FOCUSED GROUND-WATER INVESTIGATION REPORT

AT THE

570 MAIN STREET MANUFACTURING FACILITY WESTBURY, NEW YORK NYSDEC SITE CODE #130043A

SEPTEMBER 1998

VOLUME II

PREPARED FOR:

IMC EASTERN CORP.

PREPARED BY:

HULL & ASSOCIATES, INC.
4700 DUKE DRIVE, SUITE 172
MASON, OHIO 45040
(513) 459-9677

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OCT 0 2 1998
Bureau of Eastern
Remedial Action

APPENDIX A

Preliminary Ground-Water Analytical Reports for
Near-Water-Table Samples at Atlas Graphics Property

facsimile
TRANSMITTAL

[redacted]

to: LANCE TURLEX
fax #: 513 - 459-2177
re: H_2O VOAs
date: Sept 10
pages: (including cover sheet), including this cover sheet. 7

From Joe Jones

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOA ANALYSES

Laboratory sample ID	Matrix	Date Collected	Date rec'd At Lab	LEVEL	Date Analyzed
B60211	SOIL	1/22/97	1/23/97	low	1/24/97
B60211DL	SOIL	1/22/97	1/23/97	low	1/27/97
B60212	SOIL	1/22/97	1/23/97	low	1/24/97
B60213	SOIL	1/22/97	1/23/97	low	1/24/97
B60215	SOIL	1/22/97	1/23/97	low	1/24/97
B60215DL	SOIL	1/22/97	1/23/97	low	1/27/97
B60216	SOIL	1/22/97	1/23/97	low	1/24/97
B60217	SOIL	1/22/97	1/23/97	low	1/24/97
B60218	SOIL	1/22/97	1/23/97	low	1/27/97
TRIP BLANK	water	1/22/97	1/23/97	low	1/30/97
B60220	water	1/22/97	1/23/97	low	1/29/97
B60220DL	water	1/22/97	1/23/97	low	1/30/97
B60221	water	1/22/97	1/23/97	low	1/29/97
B60221DL	water	1/22/97	1/23/97	low	1/29/97
B60222	water	1/22/97	1/23/97	low	1/28/97
B60222DL	water	1/22/97	1/23/97	low	1/28/97

Lance - these are from H2O samples
taken near the cesspool -
note High VOAs.
Joe T.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B60220

Lab Name: H2M LABS INC. Contract:

Lab Code: Case No.: RA096 SAS No.: SDG No.: NDEC012

Matrix: (soil/water) WATER Lab Sample ID: 9702037

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: P05528.D

Level: (low/med) LOW Date Received: 01/23/97

% Moisture: not dec. Date Analyzed: 01/29/97

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	1	J
67-64-1	Acetone	440	E
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	1	J
75-34-4	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	9	J
71-55-6	1,1,1-Trichloroethane	82	
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	1900	E
71-43-2	Benzene	10	U
124-48-1	Dibromochloromethane	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	56	
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	310	E
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	1	J
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	4	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B60220DL

Lab Name: H2M LABS INC. Contract:

Lab Code: Case No.: RA096 SAS No.: SDG No.: NDEC012

Matrix: (soil/water) WATER Lab Sample ID: 9702037DL 1:2

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: P05540.D

Level: (low/med) LOW Date Received: 01/23/97

% Moisture: not dec. Date Analyzed: 01/30/97

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 25.0

Soil Extract Volume (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	250	U
74-83-9	Bromomethane	250	U
75-01-4	Vinyl Chloride	250	U
75-00-3	Chloroethane	250	U
75-09-2	Methylene Chloride	46	JBD
67-64-1	Acetone	480	D
75-15-0	Carbon Disulfide	250	U
75-35-4	1,1-Dichloroethene	250	U
75-34-4	1,1-Dichloroethane	250	U
540-59-0	1,2-Dichloroethene (total)	58	JD
67-66-3	Chloroform	250	U
107-06-2	1,2-Dichloroethane	250	U
78-93-3	2-Butanone	250	U
71-55-6	1,1,1-Trichloroethane	64	JD
56-23-5	Carbon Tetrachloride	250	U
75-27-4	Bromodichloromethane	250	U
78-87-5	1,2-Dichloropropane	250	U
10061-01-5	cis-1,3-Dichloropropene	250	U
79-01-6	Trichloroethene	3900	D
71-43-2	Benzene	250	U
124-48-1	Dibromochloromethane	250	U
10061-02-6	trans-1,3-Dichloropropene	250	U
79-00-5	1,1,2-Trichloroethane	250	U
75-25-2	Bromoform	250	U
108-10-1	4-Methyl-2-Pentanone	250	U
591-78-6	2-Hexanone	250	U
127-18-4	Tetrachloroethene	54	JD
79-34-5	1,1,2,2-Tetrachloroethane	250	U
108-88-3	Toluene	320	D
108-90-7	Chlorobenzene	250	U
100-41-4	Ethylbenzene	250	U
100-42-5	Styrene	250	U
1330-20-7	Xylene (total)	250	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B60221

Lab Name: H2M LABS INC. Contract:

Lab Code: Case No.: RA096 SAS No.: SDG No.: NDEC012

Matrix: (soil/water) WATER Lab Sample ID: 9702038

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: P05530.D

Level: (low/med) LOW Date Received: 01/23/97

% Moisture: not dec. Date Analyzed: 01/29/97

GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	1	J
67-64-1	Acetone	130	
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-4	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	4	J
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	17	
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	500	E
71-43-2	Benzene	10	U
124-48-1	Dibromochloromethane	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	17	
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	37	
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

APPENDIX B

Boring Logs and Monitoring Well Construction Diagrams

APPENDIX B-1

Existing Monitoring Wells

NMB
NMB (USA) Inc.

RECEIVED
2/20/96

File
NMB

February 13, 1996

Chittibabu Vasudevan, Ph.D., P.E.
Chief, Remedial Section A
Bureau of Eastern Remedial Action
Division of Hazardous waste Remediation
New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-7010

re: IMC Magnetics (I-30-043A)

Dear Dr. Vasudevan:

Pursuant to your request for additional information regarding ground-water monitoring wells at the 570 Main Street property, I have reviewed my files and am forwarding the following:

- a schematic showing the approximate locations of wells MW-1, MW-2, and MW-3;[1]
- summary geologic logs for each of the wells; and
- a table summarizing the results of sampling of various wells, including MW-1, MW-2, and MW-3; and

I note that all the above were provided to me by Anson Environmental Ltd. ("Anson") in the form I have forwarded them to you. The work was performed by Anson, and pre-dates my involvement in the project. This is, I believe, the entirety of non-privileged documents in my possession relating to these wells.

Please do not hesitate to call if you have any questions or require any additional information.

Sincerely,

Chris M. Rawnsley

CMR/cmr:enc.imcw017

cc: Marriane Mancino-Theide, Esq., P&M
Craig Kasper, P.E., HAI

[1] The precise location should be included on the site survey included with IMC Magnetics' draft work plan.

ANSON ENVIRONMENTAL LTD.

GEOLOGIC LOG

STUDY		BORING		SAMPLER
Study No.:	92061	Boring No.:	1	Type: Hollow stem auger
Project:	IMC Magnetics	Location:	Westbury	Hammer:
Date:	4/26/94	Depth:	65'	Fall:
Driller:	Miller Env.	G.W. Elev.:	55'	Sample Interval: 5'

No.	Rec.	Sample Interval	Blows/6"	Depth	Sample Description
1				0'	Yellowish brown color.
				-	sub rounded very coarse shape
				-	poorly sorted and very moist
				-	OVM reading = 0.00
				-	
				5'	Yellowish brown color
				-	sub rounded very coarse shape
				-	poorly sorted and very moist
				-	OVM reading = 0.00
				-	
				10'	Brownish yellow color
				-	sub rounded coarse
				-	well sorted some pebbles
				-	OVM reading = 0.00
				-	
				15'	Brownish yellow color
				-	sub rounded very coarse
				-	poorly sorted, some pebbles
				-	OVM reading = 0.00
				-	
				20'	Brownish yellow color
				-	sub rounded coarse shape
				-	poorly sorted, some pebbles
				-	OVM reading not detected
				-	
				25'	Brownish yellow color
				-	sub rounded shape
				-	well sorted, coarse to medium sand
				-	OVM reading not detected
				-	
				30'	Brownish yellow color.
				-	sub rounded
				-	well sorted, coarse to medium sand
				-	OVM reading not detected
				-	
				35'	Brownish yellow color

	rounded shape
	well sorted, medium sized sand
	OVM reding not detected
40'	Brownish yellow color
	rounded
	Poorly sorted, medium sand
	some clay
	OVM reading not detected
45'	Brownish yellow color
	Round shape
	well sorted, medium sand
	OVM reading not detected
50'	Brownish yellow color
	round shape
	well sorted, medium sand
	clay very hard, stuck to augers
	OVM reading not detected
55'	Brownish yellow color
	Round shape
	well sorted, medium sand
	OVM reading not detected
60'	Brownish yellow color
	Round shape
	well sorted, medium to coarse sand
	OVM reading not detected
65'	Bottom of well

ANSON ENVIRONMENTAL LTD.

GEOLOGIC LOG

STUDY		BORING		SAMPLER
Study No.:	92061	Boring No.:	2	Type: Hollow stem auger
Project:	IMC Magnetics	Location:	Westbury	Hammer:
Date:	4/26/94	Depth:	65'	Fall:
Driller:	Miller Env.	G.W. Elev.:	55'	Sample Interval: 5'

No.	Rec.	Sample Interval	OVM Reading	Depth	Sample Description
2			0	0'	Light brownish yellow color
				-	poorly sorted
				-	medium sand and pebbles
				-	sub angular shape
				-	not very moist
			ND	5'	yellowish brown color
				-	poorly sorted
				-	very coarse sand
				-	sub angular shape
				-	
			ND	10'	yellowish brown color
				-	well sorted with pebbles
				-	medium to coarse sand
				-	sub angular shape
				-	some moisture
			ND	15'	Yelowish Brown color
				-	poorly sorted with pebbles
				-	very coarse sand
				-	sub angular shape
				-	some soil moisture
			ND	20'	Yellowish brown color
				-	poorly sorted with pebbles
				-	very coarse sand
				-	sub angular shape
				-	some soil moisture
			ND	25'	Brownish yellow color
				-	poorly sorted with pebbles
				-	very coarse to medium sand type
				-	sub rounded shape
				-	soil moisture
			ND	30'	Brownish yellow color
				-	well sorted with pebbles
				-	coarse to very coarse sand
				-	sub rounded shape
				-	soil moisture
			ND	35'	Brownish yellow color

ANSON ENVIRONMENTAL LTD.

GEOLOGIC LOG

STUDY		BORING		SAMPLER
Study No.:	92061	Boring No.:	3	Type: Hollow stem auger
Project:	IMC Magnetics	Location:	Westbury	Hammer:
Date:	4/27/94	Depth:	65'	Fall:
Driller:	Miller Env.	G.W. Elev.:	55'	Sample Interval: 5'

No.	Rec.	Sample Interval	OVM Reading	Depth	Sample Description
3			0	0'	Coarse sand
				-	Dark brown color
				-	some pebbles
				-	
				-	
			ND	5'	coarse sand
				-	yellow brown color
				-	pebbles, poorly sorted sand
				-	
				-	
			ND	10'	coarse sand, yellow brown color
				-	pebbles
				-	poorly sorted sand
				-	
				-	
			ND	15'	coarse sand
				-	dark yellow to brownish color
				-	some pebbles poorly sorted
				-	
				-	
			ND	20'	coarse sand
				-	yellowish brown color
				-	some pebbles poorly sorted sands
				-	
				-	
			ND	25'	coarse sand
				-	yellowish brown color
				-	some pebbles poorly sorted sands
				-	
				-	
			ND	30'	coarse sand
				-	dark yellow brown
				-	pebbles and poorly sorted
				-	
				-	
			ND	35'	coarse sand

					yellow brown color
					pebbles and poorly sorted
			ND	40'	coarse sand
					yellow brown color
					some pebbles and poorly sorted
			ND	45'	medium sand
					brownish yellow color
					well sorted
			ND	50'	medium sand
					brownish yellow color
					well sorted
			ND	55'	medium sand
					light yellow brown in color
					well sorted
			ND	60'	medium sand
					pale brown
					well sorted
			ND	65'	bottom of well

APPENDIX B-2

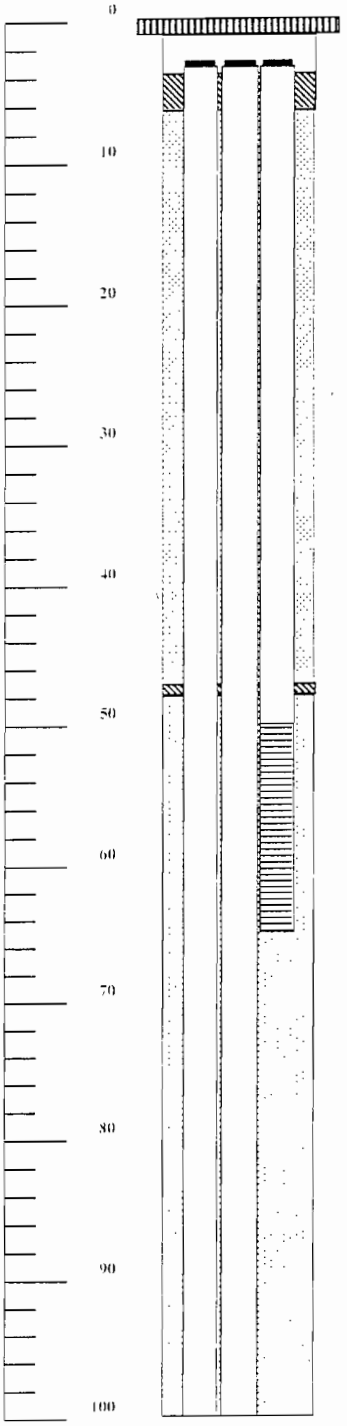
New Monitoring Wells

Land Tech Remedial, Inc.

Soil Boring/Well Log No.: MW-4U, M, L

Client: Hull & Associates
Project Name: IMC Magnetics
Project Location: 570 Main Street, Westbury, New York

Project No.: 11531
Permit No.: NA
Date: 6/29/98
Page: 1/2



Depth Below Surface	PID Readings (ppm)	Sample Depth (feet)	Field Description of Soil
70.8		48-50	Loose, Orange fine to medium SAND. Sandy Silt lense top 2 ft.
54.5		53-55	Loose, Orange to Tan fine to medium SAND, trace Silty Clay.
80.2		58-60	Medium dense, Orange to Tan SILTY SAND and CLAY
68.5		63-65	Loose, Orange to Tan Silty fine to medium SAND.
98.4		68-70	Medium Dense, Red and Tan Silty fine SAND and CLAY
50.9		73-75	Medium Dense, Striated Red Tan, Orange, Silty fine to medium SAND
93.8		78-80	Loose, Tan and Orange fine to medium SAND
62.5		83-85	Striated loose, Tan/Yellow Silty fine to medium SAND and medium dense, Red SILTY CLAY, trace Sand
67.3		88-90	Loose, Tan fine to medium SAND and medium dense.
50.4		93-95	Tan Silty fine Sand. Loose, Tan fine to medium SAND
68.7		98-100	Loose, Tan fine to medium SAND

Bore Hole Data

Drilling Method:	Auger
Hole Diameter:	8 inches
Depth:	140 feet

Well Data:

Surface Casing

Casing Type:	NA
Casing Diameter:	NA
Casing Length:	NA
Casing Interval:	NA

Well Casing

Casing Type:	Sch. 40 PVC
Casing Diameter:	2-inch
Casing Length:	10 feet
Casing Interval:	0-10 feet

Screen

Screen Type:	Sch. 40 PVC
Screen Diameter:	2-inch
Screen Slot:	0.10 inch
Screen Length:	10 feet
Screen Interval:	10-15 feet

Filter Media

Media Type:	NA
Composition:	NA
Volume Used:	NA
Filter Interval:	NA

Grout Seal

Bentonite Interval:	0-1 feet
Cement Interval:	NA

Well Head

Concrete Pad:	Yes
Size:	24" X 24"
Road Box:	NA
Size:	NA

Depth to Water

Date:	NA
Time:	
Depth:	NA

Well Development

Method:	NA
Duration:	
Rate:	
Date:	

Legend

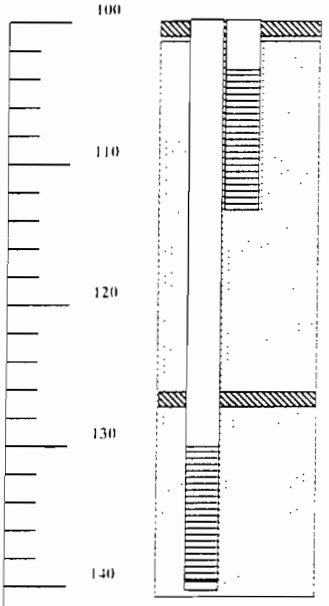
- Concrete Pad
- Casing Interval
- Screen Interval
- Native Fill Material
- Bentonite Interval
- Surface Casing
- Filter Pack

Land Tech Remedial, Inc.

Soil Boring/Well Log No.: MW-4U, M, L

Client: Hull & Associates
Project Name: IMC Magnetics
Project Location: 570 Main Street, Westbury, New York

Project No.: 11531
Permit No.: NA
Date: 6/29/98



Depth Below Surface	PID Readings (ppm)	Sample Depth (feet)	Field Description of Soil
	74.6	103-105	Loose, Tan fine to medium SAND
	59.9	108-110	Loose, Tan fine to medium SAND.
		113-115	No Recovery.
	90.9	118-120	Loose, Tan fine to medium SAND.
	175	123-125	Loose, Tan fine to medium SAND, trace Silty Sand.
	120	128-130	Loose, Tan fine to medium SAND
	136	133-135	Loose, Tan fine to medium SAND
	169	138-140	Loose, Tan fine to medium SAND.

Bore Hole Data	
Drilling Method:	Auger
Hole Diameter:	8 inches
Depth:	140 feet
Well Data	
Surface Casing	
Casing Type:	NA
Casing Diameter:	NA
Casing Length:	NA
Casing Interval:	NA
Well Casing	
Casing Type:	Sch. 40 PVC
Casing Diameter:	2-inch
Casing Length:	10 feet
Casing Interval:	0-10 feet
Screen	
Screen Type:	Sch. 40 PVC
Screen Diameter:	2-inch
Screen Slot:	0.10 inch
Screen Length:	10 feet
Screen Interval:	10-15 feet
Filter Media	
Media Type:	NA
Composition:	NA
Volume Used:	NA
Filter Interval:	NA
Grout Seal	
Bentonite Interval:	0-1 feet
Cement Interval:	NA
Well-Head	
Concrete Pad:	Yes
Size:	24" X 24"
Road Box:	NA
Size:	NA
Depth to Water	
Date:	NA
Time:	
Depth:	NA
Well Development	
Method:	NA
Duration:	
Rate:	
Date:	

Legend

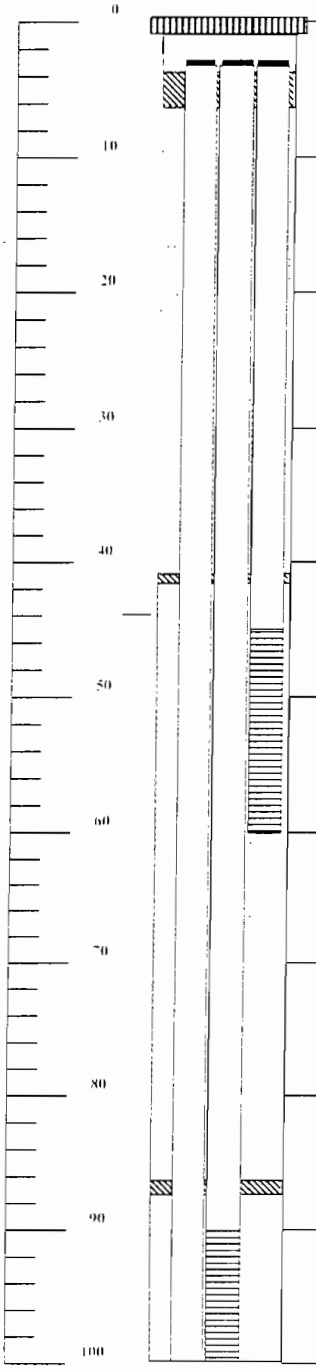
- Concrete Pad
- Casing Interval
- Screen Interval
- Native Fill Material
- Bentonite Interval
- Surface Casing
- Filter Pack

Land Tech Remedial, Inc.

Soil Boring/Well Log No.: MW-5U, M, L

Client: Huff & Associates
Project Name: IMC Magnetics
Project Location: 570 Main Street, Westbury, New York

Project No: 11531 Page: 1/2
Permit No: NA
Date: 6/20/98



Depth Below Surface	PID Readings (ppm)	Sample Depth (feet)	Field Description of Soil
	4.7	50-52	Loose, Brown to Tan fine SAND, Wet
	28.2	52-54	Loose, Tan fine to medium SAND, Wet
	0	54-56	Loose, Tan fine to medium SAND, little Pebbles, Wet
	0	56-58	Loose, Tan fine to medium SAND, little Pebbles, Saturated.
	0	58-60	Loose, Tan fine to medium SAND, little Pebbles, Saturated.
	0	60-62	Loose, Tan to Orange fine to medium SAND, little fine Gravel, Saturated
	0.8	62-64	Loose, Tan fine to medium SAND, trace coarse Sand, little fine Gravel
	0	64-66	Loose, Tan fine to medium SAND, trace coarse Sand, little fine Gravel
	0	66-68	Loose, Tan fine SAND, trace medium to coarse Sand, trace fine Gravel
	42.4	68-70	Loose, Tan fine to medium SAND some coarse Sand, trace fine Gravel
	68.9	70-72	Loose, Tan fine SAND, trace medium to coarse Sand
	26	72-74	Loose, Tan to Brown fine SAND
	87.5	74-76	Loose, Tan and Orange fine SAND, trace coarse Sand, Saturated
	94.9	76-78	Loose, Tan fine SAND, little medium and coarse Sand
	46.6	78-80	Loose, Tan fine to medium SAND
	70.6	80-82	Loose, Tan and Orange fine to medium SAND, little coarse Sand
	44.8	82-84	Loose, Tan and Orange fine to medium SAND, trace coarse Sand
	45.4	84-86	Loose, Brown fine to medium SAND
	63	86-88	Loose, Brown to Amber fine SAND, trace medium Sand, Saturated
	34.3	88-90	Loose, Brown Orange fine SAND, trace medium Sand, Saturated
	30.3	90-92	Loose, Brown Orange fine SAND, little medium Sand, Saturated
	50.8	92-94	Loose, Brown Orange fine SAND, trace coarse Gravel, Saturated
	106	94-96	Loose, Brown Orange fine SAND, trace medium Sand, Saturated
	45.4	96-98	Loose, Brown Orange fine to medium SAND, Saturated
	48.7	98-100	Loose, Tan and Orange fine to medium SAND, Saturated

Bore Hole Data

Drilling Method	Auger
Hole Diameter	8 inches
Depth	140 feet

Well Data

Surface Casing

Casing Type:	NA
Casing Diameter:	NA
Casing Length	NA
Casing Interval:	NA

Well Casing

Casing Type	Sch. 40 PVC
Casing Diameter	2-inch
Casing Length	10 feet
Casing Interval	0-10 feet

Screen

Screen Type	Sch. 40 PVC
Screen Diameter	2-inch
Screen Slot	0.10 inch
Screen Length	10 feet
Screen Interval	10-15 feet

Filter Media

Media Type	NA
Composition	NA
Volume Used	NA
Filter Interval	NA

Grout Seal

Bentonite Interval	0-1 feet
Cement Interval	NA

Well Head

Concrete Pad	Yes
Size	24" X 24"
Road Box	NA
Size:	NA

Depth to Water

Date	NA
Time	
Depth:	NA

Well Development

Method	NA
Duration	
Rate	
Date	

Legend

- Concrete Pad
- Casing Interval
- Screen Interval
- Native Fill Material
- Bentonite Interval
- Surface Casing
- Filter Pack

Land Tech Remedial, Inc.

Soil Boring/Well Log No.: MW-5U, M, L

Client: Hull & Associates
Project Name: IMC Magnetics
Project Location: 570 Main Street, Westbury, New York

Project No: 11531 Page: 2/2
Permit No: NA
Date: 6/20/98

Depth Below Surface	Well Diagram	PID Readings (ppm)	Sample Depth (feet)	Field Description of Soil
100				
		58.8	100-102	Loose, Tan and Orange fine SAND
		52	102-104	Medium Dense, Tan to Grey stratied fine SAND
		30.4	104-106	Loose, Tan to Orange fine to medium SAND
		50.4	106-108	Loose, Tan to Orange fine to medium SAND
110		50.4	108-110	Loose, Tan to Orange fine to medium SAND
		74.7	110-112	Loose, Tan to Orange fine to medium SAND, trace coarse Sand
		54.1	112-114	Dense, Tan to Orange Silty fine SAND
		90.7	114-116	Dense, Tan, Red stratied and Grey stratied Silty fine SAND
		52.9	116-118	Dense, Tan, Grey Red stratied Silty fine SAND, trace Mica
120		30.3	118-120	Medium Dense, Tan to Grey Red stratied Silty fine SAND, trace Mica
		53.2	120-122	Medium dense, Tan Silty fine SAND
		113	122-124	Loose, Tan fine to medium SAND
		68.7	124-126	Loose, Tan fine to medium SAND
		46.6	126-128	Loose, Tan fine to medium SAND
130		62.9	128-130	Loose, Tan fine to medium SAND
		44.7	130-132	Loose, Tan Grey fine to medium SAND
		52.1	132-134	Loose, Tan fine to medium SAND
			134-136	Loose, Tan fine to medium SAND
			136-138	Loose, Tan fine to medium SAND
140			138-140	Loose, Tan fine to medium SAND
150				
160				
170				
180				
190				
200				

Bore Hole Data

Drilling Method	Auger
Hole Diameter	8 inches
Depth	140 feet

Well Data

Surface Casing

Casing Type	NA
Casing Diameter	NA
Casing Length	NA
Casing Interval	NA

Well Casing

Casing Type	Sch. 40 PVC
Casing Diameter	2-inch
Casing Length	10 feet
Casing Interval	0-10 feet

Screen

Screen Type	Sch. 40 PVC
Screen Diameter	2-inch
Screen Slot	0.10 inch
Screen Length	10 feet
Screen Interval	10-15 feet

Filter Media

Media Type:	NA
Composition	NA
Volume Used	NA
Filter Interval	NA

Grout Seal

Bentonite Interval	0-1 feet
Cement Interval	NA

Well Head

Concrete Pad	Yes
Size:	24" X 24"
Road Box	NA
Size:	NA

Depth to Water

Date	NA
Time	
Depth	NA

Well Development

Method	NA
Duration	
Rate	
Date	

Legend

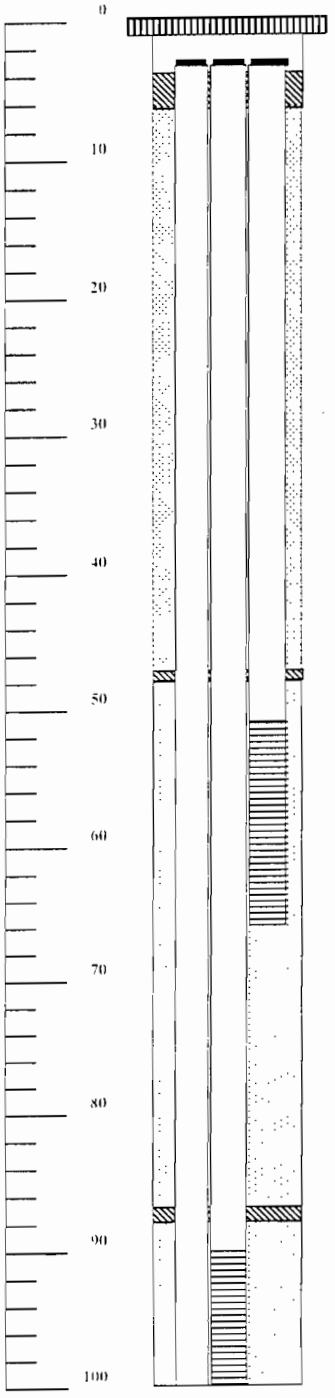
- Concrete Pad
- Casing Interval
- Screen Interval
- Native Soil Material
- Bentonite Interval
- Surface Casing
- Filter Pack

Land Tech Remedial, Inc.

Soil Boring/Well Log No.: MW-6U, M, L

Client: Hull & Associates
Project Name: IMC Magnetics
Project Location: 570 Main Street, Westbury, New York

Project No.: 11531
Permit No.: NA
Date: 6/23/98
Page: 1/2



Depth Below Surface	Well Diagram	PID Readings (ppm)	Sample Depth (feet)	Field Description of Soil
		61	48-50	Loose,Tan fine to medium SAND, slightly moist.
		6.9	53-55	Loose,Tan fine to coarse SAND, some fine Gravel.
		0	58-60	Loose, Tan fine to medium SAND, little coarse Sand, moist.
		0	63-65	Loose, Tan to brown fine to medium SAND, little coarse Sand.
		0	68-70	Loose, Tan to brown fine to medium SAND, trace coarse Sand.
		0	73-75	Loose, Tan to brown fine to medium SAND, trace coarse Sand.
		0	78-80	Loose, Orangish tan, fine to medium SAND
		0	83-85	Loose Tan to brown, fine to medium SAND.
		0	88-90	Loose Tan to brown, fine to medium SAND
		0	93-95	Loose, Light Brown, fine to medium SAND.
		0	98-100	Loose, Tan fine to medium SAND, little coarse Sand.

Bore Hole Data
Drilling Method: Auger
Hole Diameter: 8 inches
Depth: 140 feet

Well Data

Surface Casing
Casing Type: NA
Casing Diameter: NA
Casing Length: NA
Casing Interval: NA

Well Casing
Casing Type: Sch. 40 PVC
Casing Diameter: 2-inch
Casing Length: 10 feet
Casing Interval: 0-10 feet

Screen
Screen Type: Sch. 40 PVC
Screen Diameter: 2-inch
Screen Slot: 0.10 inch
Screen Length: 10 feet
Screen Interval: 10-15 feet

Filter Media
Media Type: NA
Composition: NA
Volume Used: NA
Filter Interval: NA

Grout Seal
Bentonite Interval: 0-1 feet
Cement Interval: NA

Well Head
Concrete Pad: Yes
Size: 24" X 24"
Road Box: NA
Size: NA

Depth to Water
Date: NA
Time:
Depth: NA

Well Development
Method: NA
Duration:
Rate:
Date:

Legend
- Concrete Pad
- Casing Interval
- Screen Interval
- Native Fill Material
- Bentonite Interval
- Surface Casing
- Filter Pack

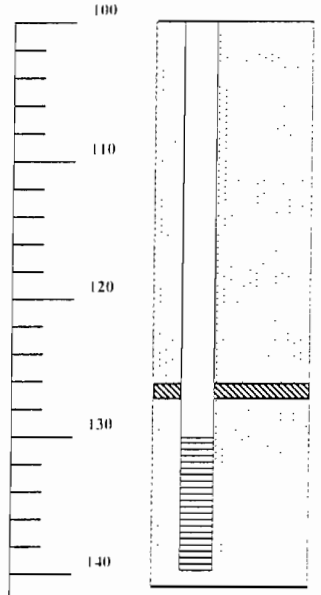
Land Tech Remedial, Inc.

Soil Boring/Well Log No.: MW-6U, M, L

Client: Hull & Associates
Project Name: IMC Magnetics
Project Location: 570 Main Street, Westbury, New York

Project No.: 11531
Permit No.: NA
Date: 6/23/98

Page: 2/2



Depth Below Surface	PID Readings (ppm)	Sample Depth (feet)	Field Description of Soil
	0	103105	Loose, Tan fine to medium SAND, little coarse Sand.
	0	108-110	Loose Tan and Brown fine to medium SAND
	0	113-115	Loose, Tan and Brown medium to fine SAND
	0	118-120	Loose, Tan and Brown medium to fine SAND, little coarse Sand.
	0	123-125	Loose, Orange/Brown medium to fine SAND, some coarse Sand trace fine Gravel.
	0	128-130	Loose, Orange/Brown medium to fine SAND, some coarse Sand trace fine Gravel.
	0	133-135	Loose, Orange Brown medium to fine SAND, little coarse Sand.
	0	138-140	Loose, Orange/Yellow/Brown fine to medium SAND, trace coarse Sand.

Bore Hole Data	
Drilling Method:	Auger
Hole Diameter:	8 inches
Depth:	140 feet

Well Data	
Surface Casing	
Casing Type:	NA
Casing Diameter:	NA
Casing Length:	NA
Casing Interval:	NA
Well Casing	
Casing Type:	Sch. 40 PVC
Casing Diameter:	2-inch
Casing Length:	10 feet
Casing Interval:	0-10 feet
Screen	
Screen Type:	Sch. 40 PVC
Screen Diameter:	2-inch
Screen Slot:	0.10 inch
Screen Length:	10 feet
Screen Interval:	10-15 feet
Filter Media	
Media Type:	NA
Composition:	NA
Volume Used:	NA
Filter Interval:	NA
Grout Seal	
Bentonite Interval:	0-1 feet
Cement Interval:	NA
Well Head	
Concrete Pad:	Yes
Size:	24" X 24"
Road Box:	NA
Size:	NA
Depth to Water	
Date:	NA
Time:	
Depth:	NA
Well Development	
Method:	NA
Duration:	
Rate:	
Date:	

Legend

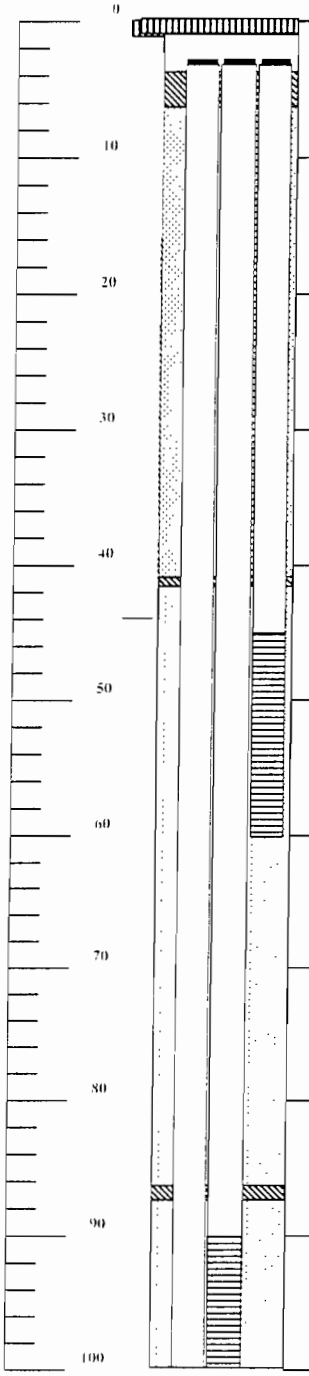
- Concrete Pad
- Casing Interval
- Screen Interval
- Native Fill Material
- Bentonite Interval
- Surface Casing
- Filter Pack

Land Tech Remedial, Inc.

Soil Boring/Well Log No.: MW-7U, M, L

Client: Hull & Associates
Project Name: IMC Magnetics
Project Location: 570 Main Street, Westbury, New York

Project No.: 11531
Permit No.: NA
Date: 6/25/98
Page: 1/2



Depth Below Surface	PID Readings (ppm)	Sample Depth (feet)	Field Description of Soil
	47.1	50-52	Loose, Tan fine to medium SAND, some coarse Sand, Wet.
	28.1	52-54	Loose, Tan fine to medium SAND, some coarse Sand, Wet.
	0	54-56	Loose, Tan fine to medium SAND, trace coarse Sand, Wet.
	0	56-58	Loose, Tan fine to medium SAND, some coarse Sand, Wet.
	0	58-60	Loose, Tan/Brown fine to medium SAND, some coarse Sand, Wet.
	0	60-62	Loose, Tan fine to medium SAND.
	9.5	62-64	Loose, Tan fine to medium SAND
	0	64-66	Loose, Tan fine to medium SAND.
	0	66-68	Loose, Tan fine to medium SAND, trace coarse Sand.
	42.4	68-70	Loose, Tan fine to medium SAND, little coarse Sand.
	68.9	70-72	Loose, Tan fine to medium SAND, some coarse Sand.
	46	72-74	Loose, Tan/Orange fine to medium SAND, little coarse Sand.
	87.5	74-76	Loose, Tan fine to medium SAND, little coarse Sand.
	94.9	76-78	Loose, Tan fine to medium SAND, little coarse Sand
	46.6	78-80	Loose, Tan fine to medium SAND, trace coarse Sand.
	79.6	80-82	Loose, Tan medium to fine SAND, some coarse Sand.
	44.8	82-84	Loose, Tan medium to fine SAND, little coarse Sand.
	45.4	84-86	Loose, Tan medium to fine SAND, little coarse Sand.
	63	86-88	Loose, Tan medium to fine SAND
	34.3	88-90	Loose, Tan medium to fine SAND.
	30.3	90-92	Loose, Tan fine to medium SAND, trace coarse Sand.
	30.8	92-94	Loose, Tan medium to fine SAND
	106	94-96	Loose, Tan medium to fine SAND.
	45.4	96-98	Loose, Tan medium to fine SAND.
	48.7	98-100	Loose, Tan medium to fine SAND

Bore Hole Data

Drilling Method:	Auger
Hole Diameter:	8 inches
Depth:	140 feet

Well Data

Surface Casing

Casing Type:	NA
Casing Diameter:	NA
Casing Length:	NA
Casing Interval:	NA

Well Casing

Casing Type:	Sch. 40 PVC
Casing Diameter:	2-inch
Casing Length:	10 feet
Casing Interval:	0-10 feet

Screen

Screen Type:	Sch. 40 PVC
Screen Diameter:	2-inch
Screen Slot:	0.10 inch
Screen Length:	10 feet
Screen Interval:	10-15 feet

Filter Media

Media Type:	NA
Composition:	NA
Volume Used:	NA
Filter Interval:	NA

Grout Seal

Bentonite Interval:	0-1 feet
Cement Interval:	NA

Well Head

Concrete Pad:	Yes
Size:	24" X 24"
Road Box:	NA
Size:	NA

Depth to Water

Date:	NA
Time:	
Depth:	NA

Well Development

Method:	NA
Duration:	
Rate:	
Date:	

Legend

- Concrete Pad
- Casing Interval
- Screen Interval
- Native Fill Material
- Bentonite Interval
- Surface Casing
- Filter Pack

Land Tech Remedial, Inc.

Soil Boring/Well Log No.: MW-7U, M, L

Client: Hull & Associates
Project Name: IMC Magnetics
Project Location: 570 Main Street, Westbury, New York

Project No.: 11531 Page: 2.2
Permit No.: NA
Date: 6/25/98

Depth Below Surface	Well Diagram	PID Readings (ppm)	Sample Depth (feet)	Field Description of Soil
100		38.8	100-102	Loose, Tan medium to fine SAND
		52	102-104	Loose, Tan medium to fine SAND
		39.4	104-106	Loose, Tan medium to fine SAND
		80.4	106-108	Loose, Tan medium to fine SAND
110		50.4	108-110	Loose, Tan fine to medium SAND, trace coarse Sand.
		74.7	110-112	Loose, Tan fine to medium SAND, trace coarse Sand.
		54.1	112-114	Loose, Tan fine to medium SAND
		90.7	114-116	Loose, Tan fine to medium SAND
		52.9	116-118	Loose, Tan fine to medium SAND
120		39.3	118-120	Loose, Tan fine to medium SAND.
		83.2	120-122	Loose, Tan fine to medium SAND
		113	122-124	Loose, Tan fine to medium SAND
		68.7	124-126	Loose, Tan fine to medium SAND
		46.6	126-128	Loose, Tan fine to medium SAND
130		62.9	128-130	Loose, Tan fine to medium SAND
		44.7	130-132	Loose, Tan fine to medium SAND
		52.1	132-134	Loose, Tan fine to medium SAND
			134-136	
			136-138	
140			138-140	
150				
160				
170				
180				
190				
200				

Bore Hole Data
Drilling Method: Auger
Hole Diameter: 8 inches
Depth: 140 feet

Well Data

Surface Casing
Casing Type: NA
Casing Diameter: NA
Casing Length: NA
Casing Interval: NA

Well Casing
Casing Type: Sch. 40 PVC
Casing Diameter: 2-inch
Casing Length: 10 feet
Casing Interval: 0-10 feet

Screen
Screen Type: Sch. 40 PVC
Screen Diameter: 2-inch
Screen Slot: 0.10 inch
Screen Length: 10 feet
Screen Interval: 10-15 feet

Filter Media
Media Type: NA
Composition: NA
Volume Used: NA
Filter Interval: NA

Grout Seal
Bentonite Interval: 0-1 feet
Cement Interval: NA

Well Head
Concrete Pad: Yes
Size: 24" X 24"
Road Box: NA
Size: NA

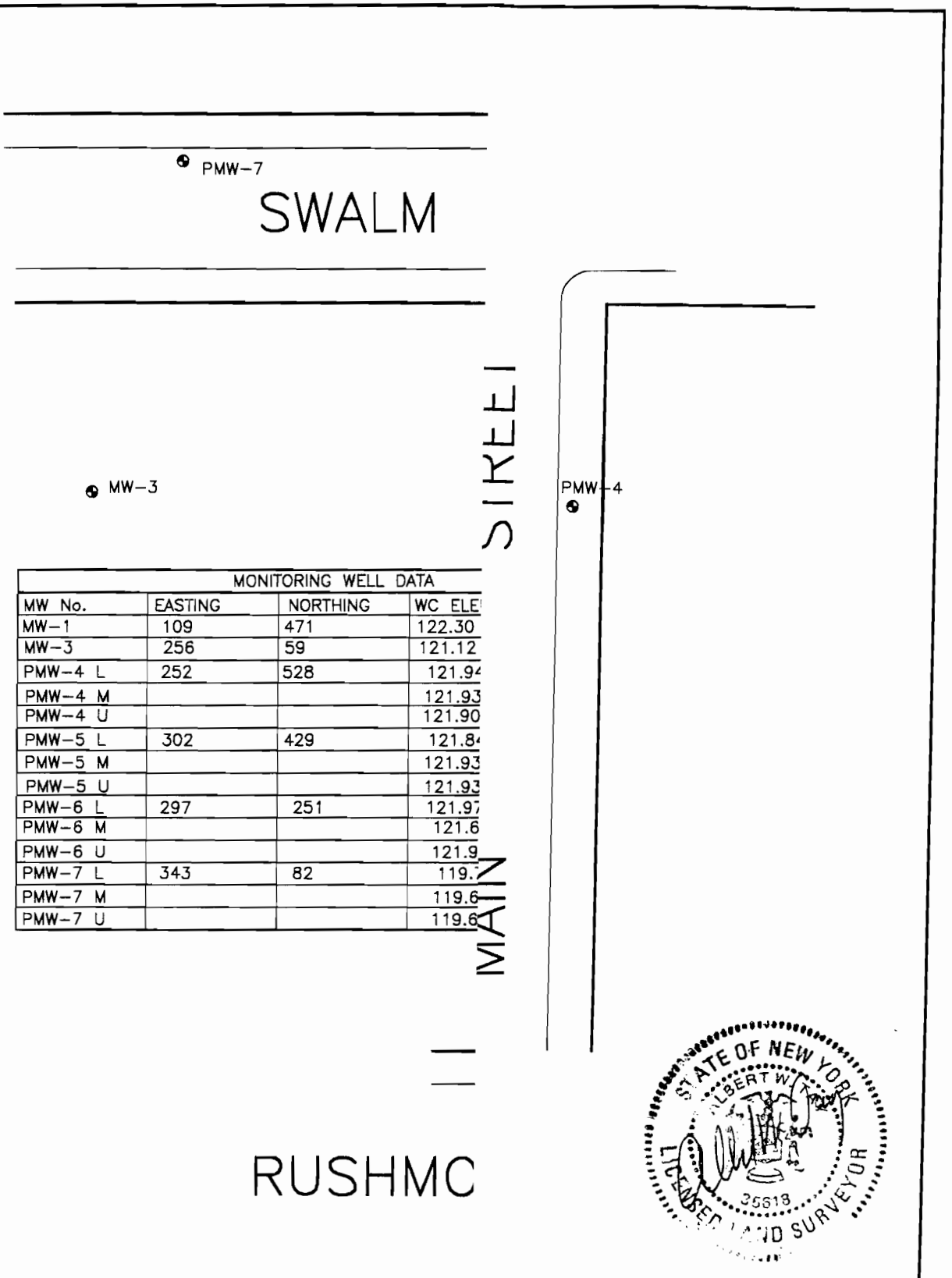
Depth to Water
Date: NA
Time:
Depth: NA

Well Development
Method: NA
Duration:
Rate:
Date:

Legend
- Concrete Pad
- Casing Interval
- Screen Interval
- Native Fill Material
- Bentonite Interval
- Surface Casing
- Filter Pack

APPENDIX C

Monitoring Well Location Plan - Westbury, Nassau County, NY
Albert Tay, New York State Licensed Land Surveyor



MONITORING WELL DATA			
MW No.	EASTING	NORTHING	WC ELE
MW-1	109	471	122.30
MW-3	256	59	121.12
PMW-4 L	252	528	121.9
PMW-4 M			121.93
PMW-4 U			121.90
PMW-5 L	302	429	121.8
PMW-5 M			121.93
PMW-5 U			121.93
PMW-6 L	297	251	121.9
PMW-6 M			121.6
PMW-6 U			121.9
PMW-7 L	343	82	119.
PMW-7 M			119.6
PMW-7 U			119.6

STATE OF NEW YORK
ALBERT W. TAY
35618
LICENSED LAND SURVEYOR

40 20 0
SCALE IN FEET

ALBERT W. TAY
LICENSED LAND SURVEYOR
P.O. BOX 312, PLAINVIEW, NY 11803
TEL (516) 433-3725 FAX (516) 433-0409

APPENDIX D

Field Data Sheets

Land Tech Remedial, Inc.

Sheet ____ of ____

O&M and Monitoring Report

Date: 7-8-98

Weather: Clouds - Rain

Job #:

Temperature: 60°F

Station #: IMC Magnetics

Client/Location: HVI + Assoc / New Castle NY

Client Engineer: C. Rawnsley

DTW pH Cond mS/cm Temp °C

Well #	~~Depth to Product~~	Depth to Water	~~Product Thickness~~	~~Product Removed~~	Comments:
5U	49.78	6.1	.34	13.5	Sampled all wells for
5M	49.81	6.0	.35	14	8020/8010 (3 vocs)
5L	49.71	6.6	.20	14	+ Total Metals - 1 Plastic
6U	50.03	6.4	.27	14.5	For Lancaster Labs
6M	49.75	6.8	.28	14.5	
6L	50.02	6.9	.25	14	
7U	47.85	6.5	.32	14.5	
7M	47.88	6.3	.33	14.5	* Carbon Services at Site
7L	47.94	6.4	.33	14.5	for Carbon Change-out
4U	49.60	6.7	.35	14.5	
4M	49.62	6.4	.29	14.5	- Left System off overnite for
4L	49.66	6.4	.34	14.5	silicone set-up on Drums
MW1	49.86	6.0	.29	14.5	
MW3	49.32	6.1	.28	14.5	

Groundwater Treatment				Soil Vapor Extraction
Status: On / Off				Status: On / Off
Samples Collected: Inf / Mid / Eff				PID Reading:
Flow Meter:				Samples Collected: Inf / Mid / Eff
Flow Rate:		pH	Temp.	Wells On Line:
Airstripper Pressure:	Inf			
Carbon Influent Pressure:	Eff			Reconfigured To:
Product Recovery System				
Status: On / Off				
Recovery Tank Reading:				
Sparging System				Influent Pressure:
Status: On / Off				Influent Temperature:
Pressure:				Effluent Pressure:
Wells On Line:				Effluent Temperature:
Reconfigured To:				Moisture Separator Status: Full 1/2 Empty Drained

Comments:

Technician: D. Allen

Project Manager: C.P.

Hull & Associates, Inc.
6130 Wilcox Road
Dublin, Ohio 43016
(614) 793-8777
Fax (614) 793-9070

FIELD DATA SHEET
GROUNDWATER MONITORING
LOW-FLOW WELL SAMPLING

WELL I.D. PMW5U

CLIENT IMC MAGNETICS SITE LOCATION 570 MAIN ST WESTBURY NY

SITE NO. _____ PROJECT NO. NMB007

AIR TEMPERATURE 60 WEATHER CONDITIONS SUNNY

TYPE OF WELL CONSTRUCTION _____

CONDITION OF WELL circle (GOOD / POOR) If poor, specify _____

CAP LOCKED (YES / NO) _____

DEPTH TO WATER 50.34 FEET

SAMPLE DATE 7/30/94 SAMPLE NO. NMB007 - PMW5U - 002 - D345

ETHANE
METHANE
ETHENE : 1 LITER PLASTIC 1018

TIME	PARAMETERS						
CLOCK TIME	TEMP. °C	pH AT 25 °C	SPECIFIC CONDUCTANCE units _____ AT 25°C	mg/l DO	ORP	PUMP HRTZ	
ON 1005	17.62	6.79	367	1.47	27.3	164	
1008	18.45	6.53	418	1.43	9.3	164	
1010	19.96	6.49	445	1.37	2.0	164	
1013	20.07	6.48	456	1.33	0.3	164	
1015	20.22	6.47	455	1.30	0.4	164	

VOLUME PURGED: 6 GALLONS

COMMENTS: BROWN SILTY
FIELD FILTER 1 l PLASTIC
PUMP SET @ 47' bgs

H:\1\0000064
08/02/97 BCAUSER

Hull & Associates, Inc.
6130 Wilcox Road
Dublin, Ohio 43016
(614) 793-8777
Fax (614) 793-9070

FIELD DATA SHEET
GROUNDWATER MONITORING
LOW-FLOW WELL SAMPLING

WELL I.D. PMW4U

CLIENT IMC MAGNETICS SITE LOCATION 570 MAIN ST. WESTBURY N.Y.

SITE NO. _____ PROJECT NO. NM3007

AIR TEMPERATURE 75° WEATHER CONDITIONS PTL CLDY

TYPE OF WELL CONSTRUCTION _____

CONDITION OF WELL circle (GOOD / POOR) if poor, specify _____

CAP LOCKED (YES / NO) _____

DEPTH TO WATER 50.13 FEET

SAMPLE DATE 7/30/98 SAMPLE NO. NM3007-PMW4U-002-D345
910 AM 1 METHANE 1 l PLAST
1 ETHANE
1 ETHENE

TIME	PARAMETERS						
CLOCK TIME	TEMP. °C	pH AT 25 °C	SPECIFIC CONDUCTANCE units _____ AT 25°C	mg/l DO	ORP	PUMP HRTZ	
ON 854	17.13	7.00	464	1.16	21.8	172	
857	17.73	6.72	476	1.26	20.6	172	
859	17.90	6.60	474	1.28	15.8	172	
901	17.82	6.52	464	1.22	12.8	172	
903	17.80	6.50	460	1.27	12.2	172	

VOLUME PURGED: 8 GALLONS

COMMENTS: BROWN SILTY
FIELD FILTER 1 LITER PLASTIC
PUMP SET @ 52' bgs

HAN10000004
06/02/97 BKAISER

Hull & Associates, Inc.
6130 Wilcox Road
Dublin, Ohio 43016
(614) 793-8777
Fax (614) 793-9070

FIELD DATA SHEET
GROUNDWATER MONITORING
LOW-FLOW WELL SAMPLING

WELL I.D. PMW74

CLIENT IMC MAGNETICS SITE LOCATION 570 MAIN WESTBURY NY

SITE NO. _____ PROJECT NO. NMB007

AIR TEMPERATURE 82° WEATHER CONDITIONS SUNNY

TYPE OF WELL CONSTRUCTION _____

CONDITION OF WELL circle (GOOD / POOR) if poor, specify _____

CAP LOCKED (YES / NO) _____

DEPTH TO WATER 48.46 FEET

SAMPLE DATE 7/30/98 SAMPLE NO. NMB007-PMW74-002-D345

1154 ETHANE METHANE ETHENE 1 L PLASTIC

TIME	PARAMETERS						
CLOCK TIME	TEMP. °C	pH AT 25 °C	SPECIFIC CONDUCTANCE units _____ AT 25°C	DO	ORP	PUMP HRTZ	
ON 1145	21.67	6.55	169	1.83	65.6	153	
1147	18.77	6.44	161	1.50	54.0	153	
1150	19.30	6.45	157	1.35	42.6	153	
1153	21.16	6.43	157	1.12	42.2	153	
1155	21.08	6.43	159	1.10	42.8	153	

VOLUME PURGED: 6 GALLONS

COMMENTS: BROWN SILTY
Pump SET @ 47' bgs

HAN00000064
08/02/97 BKAISER

Hull & Associates, Inc.
6130 Wilcox Road
Dublin, Ohio 43016
(614) 793-8777
Fax (614) 793-9070

FIELD DATA SHEET
GROUNDWATER MONITORING
LOW-FLOW WELL SAMPLING

WELL I.D. PMW6U

CLIENT IMC MAGNETICS SITE LOCATION 570 MAIN ST WESTBURY NY

SITE NO. _____ PROJECT NO. NMB007

AIR TEMPERATURE _____ WEATHER CONDITIONS CLDY

TYPE OF WELL CONSTRUCTION _____

CONDITION OF WELL circle (GOOD / POOR) If poor, specify _____

CAP LOCKED (YES / NO) _____

DEPTH TO WATER 50.61 FEET

SAMPLE DATE 7/30/98 SAMPLE NO. NMB007-PMW6U-002-D345

1110 ETHANE
METHANE
ETHENE
1 l PLASTIC

TIME	PARAMETERS						
CLOCK TIME	TEMP. °C	pH AT 25 °C	SPECIFIC CONDUCTANCE units _____ AT 25°C	DO	ORP	PUMP HRTZ	
1056	19.21	6.60	253	2.53	65.1	158	
1058	16.91	6.37	252	1.87	63.2	158	
1100	19.94	6.31	252	1.47	62.4	158	
1102	19.50	6.30	253	1.30	64.9	158	
1104	19.52	6.29	254	1.28	65.1	158	

VOLUME PURGED: 7.5 GALLONS

COMMENTS: BROWN SILTY
PUMP SET @ 47' bgs

S10000064
7/02/97 EKAISER

APPENDIX E

Lancaster Laboratory Analytical Report

Lancaster Laboratories
A division of Thermo Analytical Inc.

Dear Client:

Enclosed please find the requested data package.

Any questions or concerns you might have regarding this data package should be directed to your client representative, **Lisa Hetrick, at (717) 656-2300 extension 1802.**

Sincerely yours,

LANCASTER LABORATORIES
Data Packages Department

Shipping Address

Data Package

NYSDEC ASP Category B Data Package

Analytical Data Report Package
for
Hull & Associates

IMC Magnetics
Water Samples
Collected on 07/08/98
Sample No. 2961808-2961822

PA Cert. # 36-037
NY Cert. # 10670
NJ Cert. # 77011

Prepared by Olivia Grosemeier

Quality Assurance Review Audrey McClure

Date 8-20-98

Delivery Date 8.24.98

Lancaster Laboratories
A division of Thermo Analytical Inc.

Lancaster Laboratories • 2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681

Lancaster Laboratories
A division of Thermo Analytical Inc.

Sample Reference List for SDG # IMC01
with a Package Type of NYSDEC

Lab Sample Number	Sample Code	Client Sample Description
2961808	PMW4U	PMW-4U Grab Water Sample
2961809	PM4UD	PMW-4U Duplicate Grab Water Sample
2961810	PMW4M	PMW-4M Grab Water Sample
2961811	PMW4L	PMW-4L Grab Water Sample
2961812	PMW5U	PMW-5U Grab Water Sample
2961813	PMW5M	PMW-5M Grab Water Sample
2961814	PMW5L	PMW-5L Grab Water Sample
2961815	PMW6U	PMW-6U Grab Water Sample
2961816	PMW6M	PMW-6M Grab Water Sample
2961817	PMW6L	PMW-6L Grab Water Sample
2961818	PMW7U	PMW-7U Grab Water Sample
2961819	PMW7M	PMW-7M Grab Water Sample
2961820	PMW7L	PMW-7L Grab Water Sample
2961821	MW--1	MW-1 Grab Water Sample
2961822	MW--3	MW-3 Grab Water Sample

Lancaster Laboratories
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax 717-656-2681

Shipping Address:
Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17601
717-656-2300 Fax 717-656-2681

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For Lancaster Laboratories use only
Acct. # 10062 Sample # 236150 -22

Please print. Instructions on reverse side correspond with circled numbers.

(1) Client: HULL & ASSOCIATES Acct. #:
Project Name/#: IMC MAGNETICS PWSID #:
Project Manager: LANCE TURLEY P.O.#
Sampler: D. ANDERSON Quote #:
Name of state where samples were collected: NEW YORK

For lab use only
FSC:
SCR #:

(2) Sample Identification	Date Collected	Time Collected	(3) Grab	Composite	(4) Matrix: Soil	Water (Potable / NPDES)	Other	Total # of Containers	(5) Analyses Requested: EPA 8010 & 8020	TOTAL METALS (EPA 7000 SERIES) (see attached list)	Remarks	(6) Temperature of sample upon receipt (preservation)
PMW-4U	7-8-98	1300	X			X		4	X	X	EPA 8010/8020 -	
PMW-4U-DUPLICATE		1300							X	X	(3 each) HCl Preserved	
PMW-4M		1315							X	X		
PMW-4L		1245							X	X	EPA 7000 - HNO_3	
PMW-5U		945							X	X	(1 each) Preserved	
PMW-5M		1015							X	X		
PMW-5L		1000							X	X		
PMW-6U		1100							X	X		
PMW-6M		1115							X	X		
PMW-6L		1130							X	X		

(7) **Turnaround Time Requested** (TAT) (please circle): (Normal) Rush
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
Date results are needed:
Rush results requested by (please circle): Phone Fax
Phone #: 513-459-9677 Fax #:

(8) **Data Package Options** (please circle if requested)
QC Summary Type VI (Raw Data)
Type I (Tier I) GLP
Type II (Tier II) Other
Type III (NJ Red. Del.)
Type IV (CLP)

SDG Complete? (Yes) No

Site-specific QC required? Yes (No)
(If yes, indicate QC sample and submit triplicate volume.)
Internal Chain of Custody required? Yes (No)

Relinquished by:	Date	Time	Received by:	Date	Time
[signature]	7/8	1800			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by: [signature]	7/10/98	8:55

(9)

Lancaster Laboratories
A division of Thermo Analytical Inc.

For Lancaster Laboratories use only
Acct. # 10662 Sample # 296188 -22

Please print. Instructions on reverse side correspond with circled numbers.

(1) Client: HULL & ASSOCIATES Acct. #:
Project Name/#: IMC MAGNETICS PWSID #:
Project Manager: LANCE TURLEY P.O.#
Sampler: D. ANDERSON Quote #:
Name of state where samples were collected: NEW YORK

For lab use only
FSC:
SCR #:

(2) Sample Identification	Date Collected	Time Collected	(3) Grab	Composite	(4) Matrix: Soil	Potable (Check if applicable)	NPDES (Check if applicable)	Water	Other	Total # of Containers	(5) Analyses Requested: EPA 310.1 & 2020	TOTAL METALS (EPA 7000 SERIES) (See attached list)	Remarks	(6) Temperature of samples upon receipt (if requested)
PMW-7U	7/8/98	1215	X					X		4	X	X		
PMW-7M		1200	X					X		4	X	X		
PMW-7L		1230	X					X		4	X	X		
MW-1		1400	X					X		4	X	X		
MW-3		1500	X					X		4	X	X		

(7) **Turnaround Time Requested** (TAT) (please circle): (Normal) Rush
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
Date results are needed:
Rush results requested by (please circle): Phone Fax
Phone #: 513-459-9677 Fax #:

(8) **Data Package Options** (please circle if requested)
QC Summary Type VI (Raw Data)
Type I (Tier I) GLP
Type II (Tier II) Other
Type III (NJ Red. Del.)
Type IV (CLP)

SDG Complete? (Yes) No

Site-specific QC required? Yes (No)
(If yes, indicate QC sample and submit triplicate volume.)
Internal Chain of Custody required? Yes (No)

(9)

Relinquished by:	Date	Time	Received by:	Date	Time
	7/8	1800			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	7/09/98	0855

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601-5994

Sample Administration
Receipt Documentation Log

Client/Project: Hull Assoc / LTR

Date of Receipt: 7-10-98

Time of Receipt: 8:55

Source Code: 60

Shipping Container Sealed: Y / N

COC Seal Present: Y / N

COC Seal Intact: Y / N

Package: Chilled / Not Chilled

Unpacker Emp. No.: 085

Temperature of Shipping Containers	
#1	#2
Thermometer ID: 7012940	Thermometer ID: 7012940
Temp.: 1.0	Temp.: 2.0
Temp. Bottle / Surface Temp.	Temp. Bottle / Surface Temp.
Wet Ice / Dry Ice / Ice Packs	Wet Ice / Dry Ice / Ice Packs
Ice Present? Y / N	Ice Present? Y / N
#3	#4
Thermometer ID:	Thermometer ID:
Temp.:	Temp.:
Temp. Bottle / Surface Temp.	Temp. Bottle / Surface Temp.
Wet Ice / Dry Ice / Ice Packs	Wet Ice / Dry Ice / Ice Packs
Ice Present? Y / N	Ice Present? Y / N

Paperwork Discrepancy/Unpacking Problems:

Sample Administration Chain of Custody			
Name	Date	Time	Reason for Transfer
[signature]	7-10-98	12:17	Unpacking
D. Newland M	7/10/98	1220	Place in Storage or Entry
R. Lentz	7/10/98	1601	Remove from Storage for Entry
			Place in Storage or Entry
			Entry

3

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Analysis Report

LABORATORY CHRONICLE

Lancaster Laboratories
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LLI Sample No. WW 2961808
Collected: 07/08/98 at 13:00 by DA

Submitted: 07/10/98

PMW-4U Grab Water Sample

IMC Magnetics
PMW4U SDG#: IMC01-01

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

CAT NO	ANALYSIS NAME	METHOD	TRIAL	ANALYSIS ID	DATE AND TIME	ANALYST
0246	Barium	SW-846 7080	1		07/15/98 1002	Jessica E. Gascho
0249	Cadmium	SW-846 7130	1		07/15/98 0858	Jessica E. Gascho
0251	Chromium	SW-846 7190	1		07/15/98 1052	Jessica E. Gascho
0259	Mercury	SW-846 7470A	1		07/14/98 1203	Nelli S. Markaryan
0820	WW SW-846 FAA Digest (tot rec)	SW-846 3005A	1		07/14/98 1100	Christine M. Conlin
1055	Lead (furnace method)	SW-846 7421	1		07/17/98 1156	Heidi L. Strausser
5704	WW/TL SW 846 GFAA Digest tot	SW-846 3020A	1		07/13/98 1908	Marie D. Kimmel
5713	WW SW846 Hg Digest	SW-846 7470A	1		07/13/98 2233	Nelli S. Markaryan
8404	Halocarbons/Aromatics BY SW846	SW-846 8010B	1		07/15/98 1943	Gregory D. Pennebaker

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Analysis Report

LABORATORY CHRONICLE

Lancaster Laboratories
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LLI Sample No. WW 2961809
Collected: 07/08/98 at 13:00 by DA

Submitted: 07/10/98

PMW-4U Duplicate Grab Water Sample

IMC Magnetics
PM4UD SDG#: IMC01-02

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

CAT NO	ANALYSIS NAME	METHOD	TRIAL	ANALYSIS ID	DATE AND TIME	ANALYST
0246	Barium	SW-846 7080	1		07/15/98 1004	Jessica E. Gascho
0249	Cadmium	SW-846 7130	1		07/15/98 0859	Jessica E. Gascho
0251	Chromium	SW-846 7190	1		07/15/98 1052	Jessica E. Gascho
0259	Mercury	SW-846 7470A	1		07/14/98 1205	Nelli S. Markaryan
0820	WW SW-846 FAA Digest (tot rec)	SW-846 3005A	1		07/14/98 1100	Christine M. Conlin
1055	Lead (furnace method)	SW-846 7421	1		07/17/98 1205	Heidi L. Strausser
5704	WW/TL SW 846 GFAA Digest tot	SW-846 3020A	1		07/13/98 1908	Marie D. Kimmel
5713	WW SW846 Hg Digest	SW-846 7470A	1		07/13/98 2233	Nelli S. Markaryan
8404	Halocarbons/Aromatics BY SW846	SW-846 8010B	1		07/15/98 2344	Gregory D. Pennebaker

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LLI Sample No. WW 2961810
Collected: 07/08/98 at 13:15 by DA

Submitted: 07/10/98

PMW-4M Grab Water Sample

IMC Magnetics
PMW4M SDG#: IMC01-03

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

CAT NO	ANALYSIS NAME	METHOD	TRIAL	ANALYSIS ID	DATE AND TIME	ANALYST
0246	Barium	SW-846 7080	1		07/15/98 0959	Jessica E. Gascho
0249	Cadmium	SW-846 7130	1		07/15/98 0855	Jessica E. Gascho
0251	Chromium	SW-846 7190	1		07/15/98 1049	Jessica E. Gascho
0259	Mercury	SW-846 7470A	1		07/14/98 1209	Nelli S. Markaryan
0820	WW SW-846 FAA Digest (tot rec)	SW-846 3005A	1		07/14/98 1100	Christine M. Conlin
1055	Lead (furnace method)	SW-846 7421	1		07/20/98 0942	Elizabeth A. Tomlinson
5704	WW/TL SW 846 GFAA Digest tot	SW-846 3020A	1		07/13/98 1908	Marie D. Kimmel
5713	WW SW846 Hg Digest	SW-846 7470A	1		07/13/98 2233	Nelli S. Markaryan
8404	Halocarbons/Aromatics BY SW846	SW-846 8010B	1		07/16/98 0024	Gregory D. Pennebaker

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Analysis Report

LABORATORY CHRONICLE

Lancaster Laboratories
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LLI Sample No. WW 2961811
Collected: 07/08/98 at 12:45 by DA

Submitted: 07/10/98

PMW-4L Grab Water Sample

IMC Magnetics
PMW4L SDG#: IMC01-04

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

CAT NO	ANALYSIS NAME	METHOD	TRIAL	ANALYSIS ID	DATE AND TIME	ANALYST
0246	Barium	SW-846 7080	1		07/15/98 1004	Jessica E. Gascho
0249	Cadmium	SW-846 7130	1		07/15/98 0900	Jessica E. Gascho
0251	Chromium	SW-846 7190	1		07/15/98 1054	Jessica E. Gascho
0259	Mercury	SW-846 7470A	1		07/14/98 1214	Nelli S. Markaryan
0820	WW SW-846 FAA Digest (tot rec)	SW-846 3005A	1		07/14/98 1100	Christine M. Conlin
1055	Lead (furnace method)	SW-846 7421	1		07/20/98 0951	Elizabeth A. Tomlinson
5704	WW/TL SW 846 GFAA Digest tot	SW-846 3020A	1		07/13/98 1908	Marie D. Kimmel
5713	WW SW846 Hg Digest	SW-846 7470A	1		07/13/98 2233	Nelli S. Markaryan
8404	Halocarbons/Aromatics BY SW846	SW-846 8010B	1		07/16/98 0104	Gregory D. Pennebaker

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LLI Sample No. WW 2961812
Collected: 07/08/98 at 09:45 by DA

Submitted: 07/10/98

PMW-5U Grab Water Sample

IMC Magnetics
PMW5U SDG#: IMC01-05

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

CAT NO	ANALYSIS NAME	METHOD	TRIAL	ANALYSIS ID	DATE AND TIME	ANALYST
0246	Barium	SW-846 7080	1		07/15/98 1005	Jessica E. Gascho
0249	Cadmium	SW-846 7130	1		07/15/98 0900	Jessica E. Gascho
0251	Chromium	SW-846 7190	1		07/15/98 1054	Jessica E. Gascho
0259	Mercury	SW-846 7470A	1		07/14/98 1215	Nelli S. Markaryan
0820	WW SW-846 FAA Digest (tot rec)	SW-846 3005A	1		07/14/98 1100	Christine M. Conlin
1055	Lead (furnace method)	SW-846 7421	1		07/20/98 1000	Elizabeth A. Tomlinson
5704	WW/TL SW 846 GFAA Digest tot	SW-846 3020A	1		07/13/98 1908	Marie D. Kimmel
5713	WW SW846 Hg Digest	SW-846 7470A	1		07/13/98 2233	Nelli S. Markaryan
8404	Halocarbons/Aromatics BY SW846	SW-846 8010B	1		07/16/98 0144	Gregory D. Pennebaker

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Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961813
Collected: 07/08/98 at 10:15 by DA

Submitted: 07/10/98

PMW-5M Grab Water Sample

IMC Magnetics
PMW5M SDG#: IMC01-06

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

CAT NO	ANALYSIS NAME	METHOD	TRIAL	ANALYSIS ID	DATE AND TIME	ANALYST
0246	Barium	SW-846 7080	1		07/15/98 1005	Jessica E. Gascho
0249	Cadmium	SW-846 7130	1		07/15/98 0901	Jessica E. Gascho
0251	Chromium	SW-846 7190	1		07/15/98 1055	Jessica E. Gascho
0259	Mercury	SW-846 7470A	1		07/14/98 1217	Nelli S. Markaryan
0820	WW SW-846 FAA Digest (tot rec)	SW-846 3005A	1		07/14/98 1100	Christine M. Conlin
1055	Lead (furnace method)	SW-846 7421	1		07/16/98 1701	Jolene M. Schields
5704	WW/TL SW 846 GFAA Digest tot	SW-846 3020A	1		07/14/98 2336	Annamaria Stipkovits
5713	WW SW846 Hg Digest	SW-846 7470A	1		07/13/98 2233	Nelli S. Markaryan
8404	Halocarbons/Aromatics BY SW846	SW-846 8010B	1		07/16/98 0230	Gregory D. Pennebaker

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Analysis Report

LABORATORY CHRONICLE

Lancaster Laboratories
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LLI Sample No. WW 2961814
Collected: 07/08/98 at 10:00 by DA

Submitted: 07/10/98

PMW-5L Grab Water Sample

IMC Magnetics
PMW5L SDG#: IMC01-07

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

CAT NO	ANALYSIS NAME	METHOD	TRIAL	ANALYSIS ID	DATE AND TIME	ANALYST
0246	Barium	SW-846 7080	1		07/15/98 1006	Jessica E. Gascho
0249	Cadmium	SW-846 7130	1		07/15/98 0901	Jessica E. Gascho
0251	Chromium	SW-846 7190	1		07/15/98 1055	Jessica E. Gascho
0259	Mercury	SW-846 7470A	1		07/14/98 1218	Nelli S. Markaryan
0820	WW SW-846 FAA Digest (tot rec)	SW-846 3005A	1		07/14/98 1100	Christine M. Conlin
1055	Lead (furnace method)	SW-846 7421	1		07/16/98 1731	Jolene M. Schields
5704	WW/TL SW 846 GFAA Digest tot	SW-846 3020A	1		07/14/98 2336	Annamaria Stipkovits
5713	WW SW846 Hg Digest	SW-846 7470A	1		07/13/98 2233	Nelli S. Markaryan
8404	Halocarbons/Aromatics BY SW846	SW-846 8010B	1		07/16/98 0311	Gregory D. Pennebaker

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Analysis Report

LABORATORY CHRONICLE

Lancaster Laboratories
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LLI Sample No. WW 2961815
Collected: 07/08/98 at 11:00 by DA

Submitted: 07/10/98

PMW-6U Grab Water Sample

IMC Magnetics
PMW6U SDG#: IMC01-08

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

CAT NO	ANALYSIS NAME	METHOD	TRIAL	ANALYSIS ID	DATE AND TIME	ANALYST
0246	Barium	SW-846 7080	1		07/15/98 1006	Jessica E. Gascho
0249	Cadmium	SW-846 7130	1		07/15/98 0901	Jessica E. Gascho
0251	Chromium	SW-846 7190	1		07/15/98 1055	Jessica E. Gascho
0259	Mercury	SW-846 7470A	1		07/14/98 1220	Nelli S. Markaryan
0820	WW SW-846 FAA Digest (tot rec)	SW-846 3005A	1		07/14/98 1100	Christine M. Conlin
1055	Lead (furnace method)	SW-846 7421	1		07/16/98 1735	Jolene M. Schields
5704	WW/TL SW 846 GFAA Digest tot	SW-846 3020A	1		07/14/98 2336	Annamaria Stipkovits
5713	WW SW846 Hg Digest	SW-846 7470A	1		07/13/98 2233	Nelli S. Markaryan
8404	Halocarbons/Aromatics BY SW846	SW-846 8010B	1		07/16/98 0351	Gregory D. Pennebaker

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Analysis Report

LABORATORY CHRONICLE

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961816
Collected: 07/08/98 at 11:15 by DA

Submitted: 07/10/98

PMW-6M Grab Water Sample

IMC Magnetics
PMW6M SDG#: IMC01-09

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

CAT NO	ANALYSIS NAME	METHOD	TRIAL	ANALYSIS ID	DATE AND TIME	ANALYST
0246	Barium	SW-846 7080	1		07/15/98 1007	Jessica E. Gascho
0249	Cadmium	SW-846 7130	1		07/15/98 0902	Jessica E. Gascho
0251	Chromium	SW-846 7190	1		07/15/98 1056	Jessica E. Gascho
0259	Mercury	SW-846 7470A	1		07/14/98 1221	Nelli S. Markaryan
0820	WW SW-846 FAA Digest (tot rec)	SW-846 3005A	1		07/14/98 1100	Christine M. Conlin
1055	Lead (furnace method)	SW-846 7421	1		07/16/98 1751	Jolene M. Schields
5704	WW/TL SW 846 GFAA Digest tot	SW-846 3020A	1		07/14/98 2336	Annamaria Stipkovits
5713	WW SW846 Hg Digest	SW-846 7470A	1		07/13/98 2233	Nelli S. Markaryan
8404	Halocarbons/Aromatics BY SW846	SW-846 8010B	1		07/16/98 0654	Todd T. Smythe

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A division of Thermo Analytical Inc.

LLI Sample No. WW 2961817
Collected: 07/08/98 at 11:30 by DA

Submitted: 07/10/98

PMW-6L Grab Water Sample

IMC Magnetics
PMW6L SDG#: IMC01-10

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

CAT NO	ANALYSIS NAME	METHOD	TRIAL	ANALYSIS ID	DATE AND TIME	ANALYST
0246	Barium	SW-846 7080	1		07/15/98 1008	Jessica E. Gascho
0249	Cadmium	SW-846 7130	1		07/15/98 0902	Jessica E. Gascho
0251	Chromium	SW-846 7190	1		07/15/98 1056	Jessica E. Gascho
0259	Mercury	SW-846 7470A	1		07/14/98 1225	Nelli S. Markaryan
0820	WW SW-846 FAA Digest (tot rec)	SW-846 3005A	1		07/14/98 1100	Christine M. Conlin
1055	Lead (furnace method)	SW-846 7421	1		07/16/98 1756	Jolene M. Schields
5704	WW/TL SW 846 GFAA Digest tot	SW-846 3020A	1		07/14/98 2336	Annamaria Stipkovits
5713	WW SW846 Hg Digest	SW-846 7470A	1		07/13/98 2233	Nelli S. Markaryan
8404	Halocarbons/Aromatics BY SW846	SW-846 8010B	1		07/16/98 0734	Todd T. Smythe

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Analysis Report

LABORATORY CHRONICLE

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961818
Collected: 07/08/98 at 12:15 by DA

Submitted: 07/10/98

PMW-7U Grab Water Sample

IMC Magnetics
PMW7U SDG#: IMC01-11

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

CAT NO	ANALYSIS NAME	METHOD	TRIAL	ANALYSIS ID	DATE AND TIME	ANALYST
0246	Barium	SW-846 7080	1		07/15/98 1008	Jessica E. Gascho
0249	Cadmium	SW-846 7130	1		07/15/98 0903	Jessica E. Gascho
0251	Chromium	SW-846 7190	1		07/15/98 1057	Jessica E. Gascho
0259	Mercury	SW-846 7470A	1		07/14/98 1227	Nelli S. Markaryan
0820	WW SW-846 FAA Digest (tot rec)	SW-846 3005A	1		07/14/98 1100	Christine M. Conlin
1055	Lead (furnace method)	SW-846 7421	1		07/20/98 1016	Elizabeth A. Tomlinson
5704	WW/TL SW 846 GFAA Digest tot	SW-846 3020A	1		07/14/98 2336	Annamaria Stipkovits
5713	WW SW846 Hg Digest	SW-846 7470A	1		07/13/98 2233	Nelli S. Markaryan
8404	Halocarbons/Aromatics BY SW846	SW-846 8010B	1		07/16/98 0814	Todd T. Smythe

14

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Analysis Report

LABORATORY CHRONICLE

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961819
Collected: 07/08/98 at 12:00 by DA

Submitted: 07/10/98

PMW-7M Grab Water Sample

IMC Magnetics
PMW7M SDG#: IMC01-12

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

CAT NO	ANALYSIS NAME	METHOD	TRIAL	ANALYSIS ID	DATE AND TIME	ANALYST
0246	Barium	SW-846 7080	1		07/15/98 1009	Jessica E. Gascho
0249	Cadmium	SW-846 7130	1		07/15/98 0903	Jessica E. Gascho
0251	Chromium	SW-846 7190	1		07/15/98 1057	Jessica E. Gascho
0259	Mercury	SW-846 7470A	1		07/14/98 1228	Nelli S. Markaryan
0820	WW SW-846 FAA Digest (tot rec)	SW-846 3005A	1		07/14/98 1100	Christine M. Conlin
1055	Lead (furnace method)	SW-846 7421	1		07/16/98 1805	Jolene M. Schields
5704	WW/TL SW 846 GFAA Digest tot	SW-846 3020A	1		07/14/98 2336	Annamaria Stipkovits
5713	WW SW846 Hg Digest	SW-846 7470A	1		07/13/98 2233	Nelli S. Markaryan
8404	Halocarbons/Aromatics BY SW846	SW-846 8010B	1		07/16/98 0854	Todd T. Smythe

15

MEMBER ACIL

&&&

Analysis Report

LABORATORY CHRONICLE

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961820
Collected: 07/08/98 at 12:30 by DA

Submitted: 07/10/98

PMW-7L Grab Water Sample

IMC Magnetics
PMW7L SDG#: IMC01-13

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

CAT NO	ANALYSIS NAME	METHOD	TRIAL	ANALYSIS ID	DATE AND TIME	ANALYST
0246	Barium	SW-846 7080	1		07/15/98 1010	Jessica E. Gascho
0249	Cadmium	SW-846 7130	1		07/15/98 0904	Jessica E. Gascho
0251	Chromium	SW-846 7190	1		07/15/98 1057	Jessica E. Gascho
0259	Mercury	SW-846 7470A	1		07/14/98 1230	Nelli S. Markaryan
0820	WW SW-846 FAA Digest (tot rec)	SW-846 3005A	1		07/14/98 1100	Christine M. Conlin
1055	Lead (furnace method)	SW-846 7421	1		07/16/98 1810	Jolene M. Schields
5704	WW/TL SW 846 GFAA Digest tot	SW-846 3020A	1		07/14/98 2336	Annamaria Stipkovits
5713	WW SW846 Hg Digest	SW-846 7470A	1		07/13/98 2233	Nelli S. Markaryan
8404	Halocarbons/Aromatics BY SW846	SW-846 8010B	1		07/16/98 0934	Todd T. Smythe

16

MEMBER ACIL

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Analysis Report

LABORATORY CHRONICLE

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961821
Collected: 07/08/98 at 14:00 by DA

Submitted: 07/10/98

MW-1 Grab Water Sample

IMC Magnetics
MW--1 SDG#: IMC01-14

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

CAT NO	ANALYSIS NAME	METHOD	TRIAL	ANALYSIS ID	DATE AND TIME	ANALYST
0246	Barium	SW-846 7080	1		07/15/98 1010	Jessica E. Gascho
0249	Cadmium	SW-846 7130	1		07/15/98 0905	Jessica E. Gascho
0251	Chromium	SW-846 7190	1		07/15/98 1058	Jessica E. Gascho
0259	Mercury	SW-846 7470A	1		07/14/98 1231	Nelli S. Markaryan
0820	WW SW-846 FAA Digest (tot rec)	SW-846 3005A	1		07/14/98 1100	Christine M. Conlin
1055	Lead (furnace method)	SW-846 7421	1		07/16/98 1815	Jolene M. Schields
5704	WW/TL SW 846 GFAA Digest tot	SW-846 3020A	1		07/14/98 2336	Annamaria Stipkovits
5713	WW SW846 Hg Digest	SW-846 7470A	1		07/13/98 2233	Nelli S. Markaryan
8404	Halocarbons/Aromatics BY SW846	SW-846 8010B	1		07/16/98 1014	Todd T. Smythe

17

MEMBER ACIL

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Analysis Report

LABORATORY CHRONICLE

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961822
Collected: 07/08/98 at 15:00 by DA

Submitted: 07/10/98

MW-3 Grab Water Sample

IMC Magnetics
MW--3 SDG#: IMC01-15

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

CAT NO	ANALYSIS NAME	METHOD	TRIAL	ANALYSIS ID	DATE AND TIME	ANALYST
0246	Barium	SW-846 7080	1		07/15/98 1011	Jessica E. Gascho
0249	Cadmium	SW-846 7130	1		07/15/98 0905	Jessica E. Gascho
0251	Chromium	SW-846 7190	1		07/15/98 1059	Jessica E. Gascho
0259	Mercury	SW-846 7470A	1		07/14/98 1232	Nelli S. Markaryan
0820	WW SW-846 FAA Digest (tot rec)	SW-846 3005A	1		07/14/98 1100	Christine M. Conlin
1055	Lead (furnace method)	SW-846 7421	1		07/16/98 1820	Jolene M. Schields
5704	WW/TL SW 846 GFAA Digest tot	SW-846 3020A	1		07/14/98 2336	Annamaria Stipkovits
5713	WW SW846 Hg Digest	SW-846 7470A	1		07/13/98 2233	Nelli S. Markaryan
8404	Halocarbons/Aromatics BY SW846	SW-846 8010B	1		07/16/98 1055	Todd T. Smythe

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

METHODOLOGY SUMMARY/REFERENCE

0246 Barium (water)
The solution resulting from the metals digestion is analyzed by Flame AA.

Reference: Test Methods for Evaluating Solid Waste
SW-846, Method 7080, September 1986

****

0249 Cadmium (water)
The solution resulting from the metals digestion is analyzed by Flame AA.

Reference: Test Methods for Evaluating Solid Waste
SW-846, Method 7130, September 1986

****

0251 Chromium (water)
The solution resulting from the metals digestion is analyzed by Flame AA.

Reference: Test Methods for Evaluating Solid Waste
SW-846, Method 7190, September 1986

****

0259 Mercury (water)
The solution resulting from the mercury digestion is analyzed by Cold Vapor AA.

Reference: Test Methods for Evaluating Solid Waste
SW-846, Method 7470A, September 1994

****

0820 Metals Water Digestion
The sample is digested with nitric and hydrochloric acids.

Reference: Test Methods for Evaluating Solid Waste
SW-846, Method 3005A, July 1992

Shipping Address
Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17601

Environmental • Foods • Pharmaceuticals
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A subsidiary of Thermo TerraTech Inc., a Thermo Electron company

1055 Lead (water)

The solution resulting from the graphite furnace metals digestion is analyzed by graphite furnace AA.

Reference: Test Methods for Evaluating Solid Waste
SW-846, Method 7421, September 1986

****

5704 Graphite Metals Digestion (water, SW-846)

The sample is digested with nitric acid.

Reference: Test Methods for Evaluating Solid Wastes
SW-846, Method 3020A, July 1992

****

5713 Mercury Digestion (water, SW-846)

The sample is heated at 95 C with nitric acid, sulfuric acid, potassium persulfate, and potassium permanganate. Excess potassium permanganate is reduced with sodium chloride/hydroxylamine hydrochloride. Mercuric ions are reduced to mercury metal using stannous chloride.

Reference: Test Methods for Evaluating Solid Waste
SW-846, Method 7470A, September 1994

****

8404 Halocarbons/Aromatics BY SW846

The volatile compounds are extracted by bubbling an inert gas through the sample and are collected on a sorbent trap. The trap is thermally desorbed and the compounds are separated by gas chromatography under programmed temperature conditions. Each analyte is quantitated using an electrolytic conductivity and photoionization detector in series.

Reference: Test Methods for Evaluating Solid Waste
SW-846, Methods 5030B/8021B, 8010B Revision 2,
December 1996

Shipping Address:
Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17601
717-656-2300 Fax: 717-656-2681

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MEMBER ACIL
A subsidiary of Thermo TerraTech Inc., a Thermo Electron company

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961808
Collected: 7/ 8/98 at 13:00 by DA

Submitted: 7/10/98 Reported: 7/22/98
Discard: 7/30/98

PMW-4U Grab Water Sample

IMC Magnetics
PMW4U SDG#: IMC01-01

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
0246	Barium	0.17	0.10	mg/l
0249	Cadmium	< 0.010	0.010	mg/l
0251	Chromium	0.167	0.030	mg/l
0259	Mercury	< 0.0020	0.0020	mg/l
	The quantitation limit for mercury was increased due to the nature of the sample matrix.			
1055	Lead (furnace method)	0.054	0.015	mg/l
8404	Halocarbons/Aromatics BY SW846			See Page 2

1 COPY TO Hull & Associates ATTN: Mr. Lance Turley
1 COPY TO Data Package Group

Questions? Contact your Client Services Representative
Lisa M. Hetrick at (717) 656-2300
21:47:47 D 0002 15 622821
232 15.00 00030700 ASR000

21

Respectfully Submitted
Robert Strocko
Group Leader, Metals Analysis

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961808
Collected: 7/ 8/98 at 13:00 by DA

Submitted: 7/10/98 Reported: 7/22/98
Discard: 7/30/98

PMW-4U Grab Water Sample

IMC Magnetics
PMW4U SDG#: IMC01-01

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
	Halocarbons/Aromatics BY SW846			
8483	Dichlorodifluoromethane	< 2.0	2.0	ug/l
8484	Chloromethane	< 5.0	5.0	ug/l
8485	Vinyl Chloride	< 1.0	1.0	ug/l
8487	Bromomethane	< 5.0	5.0	ug/l
8488	Chloroethane	< 1.0	1.0	ug/l
8489	Trichlorofluoromethane	< 1.0	1.0	ug/l
8490	1,1-Dichloroethene	1.1	1.0	ug/l
8492	Methylene Chloride	< 1.0	1.0	ug/l
8494	trans-1,2-Dichloroethene	< 1.0	1.0	ug/l
8496	1,1-Dichloroethane	1.2	1.0	ug/l
8498	cis-1,2-Dichloroethene	< 1.0	1.0	ug/l
8502	Chloroform	< 1.0	1.0	ug/l
8504	1,2-Dichloroethane	< 1.0	1.0	ug/l
8506	1,1,1-Trichloroethane	7.6	1.0	ug/l
8509	Carbon Tetrachloride	< 1.0	1.0	ug/l
8511	1,2-Dichloropropane	< 1.0	1.0	ug/l
8512	Trichloroethene	11.	1.0	ug/l
8514	Bromodichloromethane	< 2.0	2.0	ug/l
8516	cis-1,3-Dichloropropene	< 1.0	1.0	ug/l
8517	trans-1,3-Dichloropropene	< 1.0	1.0	ug/l
8518	1,1,2-Trichloroethane	< 1.0	1.0	ug/l
8520	Dibromochloromethane	< 1.0	1.0	ug/l
8523	Tetrachloroethene	2.0	1.0	ug/l
8526	Chlorobenzene	< 1.0	1.0	ug/l
8527	Bromoform	< 1.0	1.0	ug/l
8528	1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/l
8533	1,3-Dichlorobenzene (m)	< 1.0	1.0	ug/l
8534	1,4-Dichlorobenzene (p)	< 1.0	1.0	ug/l
8535	1,2-Dichlorobenzene (o)	< 1.0	1.0	ug/l
8541	Benzene	< 1.0	1.0	ug/l
8543	Toluene	< 1.0	1.0	ug/l
8545	Ethylbenzene	< 1.0	1.0	ug/l
8561	Xylene (total)	< 3.0	3.0	ug/l

Due to the high level of trichloroethene present, normal quantitation limits were not attained for bromodichloromethane.

Questions? Contact your Client Services Representative
Lisa M. Hetrick at (717) 656-2300

22

Respectfully Submitted
Michele Turner, B.A.
Manager, Volatiles

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961809
Collected: 7/ 8/98 at 13:00 by DA

Submitted: 7/10/98 Reported: 7/22/98
Discard: 7/30/98

PMW-4U Duplicate Grab Water Sample

IMC Magnetics
PM4UD SDG#: IMC01-02

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
0246	Barium	0.21	0.10	mg/l
0249	Cadmium	< 0.010	0.010	mg/l
0251	Chromium	0.223	0.030	mg/l
0259	Mercury	< 0.0020	0.0020	mg/l
	The quantitation limit for mercury was increased due to the nature of the sample matrix.			
1055	Lead (furnace method)	0.054	0.015	mg/l
8404	Halocarbons/Aromatics BY SW846			See Page 2

1 COPY TO Hull & Associates ATTN: Mr. Lance Turley
1 COPY TO Data Package Group

Questions? Contact your Client Services Representative
Lisa M. Hetrick at (717) 656-2300
21:48:51 D 0002 15 622821
232 15.00 00030700 ASR000

23

Respectfully Submitted
Robert Strocko
Group Leader, Metals Analysis

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961809
Collected: 7/ 8/98 at 13:00 by DA

Submitted: 7/10/98 Reported: 7/22/98
Discard: 7/30/98

PMW-4U Duplicate Grab Water Sample

IMC Magnetics
PM4UD SDG#: IMC01-02

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
	Halocarbons/Aromatics BY SW846			
8483	Dichlorodifluoromethane	< 2.0	2.0	ug/l
8484	Chloromethane	< 5.0	5.0	ug/l
8485	Vinyl Chloride	< 1.0	1.0	ug/l
8487	Bromomethane	< 5.0	5.0	ug/l
8488	Chloroethane	< 1.0	1.0	ug/l
8489	Trichlorofluoromethane	< 1.0	1.0	ug/l
8490	1,1-Dichloroethene	1.1	1.0	ug/l
8492	Methylene Chloride	< 1.0	1.0	ug/l
8494	trans-1,2-Dichloroethene	< 1.0	1.0	ug/l
8496	1,1-Dichloroethane	1.2	1.0	ug/l
8498	cis-1,2-Dichloroethene	< 1.0	1.0	ug/l
8502	Chloroform	< 1.0	1.0	ug/l
8504	1,2-Dichloroethane	< 1.0	1.0	ug/l
8506	1,1,1-Trichloroethane	7.7	1.0	ug/l
8509	Carbon Tetrachloride	< 1.0	1.0	ug/l
8511	1,2-Dichloropropane	< 1.0	1.0	ug/l
8512	Trichloroethene	12.	1.0	ug/l
8514	Bromodichloromethane	< 2.0	2.0	ug/l
8516	cis-1,3-Dichloropropene	< 1.0	1.0	ug/l
8517	trans-1,3-Dichloropropene	< 1.0	1.0	ug/l
8518	1,1,2-Trichloroethane	< 1.0	1.0	ug/l
8520	Dibromochloromethane	< 1.0	1.0	ug/l
8523	Tetrachloroethene	2.1	1.0	ug/l
8526	Chlorobenzene	< 1.0	1.0	ug/l
8527	Bromoform	< 1.0	1.0	ug/l
8528	1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/l
8533	1,3-Dichlorobenzene (m)	< 1.0	1.0	ug/l
8534	1,4-Dichlorobenzene (p)	< 1.0	1.0	ug/l
8535	1,2-Dichlorobenzene (o)	< 1.0	1.0	ug/l
8541	Benzene	< 1.0	1.0	ug/l
8543	Toluene	< 1.0	1.0	ug/l
8545	Ethylbenzene	< 1.0	1.0	ug/l
8561	Xylene (total)	< 3.0	3.0	ug/l

Due to the high level of trichloroethene present, normal quantitation limits were not attained for bromodichloromethane.

Questions? Contact your Client Services Representative
Lisa M. Hetrick at (717) 656-2300

24

Respectfully Submitted
Michele Turner, B.A.
Manager, Volatiles

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961810
Collected: 7/ 8/98 at 13:15 by DA

Submitted: 7/10/98 Reported: 7/22/98
Discard: 7/30/98

PMW-4M Grab Water Sample

IMC Magnetics
PMW4M SDG#: IMC01-03

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
0246	Barium	< 0.10	0.10	mg/l
0249	Cadmium	< 0.010	0.010	mg/l
0251	Chromium	< 0.030	0.030	mg/l
0259	Mercury	< 0.00020	0.00020	mg/l
1055	Lead (furnace method)	< 0.0030	0.0030	mg/l
8404	Halocarbons/Aromatics BY SW846			See Page 2

1 COPY TO Hull & Associates ATTN: Mr. Lance Turley
1 COPY TO Data Package Group

Questions? Contact your Client Services Representative
Lisa M. Hetrick at (717) 656-2300
21:49:48 D 0002 15 622821
232 15.00 00030700 ASR000

25

Respectfully Submitted
Robert Strocko
Group Leader, Metals Analysis

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961810
Collected: 7/ 8/98 at 13:15 by DA

Submitted: 7/10/98 Reported: 7/22/98
Discard: 7/30/98

PMW-4M Grab Water Sample

IMC Magnetics
PMW4M SDG#: IMC01-03

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
	Halocarbons/Aromatics BY SW846			
8483	Dichlorodifluoromethane	< 2.0	2.0	ug/l
8484	Chloromethane	< 5.0	5.0	ug/l
8485	Vinyl Chloride	< 1.0	1.0	ug/l
8487	Bromomethane	< 5.0	5.0	ug/l
8488	Chloroethane	< 1.0	1.0	ug/l
8489	Trichlorofluoromethane	< 1.0	1.0	ug/l
8490	1,1-Dichloroethene	2.3	1.0	ug/l
8492	Methylene Chloride	< 1.0	1.0	ug/l
8494	trans-1,2-Dichloroethene	< 1.0	1.0	ug/l
8496	1,1-Dichloroethane	1.8	1.0	ug/l
8498	cis-1,2-Dichloroethene	< 1.0	1.0	ug/l
8502	Chloroform	< 1.0	1.0	ug/l
8504	1,2-Dichloroethane	< 1.0	1.0	ug/l
8506	1,1,1-Trichloroethane	11.	1.0	ug/l
8509	Carbon Tetrachloride	< 1.0	1.0	ug/l
8511	1,2-Dichloropropane	< 1.0	1.0	ug/l
8512	Trichloroethene	< 1.0	1.0	ug/l
8514	Bromodichloromethane	< 1.0	1.0	ug/l
8516	cis-1,3-Dichloropropene	< 1.0	1.0	ug/l
8517	trans-1,3-Dichloropropene	< 1.0	1.0	ug/l
8518	1,1,2-Trichloroethane	< 1.0	1.0	ug/l
8520	Dibromochloromethane	< 1.0	1.0	ug/l
8523	Tetrachloroethene	< 1.0	1.0	ug/l
8526	Chlorobenzene	< 1.0	1.0	ug/l
8527	Bromoform	< 1.0	1.0	ug/l
8528	1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/l
8533	1,3-Dichlorobenzene (m)	< 1.0	1.0	ug/l
8534	1,4-Dichlorobenzene (p)	< 1.0	1.0	ug/l
8535	1,2-Dichlorobenzene (o)	< 1.0	1.0	ug/l
8541	Benzene	< 1.0	1.0	ug/l
8543	Toluene	1.3	1.0	ug/l
8545	Ethylbenzene	< 1.0	1.0	ug/l
8561	Xylene (total)	< 3.0	3.0	ug/l

Questions? Contact your Client Services Representative
Lisa M. Hetrick at (717) 656-2300

26

Respectfully Submitted
Michele Turner, B.A.
Manager, Volatiles

MEMBER ASIA

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961811
Collected: 7/ 8/98 at 12:45 by DA

Submitted: 7/10/98 Reported: 7/22/98
Discard: 7/30/98

PMW-4L Grab Water Sample

IMC Magnetics
PMW4L SDG#: IMC01-04

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
0246	Barium	< 0.10	0.10	mg/l
0249	Cadmium	< 0.010	0.010	mg/l
0251	Chromium	< 0.030	0.030	mg/l
0259	Mercury	< 0.00020	0.00020	mg/l
1055	Lead (furnace method)	0.0236	0.0030	mg/l
8404	Halocarbons/Aromatics BY SW846			See Page 2

1 COPY TO Hull & Associates ATTN: Mr. Lance Turley
1 COPY TO Data Package Group

Questions? Contact your Client Services Representative
Lisa M. Hetrick at (717) 656-2300
21:50:27 D 0002 15 622821
232 15.00 00030700 ASR000

27

Respectfully Submitted
Robert Strocko
Group Leader, Metals Analysis

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961811
Collected: 7/ 8/98 at 12:45 by DA

Submitted: 7/10/98 Reported: 7/22/98
Discard: 7/30/98

PMW-4L Grab Water Sample

IMC Magnetics
PMW4L SDG#: IMC01-04

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
	Halocarbons/Aromatics BY SW846			
8483	Dichlorodifluoromethane	< 2.0	2.0	ug/l
8484	Chloromethane	< 5.0	5.0	ug/l
8485	Vinyl Chloride	< 1.0	1.0	ug/l
8487	Bromomethane	< 5.0	5.0	ug/l
8488	Chloroethane	< 1.0	1.0	ug/l
8489	Trichlorofluoromethane	< 1.0	1.0	ug/l
8490	1,1-Dichloroethene	< 1.0	1.0	ug/l
8492	Methylene Chloride	< 1.0	1.0	ug/l
8494	trans-1,2-Dichloroethene	< 1.0	1.0	ug/l
8496	1,1-Dichloroethane	4.5	1.0	ug/l
8498	cis-1,2-Dichloroethene	< 1.0	1.0	ug/l
8502	Chloroform	< 1.0	1.0	ug/l
8504	1,2-Dichloroethane	< 1.0	1.0	ug/l
8506	1,1,1-Trichloroethane	1.8	1.0	ug/l
8509	Carbon Tetrachloride	< 1.0	1.0	ug/l
8511	1,2-Dichloropropane	< 1.0	1.0	ug/l
8512	Trichloroethene	1.5	1.0	ug/l
8514	Bromodichloromethane	< 1.0	1.0	ug/l
8516	cis-1,3-Dichloropropene	< 1.0	1.0	ug/l
8517	trans-1,3-Dichloropropene	< 1.0	1.0	ug/l
8518	1,1,2-Trichloroethane	< 1.0	1.0	ug/l
8520	Dibromochloromethane	< 1.0	1.0	ug/l
8523	Tetrachloroethene	< 1.0	1.0	ug/l
8526	Chlorobenzene	< 1.0	1.0	ug/l
8527	Bromoform	< 1.0	1.0	ug/l
8528	1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/l
8533	1,3-Dichlorobenzene (m)	< 1.0	1.0	ug/l
8534	1,4-Dichlorobenzene (p)	< 1.0	1.0	ug/l
8535	1,2-Dichlorobenzene (o)	< 1.0	1.0	ug/l
8541	Benzene	< 1.0	1.0	ug/l
8543	Toluene	1.2	1.0	ug/l
8545	Ethylbenzene	< 1.0	1.0	ug/l
8561	Xylene (total)	< 3.0	3.0	ug/l

Questions? Contact your Client Services Representative
Lisa M. Hetrick at (717) 656-2300

Respectfully Submitted
Michele Turner, B.A.
Manager, Volatiles

MEMBER

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961812
Collected: 7/ 8/98 at 09:45 by DA

Submitted: 7/10/98 Reported: 7/22/98
Discard: 7/30/98

PMW-5U Grab Water Sample

IMC Magnetics
PMW5U SDG#: IMC01-05

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
0246	Barium	0.10	0.10	mg/l
0249	Cadmium	< 0.010	0.010	mg/l
0251	Chromium	0.049	0.030	mg/l
0259	Mercury	< 0.0020	0.0020	mg/l
	The quantitation limit for mercury was increased due to the nature of the sample matrix.			
1055	Lead (furnace method)	0.0240	0.0030	mg/l
8404	Halocarbons/Aromatics BY SW846			See Page 2

1 COPY TO Hull & Associates ATTN: Mr. Lance Turley
1 COPY TO Data Package Group

Questions? Contact your Client Services Representative
Lisa M. Hetrick at (717) 656-2300
21:50:57 D 0002 15 622821
232 15.00 00030700 ASR000

29

Respectfully Submitted
Robert Strocko
Group Leader, Metals Analysis

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961812
Collected: 7/ 8/98 at 09:45 by DA

Submitted: 7/10/98 Reported: 7/22/98
Discard: 7/30/98

PMW-5U Grab Water Sample

IMC Magnetics
PMW5U SDG#: IMC01-05

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Halocarbons/Aromatics BY SW846				
8483	Dichlorodifluoromethane	< 4.0	4.0	ug/l
8484	Chloromethane	< 10.	10.	ug/l
8485	Vinyl Chloride	< 2.0	2.0	ug/l
8487	Bromomethane	< 10.	10.	ug/l
8488	Chloroethane	< 2.0	2.0	ug/l
8489	Trichlorofluoromethane	< 2.0	2.0	ug/l
8490	1,1-Dichloroethene	< 2.0	2.0	ug/l
8492	Methylene Chloride	< 2.0	2.0	ug/l
8494	trans-1,2-Dichloroethene	< 2.0	2.0	ug/l
8496	1,1-Dichloroethane	2.1	2.0	ug/l
8498	cis-1,2-Dichloroethene	< 2.0	2.0	ug/l
8502	Chloroform	< 2.0	2.0	ug/l
8504	1,2-Dichloroethane	< 2.0	2.0	ug/l
8506	1,1,1-Trichloroethane	14.	2.0	ug/l
8509	Carbon Tetrachloride	< 2.0	2.0	ug/l
8511	1,2-Dichloropropane	< 2.0	2.0	ug/l
8512	Trichloroethene	34.	2.0	ug/l
8514	Bromodichloromethane	< 5.0	5.0	ug/l
8516	cis-1,3-Dichloropropene	< 2.0	2.0	ug/l
8517	trans-1,3-Dichloropropene	< 2.0	2.0	ug/l
8518	1,1,2-Trichloroethane	< 2.0	2.0	ug/l
8520	Dibromochloromethane	< 2.0	2.0	ug/l
8523	Tetrachloroethene	160.	2.0	ug/l
8526	Chlorobenzene	< 2.0	2.0	ug/l
8527	Bromoform	< 2.0	2.0	ug/l
8528	1,1,2,2-Tetrachloroethane	< 2.0	2.0	ug/l
8533	1,3-Dichlorobenzene (m)	< 2.0	2.0	ug/l
8534	1,4-Dichlorobenzene (p)	< 2.0	2.0	ug/l
8535	1,2-Dichlorobenzene (o)	< 2.0	2.0	ug/l
8541	Benzene	< 2.0	2.0	ug/l
8543	Toluene	< 2.0	2.0	ug/l
8545	Ethylbenzene	< 2.0	2.0	ug/l
8561	Xylene (total)	< 6.0	6.0	ug/l

Questions? Contact your Client Services Representative
Lisa M. Hetrick at (717) 656-2300

30

Respectfully Submitted
Michele Turner, B.A.
Manager, Volatiles

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961812
Collected: 7/ 8/98 at 09:45 by DA

Submitted: 7/10/98 Reported: 7/22/98
Discard: 7/30/98

PMW-5U Grab Water Sample

IMC Magnetics
PMW5U SDG#: IMC01-05

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS

Halocarbons/Aromatics BY SW846

Due to dilution of the sample made necessary by the high level of tetrachloroethene, normal quantitation limits were not attained.

