



GENCHEM

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB86986

SDG No.: LB86986

Contract: _____ Lab Code: CHEM

Case No.: LB86986

SAS No.: LB86986

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		04/20/2017	13:10	LB86986
CCV2	Cyanide	0.24	0.25	96	0	90 - 110		04/20/2017	13:17	LB86986
CCV3	Cyanide	0.24	0.25	96	0	90 - 110		04/20/2017	13:25	LB86986
CCV4	Cyanide	0.25	0.25	100	0	90 - 110		04/20/2017	13:29	LB86986



GENCHEM

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB86986 **SDG No.:** LB86986
Contract: **Lab Code:** CHEM **Case No.:** LB86986 **SAS No.:** LB86986

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB1	Cyanide	-0.0002	+/-0.005	U		0.005		04/20/2017	13:10	LB86986



GENCHEM

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB86986

SDG No.: LB86986

Contract:

Lab Code: CHEM

Case No.: LB86986

SAS No.: LB86986

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB1	Cyanide	-0.00021	+/-0.005	U		0.005		04/20/2017	13:10	LB86986
CCB2	Cyanide	-0.00045	+/-0.005	U		0.005		04/20/2017	13:17	LB86986
CCB3	Cyanide	-0.0012	+/-0.005	U		0.005		04/20/2017	13:25	LB86986
CCB4	Cyanide	-0.00076	+/-0.005	U		0.005		04/20/2017	13:29	LB86986



GENCHEM

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB86986

SDG No.: LB86986

Contract: Lab Code: CHEM

Case No.: LB86986

SAS No.: LB86986

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



284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:		Date Collected:	
Project:	LB86986	Date Received:	
Client Sample ID:	HIGHPB98343	SDG No.:	LB86986
Lab Sample ID:	HIGHPB98343	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	0.49		1	0.003		0.005	mg/L		04/20/2017	9012B



284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:		Date Collected:	4/18/2017 12:00:00 AM
Project:	LB86986	Date Received:	4/18/2017 12:00:00 AM
Client Sample ID:	SB-1(0-2)20170418	SDG No.:	LB86986
Lab Sample ID:	I2744-05	Matrix:	Solid
Level (low/med):	low	% Solid:	87.3

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.022	U	1	0.036		0.28	mg/Kg	04/20/2017	04/20/2017	9012B



284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:		Date Collected:	4/18/2017 12:00:00 AM
Project:	LB86986	Date Received:	4/18/2017 12:00:00 AM
Client Sample ID:	SB-3(0-2)20170418	SDG No.:	LB86986
Lab Sample ID:	I2744-09	Matrix:	Solid
Level (low/med):	low	% Solid:	90.4

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.00013	U	1	0.035		0.26	mg/Kg	04/20/2017	04/20/2017	9012B



284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:		Date Collected:	4/18/2017 12:00:00 AM
Project:	LB86986	Date Received:	4/18/2017 12:00:00 AM
Client Sample ID:	SB-5(0-2)20170418	SDG No.:	LB86986
Lab Sample ID:	I2744-11	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	-0.035	U	1	0.035		0.26	mg/Kg	04/20/2017	04/20/2017	9012B



284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:		Date Collected:	4/18/2017 12:00:00 AM
Project:	LB86986	Date Received:	4/19/2017 12:00:00 AM
Client Sample ID:	SB-6(0-2)20170418	SDG No.:	LB86986
Lab Sample ID:	I2744-16	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	-0.038	U	1	0.035		0.27	mg/Kg	04/20/2017	04/20/2017	9012B



284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:		Date Collected:	4/19/2017 12:00:00 AM
Project:	LB86986	Date Received:	4/19/2017 12:00:00 AM
Client Sample ID:	SB-4(0-2)20170419	SDG No.:	LB86986
Lab Sample ID:	I2744-18	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	-0.017	U	1	0.035		0.27	mg/Kg	04/20/2017	04/20/2017	9012B



284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:		Date Collected:	4/18/2017 12:00:00 AM
Project:	LB86986	Date Received:	4/18/2017 12:00:00 AM
Client Sample ID:	15-40-COMP	SDG No.:	LB86986
Lab Sample ID:	I2751-01	Matrix:	Solid
Level (low/med):	low	% Solid:	81.1

