

2004 Water Analysis



The following are water analysis of the Upper Leon River MWD, for the year indicated, as required by the Texas Commission on Environmental Quality (TCEQ) and the Federal EPA.

Analysis Type	Collection Date	Analysis Date
Trihalomethanes (THM)	2/16/04	2/18/04
Haloacetic Acids (HAA5)	2/16/04	2/24/04
Minerals	2/16/04	3/17/04
SOC ₅	2/16/04	2/24/04
Trihalomethanes (THM)	6/01/04	6/05/04
Haloacetic Acids (HAA5)	6/01/04	6/10/04
Trihalomethanes (THM)	7/08/04	7/09/04
Haloacetic Acids (HAA5)	7/08/04	7/14/04
VOC	7/08/04	7/15/04
Trihalomethanes (THM)	12/16/04	12/21/04
Haloacetic Acids (HAA5)	12/16/04	12/23/04

1100 W. 49th Street
Austin, TX 78756

Texas Department of Health Trihalomethanes by GC-ELCD

Contact: Gary Fest
(512)458-7552

Submitter ID: 0470015
TDH Lab ID: EP04-03386
Method: EPA 502.2 Rev. 2.1 (THM)
Data File: 02180017.D
QC File: D:\HPCHEM\1\DATA\001G0218
Sample Type: Water

Date Collected: 2/16/04
Date Prepared: 2/18/04
Date Analyzed: 2/18/2004 6:54
Analyst: MGerlach
Dilution Factor: 1
Concentration Units: µg/l

Compound:

Result:

Chloroform

< 2.0

Bromodichloromethane

6.3

Dibromochloromethane

11.0

Bromoform

9.6

Total THM's

26.9

COMMENTS:

Approval: Charles W. Sherman

FEB 20 2004

Texas Department of Health Haloacetic Acids GC Results

Submitter Sample Number 0470015
 TDH Sample Name EP04-03410
 Method 552.2
 Data File Name 02230030.D
 QC File D:\HPCHEM3\DATA\O04P0223\
 Sample Type Water

Date Collected 2/16/04
 Date Extracted 2/19/04
 Date Analyzed 2/24/2004 2:31
 Analyst NGrice
 Dilution Factor 1
 Concentration Units µg/L

Regulated Compounds:	Result:
Monochloroacetic acid	<2.0
Dichloroacetic acid	8.8
Trichloroacetic acid	<1.0
Monobromoacetic acid	<1.0
<u>Dibromoacetic acid</u>	<u>13.3</u>
Total:	22.1

Monitor Compounds:

Bromochloroacetic acid	12.3
Dalapon	<1.0

Comments:

BUREAU OF LABORATORIES
CLIA #45D0660644

CONFIDENTIAL LABORATORY REPORT
WATER ANALYSIS REPORT
MINERALS

Submitter Identification Number: 0470015

UPPER LEON RIVER MWD

PO BOX 67
COMANCHE, TX 76442-0067

Laboratory Number: EP403470
Sample Type:
Sample Source: MAP 1
Entry Points: 001
Collector Remarks:

Date Collected: 02/16/2004
Date Received: 02/18/2004
Date Reported: 03/17/2004

Constituent Name	Result	Units	+/-
Chloride	102	mg/l	
Fluoride	0.2	mg/l	
Nitrate	0.07	mg/l	
Sulfate	81	mg/l	
pH	7.5		
Dil. Conduct (umhos/cm)	730		
Tot. Alka. as CaCO3	108	mg/l	
Bicarbonate	132	mg/l	
Carbonate	0	mg/l	
Dissolved solids	410	mg/l	
P. Alkalinity as CaCO3	0	mg/l	

TEXAS DEPARTMENT OF HEALTH

WATER ANALYSIS RESULTS by GC/MS

Submitter Number: 0470015
 TDH Sample Number: ep403440
 Method: 525.2 Rev 1.0 SOC5
 Data File Number: A0953.D
 QC Batch: o01s0224
 Sample Type: water

Date Collected: 2/16/04
 Date Extracted: 2/23/04
 Date Analyzed: 2/24/04
 Analyst: dhardin
 Dilution Factor: 1.02
 Conc. Units: µg/L