Due to the high level of trichloroethene present, normal quantitation limits were not attained for bromodichloromethane.

Questions? Contact your Client Services Representative
Lisa M. Hetrick at (717) 656-2300

Respectfully Submitted
Michele Turner, B.A.
Manager, Volatiles

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961813
Collected: 7/ 8/98 at 10:15 by DA

Submitted: 7/10/98 Reported: 7/22/98
Discard: 7/30/98

PMW-5M Grab Water Sample

IMC Magnetics
PMW5M SDG#: IMC01-06

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
0246	Barium	< 0.10	0.10	mg/l
0249	Cadmium	< 0.010	0.010	mg/l
0251	Chromium	< 0.030	0.030	mg/l
0259	Mercury	< 0.00020	0.00020	mg/l
1055	Lead (furnace method)	< 0.0030	0.0030	mg/l
8404	Halocarbons/Aromatics BY SW846			See Page 2

1 COPY TO Hull & Associates ATTN: Mr. Lance Turley
1 COPY TO Data Package Group

Questions? Contact your Client Services Representative
Lisa M. Hetrick at (717) 656-2300
21:51:33 D 0002 15 622821
232 15.00 00030700 ASR000

32

Respectfully Submitted
Robert Strocko
Group Leader, Metals Analysis

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961813
Collected: 7/ 8/98 at 10:15 by DA

Submitted: 7/10/98 Reported: 7/22/98
Discard: 7/30/98

PMW-5M Grab Water Sample

IMC Magnetics
PMW5M SDG#: IMC01-06

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
	Halocarbons/Aromatics BY SW846			
8483	Dichlorodifluoromethane	< 2.0	2.0	ug/l
8484	Chloromethane	< 5.0	5.0	ug/l
8485	Vinyl Chloride	< 1.0	1.0	ug/l
8487	Bromomethane	< 5.0	5.0	ug/l
8488	Chloroethane	< 1.0	1.0	ug/l
8489	Trichlorofluoromethane	< 1.0	1.0	ug/l
8490	1,1-Dichloroethene	18.	1.0	ug/l
8492	Methylene Chloride	< 1.0	1.0	ug/l
8494	trans-1,2-Dichloroethene	< 1.0	1.0	ug/l
8496	1,1-Dichloroethane	12.	1.0	ug/l
8498	cis-1,2-Dichloroethene	< 1.0	1.0	ug/l
8502	Chloroform	< 1.0	1.0	ug/l
8504	1,2-Dichloroethane	< 1.0	1.0	ug/l
8506	1,1,1-Trichloroethane	60.	1.0	ug/l
8509	Carbon Tetrachloride	< 1.0	1.0	ug/l
8511	1,2-Dichloropropane	< 1.0	1.0	ug/l
8512	Trichloroethene	10.	1.0	ug/l
8514	Bromodichloromethane	< 2.0	2.0	ug/l
8516	cis-1,3-Dichloropropene	< 1.0	1.0	ug/l
8517	trans-1,3-Dichloropropene	< 1.0	1.0	ug/l
8518	1,1,2-Trichloroethane	< 1.0	1.0	ug/l
8520	Dibromochloromethane	< 1.0	1.0	ug/l
8523	Tetrachloroethene	21.	1.0	ug/l
8526	Chlorobenzene	< 1.0	1.0	ug/l
8527	Bromoform	< 1.0	1.0	ug/l
8528	1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/l
8533	1,3-Dichlorobenzene (m)	< 1.0	1.0	ug/l
8534	1,4-Dichlorobenzene (p)	< 1.0	1.0	ug/l
8535	1,2-Dichlorobenzene (o)	< 1.0	1.0	ug/l
8541	Benzene	< 1.0	1.0	ug/l
8543	Toluene	< 1.0	1.0	ug/l
8545	Ethylbenzene	< 1.0	1.0	ug/l
8561	Xylene (total)	< 3.0	3.0	ug/l

Due to the high level of trichloroethene present, normal quantitation limits were not attained for bromodichloromethane.

Questions? Contact your Client Services Representative
Lisa M. Hetrick at (717) 656-2300

33

Respectfully Submitted
Michele Turner, B.A.
Manager, Volatiles

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961814
Collected: 7/ 8/98 at 10:00 by DA

Submitted: 7/10/98 Reported: 7/22/98
Discard: 7/30/98

PMW-5L Grab Water Sample

IMC Magnetics
PMW5L SDG#: IMC01-07

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
0246	Barium	< 0.10	0.10	mg/l
0249	Cadmium	< 0.010	0.010	mg/l
0251	Chromium	< 0.030	0.030	mg/l
0259	Mercury	< 0.00020	0.00020	mg/l
1055	Lead (furnace method)	0.0033	0.0030	mg/l
8404	Halocarbons/Aromatics BY SW846			See Page 2

1 COPY TO Hull & Associates ATTN: Mr. Lance Turley
1 COPY TO Data Package Group

Questions? Contact your Client Services Representative
Lisa M. Hetrick at (717) 656-2300
21:52:02 D 0002 15 622821
232 15.00 00030700 ASR000

34

Respectfully Submitted
Robert Strocko
Group Leader, Metals Analysis

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961814
Collected: 7/ 8/98 at 10:00 by DA

Submitted: 7/10/98 Reported: 7/22/98
Discard: 7/30/98

PMW-5L Grab Water Sample

IMC Magnetics
PMW5L SDG#: IMC01-07

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
	Halocarbons/Aromatics BY SW846			
8483	Dichlorodifluoromethane	< 2.0	2.0	ug/l
8484	Chloromethane	< 5.0	5.0	ug/l
8485	Vinyl Chloride	< 1.0	1.0	ug/l
8487	Bromomethane	< 5.0	5.0	ug/l
8488	Chloroethane	< 1.0	1.0	ug/l
8489	Trichlorofluoromethane	< 1.0	1.0	ug/l
8490	1,1-Dichloroethene	< 1.0	1.0	ug/l
8492	Methylene Chloride	< 1.0	1.0	ug/l
8494	trans-1,2-Dichloroethene	< 1.0	1.0	ug/l
8496	1,1-Dichloroethane	4.1	1.0	ug/l
8498	cis-1,2-Dichloroethene	< 1.0	1.0	ug/l
8502	Chloroform	< 1.0	1.0	ug/l
8504	1,2-Dichloroethane	< 1.0	1.0	ug/l
8506	1,1,1-Trichloroethane	< 1.0	1.0	ug/l
8509	Carbon Tetrachloride	< 1.0	1.0	ug/l
8511	1,2-Dichloropropane	< 1.0	1.0	ug/l
8512	Trichloroethene	< 1.0	1.0	ug/l
8514	Bromodichloromethane	< 1.0	1.0	ug/l
8516	cis-1,3-Dichloropropene	< 1.0	1.0	ug/l
8517	trans-1,3-Dichloropropene	< 1.0	1.0	ug/l
8518	1,1,2-Trichloroethane	< 1.0	1.0	ug/l
8520	Dibromochloromethane	< 1.0	1.0	ug/l
8523	Tetrachloroethene	2.1	1.0	ug/l
8526	Chlorobenzene	< 1.0	1.0	ug/l
8527	Bromoform	< 1.0	1.0	ug/l
8528	1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/l
8533	1,3-Dichlorobenzene (m)	< 1.0	1.0	ug/l
8534	1,4-Dichlorobenzene (p)	< 1.0	1.0	ug/l
8535	1,2-Dichlorobenzene (o)	< 1.0	1.0	ug/l
8541	Benzene	< 1.0	1.0	ug/l
8543	Toluene	< 1.0	1.0	ug/l
8545	Ethylbenzene	< 1.0	1.0	ug/l
8561	Xylene (total)	< 3.0	3.0	ug/l

Questions? Contact your Client Services Representative
Lisa M. Hetrick at (717) 656-2300

35

Respectfully Submitted
Michele Turner, B.A.
Manager, Volatiles

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961815
Collected: 7/ 8/98 at 11:00 by DA

Submitted: 7/10/98 Reported: 7/22/98
Discard: 7/30/98

PMW-6U Grab Water Sample

IMC Magnetics
PMW6U SDG#: IMC01-08

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
0246	Barium	< 0.10	0.10	mg/l
0249	Cadmium	< 0.010	0.010	mg/l
0251	Chromium	0.065	0.030	mg/l
0259	Mercury	< 0.0020	0.0020	mg/l
	The quantitation limit for mercury was increased due to the nature of the sample matrix.			
1055	Lead (furnace method)	0.0218	0.0030	mg/l
8404	Halocarbons/Aromatics BY SW846			See Page 2

1 COPY TO Hull & Associates ATTN: Mr. Lance Turley
1 COPY TO Data Package Group

Questions? Contact your Client Services Representative
Lisa M. Hetrick at (717) 656-2300
21:52:33 D 0002 15 622821
232 15.00 00030700 ASR000

36

Respectfully Submitted
Robert Strocko
Group Leader, Metals Analysis

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961815
Collected: 7/ 8/98 at 11:00 by DA

Submitted: 7/10/98 Reported: 7/22/98
Discard: 7/30/98

PMW-6U Grab Water Sample

IMC Magnetics
PMW6U SDG#: IMC01-08

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
	Halocarbons/Aromatics BY SW846			
8483	Dichlorodifluoromethane	< 2.0	2.0	ug/l
8484	Chloromethane	< 5.0	5.0	ug/l
8485	Vinyl Chloride	< 1.0	1.0	ug/l
8487	Bromomethane	< 5.0	5.0	ug/l
8488	Chloroethane	< 1.0	1.0	ug/l
8489	Trichlorofluoromethane	< 1.0	1.0	ug/l
8490	1,1-Dichloroethene	< 1.0	1.0	ug/l
8492	Methylene Chloride	< 1.0	1.0	ug/l
8494	trans-1,2-Dichloroethene	< 1.0	1.0	ug/l
8496	1,1-Dichloroethane	1.4	1.0	ug/l
8498	cis-1,2-Dichloroethene	2.2	1.0	ug/l
8502	Chloroform	< 1.0	1.0	ug/l
8504	1,2-Dichloroethane	< 1.0	1.0	ug/l
8506	1,1,1-Trichloroethane	2.4	1.0	ug/l
8509	Carbon Tetrachloride	< 1.0	1.0	ug/l
8511	1,2-Dichloropropane	< 1.0	1.0	ug/l
8512	Trichloroethene	20.	1.0	ug/l
8514	Bromodichloromethane	< 5.0	5.0	ug/l
8516	cis-1,3-Dichloropropene	< 1.0	1.0	ug/l
8517	trans-1,3-Dichloropropene	< 1.0	1.0	ug/l
8518	1,1,2-Trichloroethane	< 1.0	1.0	ug/l
8520	Dibromochloromethane	< 1.0	1.0	ug/l
8523	Tetrachloroethene	51.	1.0	ug/l
8526	Chlorobenzene	< 1.0	1.0	ug/l
8527	Bromoform	< 1.0	1.0	ug/l
8528	1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/l
8533	1,3-Dichlorobenzene (m)	< 1.0	1.0	ug/l
8534	1,4-Dichlorobenzene (p)	< 1.0	1.0	ug/l
8535	1,2-Dichlorobenzene (o)	< 1.0	1.0	ug/l
8541	Benzene	< 1.0	1.0	ug/l
8543	Toluene	1.9	1.0	ug/l
8545	Ethylbenzene	< 1.0	1.0	ug/l
8561	Xylene (total)	< 3.0	3.0	ug/l

Due to the high level of trichloroethene present, normal quantitation limits were not attained for bromodichloromethane.

Questions? Contact your Client Services Representative
Lisa M. Hetrick at (717) 656-2300

37

Respectfully Submitted
Michele Turner, B.A.
Manager, Volatiles

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961816
Collected: 7/ 8/98 at 11:15 by DA

Submitted: 7/10/98 Reported: 7/22/98
Discard: 7/30/98

PMW-6M Grab Water Sample

IMC Magnetics
PMW6M SDG#: IMC01-09

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
0246	Barium	< 0.10	0.10	mg/l
0249	Cadmium	< 0.010	0.010	mg/l
0251	Chromium	< 0.030	0.030	mg/l
0259	Mercury	< 0.00020	0.00020	mg/l
1055	Lead (furnace method)	0.0123	0.0030	mg/l
8404	Halocarbons/Aromatics BY SW846			See Page 2

1 COPY TO Hull & Associates ATTN: Mr. Lance Turley
1 COPY TO Data Package Group

Questions? Contact your Client Services Representative
Lisa M. Hetrick at (717) 656-2300
21:53:00 D 0002 15 622821
232 15.00 00030700 ASR000

38

Respectfully Submitted
Robert Strocko
Group Leader, Metals Analysis

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961816
Collected: 7/ 8/98 at 11:15 by DA

Submitted: 7/10/98 Reported: 7/22/98
Discard: 7/30/98

PMW-6M Grab Water Sample

IMC Magnetics
PMW6M SDG#: IMC01-09

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
	Halocarbons/Aromatics BY SW846			
8483	Dichlorodifluoromethane	< 2.0	2.0	ug/l
8484	Chloromethane	< 5.0	5.0	ug/l
8485	Vinyl Chloride	< 1.0	1.0	ug/l
8487	Bromomethane	< 5.0	5.0	ug/l
8488	Chloroethane	< 1.0	1.0	ug/l
8489	Trichlorofluoromethane	< 1.0	1.0	ug/l
8490	1,1-Dichloroethene	1.7	1.0	ug/l
8492	Methylene Chloride	< 1.0	1.0	ug/l
8494	trans-1,2-Dichloroethene	< 1.0	1.0	ug/l
8496	1,1-Dichloroethane	4.2	1.0	ug/l
8498	cis-1,2-Dichloroethene	< 1.0	1.0	ug/l
8502	Chloroform	< 1.0	1.0	ug/l
8504	1,2-Dichloroethane	< 1.0	1.0	ug/l
8506	1,1,1-Trichloroethane	5.6	1.0	ug/l
8509	Carbon Tetrachloride	< 1.0	1.0	ug/l
8511	1,2-Dichloropropane	< 1.0	1.0	ug/l
8512	Trichloroethene	< 1.0	1.0	ug/l
8514	Bromodichloromethane	< 1.0	1.0	ug/l
8516	cis-1,3-Dichloropropene	< 1.0	1.0	ug/l
8517	trans-1,3-Dichloropropene	< 1.0	1.0	ug/l
8518	1,1,2-Trichloroethane	< 1.0	1.0	ug/l
8520	Dibromochloromethane	< 1.0	1.0	ug/l
8523	Tetrachloroethene	1.6	1.0	ug/l
8526	Chlorobenzene	< 1.0	1.0	ug/l
8527	Bromoform	< 1.0	1.0	ug/l
8528	1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/l
8533	1,3-Dichlorobenzene (m)	< 1.0	1.0	ug/l
8534	1,4-Dichlorobenzene (p)	< 1.0	1.0	ug/l
8535	1,2-Dichlorobenzene (o)	< 1.0	1.0	ug/l
8541	Benzene	< 1.0	1.0	ug/l
8543	Toluene	45.	1.0	ug/l
8545	Ethylbenzene	< 1.0	1.0	ug/l
8561	Xylene (total)	< 3.0	3.0	ug/l

Questions? Contact your Client Services Representative
Lisa M. Hetrick at (717) 656-2300

39

Respectfully Submitted
Michele Turner, B.A.
Manager, Volatiles

MEMBER ASL

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961817
Collected: 7/ 8/98 at 11:30 by DA

Submitted: 7/10/98 Reported: 7/22/98
Discard: 7/30/98

PMW-6L Grab Water Sample

IMC Magnetics
PMW6L SDG#: IMC01-10

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
0246	Barium	< 0.10	0.10	mg/l
0249	Cadmium	< 0.010	0.010	mg/l
0251	Chromium	< 0.030	0.030	mg/l
0259	Mercury	< 0.00020	0.00020	mg/l
1055	Lead (furnace method)	0.0100	0.0030	mg/l
8404	Halocarbons/Aromatics BY SW846			See Page 2

1 COPY TO Hull & Associates ATTN: Mr. Lance Turley
1 COPY TO Data Package Group

Questions? Contact your Client Services Representative
Lisa M. Hetrick at (717) 656-2300
21:53:38 D 0002 15 622821
232 15.00 00030700 ASR000

Respectfully Submitted
Robert Strocko
Group Leader, Metals Analysis

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961817
Collected: 7/ 8/98 at 11:30 by DA

Submitted: 7/10/98 Reported: 7/22/98
Discard: 7/30/98

PMW-6L Grab Water Sample

IMC Magnetics
PMW6L SDG#: IMC01-10

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
	Halocarbons/Aromatics BY SW846			
8483	Dichlorodifluoromethane	< 2.0	2.0	ug/l
8484	Chloromethane	< 5.0	5.0	ug/l
8485	Vinyl Chloride	< 1.0	1.0	ug/l
8487	Bromomethane	< 5.0	5.0	ug/l
8488	Chloroethane	< 1.0	1.0	ug/l
8489	Trichlorofluoromethane	< 1.0	1.0	ug/l
8490	1,1-Dichloroethene	< 1.0	1.0	ug/l
8492	Methylene Chloride	< 1.0	1.0	ug/l
8494	trans-1,2-Dichloroethene	< 1.0	1.0	ug/l
8496	1,1-Dichloroethane	4.4	1.0	ug/l
8498	cis-1,2-Dichloroethene	< 1.0	1.0	ug/l
8502	Chloroform	< 1.0	1.0	ug/l
8504	1,2-Dichloroethane	< 1.0	1.0	ug/l
8506	1,1,1-Trichloroethane	1.3	1.0	ug/l
8509	Carbon Tetrachloride	< 1.0	1.0	ug/l
8511	1,2-Dichloropropane	< 1.0	1.0	ug/l
8512	Trichloroethene	< 1.0	1.0	ug/l
8514	Bromodichloromethane	< 1.0	1.0	ug/l
8516	cis-1,3-Dichloropropene	< 1.0	1.0	ug/l
8517	trans-1,3-Dichloropropene	< 1.0	1.0	ug/l
8518	1,1,2-Trichloroethane	< 1.0	1.0	ug/l
8520	Dibromochloromethane	< 1.0	1.0	ug/l
8523	Tetrachloroethene	< 1.0	1.0	ug/l
8526	Chlorobenzene	< 1.0	1.0	ug/l
8527	Bromoform	< 1.0	1.0	ug/l
8528	1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/l
8533	1,3-Dichlorobenzene (m)	< 1.0	1.0	ug/l
8534	1,4-Dichlorobenzene (p)	< 1.0	1.0	ug/l
8535	1,2-Dichlorobenzene (o)	< 1.0	1.0	ug/l
8541	Benzene	< 1.0	1.0	ug/l
8543	Toluene	100.	1.0	ug/l
8545	Ethylbenzene	< 1.0	1.0	ug/l
8561	Xylene (total)	< 3.0	3.0	ug/l

Questions? Contact your Client Services Representative
Lisa M. Hetrick at (717) 656-2300

41

Respectfully Submitted
Michele Turner, B.A.
Manager, Volatiles

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961818
Collected: 7/ 8/98 at 12:15 by DA

Submitted: 7/10/98 Reported: 7/22/98
Discard: 7/30/98

PMW-7U Grab Water Sample

IMC Magnetics
PMW7U SDG#: IMC01-11

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
0246	Barium	0.25	0.10	mg/l
0249	Cadmium	< 0.010	0.010	mg/l
0251	Chromium	0.155	0.030	mg/l
0259	Mercury	< 0.0020	0.0020	mg/l
	The quantitation limit for mercury was increased due to the nature of the sample matrix.			
1055	Lead (furnace method)	0.090	0.015	mg/l
8404	Halocarbons/Aromatics BY SW846			See Page 2

1 COPY TO Hull & Associates ATTN: Mr. Lance Turley
1 COPY TO Data Package Group

Questions? Contact your Client Services Representative
Lisa M. Hetrick at (717) 656-2300
21:54:23 D 0002 15 622821
232 15.00 00030700 ASR000

42

Respectfully Submitted
Robert Strocko
Group Leader, Metals Analysis

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961818
Collected: 7/ 8/98 at 12:15 by DA

Submitted: 7/10/98 Reported: 7/22/98
Discard: 7/30/98

PMW-7U Grab Water Sample

IMC Magnetics
PMW7U SDG#: IMC01-11

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
	Halocarbons/Aromatics BY SW846			
8483	Dichlorodifluoromethane	< 2.0	2.0	ug/l
8484	Chloromethane	< 5.0	5.0	ug/l
8485	Vinyl Chloride	< 1.0	1.0	ug/l
8487	Bromomethane	< 5.0	5.0	ug/l
8488	Chloroethane	< 1.0	1.0	ug/l
8489	Trichlorofluoromethane	< 1.0	1.0	ug/l
8490	1,1-Dichloroethene	< 1.0	1.0	ug/l
8492	Methylene Chloride	< 1.0	1.0	ug/l
8494	trans-1,2-Dichloroethene	< 1.0	1.0	ug/l
8496	1,1-Dichloroethane	3.3	1.0	ug/l
8498	cis-1,2-Dichloroethene	< 1.0	1.0	ug/l
8502	Chloroform	< 1.0	1.0	ug/l
8504	1,2-Dichloroethane	< 1.0	1.0	ug/l
8506	1,1,1-Trichloroethane	2.3	1.0	ug/l
8509	Carbon Tetrachloride	< 1.0	1.0	ug/l
8511	1,2-Dichloropropane	< 1.0	1.0	ug/l
8512	Trichloroethene	3.0	1.0	ug/l
8514	Bromodichloromethane	< 1.0	1.0	ug/l
8516	cis-1,3-Dichloropropene	< 1.0	1.0	ug/l
8517	trans-1,3-Dichloropropene	< 1.0	1.0	ug/l
8518	1,1,2-Trichloroethane	< 1.0	1.0	ug/l
8520	Dibromochloromethane	< 1.0	1.0	ug/l
8523	Tetrachloroethene	19.	1.0	ug/l
8526	Chlorobenzene	< 1.0	1.0	ug/l
8527	Bromoform	< 1.0	1.0	ug/l
8528	1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/l
8533	1,3-Dichlorobenzene (m)	< 1.0	1.0	ug/l
8534	1,4-Dichlorobenzene (p)	< 1.0	1.0	ug/l
8535	1,2-Dichlorobenzene (o)	< 1.0	1.0	ug/l
8541	Benzene	< 1.0	1.0	ug/l
8543	Toluene	3.6	1.0	ug/l
8545	Ethylbenzene	< 1.0	1.0	ug/l
8561	Xylene (total)	< 3.0	3.0	ug/l

Questions? Contact your Client Services Representative
Lisa M. Hetrick at (717) 656-2300

43

Respectfully Submitted
Michele Turner, B.A.
Manager, Volatiles

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961819
Collected: 7/ 8/98 at 12:00 by DA

Submitted: 7/10/98 Reported: 7/22/98
Discard: 7/30/98

PMW-7M Grab Water Sample

IMC Magnetics
PMW7M SDG#: IMC01-12

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
0246	Barium	< 0.10	0.10	mg/l
0249	Cadmium	< 0.010	0.010	mg/l
0251	Chromium	< 0.030	0.030	mg/l
0259	Mercury	< 0.00020	0.00020	mg/l
1055	Lead (furnace method)	< 0.0030	0.0030	mg/l
8404	Halocarbons/Aromatics BY SW846			See Page 2

1 COPY TO Hull & Associates ATTN: Mr. Lance Turley
1 COPY TO Data Package Group

Questions? Contact your Client Services Representative
Lisa M. Hetrick at (717) 656-2300
21:55:00 D 0002 15 622821
232 15.00 00030700 ASR000

44

Respectfully Submitted
Robert Strocko
Group Leader, Metals Analysis

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961819
Collected: 7/ 8/98 at 12:00 by DA

Submitted: 7/10/98 Reported: 7/22/98
Discard: 7/30/98

PMW-7M Grab Water Sample

IMC Magnetics
PMW7M SDG#: IMC01-12

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
	Halocarbons/Aromatics BY SW846			
8483	Dichlorodifluoromethane	< 2.0	2.0	ug/l
8484	Chloromethane	< 5.0	5.0	ug/l
8485	Vinyl Chloride	< 1.0	1.0	ug/l
8487	Bromomethane	< 5.0	5.0	ug/l
8488	Chloroethane	< 1.0	1.0	ug/l
8489	Trichlorofluoromethane	< 1.0	1.0	ug/l
8490	1,1-Dichloroethene	< 1.0	1.0	ug/l
8492	Methylene Chloride	< 1.0	1.0	ug/l
8494	trans-1,2-Dichloroethene	< 1.0	1.0	ug/l
8496	1,1-Dichloroethane	2.1	1.0	ug/l
8498	cis-1,2-Dichloroethene	< 1.0	1.0	ug/l
8502	Chloroform	< 1.0	1.0	ug/l
8504	1,2-Dichloroethane	< 1.0	1.0	ug/l
8506	1,1,1-Trichloroethane	< 1.0	1.0	ug/l
8509	Carbon Tetrachloride	< 1.0	1.0	ug/l
8511	1,2-Dichloropropane	< 1.0	1.0	ug/l
8512	Trichloroethene	< 1.0	1.0	ug/l
8514	Bromodichloromethane	< 1.0	1.0	ug/l
8516	cis-1,3-Dichloropropene	< 1.0	1.0	ug/l
8517	trans-1,3-Dichloropropene	< 1.0	1.0	ug/l
8518	1,1,2-Trichloroethane	< 1.0	1.0	ug/l
8520	Dibromochloromethane	< 1.0	1.0	ug/l
8523	Tetrachloroethene	3.5	1.0	ug/l
8526	Chlorobenzene	< 1.0	1.0	ug/l
8527	Bromoform	< 1.0	1.0	ug/l
8528	1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/l
8533	1,3-Dichlorobenzene (m)	< 1.0	1.0	ug/l
8534	1,4-Dichlorobenzene (p)	< 1.0	1.0	ug/l
8535	1,2-Dichlorobenzene (o)	< 1.0	1.0	ug/l
8541	Benzene	< 1.0	1.0	ug/l
8543	Toluene	6.1	1.0	ug/l
8545	Ethylbenzene	< 1.0	1.0	ug/l
8561	Xylene (total)	< 3.0	3.0	ug/l

Questions? Contact your Client Services Representative
Lisa M. Hetrick at (717) 656-2300

45

Respectfully Submitted
Michele Turner, B.A.
Manager, Volatiles

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961820
Collected: 7/ 8/98 at 12:30 by DA

Submitted: 7/10/98 Reported: 7/22/98
Discard: 7/30/98

PMW-7L Grab Water Sample

IMC Magnetics
PMW7L SDG#: IMC01-13

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
0246	Barium	< 0.10	0.10	mg/l
0249	Cadmium	< 0.010	0.010	mg/l
0251	Chromium	< 0.030	0.030	mg/l
0259	Mercury	< 0.00020	0.00020	mg/l
1055	Lead (furnace method)	0.0038	0.0030	mg/l
8404	Halocarbons/Aromatics BY SW846			See Page 2

1 COPY TO Hull & Associates ATTN: Mr. Lance Turley
1 COPY TO Data Package Group

Questions? Contact your Client Services Representative
Lisa M. Hetrick at (717) 656-2300
21:55:33 D 0002 15 622821
232 15.00 00030700 ASR000

46

Respectfully Submitted
Robert Strocko
Group Leader, Metals Analysis

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961820
Collected: 7/ 8/98 at 12:30 by DA

Submitted: 7/10/98 Reported: 7/22/98
Discard: 7/30/98

PMW-7L Grab Water Sample

IMC Magnetics
PMW7L SDG#: IMC01-13

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
	Halocarbons/Aromatics BY SW846			
8483	Dichlorodifluoromethane	< 2.0	2.0	ug/l
8484	Chloromethane	< 5.0	5.0	ug/l
8485	Vinyl Chloride	< 1.0	1.0	ug/l
8487	Bromomethane	< 5.0	5.0	ug/l
8488	Chloroethane	< 1.0	1.0	ug/l
8489	Trichlorofluoromethane	< 1.0	1.0	ug/l
8490	1,1-Dichloroethene	1.2	1.0	ug/l
8492	Methylene Chloride	< 1.0	1.0	ug/l
8494	trans-1,2-Dichloroethene	< 1.0	1.0	ug/l
8496	1,1-Dichloroethane	2.0	1.0	ug/l
8498	cis-1,2-Dichloroethene	< 1.0	1.0	ug/l
8502	Chloroform	< 1.0	1.0	ug/l
8504	1,2-Dichloroethane	< 1.0	1.0	ug/l
8506	1,1,1-Trichloroethane	4.5	1.0	ug/l
8509	Carbon Tetrachloride	< 1.0	1.0	ug/l
8511	1,2-Dichloropropane	< 1.0	1.0	ug/l
8512	Trichloroethene	< 1.0	1.0	ug/l
8514	Bromodichloromethane	< 1.0	1.0	ug/l
8516	cis-1,3-Dichloropropene	< 1.0	1.0	ug/l
8517	trans-1,3-Dichloropropene	< 1.0	1.0	ug/l
8518	1,1,2-Trichloroethane	< 1.0	1.0	ug/l
8520	Dibromochloromethane	< 1.0	1.0	ug/l
8523	Tetrachloroethene	< 1.0	1.0	ug/l
8526	Chlorobenzene	< 1.0	1.0	ug/l
8527	Bromoform	1.2	1.0	ug/l
8528	1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/l
8533	1,3-Dichlorobenzene (m)	< 1.0	1.0	ug/l
8534	1,4-Dichlorobenzene (p)	< 1.0	1.0	ug/l
8535	1,2-Dichlorobenzene (o)	< 1.0	1.0	ug/l
8541	Benzene	< 1.0	1.0	ug/l
8543	Toluene	32.	1.0	ug/l
8545	Ethylbenzene	< 1.0	1.0	ug/l
8561	Xylene (total)	< 3.0	3.0	ug/l

Questions? Contact your Client Services Representative
Lisa M. Hetrick at (717) 656-2300

47

Respectfully Submitted
Michele Turner, B.A.
Manager, Volatiles

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961821
Collected: 7/ 8/98 at 14:00 by DA

Submitted: 7/10/98 Reported: 7/22/98
Discard: 7/30/98

MW-1 Grab Water Sample

IMC Magnetics
MW--1 SDG#: IMC01-14

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
0246	Barium	< 0.10	0.10	mg/l
0249	Cadmium	< 0.010	0.010	mg/l
0251	Chromium	< 0.030	0.030	mg/l
0259	Mercury	< 0.00020	0.00020	mg/l
1055	Lead (furnace method)	< 0.0030	0.0030	mg/l
8404	Halocarbons/Aromatics BY SW846			See Page 2

1 COPY TO Hull & Associates ATTN: Mr. Lance Turley
1 COPY TO Data Package Group

Questions? Contact your Client Services Representative
Lisa M. Hetrick at (717) 656-2300
21:56:09 D 0002 15 622821
232 15.00 00030700 ASR000

48

Respectfully Submitted
Robert Strocko
Group Leader, Metals Analysis

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961821
Collected: 7/ 8/98 at 14:00 by DA

Submitted: 7/10/98 Reported: 7/22/98
Discard: 7/30/98

MW-1 Grab Water Sample

IMC Magnetics
MW--1 SDG#: IMC01-14

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
	Halocarbons/Aromatics BY SW846			
8483	Dichlorodifluoromethane	< 2.0	2.0	ug/l
8484	Chloromethane	< 5.0	5.0	ug/l
8485	Vinyl Chloride	< 1.0	1.0	ug/l
8487	Bromomethane	< 5.0	5.0	ug/l
8488	Chloroethane	< 1.0	1.0	ug/l
8489	Trichlorofluoromethane	< 1.0	1.0	ug/l
8490	1,1-Dichloroethene	< 1.0	1.0	ug/l
8492	Methylene Chloride	< 1.0	1.0	ug/l
8494	trans-1,2-Dichloroethene	< 1.0	1.0	ug/l
8496	1,1-Dichloroethane	< 1.0	1.0	ug/l
8498	cis-1,2-Dichloroethene	< 1.0	1.0	ug/l
8502	Chloroform	< 1.0	1.0	ug/l
8504	1,2-Dichloroethane	< 1.0	1.0	ug/l
8506	1,1,1-Trichloroethane	< 1.0	1.0	ug/l
8509	Carbon Tetrachloride	< 1.0	1.0	ug/l
8511	1,2-Dichloropropane	< 1.0	1.0	ug/l
8512	Trichloroethene	< 1.0	1.0	ug/l
8514	Bromodichloromethane	< 1.0	1.0	ug/l
8516	cis-1,3-Dichloropropene	< 1.0	1.0	ug/l
8517	trans-1,3-Dichloropropene	< 1.0	1.0	ug/l
8518	1,1,2-Trichloroethane	< 1.0	1.0	ug/l
8520	Dibromochloromethane	< 1.0	1.0	ug/l
8523	Tetrachloroethene	2.1	1.0	ug/l
8526	Chlorobenzene	< 1.0	1.0	ug/l
8527	Bromoform	< 1.0	1.0	ug/l
8528	1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/l
8533	1,3-Dichlorobenzene (m)	< 1.0	1.0	ug/l
8534	1,4-Dichlorobenzene (p)	< 1.0	1.0	ug/l
8535	1,2-Dichlorobenzene (o)	< 1.0	1.0	ug/l
8541	Benzene	< 1.0	1.0	ug/l
8543	Toluene	< 1.0	1.0	ug/l
8545	Ethylbenzene	< 1.0	1.0	ug/l
8561	Xylene (total)	< 3.0	3.0	ug/l

Questions? Contact your Client Services Representative
Lisa M. Hetrick at (717) 656-2300

Respectfully Submitted
Michele Turner, B.A.
Manager, Volatiles

MEMBER ASIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961822
Collected: 7/ 8/98 at 15:00 by DA

Submitted: 7/10/98 Reported: 7/22/98
Discard: 7/30/98

MW-3 Grab Water Sample

IMC Magnetics
MW--3 SDG#: IMC01-15

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
0246	Barium	< 0.10	0.10	mg/l
0249	Cadmium	< 0.010	0.010	mg/l
0251	Chromium	0.058	0.030	mg/l
0259	Mercury	< 0.00020	0.00020	mg/l
1055	Lead (furnace method)	0.0034	0.0030	mg/l
8404	Halocarbons/Aromatics BY SW846			See Page 2

1 COPY TO Hull & Associates ATTN: Mr. Lance Turley
1 COPY TO Data Package Group

Questions? Contact your Client Services Representative
Lisa M. Hetrick at (717) 656-2300
21:56:37 D 0002 15 622821
232 15.00 00030700 ASR000

50

Respectfully Submitted
Robert Strocko
Group Leader, Metals Analysis

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2961822
Collected: 7/ 8/98 at 15:00 by DA

Submitted: 7/10/98 Reported: 7/22/98
Discard: 7/30/98

MW-3 Grab Water Sample

IMC Magnetics
MW--3 SDG#: IMC01-15

Account No: 10062
Hull & Associates
4700 Duke Dr., Ste. 172
Mason, OH 45040

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
	Halocarbons/Aromatics BY SW846			
8483	Dichlorodifluoromethane	< 2.0	2.0	ug/l
8484	Chloromethane	< 5.0	5.0	ug/l
8485	Vinyl Chloride	< 1.0	1.0	ug/l
8487	Bromomethane	< 5.0	5.0	ug/l
8488	Chloroethane	< 1.0	1.0	ug/l
8489	Trichlorofluoromethane	< 1.0	1.0	ug/l
8490	1,1-Dichloroethene	< 1.0	1.0	ug/l
8492	Methylene Chloride	< 1.0	1.0	ug/l
8494	trans-1,2-Dichloroethene	< 1.0	1.0	ug/l
8496	1,1-Dichloroethane	3.7	1.0	ug/l
8498	cis-1,2-Dichloroethene	7.7	1.0	ug/l
8502	Chloroform	1.1	1.0	ug/l
8504	1,2-Dichloroethane	< 1.0	1.0	ug/l
8506	1,1,1-Trichloroethane	2.9	1.0	ug/l
8509	Carbon Tetrachloride	< 1.0	1.0	ug/l
8511	1,2-Dichloropropane	< 1.0	1.0	ug/l
8512	Trichloroethene	6.8	1.0	ug/l
8514	Bromodichloromethane	< 1.0	1.0	ug/l
8516	cis-1,3-Dichloropropene	< 1.0	1.0	ug/l
8517	trans-1,3-Dichloropropene	< 1.0	1.0	ug/l
8518	1,1,2-Trichloroethane	< 1.0	1.0	ug/l
8520	Dibromochloromethane	< 1.0	1.0	ug/l
8523	Tetrachloroethene	19.	1.0	ug/l
8526	Chlorobenzene	< 1.0	1.0	ug/l
8527	Bromoform	< 1.0	1.0	ug/l
8528	1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/l
8533	1,3-Dichlorobenzene (m)	< 1.0	1.0	ug/l
8534	1,4-Dichlorobenzene (p)	< 1.0	1.0	ug/l
8535	1,2-Dichlorobenzene (o)	< 1.0	1.0	ug/l
8541	Benzene	< 1.0	1.0	ug/l
8543	Toluene	< 1.0	1.0	ug/l
8545	Ethylbenzene	< 1.0	1.0	ug/l
8561	Xylene (total)	< 3.0	3.0	ug/l

Questions? Contact your Client Services Representative
Lisa M. Hetrick at (717) 656-2300

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Respectfully Submitted
Michele Turner, B.A.
Manager, Volatiles

MEMBER ACIL

Volatiles by GC Data

Case Narrative
Conformance/Nonconformance Summary

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Case Narrative
SDG# IMC01

Client: Hull & Associates
Project: IMC Magnetics
Volatiles by GC - Water

SAMPLE ANALYSES

LL Sample #	Sample Designation	Matrix Soil	Matrix Water	Comments
961808	PMW4U		X	Unspiked
961808MS	PMW4U		X	DF 5 Matrix Spike
2961808MSD	PMW4U		X	DF 5 Matrix Spike Dup
2961809	PM4UD		X	
961810	PMW4M		X	
961811	PMW4L		X	
2961812	PMW5U		X	DF 2
2961813	PMW5M		X	
961814	PMW5L		X	
961815	PMW6U		X	
2961816	PMW6M		X	
2961817	PMW6L		X	
961818	PMW7U		X	
961819	PMW7M		X	
2961820	PMW7L		X	
2961821	MW--1		X	
961822	MW--3		X	

QUALITY CONTROL ANALYSES

BLK1875		X	Method Blank
BLK1877		X	Method Blank

SAMPLE PREPARATION

Dilutions were necessary for some samples as noted in the comments section above.

ANALYSIS

The integration system reviews the chromatogram retention times, comparing them to the retention times in the ID Window column. A peak in the sample chromatogram with a retention time within the ID window is identified as a "hit."

The method used for analysis was EPA Method 5030A/8010B/8020A.
A J&W DB-VRX, 75m x 0.45mm capillary column was used for the analysis of all samples.

No problems were encountered during analysis.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY

There was no client submitted QC, so Lancaster Laboratories batch QC was referenced.

All QC was within specifications.

DATA INTERPRETATION

Due to the limitations of the data package generating software, the NYSDEC ASP forms could not be included for the GC Volatiles data. Sample results are summarized on the analysis reports, and QC and calibration information is included on summary forms in this section of the data package.

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Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Case Narrative
SDG# IMC01

Client: Hull & Associates
Project: IMC Magnetics
Volatiles by GC - Water

Narrative reviewed and approved by:

Michele M. Turner, Manager for — Date 3-13-98

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GC Volatiles Calculations

1. **Calculation of Calibration Factor:**

$$\text{Calibration Factor (CF)} = \frac{H_n}{A_n}$$

Where: A_n = amount of analyte in the nth calibration level (ug\l)
H_n = peak height of the nth calibration level

2. **Calculation of Average Calibration Factor:**

$$AVG_{CF} = \frac{\sum(CF_i)}{n}$$

Where: CFi = Calibration factor of the ith level

3. **Determining the Analyte Concentration**

$$\text{Sample concentration (ug\l)} = \frac{\text{Peak Height of Analyte}}{AVG_{CF}} \times (DF)$$

DF = Dilution factor

4. **Calculation used for the quadratic curve :** $AX^2 + BX + C = 0$

Determining the Analyte Concentration

Using the equation to solve for X(concentration)

$$X = \frac{-B +\!\!- \sqrt{(B)^2 - (4)(A)(-C)}}{2(A)} \times (DF)$$

DF = Dilution factor

5. **% Relative Standard Deviation(%RSD):**

$$\%RSD = \frac{\text{Standard Deviation}}{\text{Mean}} \times 100$$

6. **% Difference(%D)**

$$\%D = \frac{CFc - Cfi}{Cfi} \times 100$$

Where:
CFc = Calibration factor from continuing calibration standard
Cfi = Mean calibration factor from the initial calibration

QC Summary

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Quality Control Summary
SDG# IMC01

Surrogate Recovery
Volatiles by GC - Water

LL Sample#	Sample Code	Dilution Factor	1B4CB-H Water-HALL % Recovery	1B4CB-P Water-PID % Recovery	TOT OUT
2961808	PMW4U	1.0	84	86	
2961808MS	PMW4U	5.0	92	93	
2961808MSD	PMW4U	5.0	92	91	
2961809	PM4UD	1.0	82	87	
2961810	PMW4M	1.0	84	89	
2961811	PMW4L	1.0	84	88	
2961812	PMW5U	2.0	84	85	
2961813	PMW5M	1.0	83	83	
2961814	PMW5L	1.0	85	89	
2961815	PMW6U	1.0	85	87	
2961816	PMW6M	1.0	85	87	
2961817	PMW6L	1.0	86	87	
2961818	PMW7U	1.0	80	82	
2961819	PMW7M	1.0	84	86	
2961820	PMW7L	1.0	85	88	
2961821	MW--1	1.0	84	89	
2961822	MW--3	1.0	87	84	
BLK1875	METHOD BLANK	1.0	85	92	
BLK1877	METHOD BLANK	1.0	82	86	

* = Values outside quality control limits.
D = Surrogates diluted - not counted towards total out.
TOT OUT = Total # of surrogates with recovery outside control limits.

		Control Limits Lower	Upper
1B4CB-H	= 1-Bromo-4-Chlorobenzene (Water - ELCD)	70	133
1B4CB-P	= 1-Bromo-4-Chlorobenzene (Water - PID)	78	133

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Quality Control Summary
SDG# IMC01

Method Blank
Volatiles by GC - Water

Blank ID.....: BLK1875
Date.....: 07/15/98
Instrument.....: 5843

Batch Number.....: 98196A18
Time.....: 17:42
Matrix.....: Water

Sample Information

LL Sample#	Sample Code	Analysis Date	Analysis Time
2961808	PMW4U	07/15/98	19:43
2961808MS	PMW4U	07/15/98	20:23
2961808MSD	PMW4U	07/15/98	21:03
2961809	PM4UD	07/15/98	23:44
2961810	PMW4M	07/16/98	00:24
2961811	PMW4L	07/16/98	01:04
2961812	PMW5U	07/16/98	01:44
2961813	PMW5M	07/16/98	02:30
2961814	PMW5L	07/16/98	03:11
2961815	PMW6U	07/16/98	03:51

Method Blank Results

CAS Number	Compound	Blank Conc. (UG/L)	LOQ (UG/L)	MDL (UG/L)
75-71-8	DICHLORODIFLUOROMETHANE	ND	2	.2
74-87-3	CHLOROMETHANE	ND	5	.5
75-01-4	VINYL CHLORIDE	ND	1	.2
74-83-9	BROMOMETHANE	ND	5	.5
75-00-3	CHLOROETHANE	ND	1	.2
75-69-4	TRICHLOROFLUOROMETHANE	ND	1	.2
75-35-4	1,1-DICHLOROETHENE	ND	1	.2
75-09-2	METHYLENE CHLORIDE	ND	1	.2
156-60-5	TRANS-1,2-DICHLORORETHENE	ND	1	.2
75-34-3	1,1-DICHLOROETHANE	ND	1	.2
156-59-2	CIS-1,2-DICHLOROETHENE	ND	1	.2
67-66-3	CHLOROFORM	ND	1	.2
107-06-2	1,2-DICHLOROETHANE	ND	1	.2
71-55-6	1,1,1-TRICHLOROETHANE	ND	1	.2
56-23-5	CARBON TETRACHLORIDE	ND	1	.2
71-43-2	BENZENE	ND	1	.2
78-87-5	1,2-DICHLOROPROPANE	ND	1	.2
79-01-6	TRICHLOROETHENE	ND	1	.2
75-27-4	BROMODICHLOROMETHANE	ND	1	.2
10061-01-5	CIS-1,3-DICHLOROPROPENE	ND	1	.2
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ND	1	.2
79-00-5	1,1,2-TRICHLOROETHANE	ND	1	.2
108-88-3	TOLUENE	ND	1	.2
124-48-1	DIBROMOCHLOROMETHANE	ND	1	.2
127-18-4	TETRACHLOROETHENE	ND	1	.2
108-90-7	CHLOROBENZENE	ND	1	.2
100-41-4	ETHYLBENZENE	ND	1	.2
75-25-2	BROMOFORM	ND	1	.2
79-34-5	1,1,2,2-TETRACHLOROETHENE	ND	1	.2
541-73-1	1,3-DICHLOROBENZENE	ND	1	.2
106-46-7	1,4-DICHLOROBENZENE	ND	1	.2
95-50-1	1,2-DICHLOROBENZENE	ND	1	.2
1330-20-7	XYLENE	ND	3	.6

LOQ = Limit of Quantitation; MDL = Method Detection Limit
ND = None Detected; * = Above Limit of Quantitation

Quality Control Summary
SDG# IMC01

Method Blank
Volatiles by GC - Water

Blank ID.....: BLK1877
Date.....: 07/16/98
Instrument.....: 5843

Batch Number.....: 98196A18
Time.....: 06:14
Matrix.....: Water

Sample Information

LL Sample#	Sample Code	Analysis Date	Analysis Time
2961816	PMW6M	07/16/98	06:54
2961817	PMW6L	07/16/98	07:34
2961818	PMW7U	07/16/98	08:14
2961819	PMW7M	07/16/98	08:54
2961820	PMW7L	07/16/98	09:34
2961821	MW--1	07/16/98	10:14
2961822	MW--3	07/16/98	10:55

Method Blank Results

CAS Number	Compound	Blank Conc. (UG/L)	LOQ (UG/L)	MDL (UG/L)
75-71-8	DICHLORODIFLUOROMETHANE	ND	2	.2
74-87-3	CHLOROMETHANE	ND	5	.5
75-01-4	VINYL CHLORIDE	ND	1	.2
74-83-9	BROMOMETHANE	ND	5	.5
75-00-3	CHLOROETHANE	ND	1	.2
75-69-4	TRICHLOROFLUOROMETHANE	ND	1	.2
75-35-4	1,1-DICHLOROETHENE	ND	1	.2
75-09-2	METHYLENE CHLORIDE	ND	1	.2
156-60-5	TRANS-1,2-DICHLORORETHENE	ND	1	.2
75-34-3	1,1-DICHLOROETHANE	ND	1	.2
156-59-2	CIS-1,2-DICHLOROETHENE	ND	1	.2
67-66-3	CHLOROFORM	ND	1	.2
107-06-2	1,2-DICHLOROETHANE	ND	1	.2
71-55-6	1,1,1-TRICHLOROETHANE	ND	1	.2
56-23-5	CARBON TETRACHLORIDE	ND	1	.2
71-43-2	BENZENE	ND	1	.2
78-87-5	1,2-DICHLOROPROPANE	ND	1	.2
79-01-6	TRICHLOROETHENE	ND	1	.2
75-27-4	BROMODICHLOROMETHANE	ND	1	.2
10061-01-5	CIS-1,3-DICHLOROPROPENE	ND	1	.2
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ND	1	.2
79-00-5	1,1,2-TRICHLOROETHANE	ND	1	.2
108-88-3	TOLUENE	ND	1	.2
124-48-1	DIBROMOCHLOROMETHANE	ND	1	.2
127-18-4	TETRACHLOROETHENE	ND	1	.2
108-90-7	CHLOROBENZENE	ND	1	.2
100-41-4	ETHYLBENZENE	ND	1	.2
75-25-2	BROMOFORM	ND	1	.2
79-34-5	1,1,2,2-TETRACHLOROETHENE	ND	1	.2
541-73-1	1,3-DICHLOROBENZENE	ND	1	.2
106-46-7	1,4-DICHLOROBENZENE	ND	1	.2
95-50-1	1,2-DICHLOROBENZENE	ND	1	.2
1330-20-7	XYLENE	ND	3	.6

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LOQ = Limit of Quantitation; MDL = Method Detection Limit
ND = None Detected; * = Above Limit of Quantitation

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Quality Control Summary
SDG# IMC01

Matrix Spike/Matrix Spike Duplicate
Volatiles by GC - Water

Unspiked Sample Number....: 2961808
Spiked Sample Number.....: 2961808MS
Spiked Dup Sample Number..: 2961808MSD

Batch Number.....: 98196A18
Date.....: 07/15/98
Matrix.....: Water

Instrument.....: 5843

This MS/MSD applies to the following samples:
2961808 2961809 2961810 2961811
2961812 2961813 2961814 2961815
2961816 2961817 2961818 2961819
2961820 2961821 2961822

Compound	Spike Added (UG/L)	Sample Conc (UG/L)	MS Conc (UG/L)	MSD Conc (UG/L)	MS % Recov	MSD % Recov	QC Limits Recov	RPD	QC Limits RPD
DICHLORODIFLUOROMETH	100	0.13	73.0	74.8	73	75	02-177	2.4	30
CHLOROMETHANE	99.5	0.24	43.8	45.2	44	45	32-151	3.2	30
VINYL CHLORIDE	99.5	0.00	93.6	90.6	94	91	44-115	3.3	30
BROMOMETHANE	101	0.00	86.6	83.0	86	83	43-131	4.2	30
CHLOROETHANE	99.5	0.00	94.9	91.7	95	92	52-138	3.4	30
TRICHLOROFLUOROMETHA	99.5	0.00	89.2	84.8	90	85	42-140	5.1	30
1,1-DICHLOROETHENE	100	1.08	107	105	106	104	60-143	2.2	30
METHYLENE CHLORIDE	100	0.01	110	107	110	107	66-137	2.2	30
TRANS-1,2-DICHLORORE	100	0.00	94.4	91.9	94	92	70-137	2.6	30
1,1-DICHLOROETHANE	100	1.19	96.7	95.1	96	94	78-132	1.7	30
CIS-1,2-DICHLOROETHE	100	0.62	102	99.6	102	99	69-142	2.7	30
CHLOROFORM	100	0.22	90.9	89.1	91	89	81-130	2.0	30
1,2-DICHLOROETHANE	100	0.08	101	101	101	101	81-129	0.3	30
1,1,1-TRICHLOROETHAN	100	7.58	105	104	97	96	74-136	1.1	30
CARBON TETRACHLORIDE	100	0.00	95.1	94.8	95	95	83-139	0.4	30
BENZENE	100	0.05	98.4	98.2	98	98	81-122	0.3	30
1,2-DICHLOROPROPANE	100	0.00	93.8	93.5	94	94	84-126	0.4	30
TRICHLOROETHENE	100	11.5	104	102	92	90	65-139	2.2	30
BROMODICHLOROMETHANE	100	0.00	92.3	90.4	92	90	77-129	2.0	30
CIS-1,3-DICHLOROPROP	100	0.00	106	102	106	102	66-134	3.3	30
TRANS-1,3-DICHLOROPR	100	0.00	111	110	111	110	76-130	0.7	30
1,1,2-TRICHLOROETHAN	100	0.09	109	105	109	105	85-130	3.8	30
TOLUENE	100	0.67	97.8	97.5	97	97	80-122	0.3	30
DIBROMOCHLOROMETHANE	100	0.81	95.6	94.6	95	94	66-130	1.1	30
TETRACHLOROETHENE	100	2.02	105	102	103	100	76-138	3.1	30
CHLOROBENZENE	100	0.00	95.9	95.9	96	96	82-123	0.0	30
ETHYLBENZENE	100	0.03	96.6	95.7	97	96	80-124	0.9	30
BROMOFORM	100	0.65	100	98.7	100	98	50-135	1.5	30
1,1,2,2-TETRACHLOROE	100	0.03	109	111	109	111	79-132	1.7	30
1,3-DICHLOROBENZENE	100	0.01	92.3	92.3	92	92	79-129	0.0	30
1,4-DICHLOROBENZENE	100	0.03	96.0	94.5	96	95	80-122	1.6	30
1,2-DICHLOROBENZENE	100	0.01	92.1	90.5	92	91	79-128	1.8	30
XYLENE	300	0.15	294	292	97	97	78-125	0.5	30

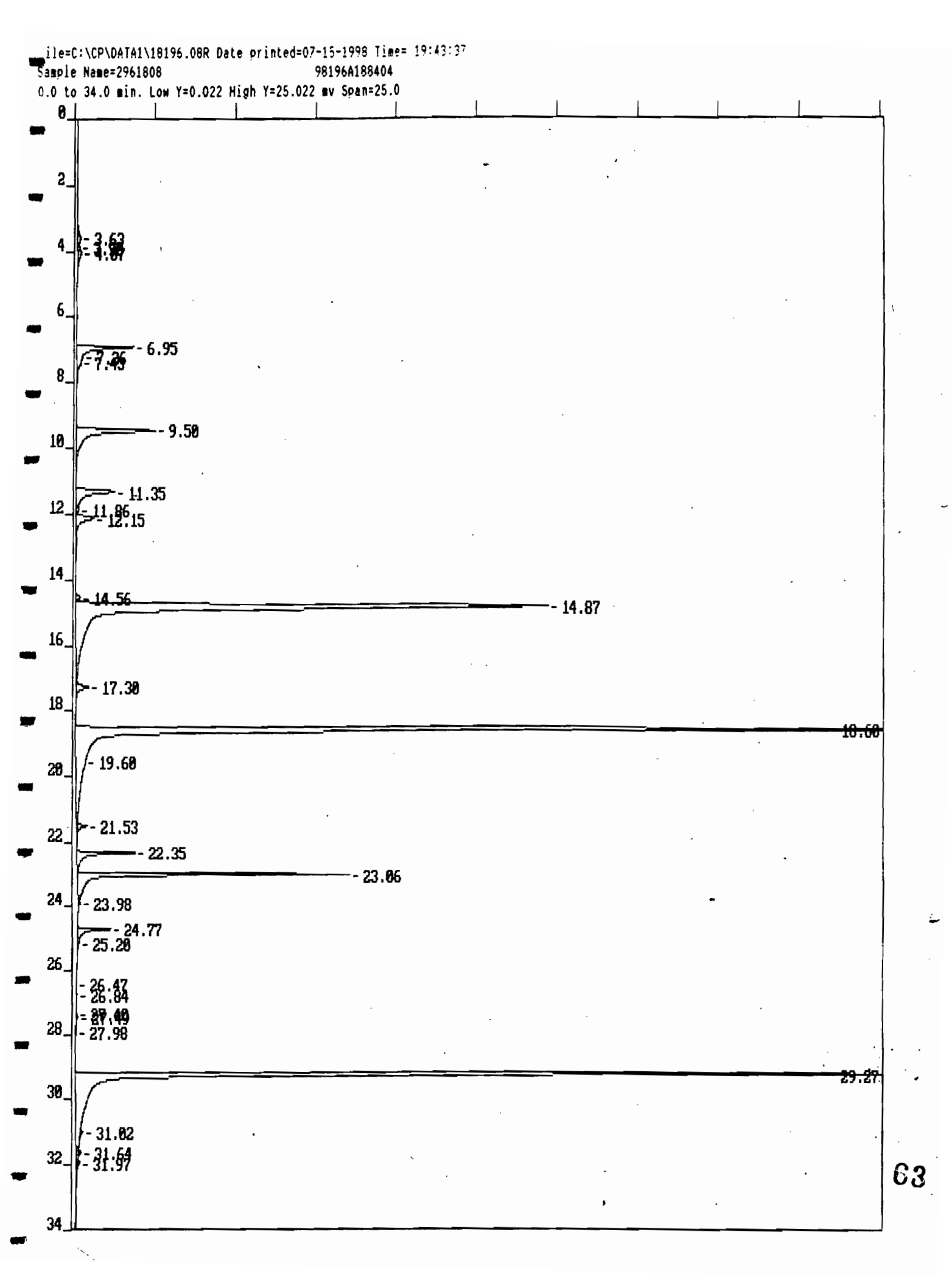
MS=Matrix Spike; MSD=Matrix Spike Duplicate; ND=None Detected; RPD=Relative Percent Difference

The RPD limits are advisory and are evaluated in relation to the other QC.

* = Value outside quality control limits.

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Sample Data


ile=C:\CP\DATA1\18196.08R Date printed=07-15-1998 Time= 19:43:37
Sample Name=2961808 98196A188404
0.0 to 34.0 min. Low Y=0.022 High Y=25.022 mv Span=25.0
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
3.63
6.95
9.50
11.35
11.86
12.15
14.56
14.87
17.30
19.60
21.53
22.35
23.06
23.98
24.77
25.20
26.47
26.84
27.98
31.02
31.64
31.97

Sample Name: **2961808**
Batch: 98196A18 Date Taken: Jul 15, 1998 19:43:33
Raw File: C:\CP\DATA1\18196.08R
Area File: C:\CP\DATA1\18196.08A
Method File: C:\CP\DATA1\Z8194.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18HALL
Peak Width: .04 Dil. Factor: 1 Analyst: 215
Threshold: -3 Calculation: EXTERNALStd using peak heights

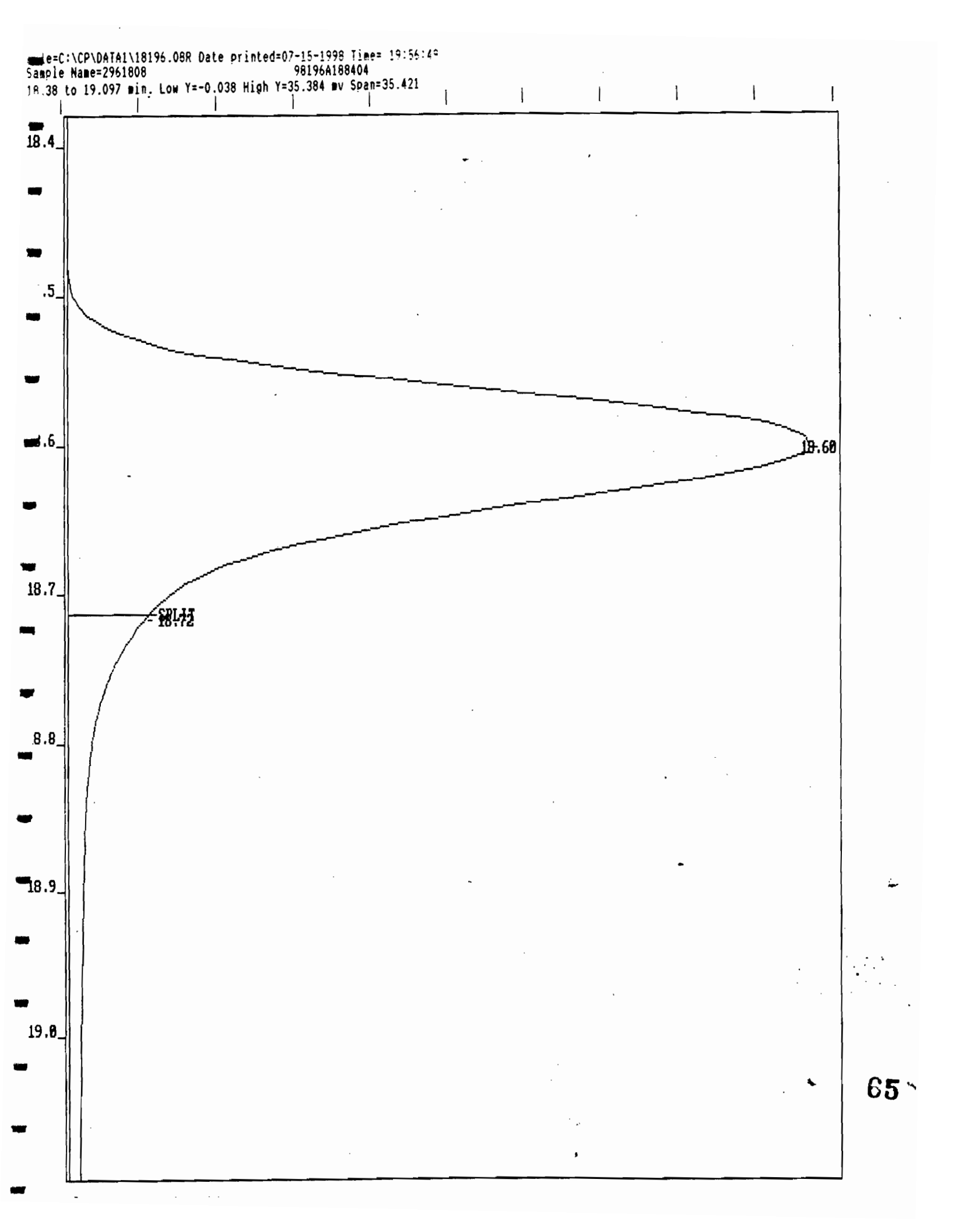
Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 23):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
3.903	3.915	DICHLORODIFLUOROMETH	0.1307	317	79
4.066	4.087	CHLOROMETHANE	0.2415	2718	127
4.408	4.408	VINYL CHLORIDE	0.0000	0	0
4.898	4.898	BROMOMETHANE	0.0000	0	0
5.103	5.103	CHLOROETHANE	0.0000	0	0
6.002	6.002	TRICHLOROFLUOROMETHA	0.0000	0	0
6.947	6.953	1,1-DICHLOROETHENE	1.0807	17154	1780
7.257	7.271	METHYLENE CHLORIDE	0.0120	135	33
7.427	7.449	TRICHLOROTRIFLUOROET	0.0416	351	46
8.833	8.833	TRANS-1,2-DICHLOROET	0.0000	0	0
9.500	9.505	1,1-DICHLOROETHANE	1.1898	25769	2461
11.347	11.346	CIS-1,2-DICHLOROETHE	0.6178	12800	1201
11.864	11.884	BROMOCHLOROMETHANE	0.0572	749	78
12.149	12.149	CHLOROFORM	0.2212	6627	537
12.392	12.392	2,2-DICHLOROPROPANE	0.0000	0	0
[illegible]	[illegible]	[illegible]	0.0750	1043	140
14.865	14.869	1,1,1-TRICHLOROETHAN	7.5763	168302	14625
15.633	15.633	1,1-DICHLOROPROPENE	0.0000	0	0
16.152	16.152	CARBON TETRACHLORIDE	0.0000	0	0
18.298	18.298	DIBROMOMETHANE	0.0000	0	0
18.459	18.459	1,2-DICHLOROPROPANE	0.0000	0	0
18.603	18.611	TRICHLOROETHENE	11.0856	244780	33946 not 749
18.715	18.715	BROMODICHLOROMETHANE	0.0000 <2.0	0	0
20.041	20.041	2-CHLOROETHYL VINYL	0.0000	0	0
20.385	20.385	CIS-1,3-DICHLOROPROP	0.0000	0	0
21.306	21.306	TRANS-1,3-DICHLOROPR	0.0000	0	0
21.531	21.530	1,1,2-TRICHLOROETHAN	0.0906	1938	301
21.974	21.974	1,3-DICHLOROPROPANE	0.0000	0	0
22.354	22.353	DIBROMOCHLOROMETHANE	0.8143	11907	1814
22.749	22.749	1,2-DIBROMOETHANE	0.0000	0	0
23.060	23.063	TETRACHLOROETHENE	2.0212	42446	8402
23.975	23.989	1,1,1,2-TETRACHLOROE	0.0119	231	55
24.089	24.089	CHLOROBENZENE	0.0000	0	0
24.769	24.765	BROMOFORM	0.6549	7124	1023
25.196	25.201	1,1,2,2-TETRACHLOROE	0.0303	1226	76
25.382	25.382	1,2,3-TRICHLOROPROPA	0.0000	0	0
25.975	25.975	BROMOBENZENE	0.0000	0	0
26.367	26.367	2-CHLOROTOLUENE	0.0000	0	0
26.473	26.471	4-CHLOROTOLUENE	0.0096	126	16
27.396	27.391	1,3-DICHLOROBENZENE	0.0133	109	30
27.488	27.486	1,4-DICHLOROBENZENE	0.0213	257	53
27.983	27.981	1,2-DICHLOROBENZENE	0.0103	156	23
28.675	28.675	1,2-DIBROMO-3-CHLORO	0.0000	0	0
29.273	29.279	SURR-1B4CB-H	25.0857	192497	33399
31.018	31.015	1,2,4-TRICHLOROBENZE	0.0462	572	71
31.644	31.632	HEXACHLOROBUTADIENE	0.0410	626	78
31.969	31.966	1,2,3-TRICHLOROBENZE	0.0662	655	78
		TOTAL 1,2-DICHLOROETHENE:	**0.6178**		

7/16/98

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* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 83.6189%
Chrom Perfect version 6.07 Reported on 07-15-1998at 19:45:27


le=C:\CP\DATA1\18196.08R Date printed=07-15-1998 Time= 19:56:49
Sample Name=2961808 98196A188404
18.38 to 19.097 min. Low Y=-0.038 High Y=35.384 mv Span=35.421
18.4
.5
.6
18.60
18.7
SPLIT
18.72
8.8
18.9
19.0

Sample Name: 2981888
Batch: 98196A18 Date Taken: Jul 15, 1998 19:43:33
Raw File: C:\CP\DATA1\18196.08R
Area File: C:\CP\DATA1\18196.08R
Method File: C:\CP\DATA1\Z8194.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18HALL
Peak Width: .04 Dil. Factor: 1 Analyst: 215
Threshold: -3 Calculation: EXTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 23):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height	
3.903	3.915	DICHLORODIFLUOROMETH	0.1307	317	79	
4.066	4.087	CHLOROMETHANE	0.2415	2718	127	
4.408	4.408	VINYL CHLORIDE	0.0000	0	0	
4.898	4.898	BROMOMETHANE	0.0000	0	0	
5.103	5.103	CHLOROETHANE	0.0000	0	0	
6.002	6.002	TRICHLOROFLUOROMETHA	0.0000	0	0	
6.947	6.953	1,1-DICHLOROETHENE	1.0807	17154	1780	
7.257	7.271	METHYLENE CHLORIDE	0.0120	135	33	
7.427	7.449	TRICHLOROTRIFLUOROET	0.0416	351	46	
8.833	8.833	TRANS-1,2-DICHLOROET	0.0000	0	0	
9.500	9.505	1,1-DICHLOROETHANE	1.1898	25769	2461	
11.347	11.346	CIS-1,2-DICHLOROETHE	0.6178	12800	1201	
11.864	11.884	BROMOCHLOROMETHANE	0.0572	749	78	
12.149	12.149	CHLOROFORM	0.2212	6627	537	
12.392	12.392	2,2-DICHLOROPROPANE	0.0000	0	0	
14.562	14.560	1,2-DICHLOROETHANE	0.0750	1043	140	
14.865	14.869	1,1,1-TRICHLOROETHAN	7.5763	168302	14625	
15.633	15.633	1,1-DICHLOROPROPENE	0.0000	0	0	
16.152	16.152	CARBON TETRACHLORIDE	0.0000	0	0	
18.298	18.298	DIBROMOMETHANE	0.0000	0	0	
18.459	18.459	1,2-DICHLOROPROPANE	0.0000	0	0	
18.603	18.611	TRICHLOROETHENE	11.0856	197566	33946	Reprocessed for less than mrl 7/15/98
18.717	18.715	BROMODICHLOROMETHANE	~~1.3050~~ 2.10	47214	3495	
20.041	20.041	2-CHLOROETHYL VINYL	0.0000	0	0	
20.385	20.385	CIS-1,3-DICHLOROPROP	0.0000	0	0	
21.306	21.306	TRANS-1,3-DICHLOROPR	0.0000	0	0	
21.531	21.530	1,1,2-TRICHLOROETHAN	0.0906	1938	301	
21.974	21.974	1,3-DICHLOROPROPANE	0.0000	0	0	
22.354	22.353	DIBROMOCHLOROMETHANE	0.8143	11907	1814	
22.749	22.749	1,2-DIBROMOETHANE	0.0000	0	0	
23.060	23.063	TETRACHLOROETHENE	2.0212	42446	8402	
23.975	23.989	1,1,1,2-TETRACHLOROE	0.0119	231	55	
24.089	24.089	CHLOROBENZENE	0.0000	0	0	
24.769	24.765	BROMOFORM	0.6549	7124	1023	
25.196	25.201	1,1,2,2-TETRACHLOROE	0.0303	1226	76	
25.382	25.382	1,2,3-TRICHLOROPROPA	0.0000	0	0	
25.975	25.975	BROMOBENZENE	0.0000	0	0	
26.367	26.367	2-CHLOROTOLUENE	0.0000	0	0	
26.473	26.471	4-CHLOROTOLUENE	0.0096	126	16	
27.396	27.391	1,3-DICHLOROBENZENE	0.0133	109	30	
27.488	27.486	1,4-DICHLOROBENZENE	0.0213	257	53	
27.983	27.981	1,2-DICHLOROBENZENE	0.0103	156	23	
28.675	28.675	1,2-DIBROMO-3-CHLORO	0.0000	0	0	
29.273	29.279	SURR-1B4CB-H	25.0857	192497	33399	
31.018	31.015	1,2,4-TRICHLOROBENZE	0.0462	572	71	
31.644	31.632	HEXACHLOROBUTADIENE	0.0410	626	78	
31.969	31.966	1,2,3-TRICHLOROBENZE	0.0662	655	78	
		TOTAL 1,2-DICHLOROETHENE:	**0.6178**			

* Amounts in ug/L for water samples, ug/kg for solid samples.

Surrogate Recovery: BrClBenzene 83.6189%

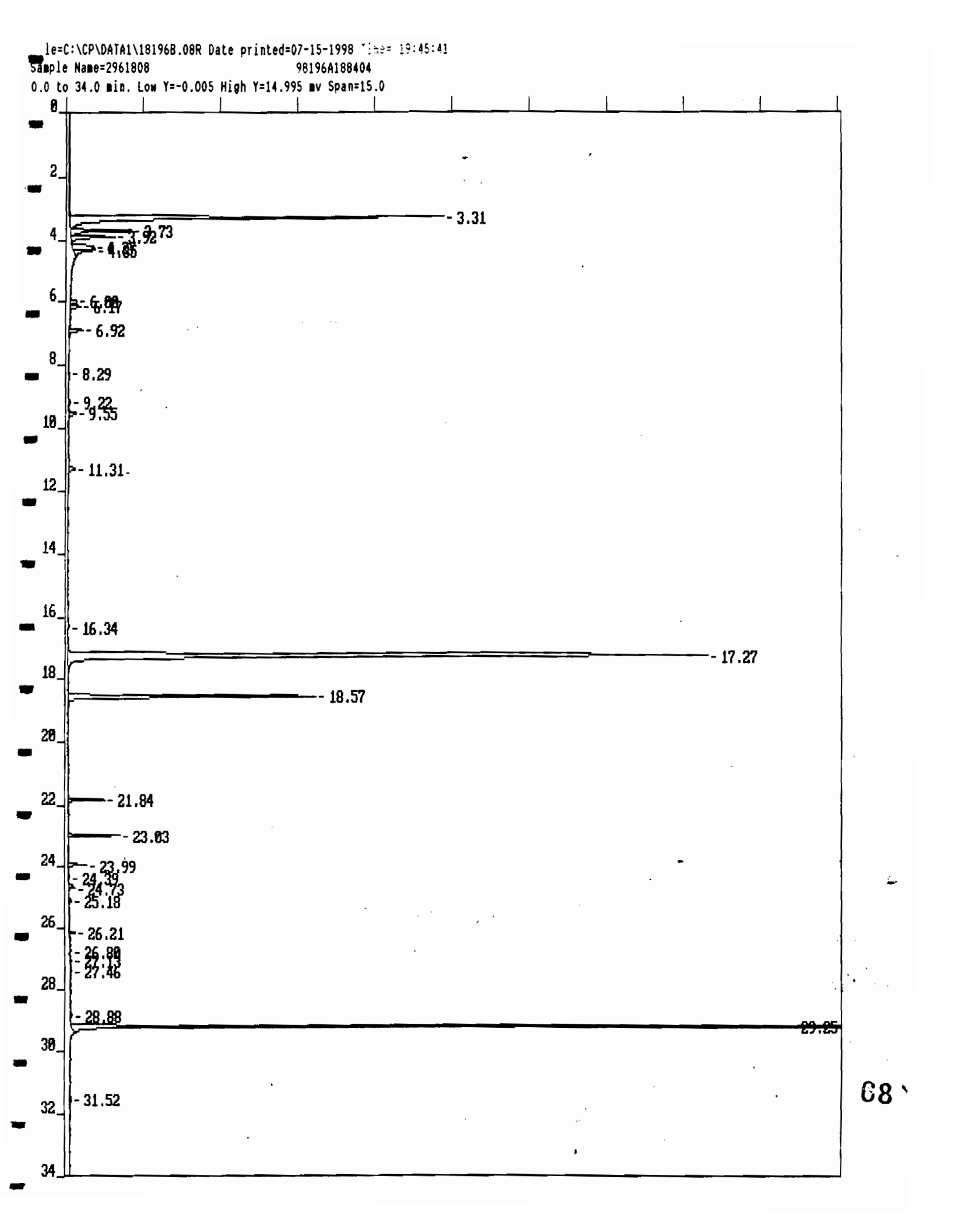
Chrom Perfect version 6.07 Reported on 07-15-1998at 19:59:00

Sample name: **2961808** Batch: 98196A188404

Raw file: C:\CP\DATA1\18196.08R

Reviewed by: [signature] Verified by: [signature]

Date: 7/15/98 Date: 7/21/98


le=C:\CP\DATA1\18196B.08R Date printed=07-15-1998 Time= 19:45:41
Sample Name=2961808 98196A188404
0.0 to 34.0 min. Low Y=-0.005 High Y=14.995 mv Span=15.0
3.31
6.92
8.29
9.22
9.55
11.31
16.34
17.27
18.57
21.84
23.03
23.99
24.39
24.73
25.18
26.21
27.46
28.88
31.52

Sample Name: **2961808**
Batch: 98196A18 Date Taken: Jul 15, 1998 19:43:33
Raw File: C:\CP\DATA1\18196B.08R
Area File: C:\CP\DATA1\18196B.08A
Method File: C:\CP\DATA1\Z8194B.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18PID
Peak width: .04 Dil. factor: 1 Analyst: 215
Threshold: 0 Calculation: INTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\PZ8194.CAL(version 27):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)		Peak Area	Peak Height
4.346	4.382	VINYL CHLORIDE	4.1295		2492	430
6.919	6.923	1,1-DICHLOROETHENE	1.2166		1474	279
8.806	8.806	TRANS-1,2-DICHLOROET	0.0000		0	0
9.217	9.201	METHYL T-BUTYL ETHER	0.2816		397	45
11.307	11.320	CIS-1,2-DICHLOROETHE	0.6163		1061	138
15.603	15.603	1,1-DICHLOROPROPENE	0.0000		0	0
16.339	16.337	BENZENE	0.0539		163	27
17.270	17.281	ISTD-FBENZENE	1.0000		85294	12392
18.573	18.583	TRICHLOROETHENE	11.4888		23375	4802
20.015	20.015	2-CHLOROETHYL VINYL	0.0000		0	0
20.358	20.358	CIS-1,3-DICHLOROPROP	0.0000		0	0
21.281	21.281	TRANS-1,3-DICHLOROPR	0.0000		0	0
21.843	21.847	TOLUENE	0.6689		2315	718
23.033	23.039	TETRACHLOROETHENE	1.9110		3113	1015
23.987	24.065	CHLOROBENZENE	~~0.2689~~	not on Hall	1244	364
24.388	24.386	ETHYLBENZENE	0.0307		110	36
24.728	24.663	M,P-XYLENE	0.1103		753	130
25.089	25.089	STYRENE	0.0000		0	0
25.176	25.180	O-XYLENE	0.0413		147	51
25.658	25.658	ISOPROPYLBENZENE	0.0000		0	0
25.947	25.947	BROMOBENZENE	0.0000		0	0
26.214	26.231	N-PROPYLBENZENE	0.1166		441	121
26.343	26.343	2-CHLOROTOLUENE	0.0000		0	0
26.447	26.447	4-CHLOROTOLUENE	0.0000		0	0
26.616	26.616	1,3,5-TRIMETHYLBENZE	0.0000		0	0
26.980	26.980	TERT-BUTYLBENZENE	0.0000		0	0
27.126	27.129	1,2,4-TRIMETHYLBENZE	0.0380		177	43
27.270	27.270	SEC-BUTYLBENZENE	0.0000		0	0
27.366	27.366	1,3-DICHLOROBENZENE	0.0000		0	0
27.459	27.461	1,4-DICHLOROBENZENE	0.0289		155	32
27.517	27.517	P-ISOPROPYLTOLUENE	0.0000		0	0
27.956	27.956	1,2-DICHLOROBENZENE	0.0000		0	0
28.084	28.084	N-BUTYLBENZENE	0.0000		0	0
29.245	29.250	SURR-1B4CB-P	25.8490		75802	24793
30.990	30.990	1,2,4-TRICHLOROBENZE	0.0000		0	0
31.523	31.513	NAPHTHALENE	0.0912		267	38
31.605	31.605	HEXACHLOROBUTADIENE	0.0000		0	0
31.939	31.939	1,2,3-TRICHLOROBENZE	0.0000		0	0
		XYLENES (Total):	**0.1516**			

DWO 7-17-98

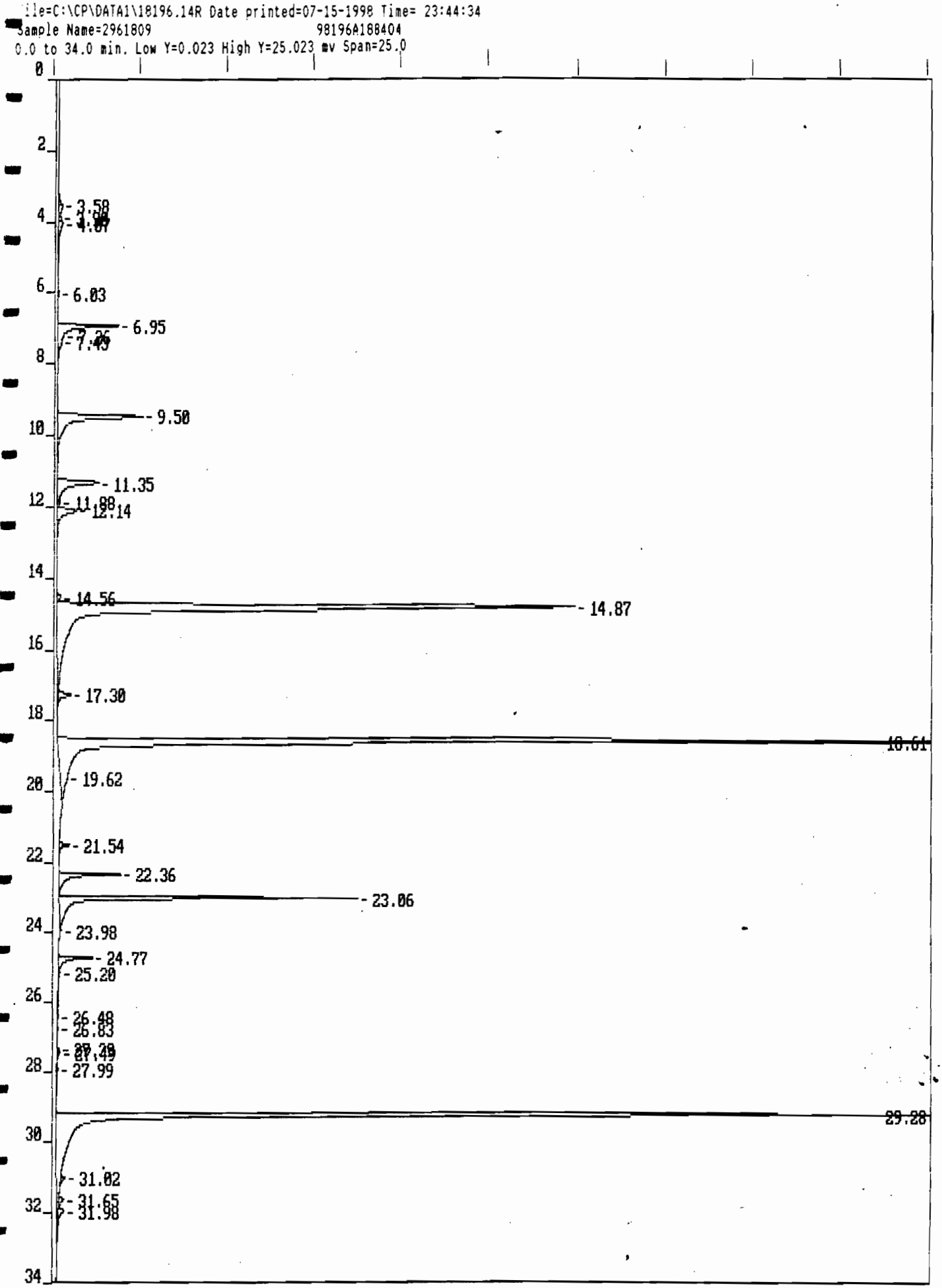
* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 86.1632%
Chrom Perfect version 6.07 Reported on 07-15-1998at 19:48:45

Internal Standard Calculations From ISTDCHK v. 950609.1130
IStd height for ISTD-FBENZENE is within range.
IStd range: 9,325 - 13,987 (80% - 120% of midpoint 11,656)
Used initial calibration files to determine range.

Sample name: 2961808 Batch: 98196A188404
Raw file: C:\CP\DATA1\18196B.08R

Reviewed by: [signature] Verified by: [signature]

Date: 7/15/98 Date: 7/21/98


ile=C:\CP\DATA1\18196.14R Date printed=07-15-1998 Time= 23:44:34
Sample Name=2961809 98196A188404
0.0 to 34.0 min. Low Y=0.023 High Y=25.023 mv Span=25.0
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
3.58
6.03
6.95
9.50
11.35
11.88
12.14
14.56
14.87
17.30
18.61
19.62
21.54
22.36
23.06
23.98
24.77
25.20
26.48
26.83
27.99
29.28
31.02
31.65
31.98

Sample Name: **2961809**
Batch: 98196A18 Date Taken: Jul 15, 1998 23:44:30
Raw File: C:\CP\DATA1\18196.14R
Area File: C:\CP\DATA1\18196.14A
Method File: C:\CP\DATA1\Z8194.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
.75m x 0.45mm ID J&W Scientific DB-VRX column.
T/SG/C trap Inst. ID#05843 - 5890#18HALL
Peak Width: .04 Dil. Factor: 1 Analyst: 215
Threshold: -3 Calculation: EXTERNALStd using peak heights

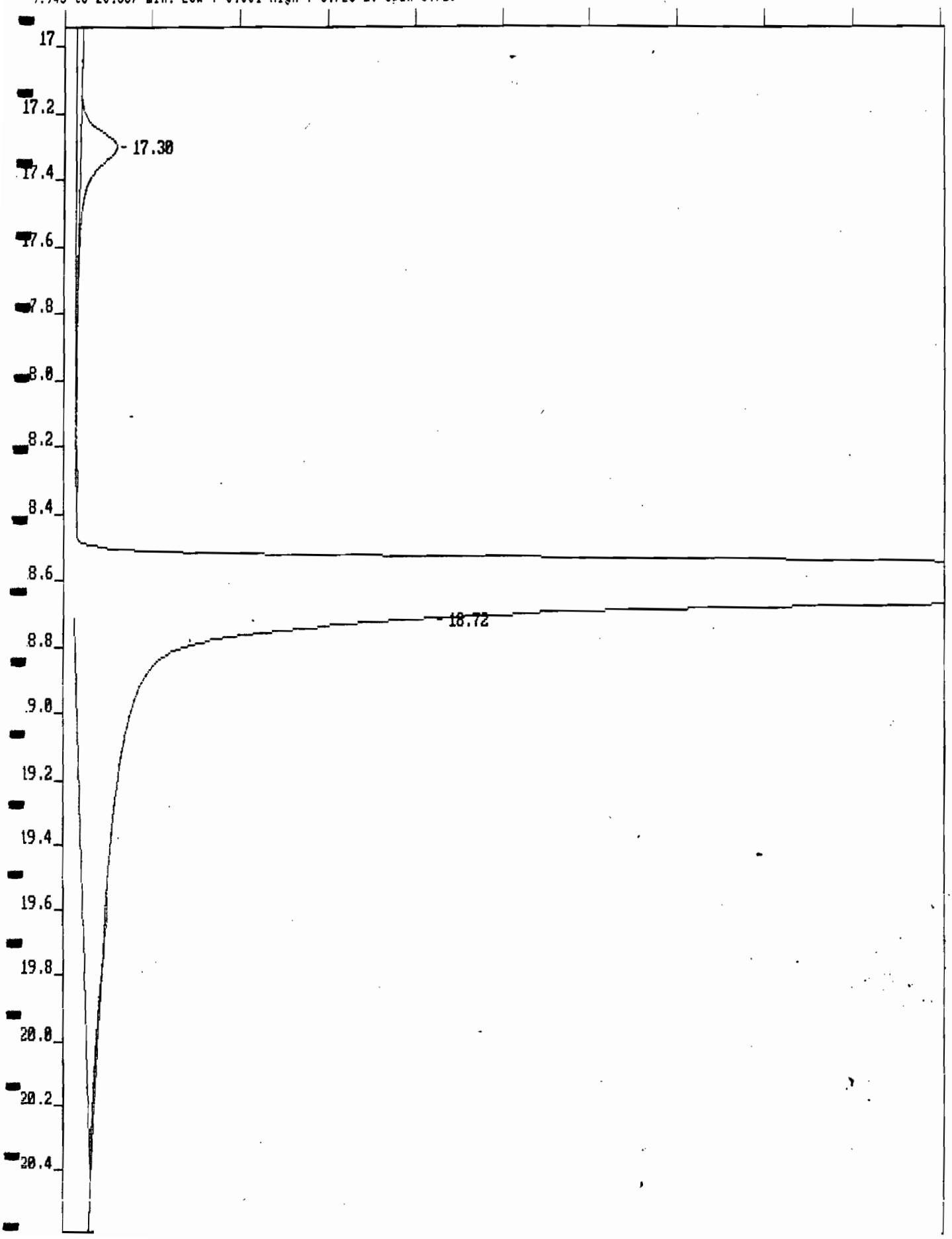
Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 23):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
3.904	3.915	DICHLORODIFLUOROMETH	0.1473	379	89
4.073	4.087	CHLOROMETHANE	0.2555	3443	135
4.408	4.408	VINYL CHLORIDE	0.0000	0	0
4.898	4.898	BROMOMETHANE	0.0000	0	0
5.103	5.103	CHLOROETHANE	0.0000	0	0
6.030	6.002	TRICHLOROFLUOROMETHA	0.0131	122	14
6.949	6.953	1,1-DICHLOROETHENE	1.0760	16047	1772
7.260	7.271	METHYLENE CHLORIDE	0.0104	102	29
7.434	7.449	TRICHLOROTRIFLUOROET	0.0350	265	39
8.833	8.833	TRANS-1,2-DICHLOROET	0.0000	0	0
9.502	9.505	1,1-DICHLOROETHANE	1.1896	26309	2460
11.347	11.346	CIS-1,2-DICHLOROETHE	0.6184	12764	1202
11.878	11.884	BROMOCHLOROMETHANE	0.0569	703	77
12.145	12.149	CHLOROFORM	0.2214	6761	538
12.392	12.392	2,2-DICHLOROPROPANE	0.0000	0	0
14.560	14.560	1,2-DICHLOROETHANE	0.0684	941	128
14.866	14.869	1,1,1-TRICHLOROETHAN	7.6646	172846	14795
15.633	15.633	1,1-DICHLOROPROPENE	0.0000	0	0
16.152	16.152	CARBON TETRACHLORIDE	0.0000	0	0
18.298	18.298	DIBROMOMETHANE	0.0000	0	0
18.459	18.459	1,2-DICHLOROPROPANE	0.0000	0	0
18.607	18.611	TRICHLOROETHENE	11.1274	233993	34075
18.715	18.715	BROMODICHLOROMETHANE < 2	~~0.0000~~	0	0
20.041	20.041	2-CHLOROETHYL VINYL	0.0000	0	0
20.385	20.385	CIS-1,3-DICHLOROPROP	0.0000	0	0
21.306	21.306	TRANS-1,3-DICHLOROPR	0.0000	0	0
21.536	21.530	1,1,2-TRICHLOROETHAN	0.0881	1712	292
21.974	21.974	1,3-DICHLOROPROPANE	0.0000	0	0
22.359	22.353	DIBROMOCHLOROMETHANE	0.8022	11678	1787
22.749	22.749	1,2-DIBROMOETHANE	0.0000	0	0
23.064	23.063	TETRACHLOROETHENE	2.0552	42650	8543
23.983	23.989	1,1,1,2-TETRACHLOROE	0.0111	219	52
24.089	24.089	CHLOROBENZENE	0.0000	0	0
24.771	24.765	BROMOFORM	0.6245	6631	976
25.198	25.201	1,1,2,2-TETRACHLOROE	0.0270	863	68
25.382	25.382	1,2,3-TRICHLOROPROPA	0.0000	0	0
25.975	25.975	BROMOBENZENE	0.0000	0	0
26.367	26.367	2-CHLOROTOLUENE	0.0000	0	0
26.479	26.471	4-CHLOROTOLUENE	0.0163	157	26
27.394	27.391	1,3-DICHLOROBENZENE	0.0258	234	58
27.493	27.486	1,4-DICHLOROBENZENE	0.0378	781	94
27.987	27.981	1,2-DICHLOROBENZENE	0.0202	332	45
28.675	28.675	1,2-DIBROMO-3-CHLORO	0.0000	0	0
29.276	29.279	SURR-1B4CB-H	24.7236	187603	32917
31.024	31.015	1,2,4-TRICHLOROBENZE	0.0828	1124	128
31.647	31.632	HEXACHLOROBUTADIENE	0.0691	1301	131
31.980	31.966	1,2,3-TRICHLOROBENZE	0.1228	1876	146
		TOTAL 1,2-DICHLOROETHENE:	**0.6184**		

BJS 7-16-98

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 82.4119%
Chrom Perfect version 6.07 Reported on 07-15-1998at 23:46:25

File=C:\CP\DATA1\18196.14R Date printed=07-16-1998 Time= 01:17:23
Sample Name=2961809 98196A188404
5.943 to 20.587 min. Low Y=0.001 High Y=8.726 mv Span=8.725



Sample Name: **2961809**
Batch: 98196A18 Date Taken: Jul 15, 1998 23:44:30
Raw File: C:\CP\DATA1\18196.14R
Area File: C:\CP\DATA1\18196.14R
Method File: C:\CP\DATA1\Z8194.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18HALL
Peak Width: .04 Dil. Factor: 1 Analyst: 215
Threshold: -3 Calculation: EXTERNALStd using peak heights

Measured w less-than value for $BrCl_2Me$.

TBS 7-16-98

Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 23):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
3.904	3.915	DICHLORODIFLUOROMETH	0.1473	379	89
4.073	4.087	CHLOROMETHANE	0.2555	3443	135
4.408	4.408	VINYL CHLORIDE	0.0000	0	0
4.898	4.898	BROMOMETHANE	0.0000	0	0
5.103	5.103	CHLOROETHANE	0.0000	0	0
6.030	6.002	TRICHLOROFLUOROMETHA	0.0131	122	14
6.949	6.953	1,1-DICHLOROETHENE	1.0760	17150	1772
7.271	7.271	METHYLENE CHLORIDE	0.0000	0	0
8.833	8.833	TRANS-1,2-DICHLOROET	0.0000	0	0
9.502	9.505	1,1-DICHLOROETHANE	1.1896	26309	2460
11.347	11.346	CIS-1,2-DICHLOROETHE	0.6184	12764	1202
11.878	11.884	BROMOCHLOROMETHANE	0.0569	703	77
12.145	12.149	CHLOROFORM	0.2214	6761	538
12.392	12.392	2,2-DICHLOROPROPANE	0.0000	0	0
14.560	14.560	1,2-DICHLOROETHANE	0.0684	941	128
14.866	14.869	1,1,1-TRICHLOROETHAN	7.6646	172978	14795
15.633	15.633	1,1-DICHLOROPROPENE	0.0000	0	0
16.152	16.152	CARBON TETRACHLORIDE	0.0000	0	0
18.298	18.298	DIBROMOMETHANE	0.0000	0	0
18.459	18.459	1,2-DICHLOROPROPANE	0.0000	0	0
18.611	18.611	TRICHLOROETHENE	0.0000	0	0
18.720	18.715	BROMODICHLOROMETHANE	~~1.3257~~ < 2	37036	3551
20.041	20.041	2-CHLOROETHYL VINYL	0.0000	0	0
20.385	20.385	CIS-1,3-DICHLOROPROP	0.0000	0	0
21.306	21.306	TRANS-1,3-DICHLOROPR	0.0000	0	0
21.536	21.530	1,1,2-TRICHLOROETHAN	0.0881	1712	292
21.974	21.974	1,3-DICHLOROPROPANE	0.0000	0	0
22.359	22.353	DIBROMOCHLOROMETHANE	0.8022	11678	1787
22.749	22.749	1,2-DIBROMOETHANE	0.0000	0	0
23.064	23.063	TETRACHLOROETHENE	2.0552	42650	8543
23.983	23.989	1,1,1,2-TETRACHLOROE	0.0111	219	52
24.089	24.089	CHLOROBENZENE	0.0000	0	0
24.771	24.765	BROMOFORM	0.6245	6631	976
25.198	25.201	1,1,2,2-TETRACHLOROE	0.0270	863	68
25.382	25.382	1,2,3-TRICHLOROPROPA	0.0000	0	0
25.975	25.975	BROMOBENZENE	0.0000	0	0
26.367	26.367	2-CHLOROTOLUENE	0.0000	0	0
26.479	26.471	4-CHLOROTOLUENE	0.0163	157	26
27.394	27.391	1,3-DICHLOROBENZENE	0.0258	234	58
27.493	27.486	1,4-DICHLOROBENZENE	0.0378	781	94
27.987	27.981	1,2-DICHLOROBENZENE	0.0202	332	45
28.675	28.675	1,2-DIBROMO-3-CHLORO	0.0000	0	0
29.276	29.279	SURR-1B4CB-H	24.7236	188859	32917
31.024	31.015	1,2,4-TRICHLOROBENZE	0.0806	724	124
31.647	31.632	HEXACHLOROBUTADIENE	0.0592	923	113
31.980	31.966	1,2,3-TRICHLOROBENZE	0.1111	1398	132

TOTAL 1,2-DICHLOROETHENE: 0.6184

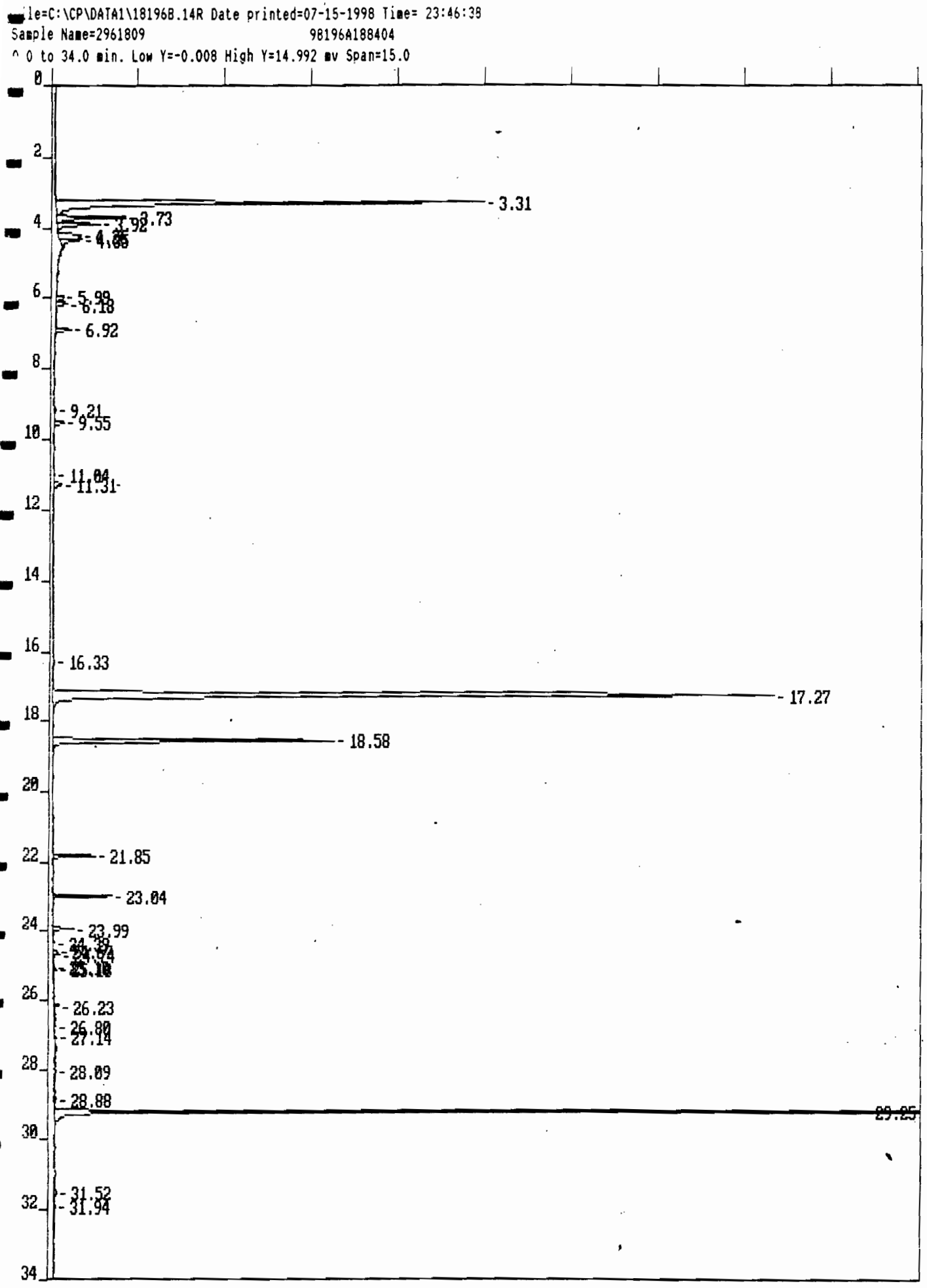
* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 82.4119%
Chrom Perfect version 6.07 Reported on 07-16-1998at 01:20:27

Sample name: **2961809** Batch: 98196A188404

Raw file: C:\CP\DATA1\18196.14R

Reviewed by: _____ Verified by: _____

Date: 7-16-98 Date: 7/21/98


le=C:\CP\DATA1\18196B.14R Date printed=07-15-1998 Time= 23:46:38
Sample Name=2961809 98196A188404
0 to 34.0 min. Low Y=-0.008 High Y=14.992 mv Span=15.0
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
3.31
3.73
5.99
6.18
6.92
9.21
9.55
11.04
11.31
16.33
17.27
18.58
21.85
23.04
23.99
26.23
28.09
28.88
31.52
31.94

ample Name: **2961809**
atch: 98196A18 Date Taken: Jul 15, 1998 23:44:30
Raw File: C:\CP\DATA1\18196B.14R
rea File: C:\CP\DATA1\18196B.14A
ethod File: C:\CP\DATA1\Z8194B.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column,
T/SG/C trap Inst. ID#05843 - 5890#18PID
eak width: .04 Dil. factor: 1 Analyst: 215
Threshold: 0 Calculation: INTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\PZ8194.CAL(version 27):

et Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
4.352	4.382	VINYL CHLORIDE	3.7353	2309	391
6.917	6.923	1,1-DICHLOROETHENE	1.2535	1611	289
8.806	8.806	TRANS-1,2-DICHLOROET	0.0000	0	0
9.213	9.201	METHYL T-BUTYL ETHER	0.2804	365	45
11.310	11.320	CIS-1,2-DICHLOROETHE	0.6201	992	140
15.603	15.603	1,1-DICHLOROPROPENE	0.0000	0	0
16.334	16.337	BENZENE	0.0642	245	33
17.273	17.281	ISTD-FBENZENE	1.0000	85184	12444
18.577	18.583	TRICHLOROETHENE	11.5812	23657	4861
20.015	20.015	2-CHLOROETHYL VINYL	0.0000	0	0
20.358	20.358	CIS-1,3-DICHLOROPROP	0.0000	0	0
21.281	21.281	TRANS-1,3-DICHLOROPR	0.0000	0	0
21.847	21.847	TOLUENE	0.6826	2361	736
23.038	23.039	TETRACHLOROETHENE	1.9091	3071	1018
23.991	24.065	CHLOROBENZENE	~~0.2714~~ not on Hall	1277	369
24.393	24.386	ETHYLBENZENE	0.0368	133	43
24.667	24.663	M,P-XYLENE	0.0715	263	84
25.096	25.089	STYRENE	0.0226	104	36
25.184	25.180	O-XYLENE	0.0458	181	56
25.658	25.658	ISOPROPYLBENZENE	0.0000	0	0
25.947	25.947	BROMOBENZENE	0.0000	0	0
26.227	26.231	N-PROPYLBENZENE	0.0897	323	93
26.343	26.343	2-CHLOROTOLUENE	0.0000	0	0
26.447	26.447	4-CHLOROTOLUENE	0.0000	0	0
26.616	26.616	1,3,5-TRIMETHYLBENZE	0.0000	0	0
26.980	26.980	TERT-BUTYLBENZENE	0.0000	0	0
27.136	27.129	1,2,4-TRIMETHYLBENZE	0.0409	162	47
27.270	27.270	SEC-BUTYLBENZENE	0.0000	0	0
27.366	27.366	1,3-DICHLOROBENZENE	0.0000	0	0
27.461	27.461	1,4-DICHLOROBENZENE	0.0000	0	0
27.517	27.517	P-ISOPROPYLTOLUENE	0.0000	0	0
27.956	27.956	1,2-DICHLOROBENZENE	0.0000	0	0
28.090	28.084	N-BUTYLBENZENE	0.0438	123	33
29.249	29.250	SURR-1B4CB-P	26.1173	78393	25156
30.990	30.990	1,2,4-TRICHLOROBENZE	0.0000	0	0
31.521	31.513	NAPHTHALENE	0.1093	384	46
31.605	31.605	HEXACHLOROBUTADIENE	0.0000	0	0
31.940	31.939	1,2,3-TRICHLOROBENZE	0.1305	244	35
		XYLENES (Total):	**0.1173**		

DW097 7-17-98

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 87.0576%
Chrom Perfect version 6.07 Reported on 07-15-1998at 23:49:41

Internal Standard Calculations From ISTDCHK v. 950609.1130
IStd height for ISTD-FBENZENE is within range.
IStd range: 9,325 - 13,987 (80% - 120% of midpoint 11,656)
Used initial calibration files to determine range.

