

Daily Analysis Runlog For Sequence/QC Batch ID # LB92393

Review By		Review On				
SubDirectory		LB92393		Test : Anions		
STD. NAME		STD REF.#				
ICAL Standard		WP60207,WP60208,WP60209,WP60210,WP60211,WP60212,WP60213				
ICV Standard		WP60214				
CCV Standard		WP60581				
ICSA Standard		N/A				
CRI Standard		N/A				
LCS Standard		WP60582				
Chk Standard		WP60017,WP60019				
Sr#	SampleId	ClientID	QcType	Date	Comment	Status
1	STD1	STD1	CAL1	12/08/17 10:06		OK
2	STD2	STD2	CAL2	12/08/17 10:49		OK
3	STD3	STD3	CAL3	12/08/17 11:20		OK
4	STD4	STD4	CAL4	12/08/17 11:51		OK
5	STD5	STD5	CAL5	12/08/17 12:22		OK
6	STD6	STD6	CAL6	12/08/17 12:53		OK
7	STD7	STD7	CAL7	12/08/17 13:23		OK
8	ICV1	ICV1	ICV	12/08/17 13:54		OK
9	ICB1	ICB1	ICB	12/08/17 14:47		OK
10	CCV1	CCV1	CCV	12/27/17 10:51		OK
11	CCB1	CCB1	CCB	12/27/17 11:37		OK
12	LB92393BLW	LB92393BLW	MB	12/27/17 12:07		OK
13	LB92393BSW	LB92393BSW	LCS	12/27/17 12:37		OK
14	I7080-01	CELL-A	SAM	12/27/17 13:11		OK
15	I7080-02	CELLS-B-C	SAM	12/27/17 13:41		OK
16	I7080-03	CELL-D	SAM	12/27/17 14:11		OK
17	I7080-03DUP	CELL-DDUP	DUP	12/27/17 14:41		OK
18	I7080-03MS	CELL-DMS	MS	12/27/17 15:11		OK
19	CCV2	CCV2	CCV	12/27/17 15:41		OK
20	CCB2	CCB2	CCB	12/27/17 16:11		OK



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Report of Analysis

Client:		Date Collected:	12/20/2017 12:00:00 AM
Project:	LB92393	Date Received:	12/27/2017 12:00:00 AM
Client Sample ID:	CELL-A	SDG No.:	LB92393
Lab Sample ID:	I7080-01	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
	Bromide	0	U	1	0.066		0.5	mg/L		12/27/2017	300.0
	Chloride	0	U	1	0.075		0.15	mg/L		12/27/2017	300.0
	Fluoride	0	U	1	0.043		0.1	mg/L		12/27/2017	300.0
	Nitrate	0	U	1	0.027		0.13	mg/L		12/27/2017	300.0
	Nitrite	0	U	1	0.022		0.15	mg/L		12/27/2017	300.0
	Phosphorus, Ortho	0	U	1	0.01		0.25	mg/L		12/27/2017	300.0
	Sulfate	0	U	1	0.13		0.75	mg/L		12/27/2017	300.0



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Report of Analysis

Client:		Date Collected:	12/20/2017 12:00:00 AM
Project:	LB92393	Date Received:	12/27/2017 12:00:00 AM
Client Sample ID:	CELLS-B-C	SDG No.:	LB92393
Lab Sample ID:	I7080-02	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
	Bromide	0	U	1	0.066		0.5	mg/L		12/27/2017	300.0
	Chloride	0	U	1	0.075		0.15	mg/L		12/27/2017	300.0
	Fluoride	0	U	1	0.043		0.1	mg/L		12/27/2017	300.0
	Nitrate	0	U	1	0.027		0.13	mg/L		12/27/2017	300.0
	Nitrite	0	U	1	0.022		0.15	mg/L		12/27/2017	300.0
	Phosphorus, Ortho	0	U	1	0.01		0.25	mg/L		12/27/2017	300.0
	Sulfate	0	U	1	0.13		0.75	mg/L		12/27/2017	300.0



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Report of Analysis

Client:		Date Collected:	12/20/2017 12:00:00 AM
Project:	LB92393	Date Received:	12/27/2017 12:00:00 AM
Client Sample ID:	CELL-D	SDG No.:	LB92393
Lab Sample ID:	I7080-03	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
	Bromide	0	U	1	0.066		0.5	mg/L		12/27/2017	300.0
	Chloride	0.2		1	0.075		0.15	mg/L		12/27/2017	300.0
	Fluoride	0	U	1	0.043		0.1	mg/L		12/27/2017	300.0
	Nitrate	0	U	1	0.027		0.13	mg/L		12/27/2017	300.0
	Nitrite	0	U	1	0.022		0.15	mg/L		12/27/2017	300.0
	Phosphorus, Ortho	0	U	1	0.01		0.25	mg/L		12/27/2017	300.0
	Sulfate	0	U	1	0.13		0.75	mg/L		12/27/2017	300.0



