



GENCHEM

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB87568

SDG No.: LB87568

Contract: _____ Lab Code: CHEM

Case No.: LB87568

SAS No.: LB87568

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	Cyanide	0.24	0.25	96	0	90 - 110		05/19/2017	11:27	LB87568
CCV2	Cyanide	0.24	0.25	96	0	90 - 110		05/19/2017	11:35	LB87568
CCV3	Cyanide	0.25	0.25	100	0	90 - 110		05/19/2017	11:40	LB87568



GENCHEM

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB87568 **SDG No.:** LB87568
Contract: **Lab Code:** CHEM **Case No.:** LB87568 **SAS No.:** LB87568

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB1	Cyanide	-0	+/-0.005	U		0.005		05/19/2017	11:27	LB87568

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB1	Cyanide	-0.0001	+/-0.005	U		0.005		05/19/2017	11:27	LB87568
CCB2	Cyanide	-0.00016	+/-0.005	U		0.005		05/19/2017	11:35	LB87568
CCB3	Cyanide	-0.0004	+/-0.005	U		0.005		05/19/2017	11:40	LB87568



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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB87568

SDG No.: LB87568

Contract: Lab Code: CHEM

Case No.: LB87568

SAS No.: LB87568

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
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Report of Analysis

Client:		Date Collected:	
Project:	LB87568	Date Received:	
Client Sample ID:	HIGHPB99075	SDG No.:	LB87568
Lab Sample ID:	HIGHPB99075	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.48		1	0.003		0.005	mg/L		05/19/2017	9012B



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Report of Analysis

Client:		Date Collected:	5/16/2017 12:00:00 AM
Project:	LB87568	Date Received:	5/16/2017 12:00:00 AM
Client Sample ID:	SB-1COMP	SDG No.:	LB87568
Lab Sample ID:	I3202-01	Matrix:	Solid
Level (low/med):	low	% Solid:	93.4

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.023	U	1	0.034		0.26	mg/Kg	05/18/2017	05/19/2017	9012B



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Report of Analysis

Client:		Date Collected:	5/16/2017 12:00:00 AM
Project:	LB87568	Date Received:	5/16/2017 12:00:00 AM
Client Sample ID:	SB-2COMP	SDG No.:	LB87568
Lab Sample ID:	I3202-02	Matrix:	Solid
Level (low/med):	low	% Solid:	90.6

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.0056	U	1	0.035		0.26	mg/Kg	05/18/2017	05/19/2017	9012B



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Report of Analysis

Client:		Date Collected:	5/16/2017 12:00:00 AM
Project:	LB87568	Date Received:	5/16/2017 12:00:00 AM
Client Sample ID:	SB-3COMP	SDG No.:	LB87568
Lab Sample ID:	I3202-03	Matrix:	Solid
Level (low/med):	low	% Solid:	91.7

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.0059	U	1	0.034		0.26	mg/Kg	05/18/2017	05/19/2017	9012B



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Report of Analysis

Client:		Date Collected:	5/16/2017 12:00:00 AM
Project:	LB87568	Date Received:	5/16/2017 12:00:00 AM
Client Sample ID:	SB-4COMP	SDG No.:	LB87568
Lab Sample ID:	I3202-04	Matrix:	Solid
Level (low/med):	low	% Solid:	84.8

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.022	U	1	0.037		0.28	mg/Kg	05/18/2017	05/19/2017	9012B



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Report of Analysis

Client:		Date Collected:	5/16/2017 12:00:00 AM
Project:	LB87568	Date Received:	5/16/2017 12:00:00 AM
Client Sample ID:	SB-5COMP	SDG No.:	LB87568
Lab Sample ID:	I3202-05	Matrix:	Solid
Level (low/med):	low	% Solid:	86.6

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.024	U	1	0.037		0.28	mg/Kg	05/18/2017	05/19/2017	9012B



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Report of Analysis

Client:		Date Collected:	5/16/2017 12:00:00 AM
Project:	LB87568	Date Received:	5/16/2017 12:00:00 AM
Client Sample ID:	SB-6COMP	SDG No.:	LB87568
Lab Sample ID:	I3202-06	Matrix:	Solid
Level (low/med):	low	% Solid:	91.7

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.03	U	1	0.035		0.26	mg/Kg	05/18/2017	05/19/2017	9012B

Report of Analysis

Client:		Date Collected:	5/16/2017 12:00:00 AM
Project:	LB87568	Date Received:	5/16/2017 12:00:00 AM
Client Sample ID:	SB-7COMP	SDG No.:	LB87568
Lab Sample ID:	I3202-07	Matrix:	Solid
Level (low/med):	low	% Solid:	89.6

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.0037	U	1	0.035		0.27	mg/Kg	05/18/2017	05/19/2017	9012B



