

**Daily Analysis Runlog For Sequence/QC Batch ID # LB94387**

Review By

SubDirectory

Review On

Test :   Anions

LB94387

| STD. NAME     |  | STD REF.#                                               |  |  |  |  |
|---------------|--|---------------------------------------------------------|--|--|--|--|
| ICAL Standard |  | WP62070,WP62071,WP62072,WP62073,WP62074,WP62075,WP62076 |  |  |  |  |
| ICV Standard  |  | WP62077                                                 |  |  |  |  |
| CCV Standard  |  | wp62714                                                 |  |  |  |  |
| ICSA Standard |  | N/A                                                     |  |  |  |  |
| CRI Standard  |  | N/A                                                     |  |  |  |  |
| LCS Standard  |  | wp62715                                                 |  |  |  |  |
| Chk Standard  |  | wp62457,wp62459                                         |  |  |  |  |

| Sr# | SampleId   | ClientID        | QcType | Date           | Comment | Status |
|-----|------------|-----------------|--------|----------------|---------|--------|
| 1   | STD1       | STD1            | CAL1   | 02/19/18 11:21 |         | OK     |
| 2   | STD2       | STD2            | CAL2   | 02/19/18 11:52 |         | OK     |
| 3   | STD3       | STD3            | CAL3   | 02/19/18 12:23 |         | OK     |
| 4   | STD4       | STD4            | CAL4   | 02/19/18 12:54 |         | OK     |
| 5   | STD5       | STD5            | CAL5   | 02/19/18 13:25 |         | OK     |
| 6   | STD6       | STD6            | CAL6   | 02/19/18 13:56 |         | OK     |
| 7   | STD7       | STD7            | CAL7   | 02/19/18 14:27 |         | OK     |
| 8   | ICV1       | ICV1            | ICV    | 02/20/18 10:46 |         | OK     |
| 9   | ICB1       | ICB1            | ICB    | 02/20/18 11:28 |         | OK     |
| 10  | CCV1       | CCV1            | CCV    | 03/14/18 14:35 |         | OK     |
| 11  | CCB1       | CCB1            | CCB    | 03/14/18 15:07 |         | OK     |
| 12  | LB94387BLW | LB94387BLW      | MB     | 03/14/18 15:39 |         | OK     |
| 13  | LB94387BSW | LB94387BSW      | LCS    | 03/14/18 16:10 |         | OK     |
| 14  | J1161-07   | LOD-MDL-WATER-0 | SAM    | 03/14/18 16:42 |         | OK     |
| 15  | J1161-08   | LOQ-WATER-02-QT | LOQ    | 03/14/18 17:14 |         | OK     |
| 16  | J1161-09   | MDL-WATER-03-QT | SAM    | 03/14/18 17:46 |         | OK     |
| 17  | CCV2       | CCV2            | CCV    | 03/14/18 18:50 |         | OK     |
| 18  | CCB2       | CCB2            | CCB    | 03/14/18 19:22 |         | OK     |



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

## Report of Analysis

|                   |                           |                 |                       |
|-------------------|---------------------------|-----------------|-----------------------|
| Client:           |                           | Date Collected: | 1/16/2018 12:00:00 AM |
| Project:          | LB94387                   | Date Received:  | 1/16/2018 12:00:00 AM |
| Client Sample ID: | LOD-MDL-WATER-01-QT1-2018 | SDG No.:        | LB94387               |
| Lab Sample ID:    | J1161-07                  | Matrix:         | WATER                 |
| Level (low/med):  | low                       | % Solid:        | 0                     |

| Cas | Parameter         | Conc.  | Qua. | DF | MDL   | LOD | LOQ / CRQL | Units | Prep Date | Date Ana.  | Ana Met. |
|-----|-------------------|--------|------|----|-------|-----|------------|-------|-----------|------------|----------|
|     | Bromide           | 0.66   |      | 1  | 0.066 |     | 0.5        | mg/L  |           | 03/14/2018 | 300.0    |
|     | Chloride          | 0.16   |      | 1  | 0.075 |     | 0.15       | mg/L  |           | 03/14/2018 | 300.0    |
|     | Fluoride          | 0.14   |      | 1  | 0.043 |     | 0.1        | mg/L  |           | 03/14/2018 | 300.0    |
|     | Nitrate           | 0.17   |      | 1  | 0.027 |     | 0.13       | mg/L  |           | 03/14/2018 | 300.0    |
|     | Nitrite           | 0.2    |      | 1  | 0.022 |     | 0.15       | mg/L  |           | 03/14/2018 | 300.0    |
|     | Phosphorus, Ortho | -0.067 | U    | 1  | 0.01  |     | 0.25       | mg/L  |           | 03/14/2018 | 300.0    |
|     | Sulfate           | 1.1    |      | 1  | 0.13  |     | 0.75       | mg/L  |           | 03/14/2018 | 300.0    |