Pesticides	Result:
• Alachlor	<0.20
Aldrin	<0.20
• Atrazine	<0.20
Bromacil	<0.20
Butachlor	<0.20
• Chlordane (alpha-chlordane)	<0.20
• Chlordane (gamma-chlordane)	<0.20
• Chlordane (trans-nonachlor)	<0.20
Dieldrin	<0.20
• Endrin	<0.20
• Heptachlor	<0.20
• Heptachlor epoxide	<0.20
• Hexachlorobenzene	<0.20
• Hexachlorocyclopentadiene*	<1.02
• Lindane	<0.20
• Methoxychlor	<0.20
Metolachlor	<0.20
Metribuzin	<0.20
Parathion, ethyl	<0.20
Parathion, methyl	<0.20
• Pentachlorophenol	<1.02
Prometon #	<0.20
Propachlor	<0.20
• Simazine	<0.20
Trifluralin	<0.20
PAHs	Result:
Acenaphthene	<0.20
Acenaphthylene	<0.20
Anthracene	<0.20
Benzo[a]anthracene	<0.20
• Benzo[a]pyrene	<0.20

PAHs (cont.)	Result:
Benzo[b]fluoranthene	<0.20
Benzo[g,h,i]perylene	<0.20
Benzo[k]fluoranthene	<0.20
Chrysene	<0.20
Dibenz[a,h]anthracene	<0.20
Fluorene	<0.20
Indeno[1,2,3,c,d]pyrene	<0.20
Naphthalene	<0.20
Phenanthrene	<0.20
Pyrene	<0.20

PCBs	Result:
2-Chlorobiphenyl	<0.20
2,3-Dichlorobiphenyl	<0.20
2,4,5-Trichlorobiphenyl	<0.20
2,2',4,4'-Tetrachlorobiphenyl	<0.20
2,2',3',4,6-Pentachlorobiphenyl	<0.20
2,2',4,4',5,6'-Hexachlorobiphenyl	<0.20
2,2',3,3',4,4',6-Heptachlorobiphenyl	<0.51
2,2',3,3',4,5',6,6'-Octachlorobiphenyl	<0.51

Phthalates	Result:
• Di-(2-ethylhexyl)adipate	<2.04
• Di-(2-ethylhexyl)phthalate	<2.04
Butylbenzylphthalate	<2.04
Di-n-butylphthalate	<2.04
Diethylphthalate	<2.04
Dimethylphthalate	<2.04

Tentatively Identified Cmpds** Result:
 None

* This analyte is of known instability and quantitation should be considered approximate

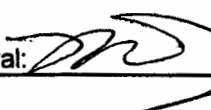
** Significant nontarget peaks are tentatively identified using a mass spectral library search and quantitated using an assumed response factor of one.

J Analyte detected below the quantitation limit.

This analyte is known for extraction instability and quantitation should be considered approximate.

- Regulated compounds

Comments:

Approval:  FEB 25 2004

1100 W. 49th Street
Austin, TX 78756

Texas Department of Health Trihalomethanes by GC-ELCD

Contact: Gary Fest
(512)458-7552

Submitter ID: 0470015
TDH Lab ID: EP04-13241
Method: EPA 502.2 Rev. 2.1 (THM)
Data File: 06040018.D
QC File: D:\HPCHEM\1\DATA\001G0604
Sample Type: Water

Date Collected: 06/01/2004
Date Prepared: 06/04/2004
Date Analyzed: 06/05/2004 12:10
Analyst: M. Gerlach
Dilution Factor: 1
Concentration Units: µg/l

Compound:	Result:
Chloroform	2.5
Bromodichloromethane	5.6
Dibromochloromethane	6.4
Bromoform	3.9
Total THM's	18.4

COMMENTS:

**Texas Department of Health
Haloacetic Acids GC Results**

Submitter Sample Number 0470015
TDH Sample Name EP4-13214
Method 552.2
Data File Name 06090021.D
QC File D:\HPCHEM\1\DATA\O12P0608\
Sample Type Water

Date Collected 6/1/2004
Date Extracted 6/8/2004
Date Analyzed 6/10/2004 12:54
Analyst FBabazadeh
Dilution Factor 1
Concentration Units µg/L

