

Daily Analysis Runlog For Sequence/QC Batch ID # LB89436

Review By		Review On				
SubDirectory		LB89436		Test : Cyanide		
STD. NAME		STD REF.#				
ICAL Standard		WP57169,WP57170,WP57171,WP57171,WP57172,WP57173,WP57173,WP57174,WP57175,WP57176				
ICV Standard		WP57179				
CCV Standard		WP57178				
ICSA Standard		N/A				
CRI Standard		N/A				
LCS Standard		N/A				
Chk Standard		WP5177,WP55355,WP55836				

Sr#	SampleID	ClientID	QcType	Date	Comment	Status
1	0.0PPBCN	0.0PPBCN	CAL1	08/11/17 09:58		OK
2	5.0PPBCN	5.0PPBCN	CAL2	08/11/17 09:58		OK
3	10PPBCN	10PPBCN	CAL3	08/11/17 09:58		OK
4	50PPBCN	50PPBCN	CAL4	08/11/17 09:58		OK
5	100PPBCN	100PPBCN	CAL5	08/11/17 09:58		OK
6	250PPBCN	250PPBCN	CAL6	08/11/17 09:58		OK
7	500PPBCN	500PPBCN	CAL7	08/11/17 09:58		OK
8	ICV1	ICV1	ICV	08/11/17 14:39		OK
9	ICB1	ICB1	ICB	08/11/17 14:39		OK
10	CCV1	CCV1	CCV	08/11/17 14:39		OK
11	CCB1	CCB1	CCB	08/11/17 14:39		OK
12	PB101465BL	PB101465BL	MB	08/11/17 14:40		OK
13	PB101465BS	PB101465BS	LCS	08/11/17 14:40		OK
14	LOWPB101465	LOWPB101465	SAM	08/11/17 14:47		OK
15	HIGHPB101465	HIGHPB101465	SAM	08/11/17 14:47		OK
16	I4705-01	SP-A-COMP	SAM	08/11/17 14:47		OK
17	I4705-01DUP	SP-A-COMPDUPLICATE	DUP	08/11/17 14:47		OK
18	I4705-01MS	SP-A-COMPMS	MS	08/11/17 14:47		OK
19	I4705-01MSD	SP-A-COMPMSD	MSD	08/11/17 14:47		OK
20	I4705-04	SP-B-COMP	SAM	08/11/17 14:47		OK
21	I4706-01	OR-02-081017	SAM	08/11/17 14:47		OK

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SubDirectory		LB89436		Test : Cyanide		
STD. NAME		STD REF.#				
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ICV Standard		WP57179				
CCV Standard		WP57178				
ICSA Standard		N/A				
CRI Standard		N/A				
LCS Standard		N/A				
Chk Standard		WP5177,WP55355,WP55836				
22	CCV2	CCV2	CCV	08/11/17 15:31		OK
23	CCB2	CCB2	CCB	08/11/17 15:31		OK
24	I4717-01	OK-02-081017	SAM	08/11/17 15:31		OK
25	I4727-01	FK-PS-01-012	SAM	08/11/17 15:31		OK
26	I4730-01	FK-PS-01-013	SAM	08/11/17 15:31		OK
27	I4739-01	S11-WC-1	SAM	08/11/17 15:31		OK
28	I4739-02	S11-WC-2	SAM	08/11/17 15:31		OK
29	I4739-03	S11-WC-3	SAM	08/11/17 15:31		OK
30	I4739-04	S11-WC-4	SAM	08/11/17 15:31		OK
31	I4739-05	S11-WC-5	SAM	08/11/17 15:31		OK
32	I4739-06	S11-WC-6	SAM	08/11/17 15:31		OK
33	I4739-07	S11-WC-7	SAM	08/11/17 15:35		OK
34	CCV3	CCV3	CCV	08/11/17 15:35		OK
35	CCB3	CCB3	CCB	08/11/17 15:35		OK



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Report of Analysis

Client:		Date Collected:	
Project:	LB89436	Date Received:	
Client Sample ID:	HIGHPB101465	SDG No.:	LB89436
Lab Sample ID:	HIGHPB101465	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		08/11/2017	9012B

Report of Analysis

Client:		Date Collected:	8/10/2017 12:00:00 AM
Project:	LB89436	Date Received:	8/10/2017 12:00:00 AM
Client Sample ID:	SP-A-COMP	SDG No.:	LB89436
Lab Sample ID:	I4705-01	Matrix:	Solid
Level (low/med):	low	% Solid:	92.8

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.013	U	1	0.035		0.26	mg/Kg	08/11/2017	08/11/2017	9012B



