



# SOIL AND WATER CONSULTING

## Data Collection Report

Fall 2022

Date of Collection: 10/12/22

Client: Maplewood Country Club



# Testing Results

|                             |             |
|-----------------------------|-------------|
| <u>10/12/22</u>             |             |
| Humidity/Air<br>Temperature | 40%/69°     |
| Greens<br>Temperature       | (avg)63.5°  |
| Fairway<br>Temperature      | (avg)57.95° |

| <b>WATER</b> | <b>Acceptable Range<br/>For Water Sample</b> | <b>Well<br/><u>11/10/09</u></b> | <b>Hole #4<br/><u>7/6/22</u></b> | <b>Hole #4<br/><u>10/12/22</u></b> |
|--------------|--|---------------------------------|----------------------------------|------------------------------------|
| pH           | 6.3-6.5                                      | 7.72                            | 6.64                             | 7.31                               |
| EC           | <2.25 mmhos/cm                               | 0.52                            | 0.90                             | 0.50                               |
| Sodium       |  | 16.40                           | 58.95                            | 19.81                              |
| Calcium      | 20 - 60 ppm                                  | 68.94                           | 87.84                            | 65.93                              |
| Magnesium    | 10 - 25 ppm                                  | 9.56                            | 9.40                             | 8.88                               |
| Potassium    | 5 - 20 ppm                                   | 2.82                            | 1.59                             | 2.21                               |
| Sulfur       | 30 - 90 ppm                                  | 19.43                           | 34.11                            | 32.58                              |
| Bicarbonate  | <120 ppm                                     | 175.40                          | 179.26                           | 143.28                             |
| Boron        | <0.67 ppm                                    | 0.14                            | 0.08                             | 0.14                               |
| Chloride     | <177 ppm                                     | 68.08                           | 157.44                           | 67.74                              |
| Nitrates     | <3 ppm                                       | n/t                             | 10.35                            | 2.35                               |

| <b>TEE</b>               | <b>Acceptable Range For<br/>Standard Soil Sample</b> | <b>9<br/>11/15/12</b> | <b>1,9(avg)<br/>10/12/22</b> |
|--------------------------|--|-----------------------|------------------------------|
| Organic Matter (Humus)   | 2 - 3%   | 4.66                  | 2.76                         |
| Sulfur                   | 50 - 100 ppm   | 12.00                 | 14.00                        |
| Mehlich III - Phosphorus | 350 lbs/acre   | 948.00                | 648.00                       |
| Calcium                  | 68%  | 76.47                 | 75.98                        |
| Magnesium                | 15%  | 12.20                 | 10.64                        |
| Potassium                | 5%   | 1.95                  | 2.27                         |
| Sodium                   | <2%  | 1.75                  | 1.90                         |
| Boron                    | 1 - 1.5 ppm  | 0.80                  | 0.52                         |
| Iron                     | 120 ppm  | 413.00                | 342.50                       |
| Manganese                | 50 ppm   | 12.00                 | 22.50                        |

| <b>FAIRWAY</b>           | <b>Acceptable Range For<br/>Standard Soil Sample</b> | <b>1<br/>11/15/12</b> | <b>1,9,17(avg)<br/>10/12/22</b> |
|--------------------------|--|-----------------------|---------------------------------|
| Organic Matter (Humus)   | 2 - 3%   | 4.61                  | 3.87                            |
| Sulfur                   | 50 - 100 ppm   | 15.00                 | 16.00                           |
| Mehlich III - Phosphorus | 350 lbs/acre   | 431.00                | 404.33                          |
| Calcium                  | 68%  | 70.59                 | 73.12                           |
| Magnesium                | 15%  | 9.56                  | 10.81                           |
| Potassium                | 5%   | 3.13                  | 1.78                            |
| Sodium                   | <2%  | 2.75                  | 2.42                            |
| Boron                    | 1 - 1.5 ppm  | 0.56                  | 0.63                            |
| Iron                     | 120 ppm  | 307.00                | 256.67                          |
| Manganese                | 50 ppm   | 20.00                 | 18.00                           |

