/Address: HSI GeoTrans 4665 S. Ash Ave., Ste. G-1 Tempe, AZ 85282

Project/PO Number: N386-107

roject Manager/Phone Number: Steve Smith / 839-2800

Sampler: P. Odekirk

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	Analysis Required: 601/608									Special Instructions
MW-4S	AQ	VOA	2	11-17-97/930	HCL	X									
EB-2	AQ	VOA	2	11-17-97/1000	HCL	X									
MW-4M	AQ	VOA	2	11-17-97/1210	HCL	X									
NCP-3	AQ	VOA	2	11-17-97/1350	HCL	X									
MW-6S	AQ	VOA	2	11-17-97/1445	HCL	X									
Trip Blank	AQ	VOA	1	—	HCL	X									
MW-44	AQ	VOA	2	11-17-97/1245	HCL	X									

linquished By:	Date /Time:	Received by:	Date /Time:	Turnaround Time: (check)	
[signature]	11-18-97 / 1430	[signature]	11-18-97 1130	same day ____	72 hours ____
linquished By:	Date /Time:	Received by:	Date /Time:	24 hours ____	5 days ____
				48 hours ____	normal X
linquished By:	Date /Time:	Received in Lab by:	Date /Time:	Sample Integrity: (Check)	
[signature]	11/18/97 1151	[signature]	11/18/97 1151	intact X	on ice X

te: Sample(s) will be disposed of after 30 days.

N386-107 ☐ File

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Geo Trans, Inc.
565 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Report Number: PGK00732

Sampled: Nov 18, 1997
Received: Nov 18, 1997
Extracted: Nov 24-25, 1997
Analyzed: Nov 24-25, 1997
Reported: Nov 25, 1997

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	EPA ANALYSES
PGK00732	MW-1S	Water	601 & 602
PGK00733	MW-111	Water	601 & 602
PGK00734	FB-2	Water	601 & 602
PGK00735	MW-6M	Water	601 & 602
PGK00736	MW-2S	Water	601 & 602
PGK00737	MW-2M	Water	601 & 602
PGK00738	MW-3S	Water	601 & 602
PGK00739	MW-3M	Water	601 & 602
PGK00740	Trip Blank	Water	601 & 602

SAMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation.

HOLDING TIMES: Holding times were met.

PROBLEMS ENCOUNTERED: No problems were encountered during sample analysis.

QA/QC CRITERIA: All QA/QC met acceptance criteria.

OBSERVATIONS: No significant observations were made.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

J. Matsumoto
Jeff Matsumoto
Project Manager

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-3401

HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, MW-1S
Lab Number: PGK00732

Sampled: Nov 18, 19[illegible]
Received: Nov 18, 19[illegible]
Extracted: Nov 24, 1997
Analyzed: Nov 24, 1997
Reported: Nov 25, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	1.3	N.D.
Bromoform	1.3	N.D.
Bromomethane	2.5	N.D.
Carbon tetrachloride	1.3	N.D.
Chlorobenzene	1.3	N.D.
Chloroethane	6.3	N.D.
Chloroform	1.3	N.D.
Chloromethane	2.5	N.D.
Dibromochloromethane	1.3	N.D.
1,2-Dichlorobenzene	2.5	N.D.
1,3-Dichlorobenzene	2.5	N.D.
1,4-Dichlorobenzene	2.5	N.D.
1,1-Dichloroethane	1.3	N.D.
1,2-Dichloroethane	1.3	N.D.
1,1-Dichloroethene	1.3	N.D.
cis-1,2-Dichloroethene	1.3	N.D.
trans-1,2-Dichloroethene	1.3	N.D.
1,2-Dichloropropane	1.3	N.D.
cis-1,3-Dichloropropene	1.3	N.D.
trans-1,3-Dichloropropene	1.3	N.D.
Methylene chloride	25	N.D.
1,1,2,2-Tetrachloroethane	1.3	N.D.
Tetrachloroethene	1.3	N.D.
1,1,1-Trichloroethane	1.3	N.D.
1,1,2-Trichloroethane	1.3	N.D.
Trichloroethene	**1.3**	**58**
Trichlorofluoromethane	1.3	N.D.
Vinyl chloride	2.5	N.D.
Benzene	1.3	N.D.
Ethylbenzene	1.3	N.D.
Toluene	1.3	N.D.
Total Xylenes	3.8	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 2.5.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	110%
aaa-Trifluorotoluene(80-120).....	112%

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l Geo Trans, Inc.
565 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, MW-111
Lab Number: PGK00733

Sampled: Nov 18, 1997
Received: Nov 18, 1997
Extracted: Nov 24, 1997
Analyzed: Nov 24, 1997
Reported: Nov 25, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	1.3	N.D.
Bromoform	1.3	N.D.
Bromomethane	2.5	N.D.
Carbon tetrachloride	1.3	N.D.
Chlorobenzene	1.3	N.D.
Chloroethane	6.3	N.D.
Chloroform	1.3	N.D.
Chloromethane	2.5	N.D.
Dibromochloromethane	1.3	N.D.
1,2-Dichlorobenzene	2.5	N.D.
1,3-Dichlorobenzene	2.5	N.D.
1,4-Dichlorobenzene	2.5	N.D.
1,1-Dichloroethane	1.3	N.D.
1,2-Dichloroethane	1.3	N.D.
1,1-Dichloroethene	1.3	N.D.
cis-1,2-Dichloroethene	1.3	N.D.
trans-1,2-Dichloroethene	1.3	N.D.
1,2-Dichloropropane	1.3	N.D.
cis-1,3-Dichloropropene	1.3	N.D.
trans-1,3-Dichloropropene	1.3	N.D.
Methylene chloride	25	N.D.
1,1,2,2-Tetrachloroethane	1.3	N.D.
Tetrachloroethene	1.3	N.D.
1,1,1-Trichloroethane	1.3	N.D.
1,1,2-Trichloroethane	1.3	N.D.
Trichloroethene	**1.3**	**57**
Trichlorofluoromethane	1.3	N.D.
Vinyl chloride	2.5	N.D.
Benzene	1.3	N.D.
Ethylbenzene	1.3	N.D.
Toluene	1.3	N.D.
Total Xylenes	3.8	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 2.5.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	105%
aaa-Trifluorotoluene(80-120).....	109%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, FB-2
Lab Number: PGK00734

Sampled: Nov 18, 19
Received: Nov 18, 19
Extracted: Nov 24, 1997
Analyzed: Nov 24, 1997
Reported: Nov 25, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	108%
aaa-Trifluorotoluene(80-120).....	113%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-3272 FAX (602) 968-3601

...l Geo Trans, Inc.	Client Project ID: N386-107	Sampled: Nov 18, 1997
...665 South Ash Ave., Ste. G-1		Received: Nov 18, 1997
Tempe, AZ 85282	Sample Descript: Water, MW-6M	Extracted: Nov 24, 1997
Attention: Steve Smith	Lab Number: PGK00735	Analyzed: Nov 24, 1997
		Reported: Nov 25, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
...-Dichloroethene	0.50	N.D.
...s-1,2-Dichloroethene	0.50	N.D.
...ans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**8.3**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	90%
aaa-Trifluorotoluene(80-120).....	93%

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2465 W. 12th St. Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-3499

HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, MW-2S
Lab Number: PGK00736

Sampled: Nov 18, 19[illegible]
Received: Nov 18, 199[illegible]
Extracted: Nov 24, 1997
Analyzed: Nov 24, 1997
Reported: Nov 25, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**2.9**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	98%
aaa-Trifluorotoluene(80-120).....	104%

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SI Geo Trans, Inc.
365 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, MW-2M
Lab Number: PGK00737

Sampled: Nov 18, 1997
Received: Nov 18, 1997
Extracted: Nov 25, 1997
Analyzed: Nov 25, 1997
Reported: Nov 25, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	2.5	N.D.
Bromoform	2.5	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	2.5	N.D.
Chlorobenzene	2.5	N.D.
Chloroethane	13	N.D.
Chloroform	2.5	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	2.5	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
1,1-Dichloroethane	2.5	N.D.
1,2-Dichloroethane	2.5	N.D.
1,1-Dichloroethene	2.5	N.D.
cis-1,2-Dichloroethene	2.5	N.D.
trans-1,2-Dichloroethene	2.5	N.D.
1,2-Dichloropropane	2.5	N.D.
cis-1,3-Dichloropropene	2.5	N.D.
trans-1,3-Dichloropropene	2.5	N.D.
Methylene chloride	50	N.D.
1,1,2,2-Tetrachloroethane	2.5	N.D.
Tetrachloroethene	2.5	N.D.
1,1,1-Trichloroethane	2.5	N.D.
1,1,2-Trichloroethane	2.5	N.D.
Trichloroethene	**2.5**	**120**
Trichlorofluoromethane	2.5	N.D.
Vinyl chloride	5.0	N.D.
Benzene	2.5	N.D.
Ethylbenzene	2.5	N.D.
Toluene	2.5	N.D.
Total Xylenes	7.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 5.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

H Matsumoto

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	104%
aaa-Trifluorotoluene(80-120).....	108%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, MW-3S
Lab Number: PGK00738

Sampled: Nov 18, 19[illegible]
Received: Nov 18, 19[illegible]
Extracted: Nov 25, 1997
Analyzed: Nov 25, 1997
Reported: Nov 25, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	81%
aaa-Trifluorotoluene(80-120).....	85%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-3401

...l Geo Trans, Inc.	Client Project ID: N386-107	Sampled: Nov 18, 1997
...65 South Ash Ave., Ste. G-1		Received: Nov 18, 1997
Tempe, AZ 85282	Sample Descript: Water, MW-3M	Extracted: Nov 25, 1997
Attention: Steve Smith	Lab Number: PGK00739	Analyzed: Nov 25, 1997
		Reported: Nov 25, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
...1-Dichloroethene	0.50	N.D.
...-1,2-Dichloroethene	0.50	N.D.
...ans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	102%
aaa-Trifluorotoluene(80-120).....	107%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, Trip Blank
Lab Number: PGK00740

Sampled: Nov 18, 199
Received: Nov 18, 199
Extracted: Nov 25, 1997
Analyzed: Nov 25, 1997
Reported: Nov 25, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	109%
aaa-Trifluorotoluene(80-120).....	111%

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SI Geo Trans, Inc.
665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Method Blank

Extracted: Nov 24, 1997
Analyzed: Nov 24, 1997
Reported: Nov 25, 1997
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
-Dichloroethene	0.50	N.D.
s-1,2-Dichloroethene	0.50	N.D.
ans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accpet. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	100%
aaa-Trifluorotoluene(80-120).....	104%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-3401

HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Method Blank

Extracted: Nov 25, 19
Analyzed: Nov 25, 199
Reported: Nov 25, 1997
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accpet. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	101%
aaa-Trifluorotoluene(80-120).....	105%

