

Daily Analysis Runlog For Sequence/QC Batch ID # LB93772

Review By		Review On				
SubDirectory		LB93772		Test : Cyanide		
STD. NAME		STD REF.#				
ICAL Standard		WP62544,WP62545,WP62546,WP62547,WP62548,WP62549,WP62550				
ICV Standard		W1542				
CCV Standard		WP62551				
ICSA Standard		N/A				
CRI Standard		N/A				
LCS Standard		WP58910				
Chk Standard		WP62553,WP59958,WP60878				
Sr#	SampleID	ClientID	QcType	Date	Comment	Status
1	0.0PPBCN	0.0PPBCN	CAL1	03/08/18 11:24		OK
2	5.0PPBCN	5.0PPBCN	CAL2	03/08/18 11:24		OK
3	10PPBCN	10PPBCN	CAL3	03/08/18 11:24		OK
4	50PPBCN	50PPBCN	CAL4	03/08/18 11:24		OK
5	100PPBCN	100PPBCN	CAL5	03/08/18 11:24		OK
6	250PPBCN	250PPBCN	CAL6	03/08/18 11:24		OK
7	500PPBCN	500PPBCN	CAL7	03/08/18 11:24		OK
8	ICV1	ICV1	ICV	03/08/18 14:18		OK
9	ICB1	ICB1	ICB	03/08/18 14:18		OK
10	CCV1	CCV1	CCV	03/08/18 14:18		OK
11	CCB1	CCB1	CCB	03/08/18 14:18		OK
12	PB107159BL	PB107159BL	MB	03/08/18 14:18		OK
13	PB107159BS	PB107159BS	LCS	03/08/18 14:18		OK
14	J1748-03	AU-06-030618-B	SAM	03/08/18 14:18		OK
15	J1748-05	AU-06-030618-C	SAM	03/08/18 14:26		OK
16	J1749-01	BU-01-030618	SAM	03/08/18 14:26		OK
17	J1760-01	SU-04-030618	SAM	03/08/18 14:26		OK
18	CCV2	CCV2	CCV	03/08/18 14:26		OK
19	CCB2	CCB2	CCB	03/08/18 14:26		OK
20	J1811-13	COMP-1	SAM	03/08/18 14:26		OK
21	J1811-14	COMP-2	SAM	03/08/18 14:26		OK

Daily Analysis Runlog For Sequence/QC Batch ID # LB93772

Review By			Review On			
SubDirectory		LB93772		Test : Cyanide		
STD. NAME		STD REF.#				
ICAL Standard		WP62544,WP62545,WP62546,WP62547,WP62548,WP62549,WP62550				
ICV Standard		W1542				
CCV Standard		WP62551				
ICSA Standard		N/A				
CRI Standard		N/A				
LCS Standard		WP58910				
Chk Standard		WP62553,WP59958,WP60878				
22	J1819-01	TP-9	SAM	03/08/18 14:26		OK
23	J1819-02	TP-10	SAM	03/08/18 14:26		OK
24	J1819-03	TP-11	SAM	03/08/18 14:26		OK
25	PB107158BL	PB107158BL	MB	03/08/18 14:26		OK
26	PB107158BS	PB107158BS	LCS	03/08/18 14:33		OK
27	J1819-07	TP-10	SAM	03/08/18 14:33		OK
28	J1819-07DUP	TP-10DUP	DUP	03/08/18 14:33		OK
29	J1819-07MS	TP-10MS	MS	03/08/18 14:33		OK
30	CCV3	CCV3	CCV	03/08/18 14:33		OK
31	CCB3	CCB3	CCB	03/08/18 14:33		OK
32	J1819-07MSD	TP-10MSD	MSD	03/08/18 14:33		OK
33	J1821-05	FIELDBLANK-20180	SAM	03/08/18 14:33		OK
34	J1748-01	AU-06-030618-A	SAM	03/08/18 15:09		OK
35	J1748-01DUP	AU-06-030618-ADUP	DUP	03/08/18 15:09		OK
36	J1748-01MS	AU-06-030618-AMS	MS	03/08/18 15:09		OK
37	J1748-01MSD	AU-06-030618-AMSD	MSD	03/08/18 15:09		OK
38	CCV4	CCV4	CCV	03/08/18 15:10		OK
39	CCB4	CCB4	CCB	03/08/18 15:10		OK