Regulated Compounds:	Result:
Monochloroacetic acid	<2.0
Dichloroacetic acid	11.4
Trichloroacetic acid	1.1
Monobromoacetic acid	1.3
Dibromoacetic acid	16.0
<u>Total:</u>	<u>29.8</u>

Monitor Compounds:

Bromochloroacetic acid	14.3
Dalapon	<1.0

Comments:

Approval: 

JUN 15 2004

1100 W. 49th Street
Austin, TX 78756

Texas Department of Health Trihalomethanes by GC-ELCD

Contact: Gary Fest
(512)458-7552

Submitter ID: 0470015
TDH Lab ID: EP04-15491
Method: EPA 502.2 Rev. 2.1 (THM)
Data File: 07090022.D
QC File: D:\HPCHEM1\DATA\001\00709
Sample Type: Water

Date Collected: 07/08/2004
Date Prepared: 07/09/2004
Date Analyzed: 07/09/2004 8:58
Analyst: J. Obare/MGerlach
Dilution Factor: 1
Concentration Units: µg/l

Compound:	Result:
Chloroform	4.0
Bromodichloromethane	9.5
Dibromochloromethane	10.8
Bromoform	6.5
Total THM's	30.8

COMMENTS:

Hossein Hajipour

JUL 13 2004

**Texas Department of Health
Haloacetic Acids GC Results**

Submitter Sample Number 0470015
TDH Sample Name EP4-15467
Method 552.2
Data File Name 0714011.D
QC File C:\MSDCHEM\1\DATA\IO19P0714\
Sample Type Water

Date Collected 7/8/2004
Date Extracted 7/13/2004
Date Analyzed 7/14/2004 21:14
Analyst M. Kabay
Dilution Factor 1
Concentration Units µg/L

Regulated Compounds:	Result:
Monochloroacetic acid	<2.0
Dichloroacetic acid	14.6
Trichloroacetic acid	2.0
Monobromoacetic acid	<1.0
<u>Dibromoacetic acid</u>	<u>18.9</u>
Total:	35.5

Monitor Compounds:

Bromochloroacetic acid	18.8
Dalapon	<1.0

Comments:

Approval: **JUL 16 2004**

TEXAS DEPARTMENT OF HEALTH
VOLATILE ORGANIC COMPOUNDS by GC/MS

Submitter Number	TX0470015	Date Collected:	07/08/2004
TDH Sample Number	EP415640	Date Extracted:	07/15/2004
Method:	EPA 524.2 rev. 4.1	Date Analyzed:	07/15/2004
Data File Number:	0715-206.D	Analyst:	GNesbitt
Q.C. File:	OV020715.S	Dilution Factor:	1
Sample Type:	water	Concentration Units:	µg/l

<u>Regulated Cmpds. [40 CFR §141.61(a)]</u>	<u>Result</u>
Benzene	<0.5
Carbon tetrachloride	<0.5
Chlorobenzene	<0.5
1,2-Dichlorobenzene	<0.5
1,4-Dichlorobenzene	<0.5
1,2-Dichloroethane	<0.5
1,1-Dichloroethene	<0.5
cis-1,2-Dichloroethene	<0.5
trans-1,2-Dichloroethene	<0.5
1,2-Dichloropropane	<0.5
Methylene chloride (DCM)	<0.5
Ethylbenzene	<0.5
Styrene	<0.5
Tetrachloroethene	<0.5
Toluene	<0.5
1,2,4-Trichlorobenzene	<0.5
1,1,1-Trichloroethane	<0.5
1,1,2-Trichloroethane	<0.5
Trichloroethene	<0.5
Vinyl chloride	<0.5
m&p-Xylene	<1.0
o-Xylene	<0.5

<u>Monitored Cmpds. [40 CFR §141.40(e)]</u>	<u>Result</u>
Chloroform	3.6
Bromodichloromethane	7.6
Dibromochloromethane	7.1
Bromoform	3.7
Dibromomethane	<1.0
1,3-Dichlorobenzene	<1.0
1,1-Dichloropropene	<1.0
1,1-Dichloroethane	<1.0
1,1,2,2- Tetrachloroethane	<1.0
1,3-Dichloropropane	<1.0
Chloromethane	<2.0
Bromomethane	<2.0
1,2,3-Trichloropropane	<1.0
1,1,1,2-Tetrachloroethane	<1.0
Chloroethane	<2.0
2,2-Dichloropropane	<1.0
2-Chlorotoluene	<1.0
4-Chlorotoluene	<1.0
Bromobenzene	<1.0
cis-1,3-Dichloropropene	<1.0
trans-1,3-Dichloropropene	<1.0