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 11/24/97

Sample #: PGK00699

Batch #: GK24121W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Mean PR	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	%	RPD	Mean PR
Benzene	0	5.0	4.5	4.5	90	90	0.092	90	< 30	39 - 150
Chloroform	0.26	5.0	6.0	6.1	114	118	2.6	116	< 30	49 - 133
1,1-Dichloroethane	0	5.0	5.5	5.7	110	114	3.5	112	< 30	47 - 132
1,2-Dichloroethane	0	5.0	5.3	5.4	106	109	2.6	107	< 30	51 - 147
1,1-Dichloroethene	0	5.0	4.7	4.7	95	94	0.68	94	< 30	28 - 167
Tetrachloroethene	0.0041	5.0	5.8	5.9	116	118	1.7	117	< 30	26 - 162
Toluene	0.42	5.0	5.2	5.3	96	97	1.5	96	< 30	46 - 148
Trichloroethene	0	5.0	5.7	5.8	115	115	0.35	115	< 30	35 - 146

Definition of Terms

R1. . . . . Result of Sample Analysis
Sp. . . . . Spike Concentration added to sample
MS. . . . . Matrix Spike Result
MSD. . . . . Matrix Spike Duplicate Result
PR1. . . . . Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2. . . . . Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR. . . . . Mean Percent Recovery
Acceptance Limits . . . . . Determined by EPA Method 601/602

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-3461

MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 11/25/97

Sample #: PGK00834

Batch #: GK25121W

Analyte	R1 ppb	Sp ppb	MS ppb	MSD ppb	PR1 %	PR2 %	RPD %	Mean PR %	Acceptance Limits RPD	Acceptance Limits Mean PR
Benzene	0	5.0	4.1	4.5	81	91	11	86	<30	39 - 150
Chloroform	0	5.0	5.1	5.6	102	111	8.7	107	<30	49 - 133
1,1-Dichloroethane	0	5.0	5.0	5.7	99	114	14	106	<30	47 - 132
1,2-Dichloroethane	0	5.0	4.9	5.4	98	107	9.2	102	<30	51 - 147
1,1-Dichloroethene	0	5.0	4.1	4.8	82	96	16	89	<30	28 - 167
Tetrachloroethene	0.0051	5.0	5.3	5.7	107	115	7.3	111	<30	26 - 162
Toluene	0.31	5.0	4.6	5.2	86	98	12	92	<30	46 - 148
Trichloroethene	0	5.0	5.0	5.6	99	112	12	106	<30	35 - 146

Definition of Terms

R1..... Result of Sample Analysis
Sp..... Spike Concentration added to sample
MS..... Matrix Spike Result
MSD..... Matrix Spike Duplicate Result
PR1..... Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2..... Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR..... Mean Percent Recovery
Acceptance Limits..... Determined by EPA Method 601/602

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

CHAIN OF CUSTODY FORM

Client Name/Address: HSI GeoTrans 4665 S. Ash Ave., G-1 Tempe, AZ 85282

Project/PO Number: N386-107

Project Manager/Phone Number: Steve Smith/839-2800

Sampler: P. Odenkirk

Analysis Required: 601/602

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	601/602									Special Instructions
MW-1S	AQ	VOA	2	11-18-97/0930	HCl	X									
MW-1I	AQ	VOA	2	11-18-97/0900	HCL	X									
MW-1S MS/MSD	AQ	VOA	2	11-18-97/0940	HCL	X									
FB-2	AQ	VOA	2	11-18-97/0945	HCL	X									
MW-6M	AQ	VOA	2	11-18-97/1050	HCL	X									
~~MW-6L~~	~~AQ~~	~~VOA~~	~~2~~												
MW-2S	AQ	VOA	2	11-18-97/1230	HCL	X									
MW-2M	AQ	VOA	2	11-18-97/1330	HCL	X									
MW-3S	AQ	VOA	2	11-18-97/1445	HCL	X									
MW-3M	AQ	VOA	2	11-18-97/1600	HCL	X									
Trip Blank	AQ	VOA	11	—	HCL	X									

Relinquished By: [signature] Date /Time: 11-18-97/1845

Relinquished By: Date /Time:

Relinquished By: Date /Time:

Received by: Date /Time:

Received by: Date /Time:

Received in Lab by: [signature] Date /Time: 11/18/97 1845

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact X on ice X

Note: Sample(s) will be disposed of after 30 days.

N386 107 [ ] file

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I Geo Trans, Inc.
365 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Report Number: PGK00828

Sampled: Nov 19, 1997
Received: Nov 19, 1997
Extracted: Nov 25, 1997
Analyzed: Nov 25, 1997
Reported: Nov 28, 1997

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	EPA ANALYSES
PGK00828	MW-4L	Water	601 & 602
PGK00829	FB-3	Water	601 & 602
PGK00830	SW-1	Water	601 & 602
PGK00831	SW-11	Water	601 & 602
PGK00832	MW-6L	Water	601 & 602
PGK00833	MW-7M	Water	601 & 602
PGK00834	MW-7L	Water	601 & 602
PGK00835	Trip Blank	Water	601 & 602
PGK00836	SW-2	Water	601 & 602

SAMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation.

HOLDING TIMES: Holding times were met.

PROBLEMS ENCOUNTERED: No problems were encountered during sample analysis.

QA/QC CRITERIA: All QA/QC met acceptance criteria.

OBSERVATIONS: No significant observations were made.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

J. Matsumoto

Jeff Matsumoto
Project Manager

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2465 W. 12th St., Suite I, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, MW-4L
Lab Number: PGK00828

Sampled: Nov 19, 199
Received: Nov 19, 199
Extracted: Nov 25, 1997
Analyzed: Nov 25, 1997
Reported: Nov 28, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	108%
aaa-Trifluorotoluene(80-120).....	111%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

SI Geo Trans, Inc.	Client Project ID: N386-107	Sampled: Nov 19, 1997
365 South Ash Ave., Ste. G-1		Received: Nov 19, 1997
Tempe, AZ 85282	Sample Descript: Water, FB-3	Extracted: Nov 25, 1997
Attention: Steve Smith	Lab Number: PGK00829	Analyzed: Nov 25, 1997
		Reported: Nov 28, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	**0.50**	**1.1**
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	**0.50**	**3.2**
Chloromethane	1.0	N.D.
Dibromochloromethane	**0.50**	**1.4**
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	109%
aaa-Trifluorotoluene(80-120).....	108%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107
Sample Descript: Water, SW-1
Lab Number: PGK00830

Sampled: Nov 19, 19
Received: Nov 19, 19
Extracted: Nov 25, 1997
Analyzed: Nov 25, 1997
Reported: Nov 28, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	112%
aaa-Trifluorotoluene(80-120).....	112%

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GI Geo Trans, Inc.
65 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, SW-11
Lab Number: PGK00831

Sampled: Nov 19, 1997
Received: Nov 19, 1997
Extracted: Nov 25, 1997
Analyzed: Nov 25, 1997
Reported: Nov 28, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	93%
aaa-Trifluorotoluene(80-120).....	97%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, MW-6L
Lab Number: PGK00832

Sampled: Nov 19, 19[illegible]
Received: Nov 19, 19[illegible]
Extracted: Nov 25, 1997
Analyzed: Nov 25, 1997
Reported: Nov 28, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	**0.50**	**0.51**
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	109%
aaa-Trifluorotoluene(80-120).....	110%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

...l Geo Trans, Inc.	Client Project ID: N386-107	Sampled: Nov 19, 1997
...65 South Ash Ave., Ste. G-1		Received: Nov 19, 1997
Tempe, AZ 85282	Sample Descript: Water, MW-7M	Extracted: Nov 25, 1997
Attention: Steve Smith	Lab Number: PGK00833	Analyzed: Nov 25, 1997
		Reported: Nov 28, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
...Dichloroethene	**0.50**	**0.52**
cis-1,2-Dichloroethene	0.50	N.D.
...ns-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**6.8**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	109%
aaa-Trifluorotoluene(80-120).....	112%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, MW-7L
Lab Number: PGK00834

Sampled: Nov 19, 199
Received: Nov 19, 199
Extracted: Nov 25, 1997
Analyzed: Nov 25, 1997
Reported: Nov 28, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	102%
aaa-Trifluorotoluene(80-120).....	106%

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Geo Trans, Inc.
65 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, Trip Blank
Lab Number: PGK00835

Sampled: Nov 19, 1997
Received: Nov 19, 1997
Extracted: Nov 25, 1997
Analyzed: Nov 25, 1997
Reported: Nov 28, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)	103%
aaa-Trifluorotoluene(80-120)	108%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-107

Sample Descript: Water, SW-2
Lab Number: PGK00836

Sampled: Nov 19, 199[illegible]
Received: Nov 19, 199[illegible]
Extracted: Nov 25, 1997
Analyzed: Nov 25, 1997
Reported: Nov 28, 1997

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	102%
aaa-Trifluorotoluene(80-120).....	107%

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I Geo Trans, Inc.
65 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Method Blank

Extracted: Nov 25, 1997
Analyzed: Nov 25, 1997
Reported: Nov 28, 1997
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
1,2-Dichloroethene	0.50	N.D.
ns-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accpet. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	101%
aaa-Trifluorotoluene(80-120).....	105%

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 11/25/97

Sample #: PGK00834

Batch #: GK25121W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Mean PR	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	%	RPD	Mean PR
Benzene	0	5.0	4.1	4.5	81	91	11	86	< 30	39 - 150
Chloroform	0	5.0	5.1	5.6	102	111	8.7	107	< 30	49 - 133
1,1-Dichloroethane	0	5.0	5.0	5.7	99	114	14	106	< 30	47 - 132
1,2-Dichloroethane	0	5.0	4.9	5.4	98	107	9.2	102	< 30	51 - 147
1,1-Dichloroethene	0	5.0	4.1	4.8	82	96	16	89	< 30	28 - 167
Tetrachloroethene	0.0051	5.0	5.3	5.7	107	115	7.3	111	< 30	26 - 162
Toluene	0.31	5.0	4.6	5.2	86	98	12	92	< 30	46 - 148
Trichloroethene	0	5.0	5.0	5.6	99	112	12	106	< 30	35 - 146

Definition of Terms

R1..... Result of Sample Analysis
Sp..... Spike Concentration added to sample
MS..... Matrix Spike Result
MSD..... Matrix Spike Duplicate Result
PR1..... Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2..... Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR..... Mean Percent Recovery
Acceptance Limits..... Determined by EPA Method 601/602

Del Mar Analytical

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1

CHAIN OF CUSTODY FORM

Client Name/Address: HSIG, 4665 S. Ash Ave, G-1, Tempe, AZ, 85282

Project/PO Number: N386-107

Project Manager: Steve Smith

Phone Number: 839-2800

Sampler: Phil Oderkirk

Fax Number: 839-2828

Analysis Required

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	601/602	~~Cyanide~~	~~Acrolein, Cl~~	~~As, Ba, Cd, Cu, Zn, Pb, Mn, Hg, Se, Ag~~	~~Cr~~					Special Instructions
MW-4L	AQ	VOA	2	11-19-97 1130	HCL	X									
FB-3	AQ	VOA	2	11-19-97 1250	HCL	X									
SW-1	AQ	VOA	2	11-19-97 1245	HCL	X									
SW-11	AQ	VOA	2	11-19-97 1230	HCL	X									
MW-6L	AQ	VOA	2	11-19-97 1415	HCL	X									
MW-7M	AQ	VOA	2	11-19-97	HCL	X									
MW-7L	AQ	VOA	2	11-19-97	HCL	X									
Trip Blank	AQ	VOA	1	—	HCL	X									
~~VIC-PW~~	~~AQ~~	~~VOA~~	~~6~~	~~11-19-97~~	~~yes~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~					
SW-2	AQ	VOA	2	11-19-97 1310	HCL	X									

Relinquished By:	Date /Time:	Received by:	Date /Time:	Turnaround Time: (Check)	
[signature]	11-19-97/1740			same day ____	72 hours ____
Relinquished By:	Date /Time:	Received by:	Date /Time:	24 hours ____	5 days ____
				48 hours ____	normal X
Relinquished By:	Date /Time:	Received in Lab by: [signature]	Date /Time: 11/19/97 1740	Sample Integrity: (Check) intact ✓	on ice ✓

Note: By relinqu[illegible] samples to Del Mar Analytical, client agrees to pay for the services requested c[illegible] chain of custody form and any additional analyses performed on this project. P[illegible]t for services is due within 30 da[illegible]m the date of invoice. Sample(s) will be disposed of after 30 days.