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Report of Analysis

Client:		Date Collected:	3/6/2018 12:00:00 AM
Project:	LB93772	Date Received:	3/6/2018 12:00:00 AM
Client Sample ID:	AU-06-030618-A	SDG No.:	LB93772
Lab Sample ID:	J1748-01	Matrix:	Solid
Level (low/med):	low	% Solid:	87.7

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.1	J	1	0.037		0.28	mg/Kg	03/08/2018	03/08/2018	9012B



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Report of Analysis

Client:		Date Collected:	3/6/2018 12:00:00 AM
Project:	LB93772	Date Received:	3/6/2018 12:00:00 AM
Client Sample ID:	AU-06-030618-B	SDG No.:	LB93772
Lab Sample ID:	J1748-03	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	0.074	J	1	0.035		0.27	mg/Kg	03/08/2018	03/08/2018	9012B



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Report of Analysis

Client:		Date Collected:	3/6/2018 12:00:00 AM
Project:	LB93772	Date Received:	3/6/2018 12:00:00 AM
Client Sample ID:	AU-06-030618-C	SDG No.:	LB93772
Lab Sample ID:	J1748-05	Matrix:	Solid
Level (low/med):	low	% Solid:	85.6

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.058	J	1	0.038		0.29	mg/Kg	03/08/2018	03/08/2018	9012B



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Report of Analysis

Client:		Date Collected:	3/6/2018 12:00:00 AM
Project:	LB93772	Date Received:	3/6/2018 12:00:00 AM
Client Sample ID:	BU-01-030618	SDG No.:	LB93772
Lab Sample ID:	J1749-01	Matrix:	Solid
Level (low/med):	low	% Solid:	88.8

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.037	J	1	0.035		0.27	mg/Kg	03/08/2018	03/08/2018	9012B



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Report of Analysis

Client:		Date Collected:	3/6/2018 12:00:00 AM
Project:	LB93772	Date Received:	3/6/2018 12:00:00 AM
Client Sample ID:	SU-04-030618	SDG No.:	LB93772
Lab Sample ID:	J1760-01	Matrix:	Solid
Level (low/med):	low	% Solid:	88.2

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.11	J	1	0.036		0.27	mg/Kg	03/08/2018	03/08/2018	9012B



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Report of Analysis

Client:		Date Collected:	3/5/2018 12:00:00 AM
Project:	LB93772	Date Received:	3/5/2018 12:00:00 AM
Client Sample ID:	COMP-1	SDG No.:	LB93772
Lab Sample ID:	J1811-13	Matrix:	Solid
Level (low/med):	low	% Solid:	86.5

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.34		1	0.037		0.28	mg/Kg	03/08/2018	03/08/2018	9012B

Report of Analysis

Client:		Date Collected:	3/5/2018 12:00:00 AM
Project:	LB93772	Date Received:	3/5/2018 12:00:00 AM
Client Sample ID:	COMP-2	SDG No.:	LB93772
Lab Sample ID:	J1811-14	Matrix:	Solid
Level (low/med):	low	% Solid:	83.7

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.37		1	0.039		0.3	mg/Kg	03/08/2018	03/08/2018	9012B

Report of Analysis

Client:		Date Collected:	3/5/2018 12:00:00 AM
Project:	LB93772	Date Received:	3/6/2018 12:00:00 AM
Client Sample ID:	TP-9	SDG No.:	LB93772
Lab Sample ID:	J1819-01	Matrix:	Solid
Level (low/med):	low	% Solid:	86.3

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.17	J	1	0.038		0.29	mg/Kg	03/08/2018	03/08/2018	9012B



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Report of Analysis

Client:		Date Collected:	3/5/2018 12:00:00 AM
Project:	LB93772	Date Received:	3/6/2018 12:00:00 AM
Client Sample ID:	TP-10	SDG No.:	LB93772
Lab Sample ID:	J1819-02	Matrix:	Solid
Level (low/med):	low	% Solid:	85.6