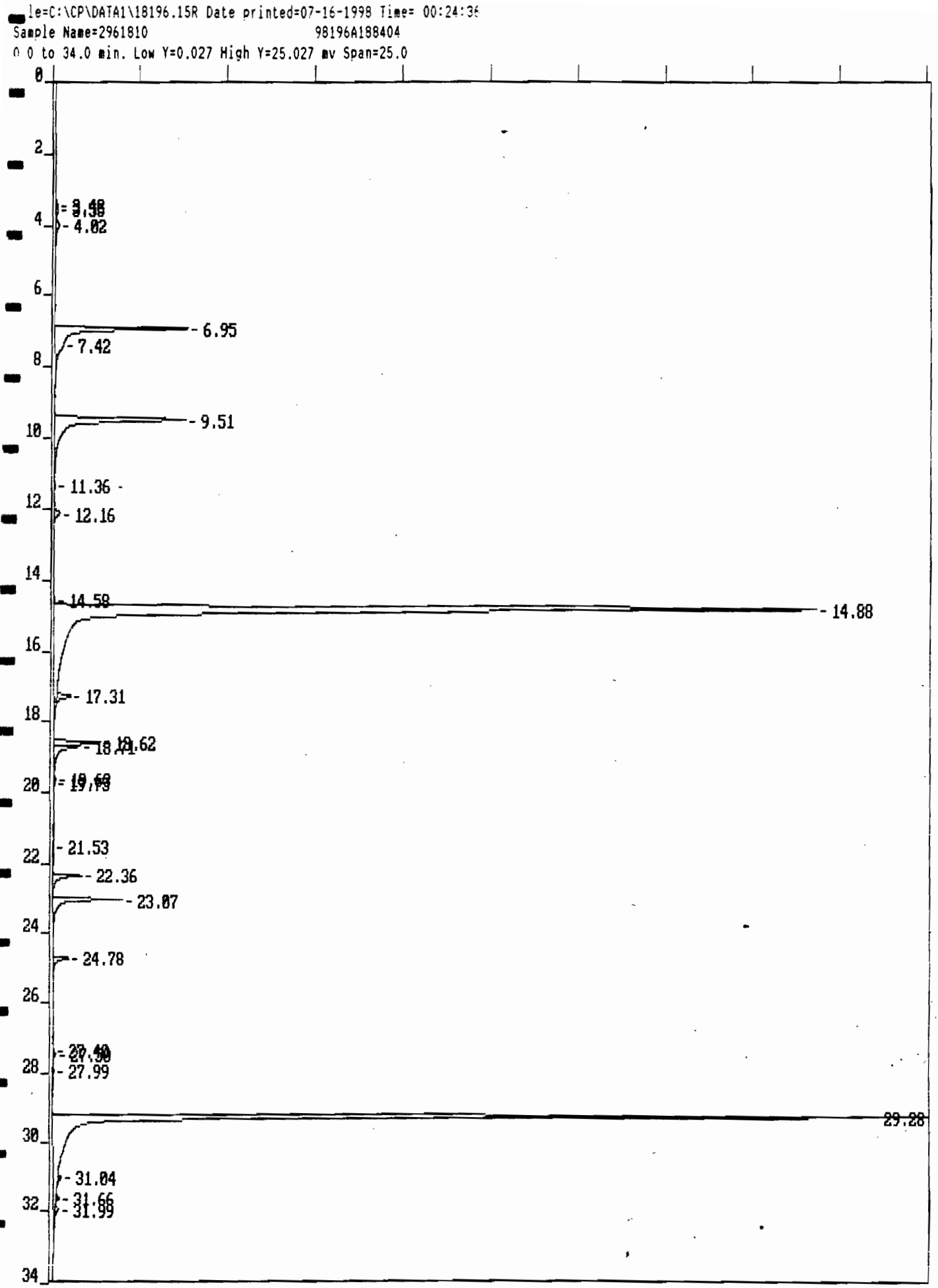
77

Sample name: **2961809** Batch: 98196A188404

Raw file: C:\CP\DATA1\18196B.14R

Reviewed by: _____ Verified by: _____

Date: 7-16-98 Date: _____


le=C:\CP\DATA1\18196.15R Date printed=07-16-1998 Time= 00:24:36
Sample Name=2961810 98196A188404
0 0 to 34.0 min. Low Y=0.027 High Y=25.027 mv Span=25.0
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
- 4.02
- 6.95
- 7.42
- 9.51
- 11.36
- 12.16
- 14.58
- 14.88
- 17.31
- 27.99
- 29.28
- 31.04
- 31.66
- 31.99

Sample Name: 2961810
Batch: 98196A18 Date Taken: Jul 16, 1998 00:24:32
Raw File: C:\CP\DATA1\18196.15R
Area File: C:\CP\DATA1\18196.15A
Method File: C:\CP\DATA1\Z8194.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18HALL
Peak Width: .04 Dil. Factor: 1 Analyst: 215
Threshold: -3 Calculation: EXTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 23):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
3.915	3.915	DICHLORODIFLUOROMETH	0.0000	0	0
4.023	4.087	CHLOROMETHANE	~~0.1961~~ RTOff	1833	103
4.408	4.408	VINYL CHLORIDE	0.0000	0	0
4.898	4.898	BROMOMETHANE	0.0000	0	0
5.103	5.103	CHLOROETHANE	0.0000	0	0
6.002	6.002	TRICHLOROFLUOROMETHA	0.0000	0	0
6.951	6.953	1,1-DICHLOROETHENE	2.3341	35103	3844
7.271	7.271	METHYLENE CHLORIDE	0.0000	0	0
7.423	7.449	TRICHLOROTRIFLUOROET	0.0282	263	31
8.833	8.833	TRANS-1,2-DICHLOROET	0.0000	0	0
9.509	9.505	1,1-DICHLOROETHANE	1.8226	39826	3769
11.364	11.346	CIS-1,2-DICHLOROETHE	0.0203	379	39
11.884	11.884	BROMOCHLOROMETHANE	0.0000	0	0
12.158	12.149	CHLOROFORM	0.0718	1687	175
12.392	12.392	2,2-DICHLOROPROPANE	0.0000	0	0
14.577	14.560	1,2-DICHLOROETHANE	0.0170	204	32
14.875	14.869	1,1,1-TRICHLOROETHAN	11.2672	249494	21749
15.633	15.633	1,1-DICHLOROPROPENE	0.0000	0	0
16.152	16.152	CARBON TETRACHLORIDE	0.0000	0	0
18.298	18.298	DIBROMOMETHANE	0.0000	0	0
18.459	18.459	1,2-DICHLOROPROPANE	0.0000	0	0
18.618	18.611	TRICHLOROETHENE	0.4413	8084	1351
18.711	18.715	BROMODICHLOROMETHANE	0.2816	7201	754
20.041	20.041	2-CHLOROETHYL VINYL	0.0000	0	0
20.385	20.385	CIS-1,3-DICHLOROPROP	0.0000	0	0
21.306	21.306	TRANS-1,3-DICHLOROPR	0.0000	0	0
21.535	21.530	1,1,2-TRICHLOROETHAN	0.0092	159	31
21.974	21.974	1,3-DICHLOROPROPANE	0.0000	0	0
22.364	22.353	DIBROMOCHLOROMETHANE	0.3738	5911	833
22.749	22.749	1,2-DIBROMOETHANE	0.0000	0	0
23.070	23.063	TETRACHLOROETHENE	0.4831	12798	2008
23.989	23.989	1,1,1,2-TETRACHLOROE	0.0000	0	0
24.089	24.089	CHLOROBENZENE	0.0000	0	0
24.782	24.765	BROMOFORM	0.2920	2943	456
25.201	25.201	1,1,2,2-TETRACHLOROE	0.0000	0	0
25.382	25.382	1,2,3-TRICHLOROPROPA	0.0000	0	0
25.975	25.975	BROMOBENZENE	0.0000	0	0
26.367	26.367	2-CHLOROTOLUENE	0.0000	0	0
26.471	26.471	4-CHLOROTOLUENE	0.0000	0	0
27.402	27.391	1,3-DICHLOROBENZENE	0.0211	192	48
27.499	27.486	1,4-DICHLOROBENZENE	0.0386	803	96
27.993	27.981	1,2-DICHLOROBENZENE	0.0209	391	46
28.675	28.675	1,2-DIBROMO-3-CHLORO	0.0000	0	0
29.284	29.279	SURR-1B4CB-H	25.1465	187914	33480
31.041	31.015	1,2,4-TRICHLOROBENZE	0.0696	983	107
31.655	31.632	HEXACHLOROBUTADIENE	0.0519	816	99
31.987	31.966	1,2,3-TRICHLOROBENZE	0.0848	1019	100
		TOTAL 1,2-DICHLOROETHENE:	**0.0203**		

DW 07 7-17-98

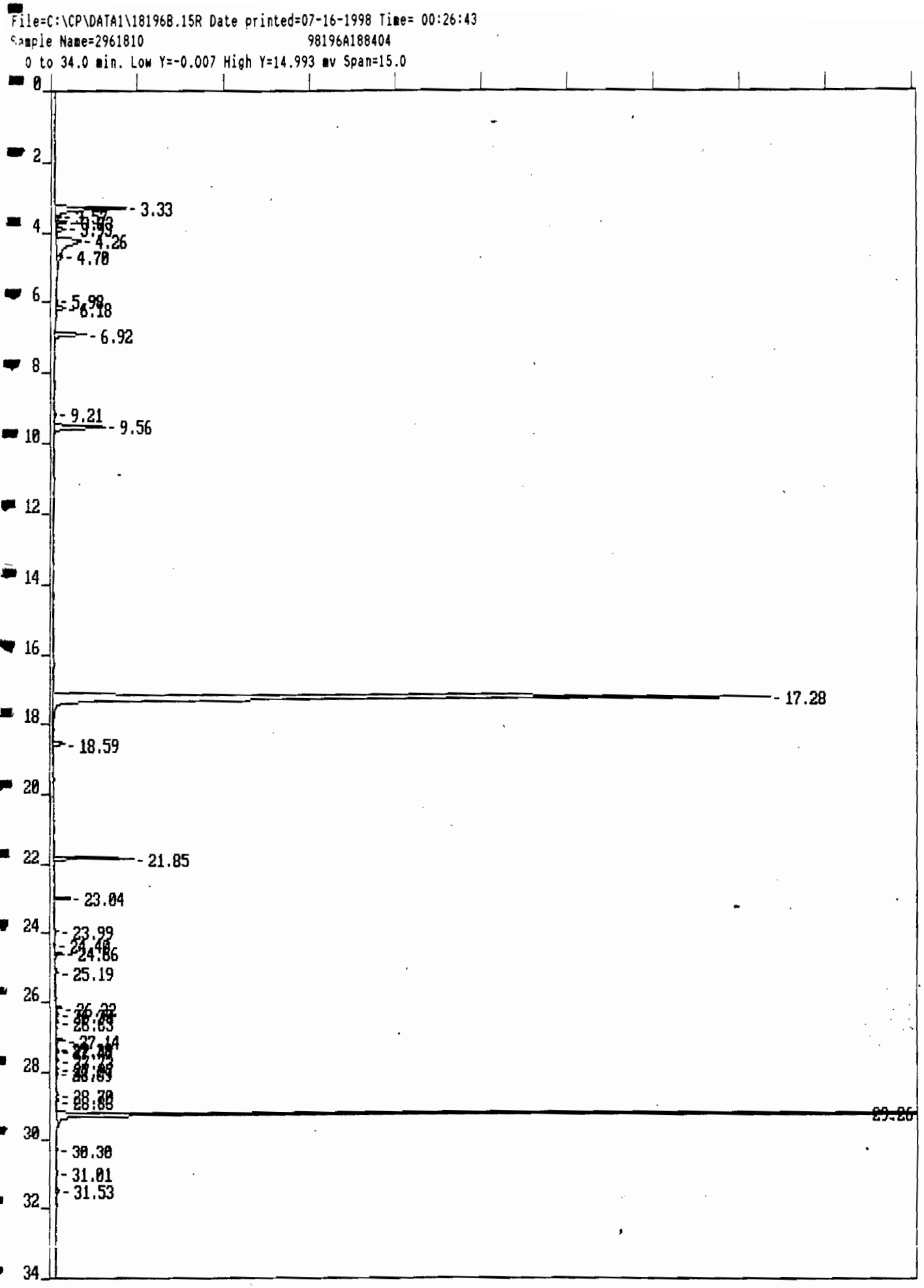
80

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 83.8215%
Chrom Perfect version 6.07 Reported on 07-16-1998at 00:26:30

Sample name: 2961810 Batch: 98196A188404
Raw file: C:\CP\DATA1\18196.15R

Reviewed by: DB LS Verified by:

Date: 7-16-98 Date:


File=C:\CP\DATA1\18196B.15R Date printed=07-16-1998 Time= 00:26:43
Sample Name=2961810 98196A188404
0 to 34.0 min. Low Y=-0.007 High Y=14.993 mv Span=15.0
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
3.33
4.26
4.70
6.18
6.92
9.21
9.56
17.28
18.59
21.85
23.04
24.86
25.19
27.14
30.30
31.01
31.53

ample Name: **2961810**
Batch: 98196A18 Date Taken: Jul 16, 1998 00:24:32
Raw File: C:\CP\DATA1\18196B.15R
rea File: C:\CP\DATA1\18196B.15A
ethod File: C:\CP\DATA1\Z8194B.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18PID
Peak width: .04 Dil. factor: 1 Analyst: 215
Threshold: 0 Calculation: INTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\PZ8194.CAL(version 27):

et Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)		Peak Area	Peak Height	
4.260	4.382	VINYL CHLORIDE	4.1326		6176	433	
6.922	6.923	1,1-DICHLOROETHENE	2.3947		3052	552	
8.806	8.806	TRANS-1,2-DICHLOROET	0.0000		0	0	
9.210	9.201	METHYL T-BUTYL ETHER	0.2116		187	34	
11.320	11.320	CIS-1,2-DICHLOROETHE	0.0000		0	0	
15.603	15.603	1,1-DICHLOROPROPENE	0.0000		0	0	
16.337	16.337	BENZENE	0.0000		0	0	
17.282	17.281	ISTD-FBENZENE	1.0000		85765	12450	
18.586	18.583	TRICHLOROETHENE	0.5029		1182	211	
20.015	20.015	2-CHLOROETHYL VINYL	0.0000		0	0	
20.358	20.358	CIS-1,3-DICHLOROPROP	0.0000		0	0	
21.281	21.281	TRANS-1,3-DICHLOROPR	0.0000		0	0	
21.852	21.847	TOLUENE	1.3032		4528	1406	
23.041	23.039	TETRACHLOROETHENE	0.5011		859	267	
23.994	24.065	CHLOROBENZENE	~~0.0558~~	not on Hall	259	76	DW097 7-17-98
24.403	24.386	ETHYLBENZENE	0.0285		143	33	
24.665	24.663	M,P-XYLENE	0.1269		424	150	
25.089	25.089	STYRENE	0.0000		0	0	
25.189	25.180	O-XYLENE	0.0580		193	71	
25.658	25.658	ISOPROPYLBENZENE	0.0000		0	0	
25.947	25.947	BROMOBENZENE	0.0000		0	0	
26.225	26.231	N-PROPYLBENZENE	0.1053		402	110	
26.393	26.343	2-CHLOROTOLUENE	0.0404		115	47	
26.447	26.447	4-CHLOROTOLUENE	0.0000		0	0	
26.627	26.616	1,3,5-TRIMETHYLBENZE	0.0401		181	60	
26.980	26.980	TERT-BUTYLBENZENE	0.0000		0	0	
27.141	27.129	1,2,4-TRIMETHYLBENZE	0.1343		575	153	
27.270	27.270	SEC-BUTYLBENZENE	0.0000		0	0	
27.378	27.366	1,3-DICHLOROBENZENE	0.0317		131	35	
27.474	27.461	1,4-DICHLOROBENZENE	0.0493		310	55	
27.517	27.517	P-ISOPROPYLTOLUENE	0.0000		0	0	
27.966	27.956	1,2-DICHLOROBENZENE	0.0641		183	54	
28.094	28.084	N-BUTYLBENZENE	0.0525		140	39	
29.258	29.250	SURR-1B4CB-P	26.7988		79404	25825	
31.007	30.990	1,2,4-TRICHLOROBENZE	0.0737		129	27	
31.527	31.513	NAPHTHALENE	0.1359		351	57	
31.605	31.605	HEXACHLOROBUTADIENE	0.0000		0	0	
31.939	31.939	1,2,3-TRICHLOROBENZE	0.0000		0	0	
		XYLENES (Total):	**0.1849**				

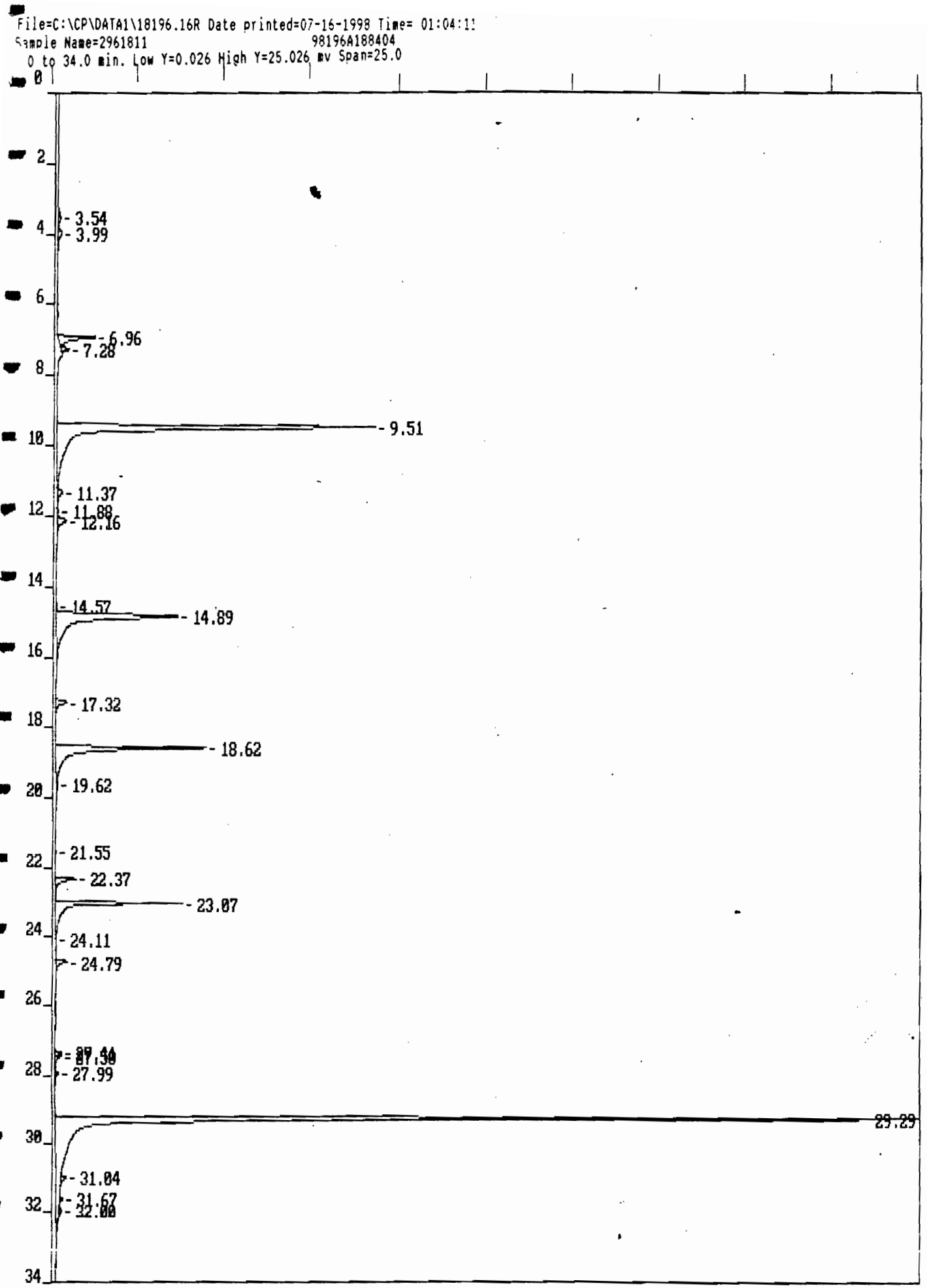
* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 89.3294%
Chrom Perfect version 6.07 Reported on 07-16-1998at 00:29:43

Internal Standard Calculations From ISTDCHK v. 950609.1130
IStd height for ISTD-FBENZENE is within range.
IStd range: 9,325 - 13,987 (80% - 120% of midpoint 11,656)
Used initial calibration files to determine range.

Sample name: **2961810** Batch: 98196A188404
Raw file: C:\CP\DATA1\18196B.15R

Reviewed by: TBS Verified by: BH 8/11

Date: 7-16-98 Date: 8/12/98


File=C:\CP\DATA1\18196.16R Date printed=07-16-1998 Time= 01:04:11
Sample Name=2961811 98196A188404
0 to 34.0 min. Low Y=0.026 High Y=25.026 mv Span=25.0
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
3.54
3.99
6.96
7.28
9.51
11.37
11.88
12.16
14.57
14.89
17.32
18.62
19.62
21.55
22.37
23.07
24.11
24.79
27.99
29.29
31.04
31.67

Sample Name: 2961811
Batch: 98196A18 Date Taken: Jul 16, 1998 01:04:07
Raw File: C:\CP\DATA1\18196.16R
Area File: C:\CP\DATA1\18196.16A
Method File: C:\CP\DATA1\Z8194.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18HALL
Peak Width: .04 Dil. Factor: 1 Analyst: 215
Threshold: -3 Calculation: EXTERNALStd using peak heights
Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 23):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)		Peak Area	Peak Height
3.993	3.915	DICHLORODIFLUOROMETH	~~0.1816~~	RToff	1592	109
4.087	4.087	CHLOROMETHANE	0.0000		0	0
4.408	4.408	VINYL CHLORIDE	0.0000		0	0
4.898	4.898	BROMOMETHANE	0.0000		0	0
5.103	5.103	CHLOROETHANE	0.0000		0	0
6.002	6.002	TRICHLOROFLUOROMETHA	0.0000		0	0
6.959	6.953	1,1-DICHLOROETHENE	0.6536		7630	1076
7.280	7.271	METHYLENE CHLORIDE	0.0838		1235	232
7.449	7.449	TRICHLOROTRIFLUOROET	0.0000		0	0
8.833	8.833	TRANS-1,2-DICHLOROET	0.0000		0	0
9.512	9.505	1,1-DICHLOROETHANE	4.4665		91262	9238
11.365	11.346	CIS-1,2-DICHLOROETHE	0.0889		2234	173
11.883	11.884	BROMOCHLOROMETHANE	0.0232		323	32
12.164	12.149	CHLOROFORM	0.1156		3206	281
12.392	12.392	2,2-DICHLOROPROPANE	0.0000		0	0
14.566	14.560	1,2-DICHLOROETHANE	0.0124		162	23
14.886	14.869	1,1,1-TRICHLOROETHAN	1.8402		44552	3552
15.633	15.633	1,1-DICHLOROPROPENE	0.0000		0	0
16.152	16.152	CARBON TETRACHLORIDE	0.0000		0	0
18.298	18.298	DIBROMOMETHANE	0.0000		0	0
18.459	18.459	1,2-DICHLOROPROPANE	0.0000		0	0
18.616	18.611	TRICHLOROETHENE	1.4226		36945	4356
18.715	18.715	BROMODICHLOROMETHANE	0.0000		0	0
20.041	20.041	2-CHLOROETHYL VINYL	0.0000		0	0
20.385	20.385	CIS-1,3-DICHLOROPROP	0.0000		0	0
21.306	21.306	TRANS-1,3-DICHLOROPR	0.0000		0	0
21.547	21.530	1,1,2-TRICHLOROETHAN	0.0073		129	24
21.974	21.974	1,3-DICHLOROPROPANE	0.0000		0	0
22.367	22.353	DIBROMOCHLOROMETHANE	0.2698		4375	601
22.749	22.749	1,2-DIBROMOETHANE	0.0000		0	0
23.072	23.063	TETRACHLOROETHENE	0.8865		21851	3685
23.989	23.989	1,1,1,2-TETRACHLOROE	0.0000		0	0
24.110	24.089	CHLOROBENZENE	0.0143		281	30
24.786	24.765	BROMOFORM	0.2142		2330	335
25.201	25.201	1,1,2,2-TETRACHLOROE	0.0000		0	0
25.382	25.382	1,2,3-TRICHLOROPROPA	0.0000		0	0
25.975	25.975	BROMOBENZENE	0.0000		0	0
26.367	26.367	2-CHLOROTOLUENE	0.0000		0	0
26.471	26.471	4-CHLOROTOLUENE	0.0000		0	0
27.408	27.391	1,3-DICHLOROBENZENE	0.0853		769	192
27.498	27.486	1,4-DICHLOROBENZENE	0.0749		1518	186
27.995	27.981	1,2-DICHLOROBENZENE	0.0495		770	110
28.675	28.675	1,2-DIBROMO-3-CHLORO	0.0000		0	0
29.285	29.279	SURR-1B4CB-H	25.3410		195419	33739
31.041	31.015	1,2,4-TRICHLOROBENZE	0.0916		1169	141
31.667	31.632	HEXACHLOROBUTADIENE	0.0489		862	93
31.995	31.966	1,2,3-TRICHLOROBENZE	0.0865		1101	103
		TOTAL 1,2-DICHLOROETHENE:	**0.0889**			

DW 07-17-98

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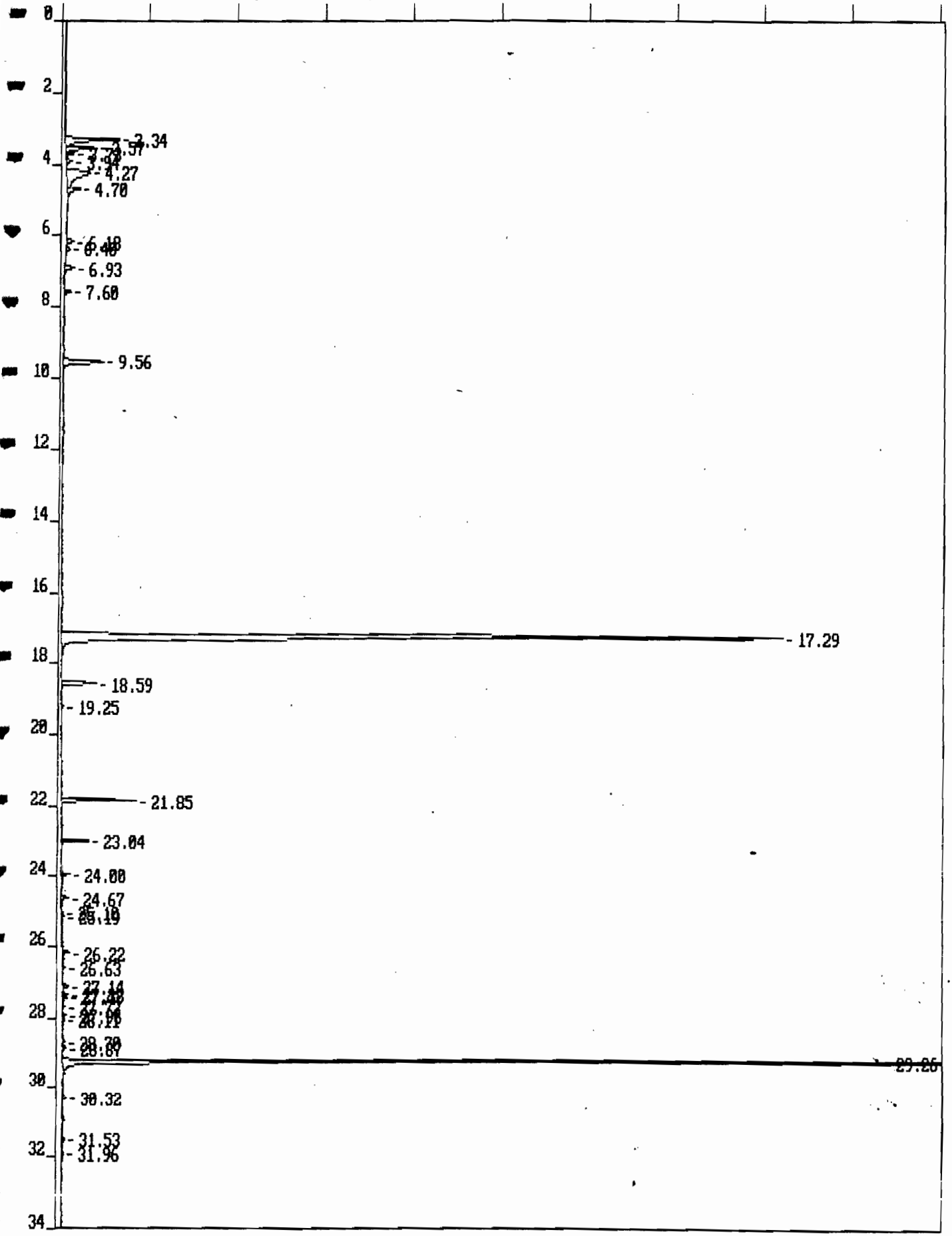
* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 84.4698%
Chrom Perfect version 6.07 Reported on 07-16-1998at 01:06:02

Sample name: **2961811** Batch: 98196A188404
Raw file: C:\CP\DATA1\18196.16R

Reviewed by: [signature] Verified by: [signature]

Date: 7-16-98 Date: 7/21/98

File=C:\CP\DATA1\181968.16R Date printed=07-16-1998 Time= 01:06:15
Sample Name=2961811 98196A188404
).0 to 34.0 min. Low Y=-0.003 High Y=14.997 mv Span=15.0



ample Name: **2961811**
Batch: 98196A18 Date Taken: Jul 16, 1998 01:04:07
Raw File: C:\CP\DATA1\18196B.16R
rea File: C:\CP\DATA1\18196B.16A
ethod File: C:\CP\DATA1\Z8194B.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column:
T/SG/C trap Inst. ID#05843 - 5890#18PID
Peak width: .04 Dil. factor: 1 Analyst: 215
Threshold: 0 Calculation: INTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\PZ8194.CAL(version 27):

et Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
4.275	4.382	VINYL CHLORIDE	4.0603	5775	418
6.927	6.923	1,1-DICHLOROETHENE	0.7497	1047	170
8.806	8.806	TRANS-1,2-DICHLOROET	0.0000	0	0
9.201	9.201	METHYL T-BUTYL ETHER	0.0000	0	0
11.320	11.320	CIS-1,2-DICHLOROETHE	0.0000	0	0
15.603	15.603	1,1-DICHLOROPROPENE	0.0000	0	0
16.337	16.337	BENZENE	0.0000	0	0
17.286	17.281	ISTD-FBENZENE	1.0000	83055	12252
18.590	18.583	TRICHLOROETHENE	1.4629	3072	605
20.015	20.015	2-CHLOROETHYL VINYL	0.0000	0	0
20.358	20.358	CIS-1,3-DICHLOROPROP	0.0000	0	0
21.281	21.281	TRANS-1,3-DICHLOROPR	0.0000	0	0
21.855	21.847	TOLUENE	1.2050	4059	1280
23.045	23.039	TETRACHLOROETHENE	0.8921	1441	468
24.000	24.065	CHLOROBENZENE	0.1152	458	154
24.386	24.386	ETHYLBENZENE	0.0000	0	0
24.672	24.663	M,P-XYLENE	0.1159	597	135
25.104	25.089	STYRENE	0.0248	126	39
25.191	25.180	O-XYLENE	0.0481	189	58
25.658	25.658	ISOPROPYLBENZENE	0.0000	0	0
25.947	25.947	BROMOBENZENE	0.0000	0	0
26.224	26.231	N-PROPYLBENZENE	0.1199	452	123
26.343	26.343	2-CHLOROTOLUENE	0.0000	0	0
26.447	26.447	4-CHLOROTOLUENE	0.0000	0	0
26.626	26.616	1,3,5-TRIMETHYLBENZE	0.0293	125	43
26.980	26.980	TERT-BUTYLBENZENE	0.0000	0	0
27.143	27.129	1,2,4-TRIMETHYLBENZE	0.0527	118	59
27.270	27.270	SEC-BUTYLBENZENE	0.0000	0	0
27.377	27.366	1,3-DICHLOROBENZENE	0.0977	288	106
27.473	27.461	1,4-DICHLOROBENZENE	0.0759	351	83
27.517	27.517	P-ISOPROPYLTOLUENE	0.0000	0	0
27.958	27.956	1,2-DICHLOROBENZENE	0.0738	194	61
28.109	28.084	N-BUTYLBENZENE	0.0493	103	36
29.260	29.250	SURR-1B4CB-P	26.3809	77354	25016
30.990	30.990	1,2,4-TRICHLOROBENZE	0.0000	0	0
31.530	31.513	NAPHTHALENE	0.1189	354	49
31.605	31.605	HEXACHLOROBUTADIENE	0.0000	0	0
31.960	31.939	1,2,3-TRICHLOROBENZE	0.1102	194	29
	XYLENES (Total):	**0.1640**			

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 87.9363%
Chrom Perfect version 6.07 Reported on 07-16-1998at 01:09:14

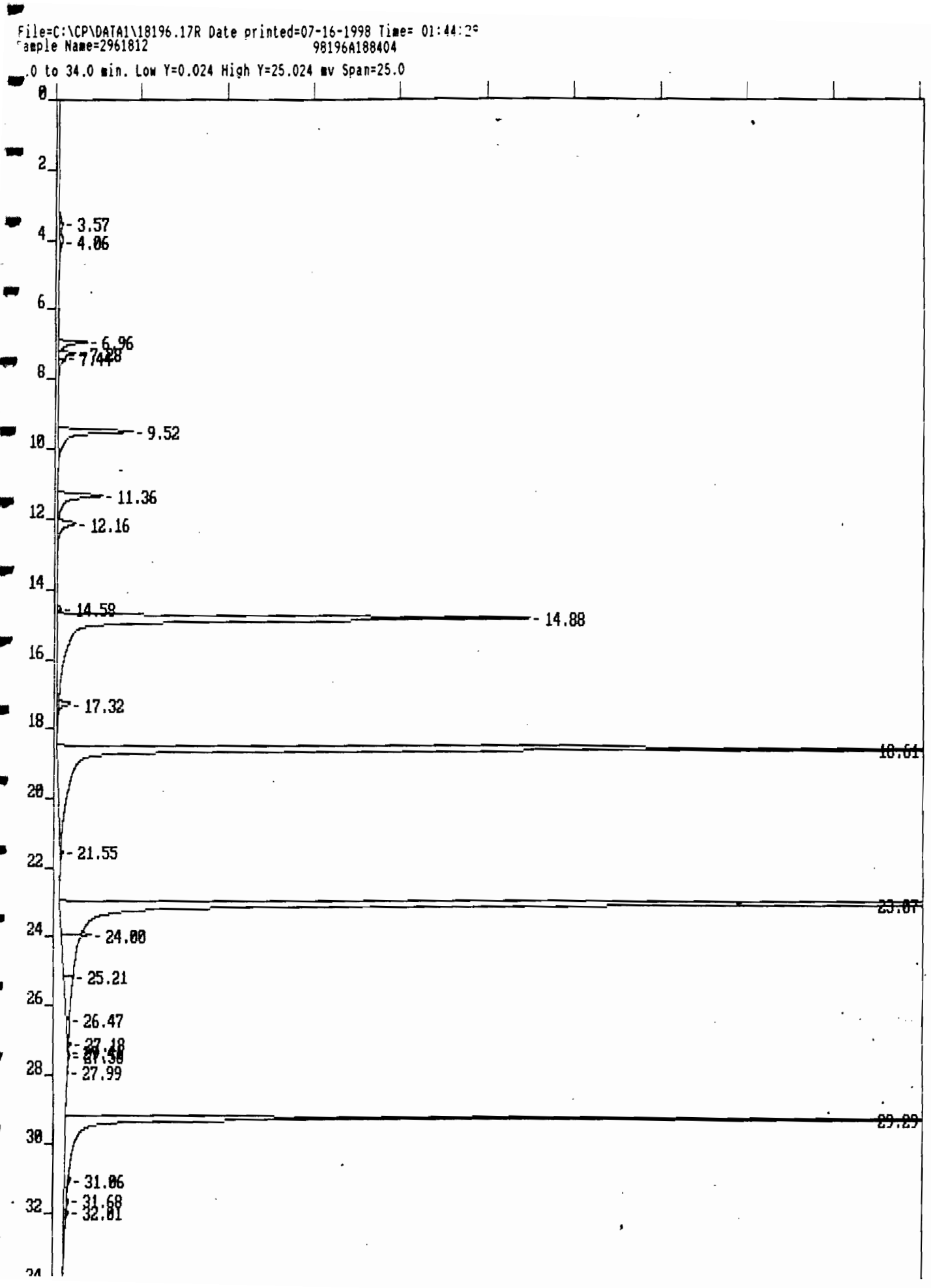
Internal Standard Calculations From ISTDCHK v. 950609.1130
IStd height for ISTD-FBENZENE is within range.
IStd range: 9,325 - 13,987 (80% - 120% of midpoint 11,656)
Used initial calibration files to determine range.

Sample name: **2961811** Batch: 98196A188404

Raw file: C:\CP\DATA1\18196B.16R

Reviewed by: [signature] Verified by: [signature]

Date: 7-16-98 Date: 7/21/98


File=C:\CP\DATA1\18196.17R Date printed=07-16-1998 Time= 01:44:2
Sample Name=2961812 98196A188404
.0 to 34.0 min. Low Y=0.024 High Y=25.024 mv Span=25.0
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
3.57
4.06
6.96
9.52
11.36
12.16
14.88
17.32
21.55
24.00
25.21
26.47
27.99
31.06
31.68
32.01

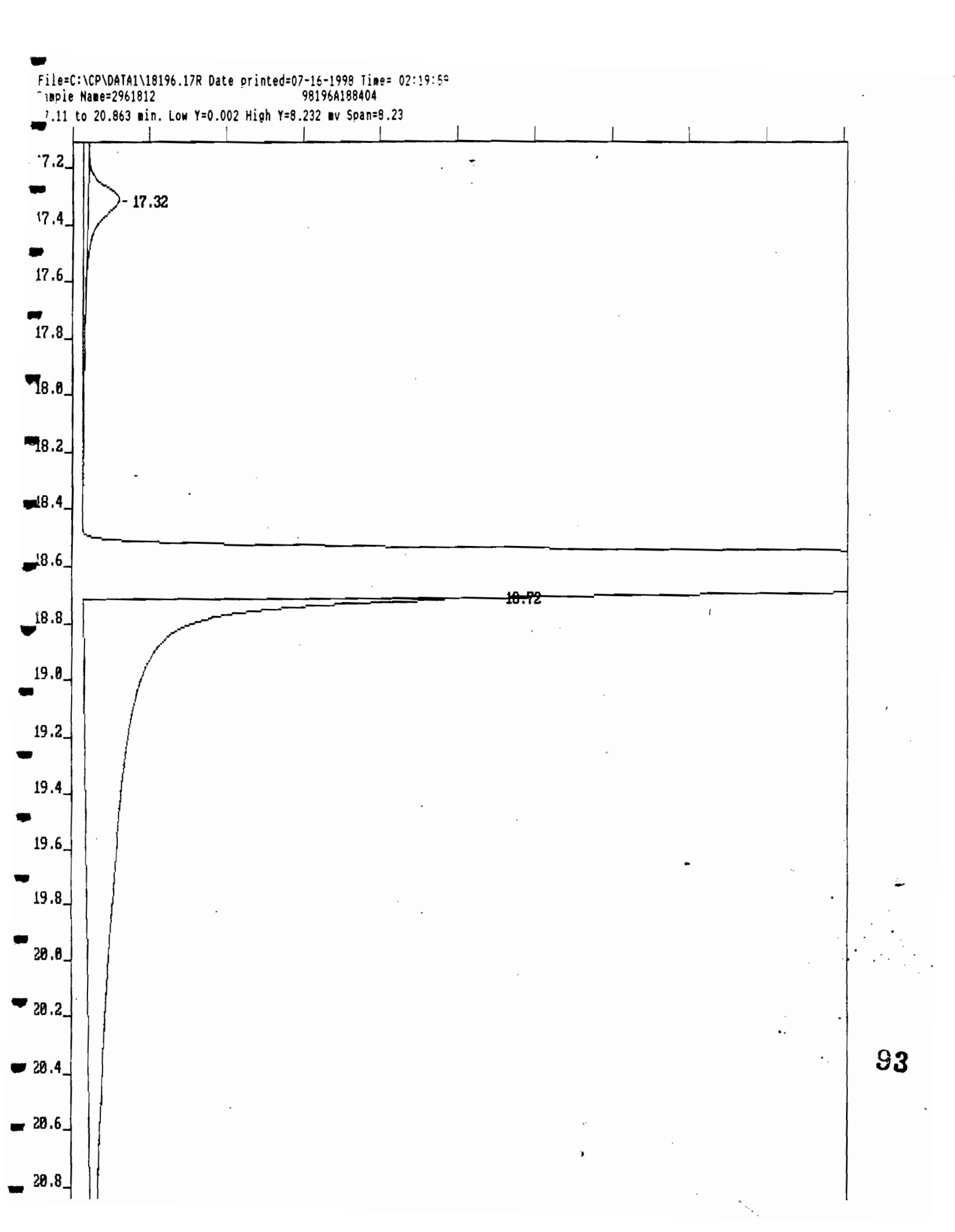
Sample Name: **2961812**
Batch: 98196A18 Date Taken: Jul 16, 1998 01:44:25
Raw File: C:\CP\DATA1\18196.17R
Area File: C:\CP\DATA1\18196.17A
Method File: C:\CP\DATA1\Z8194.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18HALL
Peak Width: .04 Dil. Factor: 2 Analyst: 215
Threshold: -3 Calculation: EXTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 23):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
3.915	3.915	DICHLORODIFLUOROMETH	0.0000	0	0
4.056	4.087	CHLOROMETHANE	0.4449	2491	117
4.408	4.408	VINYL CHLORIDE	0.0000	0	0
4.898	4.898	BROMOMETHANE	0.0000	0	0
5.103	5.103	CHLOROETHANE	0.0000	0	0
6.002	6.002	TRICHLOROFLUOROMETHA	0.0000	0	0
6.957	6.953	1,1-DICHLOROETHENE	1.0149	6466	836
7.280	7.271	METHYLENE CHLORIDE	0.3585	3569	496
7.436	7.449	TRICHLOROTRIFLUOROET	0.3842	2098	211
8.833	8.833	TRANS-1,2-DICHLOROET	0.0000	0	0
9.516	9.505	1,1-DICHLOROETHANE	2.1259	23360	2198
11.359	11.346	CIS-1,2-DICHLOROETHE	1.3575	14898	1319
11.884	11.884	BROMOCHLOROMETHANE	0.0000	0	0
12.157	12.149	CHLOROFORM	0.4229	6871	514
12.392	12.392	2,2-DICHLOROPROPANE	0.0000	0	0
14.578	14.560	1,2-DICHLOROETHANE	0.1317	917	123
14.877	14.869	1,1,1-TRICHLOROETHAN	14.1343	162364	13642
15.633	15.633	1,1-DICHLOROPROPENE	0.0000	0	0
16.152	16.152	CARBON TETRACHLORIDE	0.0000	0	0
18.298	18.298	DIBROMOMETHANE	0.0000	0	0
18.459	18.459	1,2-DICHLOROPROPANE	0.0000	0	0
18.612	18.611	TRICHLOROETHENE	28.3469	310496	43402
18.715	18.715	BROMODICHLOROMETHANE	<5.0 ~~0.0000~~	0	0
20.041	20.041	2-CHLOROETHYL VINYL	0.0000	0	0
20.385	20.385	CIS-1,3-DICHLOROPROP	0.0000	0	0
21.306	21.306	TRANS-1,3-DICHLOROPR	0.0000	0	0
21.546	21.530	1,1,2-TRICHLOROETHAN	0.0557	633	92
21.974	21.974	1,3-DICHLOROPROPANE	0.0000	0	0
22.353	22.353	DIBROMOCHLOROMETHANE	0.0000	0	0
22.749	22.749	1,2-DIBROMOETHANE	0.0000	0	0
23.068	23.063	TETRACHLOROETHENE	156.6674	1358453	325615
23.998	23.989	1,1,1,2-TETRACHLOROE	0.3788	31316	880
24.089	24.089	CHLOROBENZENE	0.0000	0	0
24.765	24.765	BROMOFORM	0.0000	0	0
25.212	25.201	1,1,2,2-TETRACHLOROE	0.2228	13494	280
25.382	25.382	1,2,3-TRICHLOROPROPA	0.0000	0	0
25.975	25.975	BROMOBENZENE	0.0000	0	0
26.367	26.367	2-CHLOROTOLUENE	0.0000	0	0
26.473	26.471	4-CHLOROTOLUENE	0.1266	2170	103
27.408	27.391	1,3-DICHLOROBENZENE	0.0281	141	32
27.504	27.486	1,4-DICHLOROBENZENE	0.0435	268	54
27.991	27.981	1,2-DICHLOROBENZENE	0.0127	148	14
28.675	28.675	1,2-DIBROMO-3-CHLORO	0.0000	0	0
29.293	29.279	SURR-1B4CB-H	50.4158	180830	33562
31.057	31.015	1,2,4-TRICHLOROBENZE	0.0959	689	74
31.675	31.632	HEXACHLOROBUTADIENE	0.0750	633	71
32.010	31.966	1,2,3-TRICHLOROBENZE	0.1182	809	70
		TOTAL 1,2-DICHLOROETHENE:	**1.3575**		

AB 115 7-16-98

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 84.0264%
Chrom Perfect version 6.07 Reported on 07-16-1998at 01:46:20


File=C:\CP\DATA1\18196.17R Date printed=07-16-1998 Time= 02:19:5
Sample Name=2961812 98196A188404
7.11 to 20.863 min. Low Y=0.002 High Y=8.232 mv Span=8.23
17.2
17.32
17.4
17.6
17.8
18.0
18.2
18.4
18.6
18.72
18.8
19.0
19.2
19.4
19.6
19.8
20.0
20.2
20.4
20.6
20.8

Sample Name: **2961812**
Batch: 98196A18 Date Taken: Jul 16, 1998 01:44:25
Raw File: C:\CP\DATA1\18196.17R
Area File: C:\CP\DATA1\18196.17R
Method File: C:\CP\DATA1\Z8194.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18HALL
Peak Width: .04 Dil. Factor: 2 Analyst: 215
Threshold: -3 Calculation: EXTERNALStd using peak heights

Measured a less-than value for $BrCH_2Me$

TS 15
T-16-98

Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 23):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
3.915	3.915	DICHLORODIFLUOROMETH	0.0000	0	0
4.056	4.087	CHLOROMETHANE	0.4449	2491	117
4.408	4.408	VINYL CHLORIDE	0.0000	0	0
4.898	4.898	BROMOMETHANE	0.0000	0	0
5.103	5.103	CHLOROETHANE	0.0000	0	0
6.002	6.002	TRICHLOROFLUOROMETHA	0.0000	0	0
6.957	6.953	1,1-DICHLOROETHENE	1.0149	6466	836
7.280	7.271	METHYLENE CHLORIDE	0.3585	3569	496
7.436	7.449	TRICHLOROTRIFLUOROET	0.3842	2098	211
8.833	8.833	TRANS-1,2-DICHLOROET	0.0000	0	0
9.516	9.505	1,1-DICHLOROETHANE	2.1259	23360	2198
11.359	11.346	CIS-1,2-DICHLOROETHE	1.3575	14898	1319
11.884	11.884	BROMOCHLOROMETHANE	0.0000	0	0
12.157	12.149	CHLOROFORM	0.4229	6871	514
12.392	12.392	2,2-DICHLOROPROPANE	0.0000	0	0
14.578	14.560	1,2-DICHLOROETHANE	0.1317	917	123
14.877	14.869	1,1,1-TRICHLOROETHAN	14.1343	162555	13642
15.633	15.633	1,1-DICHLOROPROPENE	0.0000	0	0
16.152	16.152	CARBON TETRACHLORIDE	0.0000	0	0
18.298	18.298	DIBROMOMETHANE	0.0000	0	0
18.459	18.459	1,2-DICHLOROPROPANE	0.0000	0	0
18.611	18.611	TRICHLOROETHENE	0.0000	0	0
18.717	18.715	BROMODICHLOROMETHANE	< 5.0 ~~3.2499~~	51582	4352
20.041	20.041	2-CHLOROETHYL VINYL	0.0000	0	0
20.385	20.385	CIS-1,3-DICHLOROPROP	0.0000	0	0
21.306	21.306	TRANS-1,3-DICHLOROPR	0.0000	0	0
21.546	21.530	1,1,2-TRICHLOROETHAN	0.0559	638	93
21.974	21.974	1,3-DICHLOROPROPANE	0.0000	0	0
22.353	22.353	DIBROMOCHLOROMETHANE	0.0000	0	0
22.749	22.749	1,2-DIBROMOETHANE	0.0000	0	0
23.068	23.063	TETRACHLOROETHENE	156.6674	1358453	325615
23.998	23.989	1,1,1,2-TETRACHLOROE	0.3788	31316	880
24.089	24.089	CHLOROBENZENE	0.0000	0	0
24.765	24.765	BROMOFORM	0.0000	0	0
25.212	25.201	1,1,2,2-TETRACHLOROE	0.2228	13494	280
25.382	25.382	1,2,3-TRICHLOROPROPA	0.0000	0	0
25.975	25.975	BROMOBENZENE	0.0000	0	0
26.367	26.367	2-CHLOROTOLUENE	0.0000	0	0
26.473	26.471	4-CHLOROTOLUENE	0.1266	2170	103
27.408	27.391	1,3-DICHLOROBENZENE	0.0281	141	32
27.504	27.486	1,4-DICHLOROBENZENE	0.0435	268	54
27.991	27.981	1,2-DICHLOROBENZENE	0.0127	148	14
28.675	28.675	1,2-DIBROMO-3-CHLORO	0.0000	0	0
29.293	29.279	SURR-1B4CB-H	50.4158	181617	33562
31.057	31.015	1,2,4-TRICHLOROBENZE	0.0939	496	73
31.675	31.632	HEXACHLOROBUTADIENE	0.0674	489	64
32.010	31.966	1,2,3-TRICHLOROBENZE	0.1050	355	62
		TOTAL 1,2-DICHLOROETHENE:	1.3575		

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 84.0264%
Chrom Perfect version 6.07 Reported on 07-16-1998at 03:45:12

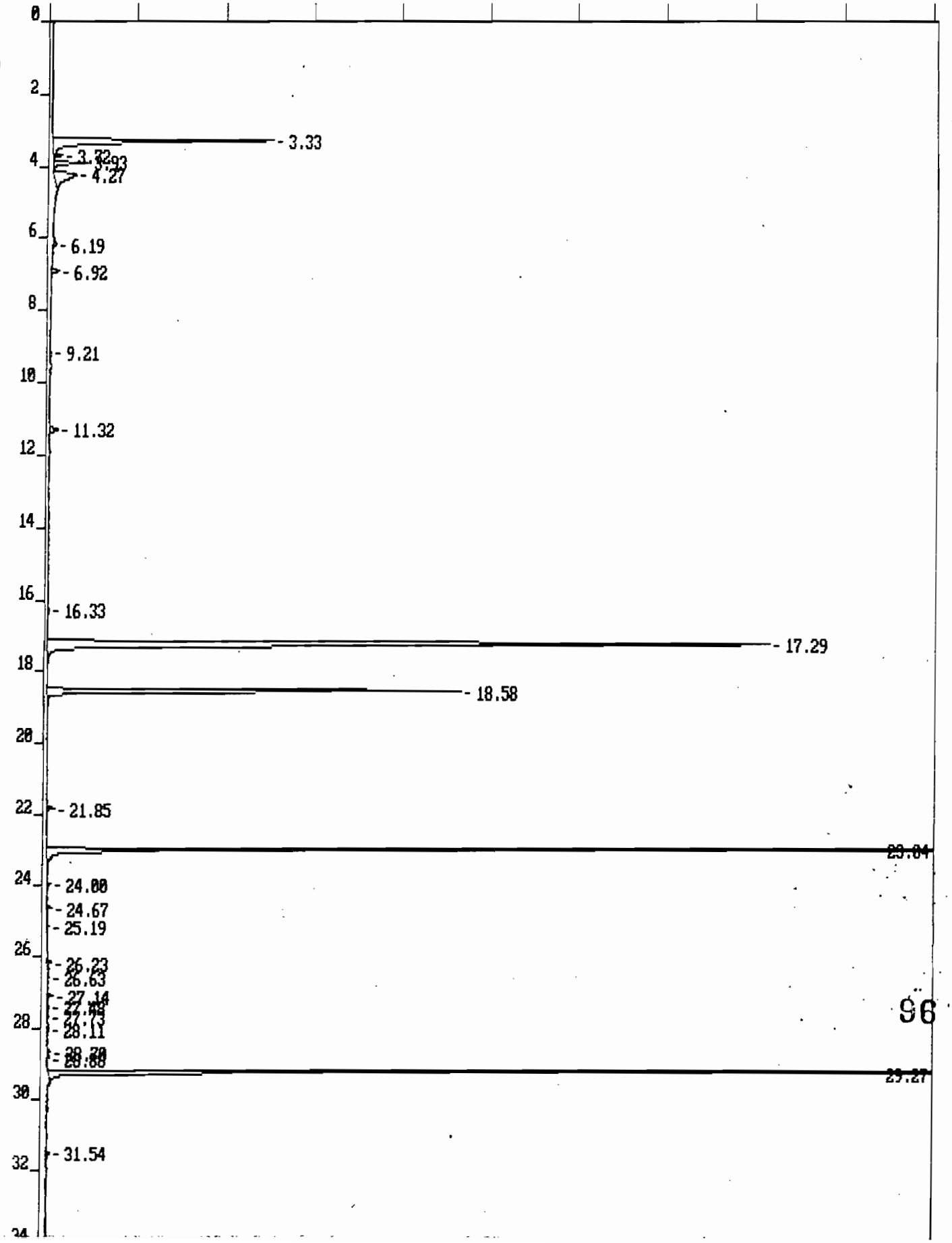
94

Sample name: 2961812 Batch: 98196A188404
Raw file: C:\CP\DATA1\18196.17R

Reviewed by: _____ Verified by: _____

Date: 7-16-98 Date: _____

File=C:\CP\DATA1\18196B.17R Date printed=07-16-1998 Time= 01:46:33
Sample Name=2961812 98196A188404
0.0 to 34.0 min. Low Y=-0.003 High Y=14.997 mv Span=15.0



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Sample Name: **2961812**
Batch: 98196A18 Date Taken: Jul 16, 1998 01:44:25
Raw File: C:\CP\DATA1\18196B.17R
Area File: C:\CP\DATA1\18196B.17A
Method File: C:\CP\DATA1\Z8194B.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18PID
Peak width: .04 Dil. factor: 2 Analyst: 215
Threshold: 0 Calculation: INTERNALStd using peak heights
Peak table using calibration C:\CP\DATA1\PZ8194.CAL(version 27):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)		Peak Area	Peak Height
4.267	4.382	VINYL CHLORIDE	7.3324		4686	377
6.924	6.923	1,1-DICHLOROETHENE	1.2377		738	140
8.806	8.806	TRANS-1,2-DICHLOROET	0.0000		0	0
9.211	9.201	METHYL T-BUTYL ETHER	0.3761		217	30
11.323	11.320	CIS-1,2-DICHLOROETHE	1.3291		1104	147
15.603	15.603	1,1-DICHLOROPROPENE	0.0000		0	0
16.330	16.337	BENZENE	0.1351		232	34
17.286	17.281	ISTD-FBENZENE	1.0000		82613	12204
18.584	18.583	TRICHLOROETHENE	33.9070		33864	6979
20.015	20.015	2-CHLOROETHYL VINYL	0.0000		0	0
20.358	20.358	CIS-1,3-DICHLOROPROP	0.0000		0	0
21.281	21.281	TRANS-1,3-DICHLOROPR	0.0000		0	0
21.853	21.847	TOLUENE	0.2455		457	130
23.044	23.039	TETRACHLOROETHENE	196.1948		150843	51307
24.001	24.065	CHLOROBENZENE	~~0.1029~~	not on Hall	191	69
24.386	24.386	ETHYLBENZENE	0.0000		0	0
24.673	24.663	M,P-XYLENE	0.1481		324	86
25.089	25.089	STYRENE	0.0000		0	0
25.190	25.180	O-XYLENE	0.0773		143	47
25.658	25.658	ISOPROPYLBENZENE	0.0000		0	0
25.947	25.947	BROMOBENZENE	0.0000		0	0
26.233	26.231	N-PROPYLBENZENE	0.1636		311	84
26.343	26.343	2-CHLOROTOLUENE	0.0000		0	0
26.447	26.447	4-CHLOROTOLUENE	0.0000		0	0
26.626	26.616	1,3,5-TRIMETHYLBENZE	0.0581		124	43
26.980	26.980	TERT-BUTYLBENZENE	0.0000		0	0
27.144	27.129	1,2,4-TRIMETHYLBENZE	0.1977		470	110
27.270	27.270	SEC-BUTYLBENZENE	0.0000		0	0
27.366	27.366	1,3-DICHLOROBENZENE	0.0000		0	0
27.480	27.461	1,4-DICHLOROBENZENE	0.0749		212	41
27.517	27.517	P-ISOPROPYLTOLUENE	0.0000		0	0
27.956	27.956	1,2-DICHLOROBENZENE	0.0000		0	0
28.109	28.084	N-BUTYLBENZENE	0.0907		170	33
29.267	29.250	SURR-1B4CB-P	50.8304		73932	24007
30.990	30.990	1,2,4-TRICHLOROBENZE	0.0000		0	0
31.540	31.513	NAPHTHALENE	0.3146		445	65
31.605	31.605	HEXACHLOROBUTADIENE	0.0000		0	0
31.939	31.939	1,2,3-TRICHLOROBENZE	0.0000		0	0
	XYLENES (Total):	**0.2254**				

DW097 7-17-98

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 84.7173%
Chrom Perfect version 6.07 Reported on 07-16-1998at 01:49:33

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Internal Standard Calculations From ISTDCHK v. 950609.1130
IStd height for ISTD-FBENZENE is within range.
IStd range: 9,325 - 13,987 (80% - 120% of midpoint 11,656)
Used initial calibration files to determine range.

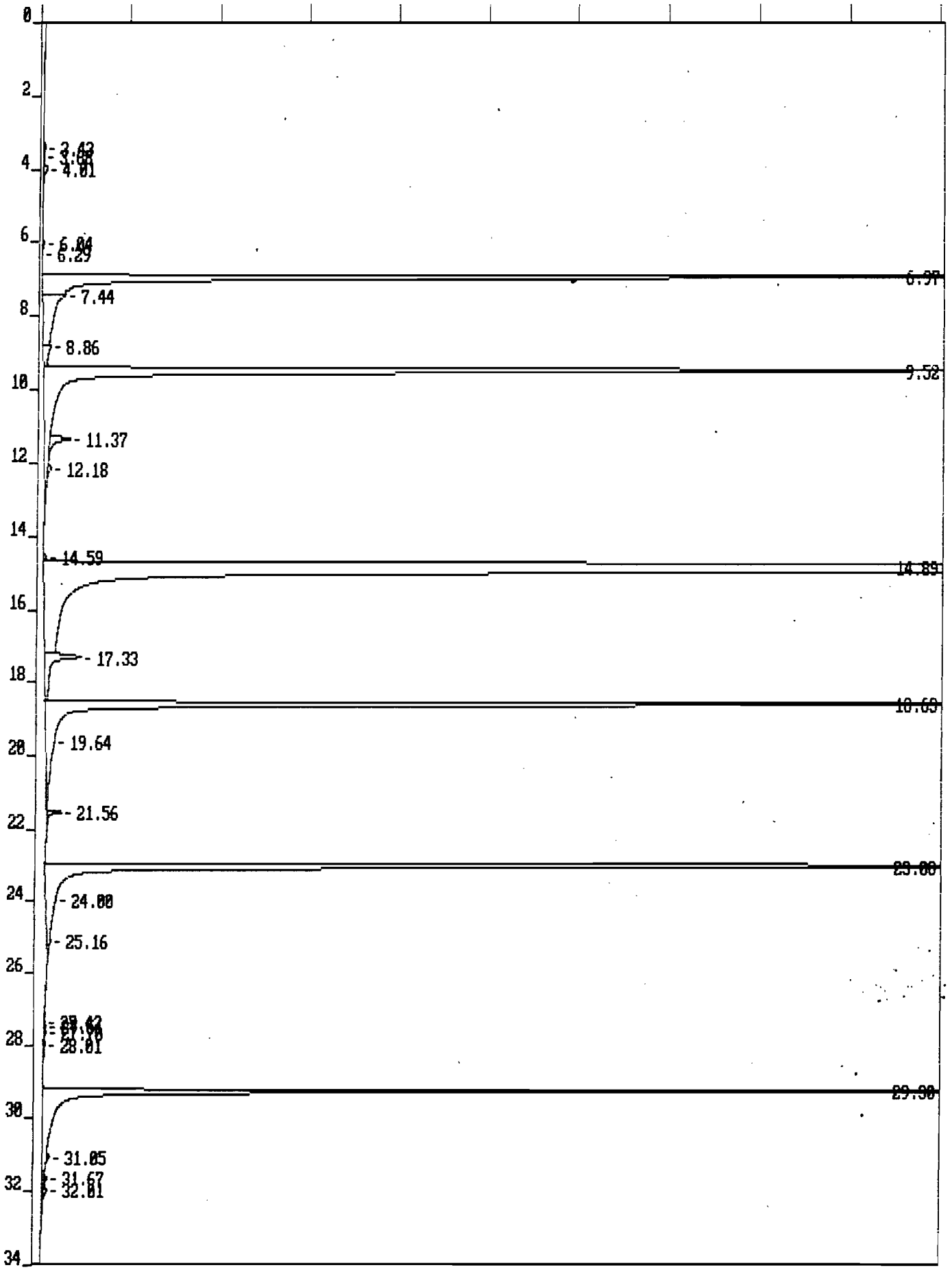
Sample name: **2961812** Batch: 98196A188404
Raw file: C:\CP\DATA1\18196B.17R

Reviewed by: _____ Verified by: _____

Date: 7-16-98 Date: 7/16/98

98

File=C:\CP\DATA1\18196.18R Date printed=07-16-1998 Time= 03:46:19
Sample Name=2961813 98196A188404
0.0 to 34.0 min. Low Y=0.032 High Y=25.032 mv Span=25.0



Sample Name: **2961813**
Batch: 98196A18 Date Taken: Jul 16, 1998 02:30:42
Raw File: C:\CP\DATA1\18196.18R
Area File: C:\CP\DATA1\18196.18A
Method File: C:\CP\DATA1\Z8194.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18HALL
Peak Width: .04 Dil. Factor: 1 Analyst: 215
Threshold: -3 Calculation: EXTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 23):

Ret Time (min)	Expected RT (min)	Peak Name		Amount * (ug/L)	Peak Area	Peak Height
3.915	3.915	DICHLORODIFLUOROMETH		0.0000	0	0
4.010	4.087	CHLOROMETHANE		~~0.2357~~ RAff	1635	124
4.408	4.408	VINYL CHLORIDE		0.0000	0	0
4.898	4.898	BROMOMETHANE		0.0000	0	0
5.103	5.103	CHLOROETHANE		0.0000	0	0
6.035	6.002	TRICHLOROFLUOROMETHA		0.0463	458	48
6.967	6.953	1,1-DICHLOROETHENE		18.1412	197490	29875
7.271	7.271	METHYLENE CHLORIDE		0.0000	0	0
7.440	7.449	TRICHLOROTRIFLUOROET		0.5989	28017	659
8.864	8.833	TRANS-1,2-DICHLOROET		0.0948	5165	218
9.521	9.505	1,1-DICHLOROETHANE		12.4317	244870	25711
11.375	11.346	CIS-1,2-DICHLOROETHE		0.2991	5753	581
11.884	11.884	BROMOCHLOROMETHANE		0.0000	0	0
12.175	12.149	CHLOROFORM		0.0447	1430	109
12.392	12.392	2,2-DICHLOROPROPANE		0.0000	0	0
14.590	14.560	1,2-DICHLOROETHANE		0.0527	646	99
14.890	14.869	1,1,1-TRICHLOROETHAN		59.8020	1267704	115437
15.633	15.633	1,1-DICHLOROPROPENE		0.0000	0	0
16.152	16.152	CARBON TETRACHLORIDE		0.0000	0	0
18.298	18.298	DIBROMOMETHANE		0.0000	0	0
18.459	18.459	1,2-DICHLOROPROPANE		0.0000	0	0
18.631	18.611	TRICHLOROETHENE		11.2168	232961	34348
18.715	18.715	BROMODICHLOROMETHANE	< 2.0	~~0.0000~~	0	0
20.041	20.041	2-CHLOROETHYL VINYL		0.0000	0	0
20.385	20.385	CIS-1,3-DICHLOROPROP		0.0000	0	0
21.306	21.306	TRANS-1,3-DICHLOROPR		0.0000	0	0
21.556	21.530	1,1,2-TRICHLOROETHAN		0.1194	2522	396
21.974	21.974	1,3-DICHLOROPROPANE		0.0000	0	0
22.353	22.353	DIBROMOCHLOROMETHANE		0.0000	0	0
22.749	22.749	1,2-DIBROMOETHANE		0.0000	0	0
23.084	23.063	TETRACHLOROETHENE		21.3761	395333	88855
24.003	23.989	1,1,1,2-TETRACHLOROE		0.0080	190	37
24.089	24.089	CHLOROBENZENE		0.0000	0	0
24.765	24.765	BROMOFORM		0.0000	0	0
25.156	25.201	1,1,2,2-TETRACHLOROE		0.0214	309	54
25.382	25.382	1,2,3-TRICHLOROPROPA		0.0000	0	0
25.975	25.975	BROMOBENZENE		0.0000	0	0
26.367	26.367	2-CHLOROTOLUENE		0.0000	0	0
26.471	26.471	4-CHLOROTOLUENE		0.0000	0	0
27.419	27.391	1,3-DICHLOROBENZENE		0.0186	196	42
27.511	27.486	1,4-DICHLOROBENZENE		0.0231	372	57
28.007	27.981	1,2-DICHLOROBENZENE		0.0198	564	44
28.675	28.675	1,2-DIBROMO-3-CHLORO		0.0000	0	0
29.301	29.279	SURR-1B4CB-H		24.8570	182607	33095
31.054	31.015	1,2,4-TRICHLOROBENZE		0.0646	907	100
31.671	31.632	HEXACHLOROBUTADIENE		0.0507	963	96
32.007	31.966	1,2,3-TRICHLOROBENZE		0.0842	1260	100
		TOTAL 1,2-DICHLOROETHENE:		**0.3939**		

DW097 7-17-98

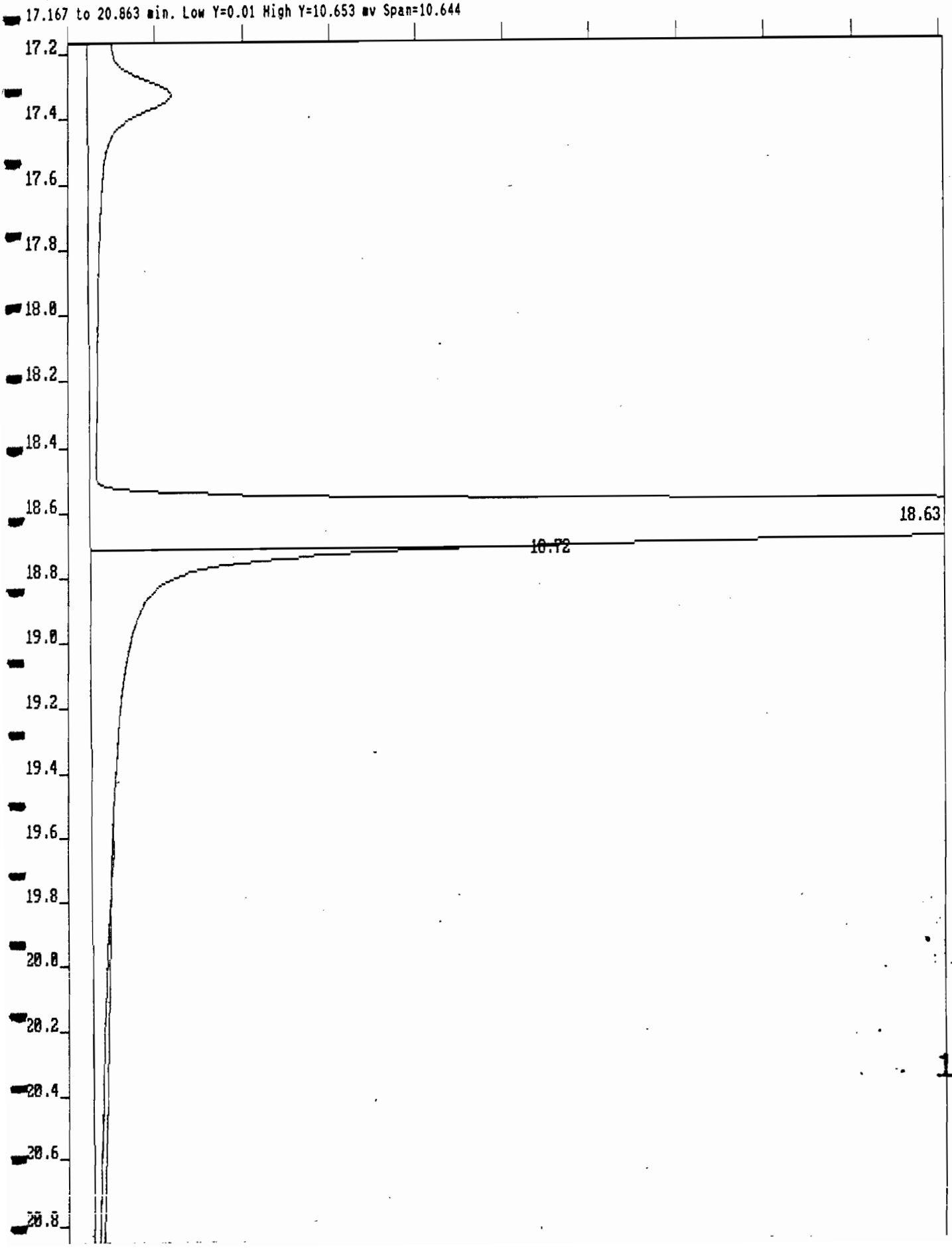
100

* Amounts in ug/L for water samples, ug/kg for solid samples.

Surrogate Recovery: BrClBenzene 82.8567%

Chrom Perfect version 6.07 Reported on 07-16-1998at 03:48:12

File=C:\CP\DATA1\18196.18R Date printed=07-16-1998 Time= 04:49:20
Sample Name=2961813 98196A188404
17.167 to 20.863 min. Low Y=0.01 High Y=10.653 mv Span=10.644



Sample Name: **2961813**
Batch: 98196A18 Date Taken: Jul 16, 1998 02:30:42
Raw File: C:\CP\DATA1\18196.18R
Area File: C:\CP\DATA1\18196.18R
Method File: C:\CP\DATA1\Z8194.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18HALL
Peak Width: .04 Dil. Factor: 1 Analyst: 215
Threshold: -3 Calculation: EXTERNALStd using peak heights

Measured a less-than value for $BrCl_2Me$.

T > 115
7-16-98

Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 24):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
4.010	3.924	DICHLORODIFLUOROMETH	0.2064	1635	124
4.098	4.098	CHLOROMETHANE	0.0000	0	0
4.413	4.413	VINYL CHLORIDE	0.0000	0	0
4.912	4.912	BROMOMETHANE	0.0000	0	0
5.118	5.118	CHLOROETHANE	0.0000	0	0
6.035	6.018	TRICHLOROFLUOROMETHA	0.0463	458	48
6.967	6.967	1,1-DICHLOROETHENE	0.0000	0	0
7.270	7.289	METHYLENE CHLORIDE	0.2912	4926	805
7.440	7.464	TRICHLOROTRIFLUOROET	0.6034	28377	663
8.864	8.854	TRANS-1,2-DICHLOROET	0.0964	5286	222
9.521	9.524	1,1-DICHLOROETHANE	12.4332	245361	25714
11.375	11.370	CIS-1,2-DICHLOROETHE	0.2990	5736	581
11.909	11.909	BROMOCHLOROMETHANE	0.0000	0	0
12.175	12.169	CHLOROFORM	0.0442	1338	107
12.416	12.416	2,2-DICHLOROPROPANE	0.0000	0	0
14.581	14.581	1,2-DICHLOROETHANE	0.0000	0	0
14.890	14.885	1,1,1-TRICHLOROETHAN	59.8020	1245724	115437
15.651	15.651	1,1-DICHLOROPROPENE	0.0000	0	0
16.152	16.166	CARBON TETRACHLORIDE	0.2043	22625	468
18.311	18.311	DIBROMOMETHANE	0.0000	0	0
18.472	18.472	1,2-DICHLOROPROPANE	0.0000	0	0
18.631	18.621	TRICHLOROETHENE	11.2168	204861	34348
18.717	18.726	BROMODICHLOROMETHANE	< 2.0 ~~1.9329~~	52490	5177
20.052	20.052	2-CHLOROETHYL VINYL	0.0000	0	0
20.395	20.395	CIS-1,3-DICHLOROPROP	0.0000	0	0
21.317	21.317	TRANS-1,3-DICHLOROPR	0.0000	0	0
21.556	21.541	1,1,2-TRICHLOROETHAN	0.1069	1436	355
21.987	21.987	1,3-DICHLOROPROPANE	0.0000	0	0
22.366	22.366	DIBROMOCHLOROMETHANE	0.0000	0	0
22.761	22.761	1,2-DIBROMOETHANE	0.0000	0	0
23.084	23.077	TETRACHLOROETHENE	21.3761	397240	88855
24.103	24.103	CHLOROBENZENE	0.0000	0	0
24.779	24.779	BROMOFORM	0.0000	0	0
25.215	25.215	1,1,2,2-TETRACHLOROE	0.0000	0	0
25.396	25.396	1,2,3-TRICHLOROPROPA	0.0000	0	0
25.990	25.990	BROMOBENZENE	0.0000	0	0
26.383	26.383	2-CHLOROTOLUENE	0.0000	0	0
26.487	26.487	4-CHLOROTOLUENE	0.0000	0	0
27.419	27.410	1,3-DICHLOROBENZENE	0.0186	196	42
27.511	27.503	1,4-DICHLOROBENZENE	0.0231	372	57
28.007	28.003	1,2-DICHLOROBENZENE	0.0198	564	44
28.699	28.699	1,2-DIBROMO-3-CHLORO	0.0000	0	0
29.301	29.301	SURR-1B4CB-H	24.8570	183237	33095
31.054	31.048	1,2,4-TRICHLOROBENZE	0.0632	723	98
31.671	31.664	HEXACHLOROBUTADIENE	0.0459	768	87
32.007	32.002	1,2,3-TRICHLOROBENZE	0.0784	1007	93

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TOTAL 1,2-DICHLOROETHENE: 0.3954

* Amounts in ug/L for water samples, ug/kg for solid samples.

Surrogate Recovery: BrClBenzene 82.8567%

Chrom Perfect version 6.07 Reported on 07-16-1998at 04:52:07

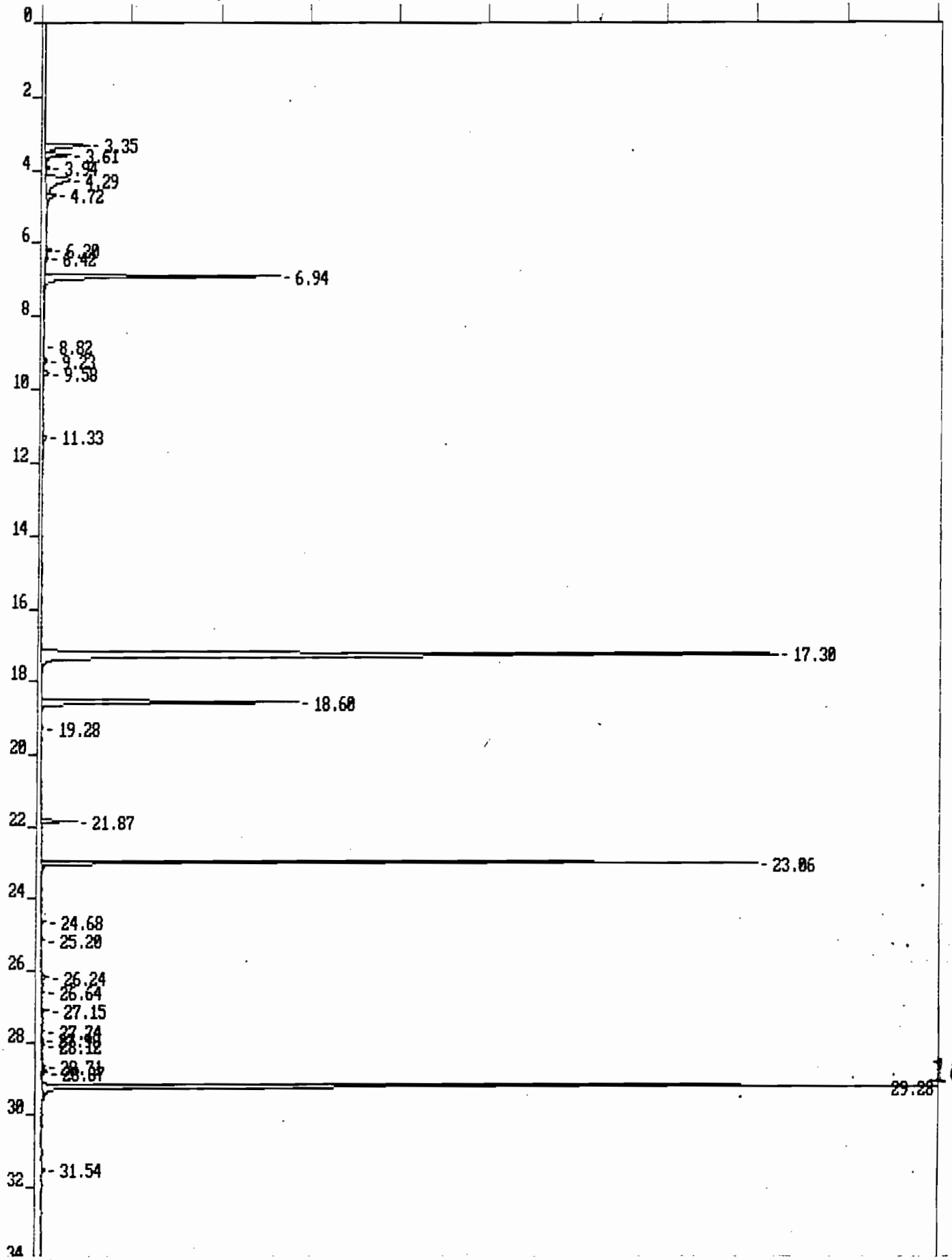
Sample name: **2961813** Batch: 98196A188404

Raw file: C:\CP\DATA1\18196.18R

Reviewed by: [signature] Verified by: [signature]

Date: 7-16-98 Date: 7/21/98

File=C:\CP\DATA1\18196B.1BR Date printed=07-16-1998 Time= 03:48:25
Sample Name=2961813 98196A188404
0.0 to 34.0 min. Low Y=0.0 High Y=15.0 mv Span=15.0



Sample Name: **2961813**
Batch: 98196A18 Date Taken: Jul 16, 1998 02:30:42
Raw File: C:\CP\DATA1\18196B.18R
Area File: C:\CP\DATA1\18196B.18A
Method File: C:\CP\DATA1\Z8194B.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18PID
Peak width: .04 Dil. factor: 1 Analyst: 215
Threshold: 0 Calculation: INTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\PZ8194.CAL(version 27):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
4.287	4.382	VINYL CHLORIDE	4.0375	5556	417
6.940	6.923	1,1-DICHLOROETHENE	17.2861	20783	3926
8.816	8.806	TRANS-1,2-DICHLOROET	0.0413	149	22
9.227	9.201	METHYL T-BUTYL ETHER	0.3903	503	62
11.330	11.320	CIS-1,2-DICHLOROETHE	0.3103	466	69
15.603	15.603	1,1-DICHLOROPROPENE	0.0000	0	0
16.337	16.337	BENZENE	0.0000	0	0
17.304	17.281	ISTD-FBENZENE	1.0000	82875	12277
18.602	18.583	TRICHLOROETHENE	10.3415	20930	4282
20.015	20.015	2-CHLOROETHYL VINYL	0.0000	0	0
20.358	20.358	CIS-1,3-DICHLOROPROP	0.0000	0	0
21.281	21.281	TRANS-1,3-DICHLOROPR	0.0000	0	0
21.869	21.847	TOLUENE	0.5679	1950	604
23.059	23.039	TETRACHLOROETHENE	22.7480	34956	11969
24.065	24.065	CHLOROBENZENE	0.0000	0	0
24.386	24.386	ETHYLBENZENE	0.0000	0	0
24.683	24.663	M,P-XYLENE	0.0816	382	95
25.089	25.089	STYRENE	0.0000	0	0
25.203	25.180	O-XYLENE	0.0466	135	57
25.658	25.658	ISOPROPYLBENZENE	0.0000	0	0
25.947	25.947	BROMOBENZENE	0.0000	0	0
26.236	26.231	N-PROPYLBENZENE	0.1160	446	119
26.343	26.343	2-CHLOROTOLUENE	0.0000	0	0
26.447	26.447	4-CHLOROTOLUENE	0.0000	0	0
26.637	26.616	1,3,5-TRIMETHYLBENZE	0.0344	143	51
26.980	26.980	TERT-BUTYLBENZENE	0.0000	0	0
27.153	27.129	1,2,4-TRIMETHYLBENZE	0.1106	392	124
27.270	27.270	SEC-BUTYLBENZENE	0.0000	0	0
27.366	27.366	1,3-DICHLOROBENZENE	0.0000	0	0
27.461	27.461	1,4-DICHLOROBENZENE	0.0000	0	0
27.517	27.517	P-ISOPROPYLTOLUENE	0.0000	0	0
27.977	27.956	1,2-DICHLOROBENZENE	0.0447	130	37
28.120	28.084	N-BUTYLBENZENE	0.0539	130	40
29.275	29.250	SURR-1B4CB-P	24.7542	72562	23522
30.990	30.990	1,2,4-TRICHLOROBENZE	0.0000	0	0
31.543	31.513	NAPHTHALENE	0.1381	412	58
31.605	31.605	HEXACHLOROBUTADIENE	0.0000	0	0
31.939	31.939	1,2,3-TRICHLOROBENZE	0.0000	0	0
	XYLENES (Total):		**0.1282**		

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 82.5141%
Chrom Perfect version 6.07 Reported on 07-16-1998at 03:51:25

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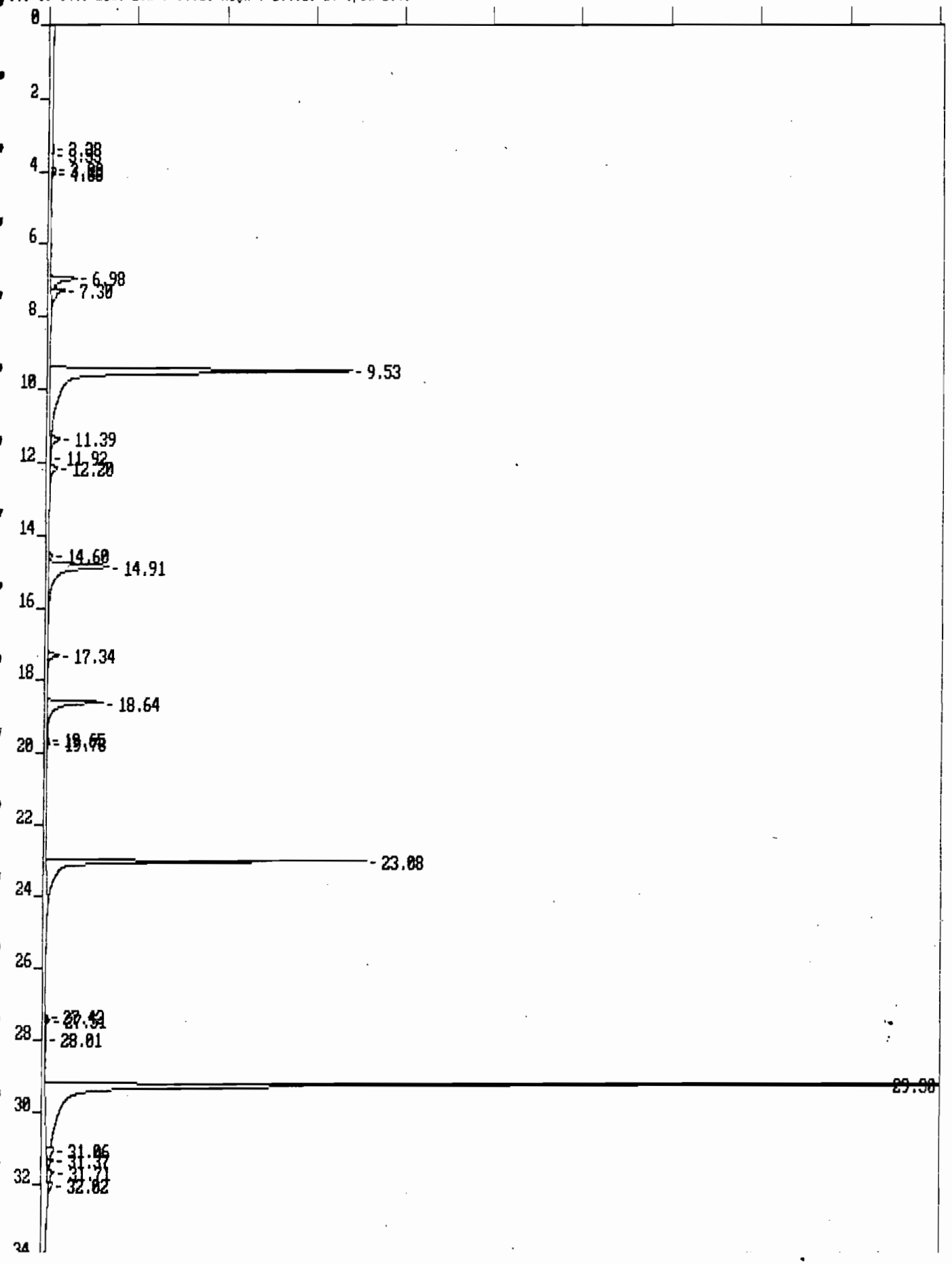
Internal Standard Calculations From ISTDCHK v. 950609.1130
IStd height for ISTD-FBENZENE is within range.
IStd range: 9,325 - 13,987 (80% - 120% of midpoint 11,656)
Used initial calibration files to determine range.

Sample name: 2961813 Batch: 98196A188404
Raw file: C:\CP\DATA1\18196B.18R

Reviewed by: [signature] Verified by: [signature]

Date: 7-16-98 Date: 7/16/98

File=C:\CP\DATA1\18196.19R Date printed=07-16-1998 Time= 03:51:48
Sample Name=2961814 98196A188404
0.0 to 34.0 min. Low Y=0.026 High Y=25.026 mv Span=25.0



Sample Name: **2961814**
Batch: 98196A18 Date Taken: Jul 16, 1998 03:11:05
Raw File: C:\CP\DATA1\18196.19R
Area File: C:\CP\DATA1\18196.19A
Method File: C:\CP\DATA1\Z8194.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18HALL
Peak Width: .04 Dil. Factor: 1 Analyst: 215
Threshold: -3 Calculation: EXTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 23):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
3.977	3.915	DICHLORODIFLUOROMETH	0.1869	775	113
4.082	4.087	CHLOROMETHANE	0.2010	850	106
4.408	4.408	VINYL CHLORIDE	0.0000	0	0
4.898	4.898	BROMOMETHANE	0.0000	0	0
5.103	5.103	CHLOROETHANE	0.0000	0	0
6.002	6.002	TRICHLOROFLUOROMETHA	0.0000	0	0
6.976	6.953	1,1-DICHLOROETHENE	0.4592	6267	756
7.296	7.271	METHYLENE CHLORIDE	0.1459	4837	404
7.449	7.449	TRICHLOROTRIFLUOROET	0.0000	0	0
8.833	8.833	TRANS-1,2-DICHLOROET	0.0000	0	0
9.534	9.505	1,1-DICHLOROETHANE	4.0722	90816	8422
11.393	11.346	CIS-1,2-DICHLOROETHE	0.1193	2359	232
11.918	11.884	BROMOCHLOROMETHANE	0.0118	126	16
12.197	12.149	CHLOROFORM	0.0805	2292	196
12.392	12.392	2,2-DICHLOROPROPANE	0.0000	0	0
14.600	14.560	1,2-DICHLOROETHANE	0.0547	808	102
14.910	14.869	1,1,1-TRICHLOROETHAN	0.8824	23578	1703
15.633	15.633	1,1-DICHLOROPROPENE	0.0000	0	0
16.152	16.152	CARBON TETRACHLORIDE	0.0000	0	0
18.298	18.298	DIBROMOMETHANE	0.0000	0	0
18.459	18.459	1,2-DICHLOROPROPANE	0.0000	0	0
18.640	18.611	TRICHLOROETHENE	0.5204	14520	1593
18.715	18.715	BROMODICHLOROMETHANE	0.0000	0	0
20.041	20.041	2-CHLOROETHYL VINYL	0.0000	0	0
20.385	20.385	CIS-1,3-DICHLOROPROP	0.0000	0	0
21.306	21.306	TRANS-1,3-DICHLOROPR	0.0000	0	0
21.530	21.530	1,1,2-TRICHLOROETHAN	0.0000	0	0
21.974	21.974	1,3-DICHLOROPROPANE	0.0000	0	0
22.353	22.353	DIBROMOCHLOROMETHANE	0.0000	0	0
22.749	22.749	1,2-DIBROMOETHANE	0.0000	0	0
23.081	23.063	TETRACHLOROETHENE	2.1496	47248	8935
23.989	23.989	1,1,1,2-TETRACHLOROE	0.0000	0	0
24.089	24.089	CHLOROBENZENE	0.0000	0	0
24.765	24.765	BROMOFORM	0.0000	0	0
25.201	25.201	1,1,2,2-TETRACHLOROE	0.0000	0	0
25.382	25.382	1,2,3-TRICHLOROPROPA	0.0000	0	0
25.975	25.975	BROMOBENZENE	0.0000	0	0
26.367	26.367	2-CHLOROTOLUENE	0.0000	0	0
26.471	26.471	4-CHLOROTOLUENE	0.0000	0	0
27.416	27.391	1,3-DICHLOROBENZENE	0.0387	353	87
27.510	27.486	1,4-DICHLOROBENZENE	0.0564	1020	140
28.006	27.981	1,2-DICHLOROBENZENE	0.0132	278	29
28.675	28.675	1,2-DIBROMO-3-CHLORO	0.0000	0	0
29.303	29.279	SURR-1B4CB-H	25.5909	185817	34072
31.060	31.015	1,2,4-TRICHLOROBENZE	0.1285	3020	198
31.709	31.632	HEXACHLOROBUTADIENE	0.0951	2125	181
32.023	31.966	1,2,3-TRICHLOROBENZE	0.1027	1564	122
	TOTAL 1,2-DICHLOROETHENE:		**0.1193**		

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 85.3030%
Chrom Perfect version 6.07 Reported on 07-16-1998at 03:54:36

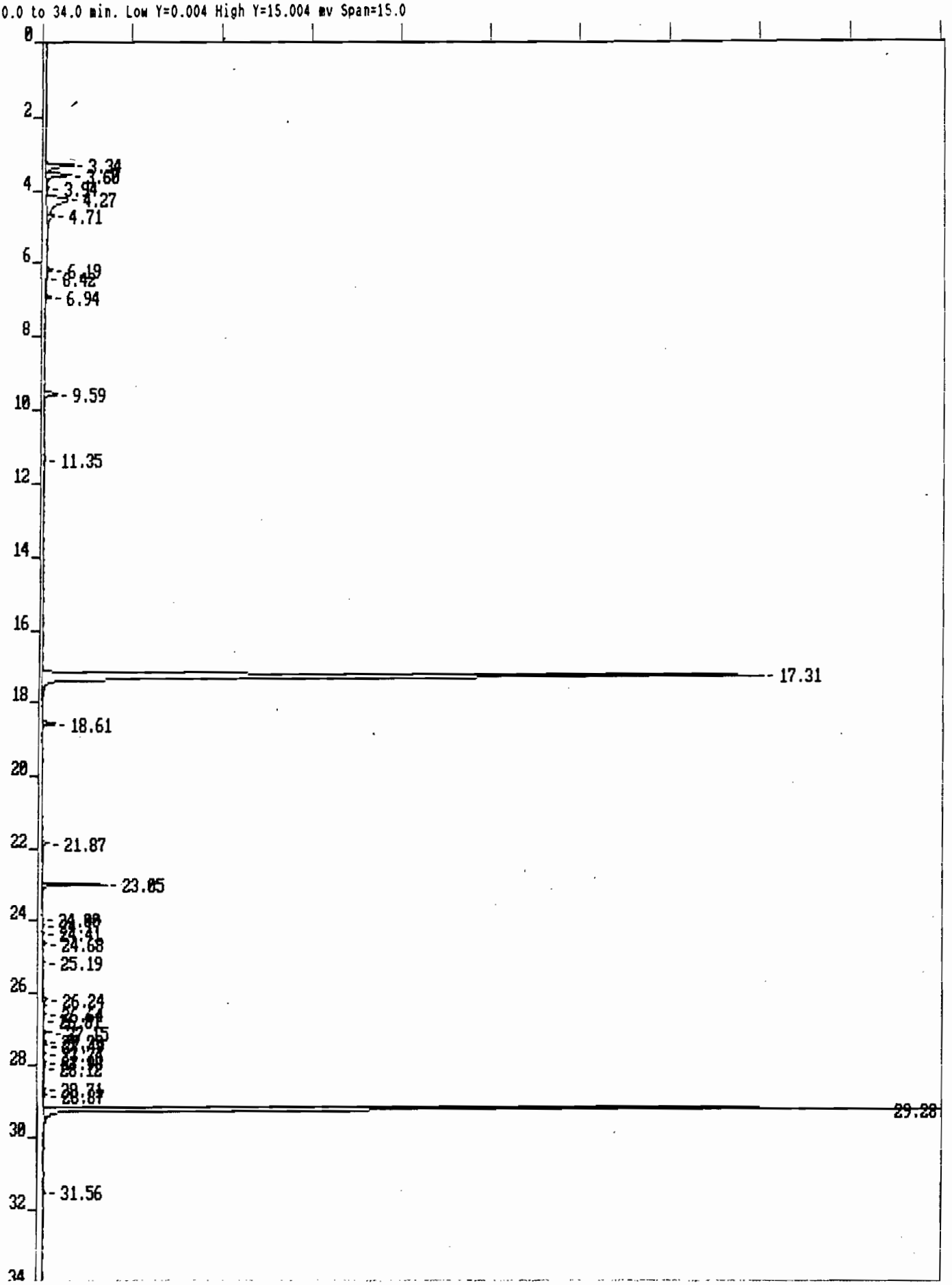
Sample name: **2961814** Batch: 98196A188404

Raw file: C:\CP\DATA1\18196.19R

Reviewed by: [signature] Verified by: [signature]

Date: 7-16-98 Date: [signature]

File=C:\CP\DATA1\18196B.19R Date printed=07-16-1998 Time= 03:54:49
Sample Name=2961814 98196A188404
0.0 to 34.0 min. Low Y=0.004 High Y=15.004 mv Span=15.0



Sample Name: **2961814**
Batch: 98196A18 Date Taken: Jul 16, 1998 03:11:05
Raw File: C:\CP\DATA1\18196B.19R
Area File: C:\CP\DATA1\18196B.19A
Method File: C:\CP\DATA1\Z8194B.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18PID
Peak width: .04 Dil. factor: 1 Analyst: 215
Threshold: 0 Calculation: INTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\PZ8194.CAL(version 27):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
4.273	4.382	VINYL CHLORIDE	3.5837	5257	362
6.937	6.923	1,1-DICHLOROETHENE	0.5031	695	112
8.806	8.806	TRANS-1,2-DICHLOROET	0.0000	0	0
9.201	9.201	METHYL T-BUTYL ETHER	0.0000	0	0
11.350	11.320	CIS-1,2-DICHLOROETHE	0.1499	174	33
15.603	15.603	1,1-DICHLOROPROPENE	0.0000	0	0
16.337	16.337	BENZENE	0.0000	0	0
17.312	17.281	ISTD-FBENZENE	1.0000	81936	12009
18.606	18.583	TRICHLOROETHENE	0.5579	1141	226
20.015	20.015	2-CHLOROETHYL VINYL	0.0000	0	0
20.358	20.358	CIS-1,3-DICHLOROPROP	0.0000	0	0
21.281	21.281	TRANS-1,3-DICHLOROPR	0.0000	0	0
21.867	21.847	TOLUENE	0.1185	442	123
23.055	23.039	TETRACHLOROETHENE	2.1219	3567	1092
24.004	24.065	CHLOROBENZENE	0.0234	129	31
24.405	24.386	ETHYLBENZENE	0.0429	142	48
24.676	24.663	M,P-XYLENE	0.0732	316	83
25.089	25.089	STYRENE	0.0000	0	0
25.194	25.180	O-XYLENE	0.0379	124	45
25.658	25.658	ISOPROPYLBENZENE	0.0000	0	0
25.947	25.947	BROMOBENZENE	0.0000	0	0
26.236	26.231	N-PROPYLBENZENE	0.0784	314	79
26.343	26.343	2-CHLOROTOLUENE	0.0000	0	0
26.447	26.447	4-CHLOROTOLUENE	0.0000	0	0
26.637	26.616	1,3,5-TRIMETHYLBENZE	0.0362	153	52
26.980	26.980	TERT-BUTYLBENZENE	0.0000	0	0
27.150	27.129	1,2,4-TRIMETHYLBENZE	0.1253	535	138
27.270	27.270	SEC-BUTYLBENZENE	0.0000	0	0
27.391	27.366	1,3-DICHLOROBENZENE	0.0525	164	56
27.485	27.461	1,4-DICHLOROBENZENE	0.0717	310	77
27.517	27.517	P-ISOPROPYLTOLUENE	0.0000	0	0
27.976	27.956	1,2-DICHLOROBENZENE	0.0567	181	46
28.120	28.084	N-BUTYLBENZENE	0.0546	159	39
29.276	29.250	SURR-1B4CB-P	26.6711	76655	24791
30.990	30.990	1,2,4-TRICHLOROBENZE	0.0000	0	0
31.556	31.513	NAPHTHALENE	0.1049	327	43
31.605	31.605	HEXACHLOROBUTADIENE	0.0000	0	0
31.939	31.939	1,2,3-TRICHLOROBENZE	0.0000	0	0
		XYLENES (Total):	**0.1111**		

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 88.9038%
Chrom Perfect version 6.07 Reported on 07-16-1998at 03:57:45

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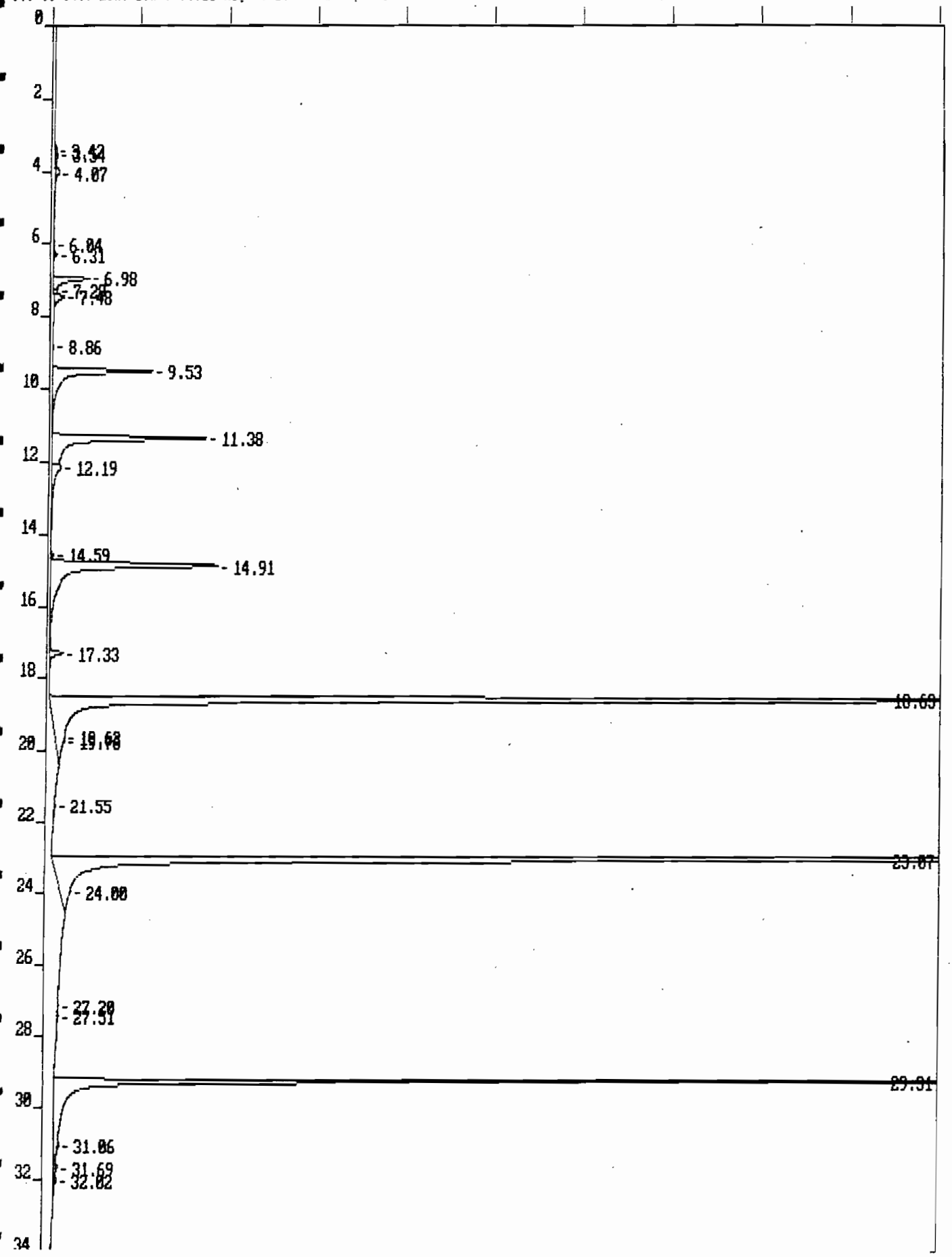
Internal Standard Calculations From ISTDCHK v. 950609.1130
IStd height for ISTD-FBENZENE is within range.
IStd range: 9,325 - 13,987 (80% - 120% of midpoint 11,656)
Used initial calibration files to determine range.