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I Geo Trans, Inc.
865 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122

Report Number: PHB00622

Sampled: Feb 11-12, 1998
Received: Feb 12, 1998
Extracted: Feb 18, 1998
Analyzed: Feb 18, 1998
Reported: Feb 19, 1998

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	EPA ANALYSES
PHB00622	MW-7M	Water	601/602
PHB00623	EB-2-P3	Water	601/602
PHB00624	WCP-13	Water	601/602
PHB00625	WCP-8	Water	601/602
PHB00627	MW-4S	Water	601/602
PHB00628	MW-4S-FB1	Water	601/602
PHB00629	MW-44	Water	601/602
PHB00630	MW-4M	Water	601/602
PHB00631	MW-6M	Water	601/602
PHB00632	MW-6S	Water	601/602

SAMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation.

HOLDING TIMES: Holding times were met.

PROBLEMS ENCOUNTERED: No problems were encountered during sample analysis.

QA/QC CRITERIA: All QA/QC met acceptance criteria.

OBSERVATIONS: No significant observations were made.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-3401

HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122

Report Number: PHB00633

Sampled: Feb 11-12, 19
Received: Feb 12, 19
Extracted: Feb 18, 1998
Analyzed: Feb 18, 1998
Reported: Feb 19, 1998

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	EPA ANALYSES
PHB00633	Trip Blank	Water	601/602
PHB00634	WCP-11	Water	601/602

SAMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation.

HOLDING TIMES: Holding times were met.

PROBLEMS ENCOUNTERED: No problems were encountered during sample analysis.

QA/QC CRITERIA: All QA/QC met acceptance criteria.

OBSERVATIONS: No significant observations were made.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-8401

Del Mar Analytical

SI Geo Trans, Inc.	Client Project ID: N386-122	Sampled:	Feb 12, 1998
365 South Ash Ave., Ste. G-1		Received:	Feb 12, 1998
Tempe, AZ 85282	Sample Descript: Water, MW-7M	Extracted:	Feb 18, 1998
Attention: Steve Smith	Lab Number: PHB00622	Analyzed:	Feb 18, 1998
		Reported:	Feb 19, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
-Dichloroethene	0.50	N.D.
s-1,2-Dichloroethene	0.50	N.D.
ıns-1,2-Dichloroethene	0.50	N.D.
ı,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**8.9**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	112%
aaa-Trifluorotoluene(80-120).....	110%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-3467

HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122

Sample Descript: Water, EB-2-P3
Lab Number: PHB00623

Sampled: Feb 11, 19
Received: Feb 12, 19
Extracted: Feb 18, 1998
Analyzed: Feb 18, 1998
Reported: Feb 19, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	**0.50**	**0.54**
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	**0.50**	**0.65**
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	**0.50**	**0.52**
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	120%
aaa-Trifluorotoluene(80-120).....	107%

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I Geo Trans, Inc.
365 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122
Sample Descript: Water, WCP-13
Lab Number: PHB00624

Sampled: Feb 12, 1998
Received: Feb 12, 1998
Extracted: Feb 18, 1998
Analyzed: Feb 18, 1998
Reported: Feb 19, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
-1,2-Dichloroethene	0.50	N.D.
ans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)	120%
aaa-Trifluorotoluene(80-120)	111%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-3401

HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122

Sample Descript: Water, WCP-8
Lab Number: PHB00625

Sampled: Feb 12, 19[illegible]
Received: Feb 12, 19[illegible]
Extracted: Feb 18, 1998
Analyzed: Feb 18, 1998
Reported: Feb 19, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	120%
aaa-Trifluorotoluene(80-120).....	111%

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Del Mar Analytical

.SI Geo Trans, Inc.
.665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122

Sample Descript: Water, MW-4S
Lab Number: PHB00627

Sampled: Feb 11, 1998
Received: Feb 12, 1998
Extracted: Feb 18, 1998
Analyzed: Feb 18, 1998
Reported: Feb 19, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	1.0	N.D.
Bromoform	1.0	N.D.
Bromomethane	2.0	N.D.
Carbon tetrachloride	1.0	N.D.
Chlorobenzene	1.0	N.D.
Chloroethane	5.0	N.D.
Chloroform	1.0	N.D.
Chloromethane	2.0	N.D.
Dibromochloromethane	1.0	N.D.
1,2-Dichlorobenzene	2.0	N.D.
1,3-Dichlorobenzene	2.0	N.D.
1,4-Dichlorobenzene	2.0	N.D.
1,1-Dichloroethane	1.0	N.D.
1,2-Dichloroethane	1.0	N.D.
-Dichloroethene	1.0	N.D.
is-1,2-Dichloroethene	1.0	N.D.
ans-1,2-Dichloroethene	1.0	N.D.
1,2-Dichloropropane	1.0	N.D.
cis-1,3-Dichloropropene	1.0	N.D.
trans-1,3-Dichloropropene	1.0	N.D.
Methylene chloride	20	N.D.
1,1,2,2-Tetrachloroethane	1.0	N.D.
Tetrachloroethene	1.0	N.D.
1,1,1-Trichloroethane	1.0	N.D.
1,1,2-Trichloroethane	1.0	N.D.
Trichloroethene	**1.0**	**25**
Trichlorofluoromethane	1.0	N.D.
Vinyl chloride	2.0	N.D.
Benzene	1.0	N.D.
Ethylbenzene	1.0	N.D.
Toluene	1.0	N.D.
Total Xylenes	3.0	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 2.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	120%
aaa-Trifluorotoluene(80-120).....	111%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122

Sample Descript: Water, MW-4S-FB1
Lab Number: PHB00628

Sampled: Feb 11, 19[illegible]
Received: Feb 12, 19[illegible]
Extracted: Feb 18, 1998
Analyzed: Feb 18, 1998
Reported: Feb 19, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	119%
aaa-Trifluorotoluene(80-120).....	108%

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ol Geo Trans, Inc.
365 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122

Sample Descript: Water, MW-44
Lab Number: PHB00629

Sampled: Feb 11, 1998
Received: Feb 12, 1998
Extracted: Feb 18, 1998
Analyzed: Feb 18, 1998
Reported: Feb 19, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	1.0	N.D.
Bromoform	1.0	N.D.
Bromomethane	2.0	N.D.
Carbon tetrachloride	1.0	N.D.
Chlorobenzene	1.0	N.D.
Chloroethane	5.0	N.D.
Chloroform	1.0	N.D.
Chloromethane	2.0	N.D.
Dibromochloromethane	1.0	N.D.
1,2-Dichlorobenzene	2.0	N.D.
1,3-Dichlorobenzene	2.0	N.D.
1,4-Dichlorobenzene	2.0	N.D.
1,1-Dichloroethane	1.0	N.D.
1,2-Dichloroethane	1.0	N.D.
-Dichloroethene	1.0	N.D.
s-1,2-Dichloroethene	1.0	N.D.
ans-1,2-Dichloroethene	1.0	N.D.
1,2-Dichloropropane	1.0	N.D.
cis-1,3-Dichloropropene	1.0	N.D.
trans-1,3-Dichloropropene	1.0	N.D.
Methylene chloride	20	N.D.
1,1,2,2-Tetrachloroethane	1.0	N.D.
Tetrachloroethene	**1.0**	**1.4**
1,1,1-Trichloroethane	1.0	N.D.
1,1,2-Trichloroethane	1.0	N.D.
Trichloroethene	**1.0**	**45**
Trichlorofluoromethane	1.0	N.D.
Vinyl chloride	2.0	N.D.
Benzene	1.0	N.D.
Ethylbenzene	1.0	N.D.
Toluene	1.0	N.D.
Total Xylenes	3.0	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 2.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	97%
aaa-Trifluorotoluene(80-120).....	88%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122

Sample Descript: Water, MW-4M
Lab Number: PHB00630

Sampled: Feb 11, 19
Received: Feb 12, 19
Extracted: Feb 18, 1998
Analyzed: Feb 18, 1998
Reported: Feb 19, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**8.4**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	116%
aaa-Trifluorotoluene(80-120).....	105%

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2465 W. 12th St. Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-5401

GI Geo Trans, Inc.
365 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122

Sample Descript: Water, MW-6M
Lab Number: PHB00631

Sampled: Feb 11, 1998
Received: Feb 12, 1998
Extracted: Feb 18, 1998
Analyzed: Feb 18, 1998
Reported: Feb 19, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
-1,2-Dichloroethene	0.50	N.D.
ans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**8.6**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)	120%
aaa-Trifluorotoluene(80-120)	115%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-5405

HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122

Sample Descript: Water, MW-6S
Lab Number: PHB00632

Sampled: Feb 11, 19[illegible]
Received: Feb 12, 1[illegible]
Extracted: Feb 18, 1998
Analyzed: Feb 18, 1998
Reported: Feb 19, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	120%
aaa-Trifluorotoluene(80-120).....	113%

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SI Geo Trans, Inc.
665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122
Sample Descript: Water, Trip Blank
Lab Number: PHB00633

Received: Feb 12, 1998
Extracted: Feb 18, 1998
Analyzed: Feb 18, 1998
Reported: Feb 19, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
-1,2-Dichloroethene	0.50	N.D.
ans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	120%
aaa-Trifluorotoluene(80-120).....	113%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122

