

LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call the City of Fountain Water Department at (719) 322-2072

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STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Missouri	880
Alaska	IN00035	Montana	CERT0026
Arizona	AZ0432	Nebraska	NE-OS-05-04
Arkansas	IN00035	Nevada	IN00035
California	2920	New Hampshire*	2124
Colorado	IN00035	New Jersey*	IN598
Colorado Radiochemistry	IN00035	New Mexico	IN00035
Connecticut	PH-0132	New York*	11398
Delaware	IN035	North Carolina	18700
Florida*	E87775	North Dakota	R-035
Georgia	929	Ohio	87775
Hawaii	IN035	Oklahoma	D9508
Idaho	IN00035	Oregon (Primary AB)*	4074
Illinois*	200001	Pennsylvania*	68-00466
Illinois Microbiology	17767	Puerto Rico	IN00035
Illinois Radiochemistry	IN00035	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-18-12
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA014	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
EPA	IN00035		

*NELAP/TNI Recognized Accreditation Bodies

Laboratory Report

Client: City of Fountain
Attn: Jasson Palmer
116 South Main
Fountain, CO 80817

Report: 484100
Priority: Standard Written
Status: Final
PWS ID: CO0121275

Sample Information					
EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
4614331	Aga S1	537.1	04/23/20 14:00	Client	04/24/20 07:50
4614332	Aga S2	537.1	04/23/20 14:02	Client	04/24/20 07:50
4614333	Aga S3	537.1	04/23/20 14:04	Client	04/24/20 07:50
4614334	Aga N4	537.1	04/23/20 14:06	Client	04/24/20 07:50
4614335	Aga Raw	537.1	04/23/20 14:08	Client	04/24/20 07:50
4614336	Well3 E1	537.1	04/23/20 14:15	Client	04/24/20 07:50
4614337	Well3 E2	537.1	04/23/20 14:17	Client	04/24/20 07:50
4614338	Well3 E4	537.1	04/23/20 14:19	Client	04/24/20 07:50
4614339	Well3 W4	537.1	04/23/20 14:21	Client	04/24/20 07:50
4614340	Well3 Raw	537.1	04/23/20 14:23	Client	04/24/20 07:50

Report Summary

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

Note: This report may not be reproduced, except in full, without written approval from EEA.

Kelly Blackburn ASM

Authorized Signature

Title

05/08/2020

Date

Client Name: City of Fountain

Report #: 484100

Client Name: City of Fountain

Report #: 484100

Sampling Point: Aga S1

PWS ID: CO0121275

EEA Methods									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
335-67-1	Perfluorooctanoic acid (PFOA)	537.1	---	2.0	4.3	ng/L	05/04/20 08:10	05/05/20 05:42	4614331
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	537.1	---	2.0	2.7	ng/L	05/04/20 08:10	05/05/20 05:42	4614331
375-73-5	Perfluorobutanesulfonic acid (PFBS)	537.1	---	2.0	5.5	ng/L	05/04/20 08:10	05/05/20 05:42	4614331
375-85-9	Perfluoroheptanoic acid (PFHpA)	537.1	---	2.0	< 2.0	ng/L	05/04/20 08:10	05/05/20 05:42	4614331
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	537.1	---	2.0	4.9	ng/L	05/04/20 08:10	05/05/20 05:42	4614331
375-95-1	Perfluorononanoic acid (PFNA)	537.1	---	2.0	< 2.0	ng/L	05/04/20 08:10	05/05/20 05:42	4614331

Sampling Point: Aga S2

PWS ID: CO0121275

EEA Methods									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
335-67-1	Perfluorooctanoic acid (PFOA)	537.1	---	2.0	< 2.0	ng/L	05/04/20 08:10	05/05/20 06:08	4614332
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	537.1	---	2.0	< 2.0	ng/L	05/04/20 08:10	05/05/20 06:08	4614332
375-73-5	Perfluorobutanesulfonic acid (PFBS)	537.1	---	2.0	< 2.0	ng/L	05/04/20 08:10	05/05/20 06:08	4614332
375-85-9	Perfluoroheptanoic acid (PFHpA)	537.1	---	2.0	< 2.0	ng/L	05/04/20 08:10	05/05/20 06:08	4614332
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	537.1	---	2.0	< 2.0	ng/L	05/04/20 08:10	05/05/20 06:08	4614332
375-95-1	Perfluorononanoic acid (PFNA)	537.1	---	2.0	< 2.0	ng/L	05/04/20 08:10	05/05/20 06:08	4614332

