

## **Enthalpy Analytical, LLC**

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Client: Water Systems & Supplies

Address: 12802 Knott Street

Garden Grove, CA 92841

Attn: Heidi Ngo

Comments: The Water Brewery #2

1125 Victoria St., Suite A Costa Mesa, CA 92627

License #New



Lab Request: 402268
Report Date: 05/10/2018
Date Received: 05/02/2018

Client ID: 7117

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

Sample # Client Sample ID

402268-004 The Water Brewery #2

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Report Review performed by: Quynhgiao Le, Assistant Project Manager

Xuynhqiao Le

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 60 days from date received.

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Matrix: Drinking Water Client: Water Systems & Supplies Collector: Client

Sampled: 05/02/2018 09:30 Site:

Sample #: 402268-004 Client Sample #: The Water Brewery #2 Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyze		Notes
	od: EPA 3010A							C1190771
Lead	ND	1	5	ug/L	05/03/18	05/03/18	SBW	
·	od: 5030B							C1190807
1,1,1,2-Tetrachloroethane	ND	1	0.5	ug/L		05/04/18	LZ	
1,1,1-Trichloroethane	ND	1	0.5	ug/L		05/04/18	LZ	
1,1,2,2-Tetrachloroethane	ND	1	0.5	ug/L		05/04/18	LZ	
1,1,2-Trichloroethane	ND	1	0.5	ug/L		05/04/18	LZ	
1,1,2-Trichlorotrifluoroethane	ND	1	10	ug/L		05/04/18	LZ	
1,1-Dichloroethane	ND	1	0.5	ug/L		05/04/18	LZ	
1,1-Dichloroethene	ND	1	0.5	ug/L		05/04/18	LZ	
1,1-Dichloropropene	ND	1	0.5	ug/L		05/04/18	LZ	
1,2,3-Trichlorobenzene	ND	1	0.5	ug/L		05/04/18	LZ	
1,2,4-Trichlorobenzene	ND	1	0.5	ug/L		05/04/18	LZ	
1,2,4-Trimethylbenzene	ND	1	0.5	ug/L		05/04/18	LZ	
1,2-Dibromo-3-chloropropane	ND	1	0.5	ug/L		05/04/18	LZ	
1,2-Dibromoethane	ND	1	0.5	ug/L		05/04/18	LZ	
1,2-Dichlorobenzene	ND	1	0.5	ug/L		05/04/18	LZ	
1,2-Dichloroethane	ND	1	0.5	ug/L		05/04/18	LZ	
1,2-Dichloropropane	ND	1	0.5	ug/L		05/04/18	LZ	
1,3,5-Trimethylbenzene	ND	1	0.5	ug/L		05/04/18	LZ	
1,3-Dichlorobenzene	ND	1	0.5	ug/L		05/04/18	LZ	
1,3-Dichloropropane	ND	1	0.5	ug/L		05/04/18	LZ	
1,4-Dichlorobenzene	ND	1	0.5	ug/L		05/04/18	LZ	
2,2-Dichloropropane	ND	<sup>.</sup> 1	0.5	ug/L		05/04/18	LZ	
2-Chlorotoluene	ND	1	0.5	ug/L		05/04/18	LZ	
4-Chlorotoluene	ND	1	0.5	ug/L		05/04/18	LZ	
4-Isopropyltoluene	ND	1	0.5	ug/L		05/04/18	LZ	
Benzene	ND	' 1	0.5	ug/L		05/04/18	LZ	
Bromobenzene	ND	1	0.5	ug/L		05/04/18	LZ	
Bromochloromethane	ND	1	0.5			05/04/18	LZ	
Bromodichloromethane	ND	1	0.5	ug/L ug/L		05/04/18	LZ	
Bromoform		<u>'</u> 1						
	ND ND	1	0.5	ug/L		05/04/18 05/04/18	LZ LZ	
Bromomethane		•	0.5	ug/L				
Carbon Tetrachloride	ND	1	0.5	ug/L		05/04/18	LZ	
Chlorobenzene	ND		0.5	ug/L		05/04/18	LZ	
Chlorodibromomethane	ND	1	0.5	ug/L		05/04/18	LZ	
Chloroethane	ND	1	0.5	ug/L		05/04/18	LZ	
Chloroform	ND	1	0.5	ug/L		05/04/18	LZ	
Chloromethane	ND	1	0.5	ug/L		05/04/18	LZ	
cis-1,2-Dichloroethene	ND	1	0.5	ug/L		05/04/18	LZ	
cis-1,3-dichloropropene	ND	1	0.5	ug/L		05/04/18	LZ	
Dibromomethane	ND	1	0.5	ug/L		05/04/18	LZ	
Dichlorodifluoromethane	ND	1	0.5	ug/L		05/04/18	LZ	
Ethylbenzene	ND	1	0.5	ug/L		05/04/18	LZ	
Hexachlorobutadiene	ND	1	0.5	ug/L		05/04/18	LZ	
Isopropylbenzene	ND	1	0.5	ug/L		05/04/18	LZ	
m and p-Xylene	ND	1	0.5	ug/L		05/04/18	LZ	
Methylene chloride	ND	1	0.5	ug/L		05/04/18	LZ	
Methyl-t-butyl Ether (MTBE)	ND	1	3	ug/L		05/04/18	LZ	
Naphthalene	ND	1	0.5	ug/L		05/04/18	LZ	
N-butylbenzene	ND	1	0.5	ug/L		05/04/18	LZ	
N-propylbenzene	ND	1	0.5	ug/L		05/04/18	LZ	
o-Xylene	ND	1	0.5	ug/L		05/04/18	LZ	
•				J				