Sample Descript: Water, WCP-11
Lab Number: PHB00634

Sampled: Feb 12, 199[illegible]
Received: Feb 12, 19[illegible]
Extracted: Feb 18, 1998
Analyzed: Feb 18, 1998
Reported: Feb 19, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**3.8**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)	120%
aaa-Trifluorotoluene(80-120)	116%

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HSI Geo Trans, Inc.
665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Method Blank

Extracted: Feb 18, 1998
Analyzed: Feb 18, 1998
Reported: Feb 19, 1998
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accpet. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	111%
aaa-Trifluorotoluene(80-120).....	107%

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 02/18/98

Sample #: PHB00733

Batch #: HB18121W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Mean PR	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	%	RPD	Mean PR
Benzene	0	5.0	5.0	5.3	100	106	6.3	103	<30	39 - 150
Chloroform	0.33	5.0	6.1	6.4	115	122	5.9	118	<30	49 - 133
1,1-Dichloroethane	0	5.0	6.0	6.2	120	124	2.7	122	<30	47 - 132
1,2-Dichloroethane	0	5.0	5.2	6.1	105	121	15	113	<30	51 - 147
1,1-Dichloroethene	0.27	5.0	5.3	6.3	101	121	17	111	<30	28 - 167
Tetrachloroethene	0	5.0	6.2	6.7	125	134	7.1	130	<30	26 - 162
Toluene	0.28	5.0	5.3	5.7	100	108	6.9	104	<30	46 - 148
Trichloroethene	1.6	5.0	8.1	7.9	130	126	2.9	128	<30	35 - 146

Definition of Terms

R1. . . . . Result of Sample Analysis
Sp. . . . . Spike Concentration added to sample
MS. . . . . Matrix Spike Result
MSD. . . . . Matrix Spike Duplicate Result
PR1. . . . . Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2. . . . . Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR. . . . . Mean Percent Recovery
Acceptance Limits . . . . . Determined by EPA Method 601/602

Del Mar Analytical

Del Mar Analytical
[illegible] Cooley Dr., Suite A, Colton, CA 92324 [illegible] 1587 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (81[illegible] FAX (818) 779-1843
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619[illegible] FAX (619) 505-9689
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

CHAIN OF CUSTODY FORM

t Name/Address: HSIG 4665 S. Ash. Ave, G1 Tempe, AZ 85282

Project/PO Number: N386-122

ct Manager: Steve Smith

Phone Number: 839-2800

pler: Phil Odenkirk

Fax Number: 839-2828

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Analysis Required: 601/602									Special Instructions
MW-7M	AQ	VOA	2	2.12.98 1630	HCL	X									
B-2-P3				2.11.98 1245		X									
CP-13				2.12.98 1200		X									
CP-8				2.12.98 1045		X									
W-45-MS/MSD				2.11.98 1530		X									
W-45				2.11.98 1530		X									Matrix Spike/Dup.
W-45-FB1				2.11.98 1545		X									
W-44				2.11.98 1000		X									
W-4M				2.11.98 1700		X									
W-6M				2.11.98 1430		X									
W-6S				2.11.98 1300		X									
rip Blank			1	—		X									
CP-11	AQ	VOA	2	2.12.98 0930											

uished By: [signature]	Date /Time: 2.12.98 1740	Received by:	Date /Time:
uished By:	Date /Time:	Received by:	Date /Time:
uished By:	Date /Time:	Received in Lab by: [signature]	Date /Time: 2/12/98 1740

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact X on ice X

By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is thin 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

Del Mar Analytical

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-3401

SI Geo Trans, Inc.
365 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122

Report Number: PHB00495

Sampled: Feb 9-10, 1998
Received: Feb 10, 1998
Extracted: Feb 12, 1998
Analyzed: Feb 12, 1998
Reported: Feb 16, 1998

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	EPA ANALYSES
PHB00495	Trip Blank	Water	601 & 602
PHB00496	EB-1-P3	Water	601 & 602
PHB00497	104 S	Water	601 & 602
PHB00498	103 S	Water	601 & 602
PHB00499	WCP-10	Water	601 & 602
PHB00500	WCP-4	Water	601 & 602

SAMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation.

HOLDING TIMES: Holding times were met.

PROBLEMS ENCOUNTERED: No problems were encountered during sample analysis.

QA/QC CRITERIA: All QA/QC met acceptance criteria.

OBSERVATIONS: No significant observations were made.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122

Sample Descript: Water, Trip Blank
Lab Number: PHB00495

Sampled: Feb 10, 19
Received: Feb 10, 199
Extracted: Feb 12, 1998
Analyzed: Feb 12, 1998
Reported: Feb 16, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	85%
aaa-Trifluorotoluene(80-120).....	101%

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SI Geo Trans, Inc.
365 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122

Sample Descript: Water, EB-1-P3
Lab Number: PHB00496

Sampled: Feb 10, 1998
Received: Feb 10, 1998
Extracted: Feb 12, 1998
Analyzed: Feb 12, 1998
Reported: Feb 16, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
-Dichloroethene	0.50	N.D.
s-1,2-Dichloroethene	0.50	N.D.
ans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	**0.50**	**0.51**
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)	91%
aaa-Trifluorotoluene(80-120)	105%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122
Sample Descript: Water, 104 S
Lab Number: PHB00497

Sampled: Feb 9, 1
Received: Feb 10, 19
Extracted: Feb 12, 1998
Analyzed: Feb 12, 1998
Reported: Feb 16, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	1.0	N.D.
Bromoform	1.0	N.D.
Bromomethane	2.0	N.D.
Carbon tetrachloride	1.0	N.D.
Chlorobenzene	1.0	N.D.
Chloroethane	5.0	N.D.
Chloroform	1.0	N.D.
Chloromethane	2.0	N.D.
Dibromochloromethane	1.0	N.D.
1,2-Dichlorobenzene	2.0	N.D.
1,3-Dichlorobenzene	2.0	N.D.
1,4-Dichlorobenzene	2.0	N.D.
1,1-Dichloroethane	1.0	N.D.
1,2-Dichloroethane	1.0	N.D.
1,1-Dichloroethene	**1.0**	**9.9**
cis-1,2-Dichloroethene	1.0	N.D.
trans-1,2-Dichloroethene	1.0	N.D.
1,2-Dichloropropane	1.0	N.D.
cis-1,3-Dichloropropene	1.0	N.D.
trans-1,3-Dichloropropene	1.0	N.D.
Methylene chloride	20	N.D.
1,1,2,2-Tetrachloroethane	1.0	N.D.
Tetrachloroethene	1.0	N.D.
1,1,1-Trichloroethane	1.0	N.D.
1,1,2-Trichloroethane	1.0	N.D.
Trichloroethene	**1.0**	**32**
Trichlorofluoromethane	1.0	N.D.
Vinyl chloride	2.0	N.D.
Benzene	1.0	N.D.
Ethylbenzene	1.0	N.D.
Toluene	1.0	N.D.
Total Xylenes	3.0	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 2.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	90%
aaa-Trifluorotoluene(80-120).....	104%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-3401

SI Geo Trans, Inc.
665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122
Sample Descript: Water, 103 S
Lab Number: PHB00498

Sampled: Feb 9, 1998
Received: Feb 10, 1998
Extracted: Feb 12, 1998
Analyzed: Feb 12, 1998
Reported: Feb 16, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	1.3	N.D.
Bromoform	1.3	N.D.
Bromomethane	2.5	N.D.
Carbon tetrachloride	1.3	N.D.
Chlorobenzene	1.3	N.D.
Chloroethane	6.3	N.D.
Chloroform	1.3	N.D.
Chloromethane	2.5	N.D.
Dibromochloromethane	1.3	N.D.
1,2-Dichlorobenzene	2.5	N.D.
1,3-Dichlorobenzene	2.5	N.D.
1,4-Dichlorobenzene	2.5	N.D.
1,1-Dichloroethane	1.3	N.D.
1,2-Dichloroethane	1.3	N.D.
1,1-Dichloroethene	**1.3**	**2.0**
cis-1,2-Dichloroethene	1.3	N.D.
trans-1,2-Dichloroethene	1.3	N.D.
1,2-Dichloropropane	1.3	N.D.
cis-1,3-Dichloropropene	1.3	N.D.
trans-1,3-Dichloropropene	1.3	N.D.
Methylene chloride	25	N.D.
1,1,2,2-Tetrachloroethane	1.3	N.D.
Tetrachloroethene	1.3	N.D.
1,1,1-Trichloroethane	1.3	N.D.
1,1,2-Trichloroethane	1.3	N.D.
Trichloroethene	**1.3**	**59**
Trichlorofluoromethane	1.3	N.D.
Vinyl chloride	2.5	N.D.
Benzene	1.3	N.D.
Ethylbenzene	1.3	N.D.
Toluene	1.3	N.D.
Total Xylenes	3.8	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 2.5.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	89%
aaa-Trifluorotoluene(80-120).....	106%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122

Sample Descript: Water, WCP-10
Lab Number: PHB00499

Sampled: Feb 10, 19
Received: Feb 10, 19
Extracted: Feb 12, 1998
Analyzed: Feb 12, 1998
Reported: Feb 16, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**11**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	87%
aaa-Trifluorotoluene(80-120).....	103%

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HSI Geo Trans, Inc.
365 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122
Sample Descript: Water, WCP-4
Lab Number: PHB00500

Sampled: Feb 10, 1998
Received: Feb 10, 1998
Extracted: Feb 12, 1998
Analyzed: Feb 12, 1998
Reported: Feb 16, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**1.4**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)	85%
aaa-Trifluorotoluene(80-120)	107%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Method Blank

Extracted: Feb 12, 19
Analyzed: Feb 12, 19
Reported: Feb 16, 1998
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accpet. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	83%
aaa-Trifluorotoluene(80-120).....	101%

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 02/12/98

Sample #: PHB00496

Batch #: HB125A1W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Mean PR	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	%	RPD	Mean PR
enzene	0	5.0	4.9	4.9	98	99	0.61	98	<30	39 - 150
hloroform	0.19	5.0	5.3	4.9	102	94	7.7	98	<30	49 - 133
loroethane	0	5.0	4.9	4.3	99	85	15	92	<30	47 - 132
ichloroethane	0	5.0	4.5	4.4	91	88	3.0	89	<30	51 - 147
1-Dichloroethene	0	5.0	5.0	4.9	101	97	3.9	99	<30	28 - 167
etrachloroethene	0.51	5.0	5.2	4.3	95	76	19	85	<30	26 - 162
oluene	0.40	5.0	5.4	5.3	100	99	1.3	99	<30	46 - 148
richloroethene	0.35	5.0	5.5	5.3	103	98	4.1	100	<30	35 - 146

Definition of Terms

R1. . . . . Result of Sample Analysis
Sp. . . . . Spike Concentration added to sample
MS. . . . . Matrix Spike Result
MSD. . . . . Matrix Spike Duplicate Result
PR1. . . . . Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2. . . . . Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR. . . . . Mean Percent Recovery
ceptance Limits . . . . . Determined by EPA Method 601/602

