

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB86991			SDG No.:	LB86991	
Contract:	Lab Code:	СНЕМ	Case No.:	LB86991	SAS No.: LB86991
Initial Calibration Source:					
Continuing Calibration Source:					

		Result mg/L	True Value	%	%	Acceptance		Analysis	Analysis	Run
Sample ID	Analyte]	Recovery	RSD	Window (%R)	М	Date	Time	Number
ICV1	Reactive Cyanide	0.094	0.099	94.9	0	85 - 115		04/20/2017	14:58	LB86991



- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB86991			SDG No.:	LB86991	
Contract:	Lab Code:	CHEM	Case No.:	LB86991	SAS No.: LB86991
Initial Calibration Source:		-			
Continuing Calibration Source:					

		Result mg/L	True Value	%	%	Acceptance		Analysis	Analysis	Run
Sample ID	Analyte		1	Recovery	RSD	Window (%R)	Μ	Date	Time	Number
CCV1	Reactive Cyanide	0.24	0.25	96	0	90 - 110		04/20/2017	14:58	LB86991
CCV2	Reactive Cyanide	0.25	0.25	100	0	90 - 110		04/20/2017	15:05	LB86991
CCV3	Reactive Cyanide	0.26	0.25	104	0	90 - 110		04/20/2017	15:21	LB86991



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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: I	.B86991				SD	G No.: <u>LB8</u>	6991			
Contract:		Lab Code	: <u>CHEM</u>		. Cas	e No.: LB8	6991	SA	S No.: LB	86991
Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	LOD	CRQL	М	Analysis Date	Analysis Time	Run Number
LCD4		0.00074	1 0 005	X Y		0.005		04/20/2017	14.50	1 D0(001
ICB1	Reactive Cyanide	-0.00074	+/-0.005	U		0.005		04/20/2017	14:58	LB86991



- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: L	.B86991				SD	G No.: <u>LB8</u>	86991			
Contract:		Lab Code	: <u>CHEM</u>		. Cas	e No.: <u>LB8</u>	36991	SA	S No.: <u>LB</u>	86991
Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	LOD	CRQL	М	Analysis Date	Analysis Time	Run Number
CCB1	Reactive Cyanide	-0.00049	+/-0.005	U		0.005		04/20/2017	14:58	LB86991
CCB2	Reactive Cyanide	-0.00014	+/-0.005	U		0.005		04/20/2017	15:05	LB86991
CCB3	Reactive Cyanide	-0.00058	+/-0.005	U		0.005		04/20/2017	15:21	LB86991



- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: I	LB86991				SDG	No.:	LB86991			
Contract:		- Lab Code:	CHEM		Case	No.:	LB86991	_	SAS No.: LB	86991
Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	LOD	CRQI	L M	Analysis Date	Analysis Time	Run Number



Client:		Date Collected:	4/18/2017 12:00:00 AM
Project:	LB86991	Date Received:	4/18/2017 12:00:00 AM
Client Sample ID:	SB-1(0-2)20170418	SDG No.:	LB86991
Lab Sample ID:	I2744-13	Matrix:	Solid
Level (low/med):	low	% Solid:	100
Cas Parameter	Conc. Qua. DF MDL LC	DD LOQ / CRQL Units Prep Date	Date Ana. Ana Met.

Reactive Cy	anide -0.0	013	U	1	0.025	0.05	mg/Kg 04/20/2017	04/20/2017 9012B



Client: Project:	LB86991	Date Collected: Date Received:	4/18/2017 12:00:00 AM 4/18/2017 12:00:00 AM
Client Sample ID:	SB-3(0-2)20170418	SDG No.:	LB86991
Lab Sample ID:	I2744-14	Matrix:	Solid
Level (low/med):	low	% Solid:	100
Cas Parameter	Conc. Qua. DF MDL LOD L	.OO / CROL Units Prep Date	Date Ana. Ana Met.

Reactive Cyanide -0.012 U I 0.025 0.05 mg/Kg 04/20/2017 04/20/2017 9012B	Reactive Cyanide	-0.012	U	1	0.025	0.05	mg/Kg 04/20/2017	04/20/2017 9012B
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Client:		Date Collected:	4/18/2017 12:00:00 AM
Project:	LB86991	Date Received:	4/18/2017 12:00:00 AM
Client Sample ID:	SB-5(0-2)20170418	SDG No.:	LB86991
Lab Sample ID:	I2744-15	Matrix:	Solid
Level (low/med):	low	% Solid:	100
Cas Parameter	Conc. Qua. DF MDL LOI	D LOQ / CRQL Units Prep Date	Date Ana. Ana Met.

		Reactive Cyanide	-0.017	U	1	0.025	0.05	mg/Kg 04/20/2017	04/20/2017 9012B
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Client: Project:	LB86991	Date Collected: Date Received:	4/18/2017 12:00:00 AM 4/19/2017 12:00:00 AM
Client Sample ID:	SB-6(0-2)20170418	SDG No.:	LB86991
Lab Sample ID:	I2744-20	Matrix:	Solid
Level (low/med):	low	% Solid:	100
Cas Parameter	Conc. Qua. DF MDL LOD	LOQ / CRQL Units Prep Date	Date Ana. Ana Met.

Reactive Cyanide -0.	.0095	U	1	0.025	0.05	mg/Kg 04/20/2017	04/20/2017 9012B



Client:		Date Collected:	4/19/2017 12:00:00 AM
Project:	LB86991	Date Received:	4/19/2017 12:00:00 AM
Client Sample ID:	SB-4(0-2)20170419	SDG No.:	LB86991
Lab Sample ID:	I2744-21	Matrix:	Solid
Level (low/med):	low	% Solid:	100
Cas Parameter	Conc. Qua. DF MDL LO	D LOQ / CRQL Units Prep Date	Date Ana. Ana Met.

