



SOIL AND WATER CONSULTING

Data Collection Report

Fall 2021

Date of Collection: 9/20/21

Client: The Summit Club



Testing Results

	<u>9/24/19</u>	<u>10/16/20</u>	<u>9/20/21</u>
Humidity/Air Temperature	16%/90°	11%/84°	10%/88°
Greens Temperature	(avg)72 °	(avg)60 °	(avg)67.6 °
Fairway Temperature	(avg)72°	(avg)63.5°	(avg)68.4°

WATER	Acceptable Range For Water Sample	Hole #7 9/24/19	Hole #8 10/16/20	Hole #2 9/20/21
EC	<2.25 mmhos/cm	0.86	0.82	0.85
Sodium		83.55	77.08	82.35
Calcium	20 - 60 ppm	71.51	69.00	65.98
Magnesium	10 - 25 ppm	22.88	25.84	22.73
Potassium	5 - 20 ppm	5.07	8.34	4.42
Sulfur	30 - 90 ppm	201.33	194.25	191.70
Bicarbonate	<120 ppm	185.74	161.90	184.30
Boron	<0.67 ppm	0.12	0.11	0.12
Chloride	<177 ppm	82.21	74.04	85.27

TEE	Acceptable Range For Tissue Sample	2 9/20/21
Nitrogen	3.34%-5.10%	5.50
Phosphorus	0.35% - 0.55%	0.89
Potassium	2.0% - 3.42%	2.24
Calcium	0.25%-0.5%	1.27
Magnesium	0.16%-0.32%	0.51
Sodium	229-1107 ppm	5,150.00

FAIRWAY	Acceptable Range For Tissue Sample	2 9/20/21
Nitrogen	3.34%-5.10%	5.21
Phosphorus	0.35% - 0.55%	0.80
Potassium	2.0% - 3.42%	2.10
Calcium	0.25%-0.5%	1.26
Magnesium	0.16%-0.32%	0.48
Sodium	229-1107 ppm	4,990.00

GREENS	Acceptable Range For Tissue Sample	2,11(avg) 9/20/21
Nitrogen	3.0%-6.5%	5.23
Phosphorus	0.2%-0.55%	0.70
Potassium	0.86%-2.55%	1.77
Calcium	0.21%-0.50%	1.07
Magnesium	0.09%-0.22%	0.38
Sodium	506- 2264 ppm	2,735.00

TEES	Acceptable Range For Alkaline Soils Sample	7,16(avg) 9/24/19	8,17(avg) 10/16/20	2,11(avg) 9/20/21
Organic Matter (Humus)	2 - 3%	0.88	0.86	1.17
Sulfur	12 - 16 ppm	142.00	91.00	52.50
Olsen - Phosphorus	13 - 20 ppm	20.00	16.00	26.00
Calcium - TEC of 6 - 12	1,000 lbs/acre	3,158.00	2,836.00	2,383.00
Magnesium	>7% base saturation or at least 200 lbs/acre	9.85%/224	10.14%/210	13.99%/271
Potassium - TEC of 0 - 35	100 ppm	81.00	61.50	77.50
Manganese	>50 ppm	19.00	16.00	9.50

FAIRWAYS	Acceptable Range For Alkaline Soils Sample	7,16(avg) 9/24/19	8,17(avg) 10/16/20	2,11(avg) 9/20/21
Organic Matter (Humus)	2 - 3%	0.62	1.11	1.24
Sulfur	12 - 16 ppm	37.00	52.50	72.00
Olsen - Phosphorus	13 - 20 ppm	27.50	17.50	33.50
Calcium - TEC of 6 - 12	1,000 lbs/acre	3,515.00	2,364.00	2,356.00
Magnesium	>7% base saturation or at least 200 lbs/acre	9.32%/234	13.99%/262	13.36%/125
Potassium - TEC of 0 - 35	100 ppm	88.50	101.00	90.00
Manganese	>50 ppm	15.50	11.50	8.50

GREENS	Acceptable Range For Alkaline Soils Sample	7,16(avg) 9/24/19	8,17(avg) 10/16/20	2,11(avg) 9/20/21
Organic Matter (Humus)	2 - 3%	0.67	1.07	1.07
Sulfur	12 - 16 ppm	44.50	97.00	75.00
Olsen - Phosphorus	13 - 20 ppm	10.00	7.50	13.50
Calcium - TEC of 6 - 12	1,000 lbs/acre	1,822.00	1,989.00	1,537.00
Magnesium	>7% base saturation or at least 200 lbs/acre	12.12%/168	13.59%/213	16.60%/215
Potassium - TEC of 0 - 35	150 ppm	69.00	69.00	62.50
Manganese	>50 ppm	12.50	18.00	19.00

TEES	Acceptable Range For Saturated Paste Sample	17 10/16/20	2 9/20/21
Nitrate-Ryegrass	10 -15 ppm	3.80	39.10
Phosphorus	2 - 10 ppm	5.70	6.72
Potassium	40 - 100 ppm	31.22	49.03
Calcium	60 - 200 ppm	61.36	92.95
Magnesium	20 - 70 ppm	20.91	31.93
Sodium	0 - 30 ppm	54.13	73.06
Soluble Salts	<1,920 ppm	517.00	660.00
Bicarbonate	<60 ppm	209.73	109.28
Chloride	<1,000 ppm	68.00	67.00
SAR	<4%	1.52	1.67

FAIRWAYS	Acceptable Range For Saturated Paste Sample	17 10/16/20	2 9/20/21
Nitrate-Ryegrass	10 -15 ppm	9.60	2.80
Phosphorus	2 - 10 ppm	5.63	6.25
Potassium	40 - 100 ppm	61.11	48.76
Calcium	60 - 200 ppm	102.50	90.71
Magnesium	20 - 70 ppm	37.78	27.07
Sodium	0 - 30 ppm	97.30	88.73
Soluble Salts	<1,920 ppm	740.00	667.00
Bicarbonate	<60 ppm	186.43	152.82
Chloride	<1,000 ppm	98.00	81.00
SAR	<4%	2.09	2.10

GREENS	Acceptable Range For Saturated Paste Sample	8,17(avg) 10/16/20	2,11(avg) 9/20/21
Nitrate - Dominator Bentgrass	1-3 ppm	<0.5	0.90
Phosphorus	2 - 7 ppm	2.67	2.43
Potassium	25-40 ppm	52.28	41.43
Calcium	50- 75 ppm	193.49	80.51
Magnesium	15-30 ppm	54.40	30.94
Sodium	0 - 30 ppm	112.54	128.06
Soluble Salts	<1,000 ppm	1,059.50	835.00
Bicarbonate	<60 ppm	154.21	132.17
Chloride	<200 ppm	82.00	100.50
SAR	<4%	1.84	2.95