Sampling Point: Aga S3

PWS ID: CO0121275

EEA Methods									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
335-67-1	Perfluorooctanoic acid (PFOA)	537.1	---	2.0	< 2.0	ng/L	05/04/20 08:10	05/05/20 06:21	4614333
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	537.1	---	2.0	< 2.0	ng/L	05/04/20 08:10	05/05/20 06:21	4614333
375-73-5	Perfluorobutanesulfonic acid (PFBS)	537.1	---	2.0	< 2.0	ng/L	05/04/20 08:10	05/05/20 06:21	4614333
375-85-9	Perfluoroheptanoic acid (PFHpA)	537.1	---	2.0	< 2.0	ng/L	05/04/20 08:10	05/05/20 06:21	4614333
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	537.1	---	2.0	< 2.0	ng/L	05/04/20 08:10	05/05/20 06:21	4614333
375-95-1	Perfluorononanoic acid (PFNA)	537.1	---	2.0	< 2.0	ng/L	05/04/20 08:10	05/05/20 06:21	4614333

Client Name: City of Fountain

Report #: 484100

Sampling Point: Aga N4

PWS ID: CO0121275

EEA Methods									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
335-67-1	Perfluorooctanoic acid (PFOA)	537.1	---	2.0	< 2.0	ng/L	05/04/20 08:10	05/05/20 06:34	4614334
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	537.1	---	2.0	< 2.0	ng/L	05/04/20 08:10	05/05/20 06:34	4614334
375-73-5	Perfluorobutanesulfonic acid (PFBS)	537.1	---	2.0	< 2.0	ng/L	05/04/20 08:10	05/05/20 06:34	4614334
375-85-9	Perfluoroheptanoic acid (PFHpA)	537.1	---	2.0	< 2.0	ng/L	05/04/20 08:10	05/05/20 06:34	4614334
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	537.1	---	2.0	< 2.0	ng/L	05/04/20 08:10	05/05/20 06:34	4614334
375-95-1	Perfluorononanoic acid (PFNA)	537.1	---	2.0	< 2.0	ng/L	05/04/20 08:10	05/05/20 06:34	4614334

Sampling Point: Aga Raw

PWS ID: CO0121275

EEA Methods									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
335-67-1	Perfluorooctanoic acid (PFOA)	537.1	---	2.0	25	ng/L	05/04/20 08:10	05/05/20 06:48	4614335
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	537.1	---	2.0	29	ng/L	05/04/20 08:10	05/05/20 06:48	4614335
375-73-5	Perfluorobutanesulfonic acid (PFBS)	537.1	---	2.0	33	ng/L	05/04/20 08:10	05/05/20 06:48	4614335
375-85-9	Perfluoroheptanoic acid (PFHpA)	537.1	---	2.0	8.3	ng/L	05/04/20 08:10	05/05/20 06:48	4614335
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	537.1	---	2.0	44	ng/L	05/04/20 08:10	05/05/20 06:48	4614335
375-95-1	Perfluorononanoic acid (PFNA)	537.1	---	2.0	< 2.0	ng/L	05/04/20 08:10	05/05/20 06:48	4614335

Sampling Point: Well3 E1

PWS ID: CO0121275

EEA Methods									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
335-67-1	Perfluorooctanoic acid (PFOA)	537.1	---	2.0	< 2.0	ng/L	05/05/20 08:20	05/05/20 22:25	4614336
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	537.1	---	2.0	< 2.0	ng/L	05/05/20 08:20	05/05/20 22:25	4614336
375-73-5	Perfluorobutanesulfonic acid (PFBS)	537.1	---	2.0	< 2.0	ng/L	05/05/20 08:20	05/05/20 22:25	4614336
375-85-9	Perfluoroheptanoic acid (PFHpA)	537.1	---	2.0	< 2.0	ng/L	05/05/20 08:20	05/05/20 22:25	4614336
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	537.1	---	2.0	< 2.0	ng/L	05/05/20 08:20	05/05/20 22:25	4614336
375-95-1	Perfluorononanoic acid (PFNA)	537.1	---	2.0	< 2.0	ng/L	05/05/20 08:20	05/05/20 22:25	4614336

