

**Daily Analysis Runlog For Sequence/QC Batch ID # LB95580**

|               |             |                                                         |        |                |         |        |
|---------------|-------------|---------------------------------------------------------|--------|----------------|---------|--------|
| Review By     |             | Review On                                               |        |                |         |        |
| SubDirectory  |             | LB95580                                                 |        | Test : Cyanide |         |        |
| STD. NAME     |             | STD REF.#                                               |        |                |         |        |
| ICAL Standard |             | WP64754,WP64755,WP64756,WP64757,WP64758,WP64759,WP64760 |        |                |         |        |
| ICV Standard  |             | W1542                                                   |        |                |         |        |
| CCV Standard  |             | WP64761                                                 |        |                |         |        |
| ICSA Standard |             | N/A                                                     |        |                |         |        |
| CRI Standard  |             | N/A                                                     |        |                |         |        |
| LCS Standard  |             | WP62802                                                 |        |                |         |        |
| Chk Standard  |             | WP64763,WP64695,WP64696                                 |        |                |         |        |
| Sr#           | SampleId    | ClientID                                                | QcType | Date           | Comment | Status |
| 1             | 0.0PPBCN    | 0.0PPBCN                                                | CAL1   | 05/24/18 08:05 |         | OK     |
| 2             | 5.0PPBCN    | 5.0PPBCN                                                | CAL2   | 05/24/18 08:05 |         | OK     |
| 3             | 10PPBCN     | 10PPBCN                                                 | CAL3   | 05/24/18 08:05 |         | OK     |
| 4             | 50PPBCN     | 50PPBCN                                                 | CAL4   | 05/24/18 08:05 |         | OK     |
| 5             | 100PPBCN    | 100PPBCN                                                | CAL5   | 05/24/18 08:05 |         | OK     |
| 6             | 250PPBCN    | 250PPBCN                                                | CAL6   | 05/24/18 08:05 |         | OK     |
| 7             | 500PPBCN    | 500PPBCN                                                | CAL7   | 05/24/18 08:05 |         | OK     |
| 8             | ICV1        | ICV1                                                    | ICV    | 05/24/18 08:31 |         | OK     |
| 9             | ICB1        | ICB1                                                    | ICB    | 05/24/18 08:31 |         | OK     |
| 10            | CCV1        | CCV1                                                    | CCV    | 05/24/18 08:31 |         | OK     |
| 11            | CCB1        | CCB1                                                    | CCB    | 05/24/18 08:31 |         | OK     |
| 12            | PB109594BL  | PB109594BL                                              | MB     | 05/24/18 08:31 |         | OK     |
| 13            | PB109594BS  | PB109594BS                                              | LCS    | 05/24/18 08:31 |         | OK     |
| 14            | MIDPB109594 | MIDPB109594                                             | SAM    | 05/24/18 08:31 |         | OK     |
| 15            | J3070-12    | 14B(1-4)-COMP                                           | SAM    | 05/24/18 08:31 |         | OK     |
| 16            | J3070-12DUP | 14B(1-4)-COMPDUP                                        | DUP    | 05/24/18 08:31 |         | OK     |
| 17            | J3070-12MS  | 14B(1-4)-COMPMS                                         | MS     | 05/24/18 08:31 |         | OK     |
| 18            | J3070-12MSD | 14B(1-4)-COMPMSD                                        | MSD    | 05/24/18 08:31 |         | OK     |
| 19            | CCV2        | CCV2                                                    | CCV    | 05/24/18 08:35 |         | OK     |
| 20            | CCB2        | CCB2                                                    | CCB    | 05/24/18 08:35 |         | OK     |



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## Report of Analysis

|                   |               |                 |                       |
|-------------------|---------------|-----------------|-----------------------|
| Client:           |               | Date Collected: | 5/22/2018 12:00:00 AM |
| Project:          | LB95580       | Date Received:  | 5/22/2018 12:00:00 AM |
| Client Sample ID: | 14B(1-4)-COMP | SDG No.:        | LB95580               |
| Lab Sample ID:    | J3070-12      | Matrix:         | WATER                 |
| Level (low/med):  | low           | % Solid:        | 0                     |

| Cas | Parameter | Conc. | Qua. | DF | MDL   | LOD | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met.       |
|-----|-----------|-------|------|----|-------|-----|------------|-------|------------|------------|----------------|
|     | Cyanide   | 0.016 |      | 1  | 0.001 |     | 0.005      | mg/L  | 05/23/2018 | 05/24/2018 | SM4500-CN C, I |