Sample name: **2961814** Batch: 98196A188404
Raw file: C:\CP\DATA1\18196B.19R

Reviewed by: WBLS Verified by: 7/21/98

Date: 7-16-98 Date:

File=C:\CP\DATA1\18196.20R Date printed=07-16-1998 Time= 03:58:09
Sample Name=2961815 98196A188404
0.0 to 34.0 min. Low Y=0.021 High Y=25.021 mv Span=25.0



Sample Name: **2961815**
Batch: 98196A18 Date Taken: Jul 16, 1998 03:51:24
Raw File: C:\CP\DATA1\18196.20R
Area File: C:\CP\DATA1\18196.20A
Method File: C:\CP\DATA1\Z8194.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18HALL
Peak Width: .04 Dil. Factor: 1 Analyst: 215
Threshold: -3 Calculation: EXTERNALStd using peak heights

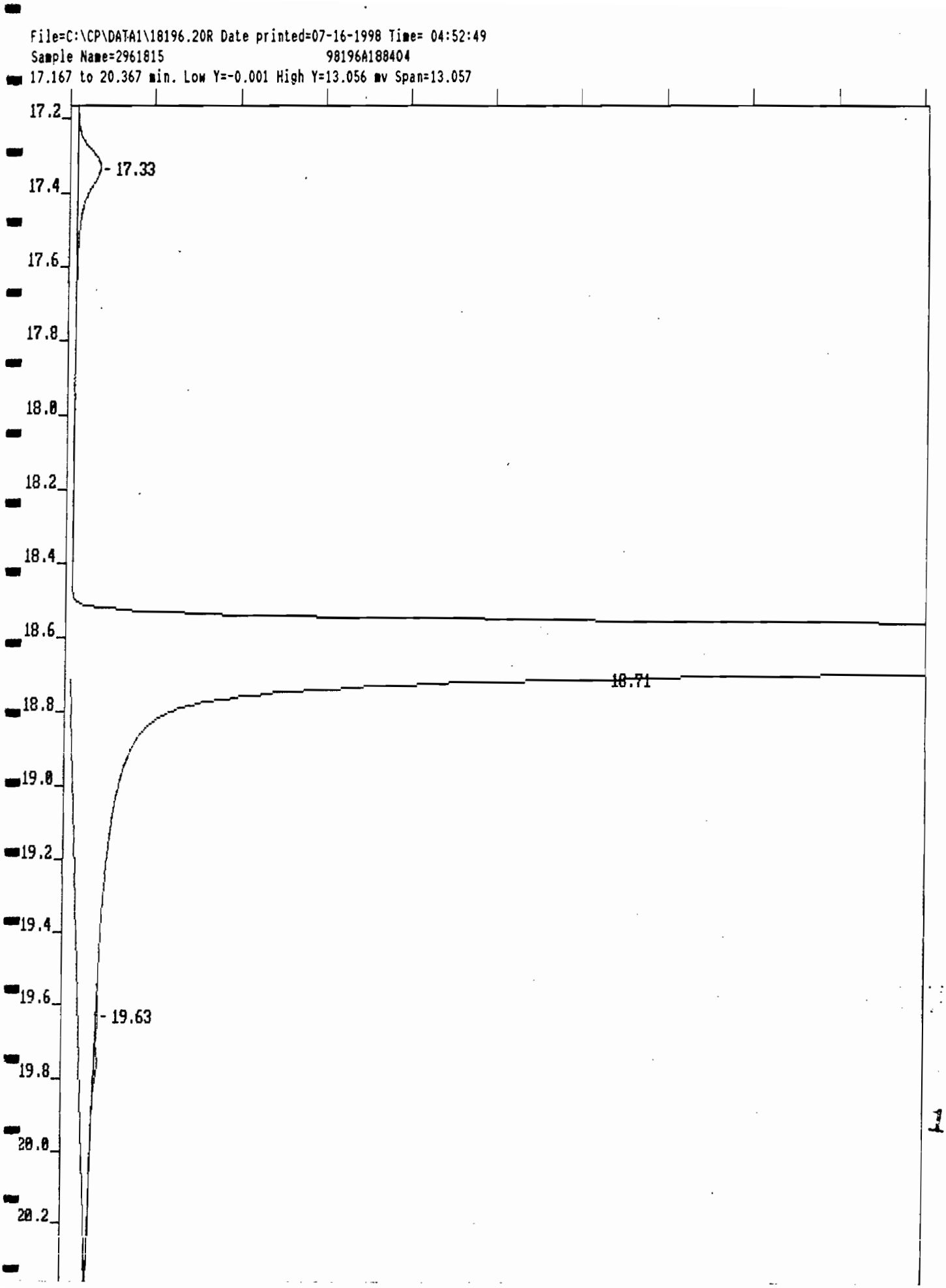
Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 23):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)		Peak Area	Peak Height
3.915	3.915	DICHLORODIFLUOROMETH	0.0000		0	0
4.070	4.087	CHLOROMETHANE	0.2456		2041	130
4.408	4.408	VINYL CHLORIDE	0.0000		0	0
4.898	4.898	BROMOMETHANE	0.0000		0	0
5.103	5.103	CHLOROETHANE	0.0000		0	0
6.037	6.002	TRICHLOROFLUOROMETHA	0.0277		261	29
6.978	6.953	1,1-DICHLOROETHENE	0.6288		8712	1035
7.290	7.271	METHYLENE CHLORIDE	0.0449		752	124
7.476	7.449	TRICHLOROTRIFLUOROET	0.2720		3565	299
8.863	8.833	TRANS-1,2-DICHLOROET	0.0142		269	33
9.533	9.505	1,1-DICHLOROETHANE	1.3746		32401	2843
11.378	11.346	CIS-1,2-DICHLOROETHE	2.2263		46828	4328
11.884	11.884	BROMOCHLOROMETHANE	0.0000		0	0
12.187	12.149	CHLOROFORM	0.1106		7207	269
12.392	12.392	2,2-DICHLOROPROPANE	0.0000		0	0
14.591	14.560	1,2-DICHLOROETHANE	0.0420		599	79
14.909	14.869	1,1,1-TRICHLOROETHAN	2.4316		62909	4694
15.633	15.633	1,1-DICHLOROPROPENE	0.0000		0	0
16.152	16.152	CARBON TETRACHLORIDE	0.0000		0	0
18.298	18.298	DIBROMOMETHANE	0.0000		0	0
18.459	18.459	1,2-DICHLOROPROPANE	0.0000		0	0
18.626	18.611	TRICHLOROETHENE	18.7234		366494	57335
18.715	18.715	BROMODICHLOROMETHANE	< 5.0 ~~0.0000~~	→ 11 → 15 7-16-98	0	0
20.041	20.041	2-CHLOROETHYL VINYL	0.0000		0	0
20.385	20.385	CIS-1,3-DICHLOROPROP	0.0000		0	0
21.306	21.306	TRANS-1,3-DICHLOROPR	0.0000		0	0
21.552	21.530	1,1,2-TRICHLOROETHAN	0.0088		178	29
21.974	21.974	1,3-DICHLOROPROPANE	0.0000		0	0
22.353	22.353	DIBROMOCHLOROMETHANE	0.0000		0	0
22.749	22.749	1,2-DIBROMOETHANE	0.0000		0	0
23.075	23.063	TETRACHLOROETHENE	51.3340		888004	213383
23.998	23.989	1,1,1,2-TETRACHLOROE	0.0114		235	53
24.089	24.089	CHLOROBENZENE	0.0000		0	0
24.765	24.765	BROMOFORM	0.0000		0	0
25.201	25.201	1,1,2,2-TETRACHLOROE	0.0000		0	0
25.382	25.382	1,2,3-TRICHLOROPROPA	0.0000		0	0
25.975	25.975	BROMOBENZENE	0.0000		0	0
26.367	26.367	2-CHLOROTOLUENE	0.0000		0	0
26.471	26.471	4-CHLOROTOLUENE	0.0000		0	0
27.391	27.391	1,3-DICHLOROBENZENE	0.0000		0	0
27.510	27.486	1,4-DICHLOROBENZENE	0.0164		370	41
27.981	27.981	1,2-DICHLOROBENZENE	0.0000		0	0
28.675	28.675	1,2-DIBROMO-3-CHLORO	0.0000		0	0
29.305	29.279	SURR-1B4CB-H	25.3991		178351	33816
31.056	31.015	1,2,4-TRICHLOROBENZE	0.0369		505	57
31.695	31.632	HEXACHLOROBUTADIENE	0.0329		569	63
32.020	31.966	1,2,3-TRICHLOROBENZE	0.0494		630	59
	TOTAL 1,2-DICHLOROETHENE:		**2.2405**			

* Amounts in ug/L for water samples, ug/kg for solid samples.

Surrogate Recovery: BrClBenzene 84.6637%

Chrom Perfect version 6.07 Reported on 07-16-1998at 04:00:58


File=C:\CP\DATA1\18196.20R Date printed=07-16-1998 Time= 04:52:49
Sample Name=2961815 98196A188404
17.167 to 20.367 min. Low Y=-0.001 High Y=13.056 mv Span=13.057
17.2
17.4
17.6
17.8
18.0
18.2
18.4
18.6
18.8
19.0
19.2
19.4
19.6
19.8
20.0
20.2
17.33
18.71
19.63

Sample Name: **2961815**
Batch: 98196A18 Date Taken: Jul 16, 1998 03:51:24
Raw File: C:\CP\DATA1\18196.20R
Area File: C:\CP\DATA1\18196.20R
Method File: C:\CP\DATA1\Z8194.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18HALL
Peak Width: .04 Dil. Factor: 1 Analyst: 215
Threshold: -3 Calculation: EXTERNALStd using peak heights

Measured a less-than value for $BrCl_2Me$.

LS 7-16-98

Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 24):

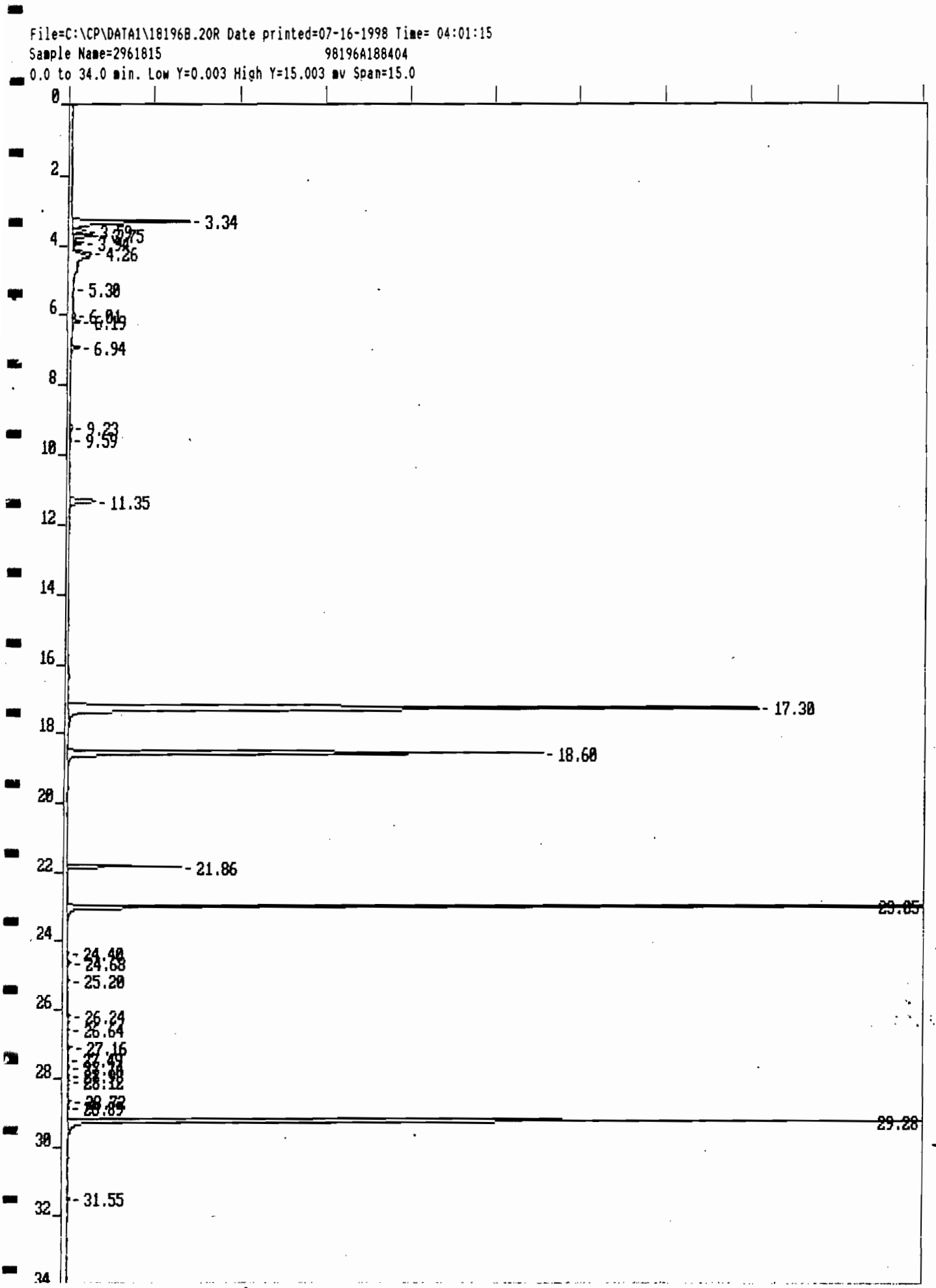
Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
3.924	3.924	DICHLORODIFLUOROMETH	0.0000	0	0
4.070	4.098	CHLOROMETHANE	0.2456	2041	130
4.413	4.413	VINYL CHLORIDE	0.0000	0	0
4.912	4.912	BROMOMETHANE	0.0000	0	0
5.118	5.118	CHLOROETHANE	0.0000	0	0
6.037	6.018	TRICHLOROFLUOROMETHA	0.0277	261	29
6.978	6.967	1,1-DICHLOROETHENE	0.6288	8712	1035
7.290	7.289	METHYLENE CHLORIDE	0.0449	752	124
7.476	7.464	TRICHLOROTRIFLUOROET	0.2720	3565	299
8.863	8.854	TRANS-1,2-DICHLOROET	0.0142	269	33
9.533	9.524	1,1-DICHLOROETHANE	1.3746	32401	2843
11.378	11.370	CIS-1,2-DICHLOROETHE	2.2263	46828	4328
11.909	11.909	BROMOCHLOROMETHANE	0.0000	0	0
12.187	12.169	CHLOROFORM	0.1106	7207	269
12.416	12.416	2,2-DICHLOROPROPANE	0.0000	0	0
14.591	14.581	1,2-DICHLOROETHANE	0.0420	599	79
14.909	14.885	1,1,1-TRICHLOROETHAN	2.4316	62909	4694
15.651	15.651	1,1-DICHLOROPROPENE	0.0000	0	0
16.166	16.166	CARBON TETRACHLORIDE	0.0000	0	0
18.311	18.311	DIBROMOMETHANE	0.0000	0	0
18.472	18.472	1,2-DICHLOROPROPANE	0.0000	0	0
18.621	18.621	TRICHLOROETHENE	0.0000	0	0
18.713	18.726	BROMODICHLOROMETHANE	< 5.0 ~~2.9862~~	53506	7998
20.052	20.052	2-CHLOROETHYL VINYL	0.0000	0	0
20.395	20.395	CIS-1,3-DICHLOROPROP	0.0000	0	0
21.317	21.317	TRANS-1,3-DICHLOROPR	0.0000	0	0
21.552	21.541	1,1,2-TRICHLOROETHAN	0.0088	178	29
21.987	21.987	1,3-DICHLOROPROPANE	0.0000	0	0
22.366	22.366	DIBROMOCHLOROMETHANE	0.0000	0	0
22.761	22.761	1,2-DIBROMOETHANE	0.0000	0	0
23.075	23.077	TETRACHLOROETHENE	51.3340	888253	213383
24.000	24.000	1,1,1,2-TETRACHLOROE	0.0000	0	0
24.103	24.103	CHLOROBENZENE	0.0000	0	0
24.779	24.779	BROMOFORM	0.0000	0	0
25.215	25.215	1,1,2,2-TETRACHLOROE	0.0000	0	0
25.396	25.396	1,2,3-TRICHLOROPROPA	0.0000	0	0
25.990	25.990	BROMOBENZENE	0.0000	0	0
26.383	26.383	2-CHLOROTOLUENE	0.0000	0	0
26.487	26.487	4-CHLOROTOLUENE	0.0000	0	0
27.410	27.410	1,3-DICHLOROBENZENE	0.0000	0	0
27.510	27.503	1,4-DICHLOROBENZENE	0.0164	370	41
28.003	28.003	1,2-DICHLOROBENZENE	0.0000	0	0
28.699	28.699	1,2-DIBROMO-3-CHLORO	0.0000	0	0
29.305	29.301	SURR-1B4CB-H	25.3991	178925	33816
31.056	31.048	1,2,4-TRICHLOROBENZE	0.0356	261	55
31.695	31.664	HEXACHLOROBUTADIENE	0.0280	390	53
32.020	32.002	1,2,3-TRICHLOROBENZE	0.0441	478	52
		TOTAL 1,2-DICHLOROETHENE:	2.2405		

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 84.6637%
Chrom Perfect version 6.07 Reported on 07-16-1998at 05:01:01

Sample name: **2961815** Batch: 98196A188404
Raw file: C:\CP\DATA1\18196.20R

Reviewed by: TBS Verified by: BW

Date: 7-16-98 Date: 7/21/98


File=C:\CP\DATA1\18196B.20R Date printed=07-16-1998 Time= 04:01:15
Sample Name=2961815 98196A188404
0.0 to 34.0 min. Low Y=0.003 High Y=15.003 mv Span=15.0
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
3.34
4.26
5.30
6.94
9.23
9.59
11.35
17.30
18.60
21.86
29.05
25.20
29.28
31.55

Sample Name: **2961815**
Batch: 98196A18 Date Taken: Jul 16, 1998 03:51:24
Raw File: C:\CP\DATA1\18196B.20R
Area File: C:\CP\DATA1\18196B.20A
Method File: C:\CP\DATA1\Z8194B.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18PID
Peak width: .04 Dil. factor: 1 Analyst: 215
Threshold: 0 Calculation: INTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\PZ8194.CAL(version 27):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
4.264	4.382	VINYL CHLORIDE	1.6417	1135	168
6.944	6.923	1,1-DICHLOROETHENE	0.7009	977	157
8.806	8.806	TRANS-1,2-DICHLOROET	0.0000	0	0
9.234	9.201	METHYL T-BUTYL ETHER	0.3471	469	55
11.346	11.320	CIS-1,2-DICHLOROETHE	2.1618	3640	474
15.603	15.603	1,1-DICHLOROPROPENE	0.0000	0	0
16.337	16.337	BENZENE	0.0000	0	0
17.302	17.281	ISTD-FBENZENE	1.0000	81889	12104
18.595	18.583	TRICHLOROETHENE	20.4312	40790	8341
20.015	20.015	2-CHLOROETHYL VINYL	0.0000	0	0
20.358	20.358	CIS-1,3-DICHLOROPROP	0.0000	0	0
21.281	21.281	TRANS-1,3-DICHLOROPR	0.0000	0	0
21.860	21.847	TOLUENE	1.9131	6374	2007
23.051	23.039	TETRACHLOROETHENE	57.8336	87916	30000
24.065	24.065	CHLOROBENZENE	0.0000	0	0
24.403	24.386	ETHYLBENZENE	0.0331	125	38
24.677	24.663	M,P-XYLENE	0.0674	267	77
25.089	25.089	STYRENE	0.0000	0	0
25.197	25.180	O-XYLENE	0.0376	123	45
25.658	25.658	ISOPROPYLBENZENE	0.0000	0	0
25.947	25.947	BROMOBENZENE	0.0000	0	0
26.243	26.231	N-PROPYLBENZENE	0.0667	254	68
26.343	26.343	2-CHLOROTOLUENE	0.0000	0	0
26.447	26.447	4-CHLOROTOLUENE	0.0000	0	0
26.637	26.616	1,3,5-TRIMETHYLBENZE	0.0294	121	43
26.980	26.980	TERT-BUTYLBENZENE	0.0000	0	0
27.155	27.129	1,2,4-TRIMETHYLBENZE	0.0889	467	98
27.270	27.270	SEC-BUTYLBENZENE	0.0000	0	0
27.366	27.366	1,3-DICHLOROBENZENE	0.0000	0	0
27.488	27.461	1,4-DICHLOROBENZENE	0.0287	169	31
27.517	27.517	P-ISOPROPYLTOLUENE	0.0000	0	0
27.978	27.956	1,2-DICHLOROBENZENE	0.0438	135	36
28.123	28.084	N-BUTYLBENZENE	0.0524	192	38
29.280	29.250	SURR-1B4CB-P	26.1295	75358	24479
30.990	30.990	1,2,4-TRICHLOROBENZE	0.0000	0	0
31.553	31.513	NAPHTHALENE	0.0956	173	39
31.605	31.605	HEXACHLOROBUTADIENE	0.0000	0	0
31.939	31.939	1,2,3-TRICHLOROBENZE	0.0000	0	0
		XYLENES (Total):	**0.1050**		

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 87.0984%
Chrom Perfect version 6.07 Reported on 07-16-1998at 04:04:07

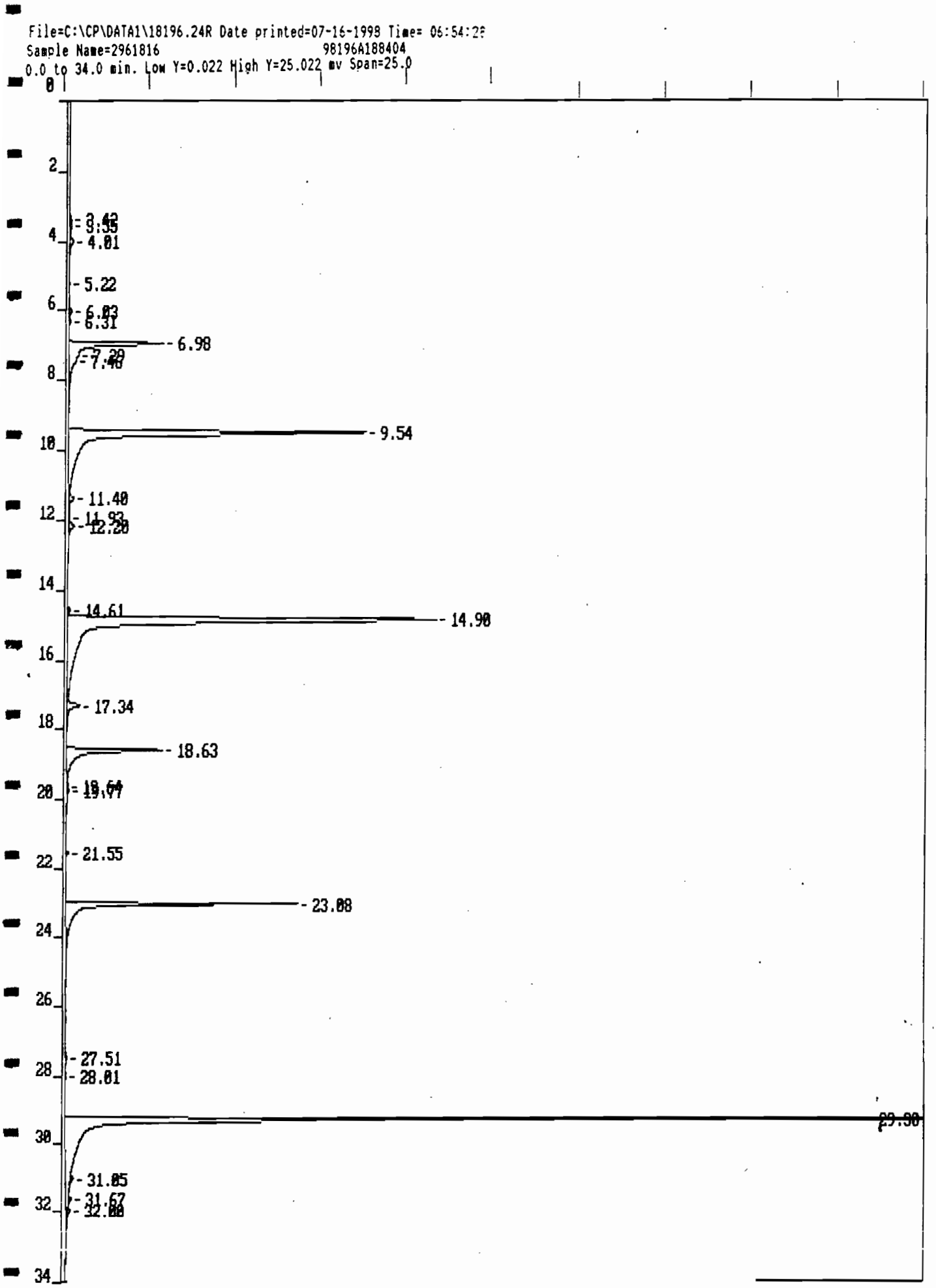
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Internal Standard Calculations From ISTDCHK v. 950609.1130
IStd height for ISTD-FBENZENE is within range.
IStd range: 9,325 - 13,987 (80% - 120% of midpoint 11,656)
Used initial calibration files to determine range.

Sample name: 2961815 Batch: 98196A188404
Raw file: C:\CP\DATA1\18196B.20R

Reviewed by: _____ Verified by: _____

Date: 7-16-98 Date: 7/21/98


File=C:\CP\DATA1\18196.24R Date printed=07-16-1998 Time= 06:54:29
Sample Name=2961816 98196A188404
0.0 to 34.0 min. Low Y=0.022 High Y=25.022 mv Span=25.0
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
4.01
5.22
6.31
6.98
9.54
11.40
14.61
14.98
17.34
18.63
21.55
23.08
27.51
28.01
31.85
31.67

Sample Name: **2961816**
Batch: 98196A18 Date Taken: Jul 16, 1998 06:54:24
Raw File: C:\CP\DATA1\18196.24R
Area File: C:\CP\DATA1\18196.24A
Method File: C:\CP\DATA1\Z8194.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18HALL
Peak Width: .04 Dil. Factor: 1 Analyst: 115
Threshold: -3 Calculation: EXTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 24):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
3.924	3.924	DICHLORODIFLUOROMETH	0.0000	0	0
4.012	4.098	CHLOROMETHANE	~~0.1956~~ RTOff	1445	103
4.413	4.413	VINYL CHLORIDE	0.0000	0	0
4.912	4.912	BROMOMETHANE	0.0000	0	0
5.215	5.118	CHLOROETHANE	0.0127	104	18
6.028	6.018	TRICHLOROFLUOROMETHA	0.0780	755	81
6.977	6.967	1,1-DICHLOROETHENE	1.6830	28126	2772
7.290	7.289	METHYLENE CHLORIDE	0.0120	126	33
7.459	7.464	TRICHLOROTRIFLUOROET	0.0348	288	38
8.854	8.854	TRANS-1,2-DICHLOROET	0.0000	0	0
9.536	9.524	1,1-DICHLOROETHANE	4.1855	87267	8656
11.396	11.370	CIS-1,2-DICHLOROETHE	0.0825	2297	160
11.927	11.909	BROMOCHLOROMETHANE	0.0249	327	34
12.196	12.169	CHLOROFORM	0.0689	1808	167
12.416	12.416	2,2-DICHLOROPROPANE	0.0000	0	0
14.607	14.581	1,2-DICHLOROETHANE	0.0533	748	100
14.904	14.885	1,1,1-TRICHLOROETHAN	5.5668	128831	10746
15.651	15.651	1,1-DICHLOROPROPENE	0.0000	0	0
16.166	16.166	CARBON TETRACHLORIDE	0.0000	0	0
18.311	18.311	DIBROMOMETHANE	0.0000	0	0
18.472	18.472	1,2-DICHLOROPROPANE	0.0000	0	0
18.634	18.621	TRICHLOROETHENE	0.9145	23109	2800
18.726	18.726	BROMODICHLOROMETHANE	0.0000	0	0
20.052	20.052	2-CHLOROETHYL VINYL	0.0000	0	0
20.395	20.395	CIS-1,3-DICHLOROPROP	0.0000	0	0
21.317	21.317	TRANS-1,3-DICHLOROPR	0.0000	0	0
21.550	21.541	1,1,2-TRICHLOROETHAN	0.0226	386	75
21.987	21.987	1,3-DICHLOROPROPANE	0.0000	0	0
22.366	22.366	DIBROMOCHLOROMETHANE	0.0000	0	0
22.761	22.761	1,2-DIBROMOETHANE	0.0000	0	0
23.079	23.077	TETRACHLOROETHENE	1.6212	37931	6739
24.000	24.000	1,1,1,2-TETRACHLOROE	0.0000	0	0
24.103	24.103	CHLOROBENZENE	0.0000	0	0
24.779	24.779	BROMOFORM	0.0000	0	0
25.215	25.215	1,1,2,2-TETRACHLOROE	0.0000	0	0
25.396	25.396	1,2,3-TRICHLOROPROPA	0.0000	0	0
25.990	25.990	BROMOBENZENE	0.0000	0	0
26.383	26.383	2-CHLOROTOLUENE	0.0000	0	0
26.487	26.487	4-CHLOROTOLUENE	0.0000	0	0
27.410	27.410	1,3-DICHLOROBENZENE	0.0000	0	0
27.506	27.503	1,4-DICHLOROBENZENE	0.0201	240	50
28.010	28.003	1,2-DICHLOROBENZENE	0.0097	147	21
28.699	28.699	1,2-DIBROMO-3-CHLORO	0.0000	0	0
29.298	29.301	SURR-1B4CB-H	25.4903	193334	33938
31.053	31.048	1,2,4-TRICHLOROBENZE	0.0527	679	81
31.673	31.664	HEXACHLOROBUTADIENE	0.0428	668	81
32.004	32.002	1,2,3-TRICHLOROBENZE	0.0666	749	79
		TOTAL 1,2-DICHLOROETHENE:	**0.0825**		

DW097 7-17-98

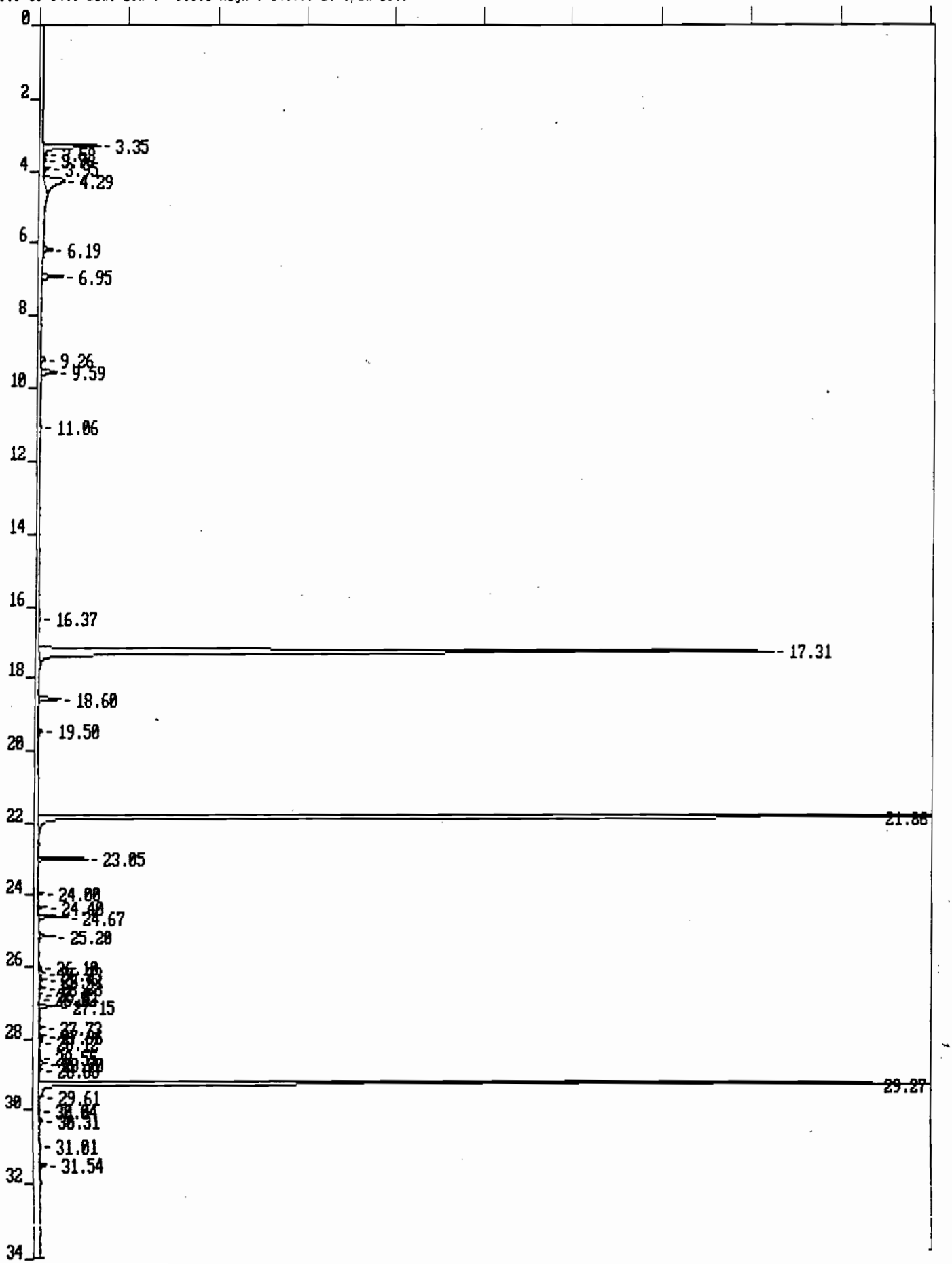
* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 84.9678%
Chrom Perfect version 6.07 Reported on 07-16-1998at 06:56:19

Sample name: **2961816** Batch: 98196A188404
Raw file: C:\CP\DATA1\18196.24R

Reviewed by: _____ Verified by: _____

Date: 7-16-98 Date: 7/21/98

File=C:\CP\DATA1\18196B.24R Date printed=07-16-1998 Time= 06:56:32
Sample Name=2961816 98196A188404
0.0 to 34.0 min. Low Y=-0.001 High Y=14.999 mv Span=15.0



Sample Name: **2961816**
Batch: 98196A18 Date Taken: Jul 16, 1998 06:54:24
Raw File: C:\CP\DATA1\18196B.24R
Area File: C:\CP\DATA1\18196B.24A
Method File: C:\CP\DATA1\Z8194B.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18PID
Peak width: .04 Dil. factor: 1 Analyst: 115
Threshold: 0 Calculation: INTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\PZ8194.CAL(version 28):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
4.291	4.387	VINYL CHLORIDE	3.3431	4674	347
6.946	6.939	1,1-DICHLOROETHENE	1.6349	2051	372
8.824	8.824	TRANS-1,2-DICHLOROET	0.0000	0	0
9.257	9.217	METHYL T-BUTYL ETHER	0.4907	702	79
11.342	11.342	CIS-1,2-DICHLOROETHE	0.0000	0	0
15.621	15.621	1,1-DICHLOROPROPENE	0.0000	0	0
16.373	16.355	BENZENE	0.0654	187	33
17.307	17.300	ISTD-FBENZENE	1.0000	82262	12307
18.602	18.596	TRICHLOROETHENE	0.8996	1831	373
20.025	20.025	2-CHLOROETHYL VINYL	0.0000	0	0
20.369	20.369	CIS-1,3-DICHLOROPROP	0.0000	0	0
21.292	21.292	TRANS-1,3-DICHLOROPR	0.0000	0	0
21.860	21.860	TOLUENE	44.8416	150068	47837
23.051	23.052	TETRACHLOROETHENE	1.5808	2559	834
24.005	24.079	CHLOROBENZENE	~~0.0783~~ not on Hall	358	105
24.404	24.400	ETHYLBENZENE	0.1304	452	150
24.673	24.677	M,P-XYLENE	0.4244	1541	495
25.103	25.103	STYRENE	0.0000	0	0
25.195	25.194	O-XYLENE	0.2326	711	283
25.673	25.673	ISOPROPYLBENZENE	0.0000	0	0
26.096	25.964	BROMOBENZENE	0.0308	115	43
26.232	26.248	N-PROPYLBENZENE	0.1172	451	121
26.405	26.360	2-CHLOROTOLUENE	0.0982	257	112
26.464	26.464	4-CHLOROTOLUENE	0.0000	0	0
26.632	26.633	1,3,5-TRIMETHYLBENZE	0.0820	341	121
26.919	26.998	TERT-BUTYLBENZENE	0.0354	128	27
27.149	27.148	1,2,4-TRIMETHYLBENZE	0.2817	1237	317
27.289	27.289	SEC-BUTYLBENZENE	0.0000	0	0
27.386	27.386	1,3-DICHLOROBENZENE	0.0000	0	0
27.481	27.481	1,4-DICHLOROBENZENE	0.0000	0	0
27.537	27.537	P-ISOPROPYLTOLUENE	0.0000	0	0
27.964	27.978	1,2-DICHLOROBENZENE	0.1444	427	120
28.116	28.106	N-BUTYLBENZENE	0.0815	226	60
29.273	29.276	SURR-1B4CB-P	26.0892	77010	24852
31.013	31.021	1,2,4-TRICHLOROBENZE	0.0570	133	21
31.544	31.548	NAPHTHALENE	0.2706	540	113
31.639	31.639	HEXACHLOROBUTADIENE	0.0000	0	0
31.974	31.974	1,2,3-TRICHLOROBENZE	0.0000	0	0
	XYLENES (Total):		**0.6570**		

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* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 86.9641%
Chrom Perfect version 6.07 Reported on 07-16-1998at 06:59:30

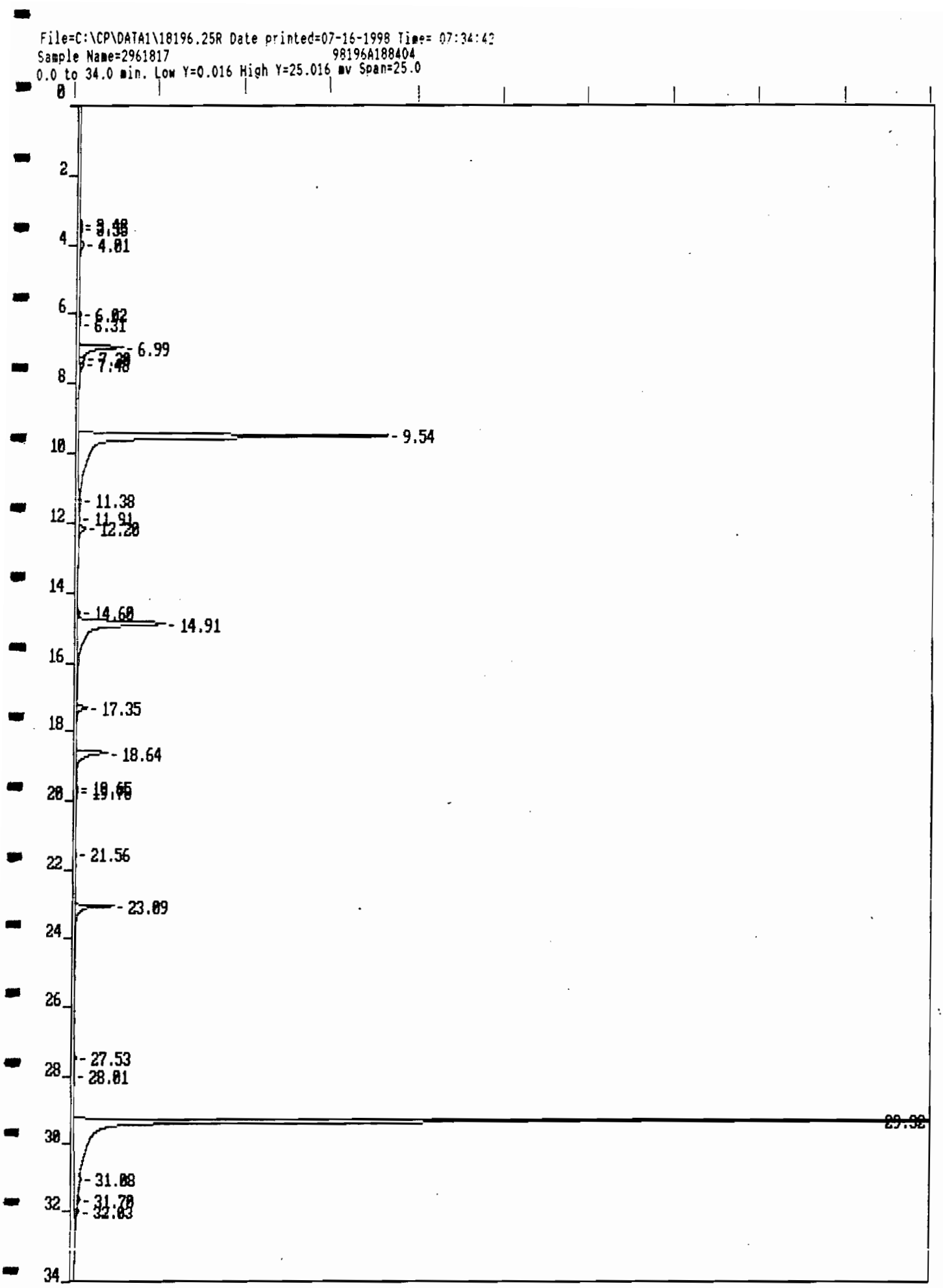
Internal Standard Calculations From ISTDCHK v. 950609.1130
IStd height for ISTD-FBENZENE is within range.
IStd range: 9,325 - 13,987 (80% - 120% of midpoint 11,656)
Used initial calibration files to determine range.

Sample name: **2961816** Batch: 98196A188404

Raw file: C:\CP\DATA1\18196B.24R

Reviewed by: _____ Verified by: _____

Date: 7-16-98 Date: _____


File=C:\CP\DATA1\18196.25R Date printed=07-16-1998 Time= 07:34:42
Sample Name=2961817 98196A188404
0.0 to 34.0 min. Low Y=0.016 High Y=25.016 mv Span=25.0
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
4.01
6.31
6.99
9.54
11.38
11.91
12.28
14.60
14.91
17.35
18.64
21.56
23.09
27.53
28.01
31.08
31.70
32.03

Sample Name: **2961817**
Batch: 98196A18 Date Taken: Jul 16, 1998 07:34:38
Raw File: C:\CP\DATA1\18196.25R
Area File: C:\CP\DATA1\18196.25A
Method File: C:\CP\DATA1\Z8194.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18HALL
Peak Width: .04 Dil. Factor: 1 Analyst: 115
Threshold: -3 Calculation: EXTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 24):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
4.009	3.924	DICHLORODIFLUOROMETH	~~0.1834~~ RToff	1386	110
4.098	4.098	CHLOROMETHANE	0.0000	0	0
4.413	4.413	VINYL CHLORIDE	0.0000	0	0
4.912	4.912	BROMOMETHANE	0.0000	0	0
5.118	5.118	CHLOROETHANE	0.0000	0	0
6.021	6.018	TRICHLOROFLUOROMETHA	0.0486	464	50
6.986	6.967	1,1-DICHLOROETHENE	0.7907	10419	1302
7.298	7.289	METHYLENE CHLORIDE	0.0637	1553	176
7.476	7.464	TRICHLOROTRIFLUOROET	0.1181	1432	130
8.854	8.854	TRANS-1,2-DICHLOROET	0.0000	0	0
9.539	9.524	1,1-DICHLOROETHANE	4.3766	91720	9052
11.384	11.370	CIS-1,2-DICHLOROETHE	0.0407	1299	79
11.911	11.909	BROMOCHLOROMETHANE	0.0226	244	31
12.197	12.169	CHLOROFORM	0.0854	2398	208
12.416	12.416	2,2-DICHLOROPROPANE	0.0000	0	0
14.604	14.581	1,2-DICHLOROETHANE	0.0463	675	87
14.912	14.885	1,1,1-TRICHLOROETHAN	1.3481	35028	2602
15.651	15.651	1,1-DICHLOROPROPENE	0.0000	0	0
16.166	16.166	CARBON TETRACHLORIDE	0.0000	0	0
18.311	18.311	DIBROMOMETHANE	0.0000	0	0
18.472	18.472	1,2-DICHLOROPROPANE	0.0000	0	0
18.644	18.621	TRICHLOROETHENE	0.3064	8845	938
18.726	18.726	BROMODICHLOROMETHANE	0.0000	0	0
20.052	20.052	2-CHLOROETHYL VINYL	0.0000	0	0
20.395	20.395	CIS-1,3-DICHLOROPROP	0.0000	0	0
21.317	21.317	TRANS-1,3-DICHLOROPR	0.0000	0	0
21.565	21.541	1,1,2-TRICHLOROETHAN	0.0098	154	33
21.987	21.987	1,3-DICHLOROPROPANE	0.0000	0	0
22.366	22.366	DIBROMOCHLOROMETHANE	0.0000	0	0
22.761	22.761	1,2-DIBROMOETHANE	0.0000	0	0
23.093	23.077	TETRACHLOROETHENE	0.2698	7505	1122
24.000	24.000	1,1,1,2-TETRACHLOROE	0.0000	0	0
24.103	24.103	CHLOROBENZENE	0.0000	0	0
24.779	24.779	BROMOFORM	0.0000	0	0
25.215	25.215	1,1,2,2-TETRACHLOROE	0.0000	0	0
25.396	25.396	1,2,3-TRICHLOROPROPA	0.0000	0	0
25.990	25.990	BROMOBENZENE	0.0000	0	0
26.383	26.383	2-CHLOROTOLUENE	0.0000	0	0
26.487	26.487	4-CHLOROTOLUENE	0.0000	0	0
27.410	27.410	1,3-DICHLOROBENZENE	0.0000	0	0
27.526	27.503	1,4-DICHLOROBENZENE	0.0282	478	70
28.014	28.003	1,2-DICHLOROBENZENE	0.0112	216	25
28.699	28.699	1,2-DIBROMO-3-CHLORO	0.0000	0	0
29.318	29.301	SURR-1B4CB-H	25.9133	199267	34501
31.075	31.048	1,2,4-TRICHLOROBENZE	0.0433	600	67
31.697	31.664	HEXACHLOROBUTADIENE	0.0347	527	66
32.028	32.002	1,2,3-TRICHLOROBENZE	0.0530	596	63
		TOTAL 1,2-DICHLOROETHENE:	**0.0407**		

DW097 7-17-98

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 86.3775%
Chrom Perfect version 6.07 Reported on 07-16-1998at 07:36:33

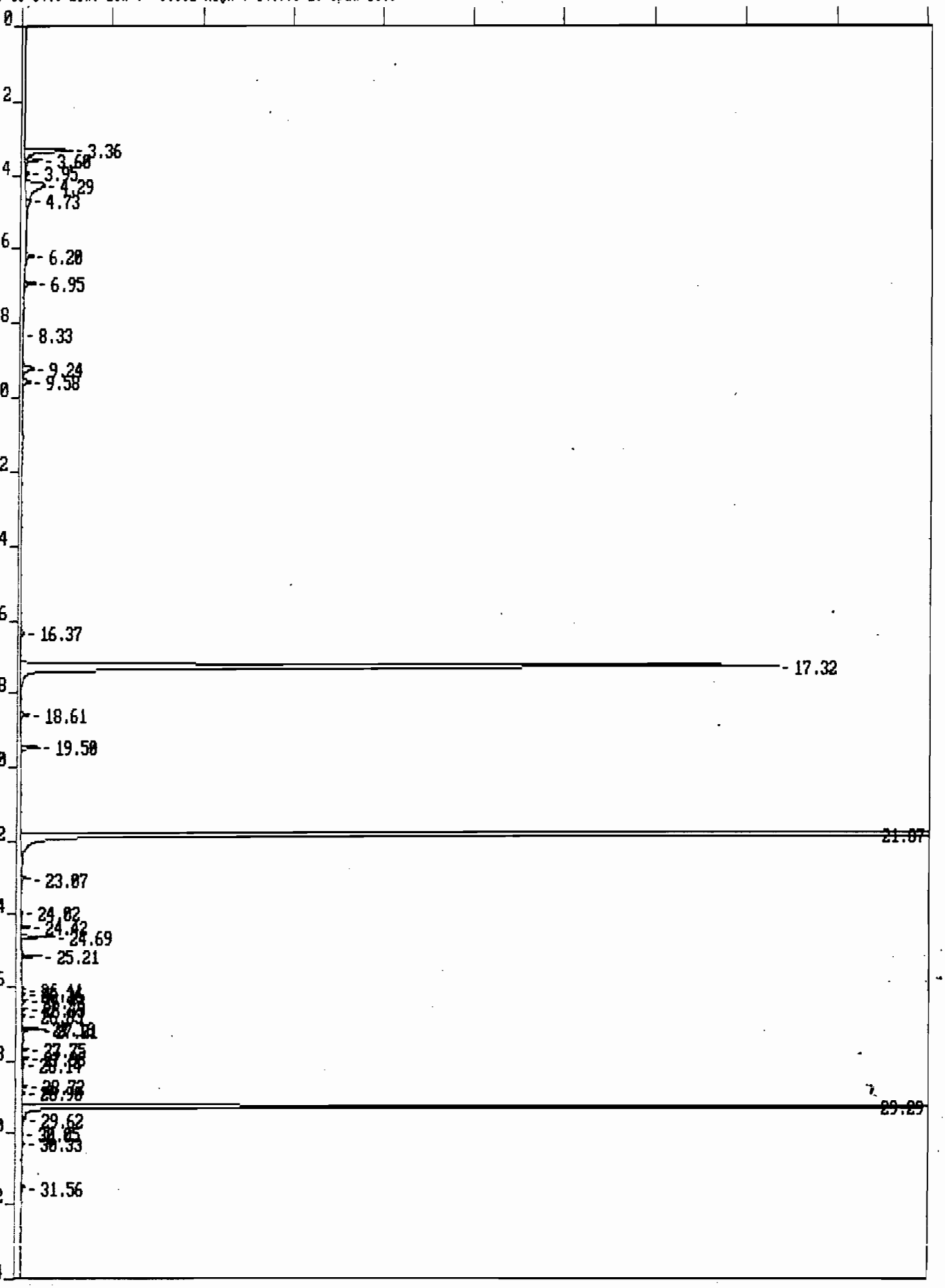
Sample name: **2961817** Batch: 98196A188404

Raw file: C:\CP\DATA1\18196.25R

Reviewed by: GMcD Verified by: [signature]

Date: 7-16-88 Date: [signature]

File=C:\CP\DATA1\18196B.25R Date printed=07-16-1998 Time= 07:36:46
Sample Name=2961817 98196A188404
0.0 to 34.0 min. Low Y=-0.002 High Y=14.998 mv Span=15.0



Sample Name: **2961817**
Batch: 98196A18 Date Taken: Jul 16, 1998 07:34:38
Raw File: C:\CP\DATA1\18196B.25R
Area File: C:\CP\DATA1\18196B.25A
Method File: C:\CP\DATA1\Z8194B.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18PID
Peak width: .04 Dil. factor: 1 Analyst: 115
Threshold: 0 Calculation: INTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\PZ8194.CAL(version 28):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
4.293	4.387	VINYL CHLORIDE	3.0994	5082	326
6.951	6.939	1,1-DICHLOROETHENE	0.7984	1063	184
8.824	8.824	TRANS-1,2-DICHLOROET	0.0000	0	0
9.243	9.217	METHYL T-BUTYL ETHER	1.1743	1685	191
11.342	11.342	CIS-1,2-DICHLOROETHE	0.0000	0	0
15.621	15.621	1,1-DICHLOROPROPENE	0.0000	0	0
16.370	16.355	BENZENE	0.1213	424	62
17.315	17.300	ISTD-FBENZENE	1.0000	84617	12489
18.613	18.596	TRICHLOROETHENE	0.3518	849	148
20.025	20.025	2-CHLOROETHYL VINYL	0.0000	0	0
20.369	20.369	CIS-1,3-DICHLOROPROP	0.0000	0	0
21.292	21.292	TRANS-1,3-DICHLOROPR	0.0000	0	0
21.871	21.860	TOLUENE	101.1653	345236	109517
23.066	23.052	TETRACHLOROETHENE	0.2899	505	155
24.023	24.079	CHLOROBENZENE	0.0290	122	40
24.417	24.400	ETHYLBENZENE	0.1366	452	159
24.687	24.677	M,P-XYLENE	0.4715	1705	558
25.103	25.103	STYRENE	0.0000	0	0
25.209	25.194	O-XYLENE	0.2790	869	345
25.673	25.673	ISOPROPYLBENZENE	0.0000	0	0
26.109	25.964	BROMOBENZENE	0.0521	209	73
26.256	26.248	N-PROPYLBENZENE	0.0684	266	71
26.360	26.360	2-CHLOROTOLUENE	0.0000	0	0
26.422	26.464	4-CHLOROTOLUENE	0.0763	235	95
26.650	26.633	1,3,5-TRIMETHYLBENZE	0.0758	348	114
26.998	26.998	TERT-BUTYLBENZENE	0.0000	0	0
27.164	27.148	1,2,4-TRIMETHYLBENZE	0.2288	648	262
27.289	27.289	SEC-BUTYLBENZENE	0.0000	0	0
27.386	27.386	1,3-DICHLOROBENZENE	0.0000	0	0
27.481	27.481	1,4-DICHLOROBENZENE	0.0000	0	0
27.537	27.537	P-ISOPROPYLTOLUENE	0.0000	0	0
27.980	27.978	1,2-DICHLOROBENZENE	0.1369	424	115
28.139	28.106	N-BUTYLBENZENE	0.0736	192	55
29.291	29.276	SURR-1B4CB-P	26.1015	77822	25231
31.021	31.021	1,2,4-TRICHLOROBENZE	0.0000	0	0
31.564	31.548	NAPHTHALENE	0.2003	506	85
31.639	31.639	HEXACHLOROBUTADIENE	0.0000	0	0
31.974	31.974	1,2,3-TRICHLOROBENZE	0.0000	0	0
		XYLENES (Total):	**0.7505**		

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 87.0050%
Chrom Perfect version 6.07 Reported on 07-16-1998at 07:39:44

Internal Standard Calculations From ISTDCHK v. 950609.1130
IStd height for ISTD-FBENZENE is within range.
IStd range: 9,325 - 13,987 (80% - 120% of midpoint 11,656)
Used initial calibration files to determine range.

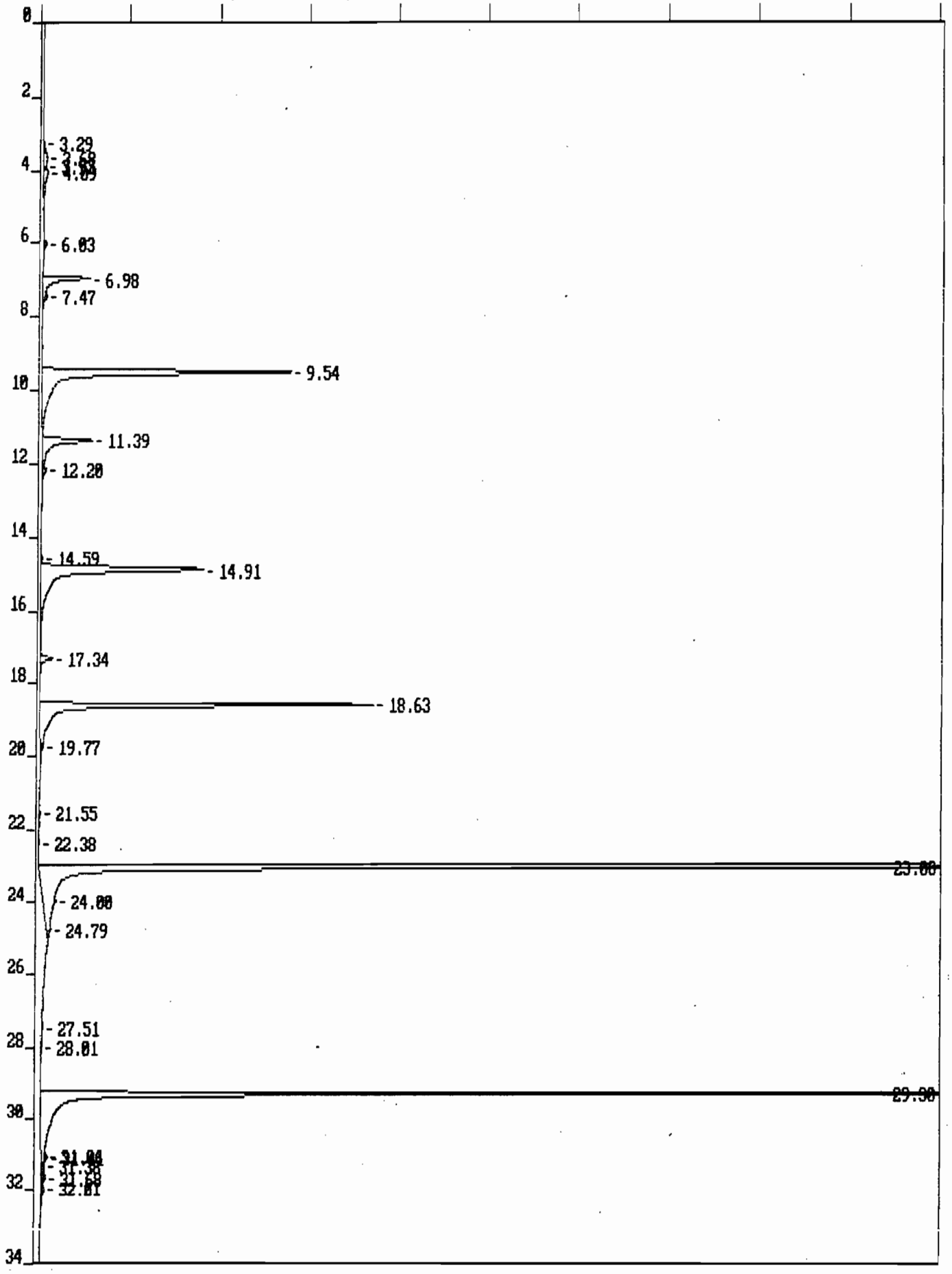
Sample name: **2961817** Batch: 98196A188404

Raw file: C:\CP\DATA1\18196B.25R

Reviewed by: GD/RS Verified by:

Date: 7-16-98 Date:

File=C:\CP\DATA1\18196.26R Date printed=07-16-1998 Time= 08:14:48
Sample Name=2961818 98196A188404
0.0 to 34.0 min. Low Y=0.017 High Y=25.017 mv Span=25.0



Sample Name: **2961818**
Batch: 98196A18 Date Taken: Jul 16, 1998 08:14:44
Raw File: C:\CP\DATA1\18196.26R
Area File: C:\CP\DATA1\18196.26A
Method File: C:\CP\DATA1\Z8194.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18HALL
Peak Width: .04 Dil. Factor: 1 Analyst: 115
Threshold: -3 Calculation: EXTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 24):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
3.925	3.924	DICHLORODIFLUOROMETH	0.1627	382	98
4.094	4.098	CHLOROMETHANE	0.2501	3953	132
4.413	4.413	VINYL CHLORIDE	0.0000	0	0
4.912	4.912	BROMOMETHANE	0.0000	0	0
5.118	5.118	CHLOROETHANE	0.0000	0	0
6.031	6.018	TRICHLOROFLUOROMETHA	0.1077	1042	111
6.979	6.967	1,1-DICHLOROETHENE	0.8207	11773	1352
7.289	7.289	METHYLENE CHLORIDE	0.0000	0	0
7.467	7.464	TRICHLOROTRIFLUOROET	0.0622	550	68
8.854	8.854	TRANS-1,2-DICHLOROET	0.0000	0	0
9.540	9.524	1,1-DICHLOROETHANE	3.3491	71696	6927
11.388	11.370	CIS-1,2-DICHLOROETHE	0.7248	16370	1409
11.909	11.909	BROMOCHLOROMETHANE	0.0000	0	0
12.196	12.169	CHLOROFORM	0.0472	1550	115
12.416	12.416	2,2-DICHLOROPROPANE	0.0000	0	0
14.590	14.581	1,2-DICHLOROETHANE	0.0276	365	52
14.909	14.885	1,1,1-TRICHLOROETHAN	2.3351	58438	4508
15.651	15.651	1,1-DICHLOROPROPENE	0.0000	0	0
16.166	16.166	CARBON TETRACHLORIDE	0.0000	0	0
18.311	18.311	DIBROMOMETHANE	0.0000	0	0
18.472	18.472	1,2-DICHLOROPROPANE	0.0000	0	0
18.635	18.621	TRICHLOROETHENE	3.0302	68412	9279
18.726	18.726	BROMODICHLOROMETHANE	0.0000	0	0
20.052	20.052	2-CHLOROETHYL VINYL	0.0000	0	0
20.395	20.395	CIS-1,3-DICHLOROPROP	0.0000	0	0
21.317	21.317	TRANS-1,3-DICHLOROPR	0.0000	0	0
21.554	21.541	1,1,2-TRICHLOROETHAN	0.0160	282	53
21.987	21.987	1,3-DICHLOROPROPANE	0.0000	0	0
22.377	22.366	DIBROMOCHLOROMETHANE	0.0158	208	35
22.761	22.761	1,2-DIBROMOETHANE	0.0000	0	0
23.079	23.077	TETRACHLOROETHENE	19.4869	358412	81002
24.004	24.000	1,1,1,2-TETRACHLOROE	0.0159	388	74
24.103	24.103	CHLOROBENZENE	0.0000	0	0
24.787	24.779	BROMOFORM	0.0257	245	40
25.215	25.215	1,1,2,2-TETRACHLOROE	0.0000	0	0
25.396	25.396	1,2,3-TRICHLOROPROPA	0.0000	0	0
25.990	25.990	BROMOBENZENE	0.0000	0	0
26.383	26.383	2-CHLOROTOLUENE	0.0000	0	0
26.487	26.487	4-CHLOROTOLUENE	0.0000	0	0
27.410	27.410	1,3-DICHLOROBENZENE	0.0000	0	0
27.514	27.503	1,4-DICHLOROBENZENE	0.0175	394	43
28.010	28.003	1,2-DICHLOROBENZENE	0.0075	179	17
28.699	28.699	1,2-DIBROMO-3-CHLORO	0.0000	0	0
29.302	29.301	SURR-1B4CB-H	23.9345	176422	31866
31.059	31.048	1,2,4-TRICHLOROBENZE	0.0292	157	45
31.679	31.664	HEXACHLOROBUTADIENE	0.0355	748	68
32.012	32.002	1,2,3-TRICHLOROBENZE	0.0494	722	59
		TOTAL 1,2-DICHLOROETHENE:	**0.7248**		

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 79.7817%
Chrom Perfect version 6.07 Reported on 07-16-1998at 08:16:39

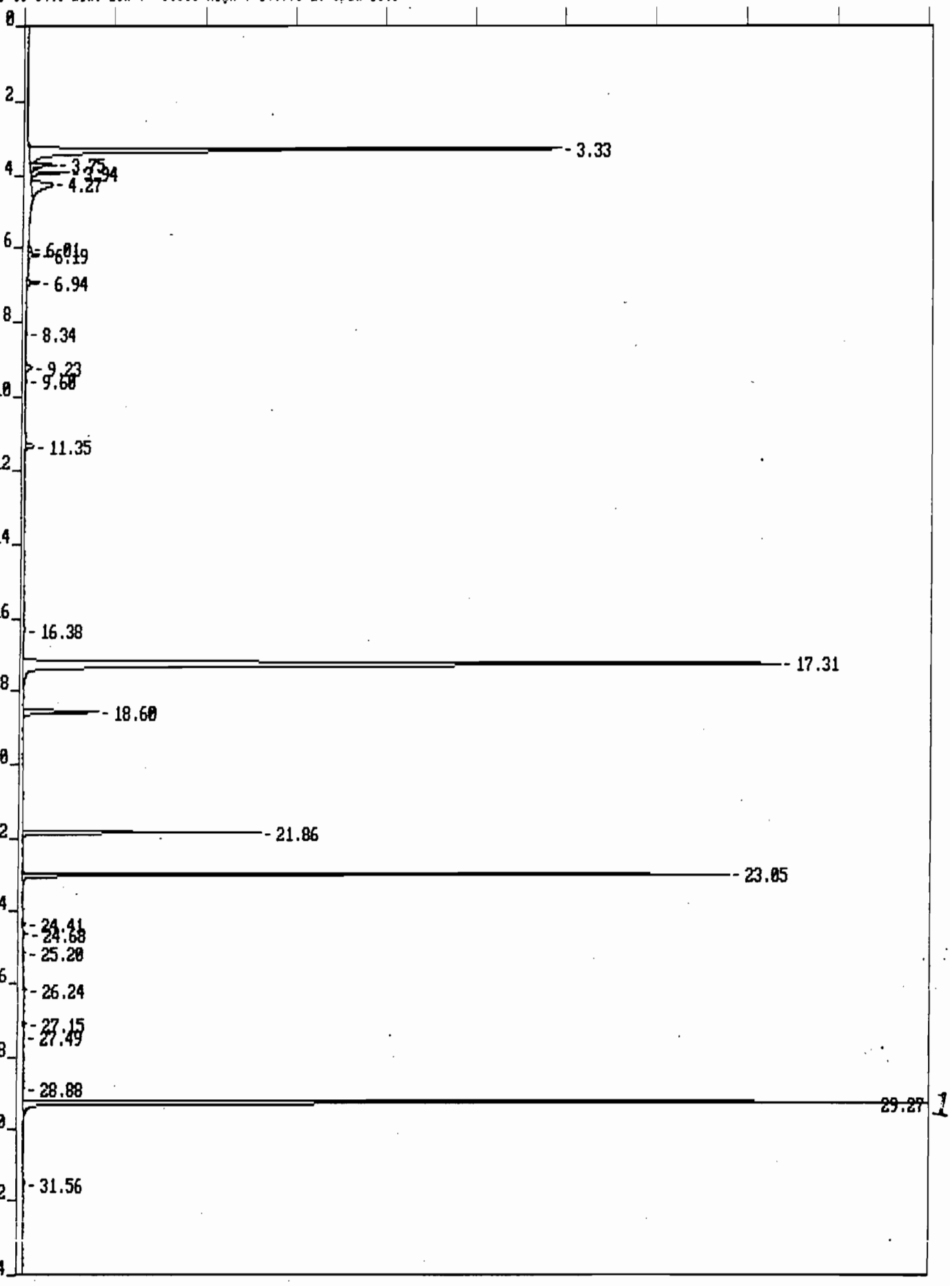
Sample name: **2961818** Batch: 98196A188404

Raw file: C:\CP\DATA1\18196.26R

Reviewed by: GMDS Verified by:

Date: 7-16-98 Date:

File=C:\CP\DATA1\18196B.26R Date printed=07-16-1998 Time= 08:16:51
Sample Name=2961818 98196A188404
0.0 to 34.0 min. Low Y=-0.005 High Y=14.995 mv Span=15.0



Sample Name: **2961818**
Batch: 98196A18 Date Taken: Jul 16, 1998 08:14:44
Raw File: C:\CP\DATA1\18196B.26R
Area File: C:\CP\DATA1\18196B.26A
Method File: C:\CP\DATA1\Z8194B.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18PID
Peak width: .04 Dil. factor: 1 Analyst: 115
Threshold: 0 Calculation: INTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\PZ8194.CAL(version 28):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
4.274	4.387	VINYL CHLORIDE	3.4951	4768	368
6.943	6.939	1,1-DICHLOROETHENE	0.8890	1199	206
8.824	8.824	TRANS-1,2-DICHLOROET	0.0000	0	0
9.233	9.217	METHYL T-BUTYL ETHER	0.6768	969	110
11.350	11.342	CIS-1,2-DICHLOROETHE	0.6702	1126	152
15.621	15.621	1,1-DICHLOROPROPENE	0.0000	0	0
16.377	16.355	BENZENE	0.0674	220	34
17.307	17.300	ISTD-FBENZENE	1.0000	85271	12501
18.603	18.596	TRICHLOROETHENE	2.9852	6170	1259
20.025	20.025	2-CHLOROETHYL VINYL	0.0000	0	0
20.369	20.369	CIS-1,3-DICHLOROPROP	0.0000	0	0
21.292	21.292	TRANS-1,3-DICHLOROPR	0.0000	0	0
21.863	21.860	TOLUENE	3.6128	12470	3915
23.054	23.052	TETRACHLOROETHENE	21.7999	34352	11680
24.079	24.079	CHLOROBENZENE	0.0000	0	0
24.409	24.400	ETHYLBENZENE	0.0496	188	58
24.677	24.677	M,P-XYLENE	0.0749	340	89
25.103	25.103	STYRENE	0.0000	0	0
25.200	25.194	O-XYLENE	0.0439	150	54
25.673	25.673	ISOPROPYLBENZENE	0.0000	0	0
25.964	25.964	BROMOBENZENE	0.0000	0	0
26.236	26.248	N-PROPYLBENZENE	0.0609	246	64
26.360	26.360	2-CHLOROTOLUENE	0.0000	0	0
26.464	26.464	4-CHLOROTOLUENE	0.0000	0	0
26.633	26.633	1,3,5-TRIMETHYLBENZE	0.0000	0	0
26.998	26.998	TERT-BUTYLBENZENE	0.0000	0	0
27.149	27.148	1,2,4-TRIMETHYLBENZE	0.0481	212	55
27.289	27.289	SEC-BUTYLBENZENE	0.0000	0	0
27.386	27.386	1,3-DICHLOROBENZENE	0.0000	0	0
27.485	27.481	1,4-DICHLOROBENZENE	0.0228	104	26
27.537	27.537	P-ISOPROPYLTOLUENE	0.0000	0	0
27.978	27.978	1,2-DICHLOROBENZENE	0.0000	0	0
28.106	28.106	N-BUTYLBENZENE	0.0000	0	0
29.274	29.276	SURR-1B4CB-P	24.4927	73546	23699
31.021	31.021	1,2,4-TRICHLOROBENZE	0.0000	0	0
31.561	31.548	NAPHTHALENE	0.0679	254	29
31.639	31.639	HEXACHLOROBUTADIENE	0.0000	0	0
31.974	31.974	1,2,3-TRICHLOROBENZE	0.0000	0	0
	XYLENES (Total):		**0.1187**		

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 81.6424%
Chrom Perfect version 6.07 Reported on 07-16-1998at 08:19:48

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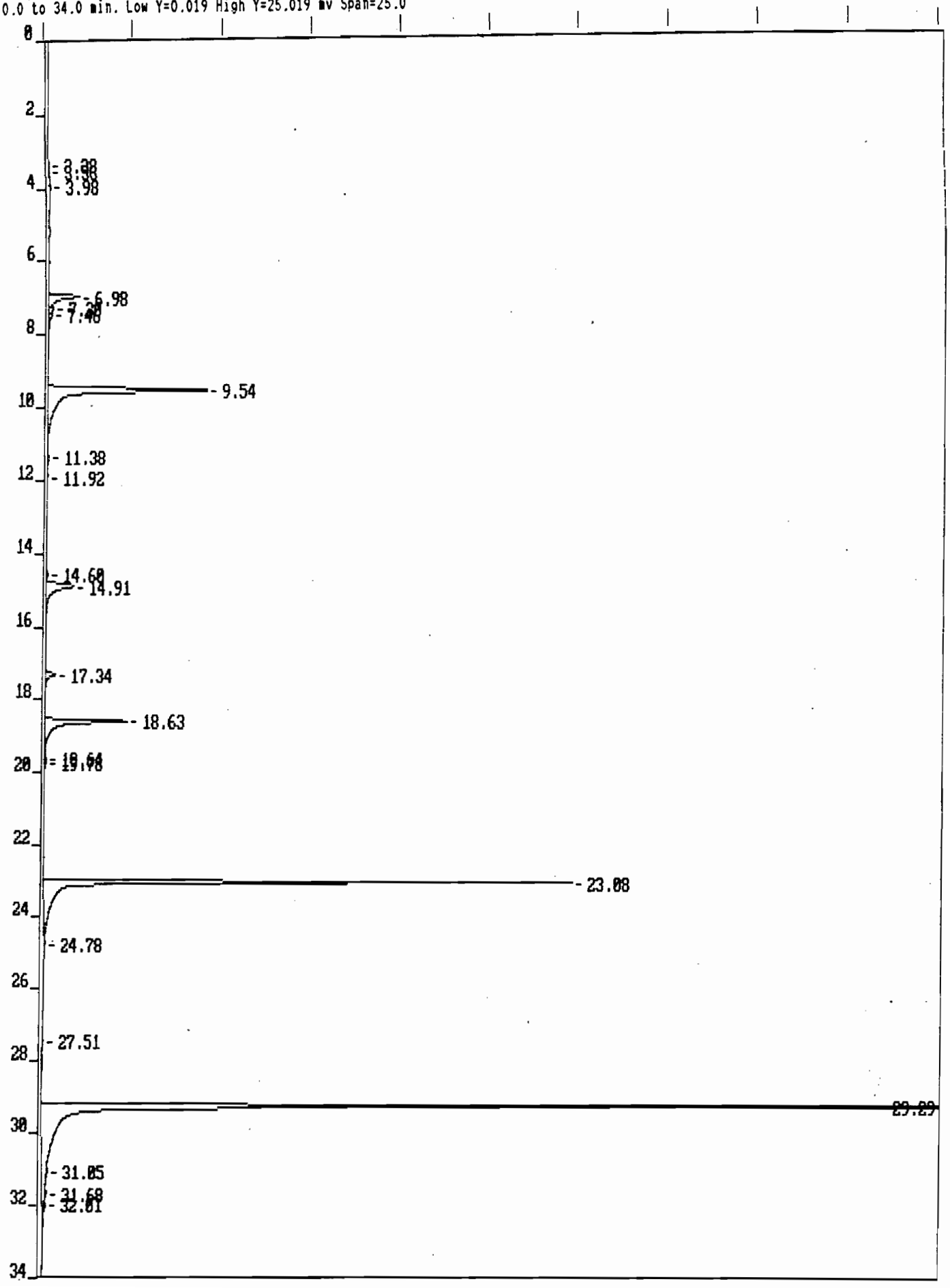
Internal Standard Calculations From ISTDCHK v. 950609.1130
IStd height for ISTD-FBENZENE is within range.
IStd range: 9,325 - 13,987 (80% - 120% of midpoint 11,656)
Used initial calibration files to determine range.

Sample name: **2961818** Batch: 98196A188404
Raw file: C:\CP\DATA1\18196B.26R

Reviewed by: GMLS Verified by:

Date: 7/6/88 Date:

File=C:\CP\DATA1\18196.27R Date printed=07-16-1998 Time= 09:44:15
Sample Name=2961819 98196A1884O4
0.0 to 34.0 min. Low Y=0.019 High Y=25.019 mv Span=25.0



Sample Name: **2961819**
Batch: 98196A18 Date Taken: Jul 16, 1998 08:54:46
Raw File: C:\CP\DATA1\18196.27R
Area File: C:\CP\DATA1\18196.27A
Method File: C:\CP\DATA1\Z8194.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18HALL
Peak Width: .04 Dil. Factor: 1 Analyst: 115
Threshold: -3 Calculation: EXTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 24):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
3.978	3.924	DICHLORODIFLUOROMETH	0.0930	418	56
4.098	4.098	CHLOROMETHANE	0.0000	0	0
4.413	4.413	VINYL CHLORIDE	0.0000	0	0
4.912	4.912	BROMOMETHANE	0.0000	0	0
5.118	5.118	CHLOROETHANE	0.0000	0	0
6.018	6.018	TRICHLOROFLUOROMETHA	0.0000	0	0
6.980	6.967	1,1-DICHLOROETHENE	0.5397	7251	889
7.298	7.289	METHYLENE CHLORIDE	0.0520	1117	144
7.463	7.464	TRICHLOROTRIFLUOROET	0.1042	1359	115
8.854	8.854	TRANS-1,2-DICHLOROET	0.0000	0	0
9.539	9.524	1,1-DICHLOROETHANE	2.1454	48176	4437
11.381	11.370	CIS-1,2-DICHLOROETHE	0.0312	768	61
11.920	11.909	BROMOCHLOROMETHANE	0.0122	156	17
12.169	12.169	CHLOROFORM	0.0000	0	0
12.416	12.416	2,2-DICHLOROPROPANE	0.0000	0	0
14.602	14.581	1,2-DICHLOROETHANE	0.0347	508	65
14.911	14.885	1,1,1-TRICHLOROETHAN	0.4176	10775	806
15.651	15.651	1,1-DICHLOROPROPENE	0.0000	0	0
16.166	16.166	CARBON TETRACHLORIDE	0.0000	0	0
18.311	18.311	DIBROMOMETHANE	0.0000	0	0
18.472	18.472	1,2-DICHLOROPROPANE	0.0000	0	0
18.634	18.621	TRICHLOROETHENE	0.7560	19446	2315
18.726	18.726	BROMODICHLOROMETHANE	0.0000	0	0
20.052	20.052	2-CHLOROETHYL VINYL	0.0000	0	0
20.395	20.395	CIS-1,3-DICHLOROPROP	0.0000	0	0
21.317	21.317	TRANS-1,3-DICHLOROPR	0.0000	0	0
21.541	21.541	1,1,2-TRICHLOROETHAN	0.0000	0	0
21.987	21.987	1,3-DICHLOROPROPANE	0.0000	0	0
22.366	22.366	DIBROMOCHLOROMETHANE	0.0000	0	0
22.761	22.761	1,2-DIBROMOETHANE	0.0000	0	0
23.077	23.077	TETRACHLOROETHENE	3.5469	76163	14744
24.000	24.000	1,1,1,2-TETRACHLOROE	0.0000	0	0
24.103	24.103	CHLOROBENZENE	0.0000	0	0
24.785	24.779	BROMOFORM	0.0148	164	23
25.215	25.215	1,1,2,2-TETRACHLOROE	0.0000	0	0
25.396	25.396	1,2,3-TRICHLOROPROPA	0.0000	0	0
25.990	25.990	BROMOBENZENE	0.0000	0	0
26.383	26.383	2-CHLOROTOLUENE	0.0000	0	0
26.487	26.487	4-CHLOROTOLUENE	0.0000	0	0
27.410	27.410	1,3-DICHLOROBENZENE	0.0000	0	0
27.510	27.503	1,4-DICHLOROBENZENE	0.0112	127	28
28.003	28.003	1,2-DICHLOROBENZENE	0.0000	0	0
28.699	28.699	1,2-DIBROMO-3-CHLORO	0.0000	0	0
29.294	29.301	SURR-1B4CB-H	25.2815	190867	33660
31.053	31.048	1,2,4-TRICHLOROBENZE	0.0335	567	52
31.682	31.664	HEXACHLOROBUTADIENE	0.0294	484	56
32.012	32.002	1,2,3-TRICHLOROBENZE	0.0443	557	53
	TOTAL 1,2-DICHLOROETHENE:		**0.0312**		

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 84.2718%
Chrom Perfect version 6.07 Reported on 07-16-1998at 09:46:07

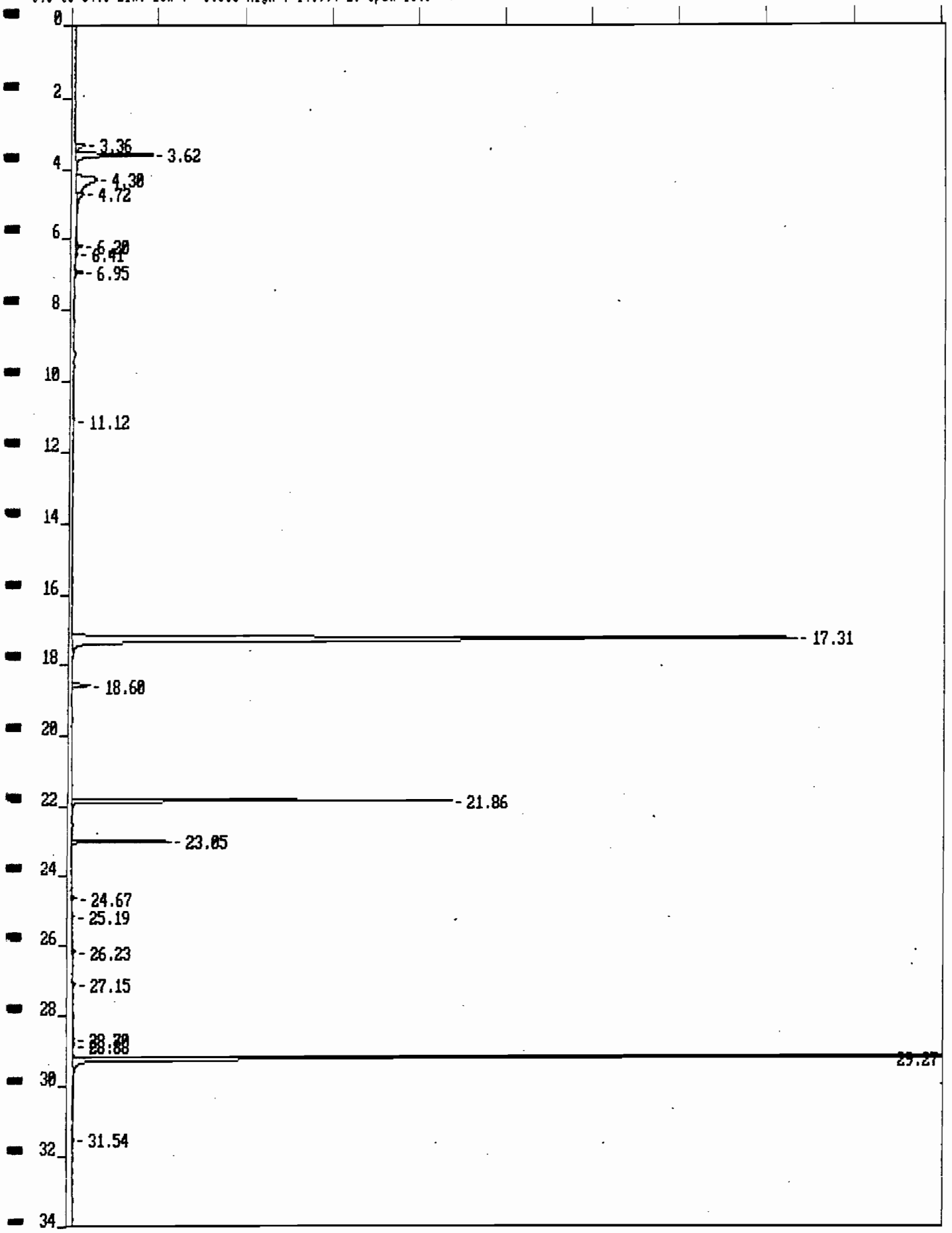
Sample name: 2961819 Batch: 98196A188404

Raw file: C:\CP\DATA1\18196.27R

Reviewed by: GDR215 Verified by: [signature]

Date: 7/16-88 Date: 7/21/88

File=C:\CP\DATA1\18196B.27R Date printed=07-16-1998 Time= 09:46:20
Sample Name=2961819 98196A188404
0.0 to 34.0 min. Low Y=-0.006 High Y=14.994 mv Span=15.0



Sample Name: **2961819**
Batch: 98196A18 Date Taken: Jul 16, 1998 08:54:46
Raw File: C:\CP\DATA1\18196B.27R
Area File: C:\CP\DATA1\18196B.27A
Method File: C:\CP\DATA1\Z8194B.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18PID
Peak width: .04 Dil. factor: 1 Analyst: 115
Threshold: 0 Calculation: INTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\PZ8194.CAL(version 28):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
4.304	4.387	VINYL CHLORIDE	3.5147	5876	369
6.948	6.939	1,1-DICHLOROETHENE	0.5646	626	130
8.824	8.824	TRANS-1,2-DICHLOROET	0.0000	0	0
9.217	9.217	METHYL T-BUTYL ETHER	0.0000	0	0
11.342	11.342	CIS-1,2-DICHLOROETHE	0.0000	0	0
15.621	15.621	1,1-DICHLOROPROPENE	0.0000	0	0
16.355	16.355	BENZENE	0.0000	0	0
17.306	17.300	ISTD-FBENZENE	1.0000	83791	12451
18.603	18.596	TRICHLOROETHENE	0.7746	1589	325
20.025	20.025	2-CHLOROETHYL VINYL	0.0000	0	0
20.369	20.369	CIS-1,3-DICHLOROPROP	0.0000	0	0
21.292	21.292	TRANS-1,3-DICHLOROPR	0.0000	0	0
21.859	21.860	TOLUENE	6.0589	20691	6539
23.051	23.052	TETRACHLOROETHENE	3.2300	5295	1724
24.079	24.079	CHLOROBENZENE	0.0000	0	0
24.400	24.400	ETHYLBENZENE	0.0000	0	0
24.672	24.677	M,P-XYLENE	0.0826	369	97
25.103	25.103	STYRENE	0.0000	0	0
25.190	25.194	O-XYLENE	0.0397	128	49
25.673	25.673	ISOPROPYLBENZENE	0.0000	0	0
25.964	25.964	BROMOBENZENE	0.0000	0	0
26.228	26.248	N-PROPYLBENZENE	0.0593	225	62
26.360	26.360	2-CHLOROTOLUENE	0.0000	0	0
26.464	26.464	4-CHLOROTOLUENE	0.0000	0	0
26.633	26.633	1,3,5-TRIMETHYLBENZE	0.0000	0	0
26.998	26.998	TERT-BUTYLBENZENE	0.0000	0	0
27.146	27.148	1,2,4-TRIMETHYLBENZE	0.0494	299	56
27.289	27.289	SEC-BUTYLBENZENE	0.0000	0	0
27.386	27.386	1,3-DICHLOROBENZENE	0.0000	0	0
27.481	27.481	1,4-DICHLOROBENZENE	0.0000	0	0
27.537	27.537	P-ISOPROPYLTOLUENE	0.0000	0	0
27.978	27.978	1,2-DICHLOROBENZENE	0.0000	0	0
28.106	28.106	N-BUTYLBENZENE	0.0000	0	0
29.268	29.276	SURR-1B4CB-P	25.9495	77303	25008
31.021	31.021	1,2,4-TRICHLOROBENZE	0.0000	0	0
31.543	31.548	NAPHTHALENE	0.0824	288	35
31.639	31.639	HEXACHLOROBUTADIENE	0.0000	0	0
31.974	31.974	1,2,3-TRICHLOROBENZE	0.0000	0	0
		XYLENES (Total):	**0.1223**		

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 86.4985%
Chrom Perfect version 6.07 Reported on 07-16-1998at 09:49:16

Internal Standard Calculations From ISTDCHK v. 950609.1130
IStd height for ISTD-FBENZENE is within range.
IStd range: 9,325 - 13,987 (80% - 120% of midpoint 11,656)
Used initial calibration files to determine range.

