

**Redwood Shores Lagoon**  
**June 2017**  
**Monthly Water Quality Monitoring Report**



**Prepared for**

**Redwood City**  
**Public Works Services Department**  
**1400 Broadway**  
**Redwood City, CA 94063-2594**

**Prepared by**

**Clean Lakes, Inc.**  
**P. O. Box 3186**  
**Martinez, CA 94553**

**July 2017**

City of Redwood City staff Richard Chaffey performed the June monthly monitoring on June 15, 2017. Weather conditions were sunny, the air temperature was 70 F, and light winds were recorded.

General water quality measurements for dissolved oxygen, clarity (as turbidity), salinity, pH, and temperature were recorded at Sites R-1 thru R-5. Nutrients, nitrate as N, and dissolved ortho-phosphate as P were sampled at R-1 thru R-5 via laboratory analysis. Water samples were collected for Fecal Coliform analysis at Sites R-1 and R-2. During each sample visit observations are noted for floatables, oil/grease films and scum, water discoloration, algae and aquatic plant growth, and any presence of dead birds or fish. Water Quality Objectives for Redwood Shores Lagoon is provided below as well Dissolved Oxygen (DO) requirements in Non-Salmonid waters by which to compare field and laboratory results.

**Table 1. Redwood Shores Lagoon Water Quality Objectives**

| Parameter   | Criteria  |
|---|---|
| pH  | 6.5 – 8.5   |
| Dissolved oxygen  | Minimum of 5.0 mg/L   |
| Chlorophyll-a   | 50.0 ug/l   |
| Fecal coliform bacteria   | A median not to exceed 240 MPN/100 mL in 5 consecutive samples with no single sample exceeding 1,000 MPN/100 mL |
| Color   | No significant increase over that in sloughs  |
| Oil, grease, and visable films  | None  |
| Floatables  | None  |
| Aquatic growths   | None sufficient to cause nuisance conditions  |
| Turbidity in Belmont, Steinberger and Bay sloughs that receive lagoon discharge | <u>Background Levels</u> <u>Max. Incremental Increase</u>   |
|   | 50 NTU                                      5 NTU   |
|   | 50-100 NTU                                      10 MTU  |
|   | 100 NTU                                      10 % of background   |

| II. NON-SALMONID WATERS        | DO mg/l |
|--------------------------------|---------|
| A. Early life stages           |         |
| No production impairment       | 6.5     |
| Slight production impairment   | 5.5     |
| Moderate production impairment | 5       |
| Severe production impairment   | 4.5     |
| Limit to avoid acute mortality | 4       |
| B. Other life stages           |         |
| No production impairment       | 6       |
| Slight production impairment   | 5       |
| Moderate production impairment | 4       |
| Severe production impairment   | 3.5     |
| Limit to avoid acute mortality | 3       |

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**RESULTS** - Water quality results for each site is provided below in Table format for 2017 to allow comparison of results from month to month.

## SITE R-1

|        |           |              |            | Fecal      |       | Dissolved |       |     |       |       |          |           |
|--------|-----------|--------------|------------|------------|-------|-----------|-------|-----|-------|-------|----------|-----------|
|        | Ortho     |              | Fecal      | Coliform   | Water | Oxygen    | DO    |     | PH    | PH    |          |           |
|        | Phosphate | Nitrate as N | Coliform   | MPN/100 ml | Temp  | (DO)      | mg/l  |     | Lower | Upper | Salinity | Turbidity |
| Months | mg/l      | mg/l         | MPN/100 ml | Limit      | C°    | mg/l      | Limit | PH  | Limit | Limit | ppt      | NTU       |
| 1.17   | ND        | ND           | ND         | 1,000      | 11.4  | 17.72     | 5     | 9   | 6.5   | 8.5   | 21.47    | 6.73      |
| 2.17   | 0.12      | ND           | 2          | 1,000      | 16.1  | 20.52     | 5     | 9.1 | 6.5   | 8.5   | 22.43    | 10.2      |
| 3.17   | 0.42      | ND           | 7.8        | 1,000      | 17.1  | 8.7       | 5     | 8.7 | 6.5   | 8.5   | 19.35    | 10.4      |
| 4.17   | 0.45      | ND           | 7.8        | 1,000      | 17.8  | 10.6      | 5     | 8.3 | 6.5   | 8.5   | 24.61    | 5.76      |
| 5.17   | 0.25      | ND           | 4.5        | 1,000      | 20.6  | 10.48     | 5     | 8   | 6.5   | 8.5   | 27.72    | 1.42      |
| 6.17   | 0.36      | ND           | 2          | 1,000      | 22.5  | 8.17      | 5     | 8   | 6.5   | 8.5   | 27.38    | 1.49      |
| 7.17   |           |              |            | 1,000      |       |           | 5     |     | 6.5   | 8.5   |          |           |
| 8.17   |           |              |            | 1,000      |       |           | 5     |     | 6.5   | 8.5   |          |           |
| 9.17   |           |              |            | 1,000      |       |           | 5     |     | 6.5   | 8.5   |          |           |
| 10.17  |           |              |            | 1,000      |       |           | 5     |     | 6.5   | 8.5   |          |           |
| 11.17  |           |              |            | 1,000      |       |           | 5     |     | 6.5   | 8.5   |          |           |
| 12.17  |           |              |            | 1,000      |       |           | 5     |     | 6.5   | 8.5   |          |           |

## SITE R-2

|        |           |              |            | Fecal      |       | Dissolved |       |     |       |       |          |           |
|--------|-----------|--------------|------------|------------|-------|-----------|-------|-----|-------|-------|----------|-----------|
|        | Ortho     |              | Fecal      | Coliform   | Water | Oxygen    | DO    |     | PH    | PH    |          |           |
|        | Phosphate | Nitrate as N | Coliform   | MPN/100 ml | Temp  | (DO)      | mg/l  |     | Lower | Upper | Salinity | Turbidity |
| Months | mg/l      | mg/l         | MPN/100 ml | Limit      | C°    | mg/l      | Limit | PH  | Limit | Limit | ppt      | NTU       |
| 1.17   | ND        | ND           | ND         | 1,000      | 11.9  | 14.2      | 5     | 8.4 | 6.5   | 8.5   | 23.88    | 17        |
| 2.17   | 0.12      | ND           | 4.5        | 1,000      | 14.9  | 8.78      | 5     | 8.3 | 6.5   | 8.5   | 25.62    | 24.9      |
| 3.17   | 0.32      | ND           | 23         | 1,000      | 15.9  | 6.57      | 5     | 8.3 | 6.5   | 8.5   | 21.34    | 63.4      |
| 4.17   | 0.29      | ND           | 4.5        | 1,000      | 17.7  | 10.71     | 5     | 8.1 | 6.5   | 8.5   | 28.56    | 23.2      |
| 5.17   | 0.28      | ND           | 4.5        | 1,000      | 19.3  | 5.49      | 5     | 7.7 | 6.5   | 8.5   | 30.58    | 13.6      |
| 6.17   | 0.37      | ND           | 13         | 1,000      | 21.9  | 6.88      | 5     | 7.3 | 6.5   | 8.5   | 30.22    | 10.3      |
| 7.17   |           |              |            | 1,000      |       |           | 5     |     | 6.5   | 8.5   |          |           |
| 8.17   |           |              |            | 1,000      |       |           | 5     |     | 6.5   | 8.5   |          |           |
| 9.17   |           |              |            | 1,000      |       |           | 5     |     | 6.5   | 8.5   |          |           |
| 10.17  |           |              |            | 1,000      |       |           | 5     |     | 6.5   | 8.5   |          |           |
| 11.17  |           |              |            | 1,000      |       |           | 5     |     | 6.5   | 8.5   |          |           |
| 12.17  |           |              |            | 1,000      |       |           | 5     |     | 6.5   | 8.5   |          |           |

## SITE R-3

|        |           |              |       | Dissolved |       |     |       |       |          |           |
|--------|-----------|--------------|-------|-----------|-------|-----|-------|-------|----------|-----------|
|        | Ortho     |              | Water | Oxygen    | DO    |     | PH    | PH    |          |           |
|        | Phosphate | Nitrate as N | Temp  | (DO)      | mg/l  |     | Lower | Upper | Salinity | Turbidity |
| Months | mg/l      | mg/l         | C°    | mg/l      | Limit | PH  | Limit | Limit | ppt      | NTU       |
| 1.17   | 0.13      | ND           | 11.3  | 9.43      | 5     | 7.8 | 6.5   | 8.5   | 27.73    | 51.4      |
| 2.17   | ND        | ND           | 14.3  | 8.21      | 5     | 7.9 | 6.5   | 8.5   | 25.44    | 38.2      |
| 3.17   | 0.38      | ND           | 16.3  | 8.13      | 5     | 7.8 | 6.5   | 8.5   | 22.23    | 43.7      |
| 4.17   | 0.35      | ND           | 17.1  | 8.13      | 5     | 7   | 6.5   | 8.5   | 33.59    | 72.1      |
| 5.17   | 0.31      | ND           | 19    | 7.11      | 5     | 7.2 | 6.5   | 8.5   | 33.84    | 17.7      |
| 6.17   | 0.36      | ND           | 20.5  | 8.14      | 5     | 7.3 | 6.5   | 8.5   | 37.11    | 31.7      |
| 7.17   |           |              |       |           | 5     |     | 6.5   | 8.5   |          |           |
| 8.17   |           |              |       |           | 5     |     | 6.5   | 8.5   |          |           |
| 9.17   |           |              |       |           | 5     |     | 6.5   | 8.5   |          |           |
| 10.17  |           |              |       |           | 5     |     | 6.5   | 8.5   |          |           |
| 11.17  |           |              |       |           | 5     |     | 6.5   | 8.5   |          |           |
| 12.17  |           |              |       |           | 5     |     | 6.5   | 8.5   |          |           |

## SITE R-4

|        |           |              |       | Dissolved |       |     |       |       |          |           |
|--------|-----------|--------------|-------|-----------|-------|-----|-------|-------|----------|-----------|
|        | Ortho     |              | Water | Oxygen    | DO    |     | PH    | PH    |          |           |
|        | Phosphate | Nitrate as N | Temp  | (DO)      | mg/l  |     | Lower | Upper | Salinity | Turbidity |
| Months | mg/l      | mg/l         | C°    | mg/l      | Limit | PH  | Limit | Limit | ppt      | NTU       |
| 1.17   | 0.14      | ND           | 11.5  | 10.07     | 5     | 8.4 | 6.5   | 8.5   | 23.78    | 60.3      |
| 2.17   | 0.17      | ND           | 14.3  | 9.11      | 5     | 7.8 | 6.5   | 8.5   | 26.31    | 42.7      |
| 3.17   | 0.37      | ND           | 16.5  | 7.67      | 5     | 8.3 | 6.5   | 8.5   | 21.04    | 98.7      |
| 4.17   | 0.35      | ND           | 17.7  | 6.79      | 5     | 7.1 | 6.5   | 8.5   | 32.87    | 60.3      |
| 5.17   | 0.31      | ND           | 19.3  | 5.9       | 5     | 7.6 | 6.5   | 8.5   | 29.73    | 28        |
| 6.17   | 0.35      | ND           | 21.7  | 6.02      | 5     | 7.7 | 6.5   | 8.5   | 36.92    | 20.9      |
| 7.17   |           |              |       |           | 5     |     | 6.5   | 8.5   |          |           |
| 8.17   |           |              |       |           | 5     |     | 6.5   | 8.5   |          |           |
| 9.17   |           |              |       |           | 5     |     | 6.5   | 8.5   |          |           |
| 10.17  |           |              |       |           | 5     |     | 6.5   | 8.5   |          |           |
| 11.17  |           |              |       |           | 5     |     | 6.5   | 8.5   |          |           |
| 12.17  |           |              |       |           | 5     |     | 6.5   | 8.5   |          |           |