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.016	U	1	0.04		0.3	mg/Kg	04/20/2017	04/20/2017	9012B



284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:		Date Collected:	4/18/2017 12:00:00 AM
Project:	LB86986	Date Received:	4/18/2017 12:00:00 AM
Client Sample ID:	RT-1494-COMP	SDG No.:	LB86986
Lab Sample ID:	I2751-04	Matrix:	Solid
Level (low/med):	low	% Solid:	75.6

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.03	U	1	0.042		0.32	mg/Kg	04/20/2017	04/20/2017	9012B



284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:		Date Collected:	4/18/2017 12:00:00 AM
Project:	LB86986	Date Received:	4/18/2017 12:00:00 AM
Client Sample ID:	VNJ-209-COMP	SDG No.:	LB86986
Lab Sample ID:	I2751-07	Matrix:	Solid
Level (low/med):	low	% Solid:	76.4

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.036	U	1	0.042		0.31	mg/Kg	04/20/2017	04/20/2017	9012B



284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:		Date Collected:	4/18/2017 12:00:00 AM
Project:	LB86986	Date Received:	4/18/2017 12:00:00 AM
Client Sample ID:	15-50-COMP	SDG No.:	LB86986
Lab Sample ID:	I2752-01	Matrix:	Solid
Level (low/med):	low	% Solid:	83.6

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.024	U	1	0.038		0.28	mg/Kg	04/20/2017	04/20/2017	9012B



284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:		Date Collected:	4/18/2017 12:00:00 AM
Project:	LB86986	Date Received:	4/18/2017 12:00:00 AM
Client Sample ID:	VNJ-215-COMP	SDG No.:	LB86986
Lab Sample ID:	I2752-04	Matrix:	Solid
Level (low/med):	low	% Solid:	87

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.085	U	1	0.037		0.28	mg/Kg	04/20/2017	04/20/2017	9012B



284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:		Date Collected:	4/19/2017 12:00:00 AM
Project:	LB86986	Date Received:	4/19/2017 12:00:00 AM
Client Sample ID:	MH-41	SDG No.:	LB86986
Lab Sample ID:	I2755-02	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0	U	1	0.003		0.005	mg/L	04/20/2017	04/20/2017	9012B



284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:		Date Collected:	4/19/2017 12:00:00 AM
Project:	LB86986	Date Received:	4/19/2017 12:00:00 AM
Client Sample ID:	3652	SDG No.:	LB86986
Lab Sample ID:	I2755-06	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	0.0021	U	1	0.003		0.005	mg/L	04/20/2017	04/20/2017	9012B



284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:		Date Collected:	4/19/2017 12:00:00 AM
Project:	LB86986	Date Received:	4/19/2017 12:00:00 AM
Client Sample ID:	CLEAN-HARBORS-DRUMS(1-9)	SDG No.:	LB86986
Lab Sample ID:	I2758-01	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.0076		1	0.003		0.005	mg/L	04/20/2017	04/20/2017	9012B



284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:		Date Collected:	
Project:	LB86986	Date Received:	
Client Sample ID:	LOWPB98343	SDG No.:	LB86986
Lab Sample ID:	LOWPB98343	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	0.0095		1	0.003		0.005	mg/L		04/20/2017	9012B



284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:		Date Collected:	
Project:	LB86986	Date Received:	
Client Sample ID:	LOWPB98343	SDG No.:	LB86986
Lab Sample ID:	LOWPB98343	Matrix:	WATER
Level (low/med):	low	% Solid:	0

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

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
- 3b -
PREPARATION BLANK SUMMARY

Client: LB86986

SDG No.: LB86986

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
PB98343BL	SOLID		Batch Number:		PB98343		Prep Date:		04/20/2017	
	Cyanide	-0.022	<0.25	U		0.25		04/20/2017	13:10	LB86986
Sample ID	Analyte	Result (mg/L)	Acceptance Limit	Conc Qual	LOD mg/L	CRQL mg/L	M	Analysis Date	Analysis Time	Run
PB98369BL	WATER		Batch Number:		PB98369		Prep Date:		04/20/2017	
	Cyanide	-0.00046	<0.005	U		0.005		04/20/2017	13:25	LB86986