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## Report of Analysis

|                   |                       |                 |                       |
|-------------------|-----------------------|-----------------|-----------------------|
| Client:           |                       | Date Collected: | 1/16/2018 12:00:00 AM |
| Project:          | LB94387               | Date Received:  | 1/16/2018 12:00:00 AM |
| Client Sample ID: | MDL-WATER-03-QT1-2018 | SDG No.:        | LB94387               |
| Lab Sample ID:    | J1161-09              | Matrix:         | WATER                 |
| Level (low/med):  | low                   | % Solid:        | 0                     |

| Cas | Parameter         | Conc.  | Qua. | DF | MDL   | LOD | LOQ / CRQL | Units | Prep Date | Date Ana.  | Ana Met. |
|-----|-------------------|--------|------|----|-------|-----|------------|-------|-----------|------------|----------|
|     | Bromide           | 0.65   |      | 1  | 0.066 |     | 0.5        | mg/L  |           | 03/14/2018 | 300.0    |
|     | Chloride          | 0.16   |      | 1  | 0.075 |     | 0.15       | mg/L  |           | 03/14/2018 | 300.0    |
|     | Fluoride          | 0.14   |      | 1  | 0.043 |     | 0.1        | mg/L  |           | 03/14/2018 | 300.0    |
|     | Nitrate           | 0.16   |      | 1  | 0.027 |     | 0.13       | mg/L  |           | 03/14/2018 | 300.0    |
|     | Nitrite           | 0.19   |      | 1  | 0.022 |     | 0.15       | mg/L  |           | 03/14/2018 | 300.0    |
|     | Phosphorus, Ortho | -0.016 | U    | 1  | 0.01  |     | 0.25       | mg/L  |           | 03/14/2018 | 300.0    |
|     | Sulfate           | 1.1    |      | 1  | 0.13  |     | 0.75       | mg/L  |           | 03/14/2018 | 300.0    |



## Report of Analysis

|                   |                       |                 |                       |
|-------------------|-----------------------|-----------------|-----------------------|
| Client:           |                       | Date Collected: | 1/16/2018 12:00:00 AM |
| Project:          | LB94387               | Date Received:  | 1/16/2018 12:00:00 AM |
| Client Sample ID: | MDL-WATER-03-QT1-2018 | SDG No.:        | LB94387               |
| Lab Sample ID:    | J1161-09              | 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

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### INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB94387

SDG No.: LB94387

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

Case No.: LB94387

SAS No.: LB94387

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 |
|-----------|-------------------|----------------|------------|---------------|------|---------------------------|---|------------------|------------------|---------------|
| ICV1      | Bromide           | 9.8            | 10         | 98            |      | 90 - 110                  |   | 02/20/2018       | 10:46            | LB94387       |
|           | Chloride          | 2.9            | 3          | 96.7          |      | 90 - 110                  |   | 02/20/2018       | 10:46            | LB94387       |
|           | Fluoride          | 2.1            | 2          | 105           |      | 90 - 110                  |   | 02/20/2018       | 10:46            | LB94387       |
|           | Phosphorus, Ortho | 5              | 5          | 100           |      | 90 - 110                  |   | 02/20/2018       | 10:46            | LB94387       |
|           | Nitrite           | 3              | 3          | 100           |      | 90 - 110                  |   | 02/20/2018       | 10:46            | LB94387       |
|           | Nitrate           | 2.4            | 2.5        | 96            |      | 90 - 110                  |   | 02/20/2018       | 10:46            | LB94387       |
|           | Sulfate           | 15.4           | 15         | 102.7         |      | 90 - 110                  |   | 02/20/2018       | 10:46            | LB94387       |