<u>* Screened Compounds</u>	<u>Result</u>
1,2-Dibromo-3-chloropropane	<1.0
1,2-Dibromoethane	<1.0

<u>Monitored Cmpds. [40 CFR §141.40(j)]</u>	<u>Result</u>
1,2,4-Trimethylbenzene	<1.0
1,2,3-Trichlorobenzene	<1.0
n-Propylbenzene	<1.0
n-Butylbenzene	<1.0
Naphthalene	<1.0
Hexachlorobutadiene	<1.0
1,3,5-Trimethylbenzene	<1.0
4-Isopropyltoluene	<1.0
Isopropylbenzene	<1.0
t-Butylbenzene	<1.0
s-Butylbenzene	<1.0
Trichlorofluoromethane	<2.0
Dichlorodifluoromethane	<2.0
Bromochloromethane	<1.0

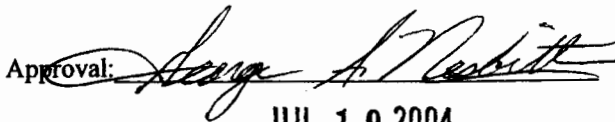
<u>Other Compounds</u>	<u>Result</u>
Acetone	<10
Acrylonitrile	<10
2-Butanone (MEK)	<10
Carbon disulfide	<1.0
Ethyl methacrylate	<1.0
2-Hexanone	<1.0
Iodomethane	<2.0
Methyl methacrylate	<1.0
4-Methyl-2-pentanone (MIBK)	<2.0
Methyl-t-butyl ether (MTBE)	<2.0
Tetrahydrofuran	<2.0
Vinyl acetate	<10

Tentative identification of the largest non-priority pollutant peaks is provided by comparison with the EPA/NIH mass spectral library. Approximate quantitation is performed using internal standards and an assumed response factor of one.

<u>Tentative Compound ID</u>	<u>Result</u>
None	

comments:

* EPA 524.2 is not the approved method for analysis of these compounds. Compounds are listed per TCEQ request.

Approval: 
JUL 19 2004

Department of State Health Services

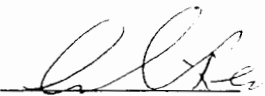
Trihalomethanes by GC-ELCD

Submitter ID: 0470015
DSHS Lab ID: EP04-27457
Method: EPA 502.2 Rev. 2.1 (THM)
Data File: 12210004.D
QC File: D:\HPCHEM\1\DATA\O02G1221
Sample Type: Water

Date Collected: 12/16/2004
Date Prepared: 12/21/2004
Date Analyzed: 12/21/2004 3:28
Analyst: C. Sawyer/L.Zhong
Dilution Factor: 1
Concentration Units: µg/l

Compound:	Result:
Chloroform	4.4
Bromodichloromethane	9.5
Dibromochloromethane	11.2
Bromoform	5.5
Total THM's	30.6

COMMENTS:



**Texas Department of State Health Services
Haloacetic Acids GC Results**

Submitter Sample Number	0470015	Date Collected	12/16/2004
TDH Sample Name	EP4-27500	Date Extracted	12/21/2004
Method	552.2	Date Analyzed	12/23/2004 14:25
Data File Name	12220030.D	Analyst	NGrice
QC File	C:\MSDCHEM\2\DATA\O15P1222\	Dilution Factor	1
Sample Type	Water	Concentration Units	µg/L

Regulated Compounds:	Result:
Monochloroacetic acid	<2.0
Dichloroacetic acid	15.0
Trichloroacetic acid	1.8
Monobromoacetic acid	1.3
<u>Dibromoacetic acid</u>	<u>12.3</u>
Total:	30.4

Monitor Compounds:	
Bromochloroacetic acid	16.5
Dalapon	<1.0

Comments: