



# SOIL AND WATER CONSULTING

## Data Collection Report

Spring 2019

Date of Collection: 3/14/19

Client: Los Robles Greens Golf Course



# Testing Results

| <u>3/14/19</u>           |            |  |
|--------------------------|------------|--|
| Humidity/Air Temperature | 15%/65°    |  |
| Greens Temperature       | (avg)56.8° |  |
| Fairway Temperature      | (avg)56.3° |  |

| <b>WATER</b> | <b>Acceptable Range For Water Sample</b> | <b>Hole #12 3/14/19</b> |
|--------------|------------------------------------------|-------------------------|
| EC           | <2.25 mmhos/cm                           | 0.44                    |
| Sodium       |                                          | 40.40                   |
| Calcium      | 20 - 60 ppm                              | 26.08                   |
| Magnesium    | 10 - 25 ppm                              | 9.34                    |
| Potassium    | 5 - 20 ppm                               | 3.85                    |
| Sulfur       | 30 - 90 ppm                              | 33.78                   |
| Bicarbonate  | <120 ppm                                 | 133.25                  |
| Boron        | <0.67 ppm                                | 0.14                    |
| Chloride     | <177 ppm                                 | 43.74                   |

| <b>FAIRWAY</b>            | <b>Acceptable Range For Alkaline Soils Sample</b> | <b>5,7,10(avg) 3/14/19</b> |
|---------------------------|---------------------------------------------------|----------------------------|
| Organic Matter (Humus)    | 2 - 3%                                            | 8.10                       |
| Sulfur                    | 12 - 16 ppm                                       | 46.00                      |
| Olsen - Phosphorus        | 13 - 20 ppm                                       | 23.67                      |
| Calcium - TEC of 6 - 12   | 1,000 lbs/acre                                    | 5,286.00                   |
| Magnesium                 | >7% base saturation or at least 200 lbs/acre      | 26.88%/1,398               |
| Potassium - TEC of 0 - 35 | 100 ppm                                           | 455.33                     |
| Manganese                 | 50-80 ppm                                         | 76.33                      |

| <b>GREENS</b>             | <b>Acceptable Range For Alkaline Soils Sample</b> | <b>5,7,10(avg) 3/14/19</b> |
|---------------------------|---------------------------------------------------|----------------------------|
| Organic Matter (Humus)    | 2 - 3%                                            | 1.37                       |
| Sulfur                    | 12 - 16 ppm                                       | 8.67                       |
| Olsen - Phosphorus        | 13 - 20 ppm                                       | 9.00                       |
| Calcium - TEC of 6 - 12   | 1,000 lbs/acre                                    | 1,670.00                   |
| Magnesium                 | >7% base saturation or at least 200 lbs/acre      | 16.82%/224.66              |
| Potassium - TEC of 0 - 35 | 150 ppm                                           | 57.67                      |
| Manganese                 | 50-80 ppm                                         | 27.00                      |

| <b>FAIRWAYS</b> | <b>Acceptable Range For Saturated Paste Sample</b> | <b>5,7,10(avg) 3/14/19</b> |
|-----------------|----------------------------------------------------|----------------------------|
| Nitrate         | 10 -15 ppm                                         | 33.17                      |
| Phosphorus      | 2 - 10 ppm                                         | 2.18                       |
| Potassium       | 40 - 100 ppm                                       | 58.57                      |
| Calcium         | 60 - 200 ppm                                       | 97.82                      |
| Magnesium       | 20 - 70 ppm                                        | 46.09                      |
| Sodium          | 0 - 30 ppm                                         | 84.48                      |
| Soluble Salts   | <1,920 ppm                                         | 686.00                     |
| Bicarbonate     | <60 ppm                                            | 279.02                     |
| Chloride        | <1,000 ppm                                         | 57.00                      |
| SAR             | <4%                                                | 1.95                       |

| <b>GREENS</b>          | <b>Acceptable Range For Saturated Paste Sample</b> | <b>5,7,10(avg) 3/14/19</b> |
|------------------------|----------------------------------------------------|----------------------------|
| Nitrate- Bentgrass/poa | 1-3 ppm                                            | 9.40                       |
| Phosphorus             | 2 - 7 ppm                                          | 1.84                       |
| Potassium              | 25-40 ppm                                          | 10.73                      |
| Calcium                | 50- 75 ppm                                         | 34.47                      |
| Magnesium              | 15-30 ppm                                          | 9.60                       |
| Sodium                 | 0 - 30 ppm                                         | 12.03                      |
| Soluble Salts          | <1,000 ppm                                         | 218.00                     |
| Bicarbonate            | <60 ppm                                            | 130.97                     |
| Chloride               | <200 ppm                                           | 8.67                       |
| SAR                    | <4%                                                | 0.47                       |