## GENCHEM

- 2a -

### INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB94387

SDG No.: LB94387

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

Case No.: LB94387

SAS No.: LB94387

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      | Bromide           | 10             | 10         | 100           |      | 90 - 110                  |   | 03/14/2018       | 14:35            | LB94387       |
|           | Chloride          | 3              | 3          | 100           |      | 90 - 110                  |   | 03/14/2018       | 14:35            | LB94387       |
|           | Fluoride          | 2              | 2          | 100           |      | 90 - 110                  |   | 03/14/2018       | 14:35            | LB94387       |
|           | Phosphorus, Ortho | 5.3            | 5          | 106           |      | 90 - 110                  |   | 03/14/2018       | 14:35            | LB94387       |
|           | Nitrite           | 3              | 3          | 100           |      | 90 - 110                  |   | 03/14/2018       | 14:35            | LB94387       |
|           | Nitrate           | 2.5            | 2.5        | 100           |      | 90 - 110                  |   | 03/14/2018       | 14:35            | LB94387       |
|           | Sulfate           | 14.5           | 15         | 96.7          |      | 90 - 110                  |   | 03/14/2018       | 14:35            | LB94387       |
| CCV2      | Bromide           | 10.1           | 10         | 101           |      | 90 - 110                  |   | 03/14/2018       | 18:50            | LB94387       |
|           | Chloride          | 3              | 3          | 100           |      | 90 - 110                  |   | 03/14/2018       | 18:50            | LB94387       |
|           | Fluoride          | 2              | 2          | 100           |      | 90 - 110                  |   | 03/14/2018       | 18:50            | LB94387       |
|           | Phosphorus, Ortho | 5.4            | 5          | 108           |      | 90 - 110                  |   | 03/14/2018       | 18:50            | LB94387       |
|           | Nitrite           | 3              | 3          | 100           |      | 90 - 110                  |   | 03/14/2018       | 18:50            | LB94387       |
|           | Nitrate           | 2.5            | 2.5        | 100           |      | 90 - 110                  |   | 03/14/2018       | 18:50            | LB94387       |
|           | Sulfate           | 14.4           | 15         | 96            |      | 90 - 110                  |   | 03/14/2018       | 18:50            | LB94387       |



**GENCHEM**

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### INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

**Client:** LB94387

SDG No.: LB94387

Contract: Lab Code: CHEM

**Case No.:** LB94387

**SAS No.:** LB94387

| 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      | Bromide           | 0.066          | +/-0.5              | U            |     | 0.5  |   | 02/20/2018       | 11:28            | LB94387       |
|           | Chloride          | 0.075          | +/-0.15             | U            |     | 0.15 |   | 02/20/2018       | 11:28            | LB94387       |
|           | Fluoride          | 0.043          | +/-0.1              | U            |     | 0.1  |   | 02/20/2018       | 11:28            | LB94387       |
|           | Phosphorus, Ortho | 0.01           | +/-0.25             | U            |     | 0.25 |   | 02/20/2018       | 11:28            | LB94387       |
|           | Nitrite           | 0.022          | +/-0.15             | U            |     | 0.15 |   | 02/20/2018       | 11:28            | LB94387       |
|           | Nitrate           | 0.027          | +/-0.13             | U            |     | 0.13 |   | 02/20/2018       | 11:28            | LB94387       |
|           | Sulfate           | 0.13           | +/-0.75             | U            |     | 0.75 |   | 02/20/2018       | 11:28            | LB94387       |

| 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      | Bromide           | 0.066          | +/-0.5              | U            |     | 0.5  |   | 03/14/2018       | 15:07            | LB94387       |
|           | Chloride          | 0.075          | +/-0.15             | U            |     | 0.15 |   | 03/14/2018       | 15:07            | LB94387       |
|           | Fluoride          | 0.043          | +/-0.1              | U            |     | 0.1  |   | 03/14/2018       | 15:07            | LB94387       |
|           | Phosphorus, Ortho | 0.01           | +/-0.25             | U            |     | 0.25 |   | 03/14/2018       | 15:07            | LB94387       |
|           | Nitrite           | 0.022          | +/-0.15             | U            |     | 0.15 |   | 03/14/2018       | 15:07            | LB94387       |
|           | Nitrate           | 0.027          | +/-0.13             | U            |     | 0.13 |   | 03/14/2018       | 15:07            | LB94387       |
|           | Sulfate           | 0.13           | +/-0.75             | U            |     | 0.75 |   | 03/14/2018       | 15:07            | LB94387       |
| CCB2      | Bromide           | 0.066          | +/-0.5              | U            |     | 0.5  |   | 03/14/2018       | 19:22            | LB94387       |
|           | Chloride          | 0.075          | +/-0.15             | U            |     | 0.15 |   | 03/14/2018       | 19:22            | LB94387       |
|           | Fluoride          | 0.043          | +/-0.1              | U            |     | 0.1  |   | 03/14/2018       | 19:22            | LB94387       |
|           | Phosphorus, Ortho | 0.01           | +/-0.25             | U            |     | 0.25 |   | 03/14/2018       | 19:22            | LB94387       |
|           | Nitrite           | 0.022          | +/-0.15             | U            |     | 0.15 |   | 03/14/2018       | 19:22            | LB94387       |
|           | Nitrate           | 0.027          | +/-0.13             | U            |     | 0.13 |   | 03/14/2018       | 19:22            | LB94387       |
|           | Sulfate           | 0.13           | +/-0.75             | U            |     | 0.75 |   | 03/14/2018       | 19:22            | LB94387       |