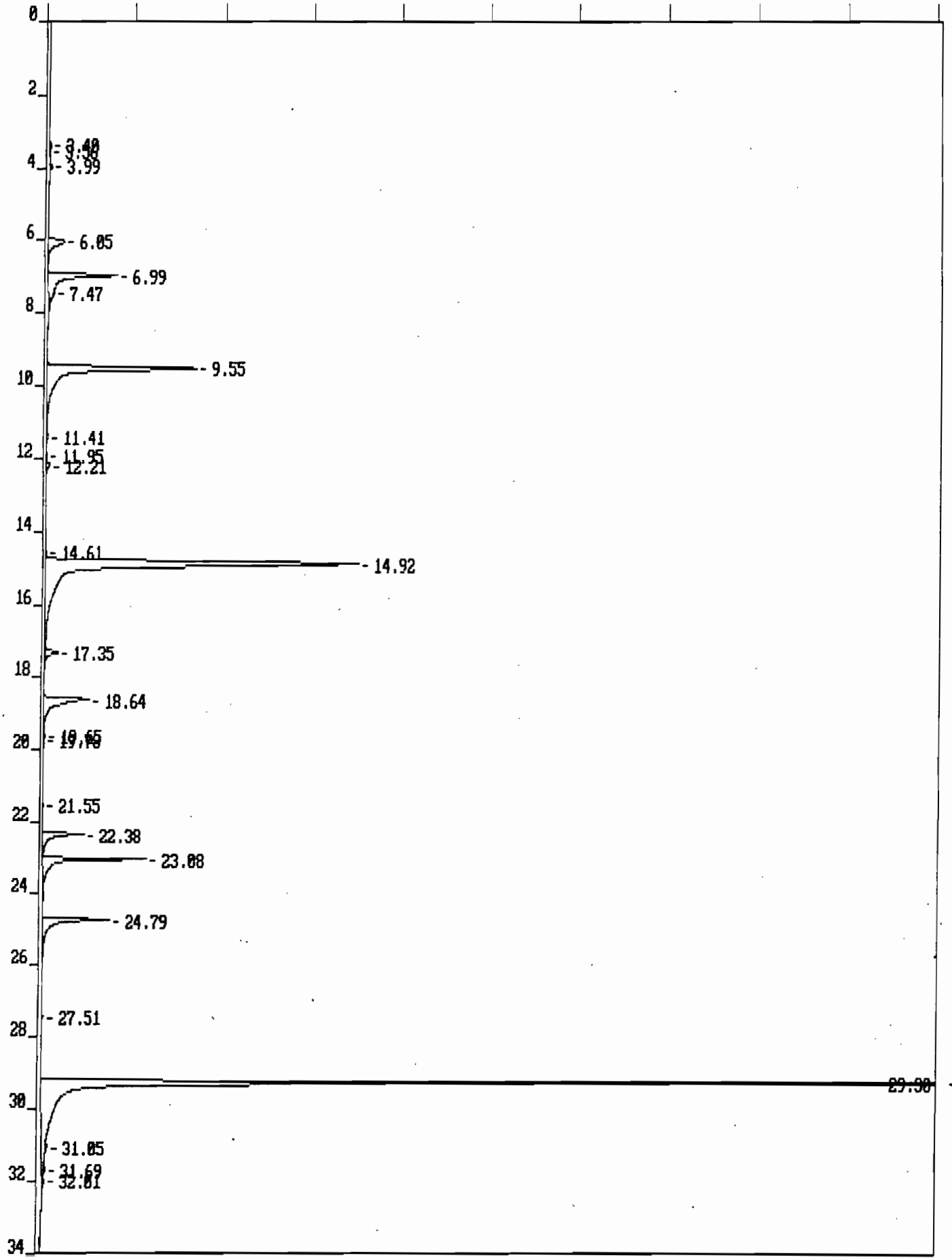
Sample name: 2961819 Batch: 98196A188404

Raw file: C:\CP\DATA1\18196B.27R

Reviewed by: GM25 Verified by:

Date: 7/16/98 Date:

File=C:\CP\DATA1\18196.28R Date printed=07-16-1998 Time= 09:49:38
Sample Name=2961820 98196A188404
0.0 to 34.0 min. Low Y=0.018 High Y=25.018 mv Span=25.0



Sample Name: **2961820**
Batch: 98196A18 Date Taken: Jul 16, 1998 09:34:32
Raw File: C:\CP\DATA1\18196.28R
Area File: C:\CP\DATA1\18196.28A
Method File: C:\CP\DATA1\Z8194.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18HALL
Peak Width: .04 Dil. Factor: 1 Analyst: 115
Threshold: -3 Calculation: EXTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 24):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
3.988	3.924	DICHLORODIFLUOROMETH	0.1412	601	85
4.098	4.098	CHLOROMETHANE	0.0000	0	0
4.413	4.413	VINYL CHLORIDE	0.0000	0	0
4.912	4.912	BROMOMETHANE	0.0000	0	0
5.118	5.118	CHLOROETHANE	0.0000	0	0
6.050	6.018	TRICHLOROFLUOROMETHA	0.4356	5816	451
6.993	6.967	1,1-DICHLOROETHENE	1.1821	19262	1947
7.289	7.289	METHYLENE CHLORIDE	0.0000	0	0
7.472	7.464	TRICHLOROTRIFLUOROET	0.0461	447	51
8.854	8.854	TRANS-1,2-DICHLOROET	0.0000	0	0
9.554	9.524	1,1-DICHLOROETHANE	2.0135	46051	4164
11.410	11.370	CIS-1,2-DICHLOROETHE	0.0255	452	50
11.950	11.909	BROMOCHLOROMETHANE	0.0120	135	16
12.207	12.169	CHLOROFORM	0.0458	1214	111
12.416	12.416	2,2-DICHLOROPROPANE	0.0000	0	0
14.614	14.581	1,2-DICHLOROETHANE	0.0179	224	33
14.920	14.885	1,1,1-TRICHLOROETHAN	4.5382	107011	8760
15.651	15.651	1,1-DICHLOROPROPENE	0.0000	0	0
16.166	16.166	CARBON TETRACHLORIDE	0.0000	0	0
18.311	18.311	DIBROMOMETHANE	0.0000	0	0
18.472	18.472	1,2-DICHLOROPROPANE	0.0000	0	0
18.641	18.621	TRICHLOROETHENE	0.4221	14292	1293
18.726	18.726	BROMODICHLOROMETHANE	0.0000	0	0
20.052	20.052	2-CHLOROETHYL VINYL	0.0000	0	0
20.395	20.395	CIS-1,3-DICHLOROPROP	0.0000	0	0
21.317	21.317	TRANS-1,3-DICHLOROPR	0.0000	0	0
21.547	21.541	1,1,2-TRICHLOROETHAN	0.0060	111	20
21.987	21.987	1,3-DICHLOROPROPANE	0.0000	0	0
22.380	22.366	DIBROMOCHLOROMETHANE	0.5207	8486	1160
22.761	22.761	1,2-DIBROMOETHANE	0.0000	0	0
23.085	23.077	TETRACHLOROETHENE	0.6988	17853	2905
24.000	24.000	1,1,1,2-TETRACHLOROE	0.0000	0	0
24.103	24.103	CHLOROBENZENE	0.0000	0	0
24.790	24.779	BROMOFORM	1.1989	13983	1873
25.215	25.215	1,1,2,2-TETRACHLOROE	0.0000	0	0
25.396	25.396	1,2,3-TRICHLOROPROPA	0.0000	0	0
25.990	25.990	BROMOBENZENE	0.0000	0	0
26.383	26.383	2-CHLOROTOLUENE	0.0000	0	0
26.487	26.487	4-CHLOROTOLUENE	0.0000	0	0
27.410	27.410	1,3-DICHLOROBENZENE	0.0000	0	0
27.511	27.503	1,4-DICHLOROBENZENE	0.0223	389	55
28.003	28.003	1,2-DICHLOROBENZENE	0.0000	0	0
28.699	28.699	1,2-DIBROMO-3-CHLORO	0.0000	0	0
29.299	29.301	SURR-1B4CB-H	25.5958	192719	34078
31.053	31.048	1,2,4-TRICHLOROBENZE	0.0350	511	54
31.687	31.664	HEXACHLOROBUTADIENE	0.0295	452	56
32.012	32.002	1,2,3-TRICHLOROBENZE	0.0398	436	47
	TOTAL 1,2-DICHLOROETHENE:		0.0255		

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 85.3193%
Chrom Perfect version 6.07 Reported on 07-16-1998at 09:52:27

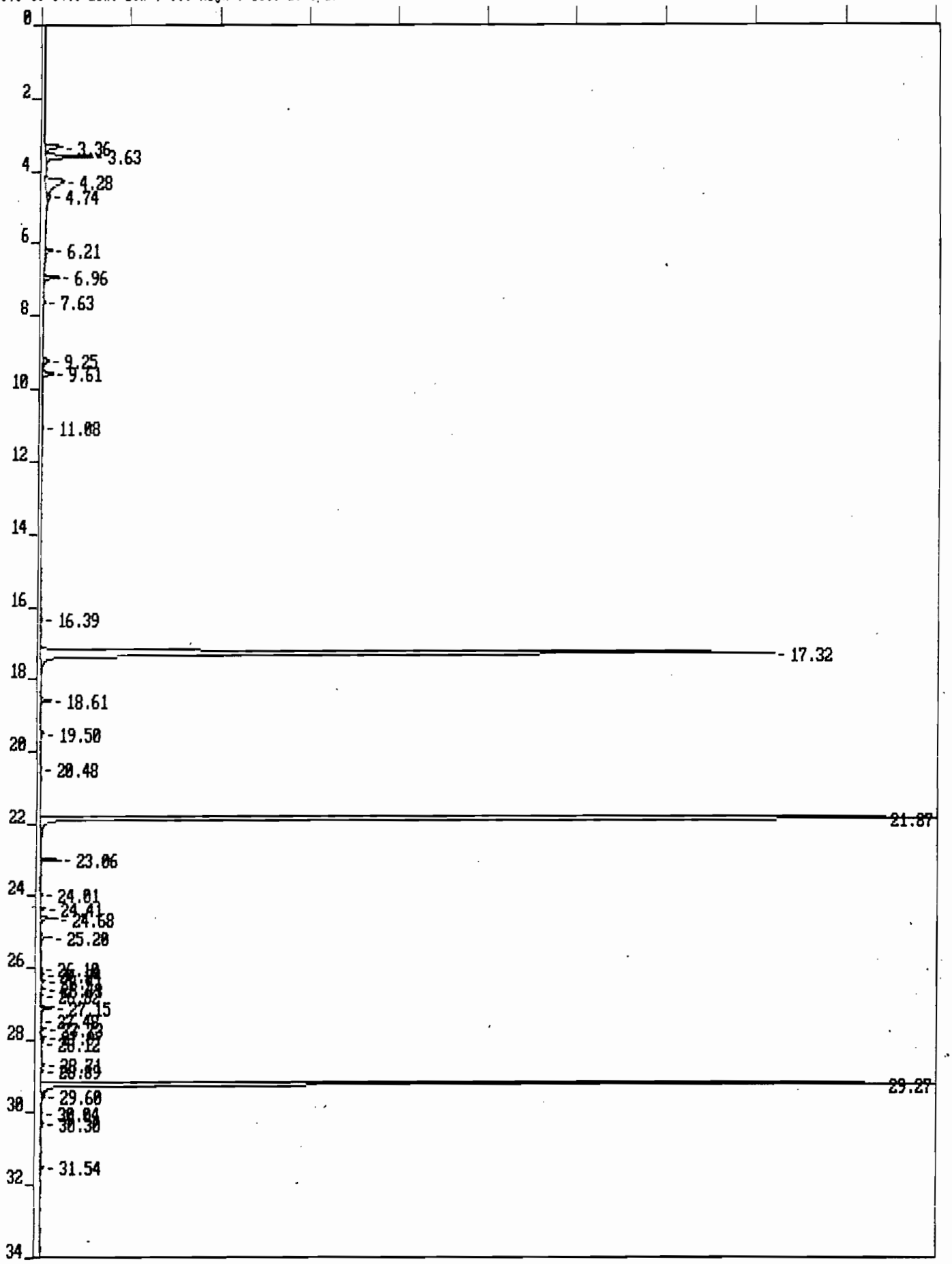
Sample name: **2961820** Batch: 98196A188404

Raw file: C:\CP\DATA1\18196.28R

Reviewed by: GMS Verified by:

Date: 7·16·98 Date:

File=C:\CP\DATA1\18196B.28R Date printed=07-16-1998 Time= 09:52:40
Sample Name=2961820 98196A188404
0.0 to 34.0 min. Low Y=0.0 High Y=15.0 mv Span=15.0



Sample Name: **2961820**
Batch: 98196A18 Date Taken: Jul 16, 1998 09:34:32
Raw File: C:\CP\DATA1\18196B.28R
Area File: C:\CP\DATA1\18196B.28A
Method File: C:\CP\DATA1\Z8194B.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18PID
Peak width: .04 Dil. factor: 1 Analyst: 115
Threshold: 0 Calculation: INTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\PZ8194.CAL(version 28):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
4.285	4.387	VINYL CHLORIDE	2.9938	4415	309
6.962	6.939	1,1-DICHLOROETHENE	1.1310	1387	256
8.824	8.824	TRANS-1,2-DICHLOROET	0.0000	0	0
9.252	9.217	METHYL T-BUTYL ETHER	0.6795	933	109
11.342	11.342	CIS-1,2-DICHLOROETHE	0.0000	0	0
15.621	15.621	1,1-DICHLOROPROPENE	0.0000	0	0
16.389	16.355	BENZENE	0.0620	226	31
17.317	17.300	ISTD-FBENZENE	1.0000	82235	12251
18.608	18.596	TRICHLOROETHENE	0.4324	913	179
20.025	20.025	2-CHLOROETHYL VINYL	0.0000	0	0
20.478	20.369	CIS-1,3-DICHLOROPROP	0.1185	105	30
21.292	21.292	TRANS-1,3-DICHLOROPR	0.0000	0	0
21.865	21.860	TOLUENE	32.4664	108761	34478
23.057	23.052	TETRACHLOROETHENE	0.6543	1083	344
24.012	24.079	CHLOROBENZENE	0.0320	157	43
24.407	24.400	ETHYLBENZENE	0.0814	281	93
24.679	24.677	M,P-XYLENE	0.2263	710	263
25.103	25.103	STYRENE	0.0000	0	0
25.200	25.194	O-XYLENE	0.1563	477	189
25.673	25.673	ISOPROPYLBENZENE	0.0000	0	0
26.100	25.964	BROMOBENZENE	0.0228	103	31
26.237	26.248	N-PROPYLBENZENE	0.0572	224	59
26.409	26.360	2-CHLOROTOLUENE	0.0594	159	67
26.464	26.464	4-CHLOROTOLUENE	0.0000	0	0
26.634	26.633	1,3,5-TRIMETHYLBENZE	0.0550	243	81
26.998	26.998	TERT-BUTYLBENZENE	0.0000	0	0
27.148	27.148	1,2,4-TRIMETHYLBENZE	0.1078	229	121
27.289	27.289	SEC-BUTYLBENZENE	0.0000	0	0
27.386	27.386	1,3-DICHLOROBENZENE	0.0000	0	0
27.484	27.481	1,4-DICHLOROBENZENE	0.0271	142	30
27.537	27.537	P-ISOPROPYLTOLUENE	0.0000	0	0
27.967	27.978	1,2-DICHLOROBENZENE	0.1055	302	87
28.118	28.106	N-BUTYLBENZENE	0.0618	156	46
29.273	29.276	SURR-1B4CB-P	26.4040	76771	25038
31.021	31.021	1,2,4-TRICHLOROBENZE	0.0000	0	0
31.544	31.548	NAPHTHALENE	0.1543	309	64
31.639	31.639	HEXACHLOROBUTADIENE	0.0000	0	0
31.974	31.974	1,2,3-TRICHLOROBENZE	0.0000	0	0
	XYLENES (Total):		**0.3826**		

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 88.0134%
Chrom Perfect version 6.07 Reported on 07-16-1998at 09:55:37

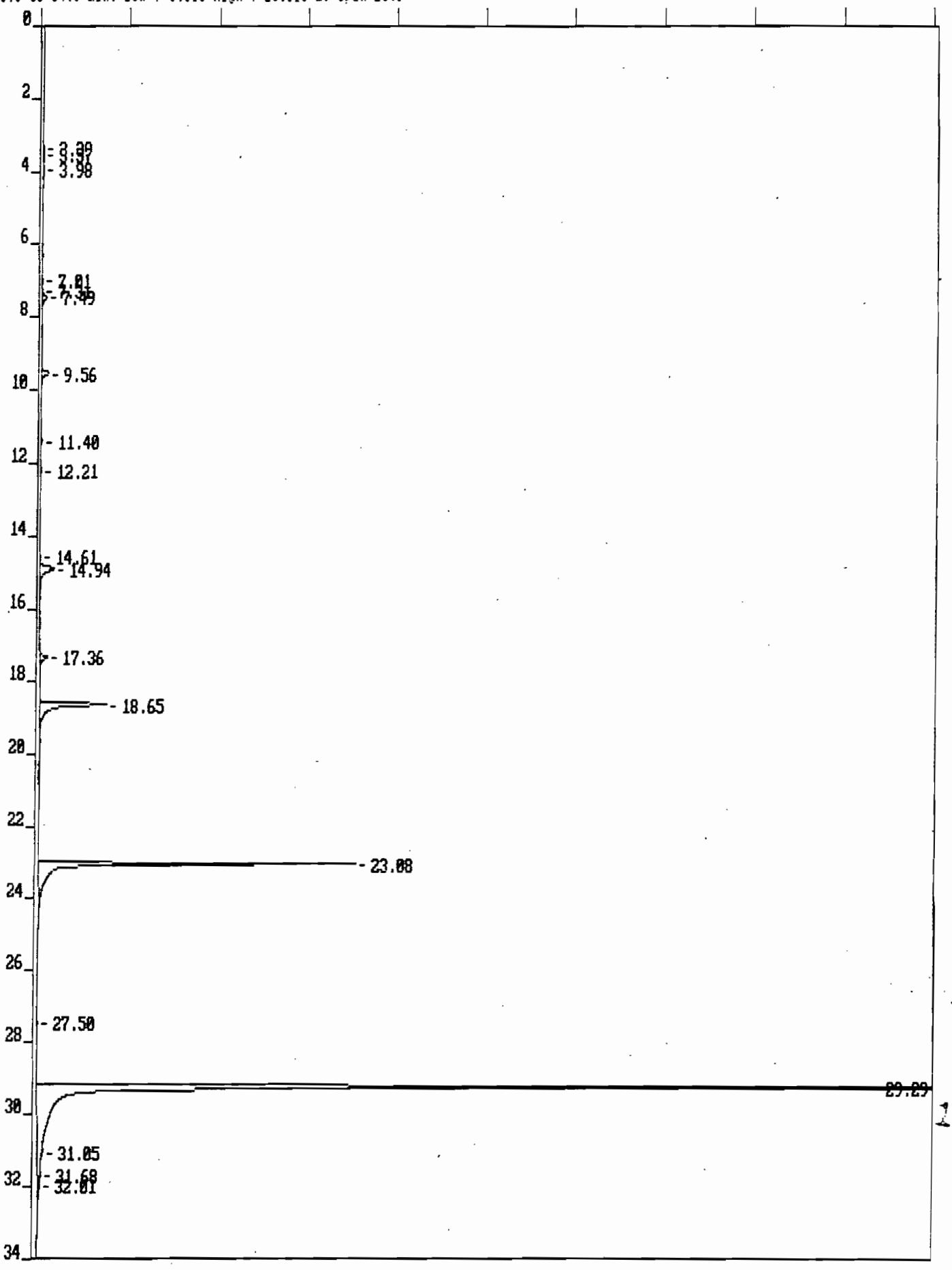
Internal Standard Calculations From ISTDCHK v. 950609.1130
IStd height for ISTD-FBENZENE is within range.
IStd range: 9,325 - 13,987 (80% - 120% of midpoint 11,656)
Used initial calibration files to determine range.

Sample name: **2961820** Batch: 98196A188404
Raw file: C:\CP\DATA1\18196B.28R

Reviewed by: _____ Verified by: _____

Date: 7-16-98 Date: _____

File=C:\CP\DATA1\18196.29R Date printed=07-16-1998 Time= 10:14:51
Sample Name=2961821 98196A188404
0.0 to 34.0 min. Low Y=0.013 High Y=25.013 mv Span=25.0



Sample Name: **2961821**
Batch: 98196A18 Date Taken: Jul 16, 1998 10:14:47
Raw File: C:\CP\DATA1\18196.29R
Area File: C:\CP\DATA1\18196.29A
Method File: C:\CP\DATA1\Z8194.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18HALL
Peak Width: .04 Dil. Factor: 1 Analyst: 115
Threshold: -3 Calculation: EXTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 24):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
3.975	3.924	DICHLORODIFLUOROMETH	0.0362	181	22
4.098	4.098	CHLOROMETHANE	0.0000	0	0
4.413	4.413	VINYL CHLORIDE	0.0000	0	0
4.912	4.912	BROMOMETHANE	0.0000	0	0
5.118	5.118	CHLOROETHANE	0.0000	0	0
6.018	6.018	TRICHLOROFLUOROMETHA	0.0000	0	0
7.007	6.967	1,1-DICHLOROETHENE	0.0113	170	19
7.314	7.289	METHYLENE CHLORIDE	0.0097	128	27
7.490	7.464	TRICHLOROTRIFLUOROET	0.1218	1361	134
8.854	8.854	TRANS-1,2-DICHLOROET	0.0000	0	0
9.562	9.524	1,1-DICHLOROETHANE	0.0972	2018	201
11.403	11.370	CIS-1,2-DICHLOROETHE	0.0231	406	45
11.909	11.909	BROMOCHLOROMETHANE	0.0000	0	0
12.208	12.169	CHLOROFORM	0.0153	363	37
12.416	12.416	2,2-DICHLOROPROPANE	0.0000	0	0
14.611	14.581	1,2-DICHLOROETHANE	0.0100	132	19
14.936	14.885	1,1,1-TRICHLOROETHAN	0.2039	4823	394
15.651	15.651	1,1-DICHLOROPROPENE	0.0000	0	0
16.166	16.166	CARBON TETRACHLORIDE	0.0000	0	0
18.311	18.311	DIBROMOMETHANE	0.0000	0	0
18.472	18.472	1,2-DICHLOROPROPANE	0.0000	0	0
18.649	18.621	TRICHLOROETHENE	0.6126	15433	1876
18.726	18.726	BROMODICHLOROMETHANE	0.0000	0	0
20.052	20.052	2-CHLOROETHYL VINYL	0.0000	0	0
20.395	20.395	CIS-1,3-DICHLOROPROP	0.0000	0	0
21.317	21.317	TRANS-1,3-DICHLOROPR	0.0000	0	0
21.541	21.541	1,1,2-TRICHLOROETHAN	0.0000	0	0
21.987	21.987	1,3-DICHLOROPROPANE	0.0000	0	0
22.366	22.366	DIBROMOCHLOROMETHANE	0.0000	0	0
22.761	22.761	1,2-DIBROMOETHANE	0.0000	0	0
23.081	23.077	TETRACHLOROETHENE	2.1333	46866	8867
24.000	24.000	1,1,1,2-TETRACHLOROE	0.0000	0	0
24.103	24.103	CHLOROBENZENE	0.0000	0	0
24.779	24.779	BROMOFORM	0.0000	0	0
25.215	25.215	1,1,2,2-TETRACHLOROE	0.0000	0	0
25.396	25.396	1,2,3-TRICHLOROPROPA	0.0000	0	0
25.990	25.990	BROMOBENZENE	0.0000	0	0
26.383	26.383	2-CHLOROTOLUENE	0.0000	0	0
26.487	26.487	4-CHLOROTOLUENE	0.0000	0	0
27.410	27.410	1,3-DICHLOROBENZENE	0.0000	0	0
27.502	27.503	1,4-DICHLOROBENZENE	0.0098	146	24
28.003	28.003	1,2-DICHLOROBENZENE	0.0000	0	0
28.699	28.699	1,2-DIBROMO-3-CHLORO	0.0000	0	0
29.290	29.301	SURR-1B4CB-H	25.2327	189830	33595
31.049	31.048	1,2,4-TRICHLOROBENZE	0.0278	369	43
31.677	31.664	HEXACHLOROBUTADIENE	0.0277	485	53
32.010	32.002	1,2,3-TRICHLOROBENZE	0.0375	465	44
		TOTAL 1,2-DICHLOROETHENE:	**0.0231**		

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 84.1090%
Chrom Perfect version 6.07 Reported on 07-16-1998at 10:16:42

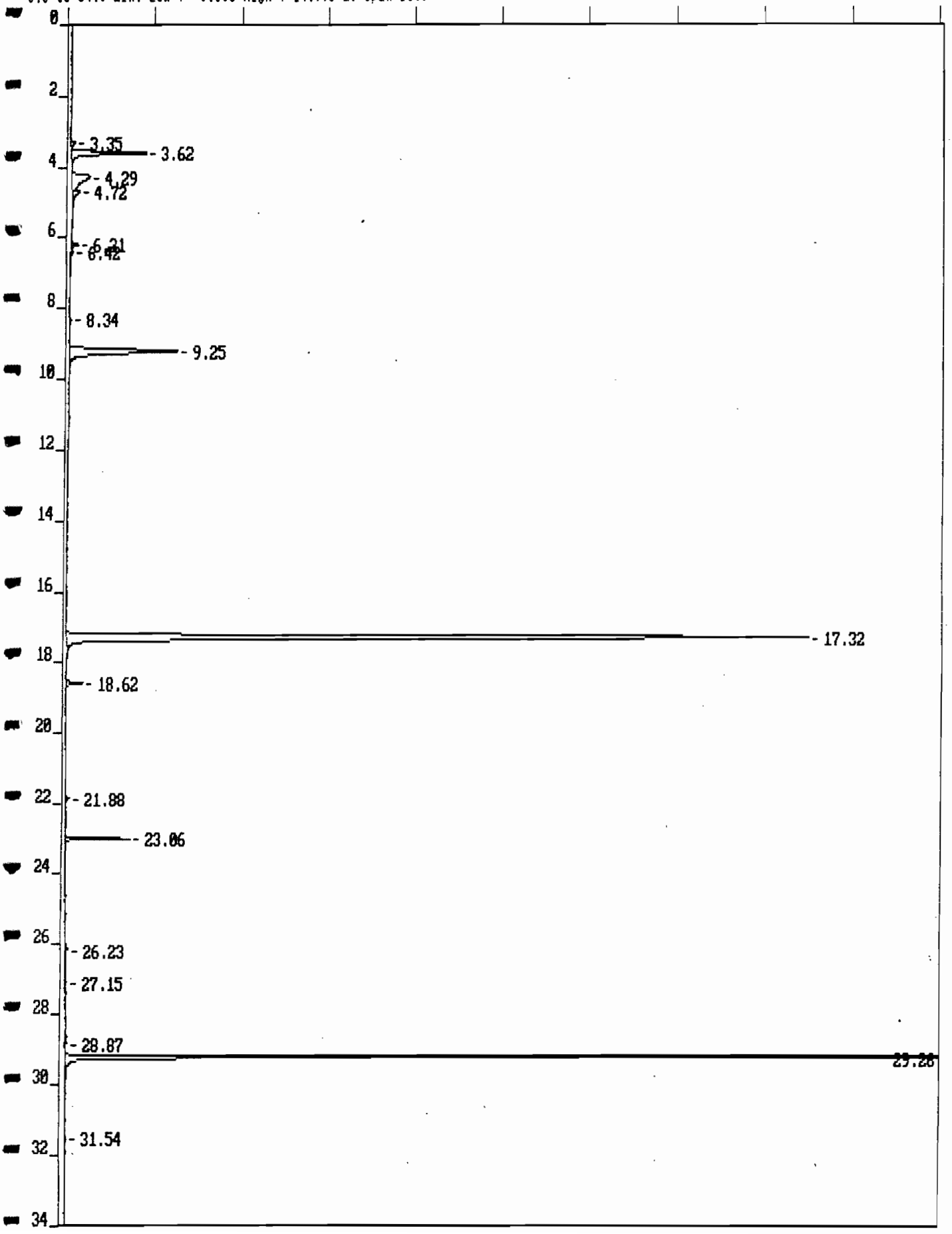
Sample name: **2961821** Batch: 98196A188404

Raw file: C:\CP\DATA1\18196.29R

Reviewed by: _____ Verified by: _____

Date: 7-16-98 Date: _____

File=C:\CP\DATA1\18196B.29R Date printed=07-16-1998 Time= 10:16:55
Sample Name=2961821 98196A188404
0.0 to 34.0 min. Low Y=-0.005 High Y=14.995 mv Span=15.0



Sample Name: **2961821**
Batch: 98196A18 Date Taken: Jul 16, 1998 10:14:48
Raw File: C:\CP\DATA1\18196B.29R
Area File: C:\CP\DATA1\18196B.29A
Method File: C:\CP\DATA1\Z8194B.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18PID
Peak width: .04 Dil. factor: 1 Analyst: 115
Threshold: 0 Calculation: INTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\PZ8194.CAL(version 28):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
4.292	4.387	VINYL CHLORIDE	3.0624	4984	328
6.939	6.939	1,1-DICHLOROETHENE	0.0000	0	0
8.824	8.824	TRANS-1,2-DICHLOROET	0.0000	0	0
9.247	9.217	METHYL T-BUTYL ETHER	11.2721	16714	1863
11.342	11.342	CIS-1,2-DICHLOROETHE	0.0000	0	0
15.621	15.621	1,1-DICHLOROPROPENE	0.0000	0	0
16.355	16.355	BENZENE	0.0000	0	0
17.324	17.300	ISTD-FBENZENE	1.0000	84556	12682
18.615	18.596	TRICHLOROETHENE	0.6625	1492	283
20.025	20.025	2-CHLOROETHYL VINYL	0.0000	0	0
20.369	20.369	CIS-1,3-DICHLOROPROP	0.0000	0	0
21.292	21.292	TRANS-1,3-DICHLOROPR	0.0000	0	0
21.875	21.860	TOLUENE	0.0568	256	62
23.056	23.052	TETRACHLOROETHENE	2.0236	3427	1100
24.079	24.079	CHLOROBENZENE	0.0000	0	0
24.400	24.400	ETHYLBENZENE	0.0000	0	0
24.677	24.677	M,P-XYLENE	0.0000	0	0
25.103	25.103	STYRENE	0.0000	0	0
25.194	25.194	O-XYLENE	0.0000	0	0
25.673	25.673	ISOPROPYLBENZENE	0.0000	0	0
25.964	25.964	BROMOBENZENE	0.0000	0	0
26.227	26.248	N-PROPYLBENZENE	0.0552	230	59
26.360	26.360	2-CHLOROTOLUENE	0.0000	0	0
26.464	26.464	4-CHLOROTOLUENE	0.0000	0	0
26.633	26.633	1,3,5-TRIMETHYLBENZE	0.0000	0	0
26.998	26.998	TERT-BUTYLBENZENE	0.0000	0	0
27.147	27.148	1,2,4-TRIMETHYLBENZE	0.0205	142	24
27.289	27.289	SEC-BUTYLBENZENE	0.0000	0	0
27.386	27.386	1,3-DICHLOROBENZENE	0.0000	0	0
27.481	27.481	1,4-DICHLOROBENZENE	0.0000	0	0
27.537	27.537	P-ISOPROPYLTOLUENE	0.0000	0	0
27.978	27.978	1,2-DICHLOROBENZENE	0.0000	0	0
28.106	28.106	N-BUTYLBENZENE	0.0000	0	0
29.263	29.276	SURR-1B4CB-P	26.6022	80975	26113
31.021	31.021	1,2,4-TRICHLOROBENZE	0.0000	0	0
31.538	31.548	NAPHTHALENE	0.0593	216	26
31.639	31.639	HEXACHLOROBUTADIENE	0.0000	0	0
31.974	31.974	1,2,3-TRICHLOROBENZE	0.0000	0	0
		XYLENES (Total):	**0.0000**		

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 88.6741%
Chrom Perfect version 6.07 Reported on 07-16-1998at 10:19:52

Internal Standard Calculations From ISTDCHK v. 950609.1130
IStd height for ISTD-FBENZENE is within range.
IStd range: 9,325 - 13,987 (80% - 120% of midpoint 11,656)
Used initial calibration files to determine range.

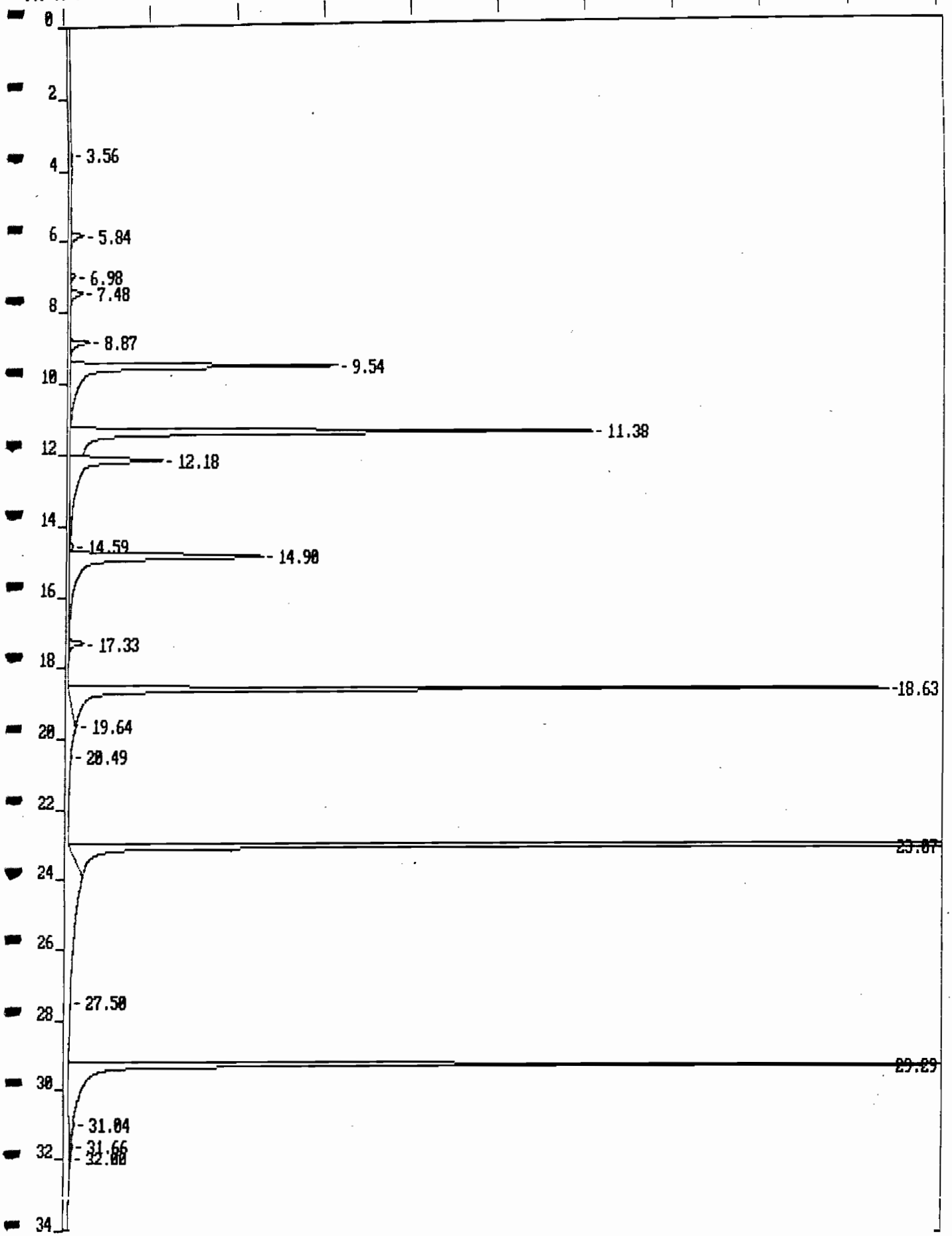
Sample name: **2961821** Batch: 98196A188404

Raw file: C:\CP\DATA1\18196B.29R

Reviewed by: _____ Verified by: _____

Date: 7-16-98 Date: _____

File=C:\CP\DATA1\18196.30R Date printed=07-16-1998 Time= 10:55:09
Sample Name=2961822 98196A188404
0.0 to 34.0 min. Low Y=0.031 High Y=25.031 mv Span=25.0



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Sample Name: **2961822**
Batch: 98196A18 Date Taken: Jul 16, 1998 10:55:05
Raw File: C:\CP\DATA1\18196.30R
Area File: C:\CP\DATA1\18196.30A
Method File: C:\CP\DATA1\Z8194.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18HALL
Peak Width: .04 Dil. Factor: 1 Analyst: 115
Threshold: -3 Calculation: EXTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 24):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
3.924	3.924	DICHLORODIFLUOROMETH	0.0000	0	0
4.098	4.098	CHLOROMETHANE	0.0000	0	0
4.413	4.413	VINYL CHLORIDE	0.0000	0	0
4.912	4.912	BROMOMETHANE	0.0000	0	0
5.118	5.118	CHLOROETHANE	0.0000	0	0
5.840	6.018	TRICHLOROFLUOROMETHA	0.3518	3126	364
6.981	6.967	1,1-DICHLOROETHENE	0.0939	1131	155
7.289	7.289	METHYLENE CHLORIDE	0.0000	0	0
7.477	7.464	TRICHLOROTRIFLUOROET	0.3200	3893	352
8.868	8.854	TRANS-1,2-DICHLOROET	0.2462	5084	567
9.535	9.524	1,1-DICHLOROETHANE	3.7066	76136	7666
11.380	11.370	CIS-1,2-DICHLOROETHE	7.7073	136145	14982
11.909	11.909	BROMOCHLOROMETHANE	0.0000	0	0
12.180	12.169	CHLOROFORM	1.1016	47321	2677
12.416	12.416	2,2-DICHLOROPROPANE	0.0000	0	0
14.591	14.581	1,2-DICHLOROETHANE	0.0707	1286	132
14.896	14.885	1,1,1-TRICHLOROETHAN	2.8725	77283	5545
15.651	15.651	1,1-DICHLOROPROPENE	0.0000	0	0
16.166	16.166	CARBON TETRACHLORIDE	0.0000	0	0
18.311	18.311	DIBROMOMETHANE	0.0000	0	0
18.472	18.472	1,2-DICHLOROPROPANE	0.0000	0	0
18.626	18.621	TRICHLOROETHENE	7.6373	149752	23387
18.726	18.726	BROMODICHLOROMETHANE	0.0000	0	0
20.052	20.052	2-CHLOROETHYL VINYL	0.0000	0	0
20.493	20.395	CIS-1,3-DICHLOROPROP	0.0127	197	35
21.317	21.317	TRANS-1,3-DICHLOROPR	0.0000	0	0
21.541	21.541	1,1,2-TRICHLOROETHAN	0.0000	0	0
21.987	21.987	1,3-DICHLOROPROPANE	0.0000	0	0
22.366	22.366	DIBROMOCHLOROMETHANE	0.0000	0	0
22.761	22.761	1,2-DIBROMOETHANE	0.0000	0	0
23.074	23.077	TETRACHLOROETHENE	18.7222	325204	77824
24.000	24.000	1,1,1,2-TETRACHLOROE	0.0000	0	0
24.103	24.103	CHLOROBENZENE	0.0000	0	0
24.779	24.779	BROMOFORM	0.0000	0	0
25.215	25.215	1,1,2,2-TETRACHLOROE	0.0000	0	0
25.396	25.396	1,2,3-TRICHLOROPROPA	0.0000	0	0
25.990	25.990	BROMOBENZENE	0.0000	0	0
26.383	26.383	2-CHLOROTOLUENE	0.0000	0	0
26.487	26.487	4-CHLOROTOLUENE	0.0000	0	0
27.410	27.410	1,3-DICHLOROBENZENE	0.0000	0	0
27.498	27.503	1,4-DICHLOROBENZENE	0.0107	192	27
28.003	28.003	1,2-DICHLOROBENZENE	0.0000	0	0
28.699	28.699	1,2-DIBROMO-3-CHLORO	0.0000	0	0
29.288	29.301	SURR-1B4CB-H	26.1096	193359	34762
31.040	31.048	1,2,4-TRICHLOROBENZE	0.0249	297	39
31.662	31.664	HEXACHLOROBUTADIENE	0.0245	400	47
32.003	32.002	1,2,3-TRICHLOROBENZE	0.0324	381	38
		TOTAL 1,2-DICHLOROETHENE:	7.9536		

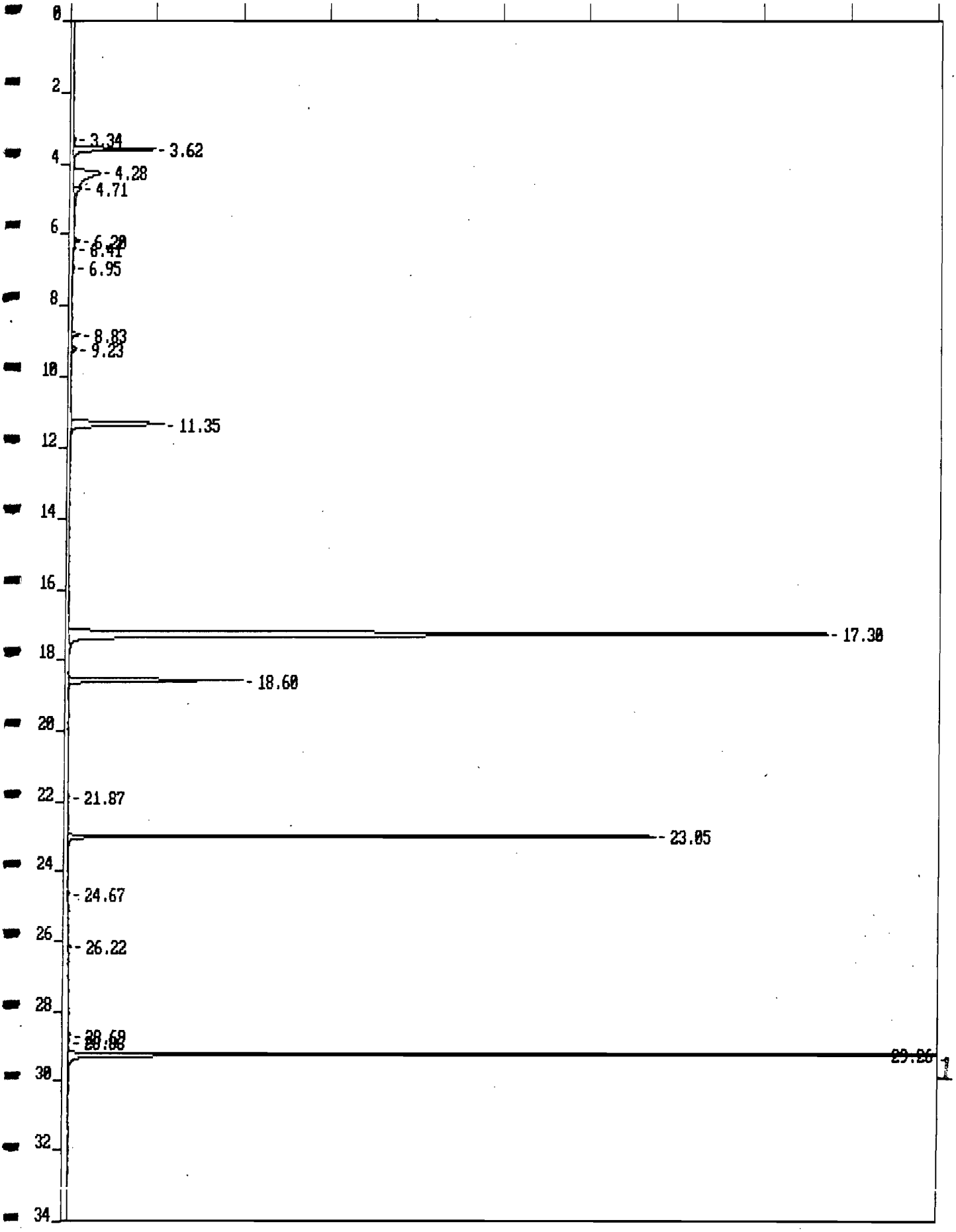
* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 87.0318%
Chrom Perfect version 6.07 Reported on 07-16-1998at 10:57:00

Sample name: 2961822 Batch: 98196A188404
Raw file: C:\CP\DATA1\18196.30R

Reviewed by: _____ Verified by: _____

Date: 7.16.98 Date: 7/21/98

File=C:\CP\DATA1\18196B.30R Date printed=07-16-1998 Time= 10:57:12
Sample Name=2961822 98196A188404
0.0 to 34.0 min. Low Y=-0.009 High Y=14.991 mv Span=15.0



Sample Name: **2961822**
Batch: 98196A18 Date Taken: Jul 16, 1998 10:55:05
Raw File: C:\CP\DATA1\18196B.30R
Area File: C:\CP\DATA1\18196B.30A
Method File: C:\CP\DATA1\Z8194B.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18PID
Peak width: .04 Dil. factor: 1 Analyst: 115
Threshold: 0 Calculation: INTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\PZ8194.CAL(version 28):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
4.278	4.387	VINYL CHLORIDE	4.3208	7116	474
6.952	6.939	1,1-DICHLOROETHENE	0.1416	197	34
8.835	8.824	TRANS-1,2-DICHLOROET	0.2618	828	147
9.230	9.217	METHYL T-BUTYL ETHER	0.4995	635	85
11.347	11.342	CIS-1,2-DICHLOROETHE	6.9085	12031	1632
15.621	15.621	1,1-DICHLOROPROPENE	0.0000	0	0
16.355	16.355	BENZENE	0.0000	0	0
17.300	17.300	ISTD-FBENZENE	1.0000	88221	13042
18.597	18.596	TRICHLOROETHENE	6.8062	14719	2994
20.025	20.025	2-CHLOROETHYL VINYL	0.0000	0	0
20.369	20.369	CIS-1,3-DICHLOROPROP	0.0000	0	0
21.292	21.292	TRANS-1,3-DICHLOROPR	0.0000	0	0
21.869	21.860	TOLUENE	0.0377	236	43
23.047	23.052	TETRACHLOROETHENE	18.0899	29737	10111
24.079	24.079	CHLOROBENZENE	0.0000	0	0
24.400	24.400	ETHYLBENZENE	0.0000	0	0
24.670	24.677	M,P-XYLENE	0.0397	228	49
25.103	25.103	STYRENE	0.0000	0	0
25.194	25.194	O-XYLENE	0.0000	0	0
25.673	25.673	ISOPROPYLBENZENE	0.0000	0	0
25.964	25.964	BROMOBENZENE	0.0000	0	0
26.217	26.248	N-PROPYLBENZENE	0.0643	254	70
26.360	26.360	2-CHLOROTOLUENE	0.0000	0	0
26.464	26.464	4-CHLOROTOLUENE	0.0000	0	0
26.633	26.633	1,3,5-TRIMETHYLBENZE	0.0000	0	0
26.998	26.998	TERT-BUTYLBENZENE	0.0000	0	0
27.148	27.148	1,2,4-TRIMETHYLBENZE	0.0000	0	0
27.289	27.289	SEC-BUTYLBENZENE	0.0000	0	0
27.386	27.386	1,3-DICHLOROBENZENE	0.0000	0	0
27.481	27.481	1,4-DICHLOROBENZENE	0.0000	0	0
27.537	27.537	P-ISOPROPYLTOLUENE	0.0000	0	0
27.978	27.978	1,2-DICHLOROBENZENE	0.0000	0	0
28.106	28.106	N-BUTYLBENZENE	0.0000	0	0
29.260	29.276	SURR-1B4CB-P	25.2998	78859	25538
31.021	31.021	1,2,4-TRICHLOROBENZE	0.0000	0	0
31.548	31.548	NAPHTHALENE	0.0000	0	0
31.639	31.639	HEXACHLOROBUTADIENE	0.0000	0	0
31.974	31.974	1,2,3-TRICHLOROBENZE	0.0000	0	0
		XYLENES (Total):	**0.0397**		

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 84.3325%
Chrom Perfect version 6.07 Reported on 07-16-1998at 11:00:11

Internal Standard Calculations From ISTDCHK v. 950609.1130
IStd height for ISTD-FBENZENE is within range.
IStd range: 9,325 - 13,987 (80% - 120% of midpoint 11,656)
Used initial calibration files to determine range.

Sample name: 2961822 Batch: 98196A188404
Raw file: C:\CP\DATA1\18196B.30R

Reviewed by: GRAS Verified by: [signature]

Date: 7-16-88 Date: 7/21/88

Standards Data

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Quality Control Summary
SDG# IMC01
Instrument ID: 5843
Initial Calibration Summary

Calibration Batch: 98194A18
Initial Calibration Date(s): 07/13/98-07/14/98(HALL)
Initial Calibration Date(s): 07/13/98-07/14/98(PID)

Sample Information			
LL Sample#	Sample Code	Analysis Date	Time
CHKSTD		07/15/98	15:58
BLK1875	METHOD BLANK	07/15/98	17:42
2961808	PMW4U	07/15/98	19:43
2961808MS	PMW4U	07/15/98	20:23
2961808MSD	PMW4U	07/15/98	21:03
2961809	PM4UD	07/15/98	23:44
2961810	PMW4M	07/16/98	00:24
2961811	PMW4L	07/16/98	01:04
2961812	PMW5U	07/16/98	01:44
2961813	PMW5M	07/16/98	02:30
2961814	PMW5L	07/16/98	03:11
2961815	PMW6U	07/16/98	03:51
CHKSTD		07/16/98	04:31
GAS CHKSTD		07/16/98	05:34
BLK1877	METHOD BLANK	07/16/98	06:14
2961816	PMW6M	07/16/98	06:54
2961817	PMW6L	07/16/98	07:34
2961818	PMW7U	07/16/98	08:14
2961819	PMW7M	07/16/98	08:54
2961820	PMW7L	07/16/98	09:34
2961821	MW--1	07/16/98	10:14
2961822	MW--3	07/16/98	10:55

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Quality Control Summary
SDG# IMC01
Instrument ID: 5843
Initial Calibration Summary

Calibration Batch: 98194A18
Initial Calibration Date(s): 07/13/98-07/14/98(HALL)
Initial Calibration Date(s): 07/13/98-07/14/98(PID)

STANDARD	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 6	LEVEL 7
DATE INJECTED	07/13/98	07/13/98	07/13/98	07/13/98	07/13/98	07/14/98	07/14/98
TIME INJECTED	20:07	20:48	21:28	22:09	22:49	03:31	00:10
DATE INJECTED		07/14/98					
TIME INJECTED		02:51					

COMPOUND (DETECTOR)	Retention Time LEVEL 3	Window	Relative Response Factor (RRF) LEVEL1	LEVEL2	LEVEL3	LEVEL4	LEVEL5	LEVEL6	LEVEL7	MEAN	% RSD
DICHLORODIFLUOROMETH (HALL)	3.919	0.10	615.907	560.096	612.274	650.979	659.259	515.910		602.404	9.1
CHLOROMETHANE (HALL)	4.083	0.10	545.946	497.549	524.357	497.749	412.657	315.536		465.632	18.5*
VINYL CHLORIDE (HALL)	4.390	0.20	1254.95	1263.90	1147.47	1244.27	1136.19	1045.95		1182.12	7.3
BROMOMETHANE (HALL)	4.903	0.20	662.362	837.674	933.086	936.712	893.933	781.770		840.923	12.6*
CHLOROETHANE (HALL)	5.112	0.20	1397.75	1432.51	1502.91	1450.03	1366.41	1299.31		1408.15	5.0
TRICHLOROFLUOROMETHA (HALL)	6.006	0.20	1124.96	1080.39	1095.00	1053.28	981.079	878.330		1035.50	8.8
1,1-DICHLOROETHENE (HALL)	6.966	0.20	1632.21	1600.29	1763.28	1686.58	1575.51	1622.96		1646.81	4.1
METHYLENE CHLORIDE (HALL)	7.285	0.20	4127.41	3358.89	3409.91	3024.35	2576.92	2577.62		3179.19	18.5*
TRANS-1,2-DICHLOROET (HALL)	8.853	0.20	2243.37	2368.55	2554.00	2271.32	2234.75	2139.65		2301.94	6.2
1,1-DICHLOROETHANE (HALL)	9.525	0.20	1991.64	2171.76	2267.02	2136.96	1982.44	1859.39		2068.20	7.2
CIS-1,2-DICHLOROETHE (HALL)	11.377	0.20	1820.59	2043.35	2127.06	2024.60	1904.44	1743.30		1943.89	7.5
CHLOROFORM (HALL)	12.175	0.10	2568.88	2656.70	2648.71	2369.26	2260.81	2074.64		2429.83	9.7
1,2-DICHLOROETHANE (HALL)	14.579	0.20	1717.93	2013.39	2018.17	1916.62	1836.86	1717.89		1870.14	7.3
1,1,1-TRICHLOROETHAN (HALL)	14.891	0.20	1988.75	2035.06	2080.98	1928.89	1828.69	1719.56		1930.32	7.0
CARBON TETRACHLORIDE (HALL)	16.171	0.20	2344.53	2371.06	2407.72	2300.78	2207.61	2110.61		2290.38	4.9
BENZENE (PID)	16.357	0.20	0.0402	0.0397	0.0418	0.0408	0.0408	0.0422	0.0410	0.0409	2.1
1,2-DICHLOROPROPANE (HALL)	18.476	0.10	2215.91	2516.49	2523.73	2340.30	2259.91	2109.06		2327.57	7.2
TRICHLOROETHENE (PID)	18.597	0.20	0.0334	0.0327	0.0342	0.0335	0.0337	0.0349	0.0339	0.0337	2.1
BROMODICHLOROMETHANE (HALL)	18.729	0.10	2930.66	2816.44	2925.47	2529.45	2473.11	2395.52		2678.44	9.0
CIS-1,3-DICHLOROPROP (HALL)	20.397	0.20	2586.87	2798.88	3116.76	2983.53	2515.77	2568.75		2761.76	8.9
TRANS-1,3-DICHLOROPR (HALL)	21.318	0.10	2402.94	2859.45	3012.80	2914.19	2644.01	2509.26		2723.77	8.9
1,1,2-TRICHLOROETHAN (HALL)	21.541	0.10	3133.61	3614.07	3685.35	3481.71	3111.86	2890.32		3319.49	9.6
TOLUENE (PID)	21.859	0.20	0.0833	0.0851	0.0896	0.0877	0.0870	0.0879	0.0861	0.0867	2.4
DIBROMOCHLOROMETHANE (HALL)	22.368	0.20	1647.15	2222.02	2302.10	2169.60	2192.57	2138.41		2111.97	11.1*
TETRACHLOROETHENE (HALL)	23.076	0.20	4169.88	4332.23	4659.04	4274.50	3907.99	3596.93		4156.76	8.8
CHLOROBENZENE (PID)	24.079	0.20	0.1031	0.1075	0.1127	0.1104	0.1103	0.1109	0.1096	0.1092	2.8
ETHYLBENZENE (PID)	24.400	0.20	0.0922	0.0914	0.0957	0.0940	0.0940	0.0942	0.0931	0.0935	1.5
M,P-XYLENE (PID)	24.677	0.20	0.0907	0.0934	0.0984	0.0958	0.0957	0.0958	0.0939	0.0948	2.6
BROMOFORM (HALL)	24.783	0.20	823.234	1263.54	1349.48	1521.84	1522.81	1460.16		1323.51	20.1*

* = RSD > 10% - The quadratic fit type was used.

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Quality Control Summary
SDG# IMC01
Instrument ID: 5843
Initial Calibration Summary

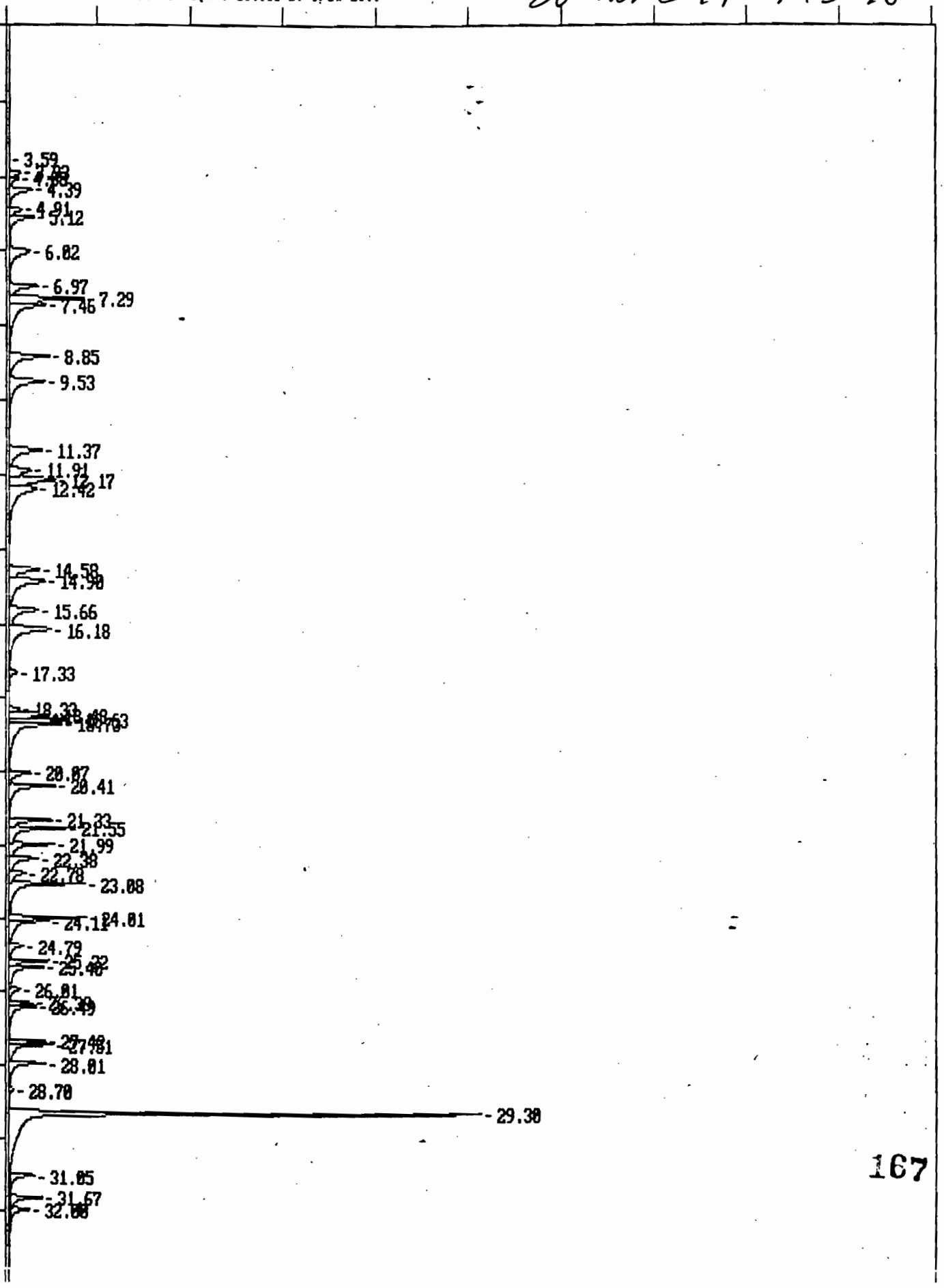
Calibration Batch: 98194A18
Initial Calibration Date(s): 07/13/98-07/14/98(HALL)
Initial Calibration Date(s): 07/13/98-07/14/98(PID)

STANDARD		LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 6	LEVEL 7		
DATE INJECTED		07/13/98	07/13/98	07/13/98	07/13/98	07/13/98	07/14/98	07/14/98		
TIME INJECTED		20:07	20:48	21:28	22:09	22:49	03:31	00:10		
		Retention Time		Relative Response Factor (RRF)						
COMPOUND (DETECTOR)		LEVEL 3	Window	LEVEL1	LEVEL2	LEVEL3	LEVEL4	LEVEL5	LEVEL6	LEVEL7	MEAN	% RSD
O-XYLENE	(PID)	25.196	0.06	0.0919	0.0964	0.1023	0.1016	0.1015	0.1009	0.0978	0.0989	3.8
1,1,2,2-TETRACHLOROE	(HALL)	25.216	0.10	2239.52	2663.43	2754.00	2645.72	2456.52	2312.79		2512.00	8.3
1,3-DICHLOROBENZENE	(HALL)	27.413	0.20	2007.39	2283.60	2477.48	2412.31	2180.76	2154.40		2252.66	7.7
1,4-DICHLOROBENZENE	(PID)	27.483	0.04	0.0851	0.0879	0.0909	0.0894	0.0907	0.0928	0.0915	0.0897	2.9
1,2-DICHLOROBENZENE	(HALL)	28.007	0.20	2008.13	2272.48	2422.75	2336.09	2144.70	2093.90		2213.01	7.1
SURR-1B4CB-P	(PID)	29.279	0.20	0.0755	0.0760	0.0770	0.0765	0.0768	0.0797	0.0803	0.0774	2.4
SURR-1B4CB-H	(HALL)	29.304	0.20	1245.63	1306.92	1314.40	1339.74	1345.54	1436.14		1331.40	4.7

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File=C:\CP\DATA1\18194.06R Date printed=07-13-1998 Time= 20:07:59
Sample Name=CALSTD1 98194A188466,8465,
0.0 to 34.0 min. Low Y=0.011 High Y=25.011 av Span=25.0

DWilson097 7-13-98



Sample Name: CALSTD1
Batch: 98194A18 Date Taken: Jul 13, 1998 20:07:55
Raw File: C:\CP\DATA1\18194.06R
Area File: C:\CP\DATA1\18194.06A
Method File: C:\CP\DATA1\Z8194.MET(version 2) DWibm097 7-13-98
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18HALL CALSTD1
Peak Width: .04 Dil. Factor: 1 Analyst: 215
Threshold: -3 Calculation: EXTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 3):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
3.925	3.920	DICHLORODIFLUOROMETH	0.6544	2312	320
4.082	4.100	CHLOROMETHANE	0.5316	2218	278
4.386	4.399	VINYL CHLORIDE	0.5821	6427	643
4.910	4.882	BROMOMETHANE	0.4529	2569	357
5.116	5.099	CHLOROETHANE	0.4976	6919	710
6.021	5.855	TRICHLOROFLUOROMETHA	0.5607	8967	575
6.969	6.950	1,1-DICHLOROETHENE	0.4644	6693	816
7.287	7.277	METHYLENE CHLORIDE	0.8037	13057	2064
7.457	7.437	TRICHLOROTRIFLUOROET	0.6797	16158	1015
8.853	8.843	TRANS-1,2-DICHLOROET	0.4815	11000	1122
9.526	9.522	1,1-DICHLOROETHANE	0.4730	12366	996
11.375	11.362	CIS-1,2-DICHLOROETHE	0.4592	9972	910
11.914	11.904	BROMOCHLOROMETHANE	0.4450	5727	614
12.171	12.173	CHLOROFORM	0.5370	12835	1284
12.421	12.407	2,2-DICHLOROPROPANE	0.5497	15403	772
14.584	14.571	1,2-DICHLOROETHANE	0.4562	7554	859
14.899	14.883	1,1,1-TRICHLOROETHAN	0.4920	14593	994
15.658	15.638	1,1-DICHLOROPROPENE	0.4563	9026	809
16.178	16.163	CARBON TETRACHLORIDE	0.4962	16303	1172
18.328	18.307	DIBROMOMETHANE	0.2896	1650	297
18.480	18.471	1,2-DICHLOROPROPANE	0.4840	7368	1108
18.628	18.619	TRICHLOROETHENE	0.5101	9665	1660
18.734	18.728	BROMODICHLOROMETHANE	0.5552	16845	1465
20.067	20.057	2-CHLOROETHYL VINYL	0.6270	4403	622
20.405	20.395	CIS-1,3-DICHLOROPROP	0.4699	10031	1293
21.328	21.316	TRANS-1,3-DICHLOROPR	0.4558	6399	1201
21.550	21.540	1,1,2-TRICHLOROETHAN	0.4671	11001	1567
21.994	21.985	1,3-DICHLOROPROPANE	0.4756	8212	1259
22.377	22.366	DIBROMOCHLOROMETHANE	0.3981	6703	824
22.777	22.760	1,2-DIBROMOETHANE	0.3344	3833	453
23.082	23.076	TETRACHLOROETHENE	0.4569	14359	2085
24.006	24.002	1,1,1,2-TETRACHLOROE	0.4650	8642	2107
24.108	24.101	CHLOROBENZENE	0.5206	9437	1106
24.794	24.780	BROMOFORM	0.3181	3703	412
25.221	25.217	1,1,2,2-TETRACHLOROE	0.4863	5460	1120
25.403	25.399	1,2,3-TRICHLOROPROPA	0.5000	7382	962
26.005	25.992	BROMOBENZENE	0.3249	2738	325
26.391	26.386	2-CHLOROTOLUENE	0.4213	2795	674
26.494	26.491	4-CHLOROTOLUENE	0.4549	6253	760
27.415	27.415	1,3-DICHLOROBENZENE	0.4434	3659	1004
27.508	27.509	1,4-DICHLOROBENZENE	0.4836	8362	1231
28.007	28.007	1,2-DICHLOROBENZENE	0.4730	7095	1004
28.704	28.702	1,2-DIBROMO-3-CHLORO	0.3948	1159	142
29.303	29.302	SURR-1B4CB-H	10.8565	79364	12705
31.050	31.048	1,2,4-TRICHLOROBENZE	0.7323	4625	682
31.667	31.666	HEXACHLOROBUTADIENE	0.4860	6275	906
32.002	32.001	1,2,3-TRICHLOROBENZE	1.0936	4943	549
		TOTAL 1,2-DICHLOROETHENE:	**0.9407**		

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* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 36.1883%
Chrom Perfect version 6.07 Reported on 07-13-1998at 20:09:50

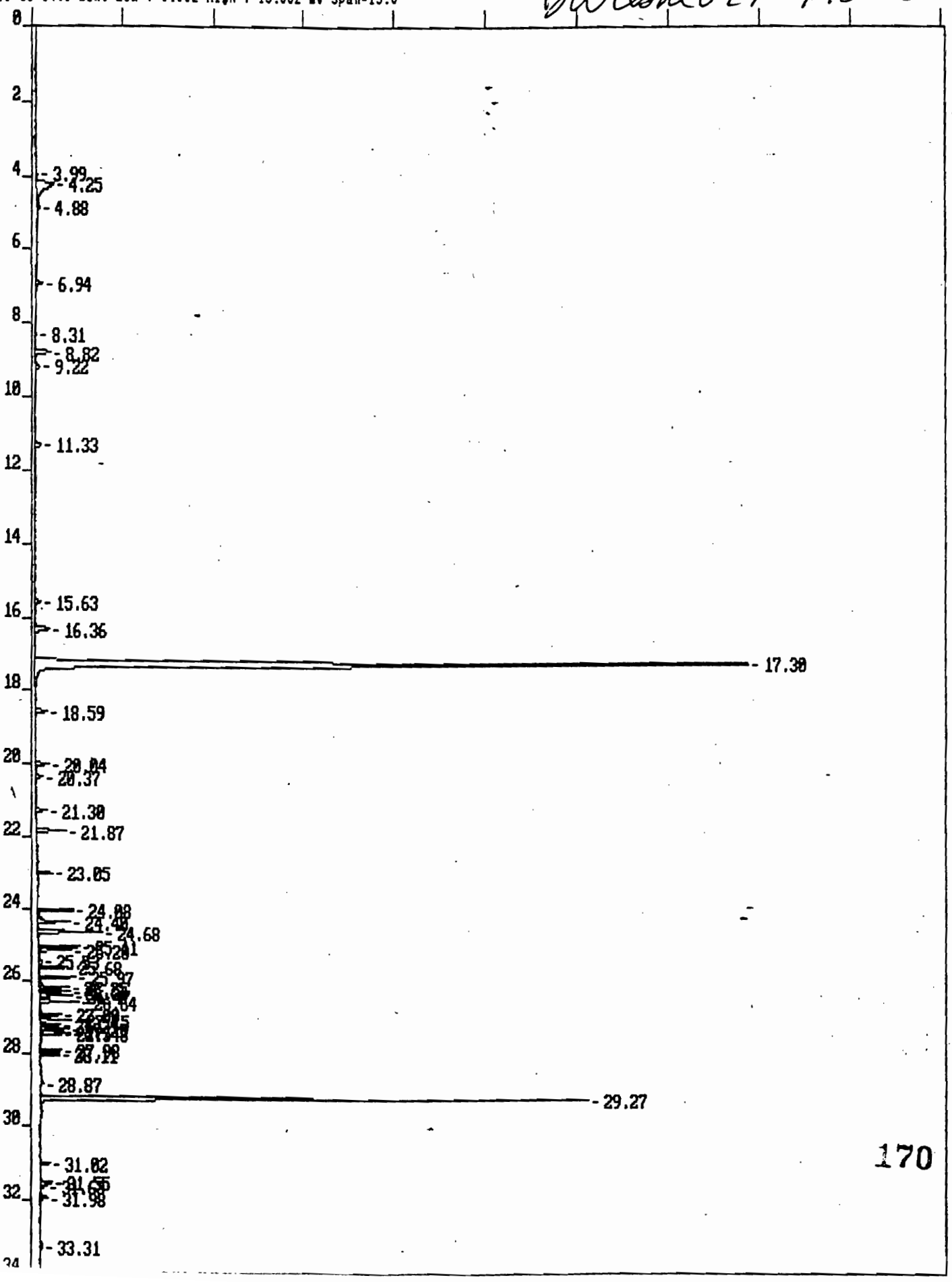
Sample name: CALSTD1 Batch: 98194A188466,846
Raw file: C:\CP\DATA1\18194.06R

Reviewed by: DWilson 027 Verified by: _____

Date: 7-13-98 Date: _____

File=C:\CP\DATA1\18194B.06R Date printed=07-13-1998 Time= 20:10:17
Sample Name=CALSTD1 98194A188466,8465,
0.0 to 34.0 min. Low Y=0.002 High Y=15.002 mv Span=15.0

DWclone027 7-13-98



Sample Name: CALS1.01
Batch: 98194A18 Date Taken: Jul 13, 1998 20:07:55
Raw File: C:\CP\DATA1\18194B.06R
Area File: C:\CP\DATA1\18194B.06A
Method File: C:\CP\DATA1\Z8194B.MET(version 2)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 -.5890#18PID
Peak width: .04 Dil. factor: 1 Analyst: 215
Threshold: 0 Calculation: INTERNALStd using peak heights

Reprocessed for updated RTs DWilson097 7-13-98

Peak table using calibration C:\CP\DATA1\PZ8194.CAL(version 7):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
4.250	4.236	VINYL CHLORIDE	3.1774	3973	289
6.938	6.924	1,1-DICHLOROETHENE	0.5753	704	119
8.823	8.813	TRANS-1,2-DICHLOROET	0.5141	1538	260
9.217	9.210	METHYL T-BUTYL ETHER	0.5165	636	75
11.330	11.336	CIS-1,2-DICHLOROETHE	0.5123	881	107
15.626	15.610	1,1-DICHLOROPROPENE	0.5001	663	93
16.359	16.346	BENZENE	0.5008	1655	236
17.299	17.285	ISTD-FBENZENE	1.0000	79515	11725
18.593	18.581	TRICHLOROETHENE	0.4993	963	196
20.037	20.040	2-CHLOROETHYL VINYL	0.6705	865	222
20.374	20.353	CIS-1,3-DICHLOROPROP	0.5072	486	119
21.298	21.276	TRANS-1,3-DICHLOROPR	0.5415	647	190
21.865	21.842	TOLUENE	0.4908	1571	489
23.054	23.035	TETRACHLOROETHENE	0.4915	789	249
24.084	24.063	CHLOROBENZENE	0.4856	1629	605
24.403	24.383	ETHYLBENZENE	0.5018	2022	540
24.682	24.660	M,P-XYLENE	0.9739	3273	1063
25.109	25.088	STYRENE	0.4759	1706	696
25.197	25.179	O-XYLENE	0.4788	1443	539
25.676	25.658	ISOPROPYLBENZENE	0.4923	1304	427
25.968	25.949	BROMOBENZENE	0.4857	1673	617
26.252	26.233	N-PROPYLBENZENE	0.5083	1476	496
26.363	26.345	2-CHLOROTOLUENE	0.4907	1453	521
26.468	26.449	4-CHLOROTOLUENE	0.4803	1454	551
26.636	26.618	1,3,5-TRIMETHYLBENZE	0.4767	1808	659
27.000	26.982	TERT-BUTYLBENZENE	0.4952	1047	357
27.150	27.131	1,2,4-TRIMETHYLBENZE	0.4892	1443	515
27.290	27.273	SEC-BUTYLBENZENE	0.4843	1014	346
27.388	27.370	1,3-DICHLOROBENZENE	0.4778	1284	482
27.483	27.480	1,4-DICHLOROBENZENE	0.5331	1359	499
27.538	27.540	P-ISOPROPYLTOLUENE	0.4481	960	355
27.980	27.962	1,2-DICHLOROBENZENE	0.4959	1055	367
28.109	28.089	N-BUTYLBENZENE	0.4777	1008	336
29.275	29.259	SURR-1B4CB-P	11.1982	27684	9024
31.022	31.005	1,2,4-TRICHLOROBENZE	0.7058	622	167
31.547	31.550	NAPHTHALENE	0.9858	738	191
31.630	31.630	HEXACHLOROBUTADIENE	0.5472	495	116
31.976	31.957	1,2,3-TRICHLOROBENZE	0.8875	520	123
		XYLENES (Total):	**1.4527**		

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 37.3275%
Chrom Perfect version 6.07 Reported on 07-13-1998at 21:00:37

CALIBRATION UPDATE REPORT
Calibration file = C:\CP\DATA1\PZ8194.CAL Current version number = 7
Updated from file = C:\CP\DATA1\18194B.06A
Amount injected = 1
Standard amount injected = 1
Calibration level = 1 Replace old values with new
Number of runs since last replace = 0
Update to both retention time and area
Today's Date = 07-13-1998 time = 21:00:38

Internal Standard Calculations From ISTDCHK v. 950609.1130
IStd height for ISTD-FBENZENE is too high!
IStd range: 5,627 - 8,441 (80% - 120% of midpoint 7,034)
Used initial calibration files to determine range.

CALSTD1

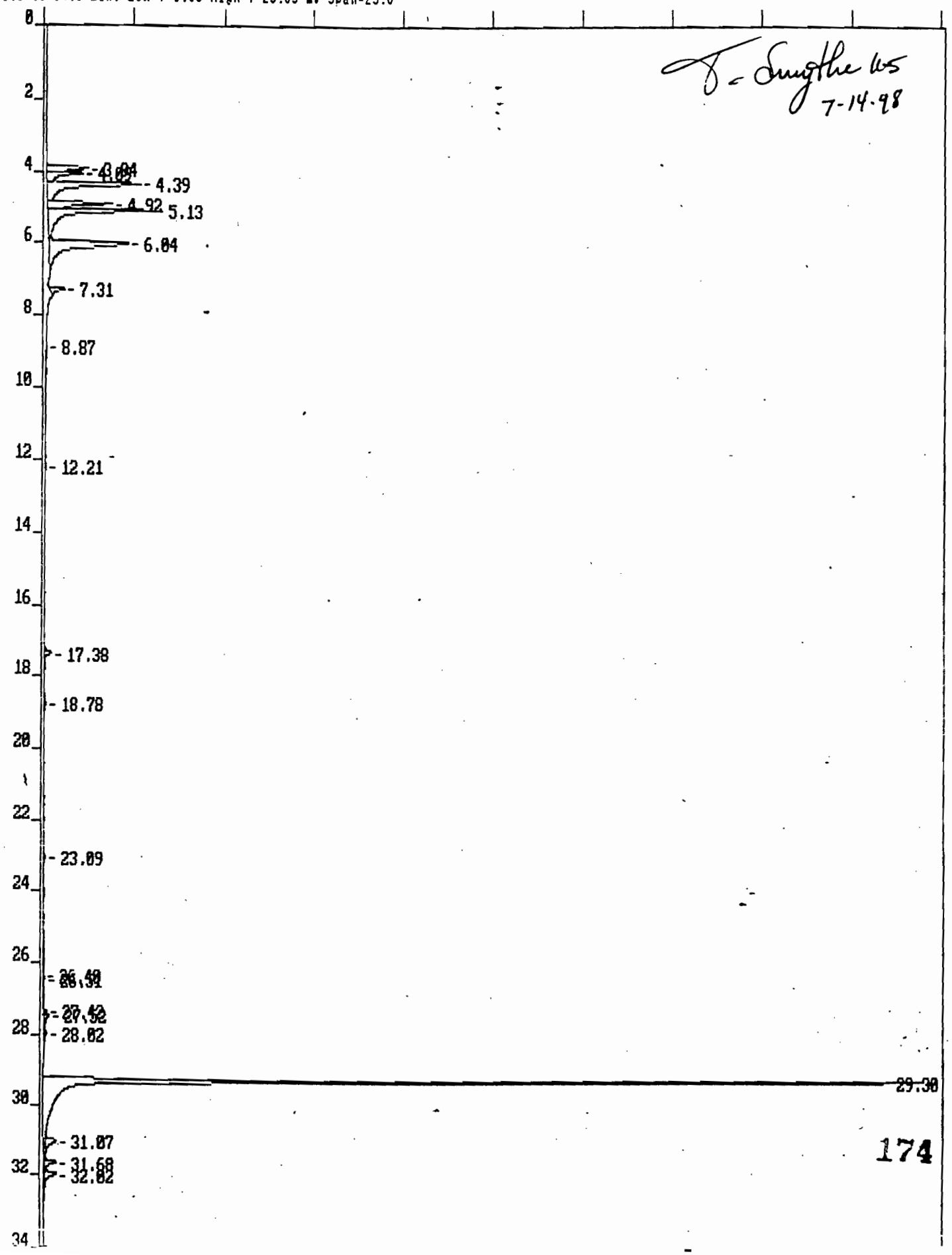
DWilson097
7-13-98

Sample name: CALSTD1 Batch: 98194A188466,846
Raw file: C:\CP\DATA1\18194B.06R

Reviewed by: DWilson097 Verified by: [signature] 7/23/98

Date: 7-13-88 Date:

File=C:\CP\DATA1\18194.16R Date printed=07-14-1998 Time= 02:51:18
Sample Name=CALSTD2 98194A188466.8465
0.0 to 34.0 min. Low Y=0.03 High Y=25.03 mv Span=25.0



J. Smythe 165
7-14-98

174

Sample Name: CALSTD2
Batch: 98194A18 Date Taken: Jul 14, 1998 02:51:15
Raw File: C:\CP\DATA1\18194.16R
Area File: C:\CP\DATA1\18194.16A
Method File: C:\CP\DATA1\Z8194.MET(version 4)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18HALL
Peak Width: .04 Dil. Factor: 1 Analyst: 115
Threshold: -3 Calculation: EXTERNALStd using peak heights

J. Smythe 45 7-14-98

Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 14):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
3.937	3.947	DICHLORODIFLUOROMETH	2.0849	8175	1165
4.093	4.157	CHLOROMETHANE	2.3385	7548	1015
4.387	4.451	VINYL CHLORIDE	2.3850	23832	2591
4.919	4.944	BROMOMETHANE	2.3430	11634	1801
5.131	5.147	CHLOROETHANE	2.2534	25755	2908
6.037	6.046	TRICHLOROFLUOROMETHA	1.9975	29579	2204
7.005	7.005	1,1-DICHLOROETHENE	0.0000	0	0
7.314	7.331	METHYLENE CHLORIDE	0.1392	2150	402
7.505	7.505	TRICHLOROTRIFLUOROET	0.0000	0	0
8.874	8.904	TRANS-1,2-DICHLOROET	0.0062	114	14
9.580	9.580	1,1-DICHLOROETHANE	0.0000	0	0
11.436	11.436	CIS-1,2-DICHLOROETHE	0.0000	0	0
11.979	11.979	BROMOCHLOROMETHANE	0.0000	0	0
12.213	12.238	CHLOROFORM	0.0140	315	34
12.475	12.475	2,2-DICHLOROPROPANE	0.0000	0	0
14.644	14.644	1,2-DICHLOROETHANE	0.0000	0	0
14.959	14.959	1,1,1-TRICHLOROETHAN	0.0000	0	0
15.716	15.716	1,1-DICHLOROPROPENE	0.0000	0	0
16.234	16.234	CARBON TETRACHLORIDE	0.0000	0	0
18.361	18.361	DIBROMOMETHANE	0.0000	0	0
18.523	18.523	1,2-DICHLOROPROPANE	0.0000	0	0
18.671	18.671	TRICHLOROETHENE	0.0000	0	0
18.778	18.775	BROMODICHLOROMETHANE	0.0181	458	48
20.088	20.088	2-CHLOROETHYL VINYL	0.0000	0	0
20.431	20.431	CIS-1,3-DICHLOROPROP	0.0000	0	0
21.350	21.350	TRANS-1,3-DICHLOROPR	0.0000	0	0
21.573	21.573	1,1,2-TRICHLOROETHAN	0.0000	0	0
22.018	22.018	1,3-DICHLOROPROPANE	0.0000	0	0
22.396	22.396	DIBROMOCHLOROMETHANE	0.0000	0	0
22.790	22.790	1,2-DIBROMOETHANE	0.0000	0	0
23.094	23.106	TETRACHLOROETHENE	0.0161	298	63
24.031	24.031	1,1,1,2-TETRACHLOROE	0.0000	0	0
24.132	24.132	CHLOROBENZENE	0.0000	0	0
24.808	24.808	BROMOFORM	0.0000	0	0
25.246	25.246	1,1,2,2-TETRACHLOROE	0.0000	0	0
25.426	25.426	1,2,3-TRICHLOROPROPA	0.0000	0	0
26.022	26.022	BROMOBENZENE	0.0000	0	0
26.400	26.418	2-CHLOROTOLUENE	0.0188	124	28
26.506	26.521	4-CHLOROTOLUENE	0.0280	483	45
27.420	27.447	1,3-DICHLOROBENZENE	0.0454	459	101
27.519	27.542	1,4-DICHLOROBENZENE	0.0704	2200	173
28.017	28.040	1,2-DICHLOROBENZENE	0.0443	1240	97
28.734	28.734	1,2-DIBROMO-3-CHLORO	0.0000	0	0
29.303	29.340	SURR-1B4CB-H	18.4745	134878	24410
31.066	31.090	1,2,4-TRICHLOROBENZE	0.1946	2998	297
31.684	31.708	HEXACHLOROBUTADIENE	0.1554	2469	291
32.019	32.045	1,2,3-TRICHLOROBENZE	0.2610	3165	308
		TOTAL 1,2-DICHLOROETHENE:	**0.0062**		

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 61.5816%

Sample name: CALSTD2 Batch: 98194A188466,846

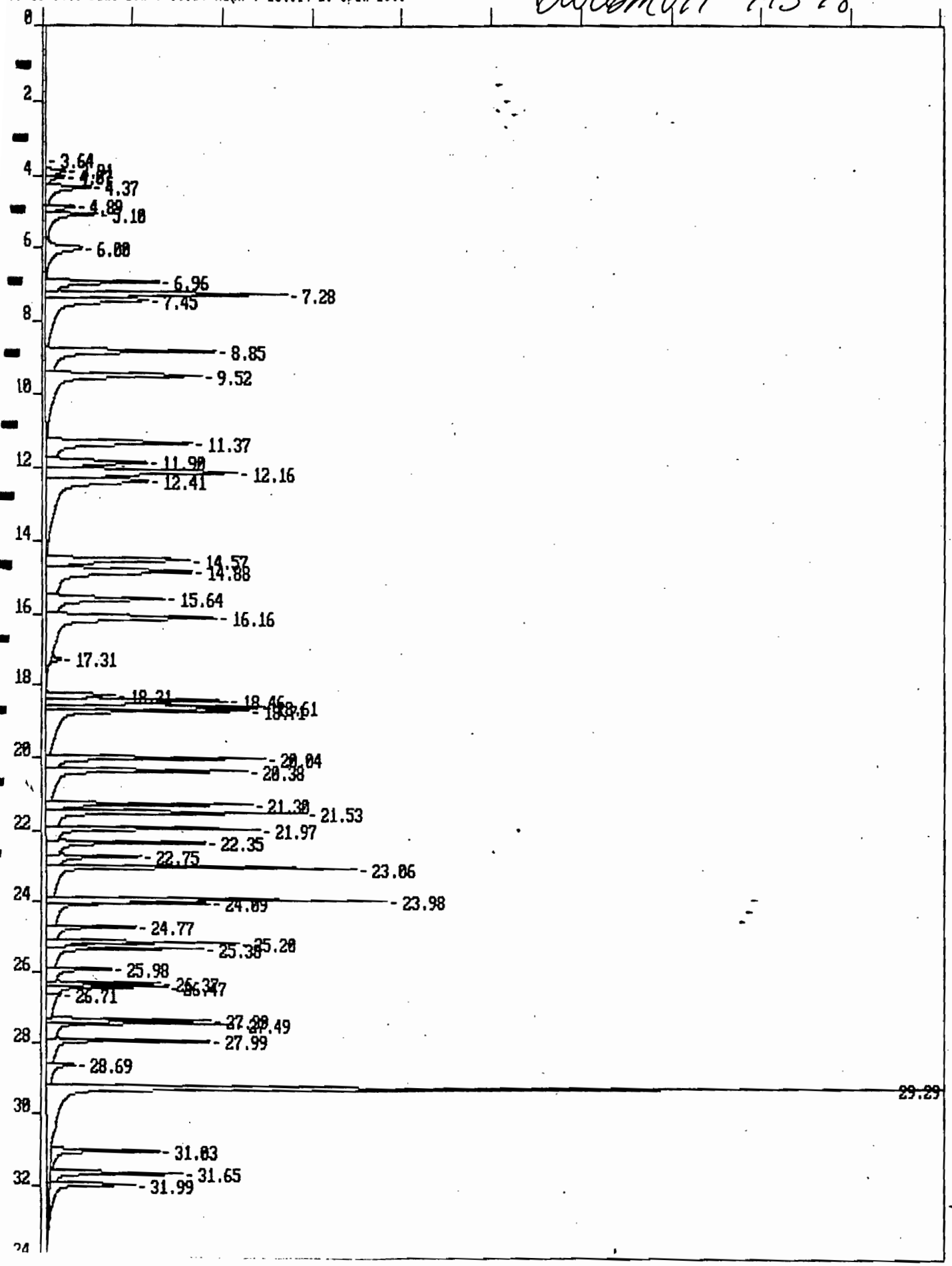
Raw file: C:\CP\DATA1\18194.16R

Reviewed by: L. Smythe 15 Verified by:

Date: 7-14-98 Date:

File=C:\CP\DATA1\18194.07R Date printed=07-13-1998 Time= 20:45:12
Sample Name=CALSTD2 98194A188466,8465,
0.0 to 34.0 min. Low Y=0.014 High Y=25.014 mv Span=25.0

DWclom097 7-13-98



Sample Name:
Batch: 98194A18 Date Taken:
Data File: C:\CP\DATA1\18194.07R
Area File: C:\CP\DATA1\18194.07A
Method File: C:\CP\DATA1\Z8194.MET(version 2)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18HALL
Peak Width: .04 Dil. Factor: 1 Analyst: 215
Threshold: -3 Calculation: EXTERNALStd using peak heights

DW dsm097 7-13-98 CALSTD2

98HN4A18

Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 4):

Ret. Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
3.911	3.925	DICHLORODIFLUOROMETH	1.0872	4027	549
4.067	4.082	CHLOROMETHANE	1.0469	4425	536
4.366	4.386	VINYL CHLORIDE	1.1389	12626	1269
4.894	4.910	BROMOMETHANE	1.0303	5781	815
5.101	5.116	CHLOROETHANE	1.0357	14702	1461
6.004	6.021	TRICHLOROFLUOROMETHA	1.0111	17112	1036
6.955	6.969	1,1-DICHLOROETHENE	1.8404	22838	3201
7.276	7.287	METHYLENE CHLORIDE	2.6212	41518	6718
7.447	7.457	TRICHLOROTRIFLUOROET	1.9381	42373	2884
8.845	8.853	TRANS-1,2-DICHLOROET	2.0722	40444	4737
9.517	9.526	1,1-DICHLOROETHANE	2.0957	53011	4344
11.365	11.375	CIS-1,2-DICHLOROETHE	2.0864	39347	4087
11.904	11.914	BROMOCHLOROMETHANE	2.0974	25499	2849
12.162	12.171	CHLOROFORM	2.2588	50918	5313
12.407	12.421	2,2-DICHLOROPROPANE	2.0772	56107	2871
14.565	14.584	1,2-DICHLOROETHANE	2.1755	32708	4027
14.881	14.899	1,1,1-TRICHLOROETHAN	2.0515	52327	4070
15.643	15.658	1,1-DICHLOROPROPENE	1.9239	33385	3347
16.159	16.178	CARBON TETRACHLORIDE	2.0438	64370	4742
18.306	18.328	DIBROMOMETHANE	1.9484	10956	1969
18.460	18.480	1,2-DICHLOROPROPANE	2.2368	31833	5033
18.610	18.628	TRICHLOROETHENE	1.8708	36489	5978
18.712	18.734	BROMODICHLOROMETHANE	2.1718	55055	5633
20.038	20.067	2-CHLOROETHYL VINYL	6.5982	33707	6084
20.381	20.405	CIS-1,3-DICHLOROPROP	2.0539	41161	5598
21.303	21.328	TRANS-1,3-DICHLOROPR	2.1981	26429	5719
21.526	21.550	1,1,2-TRICHLOROETHAN	2.1924	40391	7228
21.970	21.994	1,3-DICHLOROPROPANE	2.2821	31689	5918
22.351	22.377	DIBROMOCHLOROMETHANE	2.1951	27996	4444
22.750	22.777	1,2-DIBROMOETHANE	2.0176	17858	2687
23.060	23.082	TETRACHLOROETHENE	1.9575	51872	8664
23.985	24.006	1,1,1,2-TETRACHLOROE	2.1392	36775	9472
24.086	24.108	CHLOROBENZENE	2.1911	30721	4535
24.768	24.794	BROMOFORM	1.9780	18165	2527
25.199	25.221	1,1,2,2-TETRACHLOROE	2.3361	22862	5327
25.380	25.403	1,2,3-TRICHLOROPROPA	2.2963	27667	4358
25.981	26.005	BROMOBENZENE	1.8734	13519	1844
26.370	26.391	2-CHLOROTOLUENE	2.0294	12336	3183
26.474	26.494	4-CHLOROTOLUENE	2.0780	16912	3405
27.394	27.415	1,3-DICHLOROBENZENE	2.0890	16560	4567
27.487	27.508	1,4-DICHLOROBENZENE	2.1042	28681	5180
27.986	28.007	1,2-DICHLOROBENZENE	2.1942	28148	4545
28.686	28.704	1,2-DIBROMO-3-CHLORO	2.2417	9162	807
29.286	29.303	SURR-1B4CB-H	22.1339	148993	26139
31.033	31.050	1,2,4-TRICHLOROBENZE	3.0110	17783	3029
31.650	31.667	HEXACHLOROBUTADIENE	2.0179	21686	3691
31.986	32.002	1,2,3-TRICHLOROBENZE	4.0718	20299	2416
		TOTAL 1,2-DICHLOROETHENE:	**4.1586**		

* Amounts in ug/L for water samples, ug/kg for solid samples.

Surrogate Recovery: BrClBenzene 73.7797%

Chrom Perfect version 6.07 Reported on 07-13-1998at 20:50:02

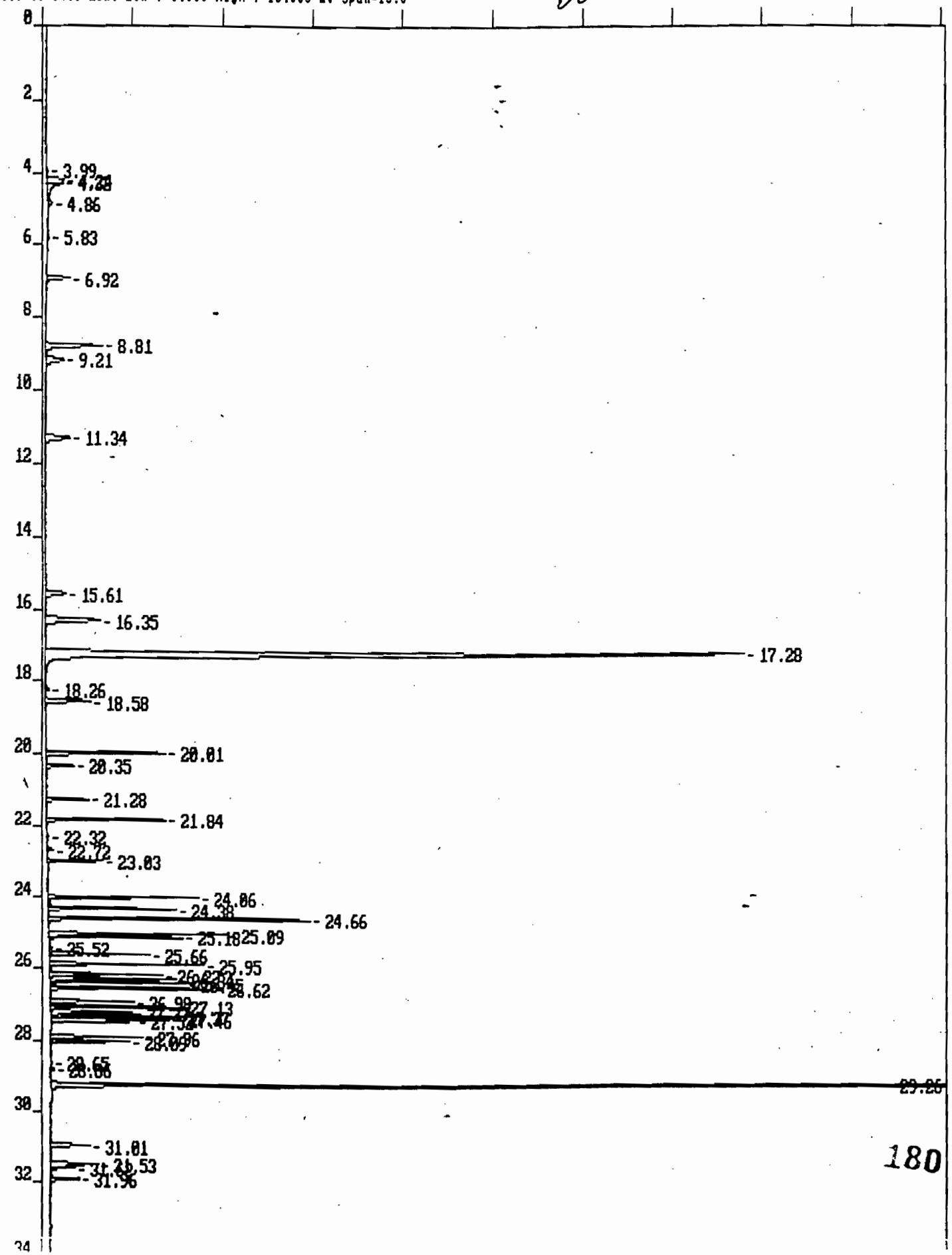
Sample name: CALSTD2
Raw file: C:\CP\DATA1\18194.07R

Reviewed by: Davidson 097 Verified by:

Date: 7-13-98 Date:

File=C:\CP\DATA1\181948.07R Date printed=07-13-1998 Time= 20:50:30
Sample Name=CALSTD2 9819AA188466,8465,
0.0 to 34.0 min. Low Y=0.005 High Y=15.005 av Span=15.0

DWdom097 7-13-98



Sample Name: CALSTD2
Batch: 98194A18 Date Taken: Jul 13, 1998 20:48:07
Raw File: C:\CP\DATA1\18194B.07R
Area File: C:\CP\DATA1\18194B.07A
Method File: C:\CP\DATA1\Z8194B.MET(version 2)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 -.5890#18PID
Peak width: .04 Dil. factor: 1 Analyst: 215
Threshold: 0 Calculation: INTERNALStd using peak heights

Reprocessed for Updated RT's DWdem097 7-13-98

CALSTD2

Peak table using calibration C:\CP\DATA1\PZ8194.CAL(version 8):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
4.236	4.250	VINYL CHLORIDE	3.1691	1687	286
6.924	6.938	1,1-DICHLOROETHENE	1.9685	2215	405
8.813	8.823	TRANS-1,2-DICHLOROET	1.9221	5611	963
9.210	9.217	METHYL T-BUTYL ETHER	2.1293	2705	305
11.336	11.330	CIS-1,2-DICHLOROETHE	2.0158	3185	416
15.610	15.626	1,1-DICHLOROPROPENE	1.8829	2462	348
16.346	16.359	BENZENE	1.9796	6626	923
17.285	17.299	ISTD-FBENZENE	1.0000	78783	11620
18.581	18.593	TRICHLOROETHENE	1.9556	3809	759
20.010	20.037	2-CHLOROETHYL VINYL	6.5384	7533	1988
20.353	20.374	CIS-1,3-DICHLOROPROP	2.0598	1843	479
21.276	21.298	TRANS-1,3-DICHLOROPR	2.0738	2334	723
21.842	21.865	TOLUENE	2.0057	6369	1978
23.035	23.054	TETRACHLOROETHENE	1.8589	2855	933
24.063	24.084	CHLOROBENZENE	2.0254	6671	2499
24.383	24.403	ETHYLBENZENE	1.9902	5866	2123
24.660	24.682	M,P-XYLENE	4.0127	13145	4340
25.088	25.109	STYRENE	2.0410	7099	2957
25.179	25.197	O-XYLENE	2.0099	5871	2241
25.658	25.676	ISOPROPYLBENZENE	1.9558	4629	1679
25.949	25.968	BROMOBENZENE	2.0421	6779	2572
26.233	26.252	N-PROPYLBENZENE	1.9320	4992	1868
26.345	26.363	2-CHLOROTOLUENE	2.0101	5574	2113
26.449	26.468	4-CHLOROTOLUENE	1.9913	5784	2264
26.618	26.636	1,3,5-TRIMETHYLBENZE	1.9730	7170	2702
26.982	27.000	TERT-BUTYLBENZENE	1.9530	3985	1395
27.131	27.150	1,2,4-TRIMETHYLBENZE	1.9964	5557	2081
27.273	27.290	SEC-BUTYLBENZENE	1.8958	3840	1344
27.370	27.388	1,3-DICHLOROBENZENE	2.0048	5373	2005
27.465	27.483	1,4-DICHLOROBENZENE	2.1114	5535	2043
27.520	27.538	P-ISOPROPYLTOLUENE	1.8669	3725	1413
27.962	27.980	1,2-DICHLOROBENZENE	2.0868	4311	1530
28.089	28.109	N-BUTYLBENZENE	1.8915	3827	1317
29.259	29.275	SURR-1B4CB-P	22.1137	54021	17659
31.005	31.022	1,2,4-TRICHLOROBENZE	2.8270	2485	664
31.530	31.547	NAPHTHALENE	3.7457	3133	798
31.621	31.630	HEXACHLOROBUTADIENE	1.9979	1811	413
31.957	31.976	1,2,3-TRICHLOROBENZE	3.5922	2075	494
		XYLENES (Total):	6.0226		

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 73.7124%
Chrom Perfect version 6.07 Reported on 07-13-1998at 21:06:43

CALIBRATION UPDATE REPORT
Calibration file = C:\CP\DATA1\PZ8194.CAL Current version number = 8
Updated from file = C:\CP\DATA1\18194B.07A
Amount injected = 1
Standard amount injected = 1
Calibration level = 2 Replace old values with new
Number of runs since last replace = 0
Update to both retention time and area
Today's Date = 07-13-1998 time = 21:06:44

Internal Standard Calculations From ISTDCHK v. 950609.1130
IStd height for ISTD-FBENZENE is too high!
IStd range: 5,627 - 8,441 (80% - 120% of midpoint 7,034)
Used initial calibration files to determine range.

