

Daily Analysis Runlog For Sequence/QC Batch ID # LB93719

Review By

SubDirectory

Review On

Test :

LB93719

Anions

STD. NAME		STD REF.#				
ICAL Standard		WP62070,WP62071,WP62072,WP62073,WP62074,WP62075,WP62076				
ICV Standard		WP62077				
CCV Standard		wp62538				
ICSA Standard		N/A				
CRI Standard		N/A				
LCS Standard		wp62539				
Chk Standard		wp62457,wp62459				

Sr#	SampleId	ClientID	QcType	Date	Comment	Status
1	STD1	STD1	CAL1	02/19/18 11:21		OK
2	STD2	STD2	CAL2	02/19/18 11:52		OK
3	STD3	STD3	CAL3	02/19/18 12:23		OK
4	STD4	STD4	CAL4	02/19/18 12:54		OK
5	STD5	STD5	CAL5	02/19/18 13:25		OK
6	STD6	STD6	CAL6	02/19/18 13:56		OK
7	STD7	STD7	CAL7	02/19/18 14:27		OK
8	ICV1	ICV1	ICV	02/20/18 10:46		OK
9	ICB1	ICB1	ICB	02/20/18 11:28		OK
10	CCV1	CCV1	CCV	03/08/18 11:08		OK
11	CCB1	CCB1	CCB	03/08/18 11:40		OK
12	LB93719BLS	LB93719BLS	MB	03/08/18 12:12		OK
13	LB93719BSS	LB93719BSS	LCS	03/08/18 12:44		OK
14	J1811-13	COMP-1	SAM	03/08/18 13:17		OK
15	J1811-14	COMP-2	SAM	03/08/18 13:49		OK
16	J1811-13DUP	COMP-1DUP	DUP	03/08/18 14:20		OK
17	J1811-13MS	COMP-1MS	MS	03/08/18 14:52		OK
18	J1811-13MSD	COMP-1MSD	MSD	03/08/18 15:24		OK
19	CCV2	CCV2	CCV	03/08/18 15:56		OK
20	CCB2	CCB2	CCB	03/08/18 16:28		OK



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Report of Analysis

Client:		Date Collected:	3/5/2018 12:00:00 AM
Project:	LB93719	Date Received:	3/5/2018 12:00:00 AM
Client Sample ID:	COMP-1	SDG No.:	LB93719
Lab Sample ID:	J1811-13	Matrix:	Solid
Level (low/med):	low	% Solid:	86.5

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
	Bromide	0	U	1	0.22		0.58	mg/Kg		03/08/2018	9056
	Chloride	0.2		1	0.037		0.17	mg/Kg		03/08/2018	9056
	Fluoride	0.4		1	0.02		0.12	mg/Kg		03/08/2018	9056
	Nitrate	0.23		1	0.013		0.13	mg/Kg		03/08/2018	9056
	Nitrite	0	U	1	0.012		0.18	mg/Kg		03/08/2018	9056
	Phosphorus, Ortho	0	U	1	0.0023		0.28	mg/Kg		03/08/2018	9056
	Sulfate	1.8		1	0.11		0.87	mg/Kg		03/08/2018	9056

Report of Analysis

Client:		Date Collected:	3/5/2018 12:00:00 AM
Project:	LB93719	Date Received:	3/5/2018 12:00:00 AM
Client Sample ID:	COMP-2	SDG No.:	LB93719
Lab Sample ID:	J1811-14	Matrix:	Solid
Level (low/med):	low	% Solid:	83.7

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
	Bromide	0	U	1	0.23		0.6	mg/Kg		03/08/2018	9056
	Chloride	0	U	1	0.038		0.18	mg/Kg		03/08/2018	9056
	Fluoride	0.43		1	0.02		0.12	mg/Kg		03/08/2018	9056
	Nitrate	0.2		1	0.013		0.14	mg/Kg		03/08/2018	9056
	Nitrite	0	U	1	0.012		0.18	mg/Kg		03/08/2018	9056
	Phosphorus, Ortho	0	U	1	0.0024		0.29	mg/Kg		03/08/2018	9056
	Sulfate	1.2		1	0.11		0.9	mg/Kg		03/08/2018	9056

Report of Analysis

Client:		Date Collected:	3/5/2018 12:00:00 AM
Project:	LB93719	Date Received:	3/5/2018 12:00:00 AM
Client Sample ID:	COMP-2	SDG No.:	LB93719
Lab Sample ID:	J1811-14	Matrix:	Solid
Level (low/med):	low	% Solid:	83.7

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: LB93719

SDG No.: LB93719

Contract: _____ Lab Code: CHEM

Case No.: LB93719

SAS No.: LB93719

Initial Calibration Source: _____

Continuing Calibration Source: _____

Sample ID	Analyte	Result mg/L	True Value	% Recovery	Qual	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV1	Bromide	9.8	10	98		90 - 110		02/20/2018	10:46	LB93719
	Chloride	2.9	3	96.7		90 - 110		02/20/2018	10:46	LB93719
	Fluoride	2.1	2	105		90 - 110		02/20/2018	10:46	LB93719
	Phosphorus, Ortho	5	5	100		90 - 110		02/20/2018	10:46	LB93719
	Nitrite	3	3	100		90 - 110		02/20/2018	10:46	LB93719
	Nitrate	2.4	2.5	96		90 - 110		02/20/2018	10:46	LB93719
	Sulfate	15.4	15	102.7		90 - 110		02/20/2018	10:46	LB93719