GENCHEM

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB94387

SDG No.: LB94387

Contract: Lab Code: CHEM

Case No.: LB94387

SAS No.: LB94387

| 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:** LB94387

**SDG No.:** LB94387

**Instrument:** IC-1

| 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     |
|-------------------|-------------------|------------------|---------------------|----------------------|-------------|--------------|-------------------|------------------|------------------|---------|
| <b>LB94387BLW</b> |                   | <b>WATER</b>     |                     | <b>Batch Number:</b> |             |              | <b>Prep Date:</b> |                  |                  |         |
|                   | Bromide           | 0.066            | <0.5                | U                    |             | 0.5          |                   | 03/14/2018       | 15:39            | LB94387 |
|                   | Chloride          | 0.075            | <0.15               | U                    |             | 0.15         |                   | 03/14/2018       | 15:39            | LB94387 |
|                   | Fluoride          | 0.043            | <0.1                | U                    |             | 0.1          |                   | 03/14/2018       | 15:39            | LB94387 |
|                   | Phosphorus, Ortho | 0.01             | <0.25               | U                    |             | 0.25         |                   | 03/14/2018       | 15:39            | LB94387 |
|                   | Nitrite           | 0.022            | <0.15               | U                    |             | 0.15         |                   | 03/14/2018       | 15:39            | LB94387 |
|                   | Nitrate           | 0.027            | <0.13               | U                    |             | 0.13         |                   | 03/14/2018       | 15:39            | LB94387 |
|                   | Sulfate           | 0.13             | <0.75               | U                    |             | 0.75         |                   | 03/14/2018       | 15:39            | LB94387 |



## GENCHEM

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### LABORATORY CONTROL SAMPLE SUMMARY

Client: LB94387

SDG No.: LB94387

Contract:                     

Lab Code: CHEM

Case No.: LB94387

SAS No.: LB94387

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| Analyte           | Units | True Value | Result | C | %<br>Recovery | Acceptance<br>Limits | M |
|-------------------|-------|------------|--------|---|---------------|----------------------|---|
| J1161-08          |       |            |        |   |               |                      |   |
| Bromide           | mg/L  | 1          | 1.3    |   | 130           | 50 - 150             |   |
| Chloride          | mg/L  | 0.3        | 0.39   |   | 130           | 50 - 150             |   |
| Fluoride          | mg/L  | 0.2        | 0.21   |   | 105           | 50 - 150             |   |
| Phosphorus, Ortho | mg/L  | 0.5        | 0.45   |   | 90            | 50 - 150             |   |
| Nitrite           | mg/L  | 0.3        | 0.4    |   | 133.3         | 50 - 150             |   |
| Nitrate           | mg/L  | 0.25       | 0.35   |   | 140           | 50 - 150             |   |
| Sulfate           | mg/L  | 1.5        | 2.2    |   | 146.7         | 50 - 150             |   |

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## GENCHEM

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### LABORATORY CONTROL SAMPLE SUMMARY

Client: LB94387

SDG No.: LB94387

Contract:                     

Lab Code: CHEM

Case No.: LB94387

SAS No.: LB94387

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| Analyte           | Units | True Value | Result | C | %<br>Recovery | Acceptance<br>Limits | M |
|-------------------|-------|------------|--------|---|---------------|----------------------|---|
| LB94387BSW        |       |            |        |   |               |                      |   |
| Bromide           | mg/L  | 10         | 9.4    |   | 94            | 90 - 110             |   |
| Chloride          | mg/L  | 3          | 2.8    |   | 93.3          | 90 - 110             |   |
| Fluoride          | mg/L  | 2          | 2      |   | 100           | 90 - 110             |   |
| Phosphorus, Ortho | mg/L  | 5          | 5.3    |   | 106           | 90 - 110             |   |
| Nitrite           | mg/L  | 3          | 2.9    |   | 96.7          | 90 - 110             |   |
| Nitrate           | mg/L  | 2.5        | 2.4    |   | 96            | 90 - 110             |   |
| Sulfate           | mg/L  | 15         | 14.5   |   | 96.7          | 90 - 110             |   |

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