CALSTD2

DWilson 097
7-13-98

Sample name: CALSTD2 Batch: 98194A188466,846

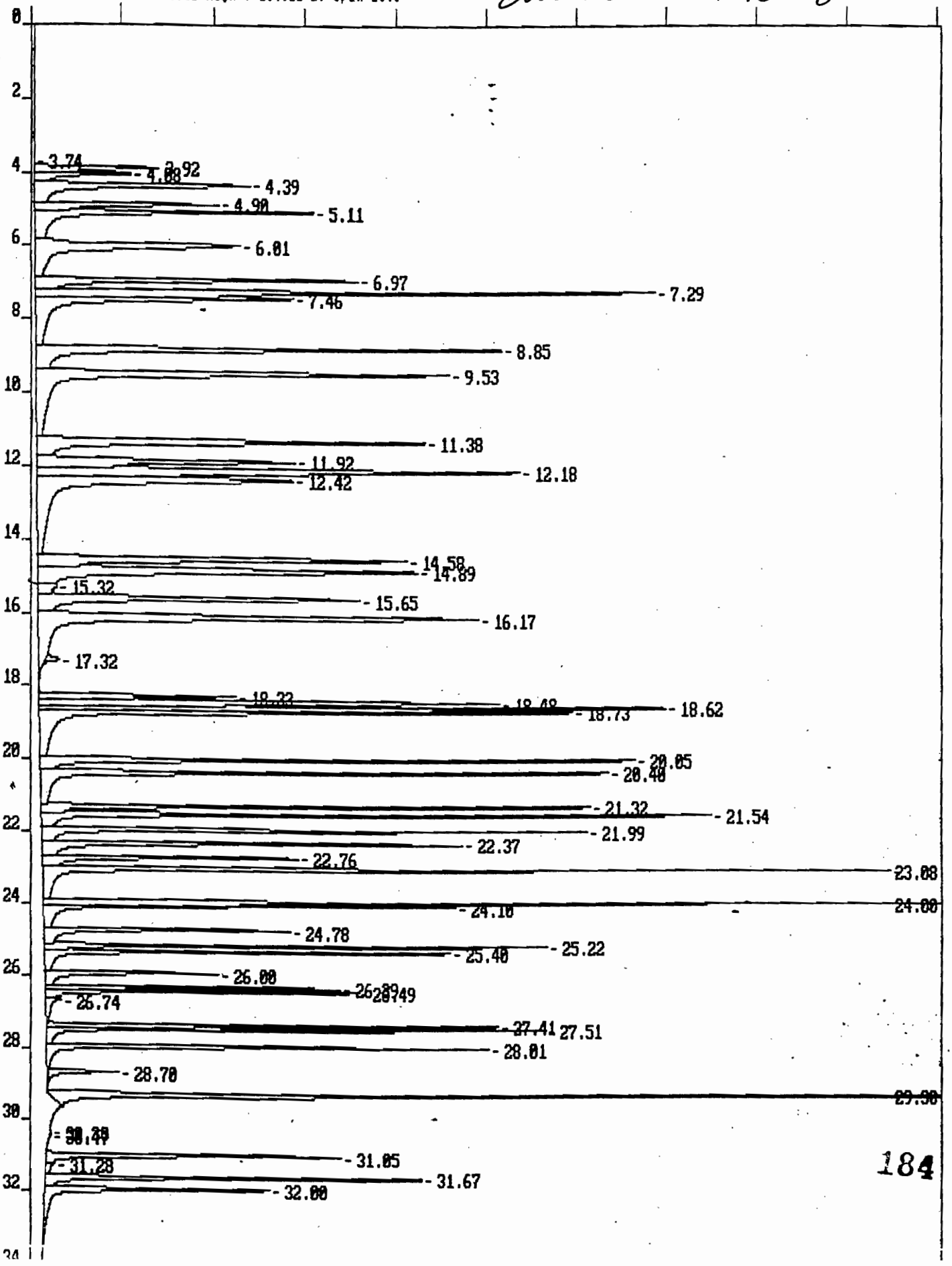
Raw file: C:\CP\DATA1\18194B.07R

Reviewed by: Davidson097 Verified by:

Date: 7-13-98 Date:

File=C:\CP\DATA1\18194.09R Date printed=07-13-1998 Time= 21:28:34
Sample Name=CALSTD3 98194A188466,8465,
0.0 to 34.0 min. Low Y=0.022 High Y=25.022 av Span=25.0

DWilson 097 7-13-98



Sample Name: CALSTD3
Batch: 98194A18 Date Taken: Jul 13, 1998 21:28:30
Raw File: C:\CP\DATA1\18194.08R
Area File: C:\CP\DATA1\18194.08A
Method File: C:\CP\DATA1\Z8194.MET(version 2)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18HALL
Peak Width: .04 Dil. Factor: 1 Analyst: 215
Threshold: -3 Calculation: EXTERNALStd using peak heights

CALSTD 3 DWilson 097 98194A18 7-13-98

Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 5):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
3.919	3.911	DICHLORODIFLUOROMETH	6.8355	22050	3178
4.083	4.067	CHLOROMETHANE	5.9211	18622	2674
4.390	4.366	VINYL CHLORIDE	5.7979	53312	5875
4.903	4.894	BROMOMETHANE	7.0210	30878	5029
5.112	5.101	CHLOROETHANE	6.0292	61361	7627
6.006	6.004	TRICHLOROFLUOROMETHA	5.5495	78554	5595
6.966	6.955	1,1-DICHLOROETHENE	5.2685	59136	8816
7.285	7.276	METHYLENE CHLORIDE	6.6808	102234	17050
7.464	7.447	TRICHLOROTRIFLUOROET	4.7771	89792	7049
8.853	8.845	TRANS-1,2-DICHLOROET	5.6015	97449	12770
9.525	9.517	1,1-DICHLOROETHANE	5.5223	122775	11335
11.377	11.365	CIS-1,2-DICHLOROETHE	5.4878	95185	10635
11.915	11.904	BROMOCHLOROMETHANE	5.2648	61827	7064
12.175	12.162	CHLOROFORM	5.5668	122972	13244
12.423	12.407	2,2-DICHLOROPROPANE	5.1724	115586	7001
14.579	14.565	1,2-DICHLOROETHANE	5.4954	80188	10091
14.891	14.881	1,1,1-TRICHLOROETHAN	5.3174	111179	10405
15.652	15.643	1,1-DICHLOROPROPENE	5.2307	78235	8791
16.171	16.159	CARBON TETRACHLORIDE	5.2208	137833	12039
18.317	18.306	DIBROMOMETHANE	5.3490	29665	5365
18.476	18.460	1,2-DICHLOROPROPANE	5.5492	78982	12619
18.624	18.610	TRICHLOROETHENE	5.5778	95622	17222
18.729	18.712	BROMODICHLOROMETHANE	5.5963	115204	14627
20.052	20.038	2-CHLOROETHYL VINYL	17.4087	82283	16331
20.397	20.381	CIS-1,3-DICHLOROPROP	5.7013	88016	15584
21.318	21.303	TRANS-1,3-DICHLOROPR	5.6800	64873	15064
21.541	21.526	1,1,2-TRICHLOROETHAN	5.6106	89859	18427
21.985	21.970	1,3-DICHLOROPROPANE	5.6383	69355	14987
22.368	22.351	DIBROMOCHLOROMETHANE	5.6181	59391	11511
22.765	22.750	1,2-DIBROMOETHANE	5.2967	37198	7026
23.076	23.060	TETRACHLOROETHENE	5.4255	110077	23295
24.001	23.985	1,1,1,2-TETRACHLOROE	5.7393	94735	25039
24.103	24.086	CHLOROBENZENE	5.4346	56746	11282
24.783	24.768	BROMOFORM	5.2766	35341	6747
25.216	25.199	1,1,2,2-TETRACHLOROE	5.8527	53132	13770
25.398	25.380	1,2,3-TRICHLOROPROPA	5.7490	50835	11115
25.995	25.981	BROMOBENZENE	4.8892	24953	4741
26.387	26.370	2-CHLOROTOLUENE	5.1980	29067	8066
26.490	26.474	4-CHLOROTOLUENE	5.2596	35486	8526
27.413	27.394	1,3-DICHLOROBENZENE	5.6249	42981	12387
27.507	27.487	1,4-DICHLOROBENZENE	5.5099	59345	13677
28.007	27.986	1,2-DICHLOROBENZENE	5.7691	54552	12114
28.704	28.686	1,2-DIBROMO-3-CHLORO	5.3697	9887	1929
29.304	29.286	SURR-1B4CB-H	32.9039	171032	39432
31.050	31.033	1,2,4-TRICHLOROBENZE	7.3241	38764	8063
31.669	31.650	HEXACHLOROBUTADIENE	5.6698	56141	10294
32.004	31.986	1,2,3-TRICHLOROBENZE	8.6252	41620	6143
		TOTAL 1,2-DICHLOROETHENE:	**11.0892**		

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 109.6796%
Chrom Perfect version 6.07 Reported on 07-13-1998at 21:30:25

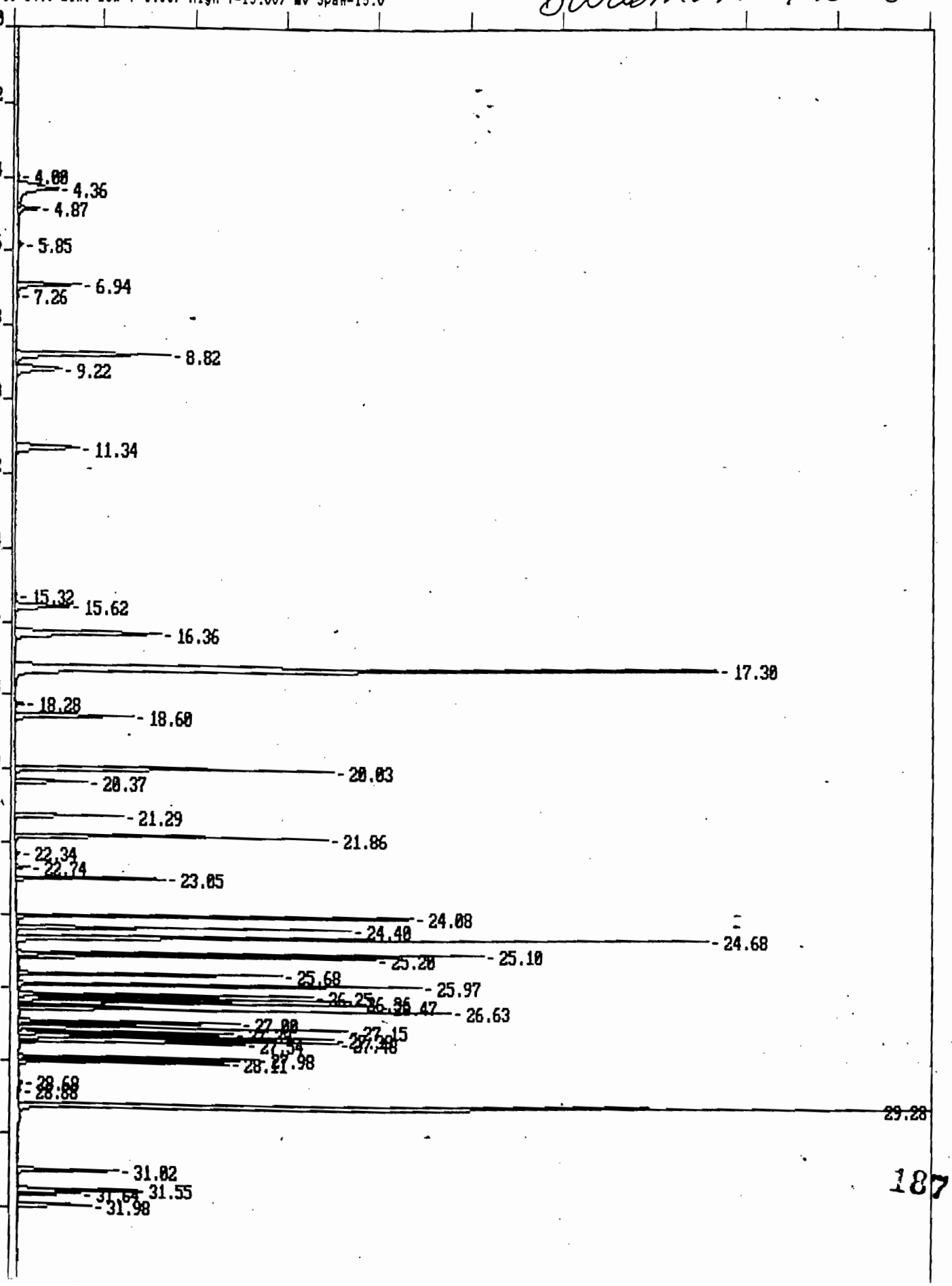
Sample name: CALSTD3 Batch: 98194A188466,846
Raw file: C:\CR\DATA1\18194.08R

Reviewed by: Durdom097 Verified by:

Date: 7-13-98 Date: 7/23/98

File=C:\CP\DATA1\18194B.08R Date printed=07-13-1998 Time= 21:30:52
Sample Name=CALSTD3 98194A188466,8465,
0.0 to 34.0 min. Low Y=0.007 High Y=15.007 mv Span=15.0

DWdom097 7-13-98



Sample Name: CALSTD3
Batch: 98194A18 Date Taken: Jul 13, 1998 21:28:30
Raw File: C:\CP\DATA1\18194B.08R
Area File: C:\CP\DATA1\18194B.08A
Method File: C:\CP\DATA1\Z8194B.MET(version 2)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18PID
Peak width: .04 Dil. factor: 1 Analyst: 215
Threshold: 0 Calculation: INTERNALStd using peak heights

DWilson097 7-13-98
CALSTD3
98194A18

Peak table using calibration C:\CP\DATA1\PZ8194.CAL(version 9):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
4.362	4.236	VINYL CHLORIDE	7.8154	8086	682
6.938	6.924	1,1-DICHLOROETHENE	5.3024	5773	1078
8.824	8.813	TRANS-1,2-DICHLOROET	5.1183	14618	2535
9.219	9.210	METHYL T-BUTYL ETHER	5.4149	6852	766
11.344	11.336	CIS-1,2-DICHLOROETHE	5.1888	7876	1059
15.621	15.610	1,1-DICHLOROPROPENE	4.9957	6527	914
16.357	16.346	BENZENE	5.2105	17020	2401
17.301	17.285	ISTD-FBENZENE	1.0000	77776	11484
18.597	18.581	TRICHLOROETHENE	5.1173	9607	1963
20.026	20.010	2-CHLOROETHYL VINYL	17.7729	19608	5236
20.370	20.353	CIS-1,3-DICHLOROPROP	5.2793	4461	1213
21.292	21.276	TRANS-1,3-DICHLOROPR	5.2212	5654	1798
21.859	21.842	TOLUENE	5.2755	16379	5143
23.052	23.035	TETRACHLOROETHENE	4.9846	7300	2472
24.079	24.063	CHLOROBENZENE	5.3079	17130	6473
24.400	24.383	ETHYLBENZENE	5.2093	14629	5493
24.677	24.660	M,P-XYLENE	10.5691	33640	11297
25.105	25.088	STYRENE	5.3368	18270	7641
25.196	25.179	O-XYLENE	5.3301	14950	5872
25.675	25.658	ISOPROPYLBENZENE	5.1437	11702	4365
25.966	25.949	BROMOBENZENE	5.3006	17006	6597
26.250	26.233	N-PROPYLBENZENE	5.0616	12589	4836
26.362	26.345	2-CHLOROTOLUENE	5.2651	14328	5471
26.467	26.449	4-CHLOROTOLUENE	5.2251	14903	5872
26.635	26.618	1,3,5-TRIMETHYLBENZE	5.2273	18579	7074
27.000	26.982	TERT-BUTYLBENZENE	5.1492	10370	3636
27.150	27.131	1,2,4-TRIMETHYLBENZE	5.2303	14271	5388
27.292	27.273	SEC-BUTYLBENZENE	5.0455	10103	3534
27.389	27.370	1,3-DICHLOROBENZENE	5.2401	13787	5180
27.483	27.465	1,4-DICHLOROBENZENE	5.2132	13895	5218
27.540	27.520	P-ISOPROPYLTOLUENE	5.1265	9977	3716
27.981	27.962	1,2-DICHLOROBENZENE	5.4029	10979	3916
28.109	28.089	N-BUTYLBENZENE	5.0502	9983	3477
29.279	29.259	SURR-1B4CB-P	33.6310	81126	26543
31.023	31.005	1,2,4-TRICHLOROBENZE	7.2075	6233	1673
31.549	31.530	NAPHTHALENE	8.1041	7542	1926
31.640	31.621	HEXACHLOROBUTADIENE	5.3545	4256	1062
31.976	31.957	1,2,3-TRICHLOROBENZE	9.0472	4983	1229
		XYLENES (Total):	15.8992		

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 112.1033%
Chrom Perfect version 6.07 Reported on 07-13-1998at 21:34:40

CALIBRATION UPDATE REPORT

Calibration file = C:\CP\DATA1\PZ8194.CAL Current version number = 9
Updated from file = C:\CP\DATA1\18194B.08A
Amount injected = 1
Standard amount injected = 1
Calibration level = 3 Replace old values with new
Number of runs since last replace = 0
Update to both retention time and area
Today's Date = 07-13-1998 time = 21:34:42

Internal Standard Calculations From ISTDCHK v. 950609.1130

IStd height for ISTD-FBENZENE is too high!

IStd range: 5,472 - 8,207 (80% - 120% of midpoint 6,839)

Used initial calibration files to determine range.

DW1om097 CalSTD3

7-13-95

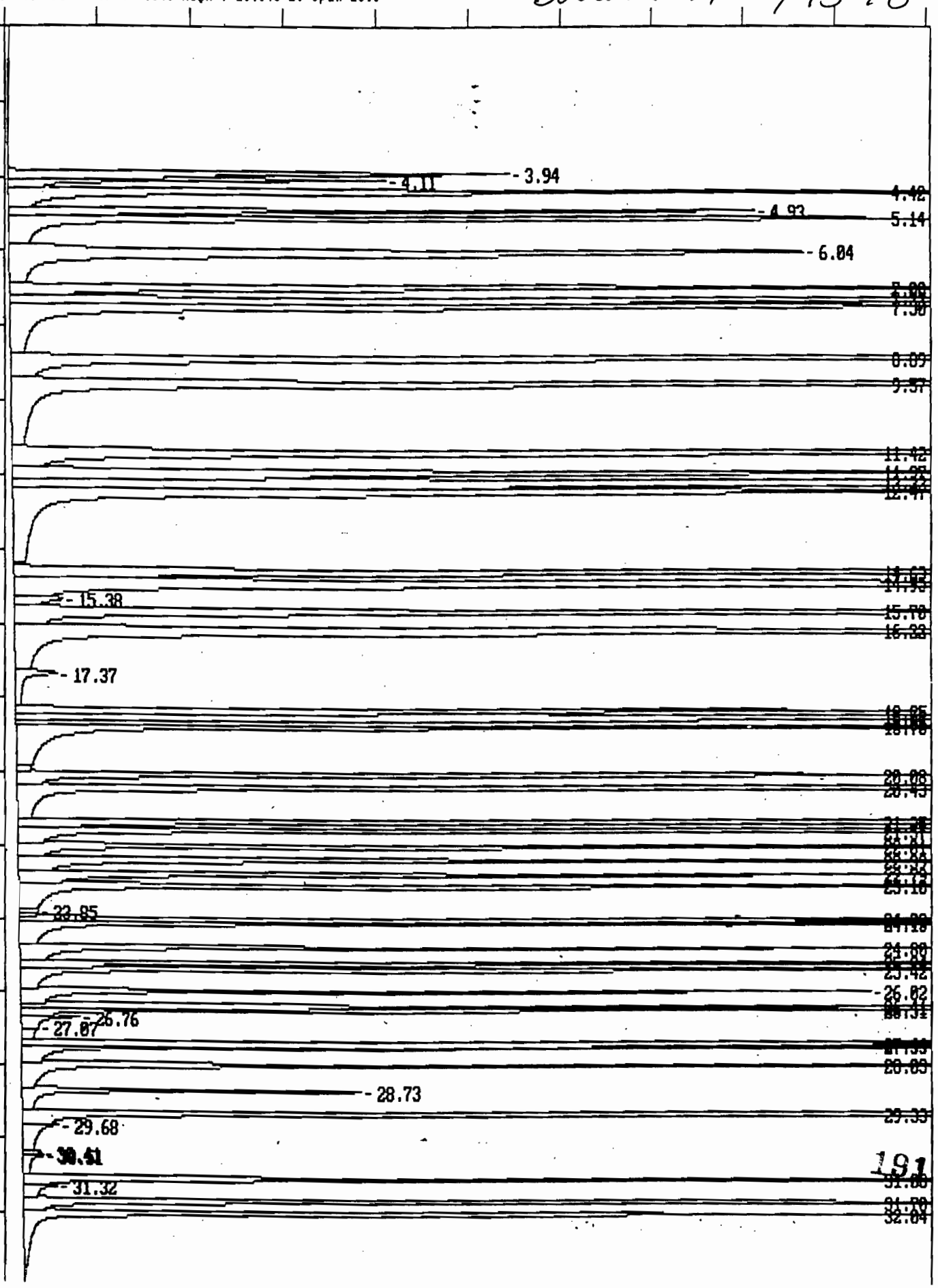
Sample name: CALSTD3 Batch: 98194A188466,846
Raw file: C:\CP\DATA1\18194B.08R

Reviewed by: Davidson 07/7 Verified by: [signature] 7/23/98

Date: 7-13-98 Date:

File=C:\CP\DATA1\18194.09R Date printed=07-13-1998 Time= 22:09:04
Sample Name=CALSTD4 98194A188466,8465,
0.0 to 34.0 min. Low Y=0.043 High Y=25.043 mv Span=25.0

DWdam057 7-13-98



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Sample Name: CALSTD4
Batch: 98194A18 Date Taken: Jul 13, 1998 22:09:02
Raw File: C:\CP\DATA1\18194.09R
Area File: C:\CP\DATA1\18194.09A
Method File: C:\CP\DATA1\Z8194.MET(version 2)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18HALL
Peak Width: .04 Dil. Factor: 1 Analyst: 215
Threshold: -3 Calculation: EXTERNALStd using peak heights

Durham 097 7-13-98

Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 6):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
3.938	3.919	DICHLORODIFLUOROMETH	28.0093	92522	13508
4.110	4.083	CHLOROMETHANE	22.7119	64611	10154
4.423	4.390	VINYL CHLORIDE	24.6055	199165	25458
4.927	4.903	BROMOMETHANE	27.4724	117952	20177
5.139	5.112	CHLOROETHANE	23.1822	205855	29436
6.037	6.006	TRICHLOROFLUOROMETHA	22.2545	278773	21487
6.998	6.966	1,1-DICHLOROETHENE	20.5237	218928	33732
7.321	7.285	METHYLENE CHLORIDE	24.1364	361820	60487
7.497	7.464	TRICHLOROTRIFLUOROET	17.5529	280078	24977
8.892	8.853	TRANS-1,2-DICHLOROET	20.0572	330579	45427
9.568	9.525	1,1-DICHLOROETHANE	20.9254	397683	42739
11.423	11.377	CIS-1,2-DICHLOROETHE	20.8813	346905	40492
11.965	11.915	BROMOCHLOROMETHANE	21.3003	238467	28607
12.232	12.175	CHLOROFORM	19.9637	444257	47385
12.471	12.423	2,2-DICHLOROPROPANE	18.9963	350798	25612
14.631	14.579	1,2-DICHLOROETHANE	20.7564	300502	38333
14.945	14.891	1,1,1-TRICHLOROETHAN	19.8381	395001	38578
15.704	15.652	1,1-DICHLOROPROPENE	20.1275	277738	33356
16.225	16.171	CARBON TETRACHLORIDE	20.2954	457692	46016
18.354	18.317	DIBROMOMETHANE	23.7630	133265	24280
18.513	18.476	1,2-DICHLOROPROPANE	20.6390	295213	46806
18.664	18.624	TRICHLOROETHENE	20.6684	352876	63231
18.763	18.729	BROMODICHLOROMETHANE	19.3389	358125	50589
20.083	20.052	2-CHLOROETHYL VINYL	34.4604	160358	32272
20.428	20.397	CIS-1,3-DICHLOROPROP	21.9833	303747	59671
21.347	21.318	TRANS-1,3-DICHLOROPR	21.9602	245212	58284
21.570	21.541	1,1,2-TRICHLOROETHAN	21.1641	321190	69634
22.014	21.985	1,3-DICHLOROPROPANE	21.6853	250899	57636
22.392	22.368	DIBROMOCHLOROMETHANE	21.0938	211482	43392
22.789	22.765	1,2-DIBROMOETHANE	22.7647	142807	30505
23.103	23.076	TETRACHLOROETHENE	20.1842	372655	85490
24.026	24.001	1,1,1,2-TETRACHLOROE	21.4377	351512	93851
24.126	24.103	CHLOROBENZENE	20.2600	192487	41902
24.804	24.783	BROMOFORM	23.7183	138979	30437
25.239	25.216	1,1,2,2-TETRACHLOROE	22.1635	198007	52915
25.420	25.398	1,2,3-TRICHLOROPROPA	21.6849	179794	42218
26.018	25.995	BROMOBENZENE	23.6138	103214	23007
26.411	26.387	2-CHLOROTOLUENE	21.8479	120233	33647
26.515	26.490	4-CHLOROTOLUENE	21.3724	136076	34398
27.440	27.413	1,3-DICHLOROBENZENE	22.1130	169762	48246
27.534	27.507	1,4-DICHLOROBENZENE	21.0474	217394	51891
28.033	28.007	1,2-DICHLOROBENZENE	22.2007	203488	46722
28.730	28.704	1,2-DIBROMO-3-CHLORO	25.8897	52687	9112
29.334	29.304	SURR-1B4CB-H	43.7563	240954	53858
31.083	31.050	1,2,4-TRICHLOROBENZE	26.9690	156594	32914
31.702	31.669	HEXACHLOROBUTADIENE	21.2698	207903	38604
32.038	32.004	1,2,3-TRICHLOROBENZE	30.0650	146893	24980
	TOTAL 1,2-DICHLOROETHENE:		**40.9384**		

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* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 145.8543%
Chrom Perfect version 6.07 Reported on 07-13-1998at 22:10:57

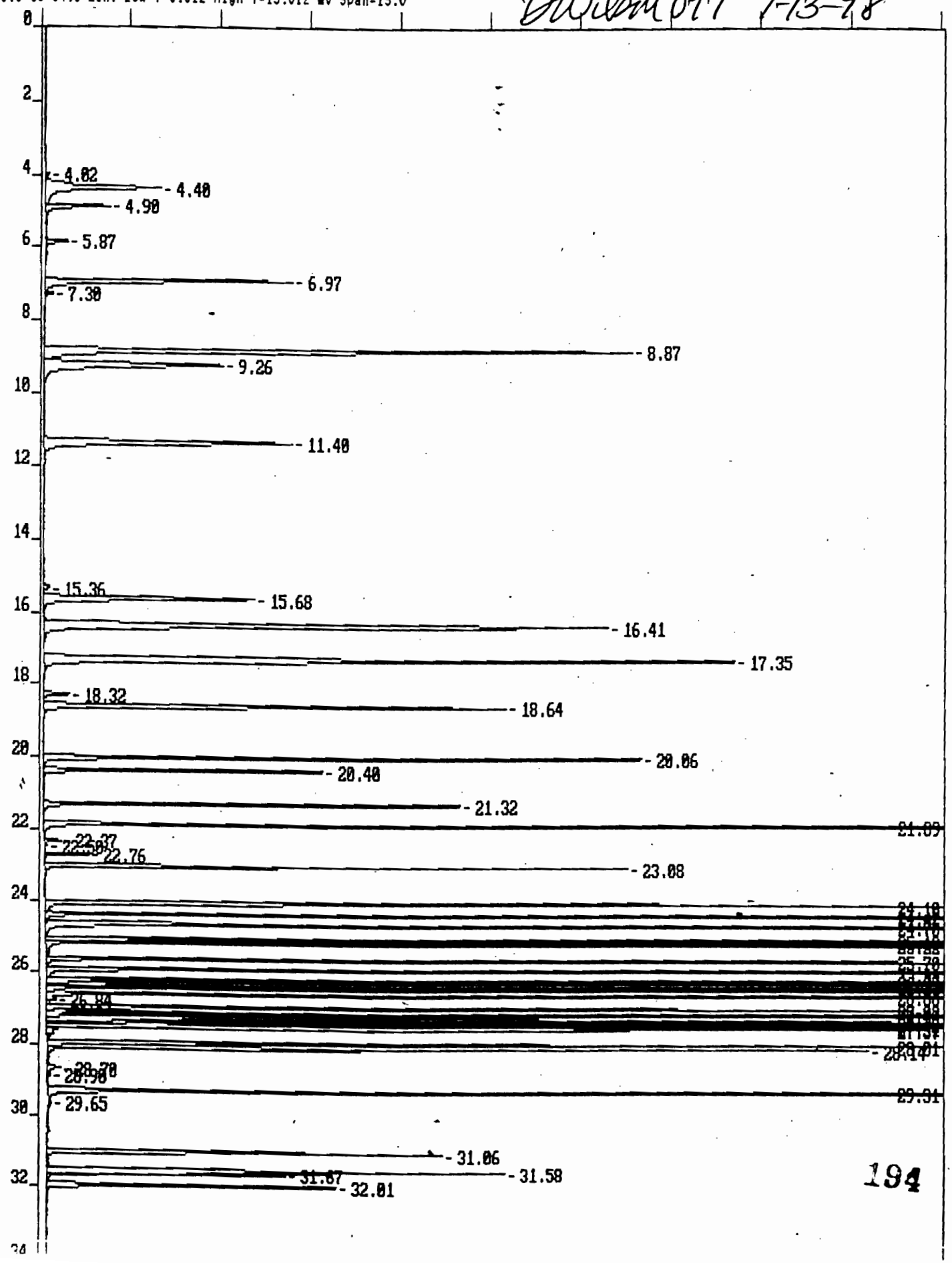
Sample name: CALSTD4 Batch: 98194A188466,846
Raw file: C:\CP\DATA1\18194.09R

Reviewed by: DWilson 097 Verified by: [signature]

Date: 7-13-98 Date: 7/13/98

File=C:\CP\DATA1\18194B.09R Date printed=07-13-1998 Time= 22:11:24
Sample Name=CALSTD4 98194A188466,8465,
0.0 to 34.0 min. Low Y=0.012 High Y=15.012 mv Span=15.0

DWilbur097 7-13-98



Sample Name: CALSTD4
Batch: 98194A18 Date Taken: Jul 13, 1998 22:09:02
Raw File: C:\CP\DATA1\18194B.09R CALSTD4 98194A18
Area File: C:\CP\DATA1\18194B.09A DWilson97 7-13-98
Method File: C:\CP\DATA1\Z8194B.MET(version 2)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18PID
Peak width: .04 Dil. factor: 1 Analyst: 215
Threshold: 0 Calculation: INTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\PZ8194.CAL(version 10):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
4.397	4.362	VINYL CHLORIDE	24.5071	16879	1964
6.969	6.938	1,1-DICHLOROETHENE	20.2973	22076	4142
8.866	8.824	TRANS-1,2-DICHLOROET	19.7947	56427	9772
9.261	9.219	METHYL T-BUTYL ETHER	21.0160	27863	3004
11.396	11.344	CIS-1,2-DICHLOROETHE	20.2555	30767	4137
15.676	15.621	1,1-DICHLOROPROPENE	19.3967	25013	3524
16.411	16.357	BENZENE	20.3050	66861	9372
17.354	17.301	ISTD-FBENZENE	1.0000	76428	11484
18.637	18.597	TRICHLOROETHENE	20.0532	37181	7689
20.057	20.026	2-CHLOROETHYL VINYL	33.4965	36938	9935
20.401	20.370	CIS-1,3-DICHLOROPROP	20.1032	16717	4661
21.321	21.292	TRANS-1,3-DICHLOROPR	19.9784	21306	6928
21.888	21.859	TOLUENE	20.6191	63378	20142
23.079	23.052	TETRACHLOROETHENE	19.6432	28230	9699
24.104	24.079	CHLOROBENZENE	20.6872	66418	25348
24.424	24.400	ETHYLBENZENE	20.4854	56390	21593
24.701	24.677	M,P-XYLENE	41.1042	130604	43995
25.128	25.105	STYRENE	20.8268	71266	29947
25.219	25.196	O-XYLENE	21.0770	59221	23329
25.699	25.675	ISOPROPYLBENZENE	20.3742	46044	17252
25.991	25.966	BROMOBENZENE	20.7749	66779	26018
26.275	26.250	N-PROPYLBENZENE	20.0703	49503	19082
26.387	26.362	2-CHLOROTOLUENE	20.6511	56519	21486
26.492	26.467	4-CHLOROTOLUENE	20.6010	59036	23184
26.660	26.635	1,3,5-TRIMETHYLBENZE	20.6679	74165	27966
27.026	27.000	TERT-BUTYLBENZENE	20.3823	41155	14368
27.176	27.150	1,2,4-TRIMETHYLBENZE	20.5787	56383	21201
27.318	27.292	SEC-BUTYLBENZENE	20.1211	40120	14025
27.415	27.389	1,3-DICHLOROBENZENE	20.6589	54685	20476
27.511	27.483	1,4-DICHLOROBENZENE	20.4561	54588	20539
27.566	27.540	P-ISOPROPYLTOLUENE	20.2932	39787	14663
28.008	27.981	1,2-DICHLOROBENZENE	21.1692	43392	15491
28.136	28.109	N-BUTYLBENZENE	19.9768	39346	13661
29.308	29.279	SURR-1B4CB-P	43.9063	107619	35307
31.057	31.023	1,2,4-TRICHLOROBENZE	26.1718	24050	6568
31.583	31.549	NAPHTHALENE	28.5629	28933	7615
31.675	31.640	HEXACHLOROBUTADIENE	19.9665	16513	3993
32.011	31.976	1,2,3-TRICHLOROBENZE	30.5228	19455	4827
		XYLENES (Total):	62.1812		

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 146.3545%
Chrom Perfect version 6.07 Reported on 07-13-1998at 22:15:11

CALIBRATION UPDATE REPORT
Calibration file = C:\CP\DATA1\PZ8194.CAL Current version number = 10
Updated from file = C:\CP\DATA1\18194B.09A
Amount injected = 1
Standard amount injected = 1
Calibration level = 4 Replace old values with new
Number of runs since last replace = 0
Update to both retention time and area
Today's Date = 07-13-1998 time = 22:15:13

Internal Standard Calculations From ISTDCHK v. 950609.1130
IStd height for ISTD-FBENZENE is too high!
IStd range: 6,784 - 10,176 (80% - 120% of midpoint 8,480)
Used initial calibration files to determine range.

DWilm097 7-13-98

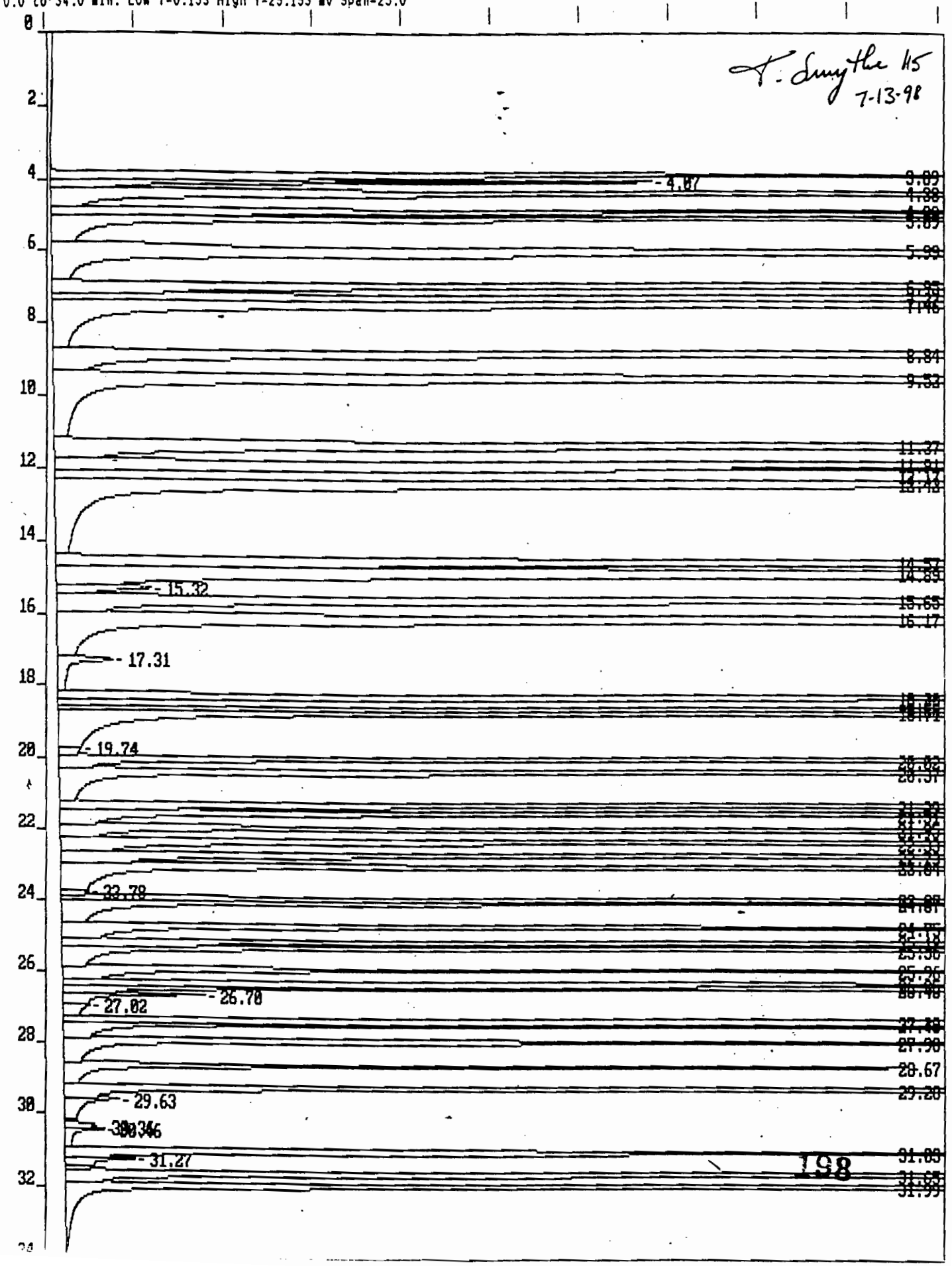
CalStd4

Sample name: CALSTD4 Batch: 98194A188466,846
Raw file: C:\CP\DATA1\18194B.09R

Reviewed by: Dwilson097 Verified by:

Date: 7-13-98 Date:

File=C:\CP\DATA1\18194.10R Date printed=07-13-1998 Time= 23:07:32
Sample Name=CALSTD5 98194A188466,8465,
0.0 to 34.0 min. Low Y=0.153 High Y=25.153 av Span=25.0



Sample Name: CALSTD5
Batch: 98194A18 Date Taken: Jul 13, 1998 22:49:26
Raw File: C:\CP\DATA1\18194.10R
Area File: C:\CP\DATA1\18194.10A CALSTD 5 98194A18 Reprocessed-updated RTs
Method File: C:\CP\DATA1\Z8194.MET(version 2)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 -.5890#18HALL
Peak Width: .04 Dil. Factor: 1 Analyst: 215
Threshold: -3 Calculation: EXTERNALStd using peak heights
Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 9):

J. Smythe 115 7-13-98

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
3.887	3.887	DICHLORODIFLUOROMETH	50.6253	191862	27359
4.072	4.072	CHLOROMETHANE	38.0509	116754	16828
4.381	4.381	VINYL CHLORIDE	43.1384	359919	46493
4.879	4.879	BROMOMETHANE	50.3805	225893	38511
5.086	5.086	CHLOROETHANE	43.4012	372707	55477
5.986	5.986	TRICHLOROFLUOROMETHA	41.2942	540372	40126
6.945	6.945	1,1-DICHLOROETHENE	49.3989	512272	78776
7.267	7.267	METHYLENE CHLORIDE	48.7510	804900	128846
7.457	7.457	TRICHLOROTRIFLUOROET	48.8481	620318	56173
8.843	8.843	TRANS-1,2-DICHLOROET	48.7123	788639	111738
9.516	9.516	1,1-DICHLOROETHANE	48.1108	867925	99122
11.370	11.370	CIS-1,2-DICHLOROETHE	49.0426	806294	95222
11.908	11.908	BROMOCHLOROMETHANE	51.5217	569324	68976
12.173	12.173	CHLOROFORM	46.6331	1036304	113041
12.418	12.418	2,2-DICHLOROPROPANE	40.4960	732143	52584
14.573	14.573	1,2-DICHLOROETHANE	49.6494	715227	91843
14.889	14.889	1,1,1-TRICHLOROETHAN	47.6299	924914	91435
15.645	15.645	1,1-DICHLOROPROPENE	50.3837	668002	81354
16.167	16.167	CARBON TETRACHLORIDE	48.1769	1070093	110381
18.296	18.296	DIBROMOMETHANE	57.8642	325629	59420
18.457	18.457	1,2-DICHLOROPROPANE	48.5812	693427	112996
18.604	18.600	TRICHLOROETHENE	44.4887	778121	134753
18.712	18.710	BROMODICHLOROMETHANE	46.6986	821463	123656
20.024	20.024	2-CHLOROETHYL VINYL	69.7126	315966	64908
20.367	20.367	CIS-1,3-DICHLOROPROP	45.5618	640166	125789
21.286	21.286	TRANS-1,3-DICHLOROPR	48.5398	558040	132201
21.511	21.511	1,1,2-TRICHLOROETHAN	46.8019	706157	155593
21.955	21.955	1,3-DICHLOROPROPANE	47.6697	560220	130485
22.334	22.334	DIBROMOCHLOROMETHANE	51.8133	504689	109629
22.728	22.728	1,2-DIBROMOETHANE	55.4414	331314	74989
23.044	23.044	TETRACHLOROETHENE	46.5600	840183	195400
23.968	23.970	1,1,1,2-TETRACHLOROE	50.5469	780407	206161
24.069	24.070	CHLOROBENZENE	47.6550	421354	99690
24.745	24.745	BROMOFORM	58.5286	323739	76141
25.181	25.181	1,1,2,2-TETRACHLOROE	49.3917	456686	122826
25.362	25.362	1,2,3-TRICHLOROPROPA	49.6814	405436	100951
25.959	25.959	BROMOBENZENE	58.5252	239806	56909
26.354	26.350	2-CHLOROTOLUENE	49.6922	272914	77174
26.458	26.460	4-CHLOROTOLUENE	49.5829	311598	80020
27.382	27.380	1,3-DICHLOROBENZENE	48.1780	389978	109038
27.476	27.480	1,4-DICHLOROBENZENE	45.8990	472983	113130
27.976	27.976	1,2-DICHLOROBENZENE	48.9792	453255	107235
28.672	28.672	1,2-DIBROMO-3-CHLORO	53.6154	121360	23544
29.279	29.279	SURR-1B4CB-H	52.1258	300480	67815
31.029	31.029	1,2,4-TRICHLOROBENZE	54.5241	369301	78309
31.649	31.649	HEXACHLOROBUTADIENE	50.9265	502236	94303
31.986	31.986	1,2,3-TRICHLOROBENZE	54.9477	324942	58400
		TOTAL 1,2-DICHLOROETHENE:	**97.7550**		

* Amounts in ug/L for water samples, ug/kg for solid samples.

Surrogate Recovery: BrClBenzene 173.7527%

Chrom Perfect version 6.07 Reported on 07-13-1998at 23:09:23

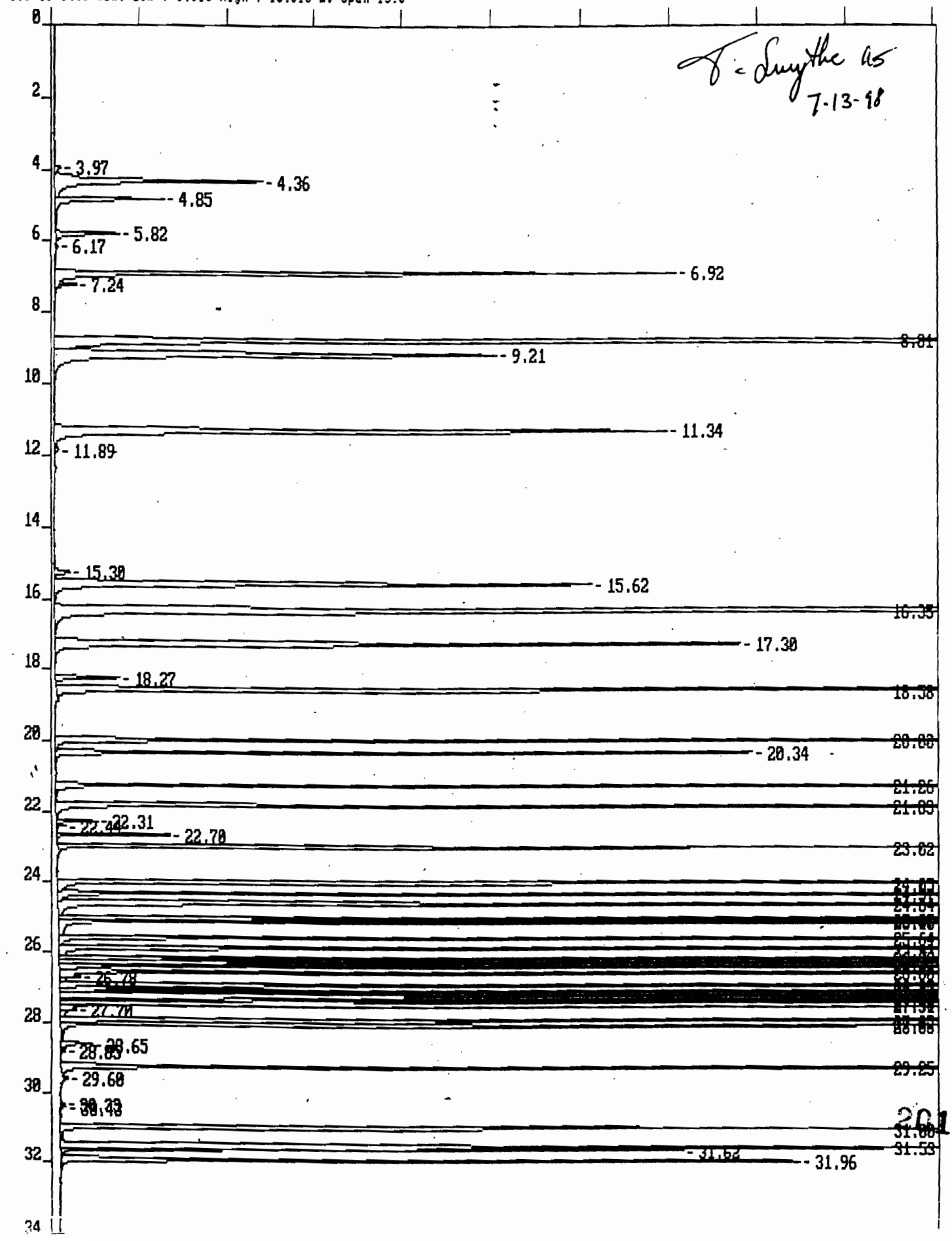
Sample name: CALSTD5 Batch: 98194A188466,846

Raw file: C:\CP\DATA1\18194.10R

Reviewed by: T. Smythe Verified by:

Date: 7-13-96 Date: 7/23/96

File=C:\CP\DATA1\181948.10R Date printed=07-13-1998 Time= 23:09:47
Sample Name=CALSTD5 9819AA188466,8465,
0.0 to 34.0 min. Low Y=0.016 High Y=15.016 mv Span=15.0



Sample Name: CALSTD5
Batch: 98194A18 Date Taken: Jul 13, 1998 22:49:26
Raw File: C:\CP\DATA1\18194B.10R
Area File: C:\CP\DATA1\18194B.10A CALSTD5 98194A18 Reprocessed - updated RTs
Method File: C:\CP\DATA1\Z8194B.MET(version 2)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 -.5890#18PID
Peak width: .04 Dil. factor: 1 Analyst: 215
Threshold: 0 Calculation: INTERNALStd using peak heights

T. Smythe 7-13-98

Peak table using calibration C:\CP\DATA1\PZ8194.CAL(version 13):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
4.359	4.359	VINYL CHLORIDE	40.1642	26681	3555
6.917	6.917	1,1-DICHLOROETHENE	49.8184	57673	10514
8.814	8.814	TRANS-1,2-DICHLOROET	48.7655	141526	24613
9.210	9.210	METHYL T-BUTYL ETHER	50.4318	69541	7529
11.342	11.342	CIS-1,2-DICHLOROETHE	49.2542	76982	10374
15.619	15.619	1,1-DICHLOROPROPENE	49.3930	64844	9111
16.354	16.354	BENZENE	49.7390	169475	23683
17.296	17.296	ISTD-FBENZENE	1.0000	77983	11621
18.580	18.580	TRICHLOROETHENE	49.6009	94111	19565
19.999	19.999	2-CHLOROETHYL VINYL	68.7407	78122	21133
20.343	20.343	CIS-1,3-DICHLOROPROP	49.1863	42329	11801
21.262	21.262	TRANS-1,3-DICHLOROPR	49.2705	54185	17704
21.828	21.828	TOLUENE	50.0070	159036	50549
23.020	23.020	TETRACHLOROETHENE	50.1055	73364	25225
24.046	24.046	CHLOROBENZENE	50.4425	167621	64115
24.366	24.366	ETHYLBENZENE	50.1260	142813	54603
24.644	24.644	M,P-XYLENE	100.6490	330035	111250
25.071	25.070	STYRENE	52.3639	180644	75530
25.162	25.160	O-XYLENE	50.4534	150115	58987
25.642	25.642	ISOPROPYLBENZENE	50.4566	117342	44007
25.933	25.933	BROMOBENZENE	50.9673	169602	66476
26.218	26.220	N-PROPYLBENZENE	49.3184	126922	48978
26.330	26.330	2-CHLOROTOLUENE	49.7708	143477	54306
26.435	26.430	4-CHLOROTOLUENE	49.7882	150834	59074
26.603	26.603	1,3,5-TRIMETHYLBENZE	50.8511	188617	71116
26.970	26.970	TERT-BUTYLBENZENE	50.5156	105035	36721
27.120	27.120	1,2,4-TRIMETHYLBENZE	50.5003	142949	53772
27.261	27.260	SEC-BUTYLBENZENE	49.7080	103546	36374
27.359	27.360	1,3-DICHLOROBENZENE	51.1101	140150	52515
27.454	27.450	1,4-DICHLOROBENZENE	52.7753	139930	52673
27.509	27.510	P-ISOPROPYLTOLUENE	49.8702	102296	37871
27.952	27.952	1,2-DICHLOROBENZENE	51.7922	111101	39808
28.078	28.078	N-BUTYLBENZENE	50.9166	102833	35735
29.253	29.253	SURR-1B4CB-P	52.3255	137510	45006
31.003	31.003	1,2,4-TRICHLOROBENZE	57.5899	62300	17041
31.530	31.530	NAPHTHALENE	64.8381	75031	19739
31.621	31.620	HEXACHLOROBUTADIENE	50.1015	43439	10553
31.959	31.959	1,2,3-TRICHLOROBENZE	61.1301	50594	12530

XYLENES (Total): 151.1023

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 174.4183%
Chrom Perfect version 6.07 Reported on 07-13-1998at 23:13:50

CALIBRATION UPDATE REPORT

Calibration file = C:\CP\DATA1\PZ8194.CAL Current version number = 13
Updated from file = C:\CP\DATA1\18194B.10A
Amount injected = 1
Standard amount injected = 1
Calibration level = 5 Replace old values with new
Number of runs since last replace = 0
Update to both retention time and area
Today's Date = 07-13-1998 time = 23:13:52

Internal Standard Calculations From ISTDCHK v. 950609.1130
IStd height for ISTD-FBENZENE is within range.
IStd range: 8,112 - 12,168 (80% - 120% of midpoint 10,140)
Used initial calibration files to determine range.

CalSTD5

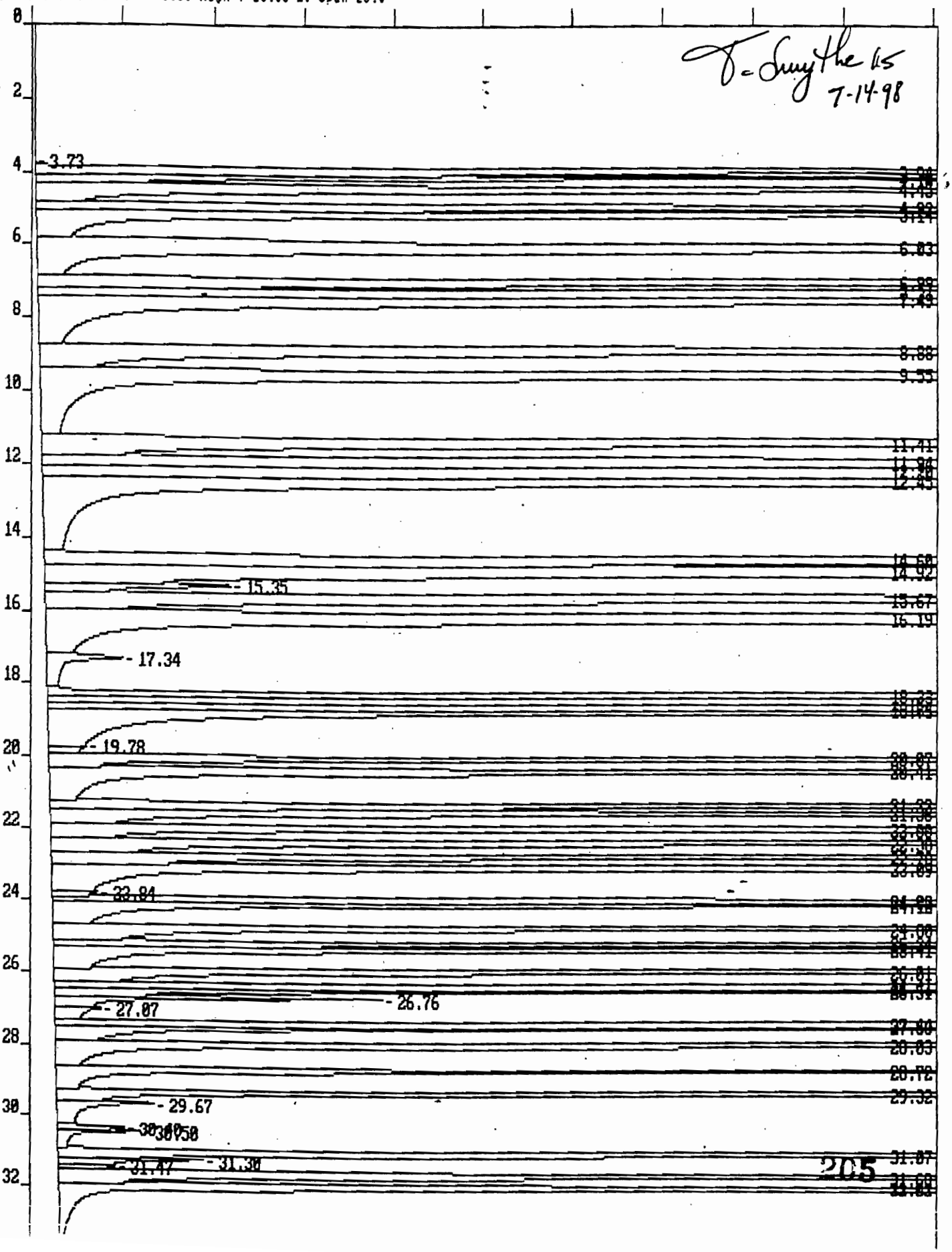
Sample name: CALSTD5 Batch: 98194A188466,846

Raw file: C:\CP\DATA1\18194B.10R

Reviewed by: T. Smythe Verified by:

Date: 7-13-98 Date:

File=C:\CP\DATA1\18194.17R Date printed=07-14-1998 Time= 03:31:38
Sample Name=CALSTD6 98194A188466,8465
0.0 to 34.0 min. Low Y=0.03 High Y=25.03 mv Span=25.0



Sample Name: CALSTD6
Batch: 98194A18 Date Taken: Jul 14, 1998 03:31:34
Raw File: C:\CP\DATA1\18194.17R
Area File: C:\CP\DATA1\18194.17A
Method File: C:\CP\DATA1\Z8194.MET(version 4)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18HALL
Peak Width: .04 Dil. Factor: 1 Analyst: 115
Threshold: -3 Calculation: EXTERNALStd using peak heights

T. Smythe 15 7-14-98

Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 14):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
3.941	3.947	DICHLORODIFLUOROMETH	76.6273	305413	42821
4.142	4.157	CHLOROMETHANE	59.3034	191660	25735
4.448	4.451	VINYL CHLORIDE	78.8080	631364	85601
4.935	4.944	BROMOMETHANE	87.6372	401432	67357
5.138	5.147	CHLOROETHANE	81.7483	694826	105504
6.033	6.046	TRICHLOROFLUOROMETHA	85.3568	999216	71847
6.987	7.005	1,1-DICHLOROETHENE	101.4280	1054549	162297
7.311	7.331	METHYLENE CHLORIDE	109.0774	1568631	257763
7.488	7.505	TRICHLOROTRIFLUOROET	119.2635	1297024	122972
8.878	8.904	TRANS-1,2-DICHLOROET	94.1168	1521677	213966
9.550	9.580	1,1-DICHLOROETHANE	90.8816	1613513	185940
11.405	11.436	CIS-1,2-DICHLOROETHE	91.2051	1501880	174331
11.939	11.979	BROMOCHLOROMETHANE	95.3369	1085103	128897
12.202	12.238	CHLOROFORM	86.0749	1935124	207464
12.447	12.475	2,2-DICHLOROPROPANE	92.1353	1449554	119462
14.605	14.644	1,2-DICHLOROETHANE	94.2357	1350545	171790
14.922	14.959	1,1,1-TRICHLOROETHAN	91.1616	1754620	171956
15.670	15.716	1,1-DICHLOROPROPENE	88.6652	1241337	142873
16.192	16.234	CARBON TETRACHLORIDE	93.7643	2058148	211061
18.328	18.361	DIBROMOMETHANE	114.6858	675380	118627
18.491	18.523	1,2-DICHLOROPROPANE	91.3334	1296351	210907
18.641	18.671	TRICHLOROETHENE	91.0220	1598285	276312
18.746	18.775	BROMODICHLOROMETHANE	90.1644	1499480	239553
20.066	20.088	2-CHLOROETHYL VINYL	102.2993	469742	95749
20.411	20.431	CIS-1,3-DICHLOROPROP	93.7768	1261788	256875
21.333	21.350	TRANS-1,3-DICHLOROPR	93.6150	1062167	250926
21.557	21.573	1,1,2-TRICHLOROETHAN	88.3934	1321482	289032
22.003	22.018	1,3-DICHLOROPROPANE	90.4208	1041404	243498
22.382	22.396	DIBROMOCHLOROMETHANE	103.0498	953944	213841
22.777	22.790	1,2-DIBROMOETHANE	109.9128	627319	144309
23.094	23.106	TETRACHLOROETHENE	92.7793	1547039	359694
24.019	24.031	1,1,1,2-TETRACHLOROE	86.4569	1435586	373922
24.120	24.132	CHLOROBENZENE	88.5241	773402	182919
24.798	24.808	BROMOFORM	114.5647	613429	146016
25.236	25.246	1,1,2,2-TETRACHLOROE	93.8406	854894	231279
25.415	25.426	1,2,3-TRICHLOROPROPA	91.7632	735322	184467
26.012	26.022	BROMOBENZENE	110.2004	450116	106550
26.410	26.418	2-CHLOROTOLUENE	93.9534	508576	141980
26.512	26.521	4-CHLOROTOLUENE	94.4740	586301	151233
27.435	27.447	1,3-DICHLOROBENZENE	96.8659	765051	215441
27.531	27.542	1,4-DICHLOROBENZENE	92.3254	914315	227040
28.028	28.040	1,2-DICHLOROBENZENE	95.8077	857755	209391
28.720	28.734	1,2-DIBROMO-3-CHLORO	116.3482	225812	44318
29.323	29.340	SURR-1B4CB-H	65.2173	380567	86169
31.066	31.090	1,2,4-TRICHLOROBENZE	102.4992	733146	156413
31.684	31.708	HEXACHLOROBUTADIENE	100.5184	994480	188391
32.017	32.045	1,2,3-TRICHLOROBENZE	98.0338	644131	115853
		TOTAL 1,2-DICHLOROETHENE:	**185.3219**		

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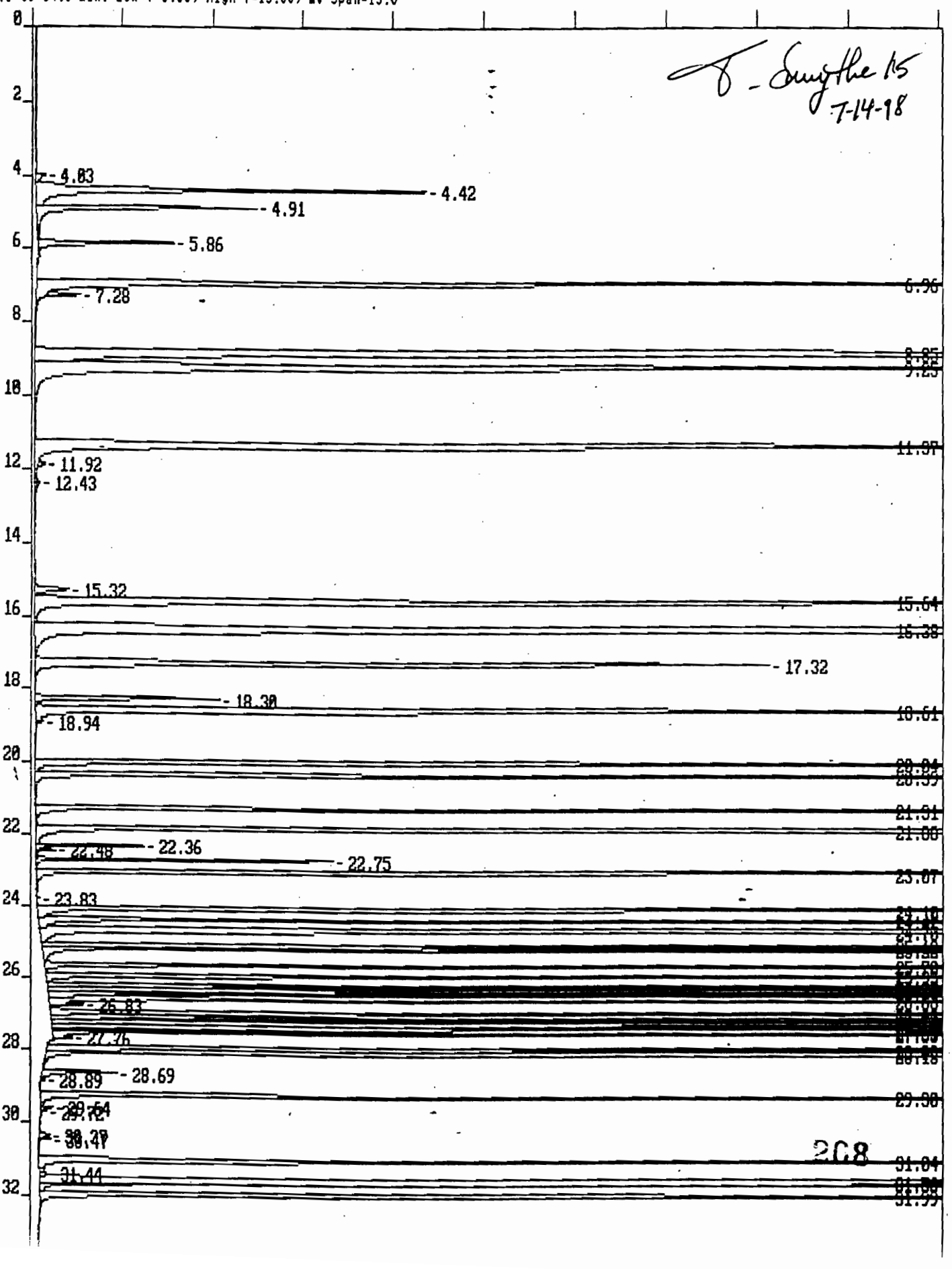
* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 217.3911%

Sample name: CALSTD6 Batch: 98194A188466,846
Raw file: C:\CP\DATA1\18194.17R

Reviewed by: T. Smythe BS Verified by: [signature]

Date: 7-14-98 Date: [signature] 7/23/98

File=C:\CP\DATA1\18194B.17R Date printed=07-14-1998 Time= 03:33:57
Sample Name=CAL5TD6 98194A188466,8465
0.0 to 34.0 min. Low Y=0.009 High Y=15.009 mv Span=15.0



Sample Name: CALSTD6
Batch: 98194A18 Date Taken: Jul 14, 1998 03:31:34
Raw File: C:\CP\DATA1\18194B.17R
Area File: C:\CP\DATA1\18194B.17A
Method File: C:\CP\DATA1\Z8194B.MET(version 4)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18PID
Peak width: .04 Dil. factor: 1 Analyst: 115
Threshold: 0 Calculation: INTERNALStd using peak heights

T. Smythe 115 7-14-98

Peak table using calibration C:\CP\DATA1\PZ8194.CAL(version 18):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
4.423	4.427	VINYL CHLORIDE	79.9211	44954	6470
6.960	6.978	1,1-DICHLOROETHENE	103.8664	124912	22966
8.849	8.877	TRANS-1,2-DICHLOROET	102.7241	304775	53014
9.248	9.279	METHYL T-BUTYL ETHER	102.3943	147664	15999
11.373	11.407	CIS-1,2-DICHLOROETHE	102.9557	167978	22352
15.644	15.686	1,1-DICHLOROPROPENE	107.1770	143286	20192
16.380	16.423	BENZENE	104.1535	364685	51091
17.323	17.364	ISTD-FBENZENE	1.0000	81967	12098
18.614	18.645	TRICHLOROETHENE	104.2510	205959	42191
20.040	20.061	2-CHLOROETHYL VINYL	101.6895	122514	32873
20.386	20.406	CIS-1,3-DICHLOROPROP	104.7724	92840	25830
21.308	21.325	TRANS-1,3-DICHLOROPR	102.7898	117177	38239
21.876	21.892	TOLUENE	102.0816	336478	106357
23.069	23.083	TETRACHLOROETHENE	106.6349	160472	54517
24.097	24.110	CHLOROBENZENE	102.0725	351419	134175
24.418	24.429	ETHYLBENZENE	101.2762	299416	113912
24.697	24.709	M,P-XYLENE	203.3105	692658	231813
25.124	25.135	STYRENE	101.7004	378469	156659
25.216	25.226	O-XYLENE	102.6210	310777	122099
25.695	25.705	ISOPROPYLBENZENE	102.5694	246175	92248
25.987	25.997	BROMOBENZENE	102.6295	353430	139080
26.272	26.282	N-PROPYLBENZENE	102.4003	268178	103194
26.384	26.395	2-CHLOROTOLUENE	101.5158	301259	113203
26.489	26.499	4-CHLOROTOLUENE	102.8399	314626	123861
26.657	26.667	1,3,5-TRIMETHYLBENZE	103.2674	395225	149251
27.023	27.033	TERT-BUTYLBENZENE	103.0086	220724	77348
27.174	27.184	1,2,4-TRIMETHYLBENZE	102.1668	299053	112564
27.315	27.326	SEC-BUTYLBENZENE	105.5254	220463	78022
27.412	27.423	1,3-DICHLOROBENZENE	103.8344	296438	110647
27.508	27.519	1,4-DICHLOROBENZENE	103.9786	297628	112230
27.562	27.572	P-ISOPROPYLTOLUENE	104.6607	213404	80396
28.003	28.015	1,2-DICHLOROBENZENE	103.4677	233167	83848
28.129	28.141	N-BUTYLBENZENE	106.2193	220365	76927
29.297	29.314	SURR-1B4CB-P	61.6997	176078	57824
31.040	31.063	1,2,4-TRICHLOROBENZE	106.9887	136733	37619
31.565	31.590	NAPHTHALENE	105.9591	164159	43066
31.656	31.681	HEXACHLOROBUTADIENE	106.8426	95626	23779
31.991	32.019	1,2,3-TRICHLOROBENZE	106.8073	110863	27664

XYLENES (Total): 305.9315

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 205.6655%
Chrom Perfect version 6.07 Reported on 07-14-1998at 03:37:44

CALIBRATION UPDATE REPORT

Calibration file = C:\CP\DATA1\PZ8194.CAL Current version number = 18
Updated from file = C:\CP\DATA1\18194B.17A
Amount injected = 1
Standard amount injected = 1
Calibration level = 6 Replace old values with new
Number of runs since last replace = 0
Update to both retention time and area

Internal Standard Calculations From ISTDCHK v. 950609.1130
IStd height for ISTD-FBENZENE is within range.
IStd range: 9,325 - 13,987 (80% - 120% of midpoint 11,656)
Used initial calibration files to determine range.

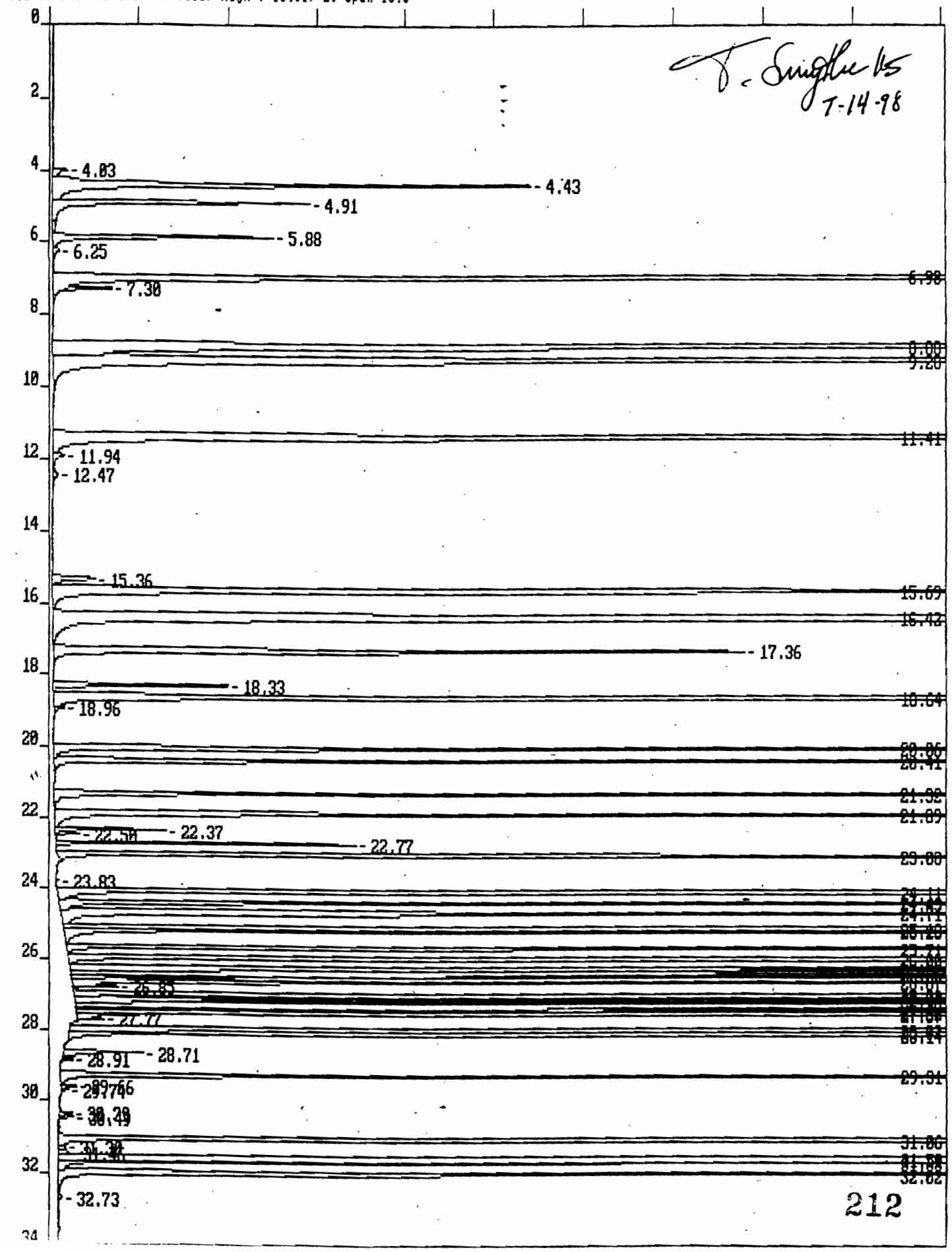
CalSTD6

Sample name: CALSTD6 Batch: 98194A188466,846
Raw file: C:\CP\DATA1\18194B.17R

Reviewed by: L - Smythe 15 Verified by:

Date: 7-14-98 Date:

File=C:\CP\DATA1\181948.12R Date printed=07-14-1998 Time= 00:21:17
Sample Name=CALSTD7 9819AA188466,8465,
0.0 to 34.0 min. Low Y=0.017 High Y=15.017 mv Span=15.0



Sample Name: CALSTD7
Batch: 98194A18 Date Taken: Jul 14, 1998 00:10:13
Raw File: C:\CP\DATA1\18194B.12R
Area File: C:\CP\DATA1\18194B.12A
Method File: C:\CP\DATA1\Z8194B.MET(version 4)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18PID
Peak width: .04 Dil. factor: 1 Analyst: 215
Threshold: 0 Calculation: INTERNALStd using peak heights

T. Smythe 115 7-14-98

Peak table using calibration C:\CP\DATA1\PZ8194.CAL(version 17):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
4.427	4.413	VINYL CHLORIDE	0.0000	56813	8041
6.978	6.966	1,1-DICHLOROETHENE	136.3725	161911	28784
8.877	8.863	TRANS-1,2-DICHLOROET	138.0543	396246	68636
9.279	9.261	METHYL T-BUTYL ETHER	139.4678	190210	20713
11.407	11.394	CIS-1,2-DICHLOROETHE	139.0947	215904	28955
15.686	15.672	1,1-DICHLOROPROPENE	141.7126	183437	25703
16.423	16.409	BENZENE	140.9094	475543	66298
17.364	17.350	ISTD-FBENZENE	1.0000	77407	11559
18.645	18.632	TRICHLOROETHENE	140.9159	266724	54826
20.061	20.050	2-CHLOROETHYL VINYL	136.3935	155781	41934
20.406	20.394	CIS-1,3-DICHLOROPROP	138.4058	117173	32778
21.325	21.314	TRANS-1,3-DICHLOROPR	137.2628	150671	48834
21.892	21.881	TOLUENE	139.5662	442026	139387
23.083	23.072	TETRACHLOROETHENE	143.4156	205956	70612
24.110	24.099	CHLOROBENZENE	141.0001	464488	177386
24.429	24.419	ETHYLBENZENE	139.8906	396268	150653
24.709	24.698	M,P-XYLENE	278.1150	906440	303775
25.135	25.124	STYRENE	139.8382	499789	206085
25.226	25.215	O-XYLENE	139.2989	407057	158285
25.705	25.694	ISOPROPYLBENZENE	141.1199	325435	121564
25.997	25.986	BROMOBENZENE	142.8811	469853	184818
26.282	26.271	N-PROPYLBENZENE	141.1179	354736	136294
26.395	26.383	2-CHLOROTOLUENE	140.3641	399093	149716
26.499	26.487	4-CHLOROTOLUENE	142.4477	416712	164198
26.667	26.656	1,3,5-TRIMETHYLBENZE	142.1536	523182	196645
27.033	27.022	TERT-BUTYLBENZENE	142.1141	291426	102140
27.184	27.172	1,2,4-TRIMETHYLBENZE	141.2743	397050	148829
27.326	27.314	SEC-BUTYLBENZENE	145.6879	290498	103104
27.423	27.411	1,3-DICHLOROBENZENE	143.1427	394642	145680
27.519	27.507	1,4-DICHLOROBENZENE	143.5848	402308	148030
27.572	27.561	P-ISOPROPYLTOLUENE	143.8082	270336	105747
28.015	28.003	1,2-DICHLOROBENZENE	145.3954	311127	111551
28.141	28.129	N-BUTYLBENZENE	145.2705	289313	100827
29.314	29.303	SURR-1B4CB-P	74.3215	199074	64909
31.063	31.053	1,2,4-TRICHLOROBENZE	154.3567	177180	48491
31.590	31.581	NAPHTHALENE	156.5386	212196	55895
31.681	31.671	HEXACHLOROBUTADIENE	144.5534	125051	30388
32.019	32.009	1,2,3-TRICHLOROBENZE	159.3369	145439	35910
		XYLENES (Total):	**417.4139**		

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 247.7385%
Chrom Perfect version 6.07 Reported on 07-14-1998at 00:25:05

CALIBRATION UPDATE REPORT
Calibration file = C:\CP\DATA1\PZ8194.CAL Current version number = 17
Updated from file = C:\CP\DATA1\18194B.12A
Amount injected = 1
Standard amount injected = 1
Calibration level = 7 Replace old values with new
Number of runs since last replace = 0
Update to both retention time and area
Today's Date = 07-14-1998 time = 00:25:06

Internal Standard Calculations From ISTDCHK v. 950609.1130
IStd height for ISTD-FBENZENE is within range.
IStd range: 9,261 - 13,891 (80% - 120% of midpoint 11,576)
Used initial calibration files to determine range.

CALSTD 7

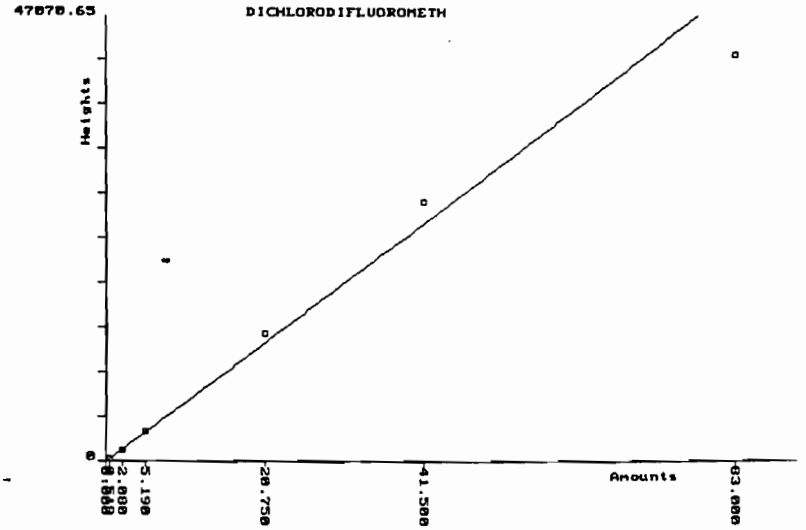
Sample name: CALSTD7 Batch: 98194A188466,846

Raw file: C:\CP\DATA1\18194B.12R

Reviewed by: T-Smythe US Verified by: 8W 7/23/98

Date: 7-14-98 Date:

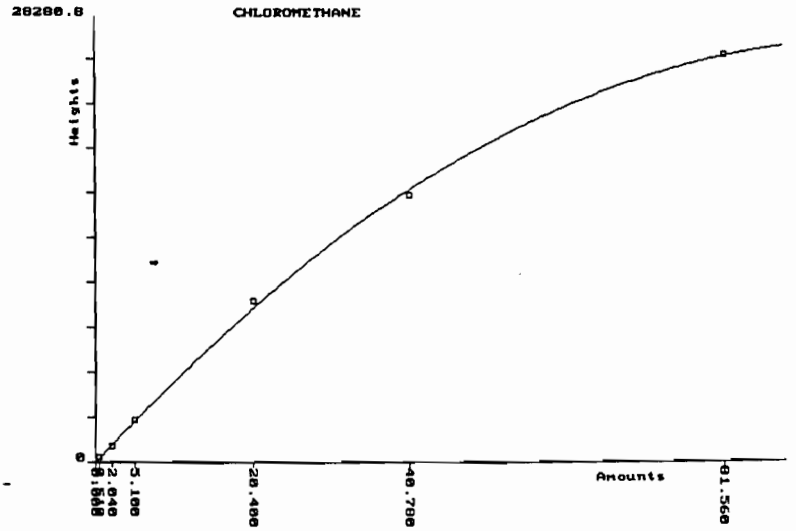
1 **DICHLORODIFLUOROMETH** Ret time= 3.941 min. Search window= 0.100 min.
No reference peak for this compound.
No internal standard for this compound.
High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	HEIGHT/Amt	Source	Date Updated
1	0.51900	320	61590.7E-02	18194.06A	07-13-1998 20:10
2	2.08000	1165	56009.6E-02	Manual	07-14-1998 03:45
3	5.19000	3178	61227.4E-02	18194.08A	07-13-1998 21:30
4	20.75000	13508	65098.0E-02	18194.09A	07-13-1998 22:11
5	41.50000	27359	65925.9E-02	18194.10A	07-13-1998 23:09
6	83.00000	42821	51591.0E-02	18194.17A	07-14-1998 03:33
7	0.00000	-1	0.0E+00	18194.12A	07-14-1998 00:21

Fit type = Average CF with equal weighting, forced through zero
Coef of determination= .9790603 Ave error=6.3156%
Height = +60.24e01*X^1
Average CF (EPA method 8000) = 602.4044 with %RSD = 9.135%

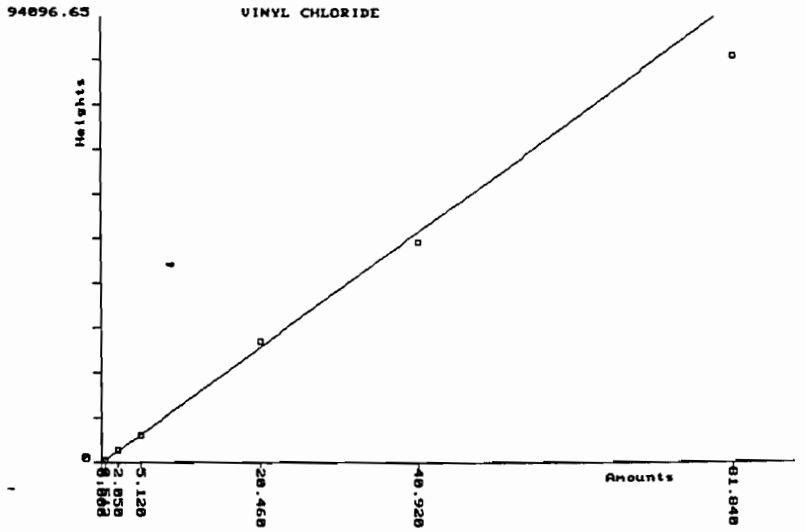
2 **CHLOROMETHANE** Ret time= 4.142 min. Search window= 0.100 min.
No reference peak for this compound.
No internal standard for this compound.
High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	HEIGHT/Amt	Source	Date Updated
1	0.51000	278	54594.7E-02	18194.06A	07-13-1998 20:10
2	2.04000	1015	49754.9E-02	Manual	07-14-1998 03:45
3	5.10000	2674	52435.8E-02	18194.08A	07-13-1998 21:30
4	20.40000	10154	49775.0E-02	18194.09A	07-13-1998 22:11
5	40.78000	16828	41265.7E-02	18194.10A	07-13-1998 23:09
6	81.56000	25735	31553.6E-02	18194.17A	07-14-1998 03:33
7	0.00000	-1	0.0E+00	18194.12A	07-14-1998 00:21

Fit type = Quadratic with equal weighting, forced through zero
Coef of determination= .9993142 Ave error=2.8993%
Height = +52.811e01*X^1 -26.153e-01*X^2
Average CF (EPA method 8000) = 465.6328 with %RSD = 18.545%

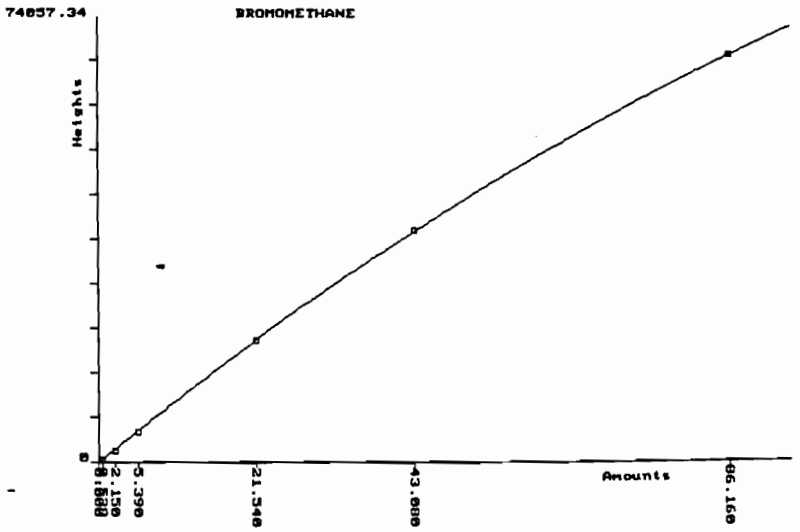
3 **VINYL CHLORIDE** Ret time= 4.448 min. Search window= 0.200 min.
No reference peak for this compound.
No internal standard for this compound.
High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	HEIGHT/Amt	Source	Date Updated
1	0.51200	643	12549.5E-01	18194.06A	07-13-1998 20:10
2	2.05000	2591	12639.0E-01	Manual	07-14-1998 03:45
3	5.12000	5875	11474.8E-01	18194.08A	07-13-1998 21:30
4	20.46000	25458	12442.8E-01	18194.09A	07-13-1998 22:11
5	40.92000	46493	11362.0E-01	18194.10A	07-13-1998 23:09
6	81.84000	85601	10459.5E-01	18194.17A	07-14-1998 03:33
7	0.00000	-1	0.0E+00	18194.12A	07-14-1998 00:21

Fit type = Average CF with equal weighting, forced through zero
Coef of determination= .9872865 Ave error=5.3356%
Height = +11.821e02*X^1
Average CF (EPA method 8000) = 1182.1268 with %RSD = 7.346%

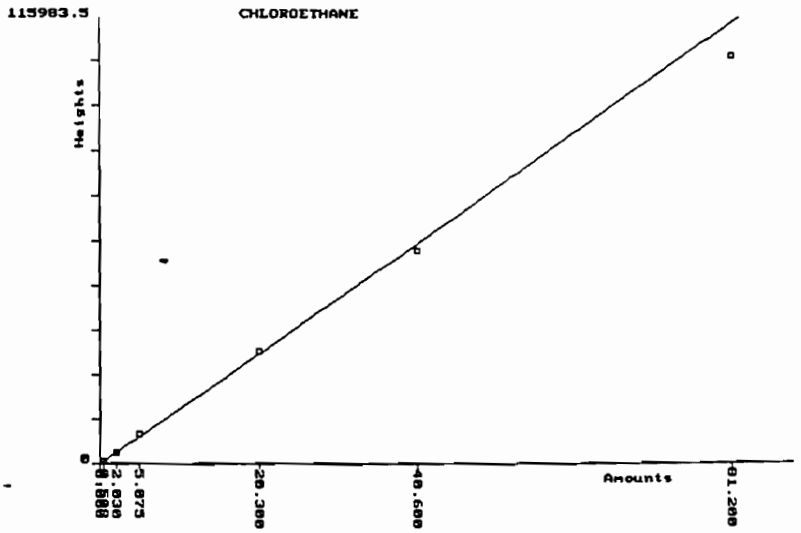
4 **BROMOMETHANE** Ret time= 4.935 min. Search window= 0.200 min.
No reference peak for this compound.
No internal standard for this compound.
High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	HEIGHT/Amt	Source	Date Updated
1	0.53900	357	66236.3E-02	18194.06A	07-13-1998 20:10
2	2.15000	1801	83767.4E-02	Manual	07-14-1998 03:45
3	5.39000	5029	93308.6E-02	18194.08A	07-13-1998 21:30
4	21.54000	20177	93671.2E-02	18194.09A	07-13-1998 22:11
5	43.08000	38511	89393.4E-02	18194.10A	07-13-1998 23:09
6	86.16000	67357	78177.0E-02	18194.17A	07-14-1998 03:33
7	0.00000	-1	0.0E+00	18194.12A	07-14-1998 00:21

Fit type = Quadratic with equal weighting, forced through zero
Coef of determination= .9999222 Ave error=12.5199%
Height = +99.64e01*X^1 -24.856e-01*X^2
Average CF (EPA method 8000) = 840.9233 with %RSD = 12.571%

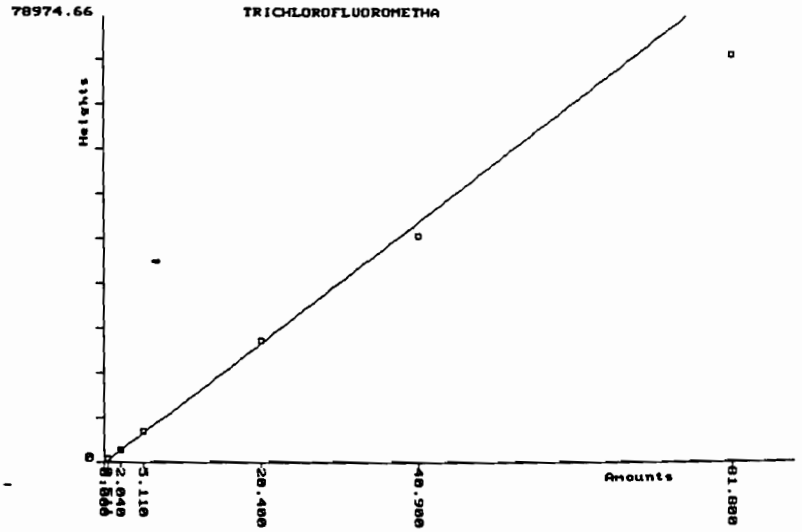
5 **CHLOROETHANE** Ret time= 5.138 min. Search window= 0.200 min.
No reference peak for this compound.
No internal standard for this compound.
High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	HEIGHT/Amt	Source	Date Updated
1	0.50800	710	13977.5E-01	18194.06A	07-13-1998 20:10
2	2.03000	2908	14325.1E-01	Manual	07-14-1998 03:45
3	5.07500	7627	15029.2E-01	18194.08A	07-13-1998 21:30
4	20.30000	29436	14500.3E-01	18194.09A	07-13-1998 22:11
5	40.60000	55477	13664.2E-01	18194.10A	07-13-1998 23:09
6	81.20000	105504	12993.1E-01	18194.17A	07-14-1998 03:33
7	0.00000	-1	0.0E+00	18194.12A	07-14-1998 00:21

Fit type = Average CF with equal weighting, forced through zero
Coef of determination= .9945884 Ave error=3.2956%
Height = +14.082e02*X^1
Average CF (EPA method 8000) = 1408.1572 with %RSD = 5.024%

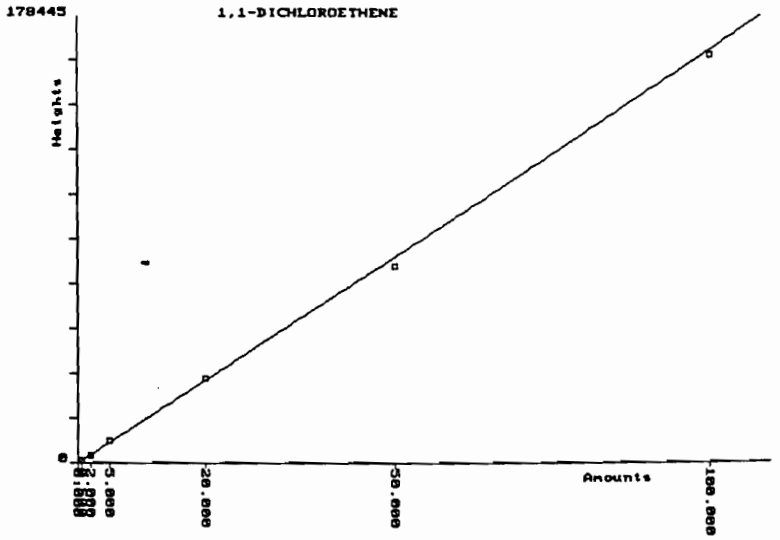
6 **TRICHLOROFLUOROMETHA** Ret time= 6.033 min. Search window= 0.200 min.
No reference peak for this compound.
No internal standard for this compound.
High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	HEIGHT/Amt	Source	Date Updated
1	0.51100	575	11249.7E-01	18194.06A	07-13-1998 20:10
2	2.04000	2204	10803.9E-01	Manual	07-14-1998 03:45
3	5.11000	5595	10950.0E-01	18194.08A	07-13-1998 21:30
4	20.40000	21487	10532.8E-01	18194.09A	07-13-1998 22:11
5	40.90000	40126	98107.9E-02	18194.10A	07-13-1998 23:09
6	81.80000	71847	87833.0E-02	18194.17A	07-14-1998 03:33
7	0.00000	-1	0.0E+00	18194.12A	07-14-1998 00:21

Fit type = Average CF with equal weighting, forced through zero
Coef of determination= .9765487 Ave error=6.0957%
Height = +10.355e02*X^1
Average CF (EPA method 8000) = 1035.5089 with %RSD = 8.802%

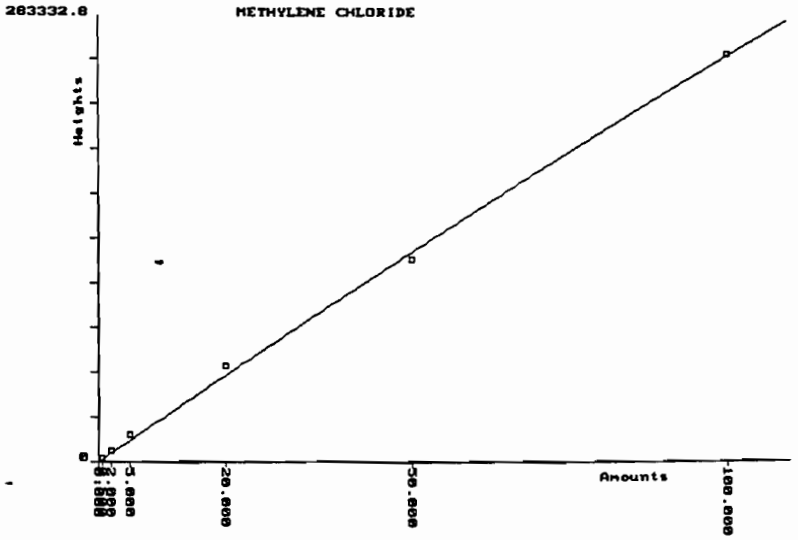
7 **1,1-DICHLOROETHENE** Ret time= 6.987 min. Search window= 0.200 min.
No reference peak for this compound.
No internal standard for this compound.
High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	HEIGHT/Amt	Source	Date Updated
1	0.50000	816	16322.1E-01	18194.06A	07-13-1998 20:10
2	2.00000	3201	16002.9E-01	Manual	07-14-1998 03:45
3	5.00000	8816	17632.8E-01	18194.08A	07-13-1998 21:30
4	20.00000	33732	16865.8E-01	18194.09A	07-13-1998 22:11
5	50.00000	78776	15755.2E-01	18194.10A	07-13-1998 23:09
6	100.00000	162297	16229.7E-01	18194.17A	07-14-1998 03:33
7	0.00000	-1	0.0E+00	18194.12A	07-14-1998 00:21

Fit type = Average CF with equal weighting, forced through zero
Coef of determination= .9994264 Ave error=2.6798%
Height = +16.468e02*X^1
Average CF (EPA method 8000) = 1646.8104 with %RSD = 4.134%

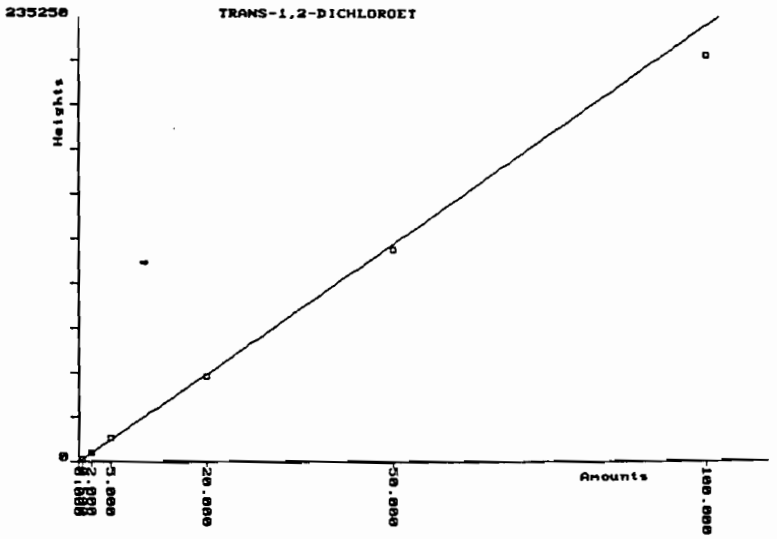
8 **METHYLENE CHLORIDE** Ret time= 7.311 min. Search window= 0.200 min.
No reference peak for this compound.
No internal standard for this compound.
High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	HEIGHT/Amt	Source	Date Updated
1	0.50000	2064	41274.2E-01	18194.06A	07-13-1998 20:10
2	2.00000	6718	33589.0E-01	Manual	07-14-1998 03:45
3	5.00000	17050	34099.2E-01	18194.08A	07-13-1998 21:30
4	20.00000	60487	30243.6E-01	18194.09A	07-13-1998 22:11
5	50.00000	128846	25769.2E-01	18194.10A	07-13-1998 23:09
6	100.00000	257763	25776.3E-01	18194.17A	07-14-1998 03:33
7	0.00000	-1	0.0E+00	18194.12A	07-14-1998 00:21

Fit type = Quadratic with equal weighting, forced through zero
Coef of determination= .9986076 Ave error=13.9350%
Height = +27.665e02*X^1 -19.772e-01*X^2
Average CF (EPA method 8000) = 3179.1902 with %RSD = 18.519%

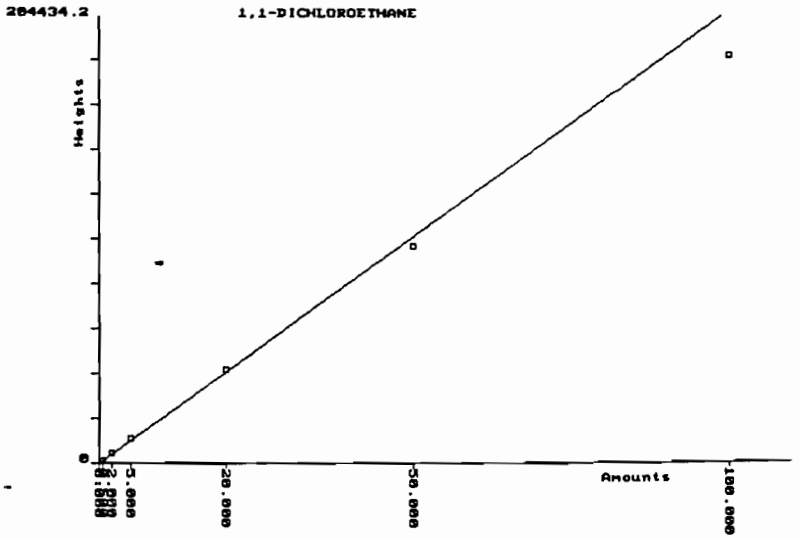
10 **TRANS-1,2-DICHLOROET** Ret time= 8.878 min. Search window= 0.200 min.
No reference peak for this compound.
No internal standard for this compound.
Group number = 2 High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	HEIGHT/Amt	Source	Date Updated
1	0.50000	1122	22433.7E-01	18194.06A	07-13-1998 20:10
2	2.00000	4737	23685.6E-01	Manual	07-14-1998 03:45
3	5.00000	12770	25540.1E-01	18194.08A	07-13-1998 21:30
4	20.00000	45427	22713.2E-01	18194.09A	07-13-1998 22:11
5	50.00000	111738	22347.5E-01	18194.10A	07-13-1998 23:09
6	100.00000	213966	21396.6E-01	18194.17A	07-14-1998 03:33
7	0.00000	-1	0.0E+00	18194.12A	07-14-1998 00:21

Fit type = Average CF with equal weighting, forced through zero
Coef of determination= .9954286 Ave error=3.8903%
Height = +23.019e02*X^1
Average CF (EPA method 8000) = 2301.9443 with %RSD = 6.241%

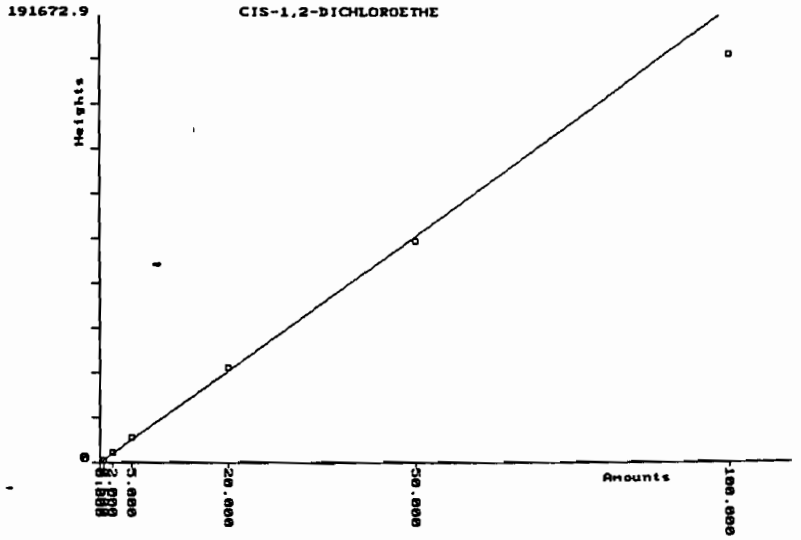
11 **1,1-DICHLOROETHANE** Ret time= 9.550 min. Search window= 0.200 min.
No reference peak for this compound.
No internal standard for this compound.
High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	HEIGHT/Amt	Source	Date Updated
1	0.50000	996	19916.5E-01	18194.06A	07-13-1998 20:10
2	2.00000	4344	21717.7E-01	Manual	07-14-1998 03:45
3	5.00000	11335	22670.2E-01	18194.08A	07-13-1998 21:30
4	20.00000	42739	21369.7E-01	18194.09A	07-13-1998 22:11
5	50.00000	99122	19824.4E-01	18194.10A	07-13-1998 23:09
6	100.00000	185940	18594.0E-01	18194.17A	07-14-1998 03:33
7	0.00000	-1	0.0E+00	18194.12A	07-14-1998 00:21

Fit type = Average CF with equal weighting, forced through zero
Coef of determination= .9901382 Ave error=5.1652%
Height = +20.682e02*X^1
Average CF (EPA method 8000) = 2068.2078 with %RSD = 7.23%

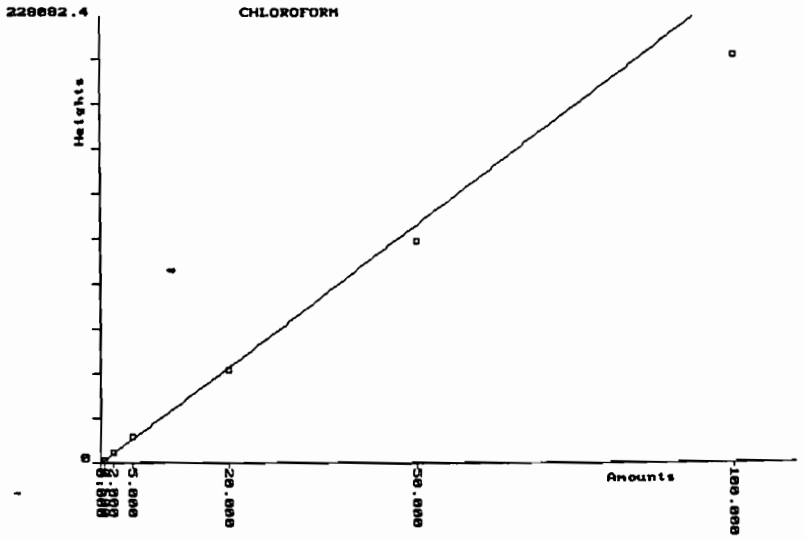
12 **CIS-1,2-DICHLOROETHE** Ret time= 11.405 min. Search window= 0.200 min.
No reference peak for this compound.
No internal standard for this compound.
Group number = 2 High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	HEIGHT/Amt	Source	Date Updated
1	0.50000	910	18206.0E-01	18194.06A	07-13-1998 20:10
2	2.00000	4087	20433.6E-01	Manual	07-14-1998 03:45
3	5.00000	10635	21270.6E-01	18194.08A	07-13-1998 21:30
4	20.00000	40492	20246.0E-01	18194.09A	07-13-1998 22:11
5	50.00000	95222	19044.4E-01	18194.10A	07-13-1998 23:09
6	100.00000	174331	17433.1E-01	18194.17A	07-14-1998 03:33
7	0.00000	-1	0.0E+00	18194.12A	07-14-1998 00:21

Fit type = Average CF with equal weighting, forced through zero
Coef of determination= .9900619 Ave error=5.4022%
Height = +19.439e02*X^1
Average CF (EPA method 8000) = 1943.8959 with %RSD = 7.524%

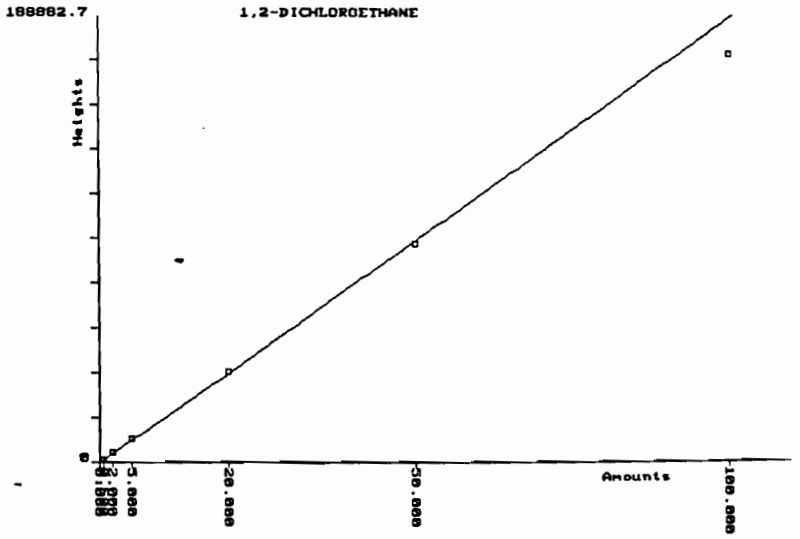
14 **CHLOROFORM** Ret time= 12.202 min. Search window= 0.100 min.
No reference peak for this compound.
No internal standard for this compound.
High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	HEIGHT/Amt	Source	Date Updated
1	0.50000	1284	25688.9E-01	18194.06A	07-13-1998 20:10
2	2.00000	5313	26567.0E-01	Manual	07-14-1998 03:45
3	5.00000	13244	26487.1E-01	18194.08A	07-13-1998 21:30
4	20.00000	47385	23692.6E-01	18194.09A	07-13-1998 22:11
5	50.00000	113041	22608.2E-01	18194.10A	07-13-1998 23:09
6	100.00000	207464	20746.4E-01	18194.17A	07-14-1998 03:33
7	0.00000	-1	0.0E+00	18194.12A	07-14-1998 00:21