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9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 5[illegible] FAX (619) 505-9689
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

CHAIN OF CUSTODY FORM

t Name/Address: HSG 4995 S. Ash Ave., G1 Tempe, AZ 85282

Project/PO Number: N386-122

ct Manager: Steve Smith

Phone Number: 829-2800

ler: Phil Odenkirk

Fax Number: 839-2828

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Analysis Required: 601/602									Special Instructions
rip Blank	AQ	VOA	1		HCL	X									
B-1-P3			2	2·10·98/1045		X									
4 S			2	2·9·98/1530		X									
3 S				2·9·98/1345		X									
CP-10				2·10·98/1250		X									
CP-4				2·10·98/1530		X									

uished By:	Date /Time: 2·10·98/1800	Received by:	Date /Time:
uished By:	Date /Time:	Received by:	Date /Time:
uished By:	Date /Time:	Received in Lab by:	Date /Time: 2/10/98 1800

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact X on ice X

By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is ithin 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-5401

ISI Geo Trans, Inc.
365 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122

Report Number: PHB00728

Sampled: Feb 13, 1998
Received: Feb 13, 1998
Extracted: Feb 18, 1998
Analyzed: Feb 18, 1998
Reported: Feb 19, 1998

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	EPA ANALYSES
PHB00728	MW-3S	Water	601 & 602
PHB00729	MW-3M	Water	601 & 602
PHB00730	MW-22	Water	601 & 602
PHB00731	MW-2M	Water	601 & 602
PHB00732	EB-2	Water	601 & 602
PHB00733	MW-2S	Water	601 & 602
PHB00735	Trip Blank	Water	601 & 602
PHB00736	EB4-P1	Water	601 & 602

SAMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation.

HOLDING TIMES: Holding times were met.

PROBLEMS ENCOUNTERED: No problems were encountered during sample analysis.

QA/QC CRITERIA: All QA/QC met acceptance criteria.

OBSERVATIONS: No significant observations were made.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122

Sample Descript: Water, MW-3S
Lab Number: PHB00728

Sampled: Feb 13, 199
Received: Feb 13, 199
Extracted: Feb 18, 1998
Analyzed: Feb 18, 1998
Reported: Feb 19, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	108%
aaa-Trifluorotoluene(80-120).....	99%

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SI Geo Trans, Inc.
365 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122
Sample Descript: Water, MW-3M
Lab Number: PHB00729

Sampled: Feb 13, 1998
Received: Feb 13, 1998
Extracted: Feb 18, 1998
Analyzed: Feb 18, 1998
Reported: Feb 19, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	104%
aaa-Trifluorotoluene(80-120).....	97%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122

Sample Descript: Water, MW-22
Lab Number: PHB00730

Sampled: Feb 13, 1[illegible]
Received: Feb 13, 19[illegible]
Extracted: Feb 18, 1998
Analyzed: Feb 18, 1998
Reported: Feb 19, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**1.8**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	110%
aaa-Trifluorotoluene(80-120).....	98%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-3401

Del Mar Analytical

SI Geo Trans, Inc.	Client Project ID: N386-122	Sampled: Feb 13, 1998
865 South Ash Ave., Ste. G-1		Received: Feb 13, 1998
Tempe, AZ 85282	Sample Descript: Water, MW-2M	Extracted: Feb 18, 1998
Attention: Steve Smith	Lab Number: PHB00731	Analyzed: Feb 18, 1998
		Reported: Feb 19, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	2.5	N.D.
Bromoform	2.5	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	2.5	N.D.
Chlorobenzene	2.5	N.D.
Chloroethane	13	N.D.
Chloroform	2.5	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	2.5	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
1,1-Dichloroethane	2.5	N.D.
1,2-Dichloroethane	2.5	N.D.
1-Dichloroethene	2.5	N.D.
s-1,2-Dichloroethene	2.5	N.D.
ans-1,2-Dichloroethene	2.5	N.D.
1,2-Dichloropropane	2.5	N.D.
cis-1,3-Dichloropropene	2.5	N.D.
trans-1,3-Dichloropropene	2.5	N.D.
Methylene chloride	50	N.D.
1,1,2,2-Tetrachloroethane	2.5	N.D.
Tetrachloroethene	2.5	N.D.
1,1,1-Trichloroethane	2.5	N.D.
1,1,2-Trichloroethane	2.5	N.D.
Trichloroethene	**2.5**	**110**
Trichlorofluoromethane	2.5	N.D.
Vinyl chloride	5.0	N.D.
Benzene	2.5	N.D.
Ethylbenzene	2.5	N.D.
Toluene	2.5	N.D.
Total Xylenes	7.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 5.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	108%
aaa-Trifluorotoluene(80-120).....	102%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122

Sample Descript: Water, EB-2
Lab Number: PHB00732

Sampled: Feb 13, 19[illegible]
Received: Feb 13, 19[illegible]
Extracted: Feb 18, 1998
Analyzed: Feb 18, 1998
Reported: Feb 19, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	103%
aaa-Trifluorotoluene(80-120).....	101%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-3401

Geo Trans, Inc.
365 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122
Sample Descript: Water, MW-2S
Lab Number: PHB00733

Sampled: Feb 13, 1998
Received: Feb 13, 1998
Extracted: Feb 18, 1998
Analyzed: Feb 18, 1998
Reported: Feb 19, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**1.8**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	109%
aaa-Trifluorotoluene(80-120).....	100%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122

Sample Descript: Water, Trip Blank
Lab Number: PHB00735

Sampled: Feb 13, 19[illegible]
Received: Feb 13, 1[illegible]
Extracted: Feb 18, 1998
Analyzed: Feb 18, 1998
Reported: Feb 19, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	109%
aaa-Trifluorotoluene(80-120).....	97%

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Del Mar Analytical

SI Geo Trans, Inc.
665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122
Sample Descript: Water, EB4-P1
Lab Number: PHB00736

Sampled: Feb 13, 1998
Received: Feb 13, 1998
Extracted: Feb 18, 1998
Analyzed: Feb 18, 1998
Reported: Feb 19, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	**0.50**	**15**
Bromoform	**0.50**	**1.6**
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	**0.50**	**28**
Chloromethane	1.0	N.D.
Dibromochloromethane	**0.50**	**12**
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1-Dichloroethene	0.50	N.D.
-1,2-Dichloroethene	0.50	N.D.
ans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	**0.50**	**1.8**
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	116%
aaa-Trifluorotoluene(80-120).....	103%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Method Blank

Extracted: Feb 18, 19
Analyzed: Feb 18, 19
Reported: Feb 19, 1998
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accpet. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	108%
aaa-Trifluorotoluene(80-120).....	104%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-5401

MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 02/18/98

Sample #: PHB00733

Batch #: HB185A1W

Analyte	R1 ppb	Sp ppb	MS ppb	MSD ppb	PR1 %	PR2 %	RPD %	Mean PR %	Acceptance Limits RPD	Acceptance Limits Mean PR
enzene	0	5.0	4.8	4.3	96	86	10	91	< 30	39 - 150
hloroform	0	5.0	6.0	6.9	120	139	14	130	< 30	49 - 133
hloroethane	0	5.0	5.7	6.0	115	120	4.8	117	< 30	47 - 132
ichloroethane	0	5.0	5.6	4.7	111	94	17	103	< 30	51 - 147
1-Dichloroethene	0	5.0	5.0	4.2	100	84	17	92	< 30	28 - 167
etrachloroethene	0.0091	5.0	5.7	6.0	114	120	4.7	117	< 30	26 - 162
oluene	0.18	5.0	5.1	5.0	98	96	1.5	97	< 30	46 - 148
richloroethene	1.8	5.0	7.4	7.7	113	119	4.5	116	< 30	35 - 146

Definition of Terms

R1. . . . . Result of Sample Analysis
Sp. . . . . Spike Concentration added to sample
MS. . . . . Matrix Spike Result
MSD. . . . . Matrix Spike Duplicate Result
PR1. . . . . Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2. . . . . Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR. . . . . Mean Percent Recovery
ceptance Limits . . . . . Determined by EPA Method 601/602

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9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1

CHAIN OF CUSTODY FORM

Client Name/Address: HSIG 4665 S. Ash. Ave., G1 Tempe, AZ 85282

Project/PO Number: N386-122

Project Manager: Steve Smith

Phone Number: 839-2800

Sampler: Phil Ochenkirk

Fax Number: 839-2828

Analysis Required: 601/602

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	601/602									Special Instructions
MW-3S	AQ	VOA	2	2·13·98 1345	HCL	X									
MW-3M				2·13·98 1445		X									
MW-22				2·13·98 0900		X									
MW-2M				2·13·98 1200		X									
FB-2				2·13·98 1100		X									
MW-2S				2·13·98 1100		X									
MW-2S-MS/MSD				2·13·98 1100		X									Matrix Spike/Dup.
Trip Blank			1	—		X									
EB4-P1			2	2·13·98 1630		X									

Relinquished By: [signature] Date /Time: 2·13·98/1740

Received by: Date /Time:

Relinquished By: Date /Time:

Received by: Date /Time:

Relinquished By: Date /Time:

Received in Lab by: [signature] Date /Time: 2/13/98 1740

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact X on ice X

Note: By relinqu[illegible] mples to Del Mar Analytical, client agrees to pay for the services requested o[illegible] ain of custody form and any additional analyses performed on this project. Pay[illegible] r services is lue within 30 days [illegible] e date of invoice. Sample(s) will be disposed of after 30 days.

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Del Mar Analytical

SI Geo Trans, Inc.
865 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122

Report Number: PHB01008

Sampled: Feb 18, 1998
Received: Feb 20, 1998
Extracted: Feb 27, 1998
Analyzed: Feb 27, 1998
Reported: Mar 3, 1998

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	EPA ANALYSES
PHB01008	MW-105M	Water	601 & 602
PHB01009	MW-106M	Water	601 & 602
PHB01010	MW-102M	Water	601 & 602
PHB01011	MW-102S	Water	601 & 602
PHB01012	EB-6-BQ	Water	601 & 602
PHB01013	MW-13M	Water	601 & 602
PHB01014	WCP-12	Water	601 & 602
PHB01015	WCP-14	Water	601 & 602
PHB01016	Trip Blank	Water	601 & 602

SAMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation.

HOLDING TIMES: Holding times were met.

PROBLEMS ENCOUNTERED: No problems were encountered during sample analysis.

QA/QC CRITERIA: All QA/QC met acceptance criteria.

