

**Analytical Summary Report**Analysis Method: SM 4500-SO4EANALYST: AMANDEEPParameter: SulfateSUPERVISOR REVIEW BY: apatelRun Number: LB93685

| Reagent/Standard                   | Lot/Log # |
|------------------------------------|-----------|
| sulfate ICV 20ppm                  | WP62470   |
| Sulfate LCS std, 20ppm             | WP62471   |
| sulfate 0.0ppm                     | WP62460   |
| sulfate 5ppm                       | WP62461   |
| sulfate 10ppm                      | WP62462   |
| sulfate 20ppm                      | WP62464   |
| sulfate 30ppm                      | WP62466   |
| sulfate 40ppm                      | WP62468   |
| sulfate CCV 20ppm                  | WP62469   |
| Sulfate Buffer solution A          | WP59978   |
| Sulfate std, 15ppm                 | WP62463   |
| Sulfate std, 35ppm                 | WP62467   |
| Sulfate std, 25ppm                 | WP62465   |
| BARIUM CHLORIDE DIHYDRATE ACS 100G | W2210     |

Intercept: -0.1114Slope: 2.9868Regression: 0.99991

| Seq | Lab ID | True Val<br>(mg/l) | DF | MATRIX | Initial<br>Reading | Final<br>Reading | Difference | AnalDate   | Anal Time |
|-----|--------|--------------------|----|--------|--------------------|------------------|------------|------------|-----------|
| 1   | CAL1   | 0                  | 1  | Water  | 0.156              | 0.297            | 0.141      | 03/06/2018 | 09:17     |
| 2   | CAL2   | 5                  | 1  | Water  | 0.142              | 14.900           | 14.758     | 03/06/2018 | 09:22     |
| 3   | CAL3   | 10                 | 1  | Water  | 0.158              | 29.900           | 29.742     | 03/06/2018 | 09:26     |
| 4   | CAL4   | 15                 | 1  | Water  | 0.157              | 43.900           | 43.743     | 03/06/2018 | 09:32     |
| 5   | CAL5   | 20                 | 1  | Water  | 0.178              | 60.800           | 60.622     | 03/06/2018 | 09:38     |
| 6   | CAL6   | 25                 | 1  | Water  | 0.170              | 74.500           | 74.330     | 03/06/2018 | 09:45     |
| 7   | CAL7   | 30                 | 1  | Water  | 0.179              | 89.900           | 89.721     | 03/06/2018 | 09:52     |
| 8   | CAL8   | 35                 | 1  | Water  | 0.186              | 104.100          | 103.914    | 03/06/2018 | 09:58     |
| 9   | CAL9   | 40                 | 1  | Water  | 0.154              | 119.800          | 119.646    | 03/06/2018 | 10:04     |



## Analytical Summary Report

Analysis Method: SM 4500-SO4E

ANALYST: AMANDEEP

Parameter: Sulfate

SUPERVISOR REVIEW BY: apatel

Run Number: LB93685

| Seq | Lab ID      | Initial Weight | Final Vol | True Value | DF | MATRIX | Initial Reading | Final Reading | Difference | Result (mg/L) | AnalDate   | Anal Time |
|-----|-------------|----------------|-----------|------------|----|--------|-----------------|---------------|------------|---------------|------------|-----------|
| 1   | ICV         |                |           | 20         | 1  | Water  | 0.168           | 58.100        | 57.932     | 19.433        | 03/06/2018 | 10:09     |
| 2   | ICB         |                |           |            | 1  | Water  | 0.169           | 0.299         | 0.130      | 0.081         | 03/06/2018 | 10:15     |
| 3   | CCV1        |                |           | 20         | 1  | Water  | 0.147           | 59.200        | 59.053     | 19.809        | 03/06/2018 | 10:22     |
| 4   | CCB1        |                |           |            | 1  | Water  | 0.165           | 0.285         | 0.120      | 0.077         | 03/06/2018 | 10:29     |
| 5   | LB93685BL   | 50             | 50        |            | 1  | Water  | 0.155           | 0.289         | 0.134      | 0.082         | 03/06/2018 | 10:35     |
| 6   | LB93685BS   | 50             | 50        | 20         | 1  | Water  | 0.156           | 57.800        | 57.644     | 19.337        | 03/06/2018 | 10:42     |
| 7   | J1682-01    | 50             | 50        |            | 1  | Water  | 0.510           | 225.000       | 224.490    | 75.198        | 03/06/2018 | 10:47     |
| 8   | J1682-02    | 50             | 50        |            | 1  | Water  | 1.720           | 110.000       | 108.280    | 36.290        | 03/06/2018 | 10:52     |
| 9   | CCV2        |                |           | 20         | 1  | Water  | 0.162           | 59.200        | 59.038     | 19.804        | 03/06/2018 | 10:58     |
| 10  | CCB2        |                |           |            | 1  | Water  | 0.166           | 0.298         | 0.132      | 0.081         | 03/06/2018 | 11:03     |
| 11  | J1682-03    | 50             | 50        |            | 1  | Water  | 1.090           | 96.600        | 95.510     | 32.015        | 03/06/2018 | 11:09     |
| 12  | J1682-04    | 50             | 50        |            | 1  | Water  | 0.596           | 109.000       | 108.404    | 36.332        | 03/06/2018 | 11:15     |
| 13  | J1682-05    | 50             | 50        |            | 1  | Water  | 0.956           | 101.000       | 100.044    | 33.533        | 03/06/2018 | 11:21     |
| 14  | J1682-05DUP | 50             | 50        |            | 1  | Water  | 0.895           | 102.000       | 101.105    | 33.888        | 03/06/2018 | 11:28     |
| 15  | CCV3        |                |           | 20         | 1  | Water  | 0.193           | 58.900        | 58.707     | 19.693        | 03/06/2018 | 11:34     |
| 16  | CCB3        |                |           |            | 1  | Water  | 0.159           | 0.289         | 0.130      | 0.081         | 03/06/2018 | 11:39     |
| 17  | J1682-05MS  | 50             | 50        | 20         | 1  | Water  | 0.826           | 156.000       | 155.174    | 51.991        | 03/06/2018 | 11:44     |
| 18  | J1682-05MSD | 50             | 50        | 20         | 1  | Water  | 0.959           | 155.000       | 154.041    | 51.611        | 03/06/2018 | 11:48     |
| 19  | J1682-01    |                |           |            | 5  | Water  | 0.190           | 30.700        | 30.510     | 10.252        | 03/06/2018 | 11:53     |
| 20  | J1682-05MS  |                |           | 20         | 2  | Water  | 0.426           | 87.000        | 86.574     | 29.023        | 03/06/2018 | 11:58     |
| 21  | J1682-05MSD |                |           | 20         | 2  | Water  | 0.450           | 86.500        | 86.050     | 28.847        | 03/06/2018 | 12:04     |
| 22  | CCV4        |                |           | 20         | 1  | Water  | 0.156           | 59.000        | 58.844     | 19.739        | 03/06/2018 | 12:10     |
| 23  | CCB4        |                |           |            | 1  | Water  | 0.157           | 0.296         | 0.139      | 0.084         | 03/06/2018 | 12:16     |

LB 93685

WORKLIST(Hardcopy Internal Chain)

WorkList Name : SO4030618

WorkList ID : 109297

Date : 3/6/2018 9:04:43 AM

| Due Date   | Matrix | Sample   | Test    | Preservative | Customer | Storage Location | Customer Sample | Collect Date | Method       |
|------------|--------|----------|---------|--------------|----------|------------------|-----------------|--------------|--------------|
| 03/09/2018 | Water  | J1682-01 | Sulfate | Cool 4 deg C | WEST04   | D61              | I011-056-1      | 02/23/2018   | SM 4500-SO4B |
| 03/09/2018 | Water  | J1682-02 | Sulfate | Cool 4 deg C | WEST04   | D61              | I031-056-1      | 02/23/2018   | SM 4500-SO4B |
| 03/09/2018 | Water  | J1682-03 | Sulfate | Cool 4 deg C | WEST04   | D61              | I041-056-1      | 02/23/2018   | SM 4500-SO4B |
| 03/09/2018 | Water  | J1682-04 | Sulfate | Cool 4 deg C | WEST04   | D61              | I051-056-1      | 02/23/2018   | SM 4500-SO4B |
| 03/09/2018 | Water  | J1682-05 | Sulfate | Cool 4 deg C | WEST04   | D61              | I061-056-1      | 02/23/2018   | SM 4500-SO4B |

Date/Time 3-6-18 9:10  
Received by: AK  
Relinquished by: AK

Date/Time 3-6-18 12:20  
Received by: AK  
Relinquished by: AK