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Report of Analysis

Client:		Date Collected:	8/10/2017 12:00:00 AM
Project:	LB89436	Date Received:	8/10/2017 12:00:00 AM
Client Sample ID:	SP-B-COMP	SDG No.:	LB89436
Lab Sample ID:	I4705-04	Matrix:	Solid
Level (low/med):	low	% Solid:	92.1

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.051	U	1	0.034		0.26	mg/Kg	08/11/2017	08/11/2017	9012B



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Report of Analysis

Client:		Date Collected:	8/10/2017 12:00:00 AM
Project:	LB89436	Date Received:	8/10/2017 12:00:00 AM
Client Sample ID:	OR-02-081017	SDG No.:	LB89436
Lab Sample ID:	I4706-01	Matrix:	Solid
Level (low/med):	low	% Solid:	92.8

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	08/11/2017	08/11/2017	9012B



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Report of Analysis

Client:		Date Collected:	8/10/2017 12:00:00 AM
Project:	LB89436	Date Received:	8/10/2017 12:00:00 AM
Client Sample ID:	OK-02-081017	SDG No.:	LB89436
Lab Sample ID:	I4717-01	Matrix:	Solid
Level (low/med):	low	% Solid:	94.7

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.029	U	1	0.034		0.25	mg/Kg	08/11/2017	08/11/2017	9012B



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Report of Analysis

Client:		Date Collected:	8/10/2017 12:00:00 AM
Project:	LB89436	Date Received:	8/10/2017 12:00:00 AM
Client Sample ID:	FK-PS-01-012	SDG No.:	LB89436
Lab Sample ID:	I4727-01	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	-0.016	U	1	0.035		0.26	mg/Kg	08/11/2017	08/11/2017	9012B



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Report of Analysis

Client:		Date Collected:	8/10/2017 12:00:00 AM
Project:	LB89436	Date Received:	8/10/2017 12:00:00 AM
Client Sample ID:	FK-PS-01-013	SDG No.:	LB89436
Lab Sample ID:	I4730-01	Matrix:	Solid
Level (low/med):	low	% Solid:	90.7

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.046	U	1	0.035		0.27	mg/Kg	08/11/2017	08/11/2017	9012B



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Report of Analysis

Client:		Date Collected:	8/10/2017 12:00:00 AM
Project:	LB89436	Date Received:	8/10/2017 12:00:00 AM
Client Sample ID:	S11-WC-1	SDG No.:	LB89436
Lab Sample ID:	I4739-01	Matrix:	Solid
Level (low/med):	low	% Solid:	88.4

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.15	J	1	0.036		0.27	mg/Kg	08/11/2017	08/11/2017	9012B



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Report of Analysis

Client:		Date Collected:	8/10/2017 12:00:00 AM
Project:	LB89436	Date Received:	8/10/2017 12:00:00 AM
Client Sample ID:	S11-WC-2	SDG No.:	LB89436
Lab Sample ID:	I4739-02	Matrix:	Solid
Level (low/med):	low	% Solid:	88.5

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.12	J	1	0.036		0.27	mg/Kg	08/11/2017	08/11/2017	9012B



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Report of Analysis

Client:		Date Collected:	8/10/2017 12:00:00 AM
Project:	LB89436	Date Received:	8/10/2017 12:00:00 AM
Client Sample ID:	S11-WC-3	SDG No.:	LB89436
Lab Sample ID:	I4739-03	Matrix:	Solid
Level (low/med):	low	% Solid:	87.9

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		0.28	mg/Kg	08/11/2017	08/11/2017	9012B



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Report of Analysis

Client:		Date Collected:	8/10/2017 12:00:00 AM
Project:	LB89436	Date Received:	8/10/2017 12:00:00 AM
Client Sample ID:	S11-WC-4	SDG No.:	LB89436
Lab Sample ID:	I4739-04	Matrix:	Solid
Level (low/med):	low	% Solid:	90.1

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.36		1	0.035		0.27	mg/Kg	08/11/2017	08/11/2017	9012B

Report of Analysis

Client:		Date Collected:	8/10/2017 12:00:00 AM
Project:	LB89436	Date Received:	8/10/2017 12:00:00 AM
Client Sample ID:	S11-WC-5	SDG No.:	LB89436
Lab Sample ID:	I4739-05	Matrix:	Solid
Level (low/med):	low	% Solid:	87.5

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.89		1	0.037		0.28	mg/Kg	08/11/2017	08/11/2017	9012B



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Report of Analysis

Client:		Date Collected:	8/10/2017 12:00:00 AM
Project:	LB89436	Date Received:	8/10/2017 12:00:00 AM
Client Sample ID:	S11-WC-6	SDG No.:	LB89436
Lab Sample ID:	I4739-06	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	0.24	J	1	0.037		0.28	mg/Kg	08/11/2017	08/11/2017	9012B



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Report of Analysis

Client:		Date Collected:	8/10/2017 12:00:00 AM
Project:	LB89436	Date Received:	8/10/2017 12:00:00 AM
Client Sample ID:	S11-WC-7	SDG No.:	LB89436
Lab Sample ID:	I4739-07	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	1.2		1	0.036		0.27	mg/Kg	08/11/2017	08/11/2017	9012B



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Report of Analysis

Client:		Date Collected:	
Project:	LB89436	Date Received:	
Client Sample ID:	LOWPB101465	SDG No.:	LB89436
Lab Sample ID:	LOWPB101465	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	0.0091		1	0.003		0.005	mg/L		08/11/2017	9012B



Report of Analysis

Client:		Date Collected:	
Project:	LB89436	Date Received:	
Client Sample ID:	LOWPB101465	SDG No.:	LB89436
Lab Sample ID:	LOWPB101465	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: LB89436

SDG No.: LB89436

Contract: _____ Lab Code: CHEM

Case No.: LB89436

SAS No.: LB89436

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	0.25	0.25	100	0	90 - 110		08/11/2017	14:39	LB89436
CCV2	Cyanide	0.24	0.25	96	0	90 - 110		08/11/2017	15:31	LB89436
CCV3	Cyanide	0.26	0.25	104	0	90 - 110		08/11/2017	15:35	LB89436



GENCHEM

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB89436

SDG No.: LB89436

Contract:

Lab Code: CHEM

Case No.: LB89436

SAS No.: LB89436

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		08/11/2017	14:39	LB89436



GENCHEM

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB89436

SDG No.: LB89436

Contract:

Lab Code: CHEM

Case No.: LB89436

SAS No.: LB89436

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB1	Cyanide	-0.00055	+/-0.005	U		0.005		08/11/2017	14:39	LB89436
CCB2	Cyanide	-0.00067	+/-0.005	U		0.005		08/11/2017	15:31	LB89436
CCB3	Cyanide	-0.0006	+/-0.005	U		0.005		08/11/2017	15:35	LB89436



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- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB89436

SDG No.: LB89436

Contract: Lab Code: CHEM

Case No.: LB89436

SAS No.: LB89436

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: LB89436

SDG No.: LB89436

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
PB101465BL	Cyanide	SOLID -0.037	<0.25	Batch Number: U		PB101465 0.25		Prep Date: 08/11/2017	08/11/2017 14:40	LB89436



GENCHEM
- 5a -
MATRIX SPIKE SUMMARY

client: LB89436 level: low sdg no.: LB89436
contract: lab code: CHEM case no.: LB89436 sas no.: LB89436
matrix: Solid sample id: I4705-01 client id: SP-A-COMPMS
Percent Solids for Sample: 92.8 Spiked ID: I4705-01MS Percent Solids for Spike Sample: 92.8

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cyanide	mg/Kg	75 - 125	2.1		0.035	U	2.1	100		



GENCHEM
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: LB89436 level: low sdg no.: LB89436
contract: lab code: CHEM case no.: LB89436 sas no.: LB89436
matrix: Solid sample id: I4705-01 client id: SP-A-COMPMSD
Percent Solids for Sample: 92.8 Spiked ID: I4705-01MSD Percent Solids for Spike Sample: 92.8

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cyanide	mg/Kg	75 - 125		2	0.035	U	2.1	95.2		

GENCHEM

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DUPLICATE SAMPLE SUMMARY

Client: LB89436 **Level:** LOW **SDG No.:** LB89436
Contract: **Lab Code:** CHEM **Case No.:** LB89436 **SAS No.:** LB89436
Matrix: Solid **Sample ID:** I4705-01 **Client ID:** SP-A-COMPDUP
Percent Solids for Sample: 92.8 **Duplicate ID** I4705-01DUP **Percent Solids for Spike Sample:** 92.8

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cyanide	mg/Kg	20	0.035	U	-0.052	U			

GENCHEM

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DUPLICATE SAMPLE SUMMARY

Client: LB89436 **Level:** LOW **SDG No.:** LB89436
Contract: **Lab Code:** CHEM **Case No.:** LB89436 **SAS No.:** LB89436
Matrix: Solid **Sample ID:** I4705-01MS **Client ID:** SP-A-COMPMSD
Percent Solids for Sample: 92.8 **Duplicate ID** I4705-01MSD **Percent Solids for Spike Sample:** 92.8

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cyanide	mg/Kg	20	2.1			2	5		



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LABORATORY CONTROL SAMPLE SUMMARY

Client: LB89436

SDG No.: LB89436

Contract:

Lab Code: CHEM

Case No.: LB89436

SAS No.: LB89436

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB101465BS Cyanide	mg/Kg	4.9	4.8		98	85 - 115	