Client Name: City of Fountain

Report #: 484100

Sampling Point: Well3 E2

PWS ID: CO0121275

EEA Methods									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
335-67-1	Perfluorooctanoic acid (PFOA)	537.1	---	2.0	< 2.0	ng/L	05/05/20 08:20	05/05/20 22:51	4614337
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	537.1	---	2.0	< 2.0	ng/L	05/05/20 08:20	05/05/20 22:51	4614337
375-73-5	Perfluorobutanesulfonic acid (PFBS)	537.1	---	2.0	< 2.0	ng/L	05/05/20 08:20	05/05/20 22:51	4614337
375-85-9	Perfluoroheptanoic acid (PFHpA)	537.1	---	2.0	< 2.0	ng/L	05/05/20 08:20	05/05/20 22:51	4614337
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	537.1	---	2.0	< 2.0	ng/L	05/05/20 08:20	05/05/20 22:51	4614337
375-95-1	Perfluorononanoic acid (PFNA)	537.1	---	2.0	< 2.0	ng/L	05/05/20 08:20	05/05/20 22:51	4614337

Sampling Point: Well3 E4

PWS ID: CO0121275

EEA Methods									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
335-67-1	Perfluorooctanoic acid (PFOA)	537.1	---	2.0	< 2.0	ng/L	05/05/20 08:20	05/05/20 23:04	4614338
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	537.1	---	2.0	< 2.0	ng/L	05/05/20 08:20	05/05/20 23:04	4614338
375-73-5	Perfluorobutanesulfonic acid (PFBS)	537.1	---	2.0	< 2.0	ng/L	05/05/20 08:20	05/05/20 23:04	4614338
375-85-9	Perfluoroheptanoic acid (PFHpA)	537.1	---	2.0	< 2.0	ng/L	05/05/20 08:20	05/05/20 23:04	4614338
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	537.1	---	2.0	< 2.0	ng/L	05/05/20 08:20	05/05/20 23:04	4614338
375-95-1	Perfluorononanoic acid (PFNA)	537.1	---	2.0	< 2.0	ng/L	05/05/20 08:20	05/05/20 23:04	4614338

Sampling Point: Well3 W4

PWS ID: CO0121275

EEA Methods									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
335-67-1	Perfluorooctanoic acid (PFOA)	537.1	---	2.0	2.6	ng/L	05/05/20 08:20	05/05/20 23:17	4614339
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	537.1	---	2.0	2.4	ng/L	05/05/20 08:20	05/05/20 23:17	4614339
375-73-5	Perfluorobutanesulfonic acid (PFBS)	537.1	---	2.0	6.1	ng/L	05/05/20 08:20	05/05/20 23:17	4614339
375-85-9	Perfluoroheptanoic acid (PFHpA)	537.1	---	2.0	< 2.0	ng/L	05/05/20 08:20	05/05/20 23:17	4614339
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	537.1	---	2.0	5.5	ng/L	05/05/20 08:20	05/05/20 23:17	4614339
375-95-1	Perfluorononanoic acid (PFNA)	537.1	---	2.0	< 2.0	ng/L	05/05/20 08:20	05/05/20 23:17	4614339

Client Name: City of Fountain

Report #: 484100

Sampling Point: Well3 Raw

PWS ID: CO0121275

EEA Methods									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
335-67-1	Perfluorooctanoic acid (PFOA)	537.1	---	2.0	14	ng/L	05/05/20 08:20	05/05/20 23:44	4614340
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	537.1	---	2.0	27	ng/L	05/05/20 08:20	05/05/20 23:44	4614340
375-73-5	Perfluorobutanesulfonic acid (PFBS)	537.1	---	2.0	16	ng/L	05/05/20 08:20	05/05/20 23:44	4614340
375-85-9	Perfluoroheptanoic acid (PFHpA)	537.1	---	2.0	6.5	ng/L	05/05/20 08:20	05/05/20 23:44	4614340
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	537.1	---	2.0	37	ng/L	05/05/20 08:20	05/05/20 23:44	4614340
375-95-1	Perfluorononanoic acid (PFNA)	537.1	---	2.0	< 2.0	ng/L	05/05/20 08:20	05/05/20 23:44	4614340

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

Lab Definitions

Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC) - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

Internal Standards (IS) - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

Laboratory Duplicate (LD) - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS) - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB) - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB) - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

If applicable, the calculation of the matrix spike (MS) or matrix spike duplicate (MSD) percent recovery is as follows: $(\text{MS or MSD value} - \text{Sample value}) \times 100 / \text{spike target} / \text{dilution factor} = \text{Recovery \%}$

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD) - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM) - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV) - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS) - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

Surrogate Standard (SS) / Surrogate Analyte (SUR) - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.