|        |           |              |       | Dissolved |       |     |       |       |          |           |
|--------|-----------|--------------|-------|-----------|-------|-----|-------|-------|----------|-----------|
|        | Ortho     |              | Water | Oxygen    | DO    |     | PH    | PH    |          |           |
|        | Phosphate | Nitrate as N | Temp  | (DO)      | mg/l  |     | Lower | Upper | Salinity | Turbidity |
| Months | mg/l      | mg/l         | C°    | mg/l      | Limit | PH  | Limit | Limit | ppt      | NTU       |
| 1.17   | ND        | ND           | 10.8  | 7.88      | 5     | 8.2 | 6.5   | 8.5   | 23.7     | 10.9      |
| 2.17   | 0.15      | ND           | 14.5  | 8.83      | 5     | 8.2 | 6.5   | 8.5   | 25.26    | 35        |
| 3.17   | 0.25      | ND           | 14    | 8.61      | 5     | 8.3 | 6.5   | 8.5   | 22.56    | 28.8      |
| 4.17   | 0.16      | ND           | 17    | 6.66      | 5     | 7.4 | 6.5   | 8.5   | 31.65    | 10.1      |
| 5.17   | 0.19      | ND           | 18.7  | 5.72      | 5     | 7.9 | 6.5   | 8.5   | 31.86    | 9.05      |
| 6.17   | 0.25      | ND           | 20.7  | 4.42      | 5     | 7.7 | 6.5   | 8.5   | 34.26    | 11.5      |
| 7.17   |           |              |       |           | 5     |     | 6.5   | 8.5   |          |           |
| 8.17   |           |              |       |           | 5     |     | 6.5   | 8.5   |          |           |
| 9.17   |           |              |       |           | 5     |     | 6.5   | 8.5   |          |           |
| 10.17  |           |              |       |           | 5     |     | 6.5   | 8.5   |          |           |
| 11.17  |           |              |       |           | 5     |     | 6.5   | 8.5   |          |           |
| 12.17  |           |              |       |           | 5     |     | 6.5   | 8.5   |          |           |

**NUTRIENTS** – Orthophosphate as P (ORP) was detected at every site in a range between 0.25 and 0.37 mg/l. The lowest site for ORP was at R-5 measuring 0.25 mg/l, while R-2 measured 0.37 mg/l. ORP concentration increased at every site, in comparison to May. Nitrate as N was below the detection limit at all sites in June.

Phosphorus and nitrogen are essential nutrients for the plants and animals that make up the aquatic food web. Since phosphorus is the nutrient in short supply in most fresh waters, even a modest increase in phosphorus can, under the right conditions, set off a whole chain of undesirable events in a stream including accelerated plant growth, algae blooms, low dissolved oxygen, and the death of certain fish, invertebrates, and other aquatic animals.

There are many sources of phosphorus, both natural and human. These include soil and rocks, wastewater treatment plants, runoff from fertilized lawns and cropland, failing septic systems, runoff from animal manure storage areas, disturbed land areas, drained wetlands, water treatment, and commercial cleaning preparations.

Inorganic nitrate as N should be less than 0.3 mg/L to avoid algal blooms. Excessive concentrations of nitrate in lakes and streams greater than about 5 milligrams per liter (measured as nitrogen), depending on the water body, can cause excessive growth of algae and other plants, leading to accelerated eutrophication or "aging" of lakes, and occasional loss of dissolved oxygen. Animals and humans cannot use inorganic forms of nitrogen.

Since phosphorus is often scarce in freshwater ecosystems, it is typically a limiting nutrient, meaning that it limits the amount of life the system can sustain. When humans add phosphate-rich sewage or agricultural runoff, algae growth may no longer be limited by the scarcity of phosphorus in its environment and may grow out of control. In order to control algae growth, the EPA recommends that phosphate levels not exceed 0.05 milligrams per liter for streams discharging into lakes or reservoirs, 0.1 milligrams per liter for lakes and reservoirs, and 0.1 milligrams per liter for other streams and rivers.

**FECAL COLIFORM** - The fecal coliform levels were measured at 2 MPN/100ml and 13 MPN/100ml for sites R-1 and R-2, respectively. Coliform levels decreased in R-1, but increased in R-2 in comparison to May 2017. Fecal coliform did not exceed the established limits. Single sample results over 1,000 MPN/100mL are considered to exceed limits.

**GENERAL WATER QUALITY ANALYSIS** – The Dissolved Oxygen (DO) levels in June exceeded the 5.0 mg/l threshold in every site except for R-5. DO was highest at Site R-1 (8.17 mg/l) and lowest at Site R-5 (4.42 mg/l). Water temperature increased at every site during June, with temperatures ranging from 20.5 to 22.5 C. PH measurements were within the limit at every site, ranging from 7.3 to 8.0. Salinity measurements varied from approximately 27.38 ppt. to a maximum of 37.11 ppt. Turbidity was within limits and varied between 1.49 and 31.7 NTU. It was noted in the field data sheet that the pumps were running in R-4 and but were not running in R-5 during the time of sampling. It was also noted that a pollen film was observed on the water's surface in R-2. Algae was observed at R-1 and aquatic plant growth was observed in R-4 during the time of sampling.