OBSERVATIONS: No significant observations were made.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-5401

HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122

Sample Descript: Water, MW-105M
Lab Number: PHB01008

Sampled: Feb 18, 19
Received: Feb 20, 19
Extracted: Feb 27, 1998
Analyzed: Feb 27, 1998
Reported: Mar 3, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	1.0	N.D.
Bromoform	1.0	N.D.
Bromomethane	2.0	N.D.
Carbon tetrachloride	1.0	N.D.
Chlorobenzene	1.0	N.D.
Chloroethane	5.0	N.D.
Chloroform	1.0	N.D.
Chloromethane	2.0	N.D.
Dibromochloromethane	1.0	N.D.
1,2-Dichlorobenzene	2.0	N.D.
1,3-Dichlorobenzene	2.0	N.D.
1,4-Dichlorobenzene	2.0	N.D.
1,1-Dichloroethane	1.0	N.D.
1,2-Dichloroethane	1.0	N.D.
1,1-Dichloroethene	1.0	N.D.
cis-1,2-Dichloroethene	1.0	N.D.
trans-1,2-Dichloroethene	1.0	N.D.
1,2-Dichloropropane	1.0	N.D.
cis-1,3-Dichloropropene	1.0	N.D.
trans-1,3-Dichloropropene	1.0	N.D.
Methylene chloride	20	N.D.
1,1,2,2-Tetrachloroethane	1.0	N.D.
Tetrachloroethene	1.0	N.D.
1,1,1-Trichloroethane	1.0	N.D.
1,1,2-Trichloroethane	1.0	N.D.
Trichloroethene	**1.0**	**52**
Trichlorofluoromethane	1.0	N.D.
Vinyl chloride	2.0	N.D.
Benzene	1.0	N.D.
Ethylbenzene	1.0	N.D.
Toluene	1.0	N.D.
Total Xylenes	3.0	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 2.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	96%
aaa-Trifluorotoluene(80-120).....	101%

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Del Mar Analytical

HSI Geo Trans, Inc.
365 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122
Sample Descript: Water, MW-106M
Lab Number: PHB01009

Sampled: Feb 18, 1998
Received: Feb 20, 1998
Extracted: Feb 27, 1998
Analyzed: Feb 27, 1998
Reported: Mar 3, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	99%
aaa-Trifluorotoluene(80-120).....	101%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122
Sample Descript: Water, MW-102M
Lab Number: PHB01010

Sampled: Feb 18, 19
Received: Feb 20, 19
Extracted: Feb 27, 1998
Analyzed: Feb 27, 1998
Reported: Mar 3, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**11**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	98%
aaa-Trifluorotoluene(80-120).....	100%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-5401

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...I Geo Trans, Inc.	Client Project ID: N386-122	Sampled:	Feb 18, 1998
...865 South Ash Ave., Ste. G-1		Received:	Feb 20, 1998
Tempe, AZ 85282	Sample Descript: Water, MW-102S	Extracted:	Feb 27, 1998
Attention: Steve Smith	Lab Number: PHB01011	Analyzed:	Feb 27, 1998
		Reported:	Mar 3, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	1.3	N.D.
Bromoform	1.3	N.D.
Bromomethane	2.5	N.D.
Carbon tetrachloride	1.3	N.D.
Chlorobenzene	1.3	N.D.
Chloroethane	6.3	N.D.
Chloroform	**1.3**	**2.1**
Chloromethane	2.5	N.D.
Dibromochloromethane	1.3	N.D.
1,2-Dichlorobenzene	2.5	N.D.
1,3-Dichlorobenzene	2.5	N.D.
1,4-Dichlorobenzene	2.5	N.D.
1,1-Dichloroethane	1.3	N.D.
1,2-Dichloroethane	1.3	N.D.
...Dichloroethene	**1.3**	**4.4**
...s-1,2-Dichloroethene	1.3	N.D.
...ans-1,2-Dichloroethene	1.3	N.D.
1,2-Dichloropropane	1.3	N.D.
cis-1,3-Dichloropropene	1.3	N.D.
trans-1,3-Dichloropropene	1.3	N.D.
Methylene chloride	25	N.D.
1,1,2,2-Tetrachloroethane	1.3	N.D.
Tetrachloroethene	**1.3**	**1.6**
1,1,1-Trichloroethane	1.3	N.D.
1,1,2-Trichloroethane	1.3	N.D.
Trichloroethene	**1.3**	**60**
Trichlorofluoromethane	1.3	N.D.
Vinyl chloride	2.5	N.D.
Benzene	1.3	N.D.
Ethylbenzene	1.3	N.D.
Toluene	1.3	N.D.
Total Xylenes	3.8	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 2.5.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	107%
aaa-Trifluorotoluene(80-120).....	102%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122
Sample Descript: Water, EB-6-BQ
Lab Number: PHB01012

Sampled: Feb 18, 19
Received: Feb 20, 19
Extracted: Feb 27, 1998
Analyzed: Feb 27, 1998
Reported: Mar 3, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)	98%
aaa-Trifluorotoluene(80-120)	94%

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GI Geo Trans, Inc.
565 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122
Sample Descript: Water, MW-13M
Lab Number: PHB01013

Sampled: Feb 18, 1998
Received: Feb 20, 1998
Extracted: Feb 27, 1998
Analyzed: Feb 27, 1998
Reported: Mar 3, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	101%
aaa-Trifluorotoluene(80-120).....	100%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122
Sample Descript: Water, WCP-12
Lab Number: PHB01014

Sampled: Feb 18, 19
Received: Feb 20, 19
Extracted: Feb 27, 1998
Analyzed: Feb 27, 1998
Reported: Mar 3, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	**0.50**	**1.2**
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**1.0**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	102%
aaa-Trifluorotoluene(80-120).....	95%

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GI Geo Trans, Inc.	Client Project ID: N386-122	Sampled:	Feb 18, 1998
665 South Ash Ave., Ste. G-1		Received:	Feb 20, 1998
Tempe, AZ 85282	Sample Descript: Water, WCP-14	Extracted:	Feb 27, 1998
Attention: Steve Smith	Lab Number: PHB01015	Analyzed:	Feb 27, 1998
		Reported:	Mar 3, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
-Dichloroethene	0.50	N.D.
is-1,2-Dichloroethene	0.50	N.D.
ans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	96%
aaa-Trifluorotoluene(80-120).....	92%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122
Sample Descript: Water, Trip Blank
Lab Number: PHB01016

Sampled: Feb 18, 19
Received: Feb 20, 19
Extracted: Feb 27, 1998
Analyzed: Feb 27, 1998
Reported: Mar 3, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	103%
aaa-Trifluorotoluene(80-120).....	95%

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SI Geo Trans, Inc.
665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Method Blank

Extracted: Feb 27, 1998
Analyzed: Feb 27, 1998
Reported: Mar 3, 1998
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
-1,2-Dichloroethene	0.50	N.D.
ans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accpet. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	101%
aaa-Trifluorotoluene(80-120).....	102%

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 02/27/98

Sample #: PHB01009

Batch #: HB275A1W

Analyte	R1 ppb	Sp ppb	MS ppb	MSD ppb	PR1 %	PR2 %	RPD %	Mean PR %	Acceptance Limits RPD	Acceptance Limits Mean PR
Benzene	0	5.0	4.5	4.6	90	91	1.9	90	<30	39 - 150
Chloroform	0.082	5.0	6.3	6.7	124	132	6.1	128	<30	49 - 133
1,1-Dichloroethane	0	5.0	5.4	5.5	108	110	1.9	109	<30	47 - 132
1,2-Dichloroethane	0	5.0	5.7	5.7	114	113	0.79	114	<30	51 - 147
1,1-Dichloroethene	0	5.0	4.9	3.8	97	75	25	86	<30	28 - 167
Tetrachloroethene	0.038	5.0	6.1	5.9	121	117	2.9	119	<30	26 - 162
Toluene	0.25	5.0	4.7	4.9	89	92	3.6	90	<30	46 - 148
Trichloroethene	0	5.0	6.0	6.4	120	127	6.0	123	<30	35 - 146

Definition of Terms

R1..... Result of Sample Analysis
Sp..... Spike Concentration added to sample
MS..... Matrix Spike Result
MSD..... Matrix Spike Duplicate Result
PR1..... Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2..... Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR..... Mean Percent Recovery
Acceptance Limits..... Determined by EPA Method 601/602

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CHAIN OF CUSTODY FORM

lient Name/Address: HS16 4665 S. Ash Ave., G1 Tempe, AZ 85282

Project/PO Number: N386-122

roject Manager/Phone Number: Steve Smith/839-2800

Sampler: Phil Clerkirk

Analysis Required: 601/602

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	601/602	Special Instructions
MW-105 M	ACQ	VOA	2	2-18-98 1230	HCL	X	
MW-106 M				2-18-98 1500		X	
MW-102 M				2-18-98 0900		X	
MW-102 S				2-18-98 1330		X	
FB-6-BQ				2-18-98 1015		X	
MW-13 M				2-18-98 1115		X	
WCP-12				2-18-98 1515		X	
WCP-14				2-18-98 1630		X	
Trip Blank			1	—		X	

linquished By: [signature]	Date /Time: 2-20-98 0740	Received by: [signature]	Date /Time: 2-20-98 0740
linquished By:	Date /Time:	Received by:	Date /Time:
linquished By:	Date /Time:	Received in Lab by: [signature]	Date /Time: 2-20-98 0740

Turnaround Time: (check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal ✓

Sample Integrity: (Check)
intact ✓ on ice ✓

te: Sample(s) will be disposed of after 30 days.

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122

Report Number: PHB00808

Sampled: Feb 17, 1[illegible]
Received: Feb 17, 19[illegible]
Extracted: Feb 19, 1998
Analyzed: Feb 19, 1998
Reported: Feb 20, 1998

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	EPA ANALYSES
PHB00808	FB-3	Water	601 & 602
PHB00809	MW-11S	Water	601 & 602
PHB00810	WCP-3	Water	601 & 602
PHB00811	MW-1S	Water	601 & 602
PHB00812	EB-5-P3	Water	601 & 602
PHB00813	MW-5S	Water	601 & 602
PHB00814	Trip Blank	Water	601 & 602

SAMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation.

HOLDING TIMES: Holding times were met.

PROBLEMS ENCOUNTERED: No problems were encountered during sample analysis.

QA/QC CRITERIA: All QA/QC met acceptance criteria.

