

Daily Analysis Runlog For Sequence/QC Batch ID # LB93520

Review By		Review On				
SubDirectory		LB93520		Test : Cyanide		
STD. NAME		STD REF.#				
ICAL Standard		WP62283,WP62284,WP62285,WP62286,WP62287,WP62288,WP62289				
ICV Standard		W1542				
CCV Standard		WP62290				
ICSA Standard		N/A				
CRI Standard		N/A				
LCS Standard		WP58910				
Chk Standard		WP62292,WP59958,WP60878				
Sr#	SampleID	ClientID	QcType	Date	Comment	Status
1	0.0PPBCN	0.0PPBCN	CAL1	02/26/18 11:49		OK
2	5.0PPBCN	5.0PPBCN	CAL2	02/26/18 11:49		OK
3	10PPBCN	10PPBCN	CAL3	02/26/18 11:49		OK
4	50PPBCN	50PPBCN	CAL4	02/26/18 11:49		OK
5	100PPBCN	100PPBCN	CAL5	02/26/18 11:49		OK
6	250PPBCN	250PPBCN	CAL6	02/26/18 11:49		OK
7	500PPBCN	500PPBCN	CAL7	02/26/18 11:49		OK
8	ICV1	ICV1	ICV	02/26/18 15:20		OK
9	ICB1	ICB1	ICB	02/26/18 15:20		OK
10	CCV1	CCV1	CCV	02/26/18 15:20		OK
11	CCB1	CCB1	CCB	02/26/18 15:20		OK
12	PB106842BL	PB106842BL	MB	02/26/18 15:20		OK
13	PB106842BS	PB106842BS	LCS	02/26/18 15:20		OK
14	J1691-01	B1	SAM	02/26/18 15:20		OK
15	J1691-01DUP	B1DUP	DUP	02/26/18 15:20		OK
16	J1691-01MS	B1MS	MS	02/26/18 15:20		OK
17	J1691-01MSD	B1MSD	MSD	02/26/18 15:20		OK
18	J1691-05	B2	SAM	02/26/18 15:20		OK
19	J1691-09	B3	SAM	02/26/18 15:28		OK
20	J1691-13	B4	SAM	02/26/18 15:28		OK
21	J1691-17	B5	SAM	02/26/18 15:28		OK

Daily Analysis Runlog For Sequence/QC Batch ID # LB93520

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ICAL Standard		WP62283,WP62284,WP62285,WP62286,WP62287,WP62288,WP62289				
ICV Standard		W1542				
CCV Standard		WP62290				
ICSA Standard		N/A				
CRI Standard		N/A				
LCS Standard		WP58910				
Chk Standard		WP62292,WP59958,WP60878				
22	CCV2	CCV2	CCV	02/26/18 15:28		OK
23	CCB2	CCB2	CCB	02/26/18 15:28		OK
24	J1691-21	B6	SAM	02/26/18 15:28		OK
25	J1691-25	B7	SAM	02/26/18 15:28		OK
26	J1691-29	B8	SAM	02/26/18 15:28		OK
27	J1691-33	B9	SAM	02/26/18 15:28		OK
28	J1691-37	B10	SAM	02/26/18 15:28		OK
29	J1691-41	B11	SAM	02/26/18 15:28		OK
30	J1691-45	B12	SAM	02/26/18 15:35		OK
31	J1691-49	B13	SAM	02/26/18 15:35		OK
32	J1691-53	B14	SAM	02/26/18 15:35		OK
33	J1691-57	B15	SAM	02/26/18 15:35		OK
34	CCV3	CCV3	CCV	02/26/18 15:35		OK
35	CCB3	CCB3	CCB	02/26/18 15:35		OK
36	J1691-61	B16	SAM	02/26/18 15:35		OK
37	CCV4	CCV4	CCV	02/26/18 15:35		OK
38	CCB4	CCB4	CCB	02/26/18 15:35		OK



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Report of Analysis

Client:		Date Collected:	2/23/2018 12:00:00 AM
Project:	LB93520	Date Received:	2/23/2018 12:00:00 AM
Client Sample ID:	B1	SDG No.:	LB93520
Lab Sample ID:	J1691-01	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	0.13	J	1	0.037		0.28	mg/Kg	02/26/2018	02/26/2018	9012B



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Report of Analysis

Client:		Date Collected:	2/23/2018 12:00:00 AM
Project:	LB93520	Date Received:	2/23/2018 12:00:00 AM
Client Sample ID:	B2	SDG No.:	LB93520
Lab Sample ID:	J1691-05	Matrix:	Solid
Level (low/med):	low	% Solid:	80.8

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.31		1	0.04		0.31	mg/Kg	02/26/2018	02/26/2018	9012B



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Report of Analysis

Client:		Date Collected:	2/23/2018 12:00:00 AM
Project:	LB93520	Date Received:	2/23/2018 12:00:00 AM
Client Sample ID:	B3	SDG No.:	LB93520
Lab Sample ID:	J1691-09	Matrix:	Solid
Level (low/med):	low	% Solid:	76.6