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## Report of Analysis

|                   |             |                 |         |
|-------------------|-------------|-----------------|---------|
| Client:           |             | Date Collected: |         |
| Project:          | LB95580     | Date Received:  |         |
| Client Sample ID: | MIDPB109594 | SDG No.:        | LB95580 |
| Lab Sample ID:    | MIDPB109594 | Matrix:         | WATER   |
| Level (low/med):  | low         | % Solid:        | 0       |

| Cas | Parameter | Conc. | Qua. | DF | MDL   | LOD | LOQ / CRQL | Units | Prep Date | Date Ana.  | Ana Met.       |
|-----|-----------|-------|------|----|-------|-----|------------|-------|-----------|------------|----------------|
|     | Cyanide   | 0.24  |      | 1  | 0.001 |     | 0.005      | mg/L  |           | 05/24/2018 | SM4500-CN C, I |



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## Report of Analysis

|                   |             |                 |         |
|-------------------|-------------|-----------------|---------|
| Client:           |             | Date Collected: |         |
| Project:          | LB95580     | Date Received:  |         |
| Client Sample ID: | MIDPB109594 | SDG No.:        | LB95580 |
| Lab Sample ID:    | MIDPB109594 | 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

- 2a -

### INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB95580

SDG No.: LB95580

Contract: \_\_\_\_\_

Lab Code: CHEM

Case No.: LB95580

SAS No.: LB95580

Initial Calibration Source: \_\_\_\_\_

Continuing Calibration Source: \_\_\_\_\_

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| Sample ID | Analyte | Result<br>mg/L | True Value | %<br>Recovery | Qual | Acceptance<br>Window (%R) | M | Analysis<br>Date | Analysis<br>Time | Run<br>Number |
|-----------|---------|----------------|------------|---------------|------|---------------------------|---|------------------|------------------|---------------|
| ICV1      | Cyanide | 0.096          | 0.099      | 97            |      | 85 - 115                  |   | 05/24/2018       | 08:31            | LB95580       |

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## GENCHEM

- 2a -

### INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB95580

SDG No.: LB95580

Contract: \_\_\_\_\_ Lab Code: CHEM

Case No.: LB95580

SAS No.: LB95580

Initial Calibration Source: \_\_\_\_\_

Continuing Calibration Source: \_\_\_\_\_

| Sample ID | Analyte | Result<br>mg/L | True Value | %<br>Recovery | Qual | Acceptance<br>Window (%R) | M | Analysis<br>Date | Analysis<br>Time | Run<br>Number |
|-----------|---------|----------------|------------|---------------|------|---------------------------|---|------------------|------------------|---------------|
| CCV1      | Cyanide | 0.24           | 0.25       | 96            |      | 90 - 110                  |   | 05/24/2018       | 08:31            | LB95580       |
| CCV2      | Cyanide | 0.25           | 0.25       | 100           |      | 90 - 110                  |   | 05/24/2018       | 08:35            | LB95580       |



**GENCHEM**

**- 3a -**

**INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY**

**Client:** LB95580 **SDG No.:** LB95580  
**Contract:**                      **Lab Code:** CHEM **Case No.:** LB95580 **SAS No.:** LB95580

| Sample ID | Analyte | Result<br>mg/L | Acceptance<br>Limit | Conc<br>Qual | LOD | CRQL  | M | Analysis<br>Date | Analysis<br>Time | Run<br>Number |
|-----------|---------|----------------|---------------------|--------------|-----|-------|---|------------------|------------------|---------------|
| ICB1      | Cyanide | 0.00048        | +/-0.005            | U            |     | 0.005 |   | 05/24/2018       | 08:31            | LB95580       |



**GENCHEM**

- 3a -

### INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

**Client:** LB95580

SDG No.: LB95580

**Contract:**

Lab Code: CHEM

**Case No.:** LB95580

**SAS No.:** LB95580

| Sample ID | Analyte | Result<br>mg/L | Acceptance<br>Limit | Conc<br>Qual | LOD | CRQL  | M | Analysis<br>Date | Analysis<br>Time | Run<br>Number |
|-----------|---------|----------------|---------------------|--------------|-----|-------|---|------------------|------------------|---------------|
| CCB1      | Cyanide | 0.00055        | +/-0.005            | U            |     | 0.005 |   | 05/24/2018       | 08:31            | LB95580       |
| CCB2      | Cyanide | 0.00061        | +/-0.005            | U            |     | 0.005 |   | 05/24/2018       | 08:35            | LB95580       |