Report of Analysis

Client:		Date Collected:	12/20/2017 12:00:00 AM
Project:	LB92393	Date Received:	12/27/2017 12:00:00 AM
Client Sample ID:	CELL-D	SDG No.:	LB92393
Lab Sample ID:	I7080-03	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
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Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N = Spiked sample recovery not within control limits



GENCHEM

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB92393

SDG No.: LB92393

Contract: _____ Lab Code: CHEM

Case No.: LB92393

SAS No.: LB92393

Initial Calibration Source: _____

Continuing Calibration Source: _____

Sample ID	Analyte	Result mg/L	True Value	% Recovery	% RSD	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV1	Bromide	9.6	10	96	0	90 - 110		12/08/2017	13:54	lb92393
	Chloride	2.9	3	96.7	0	90 - 110		12/08/2017	13:54	lb92393
	Fluoride	1.8	2	90	0	90 - 110		12/08/2017	13:54	lb92393
	Phosphorus, Ortho	5.4	5	108	0	90 - 110		12/08/2017	13:54	lb92393
	Nitrite	2.9	3	96.7	0	90 - 110		12/08/2017	13:54	lb92393
	Nitrate	2.4	2.5	96	0	90 - 110		12/08/2017	13:54	lb92393
	Sulfate	14.1	15	94	0	90 - 110		12/08/2017	13:54	lb92393



GENCHEM

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB92393

SDG No.: LB92393

Contract: _____ Lab Code: CHEM

Case No.: LB92393

SAS No.: LB92393

Initial Calibration Source: _____

Continuing Calibration Source: _____

Sample ID	Analyte	Result mg/L	True Value	% Recovery	% RSD	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV1	Bromide	9.4	10	94	0	90 - 110		12/27/2017	10:51	lb92393
	Chloride	2.8	3	93.3	0	90 - 110		12/27/2017	10:51	lb92393
	Fluoride	2.1	2	105	0	90 - 110		12/27/2017	10:51	lb92393
	Phosphorus, Ortho	5.5	5	110	0	90 - 110		12/27/2017	10:51	lb92393
	Nitrite	2.8	3	93.3	0	90 - 110		12/27/2017	10:51	lb92393
	Nitrate	2.3	2.5	92	0	90 - 110		12/27/2017	10:51	lb92393
	Sulfate	15	15	100	0	90 - 110		12/27/2017	10:51	lb92393
CCV2	Bromide	9.6	10	96	0	90 - 110		12/27/2017	15:41	lb92393
	Chloride	2.9	3	96.7	0	90 - 110		12/27/2017	15:41	lb92393
	Fluoride	2.1	2	105	0	90 - 110		12/27/2017	15:41	lb92393
	Phosphorus, Ortho	5.7	5	114	0	90 - 110		12/27/2017	15:41	lb92393
	Nitrite	2.9	3	96.7	0	90 - 110		12/27/2017	15:41	lb92393
	Nitrate	2.4	2.5	96	0	90 - 110		12/27/2017	15:41	lb92393
	Sulfate	15	15	100	0	90 - 110		12/27/2017	15:41	lb92393



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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB92393

SDG No.: LB92393

Contract: Lab Code: CHEM

Case No.: LB92393

SAS No.: LB92393

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB1	Bromide	0.066	+/-0.5	U		0.5		12/08/2017	14:47	lb92393
	Chloride	0.075	+/-0.15	U		0.15		12/08/2017	14:47	lb92393
	Fluoride	0.043	+/-0.1	U		0.1		12/08/2017	14:47	lb92393
	Phosphorus, Ortho	0.01	+/-0.25	U		0.25		12/08/2017	14:47	lb92393
	Nitrite	0.022	+/-0.15	U		0.15		12/08/2017	14:47	lb92393
	Nitrate	0.027	+/-0.13	U		0.13		12/08/2017	14:47	lb92393
	Sulfate	0.13	+/-0.75	U		0.75		12/08/2017	14:47	lb92393



GENCHEM

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB92393

SDG No.: LB92393

Contract:

Lab Code: CHEM

Case No.: LB92393

SAS No.: LB92393

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB1	Bromide	0.066	+/-0.5	U		0.5		12/27/2017	11:37	lb92393
	Chloride	0.075	+/-0.15	U		0.15		12/27/2017	11:37	lb92393
	Fluoride	0.043	+/-0.1	U		0.1		12/27/2017	11:37	lb92393
	Phosphorus, Ortho	0.01	+/-0.25	U		0.25		12/27/2017	11:37	lb92393
	Nitrite	0.022	+/-0.15	U		0.15		12/27/2017	11:37	lb92393
	Nitrate	0.027	+/-0.13	U		0.13		12/27/2017	11:37	lb92393
	Sulfate	0.13	+/-0.75	U		0.75		12/27/2017	11:37	lb92393
CCB2	Bromide	0.066	+/-0.5	U		0.5		12/27/2017	16:11	lb92393
	Chloride	0.075	+/-0.15	U		0.15		12/27/2017	16:11	lb92393
	Fluoride	0.043	+/-0.1	U		0.1		12/27/2017	16:11	lb92393
	Phosphorus, Ortho	0.01	+/-0.25	U		0.25		12/27/2017	16:11	lb92393
	Nitrite	0.022	+/-0.15	U		0.15		12/27/2017	16:11	lb92393
	Nitrate	0.027	+/-0.13	U		0.13		12/27/2017	16:11	lb92393
	Sulfate	0.13	+/-0.75	U		0.75		12/27/2017	16:11	lb92393



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- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB92393

SDG No.: LB92393

Contract: Lab Code: CHEM

Case No.: LB92393

SAS No.: LB92393

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
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PREPARATION BLANK SUMMARY

Client: LB92393

SDG No.: LB92393

Instrument: IC-1

Sample ID	Analyte	Result (mg/L)	Acceptance Limit	Conc Qual	LOD mg/L	CRQL mg/L	M	Analysis Date	Analysis Time	Run
LB92393BLW		WATER		Batch Number:				Prep Date:		
	Bromide	0.066	<0.5	U		0.5		12/27/2017	12:07	lb92393
	Chloride	0.075	<0.15	U		0.15		12/27/2017	12:07	lb92393
	Fluoride	0.043	<0.1	U		0.1		12/27/2017	12:07	lb92393
	Phosphorus, Ortho	0.01	<0.25	U		0.25		12/27/2017	12:07	lb92393
	Nitrite	0.022	<0.15	U		0.15		12/27/2017	12:07	lb92393
	Nitrate	0.027	<0.13	U		0.13		12/27/2017	12:07	lb92393
	Sulfate	0.13	<0.75	U		0.75		12/27/2017	12:07	lb92393



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MATRIX SPIKE SUMMARY

client: LB92393 level: low sdg no.: LB92393
contract: _____ lab code: CHEM case no.: LB92393 sas no.: LB92393
matrix: WATER sample id: I7080-03 client id: CELL-DMS
Percent Solids for Sample: 0 Spiked ID: I7080-03MS Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Bromide	mg/L	80 - 120	9.7		0.066	U	10	97		
Chloride	mg/L	80 - 120	3		0.2		3	93		
Fluoride	mg/L	80 - 120	1.8		0.043	U	2	90		
Phosphorus, Ortho	mg/L	80 - 120	5.4		0.01	U	5	108		
Nitrite	mg/L	80 - 120	2.9		0.022	U	3	96.7		
Nitrate	mg/L	80 - 120	2.4		0.027	U	2.5	96		
Sulfate	mg/L	80 - 120	14.4		0.13	U	15	96		

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DUPLICATE SAMPLE SUMMARY

Client: LB92393 **Level:** LOW **SDG No.:** LB92393
Contract: **Lab Code:** CHEM **Case No.:** LB92393 **SAS No.:** LB92393
Matrix: WATER **Sample ID:** I7080-03 **Client ID:** CELL-DDUP
Percent Solids for Sample: 0 **Duplicate ID** I7080-03DUP **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Bromide	mg/L	20	0.066	U	0	U			
Chloride	mg/L	20	0.2		0.18		11		
Fluoride	mg/L	20	0.043	U	0	U			
Phosphorus, Ortho	mg/L	20	0.01	U	0	U			
Nitrite	mg/L	20	0.022	U	0	U			
Nitrate	mg/L	20	0.027	U	0	U			
Sulfate	mg/L	20	0.13	U	0	U			



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LABORATORY CONTROL SAMPLE SUMMARY

Client: LB92393

SDG No.: LB92393

Contract:

Lab Code: CHEM

Case No.: LB92393

SAS No.: LB92393

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
LB92393BSW							
Bromide	mg/L	10	9.4		94	90 - 110	
Chloride	mg/L	3	2.8		93.3	90 - 110	
Fluoride	mg/L	2	2		100	90 - 110	
Phosphorus, Ortho	mg/L	5	5.6		112	90 - 110	
Nitrite	mg/L	3	2.8		93.3	90 - 110	
Nitrate	mg/L	2.5	2.3		92	90 - 110	
Sulfate	mg/L	15	13.9		92.7	90 - 110	