Fit type = Average CF with equal weighting, forced through zero
Coef of determination= .9770737 Ave error=7.0527%
Height = +24.298e02*X^1
Average CF (EPA method 8000) = 2429.8376 with %RSD = 9.689%

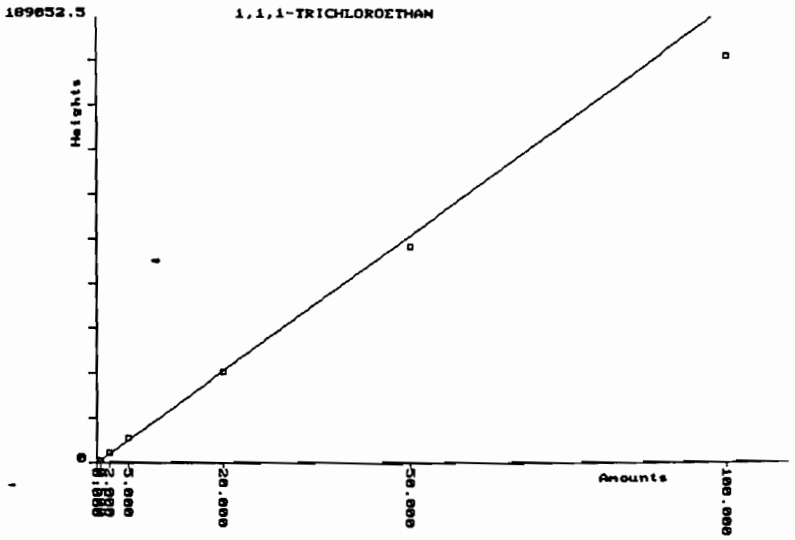
16 **1,2-DICHLOROETHANE** Ret time= 14.605 min. Search window= 0.200 min.
No reference peak for this compound.
No internal standard for this compound.
High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	HEIGHT/Amt	Source	Date Updated
1	0.50000	859	17179.4E-01	18194.06A	07-13-1998 20:10
2	2.00000	4027	20134.0E-01	Manual	07-14-1998 03:45
3	5.00000	10091	20181.7E-01	18194.08A	07-13-1998 21:30
4	20.00000	38333	19166.3E-01	18194.09A	07-13-1998 22:11
5	50.00000	91843	18368.7E-01	18194.10A	07-13-1998 23:09
6	100.00000	171790	17179.0E-01	18194.17A	07-14-1998 03:33
7	0.00000	-1	0.0E+00	18194.12A	07-14-1998 00:21

Fit type = Average CF with equal weighting, forced through zero
Coef of determination= .9940286 Ave error=5.2013%
Height = +18.701e02*X^1
Average CF (EPA method 8000) = 1870.1494 with %RSD = 7.255%

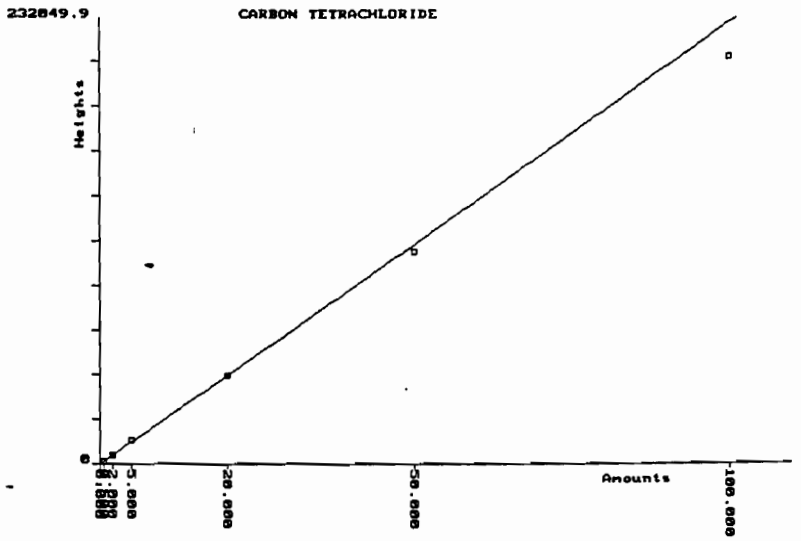
17 **1,1,1-TRICHLOROETHAN** Ret time= 14.922 min. Search window= 0.200 min.
No reference peak for this compound.
No internal standard for this compound.
High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	HEIGHT/Amt	Source	Date Updated
1	0.50000	994	19887.5E-01	18194.06A	07-13-1998 20:10
2	2.00000	4070	20350.6E-01	Manual	07-14-1998 03:45
3	5.00000	10405	20809.8E-01	18194.08A	07-13-1998 21:30
4	20.00000	38578	19289.0E-01	18194.09A	07-13-1998 22:11
5	50.00000	91435	18286.9E-01	18194.10A	07-13-1998 23:09
6	100.00000	171956	17195.6E-01	18194.17A	07-14-1998 03:33
7	0.00000	-1	0.0E+00	18194.12A	07-14-1998 00:21

Fit type = Average CF with equal weighting, forced through zero
Coef of determination= .988098 Ave error=4.7447%
Height = +19.303e02*X^1
Average CF (EPA method 8000) = 1930.3246 with %RSD = 7.021%

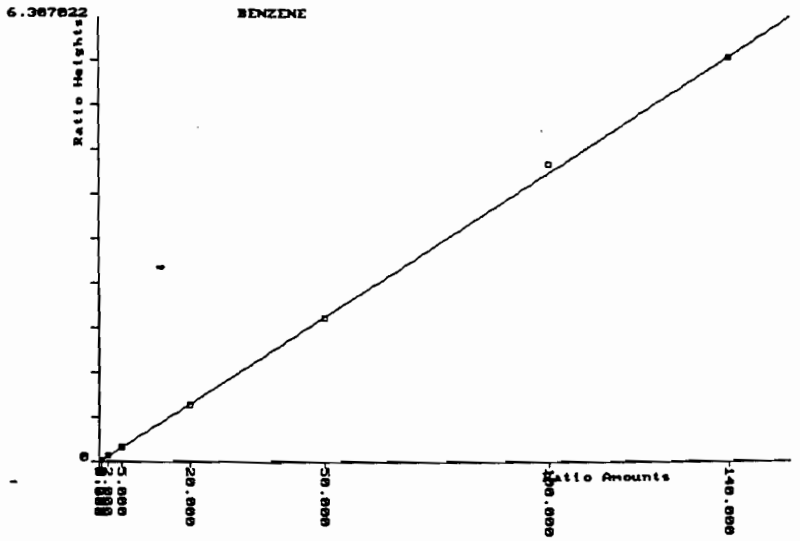
19 **CARBON TETRACHLORIDE** Ret time= 16.192 min. Search window= 0.200 min.
No reference peak for this compound.
No internal standard for this compound.
High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	HEIGHT/Amt	Source	Date Updated
1	0.50000	1172	23445.4E-01	18194.06A	07-13-1998 20:10
2	2.00000	4742	23710.6E-01	Manual	07-14-1998 03:45
3	5.00000	12039	24077.2E-01	18194.08A	07-13-1998 21:30
4	20.00000	46016	23007.8E-01	18194.09A	07-13-1998 22:11
5	50.00000	110381	22076.1E-01	18194.10A	07-13-1998 23:09
6	100.00000	211061	21106.1E-01	18194.17A	07-14-1998 03:33
7	0.00000	-1	0.0E+00	18194.12A	07-14-1998 00:21

Fit type = Average CF with equal weighting, forced through zero
Coef of determination= .9942263 Ave error=3.3292%
Height = +22.904e02*X^1
Average CF (EPA method 8000) = 2290.3884 with %RSD = 4.881%

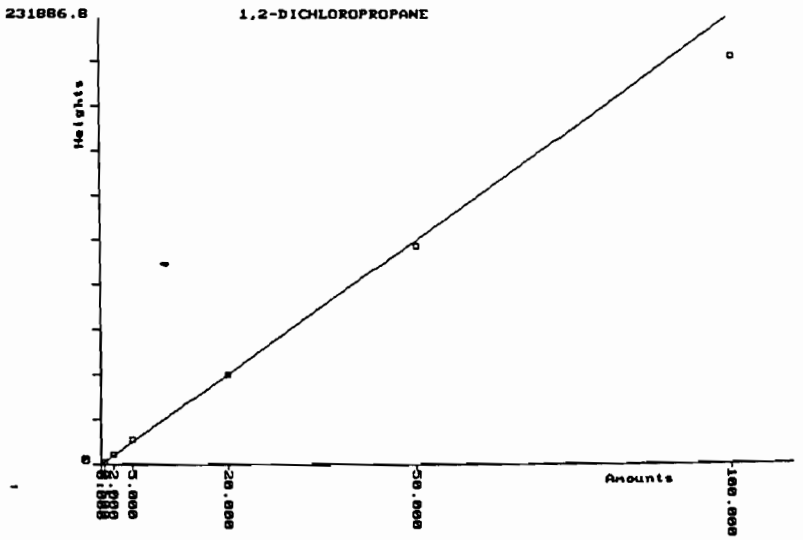
7 **BENZENE** Ret time= 16.380 min. Search window= 0.200 min.
No reference peak for this compound.
Internal standard=ISTD-FBENZENE at 17.32251 minutes
High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	INT AMT	INT HEIGHT	RATIO AMT	RATIO HEIGHT	Source	Date Updated
1	0.50000	236	1.0000	11725	0.5000	0.0201	18194B.06A	07-13-1998 21:00
2	2.00000	923	1.0000	11620	2.0000	0.0794	18194B.07A	07-13-1998 21:06
3	5.00000	2401	1.0000	11484	5.0000	0.2091	18194B.08A	07-13-1998 21:34
4	20.00000	9372	1.0000	11484	20.0000	0.8160	18194B.09A	07-13-1998 22:15
5	50.00000	23683	1.0000	11621	50.0000	2.0379	18194B.10A	07-13-1998 23:14
6	100.00000	51091	1.0000	12098	100.0000	4.2232	18194B.17A	07-14-1998 03:37
7	140.00000	66298	1.0000	11559	140.0000	5.7355	18194B.12A	07-14-1998 00:25

Fit type = Average CF with equal weighting, forced through zero
Coef of determination= .9996913 Ave error=1.3640%
Ratio Height = +40.927e-03*X^1
Average CF (EPA method 8000) = 0.0409 with %RSD = 2.126%

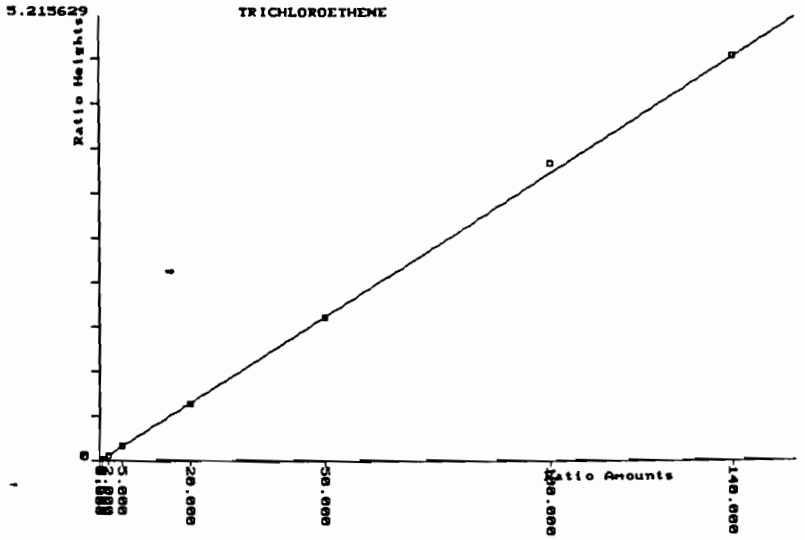
21 **1,2-DICHLOROPROPANE** Ret time= 18.491 min. Search window= 0.100 min.
No reference peak for this compound.
No internal standard for this compound.
High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	HEIGHT/Amt	Source	Date Updated
1	0.50000	1108	22159.2E-01	18194.06A	07-13-1998 20:10
2	2.00000	5033	25165.0E-01	Manual	07-14-1998 03:45
3	5.00000	12619	25237.4E-01	18194.08A	07-13-1998 21:30
4	20.00000	46806	23403.0E-01	18194.09A	07-13-1998 22:11
5	50.00000	112996	22599.1E-01	18194.10A	07-13-1998 23:09
6	100.00000	210907	21090.7E-01	18194.17A	07-14-1998 03:33
7	0.00000	-1	0.0E+00	18194.12A	07-14-1998 00:21

Fit type = Average CF with equal weighting, forced through zero
Coef of determination= .9917812 Ave error=4.8882%
Height = +23.276e02*X^1
Average CF (EPA method 8000) = 2327.572 with %RSD = 7.167%

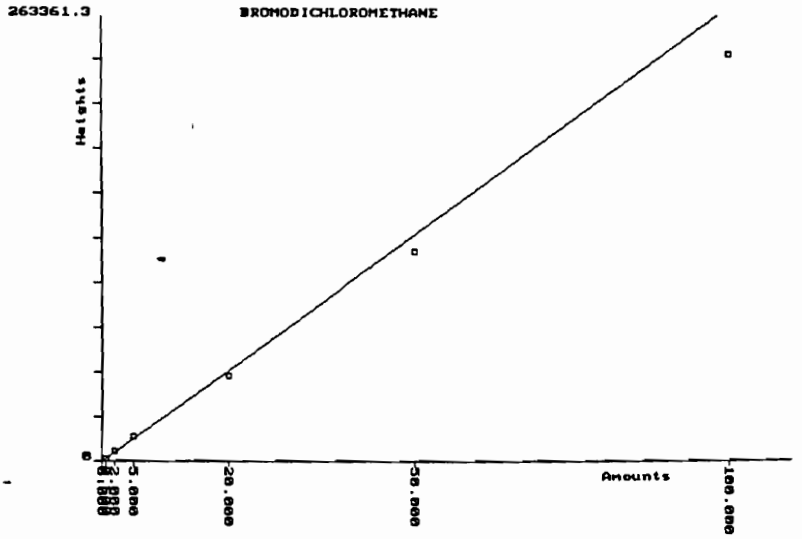
9 **TRICHLOROETHENE** Ret time= 18.614 min. Search window= 0.200 min.
No reference peak for this compound.
Internal standard=ISTD-FBENZENE at 17.32251 minutes
High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	INT AMT	INT HEIGHT	RATIO AMT	RATIO HEIGHT	Source	Date Updated
1	0.50000	196	1.0000	11725	0.5000	0.0167	18194B.06A	07-13-1998 21:00
2	2.00000	759	1.0000	11620	2.0000	0.0653	18194B.07A	07-13-1998 21:06
3	5.00000	1963	1.0000	11484	5.0000	0.1709	18194B.08A	07-13-1998 21:34
4	20.00000	7689	1.0000	11484	20.0000	0.6696	18194B.09A	07-13-1998 22:15
5	50.00000	19565	1.0000	11621	50.0000	1.6835	18194B.10A	07-13-1998 23:14
6	100.00000	42191	1.0000	12098	100.0000	3.4875	18194B.17A	07-14-1998 03:37
7	140.00000	54826	1.0000	11559	140.0000	4.7430	18194B.12A	07-14-1998 00:25

Fit type = Average CF with equal weighting, forced through zero
Coef of determination= .9996415 Ave error=1.2969%
Ratio Height = +33.729e-03*X^1
Average CF (EPA method 8000) = 0.0337 with %RSD = 2.058%

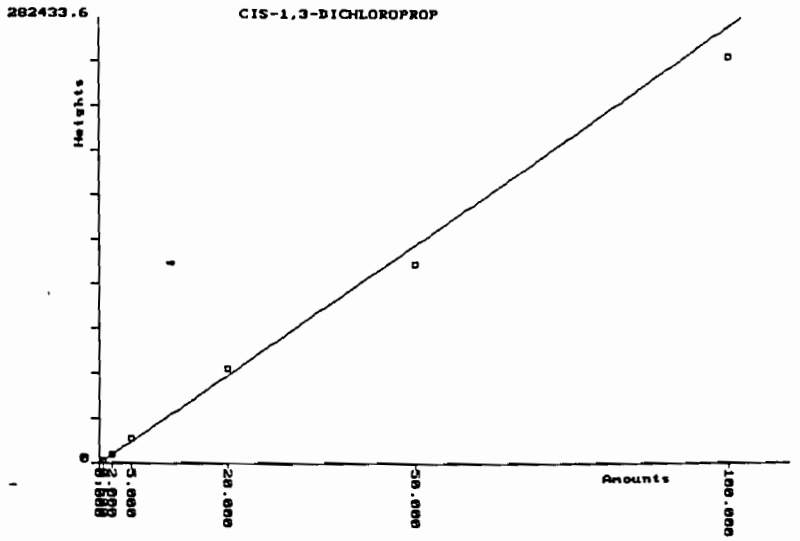
23 **BROMODICHLOROMETHANE** Ret time= 18.746 min. Search window= 0.100 min.
No reference peak for this compound.
No internal standard for this compound.
High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	HEIGHT/Amt	Source	Date Updated
1	0.50000	1465	29306.7E-01	18194.06A	07-13-1998 20:10
2	2.00000	5633	28164.4E-01	Manual	07-14-1998 03:45
3	5.00000	14627	29254.7E-01	18194.08A	07-13-1998 21:30
4	20.00000	50589	25294.6E-01	18194.09A	07-13-1998 22:11
5	50.00000	123656	24731.1E-01	18194.10A	07-13-1998 23:09
6	100.00000	239553	23955.3E-01	18194.17A	07-14-1998 03:33
7	0.00000	-1	0.0E+00	18194.12A	07-14-1998 00:21

Fit type = Average CF with equal weighting, forced through zero
Coef of determination= .9878603 Ave error=6.8504%
Height = +26.784e02*X^1
Average CF (EPA method 8000) = 2678.4465 with %RSD = 8.962%

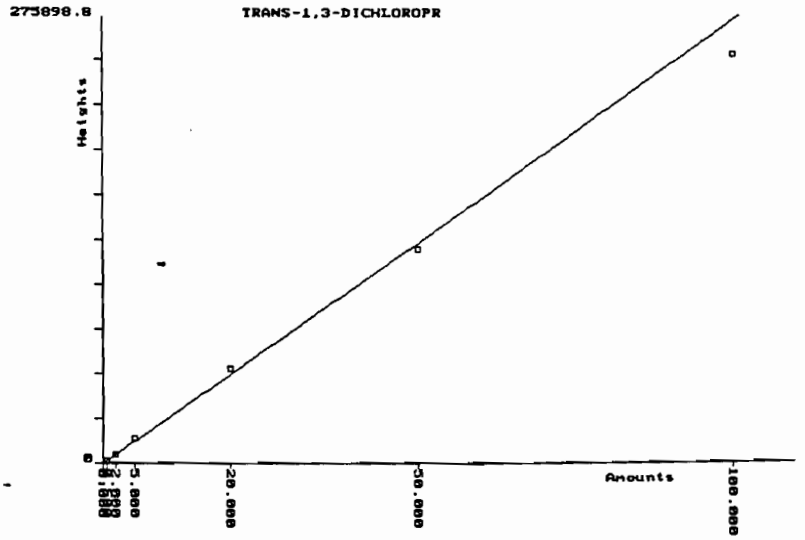
25 **CIS-1,3-DICHLOROPROP** Ret time= 20.411 min. Search window= 0.200 min.
No reference peak for this compound.
No internal standard for this compound.
High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	HEIGHT/Amt	Source	Date Updated
1	0.50000	1293	25868.8E-01	18194.06A	07-13-1998 20:10
2	2.00000	5598	27988.9E-01	Manual	07-14-1998 03:45
3	5.00000	15584	31167.6E-01	18194.08A	07-13-1998 21:30
4	20.00000	59671	29835.3E-01	18194.09A	07-13-1998 22:11
5	50.00000	125789	25157.8E-01	18194.10A	07-13-1998 23:09
6	100.00000	256875	25687.5E-01	18194.17A	07-14-1998 03:33
7	0.00000	-1	0.0E+00	18194.12A	07-14-1998 00:21

Fit type = Average CF with equal weighting, forced through zero
Coef of determination= .9936173 Ave error=6.3145%
Height = +27.618e02*X^1
Average CF (EPA method 8000) = 2761.7644 with %RSD = 8.942%

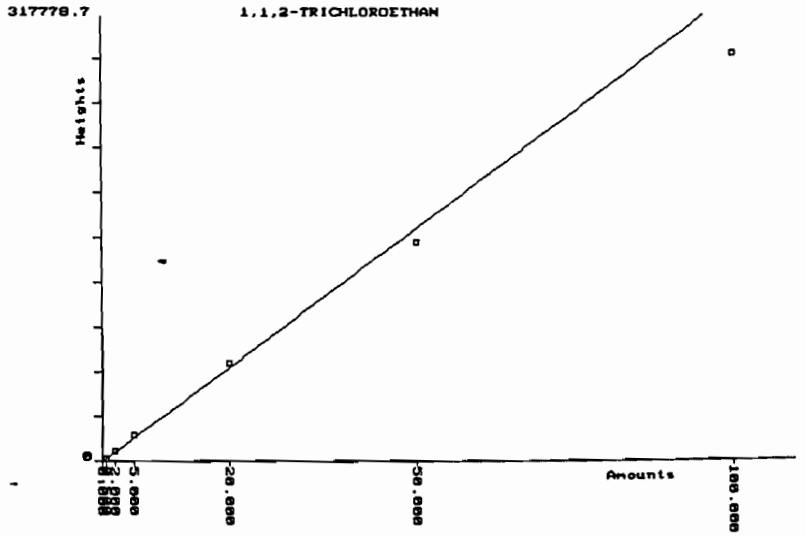
26 **TRANS-1,3-DICHLOROPR** Ret time= 21.333 min. Search window= 0.100 min.
No reference peak for this compound.
No internal standard for this compound.
High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	HEIGHT/Amt	Source	Date Updated
1	0.50000	1201	24029.4E-01	18194.06A	07-13-1998 20:10
2	2.00000	5719	28594.6E-01	Manual	07-14-1998 03:45
3	5.00000	15064	30128.0E-01	18194.08A	07-13-1998 21:30
4	20.00000	58284	29141.9E-01	18194.09A	07-13-1998 22:11
5	50.00000	132201	26440.1E-01	18194.10A	07-13-1998 23:09
6	100.00000	250926	25092.6E-01	18194.17A	07-14-1998 03:33
7	0.00000	-1	0.0E+00	18194.12A	07-14-1998 00:21

Fit type = Average CF with equal weighting, forced through zero
Coef of determination= .9941406 Ave error=6.5414%
Height = +27.238e02*X^1
Average CF (EPA method 8000) = 2723.7791 with %RSD = 8.895%

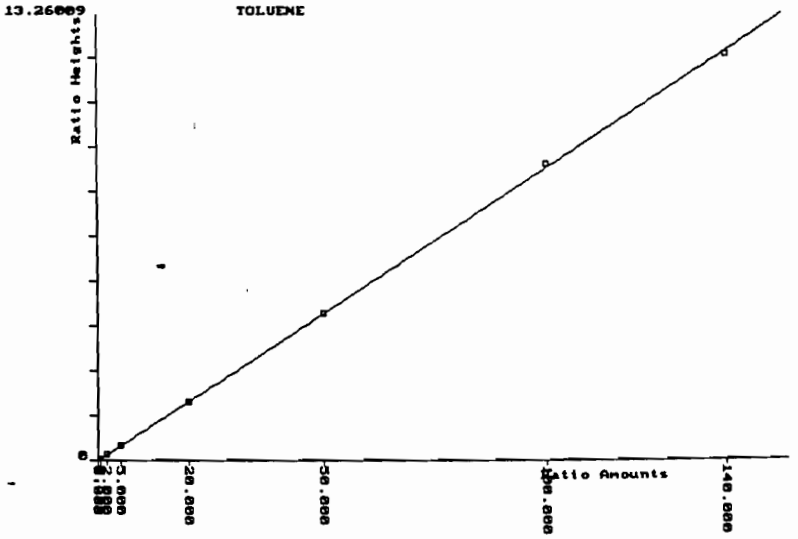
27 **1,1,2-TRICHLOROETHAN** Ret time= 21.557 min. Search window= 0.100 min.
No reference peak for this compound.
No internal standard for this compound.
High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	HEIGHT/Amt	Source	Date Updated
1	0.50000	1567	31336.2E-01	18194.06A	07-13-1998 20:10
2	2.00000	7228	36140.7E-01	Manual	07-14-1998 03:45
3	5.00000	18427	36853.5E-01	18194.08A	07-13-1998 21:30
4	20.00000	69634	34817.1E-01	18194.09A	07-13-1998 22:11
5	50.00000	155593	31118.7E-01	18194.10A	07-13-1998 23:09
6	100.00000	289032	28903.2E-01	18194.17A	07-14-1998 03:33
7	0.00000	-1	0.0E+00	18194.12A	07-14-1998 00:21

Fit type = Average CF with equal weighting, forced through zero
Coef of determination= .9826195 Ave error=7.1700%
Height = +33.195e02*X^1
Average CF (EPA method 8000) = 3319.4905 with %RSD = 9.61%

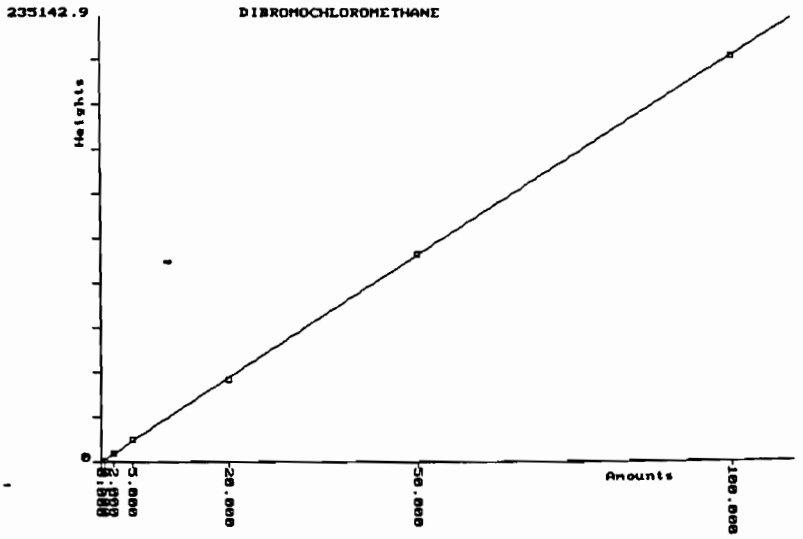
13 **TOLUENE** Ret time= 21.876 min. Search window= 0.200 min.
No reference peak for this compound.
Internal standard=ISTD-FBENZENE at 17.32251 minutes
High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	INT AMT	INT HEIGHT	RATIO AMT	RATIO HEIGHT	Source	Date Updated
1	0.50000	489	1.0000	11725	0.5000	0.0417	18194B.06A	07-13-1998 21:00
2	2.00000	1978	1.0000	11620	2.0000	0.1703	18194B.07A	07-13-1998 21:06
3	5.00000	5143	1.0000	11484	5.0000	0.4479	18194B.08A	07-13-1998 21:34
4	20.00000	20142	1.0000	11484	20.0000	1.7538	18194B.09A	07-13-1998 22:15
5	50.00000	50549	1.0000	11621	50.0000	4.3497	18194B.10A	07-13-1998 23:14
6	100.00000	106357	1.0000	12098	100.0000	8.7916	18194B.17A	07-14-1998 03:37
7	140.00000	139387	1.0000	11559	140.0000	12.0584	18194B.12A	07-14-1998 00:25

Fit type = Average CF with equal weighting, forced through zero
Coef of determination= .9999101 Ave error=1.5769%
Ratio Height = +86.682e-03*X^1
Average CF (EPA method 8000) = 0.0867 with %RSD = 2.35%

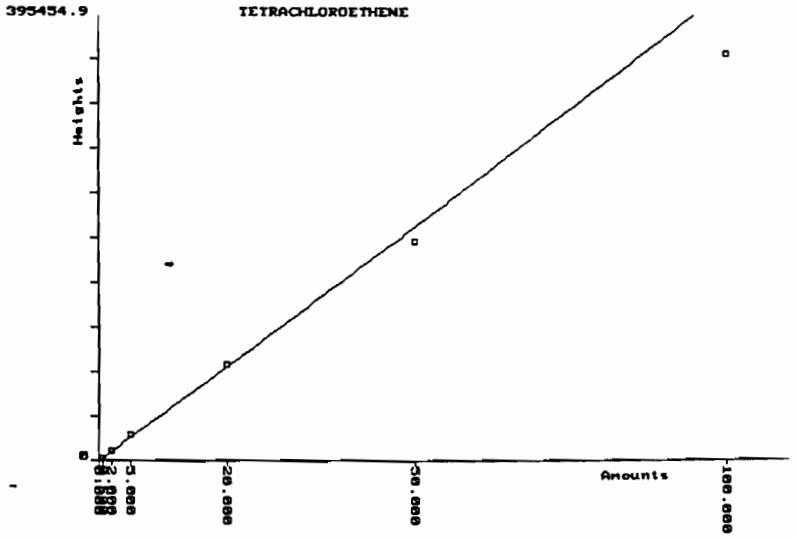
29 **DIBROMOCHLOROMETHANE** Ret time= 22.382 min. Search window= 0.200 min.
No reference peak for this compound.
No internal standard for this compound.
High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	HEIGHT/Amt	Source	Date Updated
1	0.50000	824	16471.5E-01	18194.06A	07-13-1998 20:10
2	2.00000	4444	22220.2E-01	Manual	07-14-1998 03:45
3	5.00000	11511	23021.0E-01	18194.08A	07-13-1998 21:30
4	20.00000	43392	21696.1E-01	18194.09A	07-13-1998 22:11
5	50.00000	109629	21925.8E-01	18194.10A	07-13-1998 23:09
6	100.00000	213841	21384.1E-01	18194.17A	07-14-1998 03:33
7	0.00000	-1	0.0E+00	18194.12A	07-14-1998 00:21

Fit type = Quadratic with equal weighting, forced through zero
Coef of determination= .9999686 Ave error=6.8583%
Height = +22.279e02*X^1 -88.676e-02*X^2
Average CF (EPA method 8000) = 2111.9792 with %RSD = 11.101%

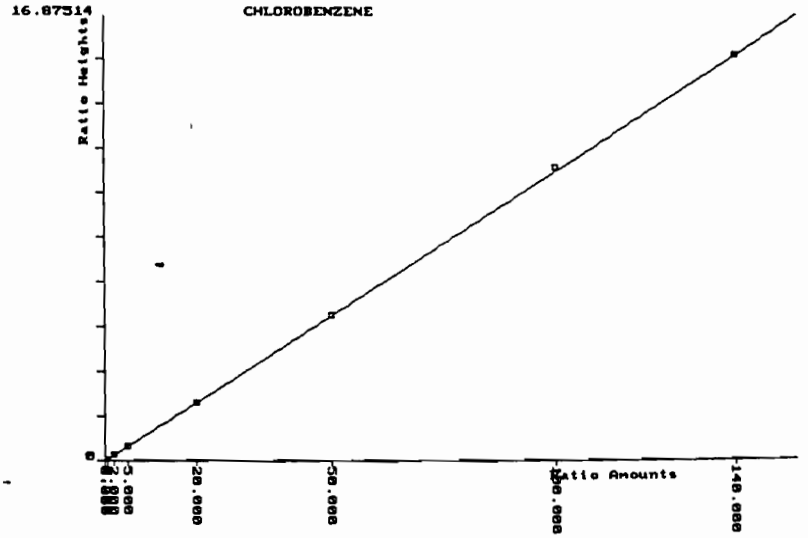
31 **TETRACHLOROETHENE** Ret time= 23.094 min. Search window= 0.200 min.
No reference peak for this compound.
No internal standard for this compound.
High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	HEIGHT/Amt	Source	Date Updated
1	0.50000	2085	41698.8E-01	18194.06A	07-13-1998 20:10
2	2.00000	8664	43322.4E-01	Manual	07-14-1998 03:45
3	5.00000	23295	46590.4E-01	18194.08A	07-13-1998 21:30
4	20.00000	85490	42745.1E-01	18194.09A	07-13-1998 22:11
5	50.00000	195400	39079.9E-01	18194.10A	07-13-1998 23:09
6	100.00000	359694	35969.4E-01	18194.17A	07-14-1998 03:33
7	0.00000	-1	0.0E+00	18194.12A	07-14-1998 00:21

Fit type = Average CF with equal weighting, forced through zero
Coef of determination= .9811913 Ave error=5.6900%
Height = +41.568e02*X^1
Average CF (EPA method 8000) = 4156.7671 with %RSD = 8.822%

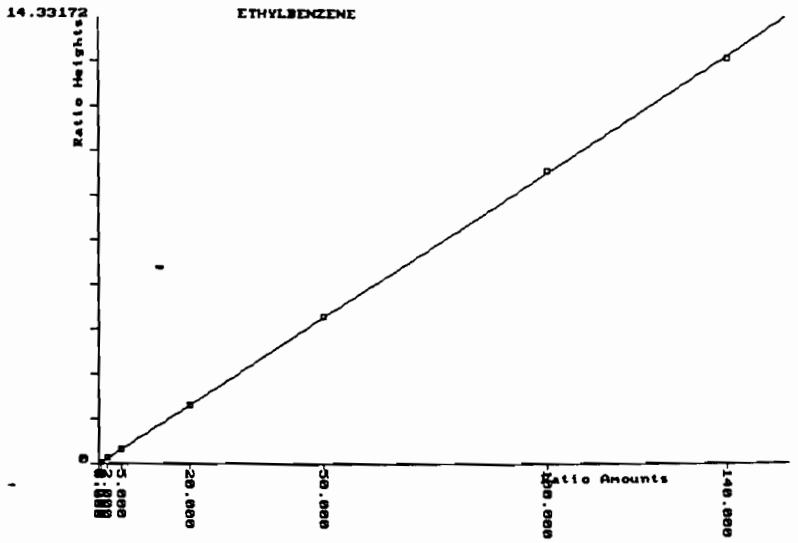
15 **CHLOROBENZENE** Ret time= 24.097 min. Search window= 0.200 min.
No reference peak for this compound.
Internal standard=ISTD-FBENZENE at 17.32251 minutes
High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	INT AMT	INT HEIGHT	RATIO AMT	RATIO HEIGHT	Source	Date Updated
1	0.50000	605	1.0000	11725	0.5000	0.0516	18194B.06A	07-13-1998 21:00
2	2.00000	2499	1.0000	11620	2.0000	0.2151	18194B.07A	07-13-1998 21:06
3	5.00000	6473	1.0000	11484	5.0000	0.5636	18194B.08A	07-13-1998 21:34
4	20.00000	25348	1.0000	11484	20.0000	2.2072	18194B.09A	07-13-1998 22:15
5	50.00000	64115	1.0000	11621	50.0000	5.5171	18194B.10A	07-13-1998 23:14
6	100.00000	134175	1.0000	12098	100.0000	11.0910	18194B.17A	07-14-1998 03:37
7	140.00000	177386	1.0000	11559	140.0000	15.3457	18194B.12A	07-14-1998 00:25

Fit type = Average CF with equal weighting, forced through zero
Coef of determination= .9999115 Ave error=1.8097%
Ratio Height = +10.923e-02*X^1
Average CF (EPA method 8000) = 0.1092 with %RSD = 2.84%

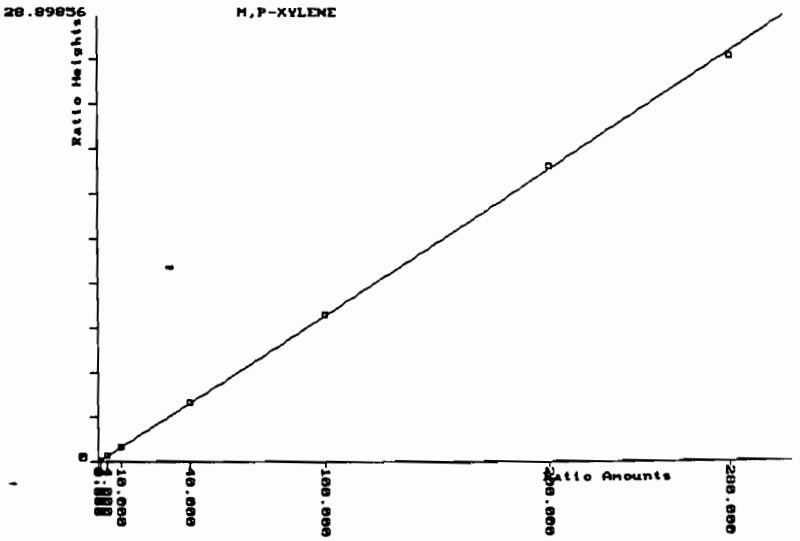
16 **ETHYLBENZENE** Ret time= 24.418 min. Search window= 0.200 min.
No reference peak for this compound.
Internal standard=ISTD-FBENZENE at 17.32251 minutes
High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	INT AMT	INT HEIGHT	RATIO AMT	RATIO HEIGHT	Source	Date Updated
1	0.50000	540	1.0000	11725	0.5000	0.0461	18194B.06A	07-13-1998 21:00
2	2.00000	2123	1.0000	11620	2.0000	0.1827	18194B.07A	07-13-1998 21:06
3	5.00000	5493	1.0000	11484	5.0000	0.4783	18194B.08A	07-13-1998 21:34
4	20.00000	21593	1.0000	11484	20.0000	1.8802	18194B.09A	07-13-1998 22:15
5	50.00000	54603	1.0000	11621	50.0000	4.6986	18194B.10A	07-13-1998 23:14
6	100.00000	113912	1.0000	12098	100.0000	9.4161	18194B.17A	07-14-1998 03:37
7	140.00000	150653	1.0000	11559	140.0000	13.0330	18194B.12A	07-14-1998 00:25

Fit type = Average CF with equal weighting, forced through zero
Coef of determination= .9999704 Ave error=1.0309%
Ratio Height = +93.488e-03*X^1
Average CF (EPA method 8000) = 0.0935 with %RSD = 1.519%

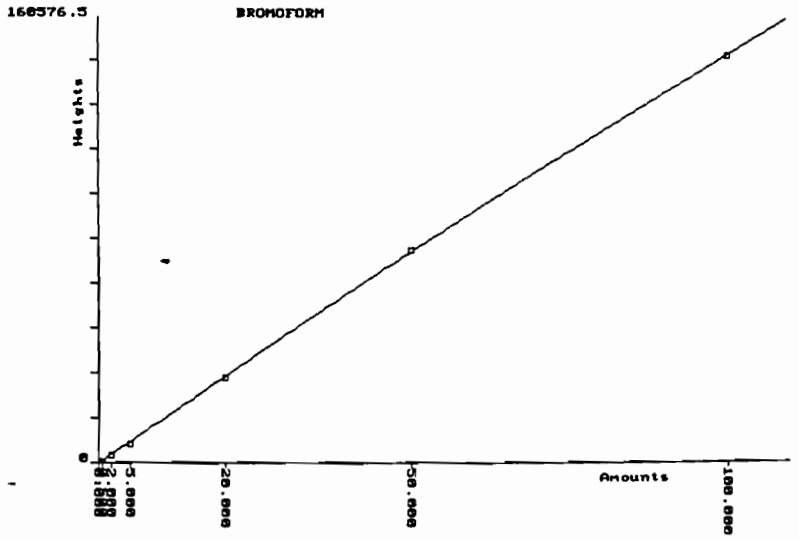
17 **M,P-XYLENE** Ret time= 24.697 min. Search window= 0.200 min.
No reference peak for this compound.
Internal standard=ISTD-FBENZENE at 17.32251 minutes
Group number = 1 High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	INT AMT	INT HEIGHT	RATIO AMT	RATIO HEIGHT	Source	Date Updated
1	1.00000	1063	1.0000	11725	1.0000	0.0907	18194B.06A	07-13-1998 21:00
2	4.00000	4340	1.0000	11620	4.0000	0.3735	18194B.07A	07-13-1998 21:06
3	10.00000	11297	1.0000	11484	10.0000	0.9837	18194B.08A	07-13-1998 21:34
4	40.00000	43995	1.0000	11484	40.0000	3.8309	18194B.09A	07-13-1998 22:15
5	100.00000	111250	1.0000	11621	100.0000	9.5730	18194B.10A	07-13-1998 23:14
6	200.00000	231813	1.0000	12098	200.0000	19.1618	18194B.17A	07-14-1998 03:37
7	280.00000	303775	1.0000	11559	280.0000	26.2797	18194B.12A	07-14-1998 00:25

Fit type = Average CF with equal weighting, forced through zero
Coef of determination= .9998954 Ave error=1.7238%
Ratio Height = +94.795e-03*X^1
Average CF (EPA method 8000) = 0.0948 with %RSD = 2.575%

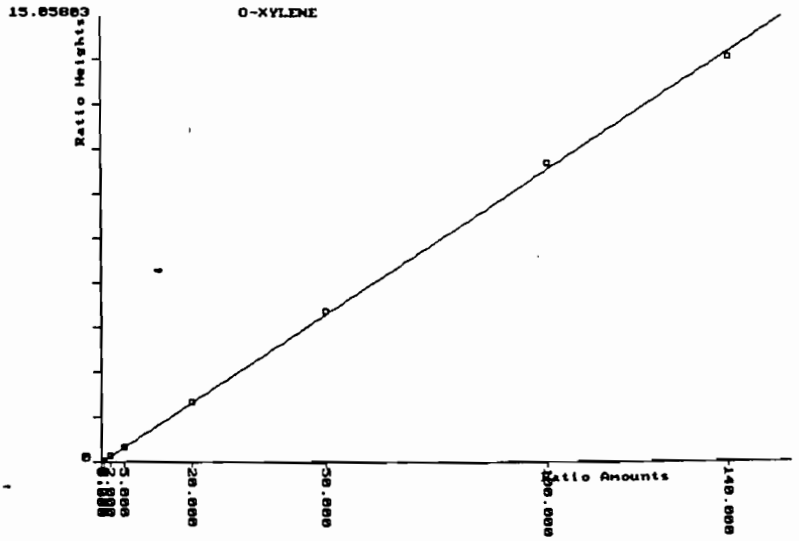
34 **BROMOFORM** Ret time= 24.798 min. Search window= 0.200 min.
No reference peak for this compound.
No internal standard for this compound.
High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	HEIGHT/Amt	Source	Date Updated
1	0.50000	412	82323.4E-02	18194.06A	07-13-1998 20:10
2	2.00000	2527	12635.4E-01	Manual	07-14-1998 03:45
3	5.00000	6747	13494.9E-01	18194.08A	07-13-1998 21:30
4	20.00000	30437	15218.4E-01	18194.09A	07-13-1998 22:11
5	50.00000	76141	15228.1E-01	18194.10A	07-13-1998 23:09
6	100.00000	146016	14601.6E-01	18194.17A	07-14-1998 03:33
7	0.00000	-1	0.0E+00	18194.12A	07-14-1998 00:21

Fit type = Quadratic with equal weighting, forced through zero
Coef of determination= .9998769 Ave error=21.8416%
Height = +15.634e02*X^1 -10.215e-01*X^2
Average CF (EPA method 8000) = 1323.5131 with %RSD = 20.055%

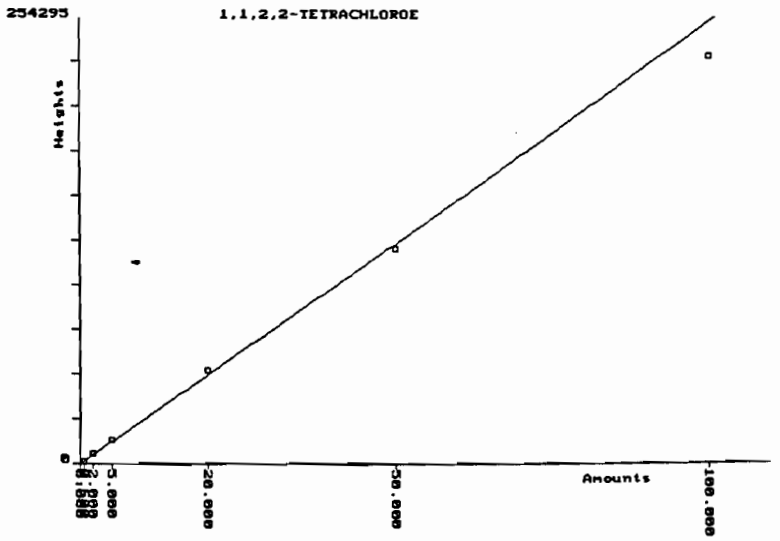
19 **O-XYLENE** Ret time= 25.216 min. Search window= 0.060 min.
No reference peak for this compound.
Internal standard=ISTD-FBENZENE at 17.32251 minutes
Group number = 1 High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	INT AMT	INT HEIGHT	RATIO AMT	RATIO HEIGHT	Source	Date Updated
1	0.50000	539	1.0000	11725	0.5000	0.0459	18194B.06A	07-13-1998 21:00
2	2.00000	2241	1.0000	11620	2.0000	0.1928	18194B.07A	07-13-1998 21:06
3	5.00000	5872	1.0000	11484	5.0000	0.5114	18194B.08A	07-13-1998 21:34
4	20.00000	23329	1.0000	11484	20.0000	2.0314	18194B.09A	07-13-1998 22:15
5	50.00000	58987	1.0000	11621	50.0000	5.0758	18194B.10A	07-13-1998 23:14
6	100.00000	122099	1.0000	12098	100.0000	10.0928	18194B.17A	07-14-1998 03:37
7	140.00000	158285	1.0000	11559	140.0000	13.6933	18194B.12A	07-14-1998 00:25

Fit type = Average CF with equal weighting, forced through zero
Coef of determination= .9997353 Ave error=2.7320%
Ratio Height = +98.911e-03*X^1
Average CF (EPA method 8000) = 0.0989 with %RSD = 3.835%

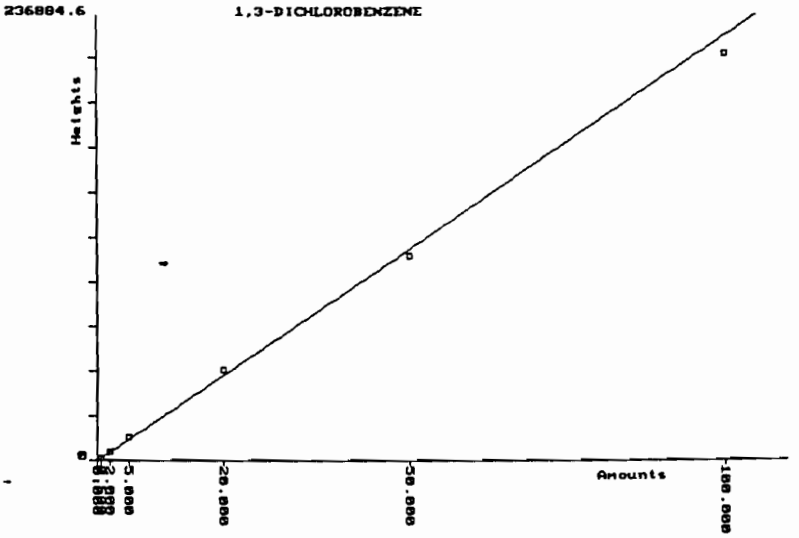
35 **1,1,2,2-TETRACHLOROE** Ret time= 25.236 min. Search window= 0.100 min.
No reference peak for this compound.
No internal standard for this compound.
High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	HEIGHT/Amt	Source	Date Updated
1	0.50000	1120	22395.2E-01	18194.06A	07-13-1998 20:10
2	2.00000	5327	26634.4E-01	Manual	07-14-1998 03:45
3	5.00000	13770	27540.1E-01	18194.08A	07-13-1998 21:30
4	20.00000	52915	26457.3E-01	18194.09A	07-13-1998 22:11
5	50.00000	122826	24565.2E-01	18194.10A	07-13-1998 23:09
6	100.00000	231279	23127.9E-01	18194.17A	07-14-1998 03:33
7	0.00000	-1	0.0E+00	18194.12A	07-14-1998 00:21

Fit type = Average CF with equal weighting, forced through zero
Coef of determination= .9942276 Ave error=6.0809%
Height = +25.12e02*X^1
Average CF (EPA method 8000) = 2512.0017 with %RSD = 8.282%

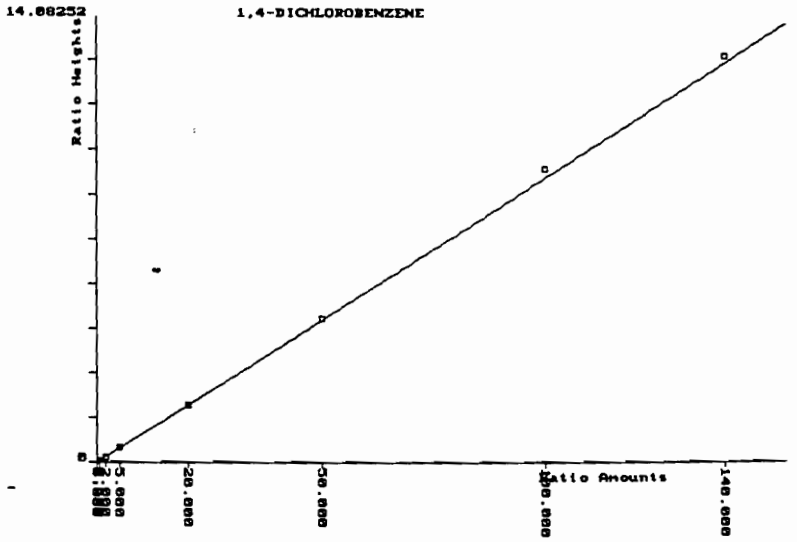
40 **1,3-DICHLOROBENZENE** Ret time= 27.435 min. Search window= 0.200 min.
No reference peak for this compound.
No internal standard for this compound.
High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	HEIGHT/Amt	Source	Date Updated
1	0.50000	1004	20073.9E-01	18194.06A	07-13-1998 20:10
2	2.00000	4567	22836.1E-01	Manual	07-14-1998 03:45
3	5.00000	12387	24774.8E-01	18194.08A	07-13-1998 21:30
4	20.00000	48246	24123.1E-01	18194.09A	07-13-1998 22:11
5	50.00000	109038	21807.6E-01	18194.10A	07-13-1998 23:09
6	100.00000	215441	21544.1E-01	18194.17A	07-14-1998 03:33
7	0.00000	-1	0.0E+00	18194.12A	07-14-1998 00:21

Fit type = Average CF with equal weighting, forced through zero
Coef of determination= .9980111 Ave error=5.3034%
Height = +22.527e02*X^1
Average CF (EPA method 8000) = 2252.6611 with %RSD = 7.739%

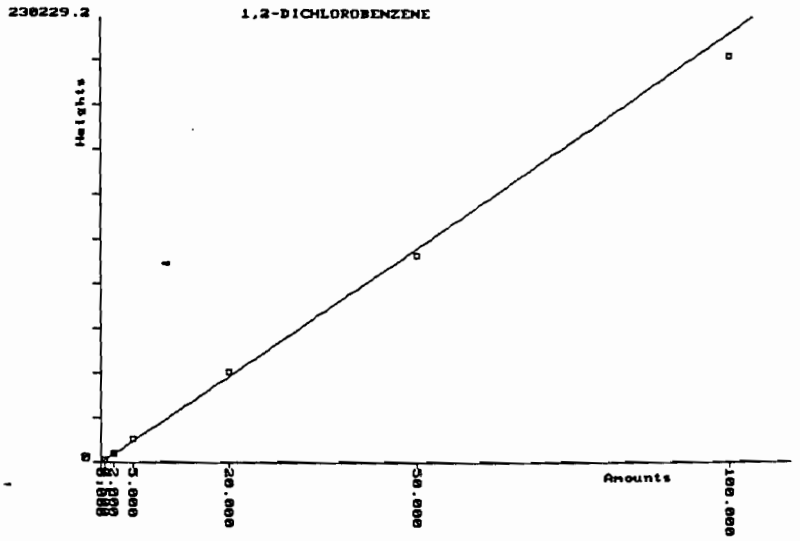
30 **1,4-DICHLOROBENZENE** Ret time= 27.508 min. Search window= 0.040 min.
No reference peak for this compound.
Internal standard=ISTD-FBENZENE at 17.32251 minutes
High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	INT AMT	INT HEIGHT	RATIO AMT	RATIO HEIGHT	Source	Date Updated
1	0.50000	499	1.0000	11725	0.5000	0.0425	18194B.06A	07-13-1998 21:00
2	2.00000	2043	1.0000	11620	2.0000	0.1758	18194B.07A	07-13-1998 21:06
3	5.00000	5218	1.0000	11484	5.0000	0.4544	18194B.08A	07-13-1998 21:34
4	20.00000	20539	1.0000	11484	20.0000	1.7884	18194B.09A	07-13-1998 22:15
5	50.00000	52673	1.0000	11621	50.0000	4.5325	18194B.10A	07-13-1998 23:14
6	100.00000	112230	1.0000	12098	100.0000	9.2770	18194B.17A	07-14-1998 03:37
7	140.00000	148030	1.0000	11559	140.0000	12.8062	18194B.12A	07-14-1998 00:25

Fit type = Average CF with equal weighting, forced through zero
Coef of determination= .9994417 Ave error=1.9163%
Ratio Height = +89.739e-03*X^1
Average CF (EPA method 8000) = 0.0897 with %RSD = 2.86%

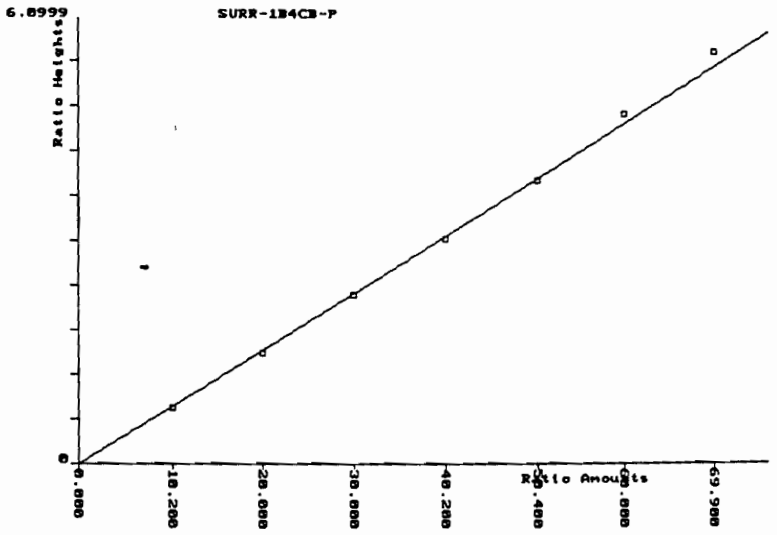
42 **1,2-DICHLOROBENZENE** Ret time= 28.028 min. Search window= 0.200 min.
No reference peak for this compound.
No internal standard for this compound.
High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	HEIGHT/Amt	Source	Date Updated
1	0.50000	1004	20081.3E-01	18194.06A	07-13-1998 20:10
2	2.00000	4545	22724.9E-01	Manual	07-14-1998 03:45
3	5.00000	12114	24227.6E-01	18194.08A	07-13-1998 21:30
4	20.00000	46722	23360.9E-01	18194.09A	07-13-1998 22:11
5	50.00000	107235	21447.1E-01	18194.10A	07-13-1998 23:09
6	100.00000	209391	20939.1E-01	18194.17A	07-14-1998 03:33
7	0.00000	-1	0.0E+00	18194.12A	07-14-1998 00:21

Fit type = Average CF with equal weighting, forced through zero
Coef of determination= .9972144 Ave error=5.0884%
Height = +22.13e02*X^1
Average CF (EPA method 8000) = 2213.0127 with %RSD = 7.102%

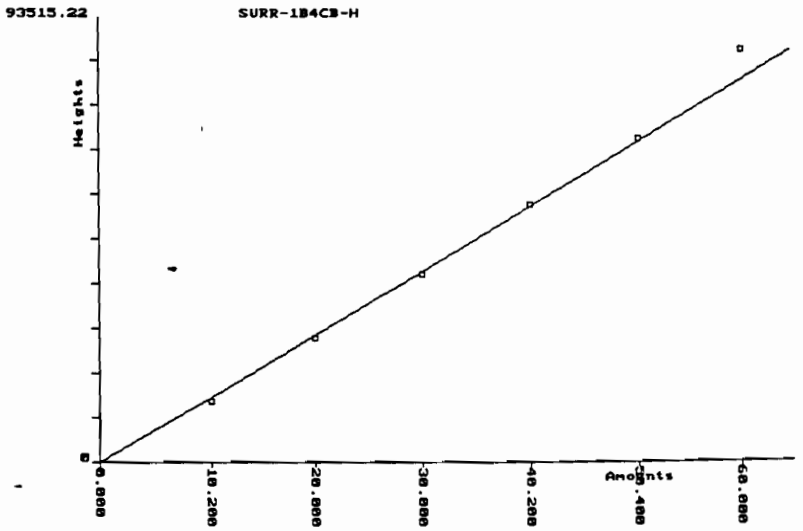
34 **SURR-1B4CB-P** Ret time= 29.297 min. Search window= 0.200 min.
No reference peak for this compound.
Internal standard=ISTD-FBENZENE at 17.32251 minutes
High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	INT AMT	INT HEIGHT	RATIO AMT	RATIO HEIGHT	Source	Date Updated
1	10.20000	9024	1.0000	11725	10.2000	0.7696	18194B.06A	07-13-1998 21:00
2	20.00000	17659	1.0000	11620	20.0000	1.5198	18194B.07A	07-13-1998 21:06
3	30.00000	26543	1.0000	11484	30.0000	2.3114	18194B.08A	07-13-1998 21:34
4	40.20000	35307	1.0000	11484	40.2000	3.0744	18194B.09A	07-13-1998 22:15
5	50.40000	45006	1.0000	11621	50.4000	3.8727	18194B.10A	07-13-1998 23:14
6	60.00000	57824	1.0000	12098	60.0000	4.7798	18194B.17A	07-14-1998 03:37
7	69.90000	64909	1.0000	11559	69.9000	5.6153	18194B.12A	07-14-1998 00:25

Fit type = Average CF with equal weighting, forced through zero
Coef of determination= .9992654 Ave error=1.6659%
Ratio Height = +77.4e-03*X^1
Average CF (EPA method 8000) = 0.0774 with %RSD = 2.406%

44 **SURR-1B4CB-H** Ret time= 29.323 min. Search window= 0.200 min.
No reference peak for this compound.
No internal standard for this compound.
High Alarm amount = 0 Low Alarm amount = 0
Component constant = 0
Quantitation will be by peak height.



LEVEL	AMOUNT	HEIGHT	HEIGHT/Amt	Source	Date Updated
1	10.20000	12705	12456.3E-01	18194.06A	07-13-1998 20:10
2	20.00000	26139	13069.3E-01	Manual	07-14-1998 03:45
3	30.00000	39432	13144.1E-01	18194.08A	07-13-1998 21:30
4	40.20000	53858	13397.5E-01	18194.09A	07-13-1998 22:11
5	50.40000	67815	13455.4E-01	18194.10A	07-13-1998 23:09
6	60.00000	86169	14361.5E-01	18194.17A	07-14-1998 03:33
7	0.00000	-1	0.0E+00	18194.12A	07-14-1998 00:21

Fit type = Average CF with equal weighting, forced through zero
Coef of determination= .9976112 Ave error=2.7169%
Height = +13.314e02*X^1
Average CF (EPA method 8000) = 1331.4001 with %RSD = 4.689%

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Quality Control Summary
SDG# IMC01
Instrument ID: 5843
Continuing Calibration Summary

CCV Batch: 98196A18
Data File: C:\CP\DATA1\18196.03R
Date Injected: 07/15/98 Time Injected: 15:58
Initial Calibration Date(s): 07/13/98-07/14/98(HALL)
Initial Calibration Date(s): 07/13/98-07/14/98(PID)

Sample Information			
LL Sample#	Sample Code	Analysis Date	Analysis Time
BLK1875	METHOD BLANK	07/15/98	17:42
2961808	PMW4U	07/15/98	19:43
2961808MS	PMW4U	07/15/98	20:23
2961808MSD	PMW4U	07/15/98	21:03
2961809	PM4UD	07/15/98	23:44
2961810	PMW4M	07/16/98	00:24
2961811	PMW4L	07/16/98	01:04
2961812	PMW5U	07/16/98	01:44
2961813	PMW5M	07/16/98	02:30
2961814	PMW5L	07/16/98	03:11
2961815	PMW6U	07/16/98	03:51

COMPOUND (DETECTOR)	THEORETICAL CONCENTRATION (UG/L)	ACTUAL CONCENTRATION (UG/L)	% DRIFT	%DRIFT LIMITS
DICHLORODIFLUOROMETH (HALL)	20.0	22.5	12.5	-18.0 to +74.0
CHLOROMETHANE (HALL)	19.9	17.8	-10.5	-40.5 to +40.5
VINYL CHLORIDE (HALL)	19.9	22.1	11.0	-31.5 to +31.5
BROMOMETHANE (HALL)	20.1	19.5	-2.9	-41.5 to +41.5
CHLOROETHANE (HALL)	19.9	19.8	-0.4	-23.0 to +23.0
TRICHLOROFLUOROMETHA (HALL)	20.0	18.4	-7.8	-33.5 to +33.5
1,1-DICHLOROETHENE (HALL)	20.0	21.2	5.9	-37.0 to +37.0
METHYLENE CHLORIDE (HALL)	20.0	22.9	14.3	-22.5 to +22.5
TRANS-1,2-DICHLOROET (HALL)	20.0	18.9	-5.6	-36.0 to +36.0
1,1-DICHLOROETHANE (HALL)	20.0	19.5	-2.7	-16.0 to +16.0
CIS-1,2-DICHLOROETHE (HALL)	20.0	20.1	0.4	-36.0 to +36.0

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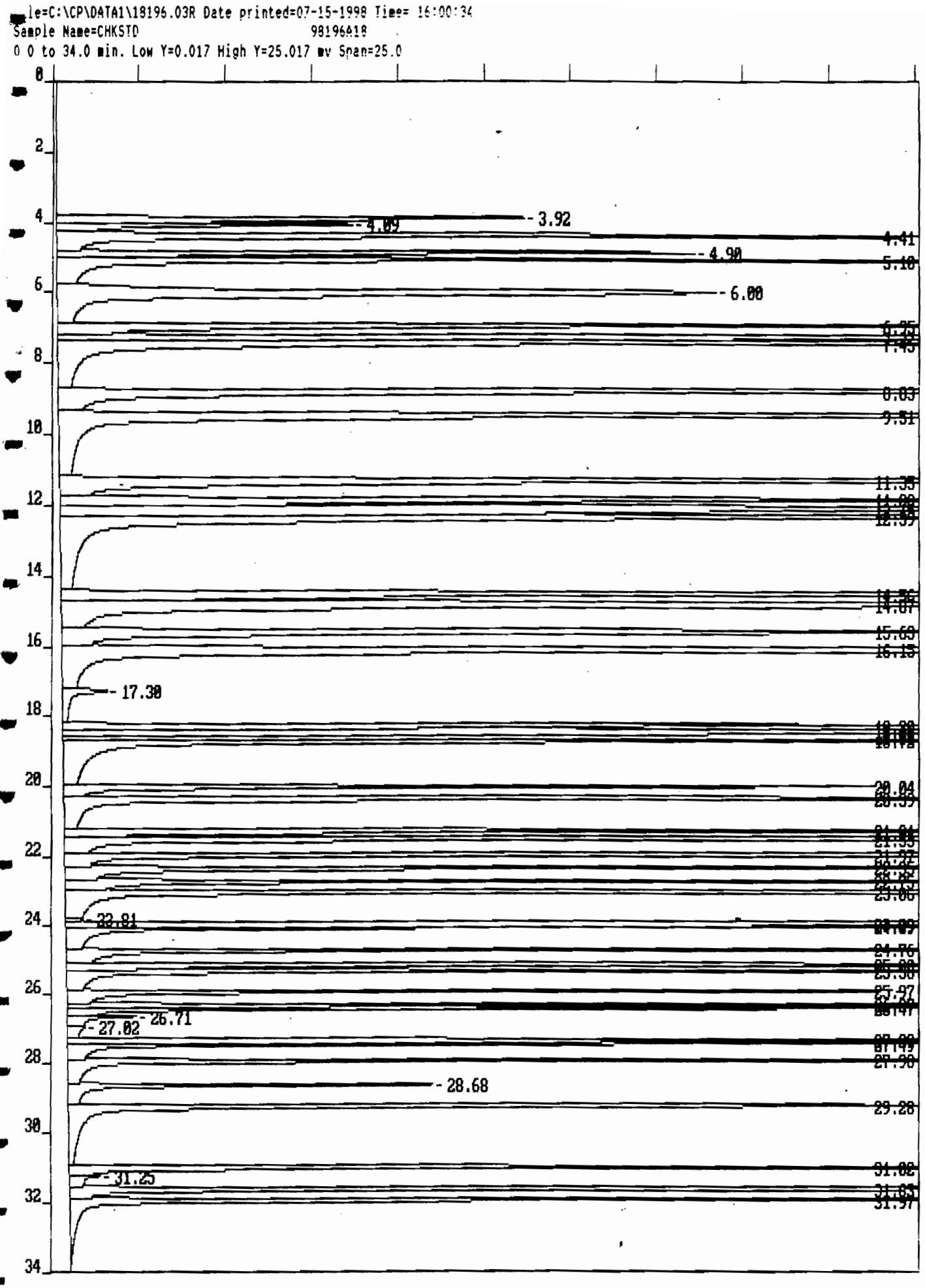
Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Quality Control Summary
SDG# IMC01
Instrument ID: 5843
Continuing Calibration Summary

CCV Batch: 98196A18
Data File: C:\CP\DATA1\18196.03R
Date Injected: 07/15/98 Time Injected: 15:58
Initial Calibration Date(s): 07/13/98-07/14/98(HALL)
Initial Calibration Date(s): 07/13/98-07/14/98(PID)

COMPOUND (DETECTOR)	THEORETICAL CONCENTRATION (UG/L)	ACTUAL CONCENTRATION (UG/L)	% DRIFT	%DRIFT LIMITS
CHLOROFORM (HALL)	20.0	18.3	-8.7	-25.0 to +25.0
1,2-DICHLOROETHANE (HALL)	20.0	20.4	1.8	-28.5 to +28.5
1,1,1-TRICHLOROETHAN (HALL)	20.0	20.2	1.0	-29.0 to +29.0
CARBON TETRACHLORIDE (HALL)	20.0	18.8	-6.1	-31.5 to +31.5
BENZENE (PID)	20.0	20.3	1.3	-23.0 to +23.0
1,2-DICHLOROPROPANE (HALL)	20.0	18.7	-6.6	-26.0 to +26.0
TRICHLOROETHENE (PID)	20.0	19.9	-0.4	-23.0 to +23.0
BROMODICHLOROMETHANE (HALL)	20.0	18.1	-9.5	-24.0 to +24.0
CIS-1,3-DICHLOROPROP (HALL)	20.0	21.1	5.4	-36.0 to +36.0
TRANS-1,3-DICHLOROPR (HALL)	20.0	22.7	13.6	-36.0 to +36.0
1,1,2-TRICHLOROETHAN (HALL)	20.0	22.1	10.3	-21.5 to +21.5
TOLUENE (PID)	20.0	20.2	0.9	-22.5 to +22.5
DIBROMOCHLOROMETHANE (HALL)	20.0	19.0	-4.8	-34.5 to +34.5
TETRACHLOROETHENE (HALL)	20.0	20.5	2.6	-30.0 to +30.0
CHLOROBENZENE (PID)	20.0	20.2	0.9	-28.0 to +28.0
ETHYLBENZENE (PID)	20.0	20.1	0.7	-37.0 to +37.0
M,P-XYLENE (PID)	40.0	41.2	2.9	-15.0 to +15.0
BROMOFORM (HALL)	20.0	19.9	-0.4	-26.5 to +26.5
O-XYLENE (PID)	20.0	20.7	3.5	-15.0 to +15.0
1,1,2,2-TETRACHLOROE (HALL)	20.0	22.2	10.8	-51.0 to +51.0
1,3-DICHLOROBENZENE (HALL)	20.0	20.7	3.6	-50.5 to +50.5
1,4-DICHLOROBENZENE (PID)	20.0	20.5	2.3	-30.5 to +30.5
1,2-DICHLOROBENZENE (HALL)	20.0	18.8	-5.9	-30.0 to +30.0
SURR-1B4CB-P (PID)	30.0	29.2	-2.8	-22.0 to +33.0
SURR-1B4CB-H (HALL)	30.0	27.9	-7.1	-30.0 to +33.0

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le=C:\CP\DATA1\18196.03R Date printed=07-15-1998 Time= 16:00:34
Sample Name=CHKSTD 98196A18
0 0 to 34.0 min. Low Y=0.017 High Y=25.017 mv Span=25.0
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
3.92
4.09
4.90
6.00
17.30
32.81
26.71
27.02
28.68
31.25

Sample Name: **CHKSTD**
Batch: 98196A18 Date Taken: Jul 15, 1998 15:58:28
Raw File: C:\CP\DATA1\18196.03R
Area File: C:\CP\DATA1\18196.03A
Method File: C:\CP\DATA1\Z8194.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18HALL
Peak Width: .04 Dil. Factor: 1 Analyst: 215
Threshold: -3 Calculation: EXTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 22):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
3.915	3.912	DICHLORODIFLUOROMETH	22.5050	95797	13557
4.087	4.086	CHLOROMETHANE	17.8184	60429	8580
4.408	4.393	VINYL CHLORIDE	22.0818	199057	26104
4.898	4.898	BROMOMETHANE	19.5185	109243	18501
5.103	5.104	CHLOROETHANE	19.8151	195358	27903
6.002	5.994	TRICHLOROFLUOROMETHA	18.4307	269376	19085
6.953	6.946	1,1-DICHLOROETHENE	21.1815	232268	34882
7.271	7.271	METHYLENE CHLORIDE	22.8505	368853	62183
7.449	7.446	TRICHLOROTRIFLUOROET	23.8491	297152	26930
8.833	8.831	TRANS-1,2-DICHLOROET	18.8843	332359	43471
9.505	9.498	1,1-DICHLOROETHANE	19.4679	394263	40264
11.346	11.341	CIS-1,2-DICHLOROETHE	20.0833	350804	39040
11.884	11.874	BROMOCHLOROMETHANE	22.7078	255629	30897
12.149	12.138	CHLOROFORM	18.2668	432967	44385
12.392	12.388	2,2-DICHLOROPROPANE	25.2942	376307	27241
14.560	14.553	1,2-DICHLOROETHANE	20.3550	310498	38067
14.869	14.876	1,1,1-TRICHLOROETHAN	20.2012	430564	38995
15.633	15.630	1,1-DICHLOROPROPENE	21.4723	294159	34975
16.152	16.150	CARBON TETRACHLORIDE	18.7784	460819	43010
18.298	18.296	DIBROMOMETHANE	21.6623	141074	25846
18.459	18.459	1,2-DICHLOROPROPANE	18.6805	290342	43480
18.611	18.611	TRICHLOROETHENE	20.8053	353510	63710
18.715	18.716	BROMODICHLOROMETHANE	18.1057	361478	48495
20.041	20.042	2-CHLOROETHYL VINYL	23.0494	118875	23447
20.385	20.386	CIS-1,3-DICHLOROPROP	21.0852	295800	58232
21.306	21.308	TRANS-1,3-DICHLOROPR	22.7256	254786	61899
21.530	21.532	1,1,2-TRICHLOROETHAN	22.0506	334985	73197
21.974	21.977	1,3-DICHLOROPROPANE	21.9529	260393	60011
22.353	22.357	DIBROMOCHLOROMETHANE	19.0444	212332	42107
22.749	22.751	1,2-DIBROMOETHANE	19.7303	142761	30139
23.063	23.067	TETRACHLOROETHENE	20.5209	381043	85300
23.989	23.993	1,1,1,2-TETRACHLOROE	20.5322	350771	91554
24.089	24.093	CHLOROBENZENE	18.3423	181473	38683
24.765	24.773	BROMOFORM	19.9272	144104	30749
25.201	25.208	1,1,2,2-TETRACHLOROE	22.1542	207558	55651
25.382	25.391	1,2,3-TRICHLOROPROPA	19.6510	178795	40288
25.975	25.986	BROMOBENZENE	20.4765	107434	23864
26.367	26.378	2-CHLOROTOLUENE	21.0018	116969	32200
26.471	26.481	4-CHLOROTOLUENE	20.2019	133667	32866
27.391	27.402	1,3-DICHLOROBENZENE	20.7293	162685	46696
27.486	27.496	1,4-DICHLOROBENZENE	20.8777	216250	51895
27.981	27.996	1,2-DICHLOROBENZENE	18.8259	189835	41662
28.675	28.691	1,2-DIBROMO-3-CHLORO	22.1971	59517	10536
29.279	29.293	SURR-1B4CB-H	27.8720	201399	37109
31.015	31.035	1,2,4-TRICHLOROBENZE	21.3376	159975	32959
31.632	31.650	HEXACHLOROBUTADIENE	20.4373	217888	38885
31.966	31.985	1,2,3-TRICHLOROBENZE	23.5842	161125	27949
		TOTAL 1,2-DICHLOROETHENE:	**38.9676**		

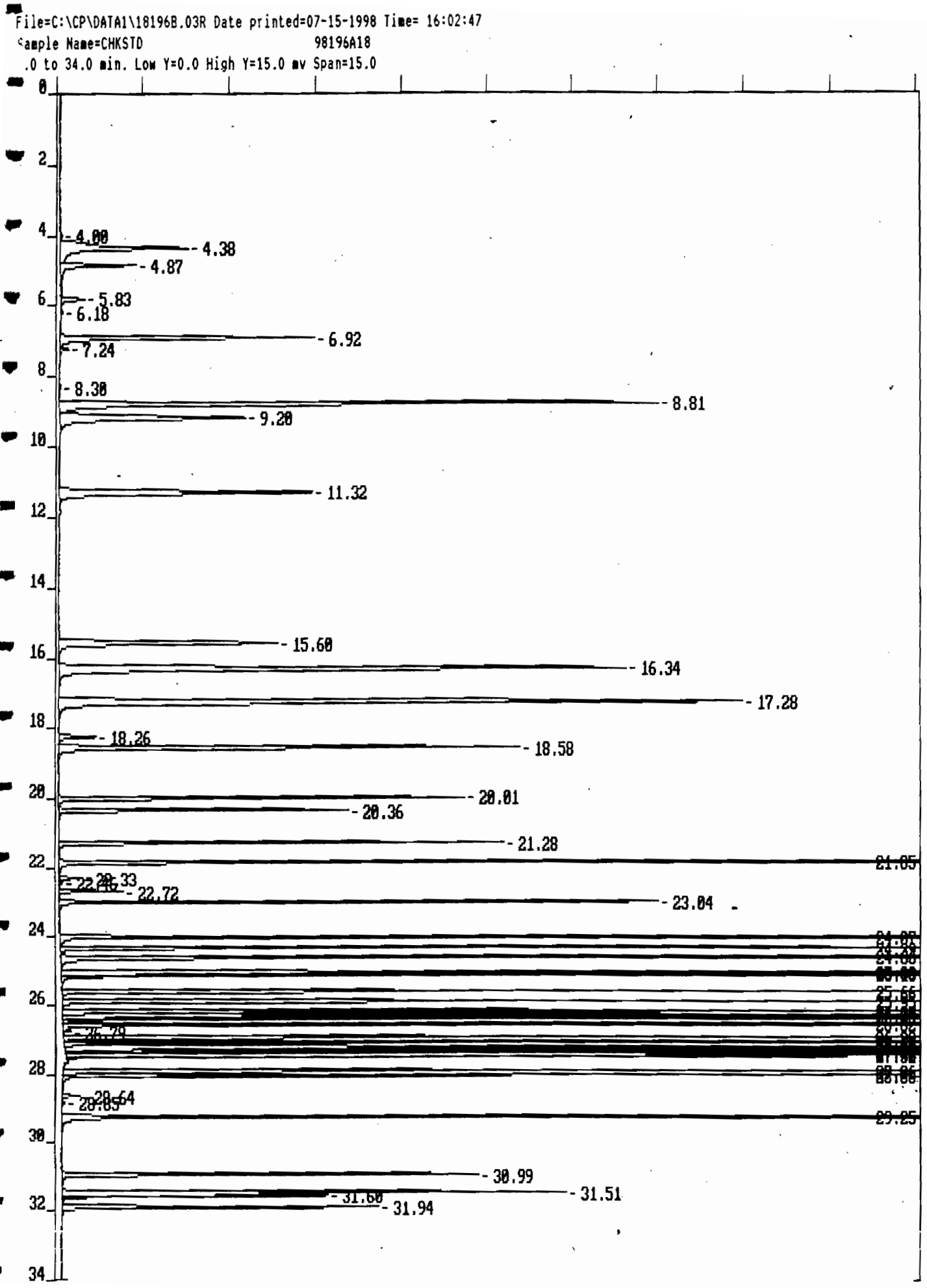
* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 92.9067%
Chrom Perfect version 6.07 Reported on 07-15-1998at 16:02:27

Sample name: **CHKSTD** Batch: 98196A18

Raw file: C:\CP\DATA1\18196.03R

Reviewed by: mT 744 Verified by: [signature]

Date: 7/15/98 Date: 7/21/98


File=C:\CP\DATA1\18196B.03R Date printed=07-15-1998 Time= 16:02:47
Sample Name=CHKSTD 98196A18
.0 to 34.0 min. Low Y=0.0 High Y=15.0 mv Span=15.0
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
4.00
4.38
4.87
5.83
6.18
6.92
7.24
8.30
8.81
9.20
11.32
15.60
16.34
17.28
18.26
18.58
20.01
20.36
21.28
21.85
22.33
22.72
23.04
25.66
26.79
28.64
29.25
30.99
31.51
31.60
31.94

ample Name: CHKSTD
Batch: 98196A18 Date Taken: Jul 15, 1998 15:58:28
Raw File: C:\CP\DATA1\18196B.03R
rea File: C:\CP\DATA1\18196B.03A
ethod File: C:\CP\DATA1\Z8194B.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18PID
Peak width: .04 Dil. factor: 1 Analyst: 215
Threshold: 0 Calculation: INTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\PZ8194.CAL(version 26):

et Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
4.382	4.365	VINYL CHLORIDE	23.5870	19387	2235
6.923	6.919	1,1-DICHLOROETHENE	20.0384	23834	4415
8.806	8.802	TRANS-1,2-DICHLOROET	20.3729	59535	10438
9.201	9.198	METHYL T-BUTYL ETHER	20.7032	28713	3214
11.320	11.311	CIS-1,2-DICHLOROETHE	20.3244	32286	4385
15.603	15.600	1,1-DICHLOROPROPENE	20.2449	27223	3804
16.337	16.335	BENZENE	20.2539	70203	9873
17.281	17.280	ISTD-FBENZENE	1.0000	81442	11911
18.583	18.581	TRICHLOROETHENE	19.9191	39575	8002
20.015	20.015	2-CHLOROETHYL VINYL	21.2173	26279	7044
20.358	20.359	CIS-1,3-DICHLOROPROP	20.5111	18212	5034
21.281	21.282	TRANS-1,3-DICHLOROPR	20.8791	23753	7721
21.847	21.850	TOLUENE	20.1877	65611	20843
23.039	23.043	TETRACHLOROETHENE	20.4216	30651	10424
24.065	24.071	CHLOROBENZENE	20.1812	68682	26256
24.386	24.392	ETHYLBENZENE	20.1443	58694	22431
24.663	24.670	M,P-XYLENE	41.1668	138150	46481
25.089	25.098	STYRENE	20.6033	74647	31417
25.180	25.189	O-XYLENE	20.7078	61451	24396
25.658	25.668	ISOPROPYLBENZENE	20.7326	48748	18459
25.947	25.958	BROMOBENZENE	20.1835	68826	27051
26.231	26.242	N-PROPYLBENZENE	20.1526	51962	20096
26.343	26.354	2-CHLOROTOLUENE	20.4805	58851	22586
26.447	26.458	4-CHLOROTOLUENE	20.1763	60930	24037
26.616	26.628	1,3,5-TRIMETHYLBENZE	20.7805	77668	29732
26.980	26.992	TERT-BUTYLBENZENE	20.7732	43654	15448
27.129	27.141	1,2,4-TRIMETHYLBENZE	20.6462	59014	22518
27.270	27.283	SEC-BUTYLBENZENE	21.1439	43948	15481
27.366	27.379	1,3-DICHLOROBENZENE	20.5267	57108	21646
27.461	27.474	1,4-DICHLOROBENZENE	20.4637	57560	21873
27.517	27.530	P-ISOPROPYLTOLUENE	21.3202	43638	16214
27.956	27.970	1,2-DICHLOROBENZENE	20.0844	44847	16091
28.084	28.098	N-BUTYLBENZENE	20.5836	42168	14758
29.250	29.266	SURR-1B4CB-P	29.1672	82771	26889
30.990	31.007	1,2,4-TRICHLOROBENZE	20.7027	26382	7230
31.513	31.532	NAPHTHALENE	21.7231	33079	8784
31.605	31.623	HEXACHLOROBUTADIENE	20.8655	18965	4616
31.939	31.958	1,2,3-TRICHLOROBENZE	21.3444	22100	5495
	XYLENES (Total):	**61.8745**			

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 97.2239%
Chrom Perfect version 6.07 Reported on 07-15-1998at 16:06:13

Internal Standard Calculations From ISTDCHK v. 950609.1130
IStd height for ISTD-FBENZENE is within range.
IStd range: 9,325 - 13,987 (80% - 120% of midpoint 11,656)
Used initial calibration files to determine range.

Sample name: **CHKSTD** Batch: 98196A18

Raw file: C:\CP\DATA1\18196B.03R

Reviewed by: ~~[illegible]~~ 747 Verified by: [signature] 7/21/98

Date: 7/15/98 Date: _____

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Quality Control Summary
SDG# IMC01
Instrument ID: 5843
Continuing Calibration Summary

CCV Batch: 98196A18
Data File: C:\CP\DATA1\18196.21R
Date Injected: 07/16/98 Time Injected: 04:31
Initial Calibration Date(s): 07/13/98-07/14/98(HALL)
Initial Calibration Date(s): 07/13/98-07/14/98(PID)

Sample Information			
LL Sample#	Sample Code	Analysis Date	Analysis Time
BLK1877	METHOD BLANK	07/16/98	06:14
2961816	PMW6M	07/16/98	06:54
2961817	PMW6L	07/16/98	07:34
2961818	PMW7U	07/16/98	08:14
2961819	PMW7M	07/16/98	08:54
2961820	PMW7L	07/16/98	09:34
2961821	MW--1	07/16/98	10:14
2961822	MW--3	07/16/98	10:55

COMPOUND (DETECTOR)	THEORETICAL CONCENTRATION (UG/L)	ACTUAL CONCENTRATION (UG/L)	% DRIFT	%DRIFT LIMITS
1,1-DICHLOROETHENE (HALL)	20.0	20.5	2.5	-37.0 to +37.0
METHYLENE CHLORIDE (HALL)	20.0	21.7	8.3	-22.5 to +22.5
TRANS-1,2-DICHLOROET (HALL)	20.0	17.9	-10.4	-36.0 to +36.0
1,1-DICHLOROETHANE (HALL)	20.0	18.7	-6.4	-16.0 to +16.0
CIS-1,2-DICHLOROETHE (HALL)	20.0	20.0	-0.1	-36.0 to +36.0
CHLOROFORM (HALL)	20.0	17.6	-12.0	-25.0 to +25.0
1,2-DICHLOROETHANE (HALL)	20.0	20.3	1.5	-28.5 to +28.5
1,1,1-TRICHLOROETHAN (HALL)	20.0	19.9	-0.6	-29.0 to +29.0

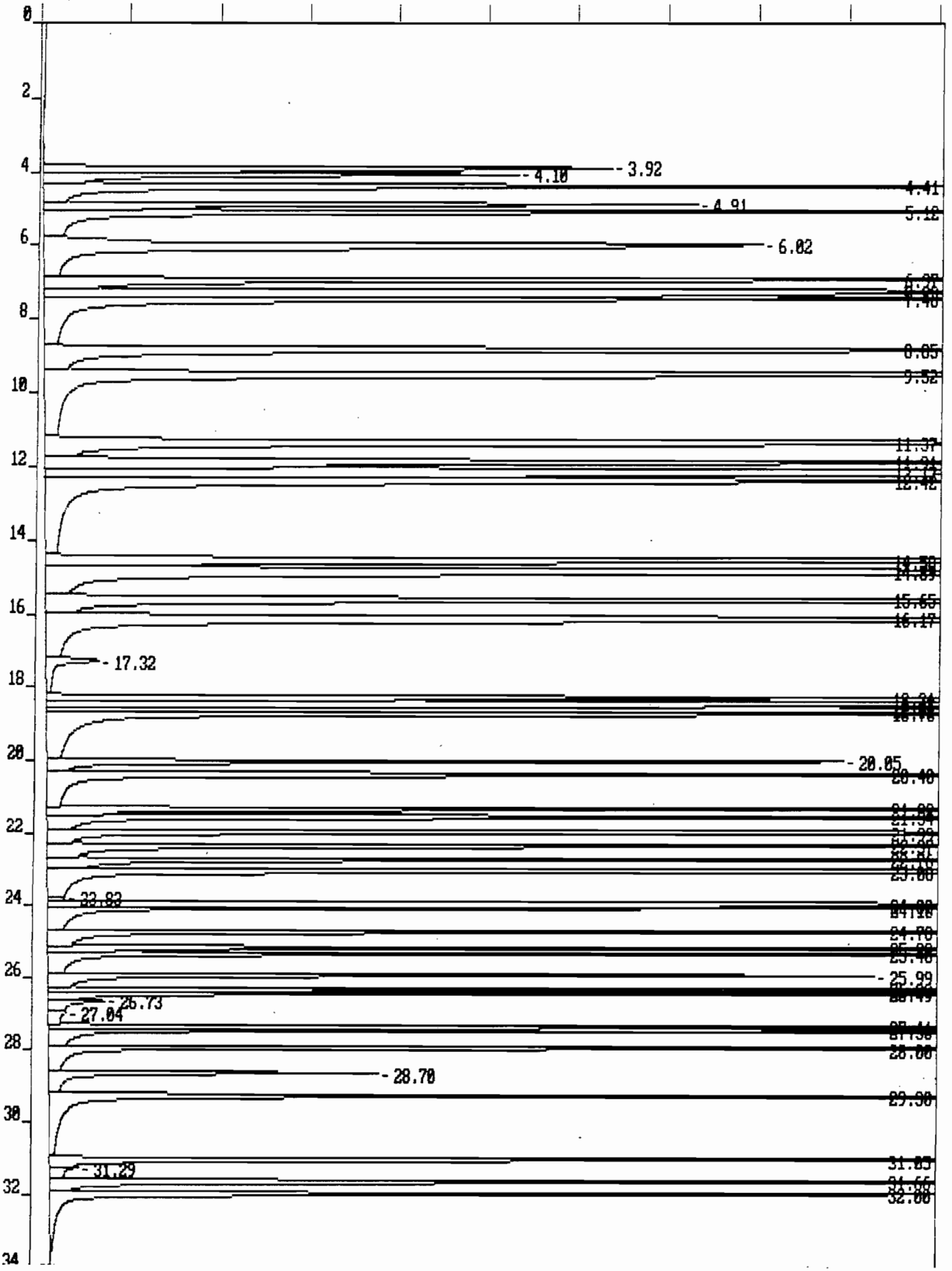
Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Quality Control Summary
SDG# IMC01
Instrument ID: 5843
Continuing Calibration Summary

CCV Batch: 98196A18
Data File: C:\CP\DATA1\18196.21R
Date Injected: 07/16/98 Time Injected: 04:31
Initial Calibration Date(s): 07/13/98-07/14/98(HALL)
Initial Calibration Date(s): 07/13/98-07/14/98(PID)

COMPOUND (DETECTOR)	THEORETICAL CONCENTRATION (UG/L)	ACTUAL CONCENTRATION (UG/L)	% DRIFT	%DRIFT LIMITS
CARBON TETRACHLORIDE (HALL)	20.0	18.1	-9.7	-31.5 to +31.5
BENZENE (PID)	20.0	18.7	-6.3	-23.0 to +23.0
1,2-DICHLOROPROPANE (HALL)	20.0	18.5	-7.6	-26.0 to +26.0
TRICHLOROETHENE (PID)	20.0	18.3	-8.3	-23.0 to +23.0
BROMODICHLOROMETHANE (HALL)	20.0	17.7	-11.6	-24.0 to +24.0
CIS-1,3-DICHLOROPROP (HALL)	20.0	19.7	-1.5	-36.0 to +36.0
TRANS-1,3-DICHLOROPR (HALL)	20.0	20.2	0.9	-36.0 to +36.0
1,1,2-TRICHLOROETHAN (HALL)	20.0	20.7	3.6	-21.5 to +21.5
TOLUENE (PID)	20.0	18.7	-6.7	-22.5 to +22.5
DIBROMOCHLOROMETHANE (HALL)	20.0	17.9	-10.3	-34.5 to +34.5
TETRACHLOROETHENE (HALL)	20.0	20.0	0.0	-30.0 to +30.0
CHLOROBENZENE (PID)	20.0	18.6	-7.2	-28.0 to +28.0
ETHYLBENZENE (PID)	20.0	18.6	-7.1	-37.0 to +37.0
M,P-XYLENE (PID)	40.0	37.5	-6.2	-15.0 to +15.0
BROMOFORM (HALL)	20.0	18.7	-6.3	-26.5 to +26.5
O-XYLENE (PID)	20.0	18.9	-5.4	-15.0 to +15.0
1,1,2,2-TETRACHLOROE (HALL)	20.0	20.6	2.8	-51.0 to +51.0
1,3-DICHLOROBENZENE (HALL)	20.0	18.0	-9.9	-50.5 to +50.5
1,4-DICHLOROBENZENE (PID)	20.0	18.2	-9.2	-30.5 to +30.5
1,2-DICHLOROBENZENE (HALL)	20.0	18.0	-10.2	-30.0 to +30.0
SURR-1B4CB-P (PID)	30.0	27.0	-9.9	-22.0 to +33.0
SURR-1B4CB-H (HALL)	30.0	27.6	-8.1	-30.0 to +33.0

File=C:\CP\DATA1\18196.21R Date printed=07-16-1998 Time= 04:31:37
Sample Name=CHKSTD 98196A188404,8405,8470
0.0 to 34.0 min. Low Y=0.047 High Y=25.047 mv Span=25.0



Sample Name: **CHKSTD**
Batch: 98196A18 Date Taken: Jul 16, 1998 04:31:33
Raw File: C:\CP\DATA1\18196.21R
Area File: C:\CP\DATA1\18196.21A
Method File: C:\CP\DATA1\Z8194.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18HALL
Peak Width: .04 Dil. Factor: 1 Analyst: 215
Threshold: -3 Calculation: EXTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 23):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
3.924	3.915	DICHLORODIFLUOROMETH	26.2771	109186	15829
4.098	4.087	CHLOROMETHANE	29.3344	85031	13241
4.413	4.408	VINYL CHLORIDE	21.6631	190349	25609
4.912	4.898	BROMOMETHANE	19.1931	106036	18208
5.118	5.103	CHLOROETHANE	21.3731	204587	30097
6.018	6.002	TRICHLOROFLUOROMETHA	19.2825	257569	19967
6.967	6.953	1,1-DICHLOROETHENE	20.5051	220371	33768
7.289	7.271	METHYLENE CHLORIDE	21.6699	348493	59021
7.464	7.449	TRICHLOROTRIFLUOROET	22.9849	280713	25929
8.854	8.833	TRANS-1,2-DICHLOROET	17.9239	318706	41260
9.524	9.505	1,1-DICHLOROETHANE	18.7103	376723	38697
11.370	11.346	CIS-1,2-DICHLOROETHE	19.9880	341878	38855
11.909	11.884	BROMOCHLOROMETHANE	21.6749	246487	29492
12.169	12.149	CHLOROFORM	17.5930	414491	42748
12.416	12.392	2,2-DICHLOROPROPANE	23.8042	353747	25583
14.581	14.560	1,2-DICHLOROETHANE	20.3067	304960	37977
14.885	14.869	1,1,1-TRICHLOROETHAN	19.8702	411257	38356
15.651	15.633	1,1-DICHLOROPROPENE	20.9497	283631	34124
16.166	16.152	CARBON TETRACHLORIDE	18.0628	440450	41371
18.311	18.298	DIBROMOMETHANE	20.7590	133964	24770
18.472	18.459	1,2-DICHLOROPROPANE	18.4823	284220	43019
18.621	18.611	TRICHLOROETHENE	20.5778	344267	63013
18.726	18.715	BROMODICHLOROMETHANE	17.6876	352487	47375
20.052	20.041	2-CHLOROETHYL VINYL	21.7229	112286	22106
20.395	20.385	CIS-1,3-DICHLOROPROP	19.7017	276586	54411
21.317	21.306	TRANS-1,3-DICHLOROPR	20.1861	225913	54982
21.541	21.530	1,1,2-TRICHLOROETHAN	20.7113	315624	68751
21.987	21.974	1,3-DICHLOROPROPANE	20.1453	238673	55069
22.366	22.353	DIBROMOCHLOROMETHANE	17.9486	196260	39702
22.761	22.749	1,2-DIBROMOETHANE	19.7240	138614	30130
23.077	23.063	TETRACHLOROETHENE	19.9971	365049	83123
24.000	23.989	1,1,1,2-TETRACHLOROE	19.2793	327407	86188
24.103	24.089	CHLOROBENZENE	18.1336	178345	38243
24.779	24.765	BROMOFORM	18.7444	132696	28947
25.215	25.201	1,1,2,2-TETRACHLOROE	20.5511	192615	51624
25.396	25.382	1,2,3-TRICHLOROPROPA	18.4663	166532	37859
25.990	25.975	BROMOBENZENE	19.6326	101686	22902
26.383	26.367	2-CHLOROTOLUENE	20.3313	112652	31172
26.487	26.471	4-CHLOROTOLUENE	18.9547	124875	30837
27.410	27.391	1,3-DICHLOROBENZENE	18.0294	144274	40614
27.503	27.486	1,4-DICHLOROBENZENE	17.4537	195313	43384
28.003	27.981	1,2-DICHLOROBENZENE	17.9625	179246	39751
28.699	28.675	1,2-DIBROMO-3-CHLORO	19.3217	52832	9193
29.301	29.279	SURR-1B4CB-H	27.5739	196602	36712
31.048	31.015	1,2,4-TRICHLOROBENZE	20.5158	150888	31690
31.664	31.632	HEXACHLOROBUTADIENE	18.9390	199390	36034
32.002	31.966	1,2,3-TRICHLOROBENZE	20.8460	144360	24704
	TOTAL 1,2-DICHLOROETHENE:		**37.9120**		

* Amounts in ug/L for water samples, ug/kg for solid samples.

Surrogate Recovery: BrClBenzene 91.9130%

Chrom Perfect version 6.07 Reported on 07-16-1998at 04:33:28

Sample name: CHKSTD
Raw file: C:\CP\DATA1\18196.21R

Batch: 98196A188404,840

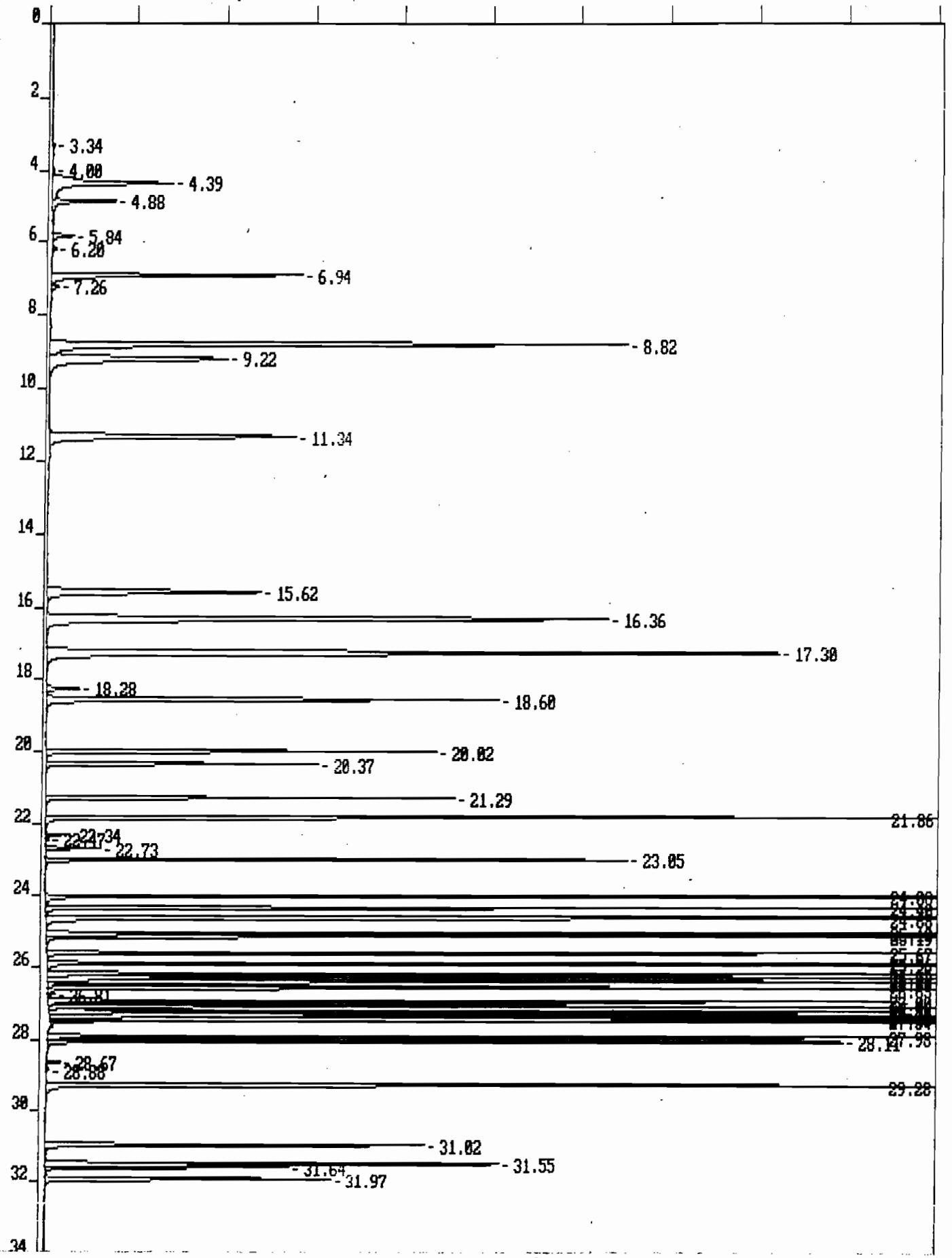
Reviewed by: TBL

Verified by:

Date: 7-16-98

Date: 7/16/98

File=C:\CP\DATA1\18196B.21R Date printed=07-16-1998 Time= 04:33:46
Sample Name=CHKSTD 98196A188404,8405,8470
0.0 to 34.0 min. Low Y=0.002 High Y=15.002 mv Span=15.0



Sample Name: **CHKSTD**
Batch: 98196A18 Date Taken: Jul 16, 1998 04:31:33
Raw File: C:\CP\DATA1\18196B.21R
Area File: C:\CP\DATA1\18196B.21A
Method File: C:\CP\DATA1\Z8194B.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18PID
Peak width: .04 Dil. factor: 1 Analyst: 215
Threshold: 0 Calculation: INTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\PZ8194.CAL(version 27):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
4.387	4.382	VINYL CHLORIDE	20.6444	16814	2039
6.939	6.923	1,1-DICHLOROETHENE	18.5402	22367	4221
8.824	8.806	TRANS-1,2-DICHLOROET	18.3653	56011	9724
9.217	9.201	METHYL T-BUTYL ETHER	18.5904	27722	2983
11.342	11.320	CIS-1,2-DICHLOROETHE	18.5346	30497	4132
15.621	15.603	1,1-DICHLOROPROPENE	18.4455	25492	3582
16.355	16.337	BENZENE	18.7410	67448	9441
17.300	17.281	ISTD-FBENZENE	1.0000	83677	12309
18.596	18.583	TRICHLOROETHENE	18.3397	37529	7614
20.025	20.015	2-CHLOROETHYL VINYL	19.1759	24520	6577
20.369	20.358	CIS-1,3-DICHLOROPROP	17.9795	16475	4560
21.292	21.281	TRANS-1,3-DICHLOROPR	18.0584	21288	6901
21.860	21.847	TOLUENE	18.6513	62942	19900
23.052	23.039	TETRACHLOROETHENE	18.5540	28825	9788
24.079	24.065	CHLOROBENZENE	18.5625	65214	24958
24.400	24.386	ETHYLBENZENE	18.5834	55873	21384
24.677	24.663	M,P-XYLENE	37.5375	129822	43799
25.103	25.089	STYRENE	18.7410	70094	29532
25.194	25.180	O-XYLENE	18.9259	58086	23042
25.673	25.658	ISOPROPYLBENZENE	18.8092	45861	17306
25.964	25.947	BROMOBENZENE	18.4036	64835	25490
26.248	26.231	N-PROPYLBENZENE	18.2622	48617	18820
26.360	26.343	2-CHLOROTOLUENE	18.5601	55011	21152
26.464	26.447	4-CHLOROTOLUENE	18.2372	57029	22453
26.633	26.616	1,3,5-TRIMETHYLBENZE	18.8007	72628	27798
26.998	26.980	TERT-BUTYLBENZENE	18.6196	40435	14309
27.148	27.129	1,2,4-TRIMETHYLBENZE	18.5034	54887	20855
27.289	27.270	SEC-BUTYLBENZENE	18.9073	40326	14306
27.386	27.366	1,3-DICHLOROBENZENE	18.2551	52870	19894
27.481	27.461	1,4-DICHLOROBENZENE	18.1513	53033	20049
27.537	27.517	P-ISOPROPYLTOLUENE	18.9534	40009	14896
27.978	27.956	1,2-DICHLOROBENZENE	18.0223	41508	14921
28.106	28.084	N-BUTYLBENZENE	18.0551	38322	13378
29.276	29.250	SURR-1B4CB-P	27.0155	79227	25738
31.021	30.990	1,2,4-TRICHLOROBENZE	17.7125	23501	6392
31.548	31.513	NAPHTHALENE	18.2512	28678	7627
31.639	31.605	HEXACHLOROBUTADIENE	17.9220	17027	4097
31.974	31.939	1,2,3-TRICHLOROBENZE	18.0203	19275	4794
	XYLENES (Total):		**56.4634**		

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 90.0518%
Chrom Perfect version 6.07 Reported on 07-16-1998at 04:37:04

Internal Standard Calculations From ISTDCHK v. 950609.1130
IStd height for ISTD-FBENZENE is within range.
IStd range: 9,325 - 13,987 (80% - 120% of midpoint 11,656)
Used initial calibration files to determine range.