GENCHEM

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB95580

SDG No.: LB95580

Contract: Lab Code: CHEM

Case No.: LB95580

SAS No.: LB95580

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



GENCHEM  
- 3b -  
PREPARATION BLANK SUMMARY

Client: LB95580

SDG No.: LB95580

Instrument: Konelab 20

| Sample ID  | Analyte | Result<br>(mg/L) | Acceptance<br>Limit | Conc<br>Qual       | LOD<br>mg/L | CRQL<br>mg/L      | M | Analysis<br>Date         | Analysis<br>Time    | Run     |
|------------|---------|------------------|---------------------|--------------------|-------------|-------------------|---|--------------------------|---------------------|---------|
| PB109594BL | Cyanide | WATER<br>0.00027 | <0.005              | Batch Number:<br>U |             | PB109594<br>0.005 |   | Prep Date:<br>05/24/2018 | 05/23/2018<br>08:31 | LB95580 |



GENCHEM  
- 5a -  
MATRIX SPIKE SUMMARY

client: LB95580 level: low sdg no.: LB95580  
contract: lab code: CHEM case no.: LB95580 sas no.: LB95580  
matrix: WATER sample id: J3070-12 client id: 14B(1-4)-COMPMS  
Percent Solids for Sample: 0 Spiked ID: J3070-12MS Percent Solids for Spike Sample: 0

| Analyte | Units | Acceptance<br>Limit %R | Spiked<br>Result | C | Sample<br>Result | C | Spike<br>Added | %<br>Recovery | Qual | M |
|---------|-------|------------------------|------------------|---|------------------|---|----------------|---------------|------|---|
| Cyanide | mg/L  | 75 - 125               | 0.051            |   | 0.016            |   | 0.04           | 87            |      |   |



GENCHEM  
- 5a -  
MATRIX SPIKE DUPLICATE SUMMARY

client: LB95580 level: low sdg no.: LB95580  
contract: lab code: CHEM case no.: LB95580 sas no.: LB95580  
matrix: WATER sample id: J3070-12 client id: 14B(1-4)-COMPMSD  
Percent Solids for Sample: 0 Spiked ID: J3070-12MSD Percent Solids for Spike Sample: 0

| Analyte | Units | Acceptance<br>Limit %R | MSD<br>Result | C | Sample<br>Result | C | Spike<br>Added | %<br>Recovery | Qual | M |
|---------|-------|------------------------|---------------|---|------------------|---|----------------|---------------|------|---|
| Cyanide | mg/L  | 75 - 125               | 0.051         |   | 0.016            |   | 0.04           | 87            |      |   |

# GENCHEM

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## DUPLICATE SAMPLE SUMMARY

**Client:** LB95580      **Level:** LOW      **SDG No.:** LB95580  
**Contract:**                           **Lab Code:** CHEM      **Case No.:** LB95580      **SAS No.:** LB95580  
**Matrix:** WATER      **Sample ID:** J3070-12      **Client ID:** 14B(1-4)-COMPDUP  
**Percent Solids for Sample:** 0      **Duplicate ID** J3070-12DUP      **Percent Solids for Spike Sample:** 0

| Analyte | Units | Acceptance<br>Limit | Sample<br>Result | C | Duplicate<br>Result | C | RPD | Qual | M |
|---------|-------|---------------------|------------------|---|---------------------|---|-----|------|---|
| Cyanide | mg/L  | 20                  | 0.016            |   | 0.015               |   | 6   |      |   |

# GENCHEM

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## DUPLICATE SAMPLE SUMMARY

**Client:** LB95580      **Level:** LOW      **SDG No.:** LB95580  
**Contract:**                           **Lab Code:** CHEM      **Case No.:** LB95580      **SAS No.:** LB95580  
**Matrix:** WATER      **Sample ID:** J3070-12MS      **Client ID:** 14B(1-4)-COMPMSD  
**Percent Solids for Sample:** 0      **Duplicate ID** J3070-12MSD      **Percent Solids for Spike Sample:** 0

| Analyte | Units | Acceptance<br>Limit | Sample<br>Result | C | Duplicate<br>Result | C | RPD | Qual | M |
|---------|-------|---------------------|------------------|---|---------------------|---|-----|------|---|
| Cyanide | mg/L  | 20                  | 0.051            |   | 0.051               |   | 0   |      |   |



GENCHEM

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LABORATORY CONTROL SAMPLE SUMMARY

Client: LB95580

SDG No.: LB95580

Contract:

Lab Code: CHEM

Case No.: LB95580

SAS No.: LB95580

| Analyte               | Units | True Value | Result | C | %<br>Recovery | Acceptance<br>Limits | M |
|-----------------------|-------|------------|--------|---|---------------|----------------------|---|
| PB109594BS<br>Cyanide | mg/L  | 0.1        | 0.096  |   | 96            | 85 - 115             |   |