# Field Results

Redwood Shores Lagoon  
Monthly Water Quality Monitoring Field Data

|   |  |
|---|--|
| Date: <b>6/15/17</b>                            | Name(s) of Field Personnel: <b>Richard Chaffey</b> |
| Weather Conditions                              | Air Temperature: <b>70'</b>                        |
| Wind Conditions: <b>Light /</b> Moderate / High | Percent Cloud: <b>0%</b>                           |
| <b>Field Measurements</b>                       |  |

| Sampling Station | Time        | Maximum Depth (ft) | Sample Depth (ft) | Water Temp°C | Dis. Oxy. Mg/l | pH units   | Salinity ppt | Turbidity NTU |
|------------------|-------------|--------------------|-------------------|--------------|----------------|------------|--------------|---------------|
| R-1              | <b>1205</b> | <b>4.0'</b>        | <b>2.0'</b>       | <b>22.5</b>  | <b>8.17</b>    | <b>8.0</b> | <b>27.38</b> | <b>1.49</b>   |
| R-2              | <b>1122</b> | <b>5.0'</b>        | <b>2.5'</b>       | <b>21.9</b>  | <b>6.88</b>    | <b>7.3</b> | <b>30.22</b> | <b>10.3</b>   |
| R-3              | <b>0941</b> | <b>3.0'</b>        | <b>1.5'</b>       | <b>20.5</b>  | <b>8.14</b>    | <b>7.3</b> | <b>37.11</b> | <b>31.7</b>   |
| R-4              | <b>0817</b> | <b>6.0'</b>        | <b>3.0'</b>       | <b>21.7</b>  | <b>6.02</b>    | <b>7.7</b> | <b>36.92</b> | <b>20.9</b>   |
| R-5              | <b>0856</b> | <b>6.0'</b>        | <b>3.0'</b>       | <b>20.7</b>  | <b>4.42</b>    | <b>7.7</b> | <b>34.26</b> | <b>11.5</b>   |

|   |
|---|
| <p>Samples for the following test will be collected for laboratory analyses</p> <ul style="list-style-type: none"> <li>• Nitrate-N</li> <li>• Ortho-P04-P (preservative required, do not rinse bottle)</li> <li>• Fecal Coliform Bacteria (R-1 and R-2 only)</li> </ul>   |
| <p>Notes &amp; Observations about floatables, oil &amp; grease, films, scum water discoloration, algae, aquatic plant growth and presence of dead wildlife:</p> <p>R-1- <b>Algae around sample area.</b></p> <hr/> <p>R-2- <b>Excessive pollen on water surface.</b></p> <hr/> <p>R-3- _____</p> <hr/> <p>R-4- <b>Pumps running at time of sample, aquatic plant growth in sample area.</b></p> <hr/> <p>R-5- <b>Pumps not running at time of sample.</b></p> <hr/> |

## Laboratory Results



**Alpha**

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Redwood City, City of - Redwood Shores  
1400 Broadway Street  
Redwood City, CA 94063

Project Manager: Vicki Sherman  
Project: Redwood Shores Lagoon  
Project Number: Monthly Monitoring