| <b>GREENS</b>            | <b>Acceptable Range For<br/>Standard Soil Sample</b> | <b>1<br/>11/15/22</b> | <b>1,17(avg)<br/>10/12/22</b> |
|--------------------------|--|-----------------------|-------------------------------|
| Organic Matter (Humus)   | 2 - 3%   | n/r                   | 1.85                          |
| Sulfur                   | 50 - 100 ppm   | n/r                   | 20.50                         |
| Mehlich III - Phosphorus | 350 lbs/acre   | n/r                   | 1,207.00                      |
| Calcium                  | 68%  | n/r                   | 72.27                         |
| Magnesium                | 15%  | n/r                   | 12.69                         |
| Potassium                | 5%   | n/r                   | 2.52                          |
| Sodium                   | <2%  | n/r                   | 2.54                          |
| Boron                    | 1 - 1.5 ppm  | n/r                   | 0.56                          |
| Iron                     | 120 ppm  | n/r                   | 335.00                        |
| Manganese                | 50 ppm   | n/r                   | 42.50                         |

| <b>TEE</b>          | <b>Acceptable Range For<br/>Saturated Paste Sample</b> | <b>1<br/>10/12/22</b> |
|---------------------|--|-----------------------|
| Nitrate-Cool season | 5 - 10 ppm   | <0.5                  |
| Phosphorus          | 2 - 10 ppm   | 1.67                  |
| Potassium           | 40 - 100 ppm   | 19.49                 |
| Calcium             | 60 - 200 ppm   | 38.16                 |
| Magnesium           | 20 - 70 ppm  | 6.95                  |
| Sodium              | 0 - 30 ppm   | 22.22                 |
| Soluble Salts       | <1,920 ppm   | 227.00                |
| Bicarbonate         | <60 ppm  | 95.44                 |
| Chloride            | <1,000 ppm   | 31.00                 |
| SAR                 | <4%  | 0.87                  |

| <b>FAIRWAY</b>      | <b>Acceptable Range For<br/>Saturated Paste Sample</b> | <b>1,17(avg)<br/>10/12/22</b> |
|---------------------|--|-------------------------------|
| Nitrate-Cool season | 5 - 10 ppm   | 1.10                          |
| Phosphorus          | 2 - 10 ppm   | 0.64                          |
| Potassium           | 40 - 100 ppm   | 11.23                         |
| Calcium             | 60 - 200 ppm   | 50.57                         |
| Magnesium           | 20 - 70 ppm  | 8.35                          |
| Sodium              | 0 - 30 ppm   | 27.01                         |
| Soluble Salts       | <1,920 ppm   | 294.00                        |
| Bicarbonate         | <60 ppm  | 71.69                         |
| Chloride            | <1,000 ppm   | 70.00                         |
| SAR                 | <4%  | 1.10                          |

| <b>GREENS</b>           | <b>Acceptable Range For<br/>Saturated Paste Sample</b> | <b>1,17(avg)<br/>10/12/22</b> |
|-------------------------|--|-------------------------------|
| Nitrate - Bentgrass/Poa | 1-3 ppm  | 3.45                          |
| Phosphorus              | 2 - 7 ppm  | 3.48                          |
| Potassium               | 25-40 ppm  | 16.88                         |
| Calcium                 | 50- 75 ppm   | 19.41                         |
| Magnesium               | 15-30 ppm  | 4.66                          |
| Sodium                  | 0 - 30 ppm   | 20.51                         |
| Soluble Salts           | <1,000 ppm   | 160.50                        |
| Bicarbonate             | <60 ppm  | 26.32                         |
| Chloride                | <200 ppm   | 21.50                         |
| SAR                     | <4%  | 1.09                          |