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.24	J	1	0.038		0.29	mg/Kg	03/08/2018	03/08/2018	9012B



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Report of Analysis

Client:		Date Collected:	3/5/2018 12:00:00 AM
Project:	LB93772	Date Received:	3/6/2018 12:00:00 AM
Client Sample ID:	TP-11	SDG No.:	LB93772
Lab Sample ID:	J1819-03	Matrix:	Solid
Level (low/med):	low	% Solid:	90

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.55		1	0.036		0.27	mg/Kg	03/08/2018	03/08/2018	9012B



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Report of Analysis

Client:		Date Collected:	3/5/2018 12:00:00 AM
Project:	LB93772	Date Received:	3/6/2018 12:00:00 AM
Client Sample ID:	TP-10	SDG No.:	LB93772
Lab Sample ID:	J1819-07	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.0089		1	0.003		0.005	mg/L	03/08/2018	03/08/2018	9012B



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Report of Analysis

Client:		Date Collected:	3/5/2018 12:00:00 AM
Project:	LB93772	Date Received:	3/6/2018 12:00:00 AM
Client Sample ID:	FIELDBLANK-20180203	SDG No.:	LB93772
Lab Sample ID:	J1821-05	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	0.00085	U	1	0.003		0.005	mg/L	03/08/2018	03/08/2018	9012B



Report of Analysis

Client:		Date Collected:	3/5/2018 12:00:00 AM
Project:	LB93772	Date Received:	3/6/2018 12:00:00 AM
Client Sample ID:	FIELD BLANK-20180203	SDG No.:	LB93772
Lab Sample ID:	J1821-05	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



GENCHEM

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB93772

SDG No.: LB93772

Contract: _____

Lab Code: CHEM

Case No.: LB93772

SAS No.: LB93772

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
ICV1	Cyanide	0.097	0.099	98		85 - 115		03/08/2018	14:18	LB93772



GENCHEM

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB93772

SDG No.: LB93772

Contract: _____ Lab Code: CHEM

Case No.: LB93772

SAS No.: LB93772

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	0.24	0.25	96		90 - 110		03/08/2018	14:18	LB93772
CCV2	Cyanide	0.24	0.25	96		90 - 110		03/08/2018	14:26	LB93772
CCV3	Cyanide	0.25	0.25	100		90 - 110		03/08/2018	14:33	LB93772
CCV4	Cyanide	0.24	0.25	96		90 - 110		03/08/2018	15:10	LB93772



GENCHEM

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB93772

SDG No.: LB93772

Contract:

Lab Code: CHEM

Case No.: LB93772

SAS No.: LB93772

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB1	Cyanide	0.00074	+/-0.005	U		0.005		03/08/2018	14:18	LB93772



GENCHEM

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB93772

SDG No.: LB93772

Contract:

Lab Code: CHEM

Case No.: LB93772

SAS No.: LB93772

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB1	Cyanide	0.00062	+/-0.005	U		0.005		03/08/2018	14:18	LB93772
CCB2	Cyanide	0.00063	+/-0.005	U		0.005		03/08/2018	14:26	LB93772
CCB3	Cyanide	0.0007	+/-0.005	U		0.005		03/08/2018	14:33	LB93772
CCB4	Cyanide	0.001	+/-0.005	U		0.005		03/08/2018	15:10	LB93772



GENCHEM

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB93772

SDG No.: LB93772

Contract: Lab Code: CHEM

Case No.: LB93772

SAS No.: LB93772

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: LB93772

SDG No.: LB93772

Instrument: Konelab 20

Sample ID	Analyte	Result (mg/L)	Acceptance Limit	Conc Qual	LOD mg/L	CRQL mg/L	M	Analysis Date	Analysis Time	Run
PB107158BL	Cyanide	WATER		Batch Number:		PB107158		Prep Date:	03/08/2018	
		0.00036	<0.005	U		0.005		03/08/2018	14:26	LB93772
Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	LOD mg/Kg	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB107159BL	Cyanide	SOLID		Batch Number:		PB107159		Prep Date:	03/08/2018	
		0.031	<0.25	U		0.25		03/08/2018	14:18	LB93772