Reactive Cyanide	-0.014	U	1	0.025	0.049	mg/Kg 04/20/2017	04/20/2017 9012B	
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Client:		Date Collected:	4/19/2017 12:00:00 AM
Project:	LB86991	Date Received:	4/19/2017 12:00:00 AM
Client Sample ID:	MH-41	SDG No.:	LB86991
Lab Sample ID:	12755-03	Matrix:	WATER
Level (low/med):	low	% Solid:	0
Cas Parameter	Conc. Qua. DF MDL	LOD LOQ / CRQL Units Prep Date	Date Ana. Ana Met.

Reactive	Cyanide	-0.0012	I	1	0.0025	0.005	mg/L	04/20/2017	04/20/2017	9012B
Reactive	Cyannuc	-0.0012	U	1	0.0025	0.005	mg/L	04/20/2017	04/20/201/	J012D



Client:		Date Collected:	4/19/2017 12:00:00 AM
Project:	LB86991	Date Received:	4/19/2017 12:00:00 AM
Client Sample ID:	3652	SDG No.:	LB86991
Lab Sample ID:	12755-07	Matrix:	WATER
Level (low/med):	low	% Solid:	0
Cas Parameter	Conc. Qua. DF MDL LOD	LOQ / CRQL Units Prep Date	Date Ana. Ana Met.

Reactive Cyanide	-0.00056 U	1	0.0025	0.005	mg/L	04/20/2017	04/20/2017 9	9012B



Client:		Date Collected:	4/19/2017 12:00:00 AM
Project:	LB86991	Date Received:	4/19/2017 12:00:00 AM
Client Sample ID:	CLEAN-HARBORS-DRUMS(1-9)	SDG No.:	LB86991
Lab Sample ID:	12758-02	Matrix:	WATER
Level (low/med):	low	% Solid:	0
Cas Parameter	Conc. Qua. DF MDL LOD	D LOQ / CRQL Units Prep Date	Date Ana. Ana Met.

Reactive Cy	vanide -(0.00031	U	1	0.0025	0.005	mg/L	04/20/2017	04/20/2017	9012B
iteuetive C	uniuc	0.00051	U	1	0.0025	0.005	III S/ L	01/20/2017	01/20/2017	JU12D



Client:		Date Collected:	4/19/2017 12:00:00 AM
Project:	LB86991	Date Received:	4/19/2017 12:00:00 AM
Client Sample ID:	CLEAN-HARBORS-DRUMS(1-9)	SDG No.:	LB86991
Lab Sample ID:	12758-02	Matrix:	WATER
Level (low/med):	low	% Solid:	0
Cas Parameter	Conc. Qua. DF MDL LO	D LOQ / CRQL Units Prep Date	Date Ana. Ana Met.

Color Before:	Clarity Before:	Texture:						
Color After:	Clarity After:	Artifacts:						
Comments:								
U = Not Detected		J = Estimated Value						
LOQ = Limit of Quantitation		B = Analyte Found in Associated Method Blank						
MDL = Method Detection Limit		* = indicates the duplicate analysis is not within control limits.						
LOD = Limit of Detection		E = Indicates the reported value is estimated because of the presence						
D = Dilution		of interference.						

Q = indicates LCS control criteria did not meet requirements

OR = Over Range

N =Spiked sample recovery not within control limits



GENCHEM - 3b -PREPARATION BLANK SUMMARY

Client: LB86991

SDG No.: LB86991

Instrument: Konelab 20

Sample ID	Analyte	Result (mg/L)	Acceptance Limit	Conc Qual	LOD mg/L	CRQL mg/L	М	Analysis Date	Analysis Time	Run
PB98372BL			Batch Number:		PB98372		Prep Date: 04/20/2017			
	Reactive Cyanic	de -0.00083	< 0.005	U		0.005		04/20/2017	15:05	LB86991
		Result	Acceptance	Conc	LOD	CRQL		Analysis	Analysis	
Sample ID	Analyte	(mg/Kg)	Limit	Qual	mg/Kg	mg/Kg	М	Date	Time	Run
PB98373BL	SOLID			Batch Number:		PB98373		Prep Date: 04/20/2017)17
	Reactive Cyanic	de -0.016	< 0.05	U		0.05		04/20/2017	14:58	LB86991



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DUPLICATE SAMPLE SUMMARY

Client: LB8	5991		Level: LO	W	SDG	No.:	LB86991			
Contract:			Lab Code:	CHEM	Case	No.:	LB86991	SA	AS No.:	LB86991
Matrix:	Solid		Sample ID: 127	44-13	Client II	D:	SB-1(0-2)20	170418D	UP	
Percent Solids for Sample:100Duplicate IDI2744-13DUPPercent Solids for Spike Sample:100										
		Acceptance	Sample		Duplicate					
Analyte	Units	Limit	Result	С	Result	С	RPD	Qual	Μ	
Reactive Cyanide	mg/Kg	20	0.025	U	-0.011	U				

"A control limit of +20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"



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DUPLICATE SAMPLE SUMMARY

Client: LB8	6991		Level: LO	W	SDG 3	No.:	LB86991			
Contract:		_	Lab Code:	CHEM	Case	No.:	LB86991	s	AS No.:	LB86991
Matrix:	WATER		Sample ID: 127	755-03	Client II):	MH-41DUP			
Percent Solids f	or Sample:)	Duplicate ID 127	755-03DUP	Percent	Solid	s for Spike Sa	mple:	0	
		Acceptance	Sample		Duplicate					
Analyte	Units	Limit	Result	С	Result	С	RPD	Qual	М	
Reactive Cyanide	mg/L	20	0.0025	U	-0.00056	U				

"A control limit of +20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"