Sample name: **CHKSTD** Batch: 98196A188404,840

Raw file: C:\CP\DATA1\18196B.21R

Reviewed by: _____ Verified by: _____

Date: 7-16-98 Date: 7/21/98

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

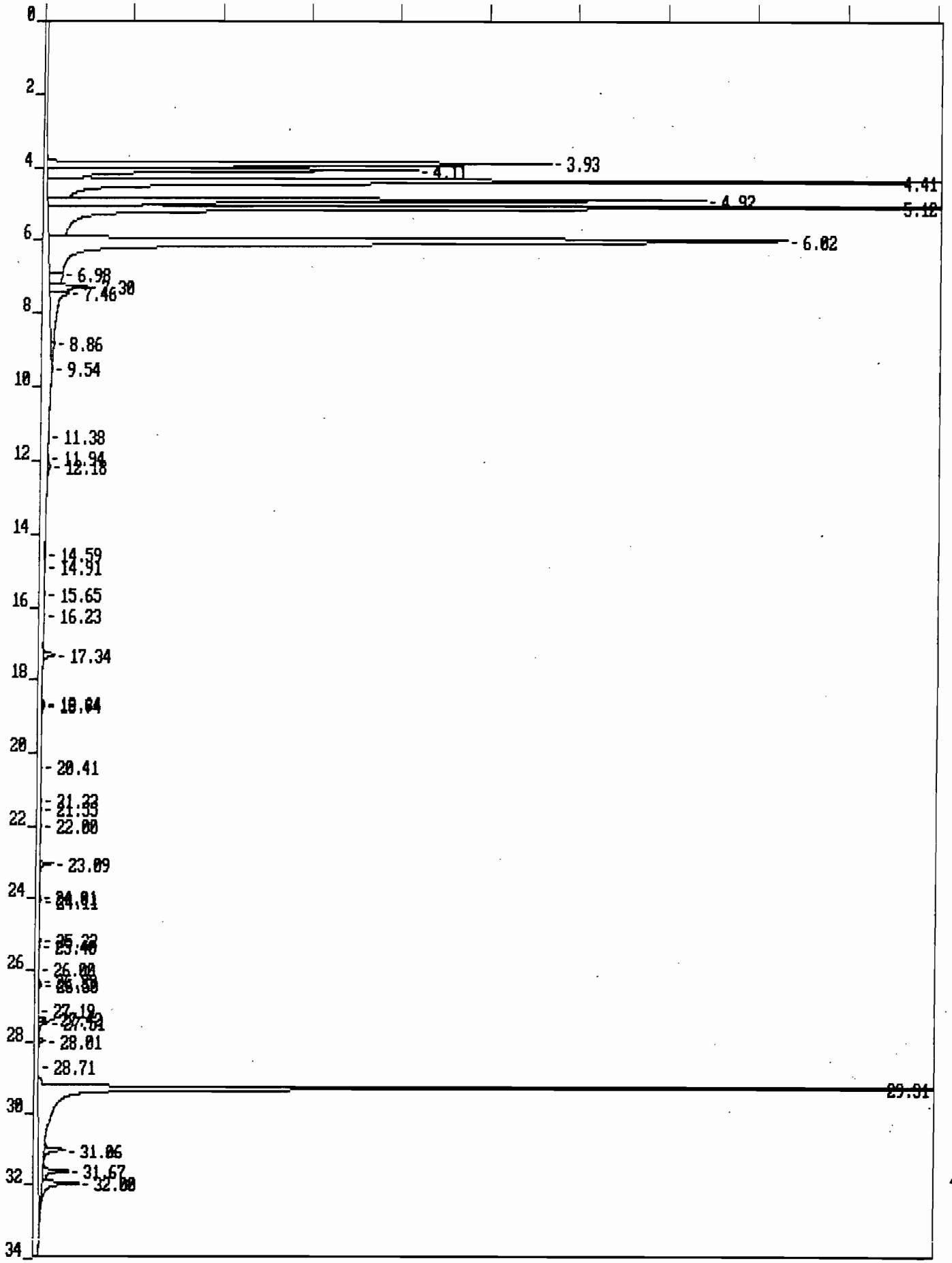
Quality Control Summary
SDG# IMC01
Instrument ID: 5843
Continuing Calibration Summary

CCV Batch: 98196A18
Data File: C:\CP\DATA1\18196.22R
Date Injected: 07/16/98 Time Injected: 05:34
Initial Calibration Date(s): 07/13/98-07/14/98(HALL)

Sample Information			
LL Sample#	Sample Code	Analysis Date	Time
BLK1877	METHOD BLANK	07/16/98	06:14
2961816	PMW6M	07/16/98	06:54
2961817	PMW6L	07/16/98	07:34
2961818	PMW7U	07/16/98	08:14
2961819	PMW7M	07/16/98	08:54
2961820	PMW7L	07/16/98	09:34
2961821	MW--1	07/16/98	10:14
2961822	MW--3	07/16/98	10:55

COMPOUND (DETECTOR)	THEORETICAL CONCENTRATION (UG/L)	ACTUAL CONCENTRATION (UG/L)	% DRIFT	%DRIFT LIMITS
DICHLORODIFLUOROMETH (HALL)	20.0	23.5	17.5	-18.0 to +74.0
CHLOROMETHANE (HALL)	19.9	22.1	11.1	-40.5 to +40.5
VINYL CHLORIDE (HALL)	19.9	21.1	6.1	-31.5 to +31.5
BROMOMETHANE (HALL)	20.1	19.4	-3.3	-41.5 to +41.5
CHLOROETHANE (HALL)	19.9	20.9	5.0	-23.0 to +23.0
TRICHLOROFLUOROMETHA (HALL)	20.0	19.9	-0.5	-33.5 to +33.5
SURR-1B4CB-H (HALL)	30.0	26.5	-11.6	-30.0 to +33.0

File=C:\CP\DATA1\18196.22R Date printed=07-16-1998 Time= 05:34:12
Sample Name=GAS CHKSTD 98196A188404,8405,8470
0.0 to 34.0 min. Low Y=0.025 High Y=25.025 mv Span=25.0



Sample Name: **GAS CHKSTD**
Batch: 98196A18 Date Taken: Jul 16, 1998 05:34:08
Raw File: C:\CP\DATA1\18196.22R
Area File: C:\CP\DATA1\18196.22A
Method File: C:\CP\DATA1\Z8194.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18HALL
Peak Width: .04 Dil. Factor: 1 Analyst: 115
Threshold: -3 Calculation: EXTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 24):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
3.934	3.924	DICHLORODIFLUOROMETH	23.4464	94114	14124
4.108	4.098	CHLOROMETHANE	22.0791	65575	10385
4.413	4.413	VINYL CHLORIDE	21.1206	183765	24967
4.919	4.912	BROMOMETHANE	19.4273	104766	18419
5.125	5.118	CHLOROETHANE	20.9390	196769	29485
6.023	6.018	TRICHLOROFLUOROMETHA	19.9035	249943	20610
6.978	6.967	1,1-DICHLOROETHENE	0.2356	5920	388
7.299	7.289	METHYLENE CHLORIDE	0.3789	7986	1048
7.464	7.464	TRICHLOROTRIFLUOROET	0.5015	17297	551
8.861	8.854	TRANS-1,2-DICHLOROET	0.0462	2102	106
9.544	9.524	1,1-DICHLOROETHANE	0.0142	279	29
11.380	11.370	CIS-1,2-DICHLOROETHE	0.0137	283	27
11.937	11.909	BROMOCHLOROMETHANE	0.0218	237	30
12.183	12.169	CHLOROFORM	0.0332	1106	81
12.416	12.416	2,2-DICHLOROPROPANE	0.0000	0	0
14.594	14.581	1,2-DICHLOROETHANE	0.0133	190	25
14.910	14.885	1,1,1-TRICHLOROETHAN	0.0108	200	21
15.654	15.651	1,1-DICHLOROPROPENE	0.0151	238	25
16.226	16.166	CARBON TETRACHLORIDE	0.0076	231	17
18.311	18.311	DIBROMOMETHANE	0.0000	0	0
18.472	18.472	1,2-DICHLOROPROPANE	0.0000	0	0
18.639	18.621	TRICHLOROETHENE	0.0253	388	77
18.744	18.726	BROMODICHLOROMETHANE	0.0368	801	99
20.052	20.052	2-CHLOROETHYL VINYL	0.0000	0	0
20.409	20.395	CIS-1,3-DICHLOROPROP	0.0082	118	23
21.331	21.317	TRANS-1,3-DICHLOROPR	0.0125	192	34
21.549	21.541	1,1,2-TRICHLOROETHAN	0.0122	282	41
22.000	21.987	1,3-DICHLOROPROPANE	0.0129	183	35
22.366	22.366	DIBROMOCHLOROMETHANE	0.0000	0	0
22.761	22.761	1,2-DIBROMOETHANE	0.0000	0	0
23.085	23.077	TETRACHLOROETHENE	0.0960	2218	399
24.010	24.000	1,1,1,2-TETRACHLOROE	0.0094	179	44
24.110	24.103	CHLOROBENZENE	0.0228	230	48
24.779	24.779	BROMOFORM	0.0000	0	0
25.224	25.215	1,1,2,2-TETRACHLOROE	0.0305	373	77
25.398	25.396	1,2,3-TRICHLOROPROPA	0.0239	328	49
25.999	25.990	BROMOBENZENE	0.0193	139	23
26.391	26.383	2-CHLOROTOLUENE	0.0431	265	66
26.495	26.487	4-CHLOROTOLUENE	0.0549	564	89
27.420	27.410	1,3-DICHLOROBENZENE	0.0927	860	209
27.512	27.503	1,4-DICHLOROBENZENE	0.1196	2592	297
28.011	28.003	1,2-DICHLOROBENZENE	0.0931	1511	206
28.711	28.699	1,2-DIBROMO-3-CHLORO	0.0662	178	32
29.306	29.301	SURR-1B4CB-H	26.5084	206245	35293
31.056	31.048	1,2,4-TRICHLOROBENZE	0.4035	4494	623
31.671	31.664	HEXACHLOROBUTADIENE	0.3873	5412	737
32.005	32.002	1,2,3-TRICHLOROBENZE	0.8869	9185	1051
		TOTAL 1,2-DICHLOROETHENE:	0.0599		

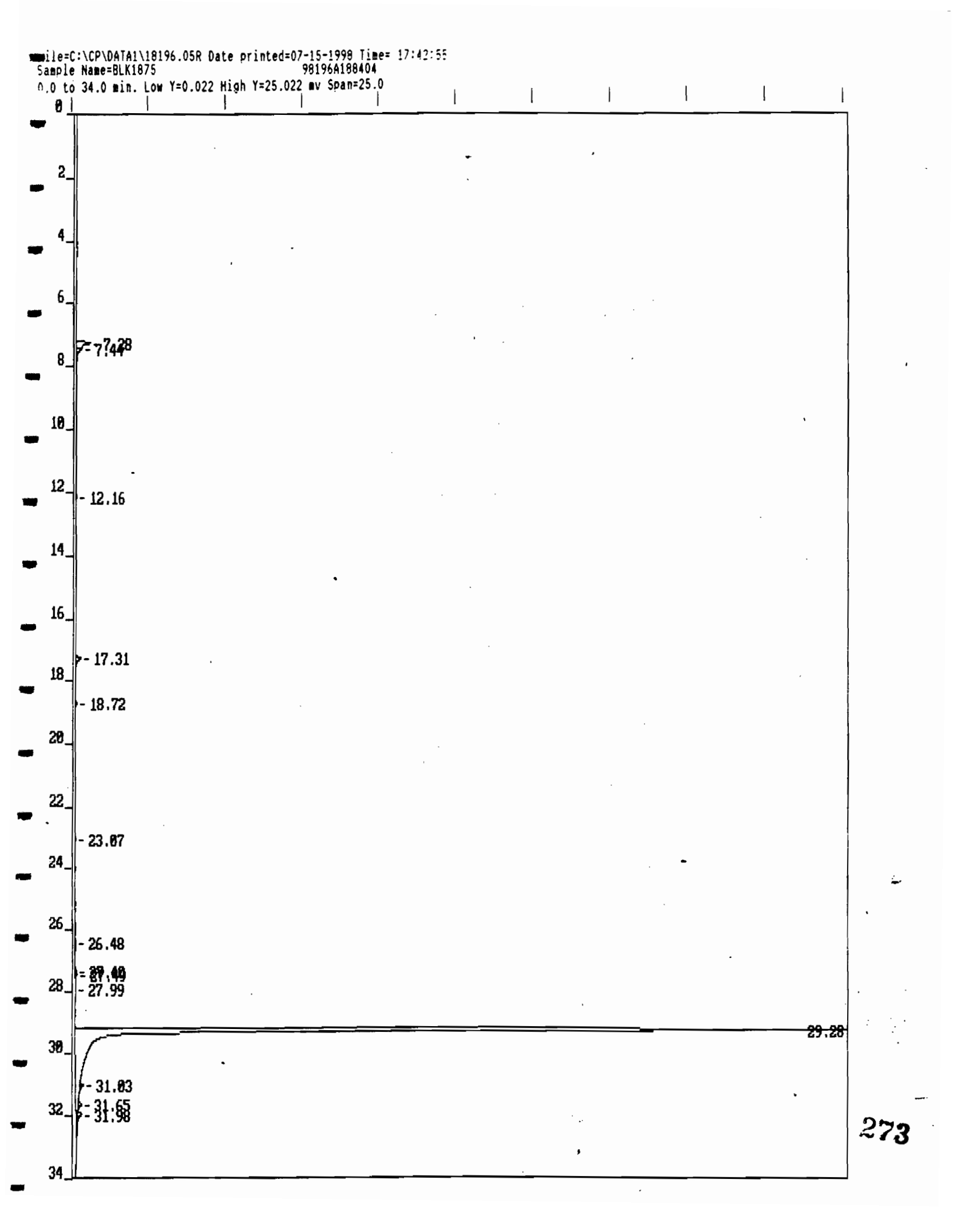
* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 88.3614%
Chrom Perfect version 6.07 Reported on 07-16-1998at 05:36:06

Sample name: **GAS CHKSTD** Batch: 98196A188404,840
Raw file: C:\CP\DATA1\18196.22R

Reviewed by: _____ Verified by: _____

Date: 7-16-98 Date: _____

Raw QC Data


File=C:\CP\DATA1\18196.05R Date printed=07-15-1998 Time= 17:42:55
Sample Name=BLK1875 98196A188404
0.0 to 34.0 min. Low Y=0.022 High Y=25.022 mv Span=25.0
7.28
7.44
12.16
17.31
18.72
23.07
26.48
27.99
29.28
31.03
31.65
31.98

Sample Name: **BLK1875**
Batch: 98196A18 Date Taken: Jul 15, 1998 17:42:51
Raw File: C:\CP\DATA1\18196.05R
Area File: C:\CP\DATA1\18196.05A
Method File: C:\CP\DATA1\Z8194.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18HALL
Peak Width: .04 Dil. Factor: 1 Analyst: 215
Threshold: -3 Calculation: EXTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 23):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
3.915	3.915	DICHLORODIFLUOROMETH	0.0000	0	0
4.087	4.087	CHLOROMETHANE	0.0000	0	0
4.408	4.408	VINYL CHLORIDE	0.0000	0	0
4.898	4.898	BROMOMETHANE	0.0000	0	0
5.103	5.103	CHLOROETHANE	0.0000	0	0
6.002	6.002	TRICHLOROFLUOROMETHA	0.0000	0	0
6.953	6.953	1,1-DICHLOROETHENE	0.0000	0	0
7.278	7.271	METHYLENE CHLORIDE	0.1643	3177	454
7.440	7.449	TRICHLOROTRIFLUOROET	0.1806	2036	198
8.833	8.833	TRANS-1,2-DICHLOROET	0.0000	0	0
9.505	9.505	1,1-DICHLOROETHANE	0.0000	0	0
11.346	11.346	CIS-1,2-DICHLOROETHE	0.0000	0	0
11.884	11.884	BROMOCHLOROMETHANE	0.0000	0	0
12.160	12.149	CHLOROFORM	0.0152	312	37
12.392	12.392	2,2-DICHLOROPROPANE	0.0000	0	0
14.560	14.560	1,2-DICHLOROETHANE	0.0000	0	0
14.869	14.869	1,1,1-TRICHLOROETHAN	0.0000	0	0
15.633	15.633	1,1-DICHLOROPROPENE	0.0000	0	0
16.152	16.152	CARBON TETRACHLORIDE	0.0000	0	0
18.298	18.298	DIBROMOMETHANE	0.0000	0	0
18.459	18.459	1,2-DICHLOROPROPANE	0.0000	0	0
18.611	18.611	TRICHLOROETHENE	0.0000	0	0
18.723	18.715	BROMODICHLOROMETHANE	0.0181	350	48
20.041	20.041	2-CHLOROETHYL VINYL	0.0000	0	0
20.385	20.385	CIS-1,3-DICHLOROPROP	0.0000	0	0
21.306	21.306	TRANS-1,3-DICHLOROPR	0.0000	0	0
21.530	21.530	1,1,2-TRICHLOROETHAN	0.0000	0	0
21.974	21.974	1,3-DICHLOROPROPANE	0.0000	0	0
22.353	22.353	DIBROMOCHLOROMETHANE	0.0000	0	0
22.749	22.749	1,2-DIBROMOETHANE	0.0000	0	0
23.066	23.063	TETRACHLOROETHENE	0.0068	113	28
23.989	23.989	1,1,1,2-TETRACHLOROE	0.0000	0	0
24.089	24.089	CHLOROBENZENE	0.0000	0	0
24.765	24.765	BROMOFORM	0.0000	0	0
25.201	25.201	1,1,2,2-TETRACHLOROE	0.0000	0	0
25.382	25.382	1,2,3-TRICHLOROPROPA	0.0000	0	0
25.975	25.975	BROMOBENZENE	0.0000	0	0
26.367	26.367	2-CHLOROTOLUENE	0.0000	0	0
26.476	26.471	4-CHLOROTOLUENE	0.0110	152	18
27.397	27.391	1,3-DICHLOROBENZENE	0.0164	144	37
27.493	27.486	1,4-DICHLOROBENZENE	0.0249	487	62
27.990	27.981	1,2-DICHLOROBENZENE	0.0125	144	28
28.675	28.675	1,2-DIBROMO-3-CHLORO	0.0000	0	0
29.279	29.279	SURR-1B4CB-H	25.5612	194195	34032
31.029	31.015	1,2,4-TRICHLOROBENZE	0.0681	883	105
31.648	31.632	HEXACHLOROBUTADIENE	0.0643	944	122
31.978	31.966	1,2,3-TRICHLOROBENZE	0.0981	1057	116
		TOTAL 1,2-DICHLOROETHENE:	**0.0000**		

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 85.2041%
Chrom Perfect version 6.07 Reported on 07-15-1998at 17:44:46

Sample name: **BLK1875** Batch: 98196A188404

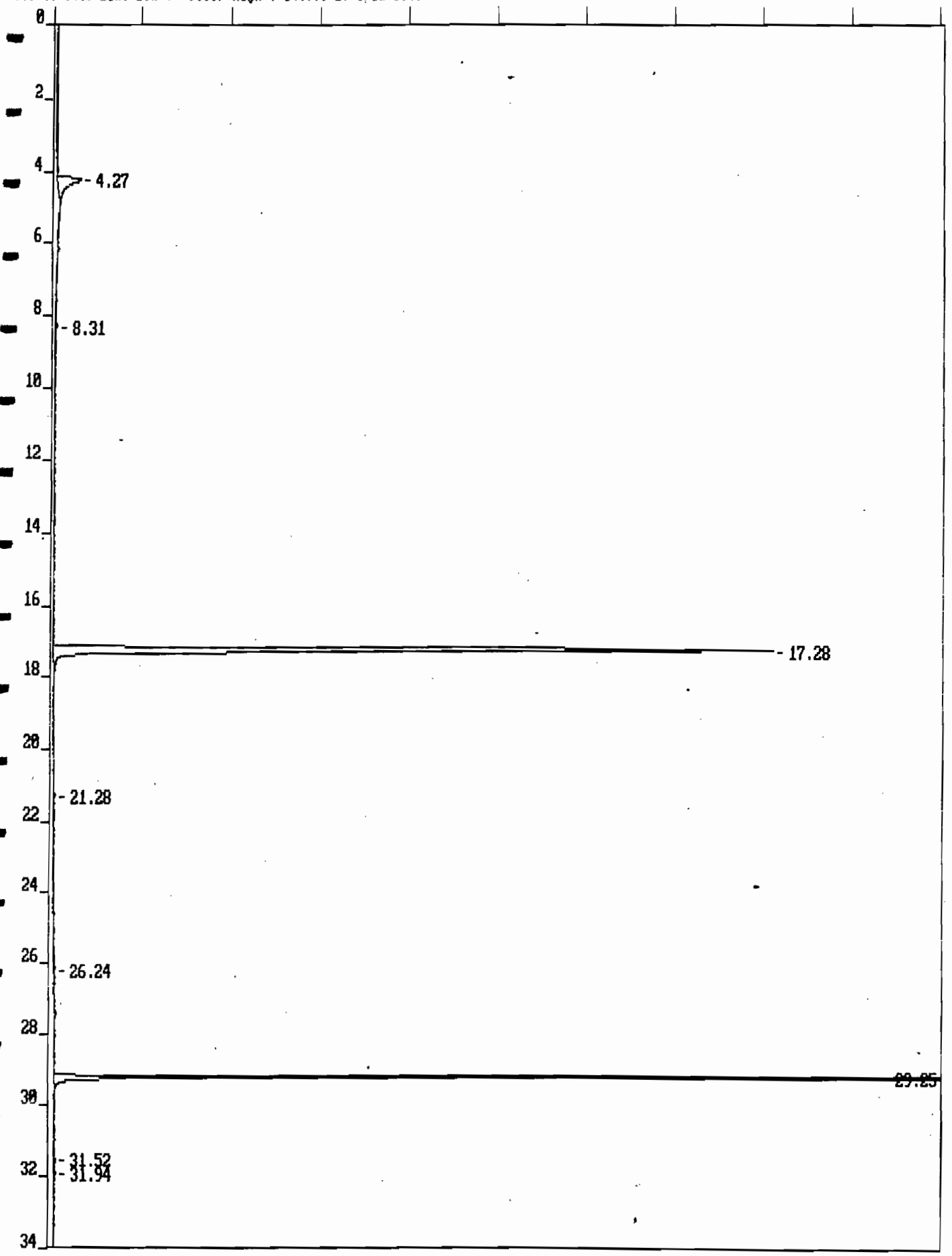
Raw file: C:\CP\DATA1\18196.05R

Reviewed by: [signature] Verified by: [signature]

Date: 7/15/98 Date: 7/21/98

[signature]
7/15/98

ile=C:\CP\DATA1\18196B.05R Date printed=07-15-1998 Time= 17:44:58
Sample Name=BLK1875 98196A188404
0.0 to 34.0 min. Low Y=-0.007 High Y=14.993 mv Span=15.0



Sample Name: **BLK1875**
Batch: 98196A18 Date Taken: Jul 15, 1998 17:42:51
Raw File: C:\CP\DATA1\18196B.05R
Area File: C:\CP\DATA1\18196B.05A
Method File: C:\CP\DATA1\Z8194B.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18PID
Peak width: .04 Dil. factor: 1 Analyst: 215
Threshold: 0 Calculation: INTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\PZ8194.CAL(version 27):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
4.266	4.382	VINYL CHLORIDE	4.0759	6323	416
6.923	6.923	1,1-DICHLOROETHENE	0.0000	0	0
8.806	8.806	TRANS-1,2-DICHLOROET	0.0000	0	0
9.201	9.201	METHYL T-BUTYL ETHER	0.0000	0	0
11.320	11.320	CIS-1,2-DICHLOROETHE	0.0000	0	0
15.603	15.603	1,1-DICHLOROPROPENE	0.0000	0	0
16.337	16.337	BENZENE	0.0000	0	0
17.278	17.281	ISTD-FBENZENE	1.0000	82978	12121
18.583	18.583	TRICHLOROETHENE	0.0000	0	0
20.015	20.015	2-CHLOROETHYL VINYL	0.0000	0	0
20.358	20.358	CIS-1,3-DICHLOROPROP	0.0000	0	0
21.283	21.281	TRANS-1,3-DICHLOROPR	0.1172	159	44
21.847	21.847	TOLUENE	0.0000	0	0
23.039	23.039	TETRACHLOROETHENE	0.0000	0	0
24.065	24.065	CHLOROBENZENE	0.0000	0	0
24.386	24.386	ETHYLBENZENE	0.0000	0	0
24.663	24.663	M,P-XYLENE	0.0000	0	0
25.089	25.089	STYRENE	0.0000	0	0
25.180	25.180	O-XYLENE	0.0000	0	0
25.658	25.658	ISOPROPYLBENZENE	0.0000	0	0
25.947	25.947	BROMOBENZENE	0.0000	0	0
26.236	26.231	N-PROPYLBENZENE	0.0338	124	34
26.343	26.343	2-CHLOROTOLUENE	0.0000	0	0
26.447	26.447	4-CHLOROTOLUENE	0.0000	0	0
26.616	26.616	1,3,5-TRIMETHYLBENZE	0.0000	0	0
26.980	26.980	TERT-BUTYLBENZENE	0.0000	0	0
27.129	27.129	1,2,4-TRIMETHYLBENZE	0.0000	0	0
27.270	27.270	SEC-BUTYLBENZENE	0.0000	0	0
27.366	27.366	1,3-DICHLOROBENZENE	0.0000	0	0
27.461	27.461	1,4-DICHLOROBENZENE	0.0000	0	0
27.517	27.517	P-ISOPROPYLTOLUENE	0.0000	0	0
27.956	27.956	1,2-DICHLOROBENZENE	0.0000	0	0
28.084	28.084	N-BUTYLBENZENE	0.0000	0	0
29.252	29.250	SURR-1B4CB-P	27.5374	79885	25836
30.990	30.990	1,2,4-TRICHLOROBENZE	0.0000	0	0
31.520	31.513	NAPHTHALENE	0.0904	360	37
31.605	31.605	HEXACHLOROBUTADIENE	0.0000	0	0
31.943	31.939	1,2,3-TRICHLOROBENZE	0.1255	163	33

XYLENES (Total): 0.0000

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 91.7912%
Chrom Perfect version 6.07 Reported on 07-15-1998at 17:47:57

Internal Standard Calculations From ISTDCHK v. 950609.1130
IStd height for ISTD-FBENZENE is within range.
IStd range: 9,325 - 13,987 (80% - 120% of midpoint 11,656)
Used initial calibration files to determine range.

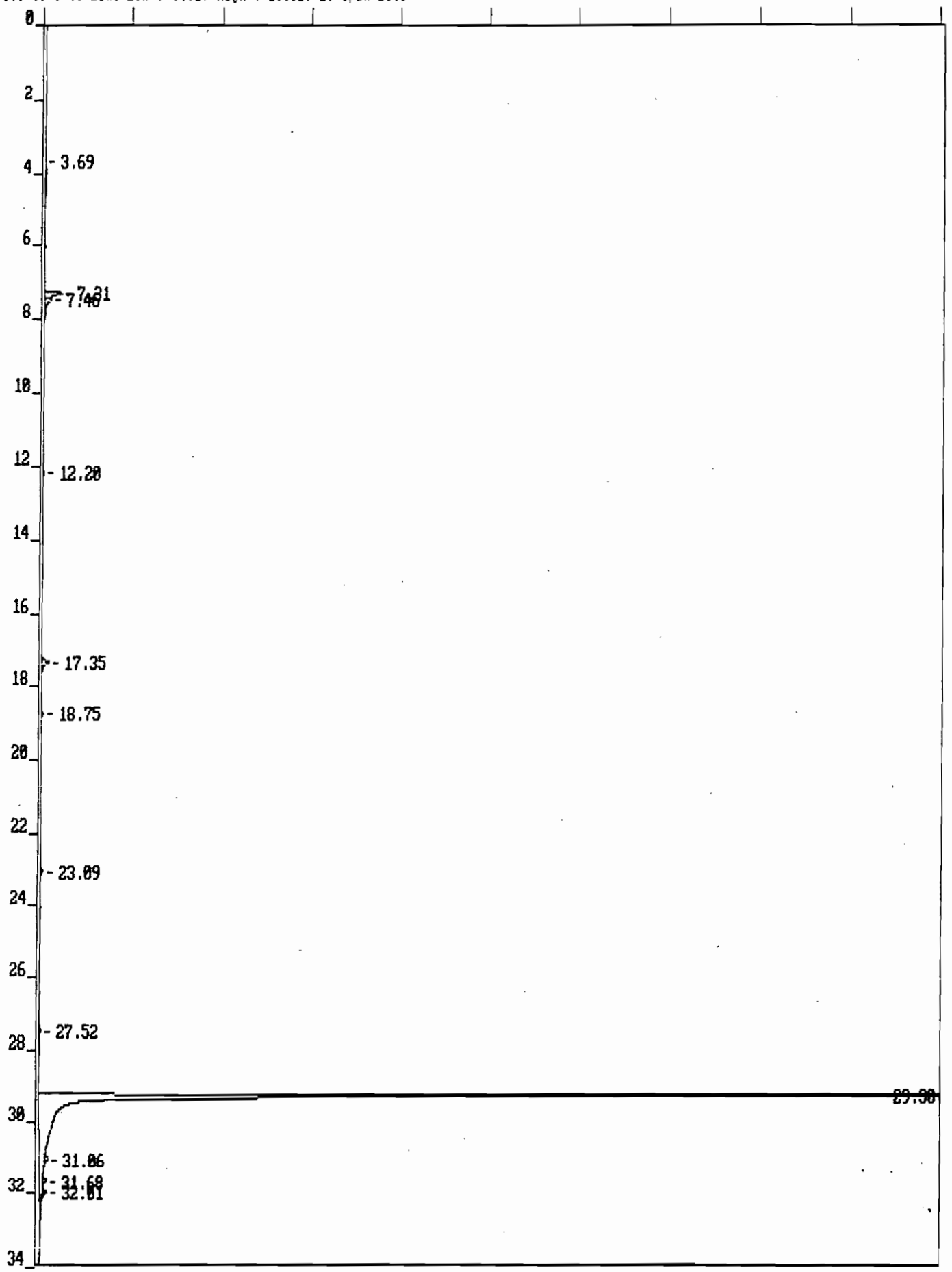
Sample name: **BLK1875** Batch: 98196A188404

Raw file: C:\CP\DATA1\18196B.05R

Reviewed by: _____ Verified by: _____

Date: 7/15/98 Date: 7/21/98

File=C:\CP\DATA1\18196.23R Date printed=07-16-1998 Time= 06:14:22
Sample Name=BLK1877 98196A188404,8405,8470
0.0 to 34.0 min. Low Y=0.019 High Y=25.019 mv Span=25.0



Sample Name: **BLK1877**
Batch: 98196A18 Date Taken: Jul 16, 1998 06:14:19
Raw File: C:\CP\DATA1\18196.23R
Area File: C:\CP\DATA1\18196.23A
Method File: C:\CP\DATA1\Z8194.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18HALL
Peak Width: .04 Dil. Factor: 1 Analyst: 115
Threshold: -3 Calculation: EXTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 24):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
3.924	3.924	DICHLORODIFLUOROMETH	0.0000	0	0
4.098	4.098	CHLOROMETHANE	0.0000	0	0
4.413	4.413	VINYL CHLORIDE	0.0000	0	0
4.912	4.912	BROMOMETHANE	0.0000	0	0
5.118	5.118	CHLOROETHANE	0.0000	0	0
6.018	6.018	TRICHLOROFLUOROMETHA	0.0000	0	0
6.967	6.967	1,1-DICHLOROETHENE	0.0000	0	0
7.310	7.289	METHYLENE CHLORIDE	0.1754	3417	485
7.457	7.464	TRICHLOROTRIFLUOROET	0.1930	2258	212
8.854	8.854	TRANS-1,2-DICHLOROET	0.0000	0	0
9.524	9.524	1,1-DICHLOROETHANE	0.0000	0	0
11.370	11.370	CIS-1,2-DICHLOROETHE	0.0000	0	0
11.909	11.909	BROMOCHLOROMETHANE	0.0000	0	0
12.203	12.169	CHLOROFORM	0.0153	337	37
12.416	12.416	2,2-DICHLOROPROPANE	0.0000	0	0
14.581	14.581	1,2-DICHLOROETHANE	0.0000	0	0
14.885	14.885	1,1,1-TRICHLOROETHAN	0.0000	0	0
15.651	15.651	1,1-DICHLOROPROPENE	0.0000	0	0
16.166	16.166	CARBON TETRACHLORIDE	0.0000	0	0
18.311	18.311	DIBROMOMETHANE	0.0000	0	0
18.472	18.472	1,2-DICHLOROPROPANE	0.0000	0	0
18.621	18.621	TRICHLOROETHENE	0.0000	0	0
18.748	18.726	BROMODICHLOROMETHANE	0.0187	382	50
20.052	20.052	2-CHLOROETHYL VINYL	0.0000	0	0
20.395	20.395	CIS-1,3-DICHLOROPROP	0.0000	0	0
21.317	21.317	TRANS-1,3-DICHLOROPR	0.0000	0	0
21.541	21.541	1,1,2-TRICHLOROETHAN	0.0000	0	0
21.987	21.987	1,3-DICHLOROPROPANE	0.0000	0	0
22.366	22.366	DIBROMOCHLOROMETHANE	0.0000	0	0
22.761	22.761	1,2-DIBROMOETHANE	0.0000	0	0
23.089	23.077	TETRACHLOROETHENE	0.0202	392	84
24.000	24.000	1,1,1,2-TETRACHLOROE	0.0000	0	0
24.103	24.103	CHLOROBENZENE	0.0000	0	0
24.779	24.779	BROMOFORM	0.0000	0	0
25.215	25.215	1,1,2,2-TETRACHLOROE	0.0000	0	0
25.396	25.396	1,2,3-TRICHLOROPROPA	0.0000	0	0
25.990	25.990	BROMOBENZENE	0.0000	0	0
26.383	26.383	2-CHLOROTOLUENE	0.0000	0	0
26.487	26.487	4-CHLOROTOLUENE	0.0000	0	0
27.410	27.410	1,3-DICHLOROBENZENE	0.0000	0	0
27.515	27.503	1,4-DICHLOROBENZENE	0.0211	387	52
28.003	28.003	1,2-DICHLOROBENZENE	0.0000	0	0
28.699	28.699	1,2-DIBROMO-3-CHLORO	0.0000	0	0
29.302	29.301	SURR-1B4CB-H	24.6113	188973	32767
31.060	31.048	1,2,4-TRICHLOROBENZE	0.0639	858	99
31.677	31.664	HEXACHLOROBUTADIENE	0.0593	966	113
32.013	32.002	1,2,3-TRICHLOROBENZE	0.1008	1066	119
	TOTAL 1,2-DICHLOROETHENE:		**0.0000**		

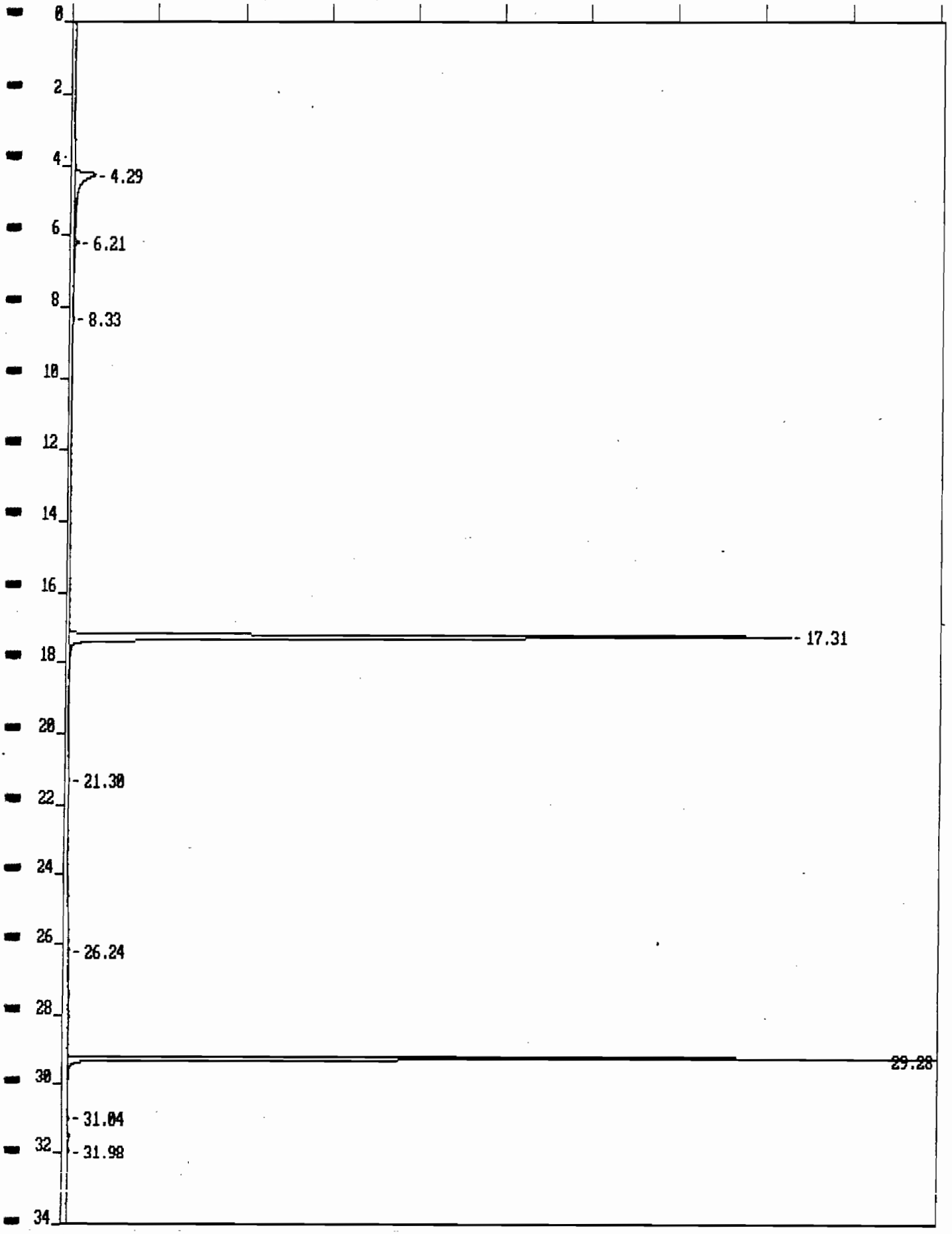
* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 82.0377%
Chrom Perfect version 6.07 Reported on 07-16-1998at 06:16:16

Sample name: **BLK1877** Batch: 98196A188404,840
Raw file: C:\CP\DATA1\18196.23R

Reviewed by: [signature] Verified by: [signature]

Date: 7-16-98 Date: 7/21/98

File=C:\CP\DATA1\18196B.23R Date printed=07-16-1998 Time= 06:16:28
Sample Name=BLK1877 98196A188404,8405,8470
0.0 to 34.0 min. Low Y=-0.002 High Y=14.998 mv Span=15.0



Sample Name: **BLK1877**
Batch: 98196A18 Date Taken: Jul 16, 1998 06:14:19
Raw File: C:\CP\DATA1\18196B.23R
Area File: C:\CP\DATA1\18196B.23A
Method File: C:\CP\DATA1\Z8194B.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18PID
Peak width: .04 Dil. factor: 1 Analyst: 115
Threshold: 0 Calculation: INTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\PZ8194.CAL(version 28):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
4.290	4.387	VINYL CHLORIDE	3.4503	7134	361
6.939	6.939	1,1-DICHLOROETHENE	0.0000	0	0
8.824	8.824	TRANS-1,2-DICHLOROET	0.0000	0	0
9.217	9.217	METHYL T-BUTYL ETHER	0.0000	0	0
11.342	11.342	CIS-1,2-DICHLOROETHE	0.0000	0	0
15.621	15.621	1,1-DICHLOROPROPENE	0.0000	0	0
16.355	16.355	BENZENE	0.0000	0	0
17.313	17.300	ISTD-FBENZENE	1.0000	83356	12403
18.596	18.596	TRICHLOROETHENE	0.0000	0	0
20.025	20.025	2-CHLOROETHYL VINYL	0.0000	0	0
20.369	20.369	CIS-1,3-DICHLOROPROP	0.0000	0	0
21.301	21.292	TRANS-1,3-DICHLOROPR	0.0806	143	31
21.860	21.860	TOLUENE	0.0000	0	0
23.052	23.052	TETRACHLOROETHENE	0.0000	0	0
24.079	24.079	CHLOROBENZENE	0.0000	0	0
24.400	24.400	ETHYLBENZENE	0.0000	0	0
24.677	24.677	M,P-XYLENE	0.0000	0	0
25.103	25.103	STYRENE	0.0000	0	0
25.194	25.194	O-XYLENE	0.0000	0	0
25.673	25.673	ISOPROPYLBENZENE	0.0000	0	0
25.964	25.964	BROMOBENZENE	0.0000	0	0
26.240	26.248	N-PROPYLBENZENE	0.0316	114	33
26.360	26.360	2-CHLOROTOLUENE	0.0000	0	0
26.464	26.464	4-CHLOROTOLUENE	0.0000	0	0
26.633	26.633	1,3,5-TRIMETHYLBENZE	0.0000	0	0
26.998	26.998	TERT-BUTYLBENZENE	0.0000	0	0
27.148	27.148	1,2,4-TRIMETHYLBENZE	0.0000	0	0
27.289	27.289	SEC-BUTYLBENZENE	0.0000	0	0
27.386	27.386	1,3-DICHLOROBENZENE	0.0000	0	0
27.481	27.481	1,4-DICHLOROBENZENE	0.0000	0	0
27.537	27.537	P-ISOPROPYLTOLUENE	0.0000	0	0
27.978	27.978	1,2-DICHLOROBENZENE	0.0000	0	0
28.106	28.106	N-BUTYLBENZENE	0.0000	0	0
29.276	29.276	SURR-1B4CB-P	25.9289	76810	24893
31.040	31.021	1,2,4-TRICHLOROBENZE	0.0758	172	28
31.548	31.548	NAPHTHALENE	0.0000	0	0
31.639	31.639	HEXACHLOROBUTADIENE	0.0000	0	0
31.982	31.974	1,2,3-TRICHLOROBENZE	0.1229	179	33
	XYLENES (Total):		**0.0000**		

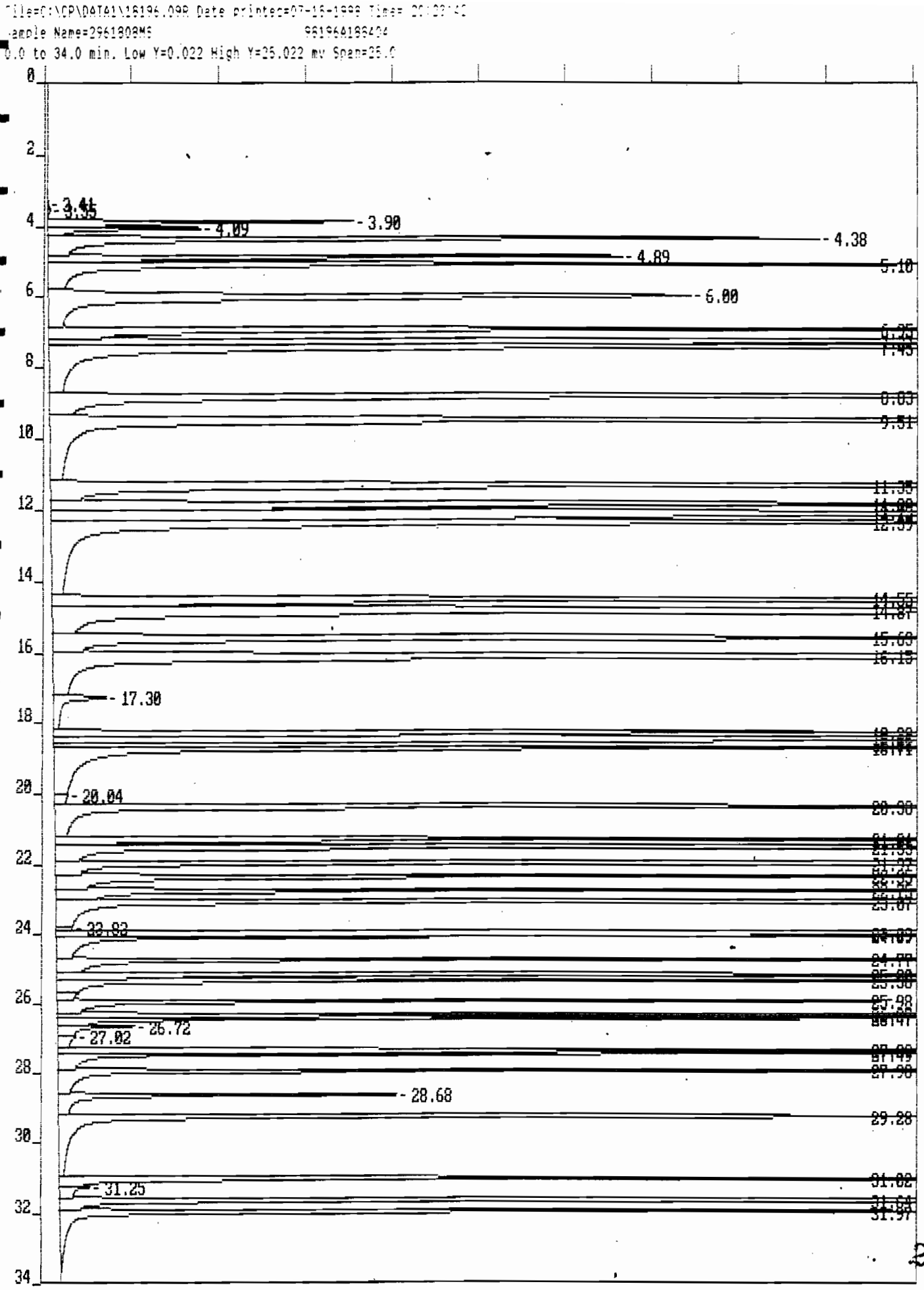
* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 86.4298%
Chrom Perfect version 6.07 Reported on 07-16-1998at 06:19:26

Internal Standard Calculations From ISTDCHK v. 950609.1130
IStd height for ISTD-FBENZENE is within range.
IStd range: 9,325 - 13,987 (80% - 120% of midpoint 11,656)
Used initial calibration files to determine range.

Sample name: **BLK1877** Batch: 98196A188404,840
Raw file: C:\CP\DATA1\18196B.23R

Reviewed by: _____ Verified by: _____

Date: 7-16-98 Date: _____


File=C:\CP\DATA1\18196.09R Date printed=07-15-1998 Time=
Sample Name=2961808MS 9819618964
0.0 to 34.0 min. Low Y=0.022 High Y=25.022 mv Span=25.0
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
3.35
3.90
4.09
4.38
4.89
5.10
6.00
17.30
20.04
22.82
26.72
27.02
28.68
29.28
31.25

Sample Name: **2961808MS**
Batch: 98196A18 Date Taken: Jul 15, 1998 20:23:38
Raw File: C:\CP\DATA1\18196.09R
Area File: C:\CP\DATA1\18196.09A
Method File: C:\CP\DATA1\Z8194.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 --5890#18HALL
Peak Width: .04 Dil. Factor: 5 Analyst: 215
Threshold: -3 Calculation: EXTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 23):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
3.899	3.915	DICHLORODIFLUOROMETH	73.0082	47776	8796
4.088	4.087	CHLOROMETHANE	43.7753	27045	4423
4.383	4.408	VINYL CHLORIDE	93.6574	152026	22143
4.892	4.898	BROMOMETHANE	86.5753	95062	16507
5.100	5.103	CHLOROETHANE	94.8888	180663	26724
5.996	6.002	TRICHLOROFLUOROMETHA	89.1821	232244	18470
6.947	6.953	1,1-DICHLOROETHENE	107.4961	229925	35405
7.272	7.271	METHYLENE CHLORIDE	109.7926	349160	59794
7.446	7.449	TRICHLOROTRIFLUOROET	126.3834	311238	28588
8.831	8.833	TRANS-1,2-DICHLOROET	94.3584	332740	43442
9.506	9.505	1,1-DICHLOROETHANE	96.6926	389970	39996
11.347	11.346	CIS-1,2-DICHLOROETHE	102.2945	350609	39770
11.885	11.884	BROMOCHLOROMETHANE	111.8408	253327	30435
12.147	12.149	CHLOROFORM	90.9169	426596	44183
12.393	12.392	2,2-DICHLOROPROPANE	127.2406	376508	27413
14.554	14.560	1,2-DICHLOROETHANE	101.4706	303060	37953
14.867	14.869	1,1,1-TRICHLOROETHAN	105.0157	444888	40543
15.629	15.633	1,1-DICHLOROPROPENE	108.4793	291749	35339
16.152	16.152	CARBON TETRACHLORIDE	95.1422	462268	43583
18.295	18.298	DIBROMOMETHANE	109.6919	144288	26175
18.459	18.459	1,2-DICHLOROPROPANE	93.8509	282974	43689
18.608	18.611	TRICHLOROETHENE	110.8418	370862	67884
18.715	18.715	BROMODICHLOROMETHANE	92.2774	370383	49432
20.042	20.041	2-CHLOROETHYL VINYL	1.9945	6245	408
20.384	20.385	CIS-1,3-DICHLOROPROP	105.7032	290663	58385
21.307	21.306	TRANS-1,3-DICHLOROPR	110.6596	251494	60282
21.530	21.530	1,1,2-TRICHLOROETHAN	109.2172	329663	72509
21.975	21.974	1,3-DICHLOROPROPANE	106.2216	248385	58074
22.354	22.353	DIBROMOCHLOROMETHANE	95.5999	210984	42273
22.749	22.749	1,2-DIBROMOETHANE	100.9156	145860	30822
23.066	23.063	TETRACHLOROETHENE	104.8396	387824	87159
23.990	23.989	1,1,1,2-TETRACHLOROE	102.4171	350905	91346
24.090	24.089	CHLOROBENZENE	92.5093	185061	39020
24.766	24.765	BROMOFORM	100.1299	142572	30899
25.202	25.201	1,1,2,2-TETRACHLOROE	109.0879	204746	54806
25.383	25.382	1,2,3-TRICHLOROPROPA	97.1063	168861	39817
25.976	25.975	BROMOBENZENE	102.5184	106732	23895
26.369	26.367	2-CHLOROTOLUENE	106.2379	117784	32577
26.472	26.471	4-CHLOROTOLUENE	100.6129	131447	32737
27.392	27.391	1,3-DICHLOROBENZENE	92.3082	150263	41588
27.486	27.486	1,4-DICHLOROBENZENE	96.8743	204596	48160
27.983	27.981	1,2-DICHLOROBENZENE	92.1441	185819	40783
28.678	28.675	1,2-DIBROMO-3-CHLORO	101.9491	55217	9693
29.278	29.279	SURR-1B4CB-H	138.5401	200458	36890
31.017	31.015	1,2,4-TRICHLOROBENZE	105.0805	155685	32462
31.635	31.632	HEXACHLOROBUTADIENE	100.1210	213255	38099
31.968	31.966	1,2,3-TRICHLOROBENZE	108.8268	150670	25793
		TOTAL 1,2-DICHLOROETHENE:	**196.6530**		

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 92.3601%
Chrom Perfect version 6.07 Reported on 07-15-1998at 20:25:35

Sample name: 2961808MS
Raw file: C:\CP\DATA1\18196.09R

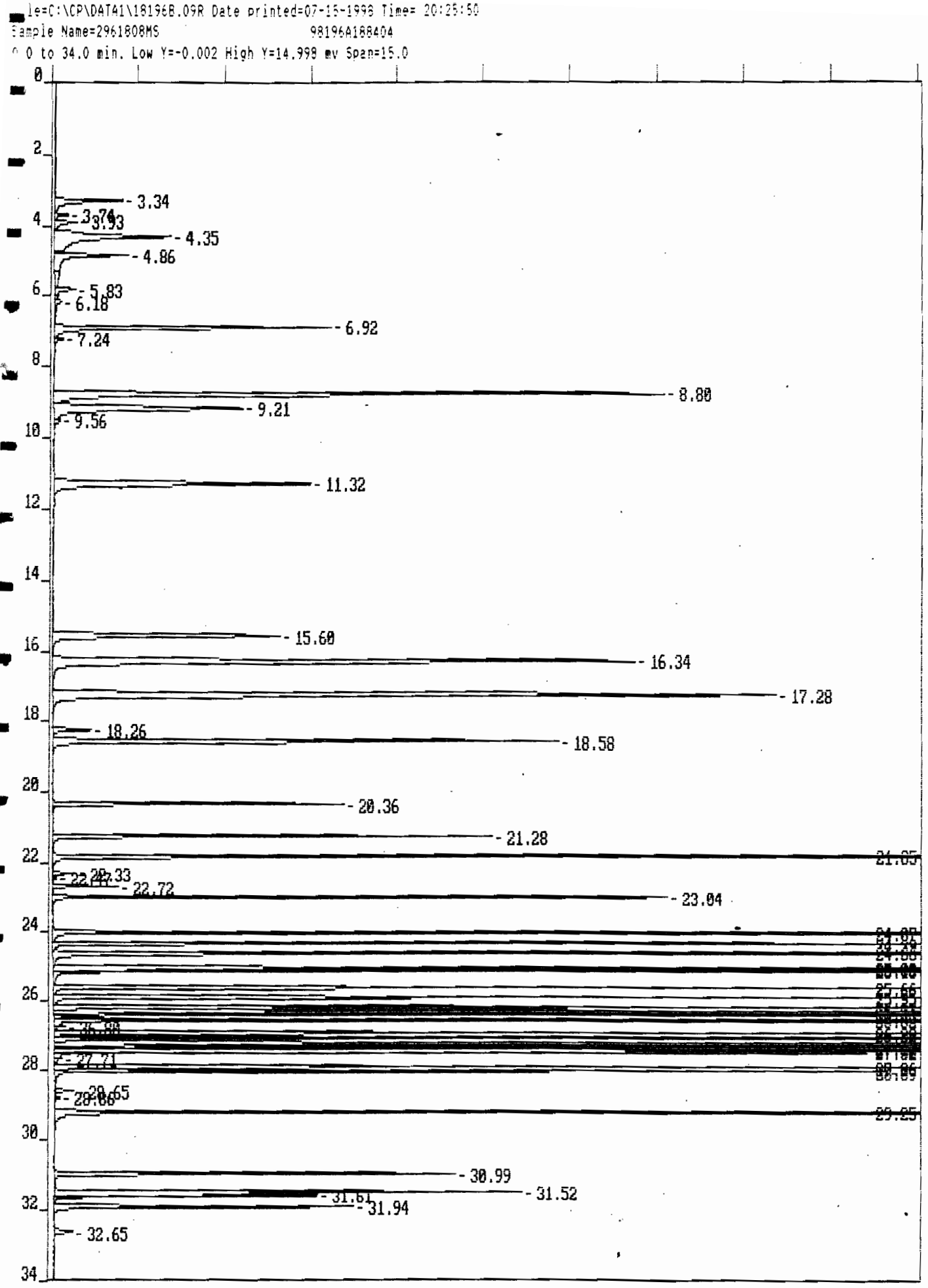
Batch: 98196A188404

Reviewed by: DW097

Date: 7-15-98

Verified by:

Date: 7/21/98


le=C:\CP\DAT41\18196B.09R Date printed=07-15-1998 Time= 20:25:50
Sample Name=2961808MS 98196A188404
0 to 34.0 min. Low Y=-0.002 High Y=14.998 mv Span=15.0
3.34
3.74
3.93
4.35
4.86
5.83
6.18
6.92
7.24
8.80
9.21
9.56
11.32
15.60
16.34
17.28
18.26
18.58
20.36
21.28
22.33
22.72
23.04
27.71
28.65
30.99
31.52
31.61
31.94
32.65

Sample Name: **2961808MS**
Batch: 98196A18 Date Taken: Jul 15, 1998 20:23:38
Raw File: C:\CP\DATA1\18196B.09R
Area File: C:\CP\DATA1\18196B.09A
Method File: C:\CP\DATA1\Z8194B.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 = 5890#18PID
Peak width: .04 Dil. factor: 5 Analyst: 215
Threshold: 0 Calculation: INTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\PZ8194.CAL(version 27):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
4.354	4.382	VINYL CHLORIDE	100.8170	20345	2023
6.918	6.923	1,1-DICHLOROETHENE	103.8566	25369	4798
8.804	8.806	TRANS-1,2-DICHLOROET	98.1258	60633	10541
9.205	9.201	METHYL T-BUTYL ETHER	99.9592	29139	3254
11.317	11.320	CIS-1,2-DICHLOROETHE	98.1728	32629	4441
15.601	15.603	1,1-DICHLOROPROPENE	99.6036	27866	3924
16.335	16.337	BENZENE	98.4474	71270	10063
17.281	17.281	ISTD-FBENZENE	1.0000	85155	12487
18.582	18.583	TRICHLOROETHENE	103.8184	42922	8745
20.015	20.015	2-CHLOROETHYL VINYL	0.0000	0	0
20.359	20.358	CIS-1,3-DICHLOROPROP	97.7903	18003	5033
21.282	21.281	TRANS-1,3-DICHLOROPR	98.4530	23408	7634
21.848	21.847	TOLUENE	97.7834	66626	21168
23.040	23.039	TETRACHLOROETHENE	98.9869	31459	10595
24.066	24.065	CHLOROBENZENE	95.9045	68821	26163
24.387	24.386	ETHYLBENZENE	96.6343	59046	22562
24.664	24.663	M,P-XYLENE	195.4599	138077	46274
25.090	25.089	STYRENE	96.2989	73061	30789
25.181	25.180	O-XYLENE	98.4907	61636	24329
25.659	25.658	ISOPROPYLBENZENE	98.5923	49204	18406
25.949	25.947	BROMOBENZENE	95.4551	68522	26825
26.233	26.231	N-PROPYLBENZENE	95.4309	51582	19954
26.345	26.343	2-CHLOROTOLUENE	96.1400	57856	22230
26.449	26.447	4-CHLOROTOLUENE	94.2114	59724	23534
26.618	26.616	1,3,5-TRIMETHYLBENZE	97.1327	76674	29139
26.981	26.980	TERT-BUTYLBENZENE	97.8543	43401	15258
27.131	27.129	1,2,4-TRIMETHYLBENZE	95.9985	58004	21954
27.271	27.270	SEC-BUTYLBENZENE	99.5115	43403	15277
27.368	27.366	1,3-DICHLOROBENZENE	95.4530	56181	21106
27.462	27.461	1,4-DICHLOROBENZENE	96.0010	57421	21515
27.519	27.517	P-ISOPROPYLTOLUENE	99.7666	42616	15909
27.958	27.956	1,2-DICHLOROBENZENE	93.4005	43845	15690
28.086	28.084	N-BUTYLBENZENE	95.5289	41412	14362
29.252	29.250	SURR-1B4CB-P	139.0732	82695	26883
30.992	30.990	1,2,4-TRICHLOROBENZE	94.8031	25266	6942
31.515	31.513	NAPHTHALENE	95.4930	30709	8097
31.607	31.605	HEXACHLOROBUTADIENE	98.0618	18413	4549
31.940	31.939	1,2,3-TRICHLOROBENZE	95.9303	20920	5178
	XYLENES (Total):		**293.9507**		

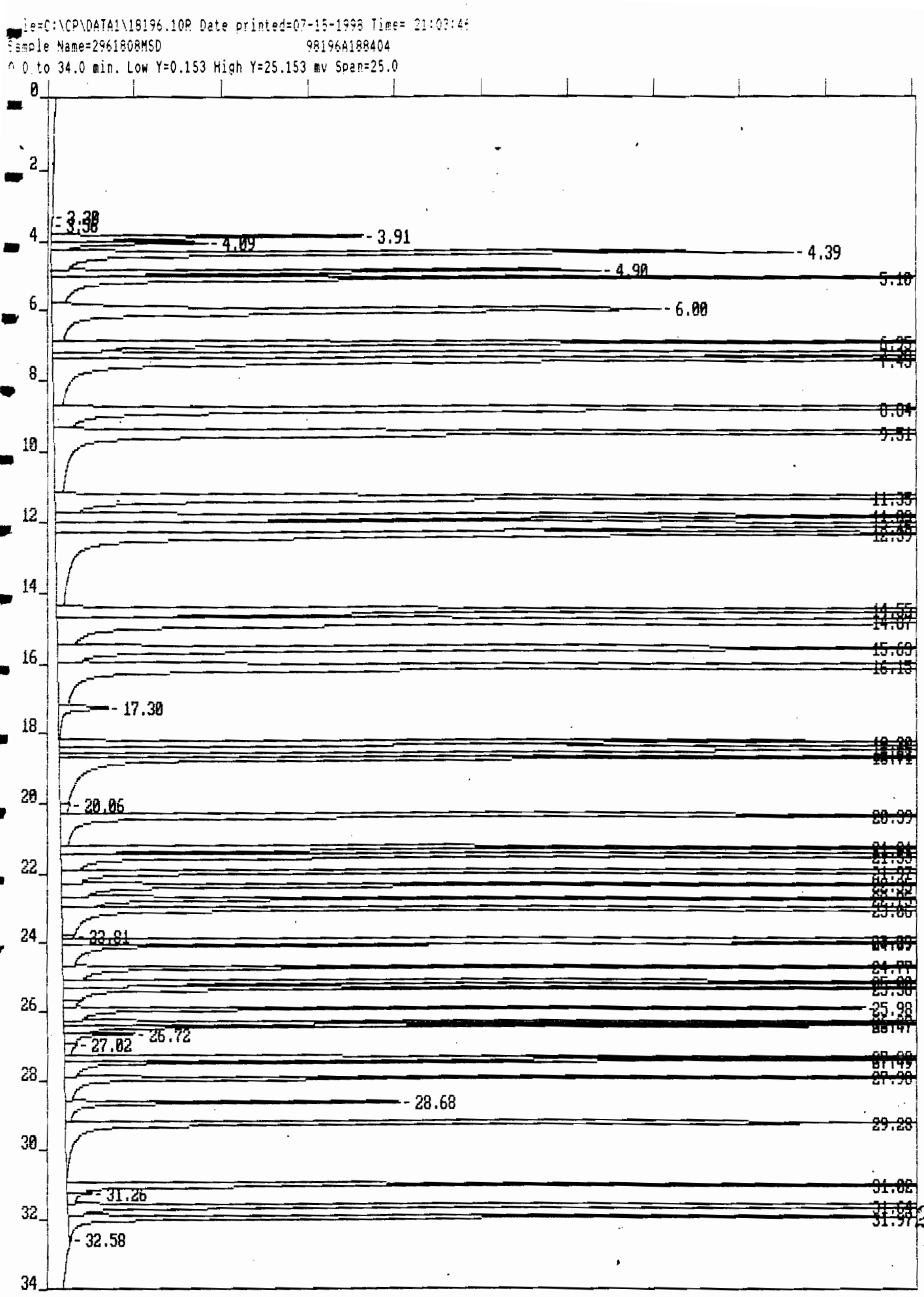
* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 92.7155%
Chrom Perfect version 6.07 Reported on 07-15-1998at 20:28:55

Internal Standard Calculations From ISTDCHK v. 950609.1130
IStd height for ISTD-FBENZENE is within range.
IStd range: 9,325 - 13,987 (80% - 120% of midpoint 11,656)
Used initial calibration files to determine range.

Sample name: **2961808MS** Batch: 98196A188404
Raw file: C:\CP\DATA1\18196B.09R

Reviewed by: DW097 Verified by:

Date: 7-15-98 Date: 7/21/98


le=C:\CP\DATA1\18196.10R Date printed=07-15-1998 Time= 21:03:4
Sample Name=296180BMSD 98196A188404
0 to 34.0 min. Low Y=0.153 High Y=25.153 mv Span=25.0
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
3.91
4.09
4.39
4.90
6.00
17.30
20.06
33.81
26.72
27.82
28.68
31.26
32.58

Sample Name: **2961808MSD**
Batch: 98196A18 Date Taken: Jul 15, 1998 21:03:42
Raw File: C:\CP\DATA1\18196.10R
Area File: C:\CP\DATA1\18196.10A
Method File: C:\CP\DATA1\Z8194.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18HALL
Peak Width: .04 Dil. Factor: 5 Analyst: 215
Threshold: -3 Calculation: EXTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\HZ8194.CAL(version 23):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
3.907	3.915	DICHLORODIFLUOROMETH	74.8105	49304	9013
4.094	4.087	CHLOROMETHANE	45.1683	27755	4557
4.388	4.408	VINYL CHLORIDE	90.6416	147197	21430
4.897	4.898	BROMOMETHANE	82.9836	90890	15852
5.104	5.103	CHLOROETHANE	91.6885	172811	25822
6.001	6.002	TRICHLOROFLUOROMETHA	84.7630	221784	17555
6.954	6.953	1,1-DICHLOROETHENE	105.1367	222845	34628
7.279	7.271	METHYLENE CHLORIDE	107.4052	338845	58514
7.452	7.449	TRICHLOROTRIFLUOROET	122.8371	298794	27763
8.841	8.833	TRANS-1,2-DICHLOROET	91.9498	319557	42333
9.506	9.505	1,1-DICHLOROETHANE	95.1129	370919	39343
11.349	11.346	CIS-1,2-DICHLOROETHE	99.5557	333779	38705
11.885	11.884	BROMOCHLOROMETHANE	106.5671	239895	29000
12.152	12.149	CHLOROFORM	89.0825	419140	43291
12.393	12.392	2,2-DICHLOROPROPANE	123.6041	352715	26602
14.551	14.560	1,2-DICHLOROETHANE	101.1973	300748	37851
14.874	14.869	1,1,1-TRICHLOROETHAN	103.9445	431067	40129
15.627	15.633	1,1-DICHLOROPROPENE	108.1217	288332	35223
16.150	16.152	CARBON TETRACHLORIDE	94.8049	453109	43428
18.295	18.298	DIBROMOMETHANE	106.1576	137580	25333
18.457	18.459	1,2-DICHLOROPROPANE	93.4879	285877	43520
18.610	18.611	TRICHLOROETHENE	107.3791	362006	65763
18.714	18.715	BROMODICHLOROMETHANE	90.4257	354837	48440
20.058	20.041	2-CHLOROETHYL VINYL	1.4829	4218	304
20.386	20.385	CIS-1,3-DICHLOROPROP	102.2458	276408	56476
21.307	21.306	TRANS-1,3-DICHLOROPR	109.8509	247728	59842
21.531	21.530	1,1,2-TRICHLOROETHAN	105.1807	314250	69829
21.974	21.974	1,3-DICHLOROPROPANE	105.3456	243714	57595
22.354	22.353	DIBROMOCHLOROMETHANE	94.5700	205306	41821
22.748	22.749	1,2-DIBROMOETHANE	98.9326	140800	30224
23.064	23.063	TETRACHLOROETHENE	101.6636	369180	84518
23.989	23.989	1,1,1,2-TETRACHLOROE	98.1607	334832	87702
24.089	24.089	CHLOROBENZENE	92.4411	178616	38991
24.768	24.765	BROMOFORM	98.6813	137478	30458
25.202	25.201	1,1,2,2-TETRACHLOROE	110.9786	206191	55756
25.383	25.382	1,2,3-TRICHLOROPROPA	96.5572	166410	39592
25.976	25.975	BROMOBENZENE	99.0242	101429	23098
26.370	26.367	2-CHLOROTOLUENE	100.8380	112688	30921
26.474	26.471	4-CHLOROTOLUENE	96.7213	127185	31471
27.393	27.391	1,3-DICHLOROBENZENE	92.3467	151329	41605
27.488	27.486	1,4-DICHLOROBENZENE	86.7574	186633	43130
27.984	27.981	1,2-DICHLOROBENZENE	90.5196	177790	40064
28.679	28.675	1,2-DIBROMO-3-CHLORO	101.2223	50320	9625
29.281	29.279	SURR-1B4CB-H	137.5192	184414	36619
31.020	31.015	1,2,4-TRICHLOROBENZE	106.0623	152327	32766
31.637	31.632	HEXACHLOROBUTADIENE	100.1303	210660	38103
31.968	31.966	1,2,3-TRICHLOROBENZE	109.6284	135954	25983
		TOTAL 1,2-DICHLOROETHENE:	**191.5055**		

* Amounts in ug/L for water samples, ug/kg for solid samples.

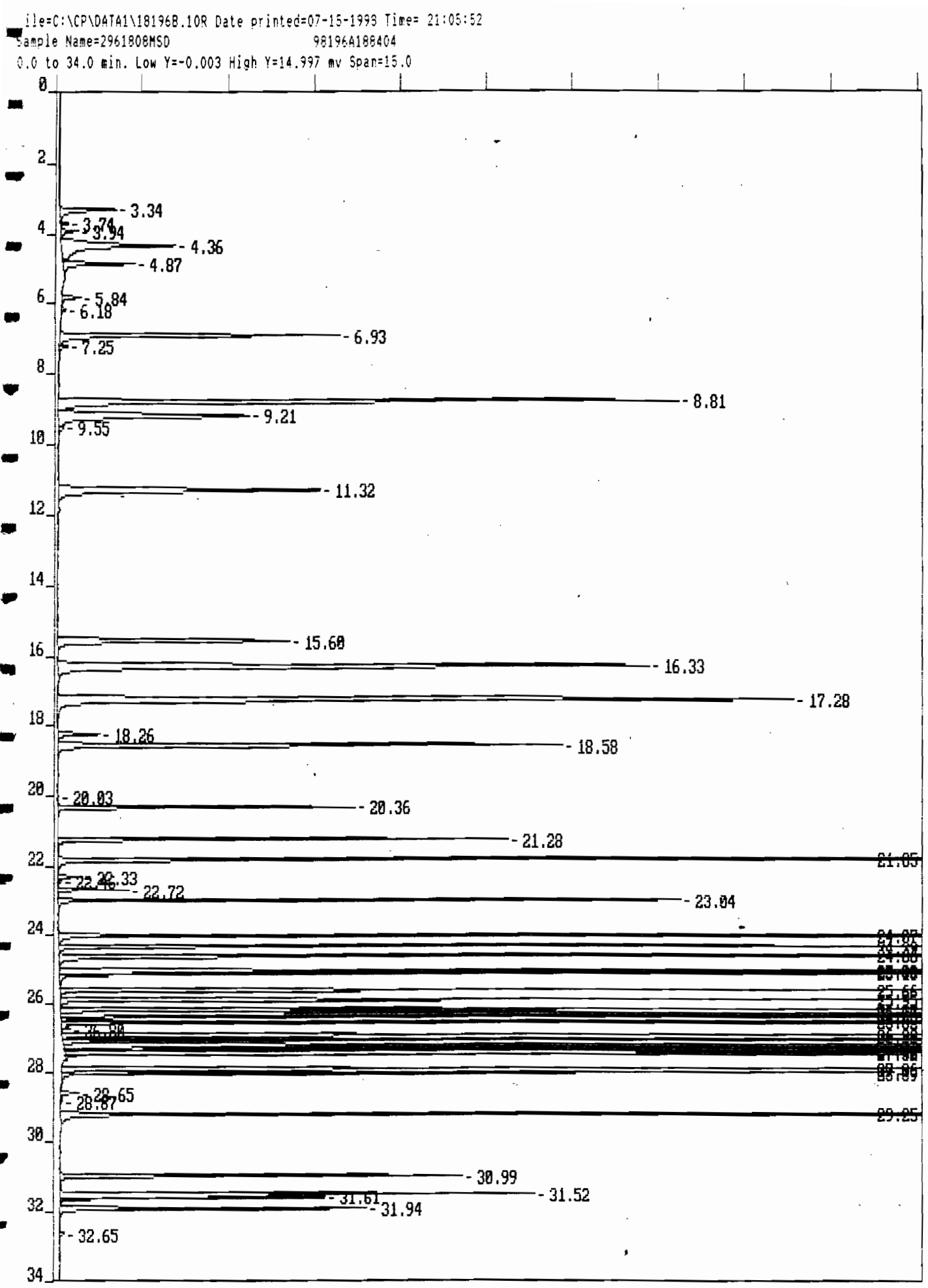
Surrogate Recovery: BrClBenzene 91.6794%

Chrom Perfect version 6.07 Reported on 07-15-1998at 21:05:37

Sample name: **2961808MSD** Batch: 98196A188404
Raw file: C:\CP\DATA1\18196.10R

Reviewed by: DW097 Verified by: [signature]

Date: 7-15-88 Date: 7/21/88


ile=C:\CP\DATA1\18196B.10R Date printed=07-15-1998 Time= 21:05:52
Sample Name=2961808MSD 98196A186404
0.0 to 34.0 min. Low Y=-0.003 High Y=14.997 mv Span=15.0
3.34
3.74
3.94
4.36
4.87
5.84
6.18
6.93
7.25
8.81
9.21
9.55
11.32
15.60
16.33
17.28
18.26
18.58
20.03
20.36
21.28
22.33
22.72
23.04
28.65
28.87
30.99
31.52
31.61
31.94
32.65

Sample Name: **2961808MSD**
Batch: 98196A18 Date Taken: Jul 15, 1998 21:03:42
Raw File: C:\CP\DATA1\18196B.10R
Area File: C:\CP\DATA1\18196B.10A
Method File: C:\CP\DATA1\Z8194B.MET(version 6)
EPA Methods 502.2/601/8010B/8021A Run Time: 34
75m x 0.45mm ID J&W Scientific DB-VRX column
T/SG/C trap Inst. ID#05843 - 5890#18PID
Peak width: .04 Dil. factor: 5 Analyst: 215
Threshold: 0 Calculation: INTERNALStd using peak heights

Peak table using calibration C:\CP\DATA1\PZ8194.CAL(version 27):

Ret Time (min)	Expected RT (min)	Peak Name	Amount * (ug/L)	Peak Area	Peak Height
4.361	4.382	VINYL CHLORIDE	97.0562	18780	1996
6.925	6.923	1,1-DICHLOROETHENE	102.7984	25392	4856
8.808	8.806	TRANS-1,2-DICHLOROET	98.0945	61788	10775
9.209	9.201	METHYL T-BUTYL ETHER	99.5875	29744	3315
11.319	11.320	CIS-1,2-DICHLOROETHE	98.0728	33276	4536
15.602	15.603	1,1-DICHLOROPROPENE	99.9141	28378	4025
16.334	16.337	BENZENE	98.1883	72042	10262
17.279	17.281	ISTD-FBENZENE	1.0000	87233	12769
18.581	18.583	TRICHLOROETHENE	101.8264	43108	8771
20.034	20.015	2-CHLOROETHYL VINYL	0.3875	115	27
20.358	20.358	CIS-1,3-DICHLOROPROP	98.1867	18419	5167
21.281	21.281	TRANS-1,3-DICHLOROPR	98.5899	23984	7817
21.848	21.847	TOLUENE	97.4947	67853	21582
23.040	23.039	TETRACHLOROETHENE	98.6017	31705	10792
24.067	24.065	CHLOROBENZENE	95.9027	69935	26752
24.387	24.386	ETHYLBENZENE	95.7284	59847	22855
24.665	24.663	M,P-XYLENE	194.7627	140060	47149
25.091	25.089	STYRENE	95.4111	74129	31194
25.182	25.180	O-XYLENE	97.6075	62158	24655
25.660	25.658	ISOPROPYLBENZENE	97.7265	49366	18656
25.950	25.947	BROMOBENZENE	94.3251	68912	27106
26.234	26.231	N-PROPYLBENZENE	93.8755	51822	20071
26.345	26.343	2-CHLOROTOLUENE	94.7362	58361	22400
26.449	26.447	4-CHLOROTOLUENE	92.9948	60208	23754
26.618	26.616	1,3,5-TRIMETHYLBENZE	96.4178	77197	29578
26.982	26.980	TERT-BUTYLBENZENE	96.5273	43474	15391
27.132	27.129	1,2,4-TRIMETHYLBENZE	95.4041	58538	22310
27.273	27.270	SEC-BUTYLBENZENE	97.4929	43327	15305
27.369	27.366	1,3-DICHLOROBENZENE	94.5508	56552	21378
27.464	27.461	1,4-DICHLOROBENZENE	94.5107	57306	21659
27.520	27.517	P-ISOPROPYLTOLUENE	98.2766	42707	16025
27.959	27.956	1,2-DICHLOROBENZENE	92.4727	44020	15885
28.087	28.084	N-BUTYLBENZENE	93.7322	41273	14409
29.254	29.250	SURR-1B4CB-P	136.5067	82776	26982
30.993	30.990	1,2,4-TRICHLOROBENZE	93.0852	25517	6970
31.517	31.513	NAPHTHALENE	94.9322	31070	8231
31.608	31.605	HEXACHLOROBUTADIENE	97.1193	18904	4607
31.942	31.939	1,2,3-TRICHLOROBENZE	96.5994	21583	5332
		XYLENES (Total):	**292.3703**		

* Amounts in ug/L for water samples, ug/kg for solid samples.
Surrogate Recovery: BrClBenzene 91.0044%
Chrom Perfect version 6.07 Reported on 07-15-1998at 21:08:55

Internal Standard Calculations From ISTDCHK v. 950609.1130
IStd height for ISTD-FBENZENE is within range.
IStd range: 9,325 - 13,987 (80% - 120% of midpoint 11,656)
Used initial calibration files to determine range.

Sample name: **2961808MSD** Batch: 98196A188404
Raw file: C:\CP\DATA1\18196B.10R

Reviewed by: DW097 Verified by:

Date: 7-15-98 Date:

RUN LOG FOR SEQUENCE: \CP\DATA1\18194A.SEQ

Problems or comments are as follows:

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Data file	Sample name	Batch #	DF	Analysis #'s	DP	QCCode	Bottle	Upload	Verify	Comments
18194.01R	CBLK	98194A18	1.0							
18194.02R	CBLK	98194A18	1.0							
18194.03R	CBLK	98194A18	1.0							
18194.04R	CBLK	98194A18	1.0							
18194.05R	CBLK	98194A18	1.0							
18194.06R	CALSTD1	98194A18	1.0	8466,8465,		C1				
18194.07R	CALSTD2	98194A18	1.0	8466,8465,		C2				Gases from #16
18194.08R	CALSTD3	98194A18	1.0	8466,8465,		C3				
18194.09R	CALSTD4	98194A18	1.0	8466,8465,		C4				
18194.10R	CALSTD5	98194A18	1.0	8466,8465,		C5				
18194.11R	CALSTD6	98194A18	1.0	8466,8465,						
18194.12R	CALSTD7	98194A18	1.0	8466,8465,		C7				FID only
18194.13R	CBLK	98194A18	1.0							
18194.14R	CBLK	98194A18	1.0							
18194.15R	CBLK	98194A18	1.0							
18194.16R	CALSTD2	98194A18	1.0	8466,8465		C2				Gases only
18194.17R	CALSTD6	98194A18	1.0	8466,8465		C6				
18194.18R	CBLK	98194A18	1.0							
18194.19R	CBLK	98194A18	1.0							
18194.20R	CBLK	98194A18	1.0							
18194.21R	CHKSTD	98194A18	1.0	8405,8406,8424,8465						
18194.22R	CBLK	98194A18	1.0							
18194.23R	BLK1870	98194A18	1.0	8405,8406,8424,8465						
18194.24R	MDL	98194A18	1.0							
18194.25R	DLS61	98194A18	1.0	8405,8406,8424,8465						
18194.26R	DLS62	98194A18	1.0	8405,8406,8424,8465						

RUN LOG FOR SEQUENCE: \CP\DATA1\18194B.SEQ

Problems or comments are as follows:

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Data file	Sample name	Batch #	DF	Analysis #'s	DP	QCCode	Bottle	Upload	Verify	Comments
18196.01R	SETUP	98196A18	1.0							
18196.02R	CBLK	98196A18	1.0							
18196.03R	CHKSTD	98196A18	1.0						ok	(13)
18196.04R	CBLK	98196A18	1.0							OK
18196.05R	BLK1875	98196A18	1.0	8404				097	ok	OK
18196.06R	DLS63	98196A18	1.0	8404					ok	OK
18196.07R	DLS64	98196A18	1.0	8404					ok	OK
18196.08R	2961808	98196A18	1.0	8404		BGM	26	097	ok	OK
18196.09R	2961808MS	98196A18	5.0	8404		MS	26	097		ok
18196.10R	2961808MSD	98196A18	5.0	8404		MSD	26	097		ok
18196.11R	LCS	98196A18	1.0	8404		LCS		097		(15) ALL
18196.12R	CBLK	98196A18	1.0							
18196.13R	BLK1876	98196A18	1.0	8404					ok	ok
18196.14R	2961809	98196A18	1.0	8404			26	097	ok	ok
18196.15R	2961810	98196A18	1.0	8404				097		ok
18196.16R	2961811	98196A18	1.0	8404				097		ok
18196.17R	2961812	98196A18	2.0	8404				097		ok
18196.18R	2961813	98196A18	1.0	8404				097		ok
18196.19R	2961814	98196A18	1.0	8404				097		ok
18196.20R	2961815	98196A18	1.0	8404				097		ok
18196.21R	CHKSTD	98196A18	1.0	8404						CIMe (05)
~~18196.22R~~	~~CBLK~~	~~98196A18~~	1.0							
18196.23R	BLK1877	98196A18	1.0	8404						
18196.24R	2961816	98196A18	1.0	8404			26			
18196.25R	2961817	98196A18	1.0	8404						
18196.26R	2961818	98196A18	1.0	8404						
18196.27R	2961819	98196A18	1.0	8404						
18196.28R	2961820	98196A18	1.0	8404						
18196.29R	2961821	98196A18	1.0	8404						
~~18196.30R~~	~~2961822~~	~~98196A18~~	1.0	8404						

TZ KS
7-16-98

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RUN LOG FOR SEQUENCE: \CP\DATA1\18194B.SEQ

Problems or comments are as follows:

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Data file	Sample name	Batch #	DF	Analysis #'s	DP	QCCode	Bottle	Upload	Verify	Comments
18196.22R	GAS CHKSTD	98196A18	1.0	8404,8405,8470						In spec
18196.23R	BLK1877	98196A18	1.0	8404,8405,8470						ok
18196.24R	2961816	98196A18	1.0	8404			26	097		ok
18196.25R	2961817	98196A18	1.0	8404				097		ok
18196.26R	2961818	98196A18	1.0	8404				097		ok
18196.27R	2961819	98196A18	1.0	8404				097		ok
18196.28R	2961820	98196A18	1.0	8404				097		ok
18196.29R	2961821	98196A18	1.0	8404				097		ok
18196.30R	2961822	98196A18	1.0	8404				097		ok
18196.31R	2959836	98196A18	1.0	8470				097		ok
18196.32R	2963392	98196A18	1.0	8405	QC			097		
18196.33R	2963393	98196A18	1.0	8405	QC			097		
18196.34R	CHKSTD	98196A18	1.0	8405						CIMe(05)
~~18196.35R~~	~~CBLK~~	~~98196A18~~	~~1.0~~							
18196.36R	BLK1878	98196A18	1.0	8405						
18196.37R	2963394	98196A18	20.0	~~8405~~	QC		26			
18196.38R	2963395	98196A18	10.0	8405	QC		26			
~~18196.39R~~	~~CHKSTD~~	~~98196A18~~	~~1.0~~	~~8405~~						

Metals Data

Case Narrative
Conformance/Nonconformance Summary

Lancaster Laboratories
A division of Thermo Analytical Inc.
Where quality is a science.

CASE NARRATIVE FOR INORGANICS

Laboratory Name: Lancaster Laboratories

SDG Number: IMC01

Date Received: 07/10/98

Analysis:

Refer to the analysis run logs for samples requiring dilutions.

The following sample(s) required analysis by Method of Standard Additions (MSA) because the post digestion spike on the background sample of the digestion batch recovered less than 85% or greater than 115%:

Sample	Element
PMW4U	Pb
PM4UD	Pb
PMW4M	Pb
PMW4L	Pb
PMW5U	Pb

Explanatory Notes:

The instrument detection limits (IDLs) are used for determining the U flags on the initial and continuing calibration blanks and in the calculation of the %R for the Graphite Furnace AA (GFAA) analytical spikes. The method detection limits (MDLs) are used for determining all other U flags.

The final concentration is obtained using the following calculation:

$$\text{final conc.} = \text{instrument reading} \times \frac{\text{final vol. x dilution factor}}{\text{initial volume or weight}}$$

Calibration Standards:

Instrument calibration standards are prepared monthly from stock solutions purchased from Spex Industries Inc., JT Baker, Aldrich Chemical, VWR Scientific, EM Science, High Purity, Ultra Scientific or VHG Laboratories.

Case Narrative reviewed and approved by:

Betty L. Umble, Specialist
Inorganic Data Packages

Date 8/21/98

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QUALITY ASSURANCE SUMMARY

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: LANCASTER_LABORATORIES___

DG No.: IMC01

Client Sample ID.	Lab Sample ID.
MW--1	2961821
MW--3	2961822
PM4UD	2961809
PMW4L	2961811
PMW4M	2961810
PMW4U	2961808
PMW5L	2961814
PMW5M	2961813
PMW5U	2961812
PMW6L	2961817
PMW6M	2961816
PMW6U	2961815
PMW7L	2961820
PMW7M	2961819
PMW7U	2961818

Were ICP interelement corrections applied ? Yes/No YES

Were ICP background corrections applied ? Yes/No YES

If yes - were raw data generated before application of background corrections ? Yes/No NO

LEGEND:

U = Below MDL B = Below LOQ

FLAGS: (indicate matrix interference)

N = Matrix Spike OOS

* = Duplicate OOS

W = Method F Analytical Spike Recovery <85% or > 115% when the sample conc. is <50% of the spike conc.

S = Analysis Determined by MSA

+ = MSA Correlation Coefficient < 0.995

E = Matrix Effects exist as proven by Serial Dilution or Spiked Dilution

Presence of FLAGS does not invalidate data

METHODS:

A = Flame Atomic Absorption

P = Inductively Coupled Plasma

F = Graphite Furnace

AS = Hydride Generation

CV = Cold Vapor

NR = Not Required

TERMS:

MDL = Method Detection Limit

LOQ = Limit Of Quantitation

OOS = Out of Specification

MSA = Method of Standard Addition

I certify that this data package is technically accurate and complete. Release of the data contained in this data package has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Betty L. Umble Name: Betty L. Umble

Date: 8/20/98 Title: Specialist Inorganic Data Packages

Sample Data

QUALITY ASSURANCE SUMMARY

INORGANIC ANALYSIS DATA SHEET
FORM I

CLIENT SAMPLE NO.

MW--1

ab Name: LANCASTER_LABORATORIES
DG No.: IMC01
Matrix (soil/water): WATER
Level (low/med): LOW
Solids: 0.0

Lab Sample ID: 2961821
Date Received: 07/10/98

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

CAS No.	Analyte	Concentration	C	Q	M
7440-39-3	Barium	35.0	U		A
7440-43-9	Cadmium	3.6	U		A
7440-47-3	Chromium	11.0	U		A
7439-92-1	Lead	1.9	U		F
7439-97-6	Mercury	0.023	U		CV

Color Before: _____ Clarity Before: _____ Texture: _____
Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

QUALITY ASSURANCE SUMMARY

INORGANIC ANALYSIS DATA SHEET
FORM I

CLIENT SAMPLE NO.

MW--3

ab Name: LANCASTER_LABORATORIES___
OG No.: IMC01
Matrix (soil/water): WATER
Level (low/med): LOW
Solids: 0.0

Lab Sample ID: 2961822
Date Received: 07/10/98

Concentration Units (ug/L or mg/kg dry weight): UG/L___

CAS No.	Analyte	Concentration	C	Q	M
7440-39-3	Barium	35.0	U		A
7440-43-9	Cadmium	3.6	U		A
7440-47-3	Chromium	58.0			A
7439-92-1	Lead	3.4			F
7439-97-6	Mercury	0.064	B		CV

Color Before: _____ Clarity Before: _____ Texture: _____
olor After: _____ Clarity After: _____ Artifacts: _____

Comments:

QUALITY ASSURANCE SUMMARY

INORGANIC ANALYSIS DATA SHEET
FORM I

CLIENT SAMPLE NO.

PM4UD

Lab Name: LANCASTER_LABORATORIES___
SDG No.: IMC01
Matrix (soil/water): WATER
Level (low/med): LOW
Solids: 0.0

Lab Sample ID: 2961809
Date Received: 07/10/98

Concentration Units (ug/L or mg/kg dry weight): UG/L___

CAS No.	Analyte	Concentration	C	Q	M
7440-39-3	Barium	210			A
7440-43-9	Cadmium	3.6	U		A
7440-47-3	Chromium	223			A
7439-92-1	Lead	54.4		S	F
7439-97-6	Mercury	0.33	B		CV

Color Before: _____ Clarity Before: _____ Texture: _____
Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

QUALITY ASSURANCE SUMMARY

INORGANIC ANALYSIS DATA SHEET
FORM I

CLIENT SAMPLE NO.

PMW4L

Lab Name: LANCASTER_LABORATORIES___
SDG No.: IMC01
Matrix (soil/water): WATER
Level (low/med): LOW
% Solids: 0.0

Lab Sample ID: 2961811
Date Received: 07/10/98

Concentration Units (ug/L or mg/kg dry weight): UG/L___

CAS No.	Analyte	Concentration	C	Q	M
7440-39-3	Barium	80.0	B		A
7440-43-9	Cadmium	3.6	U		A
7440-47-3	Chromium	12.0	B		A
7439-92-1	Lead	23.6		S	F
7439-97-6	Mercury	0.14	B		CV

Color Before: _____ Clarity Before: _____ Texture: _____
Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

QUALITY ASSURANCE SUMMARY

INORGANIC ANALYSIS DATA SHEET
FORM I

CLIENT SAMPLE NO.

PMW4M

Lab Name: LANCASTER_LABORATORIES___
SDG No.: IMC01
Matrix (soil/water): WATER
Level (low/med): LOW
Solids: 0.0

Lab Sample ID: 2961810
Date Received: 07/10/98

Concentration Units (ug/L or mg/kg dry weight): UG/L___

CAS No.	Analyte	Concentration	C	Q	M
7440-39-3	Barium	60.0	B		A
7440-43-9	Cadmium	3.6	U		A
7440-47-3	Chromium	11.0	B		A
7439-92-1	Lead	2.3	B	S	F
7439-97-6	Mercury	0.027	B		CV

Color Before: _____ Clarity Before: _____ Texture: _____
Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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QUALITY ASSURANCE SUMMARY

INORGANIC ANALYSIS DATA SHEET
FORM I

CLIENT SAMPLE NO.

PMW4U

ab Name: LANCASTER_LABORATORIES___
OG No.: IMC01
Matrix (soil/water): WATER
Level (low/med): LOW
Solids: 0.0

Lab Sample ID: 2961808
Date Received: 07/10/98

Concentration Units (ug/L or mg/kg dry weight): UG/L___

CAS No.	Analyte	Concentration	C	Q	M
7440-39-3	Barium	170			A
7440-43-9	Cadmium	3.6	U		A
7440-47-3	Chromium	167			A
7439-92-1	Lead	54.0		S	F
7439-97-6	Mercury	0.28	B		CV

olor Before: _____ Clarity Before: _____ Texture: _____
olor After: _____ Clarity After: _____ Artifacts: _____

Comments:

8/21/98 3111

QUALITY ASSURANCE SUMMARY

INORGANIC ANALYSIS DATA SHEET
FORM I

CLIENT SAMPLE NO.

PMW5L

Lab Name: LANCASTER_LABORATORIES___
SDG No.: IMC01
Matrix (soil/water): WATER
Level (low/med): LOW
% Solids: 0.0

Lab Sample ID: 2961814
Date Received: 07/10/98

Concentration Units (ug/L or mg/kg dry weight): UG/L___

CAS No.	Analyte	Concentration	C	Q	M
7440-39-3	Barium	50.0	B		A
7440-43-9	Cadmium	3.6	U		A
7440-47-3	Chromium	14.0	B		A
7439-92-1	Lead	3.3			F
7439-97-6	Mercury	0.033	B		CV

Color Before: _____ Clarity Before: _____ Texture: _____
Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

_____

_____

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_____

QUALITY ASSURANCE SUMMARY

INORGANIC ANALYSIS DATA SHEET
FORM I

CLIENT SAMPLE NO.

PMW5M

Lab Name: LANCASTER_LABORATORIES___
SDG No.: IMC01
Matrix (soil/water): WATER
Level (low/med): LOW
% Solids: 0.0

Lab Sample ID: 2961813
Date Received: 07/10/98

Concentration Units (ug/L or mg/kg dry weight): UG/L___

CAS No.	Analyte	Concentration	C	Q	M
7440-39-3	Barium	35.0	U		A
7440-43-9	Cadmium	3.6	U		A
7440-47-3	Chromium	11.0	U		A
7439-92-1	Lead	1.9	U		F
7439-97-6	Mercury	0.023	B		CV

Color Before: _____ Clarity Before: _____ Texture: _____
Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

_____

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QUALITY ASSURANCE SUMMARY

INORGANIC ANALYSIS DATA SHEET
FORM I

CLIENT SAMPLE NO.

PMW5U

Lab Name: LANCASTER_LABORATORIES___
SDG No.: IMC01
Matrix (soil/water): WATER
Level (low/med): LOW
% Solids: 0.0

Lab Sample ID: 2961812
Date Received: 07/10/98

Concentration Units (ug/L or mg/kg dry weight): UG/L___

CAS No.	Analyte	Concentration	C	Q	M
7440-39-3	Barium	100			A
7440-43-9	Cadmium	3.6	U		A
7440-47-3	Chromium	49.0			A
7439-92-1	Lead	24.0		S	F
7439-97-6	Mercury	0.23	U		CV

Color Before: _____ Clarity Before: _____ Texture: _____
Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

QUALITY ASSURANCE SUMMARY

INORGANIC ANALYSIS DATA SHEET
FORM I

CLIENT SAMPLE NO.

PMW6L

Lab Name: LANCASTER_LABORATORIES___
SDG No.: IMC01
Matrix (soil/water): WATER
Level (low/med): LOW
% Solids: 0.0

Lab Sample ID: 2961817
Date Received: 07/10/98

Concentration Units (ug/L or mg/kg dry weight): UG/L___

CAS No.	Analyte	Concentration	C	Q	M
7440-39-3	Barium	35.0	U		A
7440-43-9	Cadmium	3.6	U		A
7440-47-3	Chromium	26.0	B		A
7439-92-1	Lead	10			F
7439-97-6	Mercury	0.023	U		CV

Color Before: _____ Clarity Before: _____ Texture: _____
Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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QUALITY ASSURANCE SUMMARY

INORGANIC ANALYSIS DATA SHEET
FORM I

CLIENT SAMPLE NO.

PMW6M

Lab Name: LANCASTER_LABORATORIES___
SDG No.: IMC01
Matrix (soil/water): WATER
Level (low/med): LOW
% Solids: 0.0

Lab Sample ID: 2961816
Date Received: 07/10/98

Concentration Units (ug/L or mg/kg dry weight): UG/L___

CAS No.	Analyte	Concentration	C	Q	M
7440-39-3	Barium	35.0	U		A
7440-43-9	Cadmium	3.6	U		A
7440-47-3	Chromium	16.0	B		A
7439-92-1	Lead	12.3			F
7439-97-6	Mercury	0.023	U		CV

Color Before: _____ Clarity Before: _____ Texture: _____
Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

QUALITY ASSURANCE SUMMARY

INORGANIC ANALYSIS DATA SHEET
FORM I

CLIENT SAMPLE NO.

PMW6U

ab Name: LANCASTER_LABORATORIES___
DG No.: IMC01
Matrix (soil/water): WATER
Level (low/med): LOW
Solids: 0.0

Lab Sample ID: 2961815
Date Received: 07/10/98

Concentration Units (ug/L or mg/kg dry weight): UG/L___

CAS No.	Analyte	Concentration	C	Q	M
7440-39-3	Barium	80.0	B		A
7440-43-9	Cadmium	3.6	U		A
7440-47-3	Chromium	65.0			A
7439-92-1	Lead	21.8			F
7439-97-6	Mercury	0.23	U		CV

Color Before: _____ Clarity Before: _____ Texture: _____
Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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QUALITY ASSURANCE SUMMARY

INORGANIC ANALYSIS DATA SHEET
FORM I

CLIENT SAMPLE NO.

PMW7L

Lab Name: LANCASTER_LABORATORIES___
SDG No.: IMC01
Matrix (soil/water): WATER
Level (low/med): LOW
% Solids: 0.0

Lab Sample ID: 2961820
Date Received: 07/10/98

Concentration Units (ug/L or mg/kg dry weight): UG/L___

CAS No.	Analyte	Concentration	C	Q	M
7440-39-3	Barium	35.0	U		A
7440-43-9	Cadmium	3.6	U		A
7440-47-3	Chromium	14.0	B		A
7439-92-1	Lead	3.8			F
7439-97-6	Mercury	0.023	U		CV

Color Before: _____ Clarity Before: _____ Texture: _____
Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

QUALITY ASSURANCE SUMMARY

INORGANIC ANALYSIS DATA SHEET
FORM I

CLIENT SAMPLE NO.

PMW7M

ab Name: LANCASTER_LABORATORIES___
DG No.: IMC01
Matrix (soil/water): WATER
Level (low/med): LOW
Solids: 0.0

Lab Sample ID: 2961819
Date Received: 07/10/98

Concentration Units (ug/L or mg/kg dry weight): UG/L___

CAS No.	Analyte	Concentration	C	Q	M
7440-39-3	Barium	50.0	B		A
7440-43-9	Cadmium	3.6	U		A
7440-47-3	Chromium	16.0	B		A
7439-92-1	Lead	1.9	U		F
7439-97-6	Mercury	0.032	B		CV

olor Before: _____ Clarity Before: _____ Texture: _____
olor After: _____ Clarity After: _____ Artifacts: _____

Comments:

QUALITY ASSURANCE SUMMARY

INORGANIC ANALYSIS DATA SHEET
FORM I

CLIENT SAMPLE NO.

PMW7U

Lab Name: LANCASTER_LABORATORIES___
SDG No.: IMC01
Matrix (soil/water): WATER
Level (low/med): LOW
% Solids: 0.0

Lab Sample ID: 2961818
Date Received: 07/10/98

Concentration Units (ug/L or mg/kg dry weight): UG/L___

CAS No.	Analyte	Concentration	C	Q	M
7440-39-3	Barium	250			A
7440-43-9	Cadmium	3.6	U		A
7440-47-3	Chromium	155			A
7439-92-1	Lead	90.2			F
7439-97-6	Mercury	0.23	U		CV

Color Before: _____ Clarity Before: _____ Texture: _____
Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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