Matrix: Drinking Water	Client	: Water	Systems & Supplies	3	Co	ollector: Client			
Sampled: 05/02/2018 09:30	Site	:							
Sample #: 402268-004	Client Sample #	: The Wa	ater Brewery #2		Samp	le Type:			
Analyte		Result	DF	RDL	Units	Prepared	Analyzed	Ву	Notes
Sec-butylbenzene		ND	1	0.5	ug/L		05/04/18	LZ	
Styrene		ND	1	0.5	ug/L		05/04/18	LZ	
Tert-butylbenzene		ND	1	0.5	ug/L		05/04/18	LZ	
Tetrachloroethene		ND	1	0.5	ug/L		05/04/18	LZ	
Toluene		ND	1	0.5	ug/L		05/04/18	LZ	
trans-1,2-dichloroethene		ND	1	0.5	ug/L		05/04/18	LZ	
trans-1,3-dichloropropene		ND	1	0.5	ug/L		05/04/18	LZ	
Trichloroethene		ND	1	0.5	ug/L		05/04/18	LZ	
Trichlorofluoromethane		ND	1	5	ug/L		05/04/18	LZ	
Vinyl Chloride		ND	1	0.5	ug/L		05/04/18	LZ	
Xylenes (Total)		ND	1	0.5	ug/L		05/04/18	LZ	
<u>Surrogate</u>		<u>%</u>	Recovery	<u>Limits</u>	<u>Notes</u>	<u> </u>			
1,2-Dichloroethane-d4 (SUR)			101	70-145					
4-Bromofluorobenzene (SUR)			101	70-145					
Dibromofluoromethane (SUR)			109	70-145					
Toluene-d8 (SUR)			104	70-145					
Method: SM 2540-C	Prep Method: SI	M 2540-C	;				QCBatchID	: Q0	C1190794
Total Dissolved Solids		4.80	0.25	2.5	mg/L	05/03/18	05/03/18	TD	
Method: SM 9223-B-C	Prep Method: M	ethod					QCBatchID	: Q0	C1190836
Coliform, E. Coli	,	Absent	1		P/A	05/02/18 19:00	05/03/18 13:35	CO	
Coliform, Total	A	Absent	1		P/A	05/02/18 19:00	05/03/18 13:35	CO	

Analyst:	sbailey-woo	Method:	EPA 200.8					
Analyzed:	05/03/2018	Instrument:	AAICP (group)	)				
	I	Blank Summa	ry					
	Blank							
	Result	Units		RDL	No	tes		
				1		,		
	NI	O ug/L		5				
ab Conti	rol Spike/ La	b Control Spi	ke Duplicate	Summary	7			
	Spike Amount	Spike Result		Recoveries	ies Limits		its	
	LCS LCSD	LCS LCS	D Units	LCS LCSD	RPD	%Rec	RPD	Notes
<u> </u>								
	50	48.9	ug/L	98		85-115		
Mat	rix Spike/Ma	atrix Spike Du	olicate Sum	mary				
Sample	Spike Amount	Spike Result		Recoveries		Limit	s	
Amount	MS MSD	MS MSE	Units	MS MSD	RPD	%Rec	RPD	Notes
						So	urce:	402268-004
ND	50	52.2	ug/L	104		70-130		
	Analyzed:  Lab Conti	Blank Result  NI  Lab Control Spike/ La  Spike Amount LCS LCSD  50  Matrix Spike/Ma  Sample Spike Amount Amount MS MSD	Analyzed: 05/03/2018 Instrument:  Blank Summai Blank Result Units  ND ug/L  Ab Control Spike/ Lab Control Spi Spike Amount LCS LCSD LCS LCSI  50 48.9  Matrix Spike/Matrix Spike Duj Sample Spike Amount Amount MS MSD MS MSD	Analyzed: 05/03/2018 Instrument: AAICP (group)  Blank Summary  Blank Result Units  ND ug/L  Lab Control Spike/ Lab Control Spike Duplicate  Spike Amount Spike Result LCS LCSD LCS LCSD Units  50 48.9 ug/L  Matrix Spike/Matrix Spike Duplicate Sum Sample Spike Amount Spike Result Amount MS MSD MS MSD Units	Blank Summary	### Analyzed: 05/03/2018   Instrument: AAICP (group)  ### Blank Result Units RDL No.    ND ug/L 5	Blank Summary	Blank Summary   Blank   Result   Units   RDL   Notes   Notes

QCBatchID: QC1190794	Analyst:	tdang	Method:	SM 2540-C					
Matrix: Drinking Water	Analyzed:	05/03/2018	Instrument:	CHEM (group)					
		Bla	ank Summa	ry					
		Blank							
Analyte		Result	Units		RDL	No	otes		
QC1190794MB1			-1	- 1			,		
Total Dissolved Solids		ND	mg/L		10				
	Lab Conti	rol Spike/ Lab	Control Spi	ke Duplicate	e Summary	,			
		Spike Amount	Spike Result		Recoveries		Lim	its	
Analyte		LCS LCSD	LCS LCS	D Units	LCS LCSD	RPD	%Rec	RPD	Notes
QC1190794LCS1		-		-			•	"	
Total Dissolved Solids		3000	2940	mg/L	98		90-110		
		Dup	licate Summ	ary					
		Sample	Duplicate			Lim	its		
Analyte		Amount	Amount	Units	RPD	RP	D	No	tes
QC1190794DUP1	•			'			Sc	ource: 4	02248-001

1360

0.7

5

mg/L

1370

Total Dissolved Solids

QCBatchID: QC1190807 Analyst: lucy Method: EPA 524.2

Matrix:Drinking WaterAnalyzed:05/03/2018Instrument:VOA-MS (group)