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.31	J	1	0.042		0.32	mg/Kg	02/26/2018	02/26/2018	9012B



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Report of Analysis

Client:		Date Collected:	2/23/2018 12:00:00 AM
Project:	LB93520	Date Received:	2/23/2018 12:00:00 AM
Client Sample ID:	B4	SDG No.:	LB93520
Lab Sample ID:	J1691-13	Matrix:	Solid
Level (low/med):	low	% Solid:	88.3

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.25	J	1	0.036		0.27	mg/Kg	02/26/2018	02/26/2018	9012B



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Report of Analysis

Client:		Date Collected:	2/23/2018 12:00:00 AM
Project:	LB93520	Date Received:	2/23/2018 12:00:00 AM
Client Sample ID:	B5	SDG No.:	LB93520
Lab Sample ID:	J1691-17	Matrix:	Solid
Level (low/med):	low	% Solid:	86.8

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.69		1	0.037		0.28	mg/Kg	02/26/2018	02/26/2018	9012B

Report of Analysis

Client:		Date Collected:	2/23/2018 12:00:00 AM
Project:	LB93520	Date Received:	2/23/2018 12:00:00 AM
Client Sample ID:	B6	SDG No.:	LB93520
Lab Sample ID:	J1691-21	Matrix:	Solid
Level (low/med):	low	% Solid:	83.9

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.18	J	1	0.039		0.3	mg/Kg	02/26/2018	02/26/2018	9012B



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Report of Analysis

Client:		Date Collected:	2/23/2018 12:00:00 AM
Project:	LB93520	Date Received:	2/23/2018 12:00:00 AM
Client Sample ID:	B7	SDG No.:	LB93520
Lab Sample ID:	J1691-25	Matrix:	Solid
Level (low/med):	low	% Solid:	82.2

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.25	J	1	0.039		0.3	mg/Kg	02/26/2018	02/26/2018	9012B

Report of Analysis

Client:		Date Collected:	2/23/2018 12:00:00 AM
Project:	LB93520	Date Received:	2/23/2018 12:00:00 AM
Client Sample ID:	B8	SDG No.:	LB93520
Lab Sample ID:	J1691-29	Matrix:	Solid
Level (low/med):	low	% Solid:	81.7

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.15	J	1	0.04		0.3	mg/Kg	02/26/2018	02/26/2018	9012B



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Report of Analysis

Client:		Date Collected:	2/23/2018 12:00:00 AM
Project:	LB93520	Date Received:	2/23/2018 12:00:00 AM
Client Sample ID:	B9	SDG No.:	LB93520
Lab Sample ID:	J1691-33	Matrix:	Solid
Level (low/med):	low	% Solid:	93.1

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.083	J	1	0.034		0.26	mg/Kg	02/26/2018	02/26/2018	9012B



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Report of Analysis

Client:		Date Collected:	2/23/2018 12:00:00 AM
Project:	LB93520	Date Received:	2/23/2018 12:00:00 AM
Client Sample ID:	B10	SDG No.:	LB93520
Lab Sample ID:	J1691-37	Matrix:	Solid
Level (low/med):	low	% Solid:	81.4

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.1	J	1	0.039		0.3	mg/Kg	02/26/2018	02/26/2018	9012B



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Report of Analysis

Client:		Date Collected:	2/23/2018 12:00:00 AM
Project:	LB93520	Date Received:	2/23/2018 12:00:00 AM
Client Sample ID:	B11	SDG No.:	LB93520
Lab Sample ID:	J1691-41	Matrix:	Solid
Level (low/med):	low	% Solid:	80.7

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.25	J	1	0.039		0.3	mg/Kg	02/26/2018	02/26/2018	9012B



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Report of Analysis

Client:		Date Collected:	2/23/2018 12:00:00 AM
Project:	LB93520	Date Received:	2/23/2018 12:00:00 AM
Client Sample ID:	B12	SDG No.:	LB93520
Lab Sample ID:	J1691-45	Matrix:	Solid
Level (low/med):	low	% Solid:	86.2

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.55		1	0.037		0.28	mg/Kg	02/26/2018	02/26/2018	9012B



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Report of Analysis

Client:		Date Collected:	2/23/2018 12:00:00 AM
Project:	LB93520	Date Received:	2/23/2018 12:00:00 AM
Client Sample ID:	B13	SDG No.:	LB93520
Lab Sample ID:	J1691-49	Matrix:	Solid
Level (low/med):	low	% Solid:	82.2

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.15	J	1	0.039		0.29	mg/Kg	02/26/2018	02/26/2018	9012B



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Report of Analysis

Client:		Date Collected:	2/23/2018 12:00:00 AM
Project:	LB93520	Date Received:	2/23/2018 12:00:00 AM
Client Sample ID:	B14	SDG No.:	LB93520
Lab Sample ID:	J1691-53	Matrix:	Solid
Level (low/med):	low	% Solid:	90.8

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.14	J	1	0.036		0.27	mg/Kg	02/26/2018	02/26/2018	9012B