CHAIN OF CUSTODY RECORD

Shaded area for EEA use only

REPORT TO: <i>Justin Moore</i> <i>(719) 322-2073</i>				SAMPLER (Signature) <i>[Signature]</i>				PWS ID # <i>@ 012125</i>	STATE (sample origin) <i>Colorado</i>	PROJECT NAME <i>Weekly PFC</i>	PO#	# OF CONTAINERS	MATRIX CODE	TURNAROUND TIME	
BILL TO: <i>116 S. Main St</i> <i>Fountain CO 80817</i>				COMPLIANCE MONITORING		Yes	No	POPULATION SERVED <i>27,000</i>	SOURCE WATER <i>well 13 & Aja Peds</i>						
LAB Number		COLLECTION		SAMPLING SITE				TEST NAME		SAMPLE REMARKS	CHLORINATED				
		DATE	TIME	AM	PM						YES	NO			
1	<i>4614 331</i>	<i>4-23-2020</i>	<i>200</i>		<i>X</i>	<i>Aja S1</i>				<i>PFC</i>		<i>X</i>	<i>2</i>	<i>DL</i>	<i>SW</i>
2	<i>332</i>		<i>202</i>		<i>X</i>	<i>Aja S2</i>						<i>X</i>	<i>2</i>	<i>DL</i>	<i>SW</i>
3	<i>333</i>		<i>204</i>		<i>X</i>	<i>Aja S3</i>						<i>X</i>	<i>2</i>	<i>DL</i>	<i>SW</i>
4	<i>334</i>		<i>206</i>		<i>X</i>	<i>Aja N4</i>						<i>X</i>	<i>2</i>	<i>DL</i>	<i>SW</i>
5	<i>335</i>		<i>208</i>		<i>X</i>	<i>Aja RAW</i>						<i>X</i>	<i>2</i>	<i>DL</i>	<i>SW</i>
6	<i>336</i>		<i>215</i>		<i>X</i>	<i>Well 13 E1</i>						<i>X</i>	<i>2</i>	<i>DL</i>	<i>SW</i>
7	<i>337</i>		<i>217</i>		<i>X</i>	<i>Well 13 E2</i>						<i>X</i>	<i>2</i>	<i>DL</i>	<i>SW</i>
8	<i>338</i>		<i>219</i>		<i>X</i>	<i>Well 13 E4</i>						<i>X</i>	<i>2</i>	<i>DL</i>	<i>SW</i>
9	<i>339</i>		<i>221</i>		<i>X</i>	<i>Well 13 W4</i>						<i>X</i>	<i>2</i>	<i>DL</i>	<i>SW</i>
10	<i>340</i>		<i>223</i>		<i>X</i>	<i>Well 13 RAW</i>						<i>X</i>	<i>2</i>	<i>DL</i>	<i>SW</i>
11															
12															
13															
14															

RELINQUISHED BY: (Signature) <i>[Signature]</i>	DATE <i>4-23-2020</i>	TIME <i>2:40</i>	RECEIVED BY: (Signature)	DATE	TIME	LAB RESERVES THE RIGHT TO RETURN UNUSED PORTIONS OF NON-AQUEOUS SAMPLES TO CLIENT LAB COMMENTS <i>Client used white-out on COC</i>
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME	
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED FOR LABORATORY BY:	DATE	TIME	
			<i>[Signature]</i>	<i>4-24-2020</i>	<i>0750</i>	CONDITIONS UPON RECEIPT (check one): <input checked="" type="checkbox"/> Iced/Wet/Blue <input type="checkbox"/> Ambient <i>1.6</i> °C Upon Receipt <i>N/A</i>

MATRIX CODES:

DW-DRINKING WATER
RW-REAGENT WATER
GW-GROUND WATER
EW-EXPOSURE WATER
SW-SURFACE WATER
PW-POOL WATER
WW-WASTE WATER

TURN-AROUND TIME (TAT) - SURCHARGES

SW = Standard Written: (15 working days) 0%
RV* = Rush Verbal: (5 working days) 50%
RW* = Rush Written: (5 working days) 75%

IV* = Immediate Verbal: (3 working days) 100%
IW* = Immediate Written: (3 working days) 125%
SP* = Weekend, Holiday CALL
STAT* = Less than 48 hours CALL

* Please call, expedited service not available for all testing