GENCHEM
- 5a -
MATRIX SPIKE SUMMARY

client: LB93772 level: low sdg no.: LB93772
contract: lab code: CHEM case no.: LB93772 sas no.: LB93772
matrix: Solid sample id: J1748-01 client id: AU-06-030618-AMS
Percent Solids for Sample: 87.7 Spiked ID: J1748-01MS Percent Solids for Spike Sample: 87.7

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cyanide	mg/Kg	75 - 125	1.6		0.1	J	2.2	68	*	



GENCHEM
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: LB93772 level: low sdg no.: LB93772
contract: lab code: CHEM case no.: LB93772 sas no.: LB93772
matrix: Solid sample id: J1748-01 client id: AU-06-030618-AMSD
Percent Solids for Sample: 87.7 Spiked ID: J1748-01MSD Percent Solids for Spike Sample: 87.7

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cyanide	mg/Kg	75 - 125	1.7		0.1	J	2.3	70	*	



GENCHEM
- 5a -
MATRIX SPIKE SUMMARY

client: LB93772 level: low sdg no.: LB93772
contract: lab code: CHEM case no.: LB93772 sas no.: LB93772
matrix: WATER sample id: J1819-07 client id: TP-10MS
Percent Solids for Sample: 0 Spiked ID: J1819-07MS 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	0.047		0.0089		0.04	95		



GENCHEM
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: LB93772 level: low sdg no.: LB93772
contract: lab code: CHEM case no.: LB93772 sas no.: LB93772
matrix: WATER sample id: J1819-07 client id: TP-10MSD
Percent Solids for Sample: 0 Spiked ID: J1819-07MSD 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	0.048		0.0089		0.04	98		

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

Client: LB93772 **Level:** LOW **SDG No.:** LB93772
Contract: **Lab Code:** CHEM **Case No.:** LB93772 **SAS No.:** LB93772
Matrix: Solid **Sample ID:** J1748-01 **Client ID:** AU-06-030618-ADUP
Percent Solids for Sample: 87.7 **Duplicate ID** J1748-01DUP **Percent Solids for Spike Sample:** 87.7

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cyanide	mg/Kg	20	0.1	J	0.099	J	1		

GENCHEM

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: LB93772 Level: LOW SDG No.: LB93772
 Contract: _____ Lab Code: CHEM Case No.: LB93772 SAS No.: LB93772
 Matrix: Solid Sample ID: J1748-01MS Client ID: AU-06-030618-AMSD
 Percent Solids for Sample: 87.7 Duplicate ID J1748-01MSD Percent Solids for Spike Sample: 87.7

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cyanide	mg/Kg	20	1.6		1.7		6		

GENCHEM

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: LB93772 **Level:** LOW **SDG No.:** LB93772
Contract: **Lab Code:** CHEM **Case No.:** LB93772 **SAS No.:** LB93772
Matrix: WATER **Sample ID:** J1819-07 **Client ID:** TP-10DUP
Percent Solids for Sample: 0 **Duplicate ID** J1819-07DUP **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cyanide	mg/L	20	0.0089		0.0089		0		

GENCHEM

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: LB93772 **Level:** LOW **SDG No.:** LB93772
Contract: **Lab Code:** CHEM **Case No.:** LB93772 **SAS No.:** LB93772
Matrix: WATER **Sample ID:** J1819-07MS **Client ID:** TP-10MSD
Percent Solids for Sample: 0 **Duplicate ID** J1819-07MSD **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cyanide	mg/L	20	0.047		0.048		2		



GENCHEM

- 7 -

LABORATORY CONTROL SAMPLE SUMMARY

Client: LB93772

SDG No.: LB93772

Contract:

Lab Code: CHEM

Case No.: LB93772

SAS No.: LB93772

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB107158BS Cyanide	mg/L	0.1	0.097		97	85 - 115	



GENCHEM

- 7 -

LABORATORY CONTROL SAMPLE SUMMARY

Client: LB93772 SDG No.: LB93772
Contract: Lab Code: CHEM Case No.: LB93772 SAS No.: LB93772

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB107159BS Cyanide	mg/Kg	5	4.9		98	85 - 115	