	Blank Summary											
	Blank											
Analyte	Result	Units	RDL	Notes								
QC1190807MB1			,									
1,1,1,2-Tetrachloroethane	ND	ug/L	0.5									
1,1,1-Trichloroethane	ND	ug/L	0.5									
1,1,2,2-Tetrachloroethane	ND	ug/L	0.5									
1,1,2-Trichloroethane	ND	ug/L	0.5									
1,1,2-Trichlorotrifluoroethane	ND	ug/L	10									
1,1-Dichloroethane	ND	ug/L	0.5									
1,1-Dichloroethene	ND	ug/L	0.5									
1,1-Dichloropropene	ND	ug/L	0.5									
1,2,3-Trichlorobenzene	ND	ug/L	0.5									
1,2,4-Trichlorobenzene	ND	ug/L	0.5									
1,2,4-Trimethylbenzene	ND	ug/L	0.5									
1,2-Dibromo-3-chloropropane	ND	ug/L	0.5									
1,2-Dibromoethane	ND	ug/L	0.5									
1,2-Dichlorobenzene	ND	ug/L	0.5									
1,2-Dichloroethane	ND	ug/L	0.5									
1,2-Dichloropropane	ND	ug/L	0.5									
1,3,5-Trimethylbenzene	ND	ug/L	0.5									
1,3-Dichlorobenzene	ND	ug/L	0.5									
1,3-Dichloropropane	ND	ug/L	0.5									
1,4-Dichlorobenzene	ND	ug/L	0.5									
2,2-Dichloropropane	ND	ug/L	0.5									
2-Chlorotoluene	ND	ug/L	0.5									
4-Chlorotoluene	ND	ug/L	0.5									
4-Isopropyltoluene	ND	ug/L	0.5									
Benzene	ND	ug/L	0.5									
Bromobenzene	ND	ug/L	0.5									
Bromochloromethane	ND	ug/L	0.5									
Bromodichloromethane	ND	ug/L	0.5									
Bromoform	ND	ug/L	0.5									
Bromomethane	ND	ug/L	0.5									
Carbon Tetrachloride	ND	ug/L	0.5									
Chlorobenzene	ND	ug/L	0.5									
Chlorodibromomethane	ND	ug/L	0.5									
Chloroethane	ND	ug/L	0.5									
Chloroform	ND	ug/L	0.5									
Chloromethane	ND	ug/L	0.5									
cis-1,2-Dichloroethene	ND	ug/L	0.5									
cis-1,3-dichloropropene	ND	ug/L	0.5									
Dibromomethane	ND	ug/L	0.5									
Dichlorodifluoromethane	ND	ug/L	0.5									
Ethylbenzene	ND	ug/L	0.5									
Hexachlorobutadiene	ND	ug/L	0.5									
Isopropylbenzene	ND	ug/L	0.5									
m and p-Xylene	ND	ug/L	0.5									
Methylene chloride	ND	ug/L	0.5									
Methyl-t-butyl Ether (MTBE)	ND	ug/L	3									
Naphthalene	ND	ug/L	0.5									
N-butylbenzene	ND	ug/L	0.5									
N-propylbenzene	ND ND	ug/L	0.5									
o-Xylene	ND	ug/L	0.5									
Sec-butylbenzene	ND	ug/L	0.5									
		~y, ∟										

QCBatchID: QC1190807	Analyst: lucy	Method: EPA 524.2
Matrix: Drinking Water	Analyzed: 05/03/2018	Instrument: VOA-MS (group)
	Plank	

	Blank				
Analyte	Result	Units	RDL	Notes	
QC1190807MB1	<u> </u>				
Styrene	ND	ug/L	0.5		
Tert-butylbenzene	ND	ug/L	0.5		
Tetrachloroethene	ND	ug/L	0.5		
Toluene	ND	ug/L	0.5		
trans-1,2-dichloroethene	ND	ug/L	0.5		
trans-1,3-dichloropropene	ND	ug/L	0.5		
Trichloroethene	ND	ug/L	0.5		
Trichlorofluoromethane	ND	ug/L	5		
Vinyl Chloride	ND	ug/L	0.5		
Xylenes (Total)	ND	ug/L	0.5		

L	Lab Control Spike/ Lab Control Spike Duplicate Summary												
	Spike Amount	Spike Result		Recoveries		Limits	S						
Analyte	LCS LCSD	LCS LCSD	Units	LCS LCSD	RPD	%Rec	RPD	Notes					
QC1190807LCS1	•	•	•				,						
1,1-Dichloroethene	50	41	ug/L	82		59-172							
Benzene	50	44	ug/L	88		62-137							
Chlorobenzene	50	46	ug/L	92		60-133							
Methyl-t-butyl Ether (MTBE)	50	41	ug/L	82		62-137							
Toluene	50	45	ug/L	90		59-139							
Trichloroethene	50	45	ug/L	90		66-142							