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Report of Analysis

Client:		Date Collected:	5/16/2017 12:00:00 AM
Project:	LB87568	Date Received:	5/16/2017 12:00:00 AM
Client Sample ID:	SB-8COMP	SDG No.:	LB87568
Lab Sample ID:	I3202-08	Matrix:	Solid
Level (low/med):	low	% Solid:	91.5

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.031	U	1	0.034		0.26	mg/Kg	05/18/2017	05/19/2017	9012B



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Report of Analysis

Client:		Date Collected:	5/16/2017 12:00:00 AM
Project:	LB87568	Date Received:	5/16/2017 12:00:00 AM
Client Sample ID:	SB-9COMP	SDG No.:	LB87568
Lab Sample ID:	I3202-09	Matrix:	Solid
Level (low/med):	low	% Solid:	89.6

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.042	U	1	0.034		0.26	mg/Kg	05/18/2017	05/19/2017	9012B



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Report of Analysis

Client:		Date Collected:	5/16/2017 12:00:00 AM
Project:	LB87568	Date Received:	5/16/2017 12:00:00 AM
Client Sample ID:	SB-10COMP	SDG No.:	LB87568
Lab Sample ID:	I3202-10	Matrix:	Solid
Level (low/med):	low	% Solid:	85.9

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.0063	U	1	0.036		0.27	mg/Kg	05/18/2017	05/19/2017	9012B



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Report of Analysis

Client:		Date Collected:	5/16/2017 12:00:00 AM
Project:	LB87568	Date Received:	5/16/2017 12:00:00 AM
Client Sample ID:	SB-11COMP	SDG No.:	LB87568
Lab Sample ID:	I3202-11	Matrix:	Solid
Level (low/med):	low	% Solid:	91.4

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.0092	U	1	0.034		0.26	mg/Kg	05/18/2017	05/19/2017	9012B



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Report of Analysis

Client:		Date Collected:	
Project:	LB87568	Date Received:	
Client Sample ID:	LOWPB99075	SDG No.:	LB87568
Lab Sample ID:	LOWPB99075	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.0094		1	0.003		0.005	mg/L		05/19/2017	9012B



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Report of Analysis

Client:		Date Collected:	
Project:	LB87568	Date Received:	
Client Sample ID:	LOWPB99075	SDG No.:	LB87568
Lab Sample ID:	LOWPB99075	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



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PREPARATION BLANK SUMMARY

Client: LB87568

SDG No.: LB87568

Instrument: Konelab 20

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	LOD mg/Kg	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB99075BL	Cyanide	SOLID -0.0034	<0.25	Batch Number: U		PB99075 0.25		Prep Date: 05/19/2017	05/18/2017 11:27	LB87568



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MATRIX SPIKE SUMMARY

client: LB87568 level: low sdg no.: LB87568
contract: lab code: CHEM case no.: LB87568 sas no.: LB87568
matrix: Solid sample id: I3202-01 client id: SB-1COMPMS
Percent Solids for Sample: 93.4 Spiked ID: I3202-01MS Percent Solids for Spike Sample: 93.4

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cyanide	mg/Kg	75 - 125	1.4		0.034	U	2	70	*	



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MATRIX SPIKE DUPLICATE SUMMARY

client: LB87568 level: low sdg no.: LB87568
contract: lab code: CHEM case no.: LB87568 sas no.: LB87568
matrix: Solid sample id: I3202-01 client id: SB-1COMPMSD
Percent Solids for Sample: 93.4 Spiked ID: I3202-01MSD Percent Solids for Spike Sample: 93.4

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cyanide	mg/Kg	75 - 125	1.3		0.034	U	2	65	*	

GENCHEM**- 6 -****DUPLICATE SAMPLE SUMMARY**

Client: LB87568 **Level:** LOW **SDG No.:** LB87568
Contract: **Lab Code:** CHEM **Case No.:** LB87568 **SAS No.:** LB87568
Matrix: Solid **Sample ID:** I3202-01 **Client ID:** SB-1COMPDUP
Percent Solids for Sample: 93.4 **Duplicate ID** I3202-01DUP **Percent Solids for Spike Sample:** 93.4

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cyanide	mg/Kg	20	0.034	U	-0.0001	U			

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DUPLICATE SAMPLE SUMMARY

Client: LB87568 **Level:** LOW **SDG No.:** LB87568
Contract: **Lab Code:** CHEM **Case No.:** LB87568 **SAS No.:** LB87568
Matrix: Solid **Sample ID:** I3202-01MS **Client ID:** SB-1COMPMSD
Percent Solids for Sample: 93.4 **Duplicate ID** I3202-01MSD **Percent Solids for Spike Sample:** 93.4

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cyanide	mg/Kg	20	1.4		1.3		7		



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LABORATORY CONTROL SAMPLE SUMMARY

Client: LB87568

SDG No.: LB87568

Contract:

Lab Code: CHEM

Case No.: LB87568

SAS No.: LB87568

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB99075BS Cyanide	mg/Kg	4.9	4.7		95.9	85 - 115	