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- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB93719

SDG No.: LB93719

Contract: _____ Lab Code: CHEM

Case No.: LB93719

SAS No.: LB93719

Initial Calibration Source: _____

Continuing Calibration Source: _____

Sample ID	Analyte	Result mg/L	True Value	% Recovery	Qual	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV1	Bromide	9.8	10	98		90 - 110		03/08/2018	11:08	LB93719
	Chloride	2.9	3	96.7		90 - 110		03/08/2018	11:08	LB93719
	Fluoride	2.2	2	110		90 - 110		03/08/2018	11:08	LB93719
	Phosphorus, Ortho	5	5	100		90 - 110		03/08/2018	11:08	LB93719
	Nitrite	2.9	3	96.7		90 - 110		03/08/2018	11:08	LB93719
	Nitrate	2.4	2.5	96		90 - 110		03/08/2018	11:08	LB93719
	Sulfate	13.9	15	92.7		90 - 110		03/08/2018	11:08	LB93719
CCV2	Bromide	9.7	10	97		90 - 110		03/08/2018	15:56	LB93719
	Chloride	2.9	3	96.7		90 - 110		03/08/2018	15:56	LB93719
	Fluoride	1.9	2	95		90 - 110		03/08/2018	15:56	LB93719
	Phosphorus, Ortho	5.4	5	108		90 - 110		03/08/2018	15:56	LB93719
	Nitrite	3	3	100		90 - 110		03/08/2018	15:56	LB93719
	Nitrate	2.4	2.5	96		90 - 110		03/08/2018	15:56	LB93719
	Sulfate	14.4	15	96		90 - 110		03/08/2018	15:56	LB93719



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- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB93719

SDG No.: LB93719

Contract: Lab Code: CHEM

Case No.: LB93719

SAS No.: LB93719

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		02/20/2018	11:28	LB93719
	Chloride	0.075	+/-0.15	U		0.15		02/20/2018	11:28	LB93719
	Fluoride	0.043	+/-0.1	U		0.1		02/20/2018	11:28	LB93719
	Phosphorus, Ortho	0.01	+/-0.24	U		0.24		02/20/2018	11:28	LB93719
	Nitrite	0.022	+/-0.15	U		0.15		02/20/2018	11:28	LB93719
	Nitrate	0.027	+/-0.11	U		0.11		02/20/2018	11:28	LB93719
	Sulfate	0.13	+/-0.75	U		0.75		02/20/2018	11:28	LB93719



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- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB93719

SDG No.: LB93719

Contract:

Lab Code: CHEM

Case No.: LB93719

SAS No.: LB93719

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		03/08/2018	11:40	LB93719
	Chloride	0.075	+/-0.15	U		0.15		03/08/2018	11:40	LB93719
	Fluoride	0.043	+/-0.1	U		0.1		03/08/2018	11:40	LB93719
	Phosphorus, Ortho	0.01	+/-0.24	U		0.24		03/08/2018	11:40	LB93719
	Nitrite	0.022	+/-0.15	U		0.15		03/08/2018	11:40	LB93719
	Nitrate	0.027	+/-0.11	U		0.11		03/08/2018	11:40	LB93719
	Sulfate	0.13	+/-0.75	U		0.75		03/08/2018	11:40	LB93719
CCB2	Bromide	0.066	+/-0.5	U		0.5		03/08/2018	16:28	LB93719
	Chloride	0.075	+/-0.15	U		0.15		03/08/2018	16:28	LB93719
	Fluoride	0.043	+/-0.1	U		0.1		03/08/2018	16:28	LB93719
	Phosphorus, Ortho	0.01	+/-0.24	U		0.24		03/08/2018	16:28	LB93719
	Nitrite	0.022	+/-0.15	U		0.15		03/08/2018	16:28	LB93719
	Nitrate	0.027	+/-0.11	U		0.11		03/08/2018	16:28	LB93719
	Sulfate	0.13	+/-0.75	U		0.75		03/08/2018	16:28	LB93719



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- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB93719

SDG No.: LB93719

Contract: Lab Code: CHEM

Case No.: LB93719

SAS No.: LB93719

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
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- 3b -
PREPARATION BLANK SUMMARY

Client: LB93719

SDG No.: LB93719

Instrument: IC-1

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	LOD mg/Kg	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
LB93719BLS		SOLID		Batch Number:				Prep Date:		
	Bromide	0.19	<0.5	U		0.5		03/08/2018	12:12	LB93719
	Chloride	0.032	<0.15	U		0.15		03/08/2018	12:12	LB93719
	Fluoride	0.017	<0.1	U		0.1		03/08/2018	12:12	LB93719
	Phosphorus, Ortho	0.002	<0.24	U		0.24		03/08/2018	12:12	LB93719
	Nitrite	0.01	<0.15	U		0.15		03/08/2018	12:12	LB93719
	Nitrate	0.011	<0.11	U		0.11		03/08/2018	12:12	LB93719
	Sulfate	0.096	<0.75	U		0.75		03/08/2018	12:12	LB93719