	Mat	trix Sp	ike/Matı	rix Spil	ke Dupli	cate Sun	nmary					
	Sample Spike Amount		Spike Result F		Reco	Recoveries		Limits				
Analyte	Amount	MS	MSD	MS	MSD	Units	MS	MSD	RPD	%Rec	RPD	Notes
QC1190807MS1									•	S	ource:	402254-002
1,1-Dichloroethene	ND	50		43		ug/L	86			59-172		
Benzene	ND	50		45		ug/L	90			62-137		
Chlorobenzene	ND	50		49		ug/L	98			60-133		
Methyl-t-butyl Ether (MTBE)	ND	50		42		ug/L	84			62-137		
Toluene	ND	50		46		ug/L	92			59-139		
Trichloroethene	ND	50		46		ug/L	92			66-142		

## **Data Qualifiers and Definitions**

## **Qualifiers**

See Report Comments.

В Analyte was present in an associated method blank.

**B1** Analyte was present in a sample and associated method blank greater than MDL but less than RDL.

BQ1 No valid test replicates. Sample Toxicity is possible. Best result was reported.

BQ2 No valid test replicates.

BQ3 No valid test replicates. Final DO is less than 1.0 mg/L. Result may be greater.

BQ4 Minor Dissolved Oxygen loss was observed in the blank water check, however, the LCS was within criteria, validating the batch.

С Possible laboratory contamination.

D RPD was not within control limits. The sample data was reported without further clarification.

D1 Lesser amount of sample was used due to insufficient amount of sample supplied.

D<sub>2</sub> Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit. D3 Insufficient sample was supplied for TCLP. Client was notified. TCLP was performed per the Client's instructions.

DW Sample result is calculated on a dry weigh basis.

Concentration is estimated because it exceeds the quantification limits of the method. Ε

ı The sample was read outside of the method required incubation period.

J Reported value is estimated

The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample

data was reported with qualifier.

The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated М

LCS and/or LCSD was within control limits and the sample data was reported without further clarification.

М1 The matrix spike (MS) or matrix spike duplicate (MSD) is not within control limits due to matrix interference.

The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits. The associated LCS and/or LCSD was not **M2** 

within control limits. Sample result is estimated.

Sample chromatography does not match the specified TPH standard pattern. N1

The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not NC

apply.

P Sample was received without proper preservation according to EPA guidelines.

Р1 Temperature of sample storage refrigerator was out of acceptance limits.

P2 The sample was preserved within 24 hours of collection in accordance with EPA 218.6.

**P3** Per Client request, sample was composited for volatile analysis. Sample compositing for volatile analysis is not recommended

due to potential loss of target analytes. Results may be biased low.

Analyte Calibration Verification exceeds criteria. The result is estimated. Analyte calibration was not verified and the result was estimated. Q2

Q3 Analyte initial calibration was not available or exceeds criteria. The result was estimated.

S The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery

was within control limits and the sample data was reported without further clarification.

S1 The associated surrogate recovery was out of control limits; result is estimated.

**S2** The surrogate was diluted out due to the presence of high concentrations of target and/or non-target compounds. Surrogate

recoveries in the associated batch QC met recovery criteria.

**S3** Internal Standard did not meet recovery limits. Analyte concentration is estimated.

т Sample was extracted/analyzed past the holding time.

**T1** Reanalysis was reported past hold time due to failing replicates in the original analysis (BOD only).

T2 Sample was analyzed ASAP but received and analyzed past the 15 minute holding time.

**T3** Sample received and analyzed out of hold time per client's request.

**T4** Sample was analyzed out of hold time per client's request.

**T5** Reanalysis was reported past hold time. The original analysis was within hold time, but not reportable.

**T6** Hold time is indeterminable due to unspecified sampling time.

**T7** Sample was analyzed past hold time due to insufficient time remaining at time of receipt.

## **Definitions**

Q1

DF **Dilution Factor** 

MDL Method Detection Limit. Result is reported ND when it is less than or equal to MDL.

ND Analyte was not detected or was less than the detection limit.

NR Not Reported. See Report Comments.

**RDL** Reporting Detection Limit

TIC **Tentatively Identified Compounds** 