Reported:  
06/30/17 11:28

|  | Result        | Reporting Limit | Dilution | Batch   | Prepared       | Analyzed       | Method    | Note |
|--|---------------|-----------------|----------|---------|----------------|----------------|-----------|------|
| <b>R-1 (17F1548-01)</b>                                |               |                 |          |         |                |                |           |      |
| Conventional Chemistry Parameters by APHA/EPA Methods: |               |                 |          |         |                |                |           |      |
| Orthophosphate as P                                    | 0.36 mg/L     | 0.20            | 2        | AF73617 | 06/16/17 12:30 | 06/16/17 14:18 | SM4500-PE |      |
| Anions by EPA Method 300.0                             |               |                 |          |         |                |                |           |      |
| Nitrate as N   | ND mg/L       | 4.0             | 20       | AF73631 | 06/16/17 18:17 | 06/16/17 18:17 | EPA 300.0 |      |
| Microbiological Parameters by APHA Standard Methods:   |               |                 |          |         |                |                |           |      |
| Fecal Coliforms  | 2.0 MPN/100mL | 1.8             | 1        | AF73677 | 06/15/17 17:30 | 06/18/17 15:30 | SM9221    |      |
| <b>R-2 (17F1548-02)</b>                                |               |                 |          |         |                |                |           |      |
| Conventional Chemistry Parameters by APHA/EPA Methods: |               |                 |          |         |                |                |           |      |
| Orthophosphate as P                                    | 0.37 mg/L     | 0.10            | 1        | AF73617 | 06/16/17 12:30 | 06/16/17 14:18 | SM4500-PE |      |
| Anions by EPA Method 300.0                             |               |                 |          |         |                |                |           |      |
| Nitrate as N   | ND mg/L       | 4.0             | 20       | AF73631 | 06/16/17 18:33 | 06/16/17 18:33 | EPA 300.0 |      |
| Microbiological Parameters by APHA Standard Methods:   |               |                 |          |         |                |                |           |      |
| Fecal Coliforms  | 13 MPN/100mL  | 1.8             | 1        | AF73677 | 06/15/17 17:30 | 06/17/17 16:10 | SM9221    |      |
| <b>R-3 (17F1548-03)</b>                                |               |                 |          |         |                |                |           |      |
| Conventional Chemistry Parameters by APHA/EPA Methods: |               |                 |          |         |                |                |           |      |
| Orthophosphate as P                                    | 0.36 mg/L     | 0.10            | 1        | AF73617 | 06/16/17 12:30 | 06/16/17 14:18 | SM4500-PE |      |

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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# CLEAN LAKES INC.



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|  |  |                             |
|--|--|-----------------------------|
| Redwood City, City of - Redwood Shores<br>1400 Broadway Street<br>Redwood City, CA 94063 | Project Manager: Vicki Sherman<br>Project: Redwood Shores Lagoon<br>Project Number: Monthly Monitoring | Reported:<br>06/30/17 11:26 |
|--|--|-----------------------------|

|   | Result    | Reporting Limit | Dilution | Batch                     | Prepared       | Analyzed                       | Method     | Note |
|---|-----------|-----------------|----------|---------------------------|----------------|--------------------------------|------------|------|
| <b>R-3 (17F1548-03)</b>                                       |           |                 |          | <b>Sample Type: Water</b> |                | <b>Sampled: 06/15/17 09:41</b> |            |      |
| <b>Anions by EPA Method 300.0</b>                             |           |                 |          |                           |                |                                |            |      |
| Nitrate as N  | ND mg/L   | 4.0             | 20       | AF73631                   | 06/16/17 18:49 | 06/16/17 18:49                 | EPA 300.0  |      |
| <b>R-4 (17F1548-04)</b>                                       |           |                 |          | <b>Sample Type: Water</b> |                | <b>Sampled: 06/15/17 08:17</b> |            |      |
| <b>Conventional Chemistry Parameters by APHA/EPA Methods:</b> |           |                 |          |                           |                |                                |            |      |
| Orthophosphate as P   | 0.35 mg/L | 0.10            | 1        | AF73617                   | 06/16/17 12:30 | 06/16/17 14:18                 | SM4500-P E |      |
| <b>Anions by EPA Method 300.0</b>                             |           |                 |          |                           |                |                                |            |      |
| Nitrate as N  | ND mg/L   | 4.0             | 20       | AF73631                   | 06/16/17 19:38 | 06/16/17 19:38                 | EPA 300.0  |      |
| <b>R-5 (17F1548-05)</b>                                       |           |                 |          | <b>Sample Type: Water</b> |                | <b>Sampled: 06/15/17 08:56</b> |            |      |
| <b>Conventional Chemistry Parameters by APHA/EPA Methods:</b> |           |                 |          |                           |                |                                |            |      |
| Orthophosphate as P   | 0.25 mg/L | 0.10            | 1        | AF73617                   | 06/16/17 12:30 | 06/16/17 14:18                 | SM4500-P E |      |
| <b>Anions by EPA Method 300.0</b>                             |           |                 |          |                           |                |                                |            |      |
| Nitrate as N  | ND mg/L   | 4.0             | 20       | AF73631                   | 06/16/17 19:55 | 06/16/17 19:55                 | EPA 300.0  |      |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

**END OF REPORT**