OBSERVATIONS: No significant observations were made.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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HSI Geo Trans, Inc.
665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122

Sample Descript: Water, FB-3
Lab Number: PHB00808

Sampled: Feb 17, 1998
Received: Feb 17, 1998
Extracted: Feb 19, 1998
Analyzed: Feb 19, 1998
Reported: Feb 20, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	117%
aaa-Trifluorotoluene(80-120).....	110%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122

Sample Descript: Water, MW-11S
Lab Number: PHB00809

Sampled: Feb 17, 1
Received: Feb 17, 19
Extracted: Feb 19, 1998
Analyzed: Feb 19, 1998
Reported: Feb 10, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	1.3	N.D.
Bromoform	1.3	N.D.
Bromomethane	2.5	N.D.
Carbon tetrachloride	1.3	N.D.
Chlorobenzene	1.3	N.D.
Chloroethane	6.3	N.D.
Chloroform	1.3	N.D.
Chloromethane	2.5	N.D.
Dibromochloromethane	1.3	N.D.
1,2-Dichlorobenzene	2.5	N.D.
1,3-Dichlorobenzene	2.5	N.D.
1,4-Dichlorobenzene	2.5	N.D.
1,1-Dichloroethane	1.3	N.D.
1,2-Dichloroethane	1.3	N.D.
1,1-Dichloroethene	**1.3**	**1.6**
cis-1,2-Dichloroethene	1.3	N.D.
trans-1,2-Dichloroethene	1.3	N.D.
1,2-Dichloropropane	1.3	N.D.
cis-1,3-Dichloropropene	1.3	N.D.
trans-1,3-Dichloropropene	1.3	N.D.
Methylene chloride	25	N.D.
1,1,2,2-Tetrachloroethane	1.3	N.D.
Tetrachloroethene	**1.3**	**2.0**
1,1,1-Trichloroethane	1.3	N.D.
1,1,2-Trichloroethane	1.3	N.D.
Trichloroethene	**1.3**	**65**
Trichlorofluoromethane	1.3	N.D.
Vinyl chloride	2.5	N.D.
Benzene	1.3	N.D.
Ethylbenzene	1.3	N.D.
Toluene	1.3	N.D.
Total Xylenes	3.8	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 2.5.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	120%
aaa-Trifluorotoluene(80-120).....	114%

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SI Geo Trans, Inc.
665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122

Sample Descript: Water, WCP-3
Lab Number: PHB00810

Sampled: Feb 17, 1998
Received: Feb 17, 1998
Extracted: Feb 19, 1998
Analyzed: Feb 19, 1998
Reported: Feb 20, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	**0.50**	**0.54**
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	**0.50**	**0.91**
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
-1,2-Dichloroethene	0.50	N.D.
ans-1,2-Dichloroethene	0.50	N.D.
,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	120%
aaa-Trifluorotoluene(80-120).....	108%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122

Sample Descript: Water, MW-1S
Lab Number: PHB00811

Sampled: Feb 17, 199[illegible]
Received: Feb 17, 19[illegible]
Extracted: Feb 19, 199[illegible]
Analyzed: Feb 19, 1998
Reported: Feb 20, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	1.3	N.D.
Bromoform	1.3	N.D.
Bromomethane	2.5	N.D.
Carbon tetrachloride	1.3	N.D.
Chlorobenzene	1.3	N.D.
Chloroethane	6.3	N.D.
Chloroform	1.3	N.D.
Chloromethane	2.5	N.D.
Dibromochloromethane	1.3	N.D.
1,2-Dichlorobenzene	2.5	N.D.
1,3-Dichlorobenzene	2.5	N.D.
1,4-Dichlorobenzene	2.5	N.D.
1,1-Dichloroethane	1.3	N.D.
1,2-Dichloroethane	1.3	N.D.
1,1-Dichloroethene	**1.3**	**1.6**
cis-1,2-Dichloroethene	1.3	N.D.
trans-1,2-Dichloroethene	1.3	N.D.
1,2-Dichloropropane	1.3	N.D.
cis-1,3-Dichloropropene	1.3	N.D.
trans-1,3-Dichloropropene	1.3	N.D.
Methylene chloride	25	N.D.
1,1,2,2-Tetrachloroethane	1.3	N.D.
Tetrachloroethene	1.3	N.D.
1,1,1-Trichloroethane	1.3	N.D.
1,1,2-Trichloroethane	1.3	N.D.
Trichloroethene	**1.3**	**65**
Trichlorofluoromethane	1.3	N.D.
Vinyl chloride	2.5	N.D.
Benzene	1.3	N.D.
Ethylbenzene	1.3	N.D.
Toluene	1.3	N.D.
Total Xylenes	3.8	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 2.5.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	120%
aaa-Trifluorotoluene(80-120).....	111%

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Del Mar Analytical

ISI Geo Trans, Inc.	Client Project ID: N386-122	Sampled: Feb 17, 1998
665 South Ash Ave., Ste. G-1		Received: Feb 17, 1998
Tempe, AZ 85282	Sample Descript: Water, EB-5-P3	Extracted: Feb 19, 1998
Attention: Steve Smith	Lab Number: PHB00812	Analyzed: Feb 19, 1998
		Reported: Feb 20, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	**0.50**	**1.7**
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	**0.50**	**1.7**
Chloromethane	1.0	N.D.
Dibromochloromethane	**0.50**	**1.9**
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	99%
aaa-Trifluorotoluene(80-120).....	88%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122

Sample Descript: Water, MW-5S
Lab Number: PHB00813

Sampled: Feb 17, 19
Received: Feb 17, 199
Extracted: Feb 19, 1998
Analyzed: Feb 19, 1998
Reported: Feb 20, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	2.5	N.D.
Bromoform	2.5	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	2.5	N.D.
Chlorobenzene	2.5	N.D.
Chloroethane	13	N.D.
Chloroform	2.5	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	2.5	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
1,1-Dichloroethane	2.5	N.D.
1,2-Dichloroethane	2.5	N.D.
1,1-Dichloroethene	**2.5**	**18**
cis-1,2-Dichloroethene	2.5	N.D.
trans-1,2-Dichloroethene	2.5	N.D.
1,2-Dichloropropane	2.5	N.D.
cis-1,3-Dichloropropene	2.5	N.D.
trans-1,3-Dichloropropene	2.5	N.D.
Methylene chloride	50	N.D.
1,1,2,2-Tetrachloroethane	2.5	N.D.
Tetrachloroethene	**2.5**	**3.6**
1,1,1-Trichloroethane	2.5	N.D.
1,1,2-Trichloroethane	2.5	N.D.
Trichloroethene	**2.5**	**96**
Trichlorofluoromethane	2.5	N.D.
Vinyl chloride	5.0	N.D.
Benzene	2.5	N.D.
Ethylbenzene	2.5	N.D.
Toluene	2.5	N.D.
Total Xylenes	7.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 5.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	113%
aaa-Trifluorotoluene(80-120).....	104%

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Del Mar Analytical

...l Geo Trans, Inc.	Client Project ID: N386-122	Sampled: Feb 17, 1998
665 South Ash Ave., Ste. G-1		Received: Feb 17, 1998
Tempe, AZ 85282	Sample Descript: Water, Trip Blank	Extracted: Feb 19, 1998
Attention: Steve Smith	Lab Number: PHB00814	Analyzed: Feb 19, 1998
		Reported: Feb 20, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
...-Dichloroethene	0.50	N.D.
...-1,2-Dichloroethene	0.50	N.D.
...ans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

H. Matsumoto

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	119%
aaa-Trifluorotoluene(80-120).....	112%

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Method Blank

Extracted: Feb 19, 19
Analyzed: Feb 19, 19
Reported: Feb 20, 1998
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accpet. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	112%
aaa-Trifluorotoluene(80-120).....	104%

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16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-8401

MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 02/19/98

Sample #: PHB00808

Batch #: HB19121W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Mean PR	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	%	RPD	Mean PR
enzene	0.049	5.0	4.7	5.0	93	98	5.2	96	<30	39 - 150
hloroform	0	5.0	5.7	6.1	115	122	6.4	118	<30	49 - 133
1-D hloroethane	0	5.0	5.5	5.9	110	118	6.7	114	<30	47 - 132
chloroethane	0	5.0	4.9	6.1	99	122	21	111	<30	51 - 147
1-Dichloroethene	0	5.0	4.7	5.1	95	103	8.1	99	<30	28 - 167
etrachloroethene	0	5.0	5.8	6.2	115	123	6.7	119	<30	26 - 162
oluene	0.35	5.0	5.1	5.4	96	102	5.7	99	<30	46 - 148
ichloroethene	0	5.0	5.8	6.1	115	122	5.7	118	<30	35 - 146

Definition of Terms

R1..... Result of Sample Analysis
Sp..... Spike Concentration added to sample
MS..... Matrix Spike Result
MSD..... Matrix Spike Duplicate Result
PR1..... Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2..... Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR..... Mean Percent Recovery
ceptance Limits..... Determined by EPA Method 601/602

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9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) [illegible] FAX (619) 505-9689
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

CHAIN OF CUSTODY FORM

Client Name/Address: HSIG 4665 S. Ash Ave., G1 Tempe, AZ 85282

Project/PO Number: N386-122

Project Manager: Steve Smith

Phone Number: 839-2800

Sampler: Phil Odenkirk

Fax Number: 839-2828

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Analysis Required: 601/602									Special Instructions
MW 1S- MS/MSD	AQ	VOA	2	2.17.98 1245	HCL	X									
FB-3				2.17.98 1245		X									
MW-11S				2.17.98 0900		X									
WCP-3				2.17.98 1200		X									
MW-1S				2.17.98 1245		X									
EB-5-P3				2.17.98 1530		X									
MW-5S				2.17.98 1430		X									
Trip Blank			1	—		X									

Relinquished By:	Date /Time:	Received by:	Date /Time:	Turnaround Time: (Check)
[signature]	2.17.98/1655			same day ___ 72 hours ___
Relinquished By:	Date /Time:	Received by:	Date /Time:	24 hours ___ 5 days ___
				48 hours ___ normal ✓
Relinquished By:	Date /Time:	Received in Lab by: [signature]	Date /Time: 2/17/98 1655	Sample Integrity: (Check) intact ✓ on ice ✓

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

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SI Geo Trans, Inc.
365 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122

Report Number: PHB01107

Sampled: Feb 23, 1998
Received: Feb 23, 1998
Extracted: 2/24-3/4, 1998
Analyzed: 2/24-3/4, 1998
Reported: Mar 6, 1998

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	ANALYSES
PHB01107	Trip Blank	Water	601 & 602
PHB01108	WOC-PW	Water	601, 602, 200.7, 245.1, SM4500-CN,C-E & SM4500-CN-G
PHB01109	MW-7S	Water	601 & 602

SAMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation.

HOLDING TIMES: Holding times were met.

PROBLEMS ENCOUNTERED: No problems were encountered during sample analysis.

QA/QC CRITERIA: All QA/QC met acceptance criteria.