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MATRIX SPIKE SUMMARY

client: LB93719 level: low sdg no.: LB93719
contract: _____ lab code: CHEM case no.: LB93719 sas no.: LB93719
matrix: Solid sample id: J1811-13 client id: COMP-1MS
Percent Solids for Sample: 86.5 Spiked ID: J1811-13MS Percent Solids for Spike Sample: 86.5

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Bromide	mg/Kg	80 - 120	10.9		0.22	U	11.6	94		
Chloride	mg/Kg	80 - 120	3.4		0.2		3.5	91		
Fluoride	mg/Kg	80 - 120	2.3		0.4		2.3	83		
Phosphorus, Ortho	mg/Kg	80 - 120	5.9		0.0023	U	5.8	101.7		
Nitrite	mg/Kg	80 - 120	3.2		0.012	U	3.5	91.4		
Nitrate	mg/Kg	80 - 120	2.9		0.23		2.9	92		
Sulfate	mg/Kg	80 - 120	17.1		1.8		17.3	88		



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MATRIX SPIKE DUPLICATE SUMMARY

client: LB93719 **level:** low **sdg no.:** LB93719
contract: **lab code:** CHEM **case no.:** LB93719 **sas no.:** LB93719
matrix: Solid **sample id:** J1811-13 **client id:** COMP-1MSD
Percent Solids for Sample: 86.5 **Spiked ID:** J1811-13MSD **Percent Solids for Spike Sample:** 86.5

Analyte	Units	Acceptance	MSD	Sample		Spike	%	Qual	M
		Limit %R	Result	C	Result	C	Added	Recovery	
Bromide	mg/Kg	80 - 120	10.9		0.22	U	11.6	94	
Chloride	mg/Kg	80 - 120	3.3		0.2		3.5	89	
Fluoride	mg/Kg	80 - 120	2.3		0.4		2.3	83	
Phosphorus, Ortho	mg/Kg	80 - 120	5.7		0.0023	U	5.8	98.3	
Nitrite	mg/Kg	80 - 120	3.2		0.012	U	3.5	91.4	
Nitrate	mg/Kg	80 - 120	2.9		0.23		2.9	92	
Sulfate	mg/Kg	80 - 120	16.7		1.8		17.3	86	

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DUPLICATE SAMPLE SUMMARY

Client: LB93719 **Level:** LOW **SDG No.:** LB93719
Contract: _____ **Lab Code:** CHEM **Case No.:** LB93719 **SAS No.:** LB93719
Matrix: Solid **Sample ID:** J1811-13 **Client ID:** COMP-1DUP
Percent Solids for Sample: 86.5 **Duplicate ID** J1811-13DUP **Percent Solids for Spike Sample:** 86.5

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Bromide	mg/Kg	20	0.22	U	0	U			
Chloride	mg/Kg	20	0.2		0.18		11		
Fluoride	mg/Kg	20	0.4		0.3		29	*	
Phosphorus, Ortho	mg/Kg	20	0.0023	U	0	U			
Nitrite	mg/Kg	20	0.012	U	0	U			
Nitrate	mg/Kg	20	0.23		0.21		9		
Sulfate	mg/Kg	20	1.8		1.8		0		

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DUPLICATE SAMPLE SUMMARY

Client: LB93719 **Level:** LOW **SDG No.:** LB93719
Contract: **Lab Code:** CHEM **Case No.:** LB93719 **SAS No.:** LB93719
Matrix: Solid **Sample ID:** J1811-13MS **Client ID:** COMP-1MSD
Percent Solids for Sample: 86.5 **Duplicate ID** J1811-13MSD **Percent Solids for Spike Sample:** 86.5

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Bromide	mg/Kg	20	10.9		10.9		0		
Chloride	mg/Kg	20	3.4		3.3		3		
Fluoride	mg/Kg	20	2.3		2.3		0		
Phosphorus, Ortho	mg/Kg	20	5.9		5.7		3		
Nitrite	mg/Kg	20	3.2		3.2		0		
Nitrate	mg/Kg	20	2.9		2.9		0		
Sulfate	mg/Kg	20	17.1		16.7		2		



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LABORATORY CONTROL SAMPLE SUMMARY

Client: LB93719

SDG No.: LB93719

Contract:

Lab Code: CHEM

Case No.: LB93719

SAS No.: LB93719

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
LB93719BSS							
Bromide	mg/Kg	10	9.4		94	90 - 110	
Chloride	mg/Kg	3	2.8		93.3	90 - 110	
Fluoride	mg/Kg	2	2		100	90 - 110	
Phosphorus, Ortho	mg/Kg	5	5		100	90 - 110	
Nitrite	mg/Kg	3	2.9		96.7	90 - 110	
Nitrate	mg/Kg	2.5	2.3		92	90 - 110	
Sulfate	mg/Kg	15	14.3		95.3	90 - 110	