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Report of Analysis

Client:		Date Collected:	2/23/2018 12:00:00 AM
Project:	LB93520	Date Received:	2/23/2018 12:00:00 AM
Client Sample ID:	B15	SDG No.:	LB93520
Lab Sample ID:	J1691-57	Matrix:	Solid
Level (low/med):	low	% Solid:	86.8

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.13	J	1	0.038		0.29	mg/Kg	02/26/2018	02/26/2018	9012B



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Report of Analysis

Client:		Date Collected:	2/23/2018 12:00:00 AM
Project:	LB93520	Date Received:	2/23/2018 12:00:00 AM
Client Sample ID:	B16	SDG No.:	LB93520
Lab Sample ID:	J1691-61	Matrix:	Solid
Level (low/med):	low	% Solid:	86.2

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.038	J	1	0.038		0.29	mg/Kg	02/26/2018	02/26/2018	9012B



Report of Analysis

Client:		Date Collected:	2/23/2018 12:00:00 AM
Project:	LB93520	Date Received:	2/23/2018 12:00:00 AM
Client Sample ID:	B16	SDG No.:	LB93520
Lab Sample ID:	J1691-61	Matrix:	Solid
Level (low/med):	low	% Solid:	86.2

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: LB93520

SDG No.: LB93520

Contract: _____ Lab Code: CHEM

Case No.: LB93520

SAS No.: LB93520

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	Cyanide	0.25	0.25	100		90 - 110		02/26/2018	15:20	LB93520
CCV2	Cyanide	0.25	0.25	100		90 - 110		02/26/2018	15:28	LB93520
CCV3	Cyanide	0.25	0.25	100		90 - 110		02/26/2018	15:35	LB93520
CCV4	Cyanide	0.25	0.25	100		90 - 110		02/26/2018	15:35	LB93520



GENCHEM

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB93520

SDG No.: LB93520

Contract:

Lab Code: CHEM

Case No.: LB93520

SAS No.: LB93520

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB1	Cyanide	0.00038	+/-0.005	U		0.005		02/26/2018	15:20	LB93520

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB1	Cyanide	0.00018	+/-0.005	U		0.005		02/26/2018	15:20	LB93520
CCB2	Cyanide	0	+/-0.005	U		0.005		02/26/2018	15:28	LB93520
CCB3	Cyanide	0.00043	+/-0.005	U		0.005		02/26/2018	15:35	LB93520
CCB4	Cyanide	0.00057	+/-0.005	U		0.005		02/26/2018	15:35	LB93520



GENCHEM

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB93520

SDG No.: LB93520

Contract: Lab Code: CHEM

Case No.: LB93520

SAS No.: LB93520

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

Client: LB93520

SDG No.: LB93520

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
PB106842BL	Cyanide	SOLID 0.009	<0.24	Batch Number: U		PB106842 0.24		Prep Date: 02/26/2018	02/26/2018 15:20	LB93520



GENCHEM
- 5a -
MATRIX SPIKE SUMMARY

client: LB93520 level: low sdg no.: LB93520
contract: lab code: CHEM case no.: LB93520 sas no.: LB93520
matrix: Solid sample id: J1691-01 client id: B1MS
Percent Solids for Sample: 87 Spiked ID: J1691-01MS Percent Solids for Spike Sample: 87

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cyanide	mg/Kg	75 - 125	2.1		0.13	J	2.3	86		



GENCHEM
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: LB93520 level: low sdg no.: LB93520
contract: lab code: CHEM case no.: LB93520 sas no.: LB93520
matrix: Solid sample id: J1691-01 client id: B1MSD
Percent Solids for Sample: 87 Spiked ID: J1691-01MSD Percent Solids for Spike Sample: 87

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cyanide	mg/Kg	75 - 125	2.1		0.13	J	2.2	90		

GENCHEM

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DUPLICATE SAMPLE SUMMARY

Client: LB93520 **Level:** LOW **SDG No.:** LB93520
Contract: **Lab Code:** CHEM **Case No.:** LB93520 **SAS No.:** LB93520
Matrix: Solid **Sample ID:** J1691-01 **Client ID:** B1DUP
Percent Solids for Sample: 87 **Duplicate ID** J1691-01DUP **Percent Solids for Spike Sample:** 87

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cyanide	mg/Kg	20	0.13	J	0.12	J	8		

GENCHEM

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DUPLICATE SAMPLE SUMMARY

Client: LB93520 **Level:** LOW **SDG No.:** LB93520
Contract: **Lab Code:** CHEM **Case No.:** LB93520 **SAS No.:** LB93520
Matrix: Solid **Sample ID:** J1691-01MS **Client ID:** B1MSD
Percent Solids for Sample: 87 **Duplicate ID** J1691-01MSD **Percent Solids for Spike Sample:** 87

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cyanide	mg/Kg	20	2.1		2.1		0		



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LABORATORY CONTROL SAMPLE SUMMARY

Client: LB93520

SDG No.: LB93520

Contract:

Lab Code: CHEM

Case No.: LB93520

SAS No.: LB93520

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB106842BS Cyanide	mg/Kg	4.9	4.8		98	85 - 115	