



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

Report of Analysis

Client:		Date Collected:	4/10/2017 12:00:00 AM
Project:	LB86835	Date Received:	4/11/2017 12:00:00 AM
Client Sample ID:	IM-TS-WSG-04	SDG No.:	LB86835
Lab Sample ID:	I2624-01	Matrix:	Solid
Level (low/med):	low	% Solid:	74.1

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.11	J	1	0.043		0.33	mg/Kg	04/11/2017	04/11/2017	9012B



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Report of Analysis

Client:		Date Collected:	4/10/2017 12:00:00 AM
Project:	LB86835	Date Received:	4/11/2017 12:00:00 AM
Client Sample ID:	IM-TS-EME-08	SDG No.:	LB86835
Lab Sample ID:	I2625-02	Matrix:	Solid
Level (low/med):	low	% Solid:	75

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.17	J	1	0.042		0.32	mg/Kg	04/11/2017	04/11/2017	9012B



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Report of Analysis

Client:		Date Collected:	4/10/2017 12:00:00 AM
Project:	LB86835	Date Received:	4/11/2017 12:00:00 AM
Client Sample ID:	IM-TS-EME-08	SDG No.:	LB86835
Lab Sample ID:	I2625-02	Matrix:	Solid
Level (low/med):	low	% Solid:	75

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: LB86835

SDG No.: LB86835

Contract: _____

Lab Code: CHEM

Case No.: LB86835

SAS No.: LB86835

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	Cyanide	0.093	0.099	93.9	0	85 - 115		04/11/2017	16:27	LB86835



GENCHEM

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB86835

SDG No.: LB86835

Contract: _____ Lab Code: CHEM

Case No.: LB86835

SAS No.: LB86835

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		04/11/2017	16:27	LB86835
CCV2	Cyanide	0.25	0.25	100	0	90 - 110		04/11/2017	16:31	LB86835



GENCHEM

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB86835

SDG No.: LB86835

Contract:

Lab Code: CHEM

Case No.: LB86835

SAS No.: LB86835

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB1	Cyanide	0.00083	+/-0.005	U		0.005		04/11/2017	16:27	LB86835



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- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB86835

SDG No.: LB86835

Contract:

Lab Code: CHEM

Case No.: LB86835

SAS No.: LB86835

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB1	Cyanide	0.0008	+/-0.005	U		0.005		04/11/2017	16:27	LB86835
CCB2	Cyanide	0.00084	+/-0.005	U		0.005		04/11/2017	16:31	LB86835



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- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB86835

SDG No.: LB86835

Contract: Lab Code: CHEM

Case No.: LB86835

SAS No.: LB86835

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: LB86835

SDG No.: LB86835

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
PB98204BL	Cyanide	SOLID 0.024	<0.25	Batch Number: U		PB98204 0.25		Prep Date: 04/11/2017	04/11/2017 16:27	LB86835



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MATRIX SPIKE SUMMARY

client: LB86835 level: low sdg no.: LB86835
contract: lab code: CHEM case no.: LB86835 sas no.: LB86835
matrix: Solid sample id: I2624-01 client id: IM-TS-WSG-04MS
Percent Solids for Sample: 74.1 Spiked ID: I2624-01MS Percent Solids for Spike Sample: 74.1

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cyanide	mg/Kg	75 - 125	2.5		0.11	J	2.6	92		



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- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: LB86835 level: low sdg no.: LB86835
contract: lab code: CHEM case no.: LB86835 sas no.: LB86835
matrix: Solid sample id: I2624-01 client id: IM-TS-WSG-04MSD
Percent Solids for Sample: 74.1 Spiked ID: I2624-01MSD Percent Solids for Spike Sample: 74.1

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cyanide	mg/Kg	75 - 125	2.4		0.11	J	2.6	88		

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DUPLICATE SAMPLE SUMMARY

Client: LB86835 **Level:** LOW **SDG No.:** LB86835
Contract: **Lab Code:** CHEM **Case No.:** LB86835 **SAS No.:** LB86835
Matrix: Solid **Sample ID:** I2624-01 **Client ID:** IM-TS-WSG-04DUP
Percent Solids for Sample: 74.1 **Duplicate ID** I2624-01DUP **Percent Solids for Spike Sample:** 74.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cyanide	mg/Kg	20	0.11	J	0.091	J	19		

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DUPLICATE SAMPLE SUMMARY

Client: LB86835 Level: LOW SDG No.: LB86835
Contract: _____ Lab Code: CHEM Case No.: LB86835 SAS No.: LB86835
Matrix: Solid Sample ID: I2624-01MS Client ID: IM-TS-WSG-04MSD
Percent Solids for Sample: 74.1 Duplicate ID I2624-01MSD Percent Solids for Spike Sample: 74.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cyanide	mg/Kg	20	2.5		2.4		4		



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LABORATORY CONTROL SAMPLE SUMMARY

Client: LB86835

SDG No.: LB86835

Contract:

Lab Code: CHEM

Case No.: LB86835

SAS No.: LB86835

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB98204BS Cyanide	mg/Kg	5	4.9		98	85 - 115	

Daily Analysis Runlog For Sequence/QC Batch ID # LB86835

Review By		Review On				
SubDirectory		LB86835		Test : Cyanide		
STD. NAME		STD REF.#				
ICAL Standard		WP54148,WP54149,WP54150,WP54151,WP54152,WP54153,WP54154,WP54155				
ICV Standard		W1540				
CCV Standard		WP54157				
ICSA Standard		N/A				
CRI Standard		N/A				
LCS Standard		WP51099				
Chk Standard		WP54156,WP51276,WP51626				
Sr#	SampleID	ClientID	QcType	Date	Comment	Status
1	0.0PPBCN	0.0PPBCN	CAL1	04/11/17 10:54		OK
2	5.0PPBCN	5.0PPBCN	CAL2	04/11/17 10:54		OK
3	10PPBCN	10PPBCN	CAL3	04/11/17 10:54		OK
4	50PPBCN	50PPBCN	CAL4	04/11/17 10:54		OK
5	100PPBCN	100PPBCN	CAL5	04/11/17 10:54		OK
6	250PPBCN	250PPBCN	CAL6	04/11/17 10:54		OK
7	500PPBCN	500PPBCN	CAL7	04/11/17 10:54		OK
8	ICV1	ICV1	ICV	04/11/17 16:27		OK
9	ICB1	ICB1	ICB	04/11/17 16:27		OK
10	CCV1	CCV1	CCV	04/11/17 16:27		OK
11	CCB1	CCB1	CCB	04/11/17 16:27		OK
12	PB98204BL	PB98204BL	MB	04/11/17 16:27		OK
13	PB98204BS	PB98204BS	LCS	04/11/17 16:27		OK
14	I2624-01	IM-TS-WSG-04	SAM	04/11/17 16:27		OK
15	I2624-01DUP	IM-TS-WSG-04DUP	DUP	04/11/17 16:27		OK
16	I2624-01MS	IM-TS-WSG-04MS	MS	04/11/17 16:27		OK
17	I2624-01MSD	IM-TS-WSG-04MSD	MSD	04/11/17 16:27		OK
18	I2625-02	IM-TS-EME-08	SAM	04/11/17 16:27		OK
19	CCV2	CCV2	CCV	04/11/17 16:31		OK
20	CCB2	CCB2	CCB	04/11/17 16:31		OK