OBSERVATIONS: No significant observations were made.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122
Sample Descript: Water, Trip Blank
Lab Number: PHB01107

Sampled: Feb 23, 199[illegible]
Received: Feb 23, 19[illegible]
Extracted: Mar 2, 199[illegible]
Analyzed: Mar 2, 1998
Reported: Mar 6, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	85%
aaa-Trifluorotoluene(80-120).....	95%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-3401

SI Geo Trans, Inc.	Client Project ID: N386-122	Sampled: Feb 23, 1998
565 South Ash Ave., Ste. G-1		Received: Feb 23, 1998
Tempe, AZ 85282	Sample Descript: Water, WOC-PW	Extracted: Mar 2, 1998
Attention: Steve Smith	Lab Number: PHB01108	Analyzed: Mar 2, 1998
		Reported: Mar 6, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	80%
aaa-Trifluorotoluene(80-120).....	93%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-3401

HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122

Sample Descript: Water, MW-7S
Lab Number: PHB01109

Sampled: Feb 23, 199
Received: Feb 23, 19
Extracted: Mar 2, 1998
Analyzed: Mar 2, 1998
Reported: Mar 6, 1998

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	82%
aaa-Trifluorotoluene(80-120).....	90%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-3401

Del Mar Analytical

SI Geo Trans, Inc.
365 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122
Sample Descript: Water, WOC-PW
Lab Number: PHB01108

Sampled: Feb 23, 1998
Received: Feb 23, 1998
Extracted: 2/24-3/2, 1998
Analyzed: 2/24-3/2, 1998
Reported: Mar 6, 1998

TOTAL RECOVERABLE METALS

Analyte	EPA Method	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)
Arsenic	200.7	0.010	N.D.
Barium	200.7	0.050	0.056
Cadmium	200.7	0.0050	N.D.
Chromium (VI)	218.4	0.025	N.D.
Copper	200.7	0.020	N.D.
Lead	200.7	0.050	N.D.
Manganese	200.7	0.050	N.D.
Mercury	245.1	0.00020	N.D.
Selenium	200.7	0.020	N.D.
Silver	200.7	0.050	N.D.
Zinc	200.7	0.050	0.42

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Client Project ID: N386-122
Sample Descript: Water, WOC-PW
Lab Number: PHB01108

Sampled: Feb 23, 199[illegible]
Received: Feb 23, 19[illegible]
Extracted: Mar 4, 1998
Analyzed: Mar 4, 1998
Reported: Mar 6, 1998

LABORATORY ANALYSIS

Analyte	EPA Method	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)
Cyanide	SM4500-CN,C-E	0.025	N.D.
Cyanide, Amenable	SM4500-CN-G	0.025	N.D.

Analysis was completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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l Geo Trans, Inc.
565 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Method Blank

Extracted: Mar 2, 1998
Analyzed: Mar 2, 1998
Reported: Mar 6, 1998
Matrix: Water

PURGEABLE HALOCARBONS AND AROMATICS (EPA 601/602)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	2.5	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
1,2-Dichloroethene	0.50	N.D.
ans-1,2-Dichloroethene	0.50	N.D.
ı,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Benzene	0.50	N.D.
Ethylbenzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.5	N.D.

* PID/ELCD were used in series for this analysis.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

Surrogate Standard Recoveries (Accpet. Limits):	
1-Chloro-3-fluorobenzene(80-120)..	84%
aaa-Trifluorotoluene(80-120).....	94%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-3401

HSI Geo Trans, Inc.
4665 South Ash Ave., Ste. G-1
Tempe, AZ 85282
Attention: Steve Smith

Method Blank

Extracted: 2/24-3/2, 199
Analyzed: 2/24-3/2, 199
Reported: Mar 6, 1998
Matrix: Water

TOTAL RECOVERABLE METALS

Analyte	EPA Method	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)
Arsenic	200.7	0.010	N.D.
Barium	200.7	0.050	N.D.
Cadmium	200.7	0.0050	N.D.
Chromium (VI)	218.4	0.025	N.D.
Copper	200.7	0.020	N.D.
Lead	200.7	0.050	N.D.
Manganese	200.7	0.050	N.D.
Mercury	245.1	0.00020	N.D.
Selenium	200.7	0.020	N.D.
Silver	200.7	0.050	N.D.
Zinc	200.7	0.050	N.D.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Jeff Matsumoto
Project Manager

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MS/MSD DATA REPORT

EPA Method 601/602

Matrix: Water

Date: 03/02/98

Sample #: PHB01109

Batch #: HC025A1W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Mean PR	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	%	RPD	Mean PR
enzene	0	5.0	4.4	4.2	88	85	4.4	86	<30	39 - 150
Chloroform	0	5.0	5.3	5.1	106	103	3.7	104	<30	49 - 133
1- hloroethane	0	5.0	4.4	4.2	87	84	4.3	85	<30	47 - 132
l, chloroethane	0	5.0	4.5	4.5	90	90	0.39	90	<30	51 - 147
1-Dichloroethene	0	5.0	3.9	3.5	78	71	9.8	74	<30	28 - 167
etrachloroethene	0	5.0	4.8	4.8	97	96	0.90	96	<30	26 - 162
oluene	0.27	5.0	4.6	4.5	86	85	1.3	85	<30	46 - 148
ichloroethene	0	5.0	5.1	4.8	102	97	5.8	99	<30	35 - 146

Definition of Terms

R1..... Result of Sample Analysis
Sp..... Spike Concentration added to sample
MS..... Matrix Spike Result
MSD..... Matrix Spike Duplicate Result
PR1..... Percent Recovery of MS; ((MS-R1)/SP) X 100
PR2..... Percent Recovery of MSD; ((MSD-R1)/SP) X 100
RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
Mean PR..... Mean Percent Recovery
ceptance Limits..... Determined by EPA Method 601/602

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MS/MSD DATA REPORT

EPA METHOD: 245.1
Matrix: Water

DATE: 2/11/98

SAMPLE # PHB01240

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppb	ppb	ppb	ppb	%	%	%	%
Mercury	0	5.0	5.1	5.0	102%	100%	2.0%	101%

Definition of Terms:

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; (MS-R1) / SP X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

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QA/QC CRITERIA: All QA/QC was within acceptance limits.

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MS/MSD DATA REPORT

METHOD Metals
Instrument: ICP
Matrix: Water

Date: 2/25/98

Sample #: PHB00621

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppb	ppb	ppb	ppb	%	%	%	%
Aluminum*	0.49	1.0	2.2	2.2	171%	171%	0.0%	171%
Antimony	0.0	1.0	0.87	0.88	87%	88%	1.1%	88%
Arsenic	0.017	1.0	0.89	0.90	87%	88%	1.1%	88%
Barium	0.0072	1.0	0.87	0.88	86%	87%	1.1%	87%
Beryllium	0.00077	1.0	0.90	0.91	90%	91%	1.1%	90%
Boron	0.51	1.0	1.5	1.4	99%	89%	6.9%	94%
Cadmium	0.00047	1.0	0.87	0.89	87%	89%	2.3%	88%
Calcium	15	10	23	23	80%	80%	0.0%	80%
Chromium	0.0014	1.0	0.85	0.86	85%	86%	1.2%	85%
Cobalt	0.0011	1.0	0.84	0.85	84%	85%	1.2%	84%
Copper	0.012	1.0	0.84	0.85	83%	84%	1.2%	83%
Iron	0.29	10	9.0	9.1	87%	88%	1.1%	88%
Lead	0.0	1.0	0.83	0.84	83%	84%	1.2%	84%
Magnesium	3.6	10	12	12	84%	84%	0.0%	84%
Manganese	0.0051	1.0	0.85	0.86	84%	85%	1.2%	85%
Molybdenum	0.0	1.0	0.84	0.86	84%	86%	2.4%	85%
Nickel	0.00018	1.0	0.84	0.86	84%	86%	2.4%	85%
Phosphorus	0.053	5.0	4.7	4.7	93%	93%	0.0%	93%
Selenium	0.0	1.0	0.88	0.89	88%	89%	1.1%	89%
Silica	33	21	54	55	100%	105%	1.8%	102%
Thallium	0.011	1.0	0.82	0.84	81%	83%	2.4%	82%
Vanadium	0.0076	1.0	0.87	0.89	86%	88%	2.3%	87%
Zinc	0.041	1.0	0.94	0.96	90%	92%	2.1%	91%

R1. . . . . Result of Sample Analysis
Sp. . . . . Spike Concentration Added to Sample
MS. . . . . Matrix Spike Result
MSD. . . . . Matrix Spike Duplicate Result
PR1. . . . . Percent Recovery of MS; ((MS-R1) / SP) X 100
PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP) X 100
RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

QA/QC CRITERIA: *QA/QC out of acceptance limits due to matrix interference. Bench spike is within acceptance limits, thus validating the analytical batch.

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Bench Spike Data Report

Method: **Metals**
Instrument: ICP
Matrix: Water

Date: 2/25/98
Sample #: PHB00621

Analyte	R1 ppm	Sp ppm	BS ppm	PR1 %
Aluminum	0.49	1.0	1.4	91%

R1..... Result of Sample Analysis
Sp..... Spike Concentration added to sample
BS..... Bench Spike Result
PR1..... Percent Recovery of BS; ((BS-R1)/SP) x 100

QA/QC CRITERIA: All QA/QC was within acceptance limits.

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MS/MSD DATA REPORT

METHOD Metals
Instrument: ICP
Matrix: Water

Date: 2/27/98

Sample #: PHB00621

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Silver	0	0.050	0.058	0.060	116%	120%	3.4%	118%

R1. . . . . Result of Sample Analysis
Sp. . . . . Spike Concentration Added to Sample
MS. . . . . Matrix Spike Result
MSD. . . . . Matrix Spike Duplicate Result
PR1. . . . . Percent Recovery of MS; ((MS-R1) / SP) X 100
PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP) X 100
RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

QA/QC CRITERIA: All QA/QC was within acceptance limits.

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MS/MSD DATA REPORT

EPA METHOD: **SM 4500-CN-C,E**
Matrix: Water

DATE: 3/4/98

SAMPLE # HB03687

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Total Cyanide	0	0.10	0.086	0.083	86%	83%	3.6%	85%

Definition of Terms:

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; (MS-R1) / SP X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

QA/QC CRITERIA: All QA/QC was within acceptance limits.

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CHAIN OF CUSTODY FORM

Client Name/Address: HSI G 4665 S. Ash Ave, G1 Tempe AZ 85282

Project/PO Number: N386-122

Project Manager/Phone Number: Steve Smith / ~~389~~ 839-2800

Sampler: Phil Ochenkirk

Analysis Required

Sample Description	Sample Matrix	Container Type	#of Cont	Sampling Date/Time	Preservatives	601/602	Cyanide	Amen. Cyanide	As, Ba, Cd, Cu, Zn, Pb, Mn, Hg, Se, Ag	Cr 6					Special Instructions
Trip Blank	AQ	VOA	1	—	HCL	X									
WOC-PW	↓	Varies	5	2-23-98 1200	Varies	X	X	X	X	X					
MW-7S	↓	VOA	2	2-23-98 1600	HCL	X									

Relinquished By:	Date /Time:	Received by:	Date /Time:	Turnaround Time: (check)	
[signature]	2-23-98/1750			same day ____	72 hours ____
Relinquished By:	Date /Time:	Received by:	Date /Time:	24 hours ____	5 days ____
				48 hours ____	normal X
Relinquished By:	Date /Time:	Received in Lab by:	Date /Time:	Sample Integrity: (Check)	
		K Eau	2/23/98 1750	intact X	on ice X

Note: Sample(s) will be disposed of after 30 days.