GENCHEM
- 5a -
MATRIX SPIKE SUMMARY

client: LB86986 level: low sdg no.: LB86986
contract: lab code: CHEM case no.: LB86986 sas no.: LB86986
matrix: Solid sample id: I2751-01 client id: 15-40-COMPMS
Percent Solids for Sample: 81.1 Spiked ID: I2751-01MS Percent Solids for Spike Sample: 81.1

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cyanide	mg/Kg	75 - 125	2		0.04	U	2.4	83.3		



GENCHEM
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: LB86986 level: low sdg no.: LB86986
contract: lab code: CHEM case no.: LB86986 sas no.: LB86986
matrix: Solid sample id: I2751-01 client id: 15-40-COMPMSD
Percent Solids for Sample: 81.1 Spiked ID: I2751-01MSD Percent Solids for Spike Sample: 81.1

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cyanide	mg/Kg	75 - 125	1.9		0.04	U	2.4	79.2		



GENCHEM
- 5a -
MATRIX SPIKE SUMMARY

client: LB86986 level: low sdg no.: LB86986
contract: lab code: CHEM case no.: LB86986 sas no.: LB86986
matrix: WATER sample id: I2755-02 client id: MH-41MS
Percent Solids for Sample: 0 Spiked ID: I2755-02MS Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cyanide	mg/L	75 - 125	0.035		0.003	U	0.04	87.5		



GENCHEM
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: LB86986 level: low sdg no.: LB86986
contract: lab code: CHEM case no.: LB86986 sas no.: LB86986
matrix: WATER sample id: I2755-02 client id: MH-41MSD
Percent Solids for Sample: 0 Spiked ID: I2755-02MSD Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cyanide	mg/L	75 - 125	0.035		0.003	U	0.04	87.5		

GENCHEM

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: LB86986 **Level:** LOW **SDG No.:** LB86986
Contract: **Lab Code:** CHEM **Case No.:** LB86986 **SAS No.:** LB86986
Matrix: Solid **Sample ID:** I2751-01 **Client ID:** 15-40-COMPDUP
Percent Solids for Sample: 81.1 **Duplicate ID** I2751-01DUP **Percent Solids for Spike Sample:** 81.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cyanide	mg/Kg	20	0.04	U	-0.036	U			

GENCHEM

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: LB86986 **Level:** LOW **SDG No.:** LB86986
Contract: **Lab Code:** CHEM **Case No.:** LB86986 **SAS No.:** LB86986
Matrix: Solid **Sample ID:** I2751-01MS **Client ID:** 15-40-COMPMSD
Percent Solids for Sample: 81.1 **Duplicate ID** I2751-01MSD **Percent Solids for Spike Sample:** 81.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cyanide	mg/Kg	20	2		1.9		5		

GENCHEM

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: LB86986 **Level:** LOW **SDG No.:** LB86986
Contract: **Lab Code:** CHEM **Case No.:** LB86986 **SAS No.:** LB86986
Matrix: WATER **Sample ID:** I2755-02 **Client ID:** MH-41DUP
Percent Solids for Sample: 0 **Duplicate ID** I2755-02DUP **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cyanide	mg/L	20	0.003	U	-0.00035	U			



GENCHEM

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: LB86986 **Level:** LOW **SDG No.:** LB86986
Contract: **Lab Code:** CHEM **Case No.:** LB86986 **SAS No.:** LB86986
Matrix: WATER **Sample ID:** I2755-02MS **Client ID:** MH-41MSD
Percent Solids for Sample: 0 **Duplicate ID** I2755-02MSD **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cyanide	mg/L	20	0.035		0.035		0		



GENCHEM

- 7 -

LABORATORY CONTROL SAMPLE SUMMARY

Client: LB86986

SDG No.: LB86986

Contract:

Lab Code: CHEM

Case No.: LB86986

SAS No.: LB86986

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB98343BS Cyanide	mg/Kg	5	4.9		98	85 - 115	



GENCHEM

- 7 -

LABORATORY CONTROL SAMPLE SUMMARY

Client: LB86986

SDG No.: LB86986

Contract:

Lab Code: CHEM

Case No.: LB86986

SAS No.: LB86986

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB98369BS Cyanide	mg/L	0.1	0.096		96	85 - 115	