



SOIL AND WATER CONSULTING

Data Collection Report

Fall 2022

Date of Collection: 10/5/22

Client: Seven Oaks Country Club



Testing Results

	<u>9/30/21</u>	<u>10/5/22</u>
Humidity/Air Temperature	35%/88°	20%/90°
Greens Temperature	(avg)60.25°	(avg)66.8°
Fairway Temperature	(avg)64.05°	(avg)70°

WATER	<u>Acceptable Range For Water Sample</u>	<u>Irrigation Pond 9/30/21</u>	<u>Oaks #4 10/5/22</u>
pH	6.3-6.5	7.72	7.59
EC	<2.25 mmhos/cm	0.20	0.19
Sodium		24.55	21.75
Calcium	20 - 60 ppm	19.95	18.35
Magnesium	10 - 25 ppm	0.53	0.47
Potassium	5 - 20 ppm	1.94	1.97
Sulfur	30 - 90 ppm	14.21	13.46
Bicarbonate	<120 ppm	102.95	86.24
Boron	<0.67 ppm	0.11	0.12
Chloride	<177 ppm	2.72	8.17

TEES	Acceptable Range For Alkaline Soils Sample	Oaks 6 9/20/16	Oaks 6 10/5/22	Lakes 6 9/20/16	Lakes 6 10/5/22	Islands 6 9/20/16	Islands 6 10/5/22
Organic Matter (Humus)	2 - 3%	n/r	3.17	n/r	3.05	n/r	2.17
Sulfur	12 - 16 ppm	n/r	27.00	n/r	10.00	n/r	11.00
Olsen - Phosphorus	13 - 20 ppm	n/r	15.00	n/r	12.00	n/r	1.00
Calcium - TEC of 6 - 12	1,000 lbs/acre	n/r	3,052.00	n/r	2,722.00	n/r	1,724.00
	>7% base saturation or at least 200						
Magnesium	lbs/acre	n/r	7.94%/182	n/r	9.66%/198	n/r	11.88%/164
Potassium - TEC of 0 - 35	100 ppm	n/r	159.00	n/r	125.00	n/r	102.00
Manganese	>50 ppm	n/r	31.00	n/r	43.00	n/r	15.00

FAIRWAYS	Acceptable Range For Standard Soil Sample	Oaks 6 9/20/16	Oaks 6 10/5/22	Lakes 6 9/20/16	Lakes 6 10/5/22	Islands 6 9/20/16	Islands 6 10/5/22
Organic Matter (Humus)	2 - 3%	1.80	4.16	4.20	3.07	2.15	3.02
Sulfur	50 - 100 ppm	31.00	25.00	28.00	36.00	23.00	17.00
Mehlich III - Phosphorus	350 lbs/acre	485.00	467.00	632.00	472.00	206.00	211.00
Calcium	68%	71.57	72.85	71.60	69.73	74.07	70.31
Magnesium	15%	11.44	10.21	9.00	12.59	11.10	11.89
Potassium	5%	7.76	5.37	6.29	5.84	4.34	4.43
Sodium	<2%	5.75	3.95	3.93	4.27	6.16	4.15
Boron	1 - 1.5 ppm	0.66	1.08	0.79	0.72	0.70	0.80
Iron	120 ppm	392.00	408.00	431.00	431.00	271.00	271.00
Manganese	50 ppm	48.00	15.00	25.00	24.00	35.00	22.00

GREENS	Acceptable Range For Alkaline Soils Sample	Oaks 6 9/20/16	Oaks 6 10/5/22	Lakes 6 9/20/16	Lakes 6 10/5/22	Islands 6 9/20/16	Islands 6 10/5/22
Organic Matter (Humus)	2 - 3%	1.12	1.33	0.97	1.08	0.62	0.48
Sulfur	12 - 16 ppm	45.00	59.00	24.00	57.00	22.00	63.00
Olsen - Phosphorus	13 - 20 ppm	22.00	31.00	24.00	26.00	31.00	20.00
Calcium - TEC of 6 - 12	1,000 lbs/acre	1,392.00	1,858.00	1,308.00	2,418.00	908.00	1,092.00
	>7% base saturation or at least 200						
Magnesium	lbs/acre	12.25%/140	7.35%/130	11.77%/126	6.63%/124	16.53%/144	19.82%/196
Potassium - TEC of 0 - 35	150 ppm	120.00	223.00	133.00	213.00	167.00	93.00
Manganese	>50 ppm	n/r	107.00	n/r	94.00	n/r	112.00

TEES	Acceptable Range For Saturated Paste Sample	Lakes 6 10/5/22	Oaks 6 10/5/22
Nitrate - Ryegrass	5 - 10 ppm	11.30	14.30
Phosphorus	2 - 10 ppm	1.58	1.64
Potassium	40 - 100 ppm	24.71	30.40
Calcium	60 - 200 ppm	38.62	54.01
Magnesium	20 - 70 ppm	7.22	7.53
Sodium	0 - 30 ppm	43.16	49.76
Soluble Salts	<1,920 ppm	288.00	347.00
Bicarbonate	<60 ppm	116.49	97.17
Chloride	<1,000 ppm	23.00	31.00
SAR	<4%	1.67	1.68

FAIRWAYS	Acceptable Range For Saturated Paste Sample	Lakes 6 10/5/22	Oaks 6 10/5/22
Nitrate - Ryegrass	10-15 ppm	5.70	1.20
Phosphorus	2 - 10 ppm	0.56	1.62
Potassium	40 - 100 ppm	36.64	28.48
Calcium	60 - 200 ppm	59.35	24.31
Magnesium	20 - 70 ppm	11.12	4.62
Sodium	0 - 30 ppm	70.76	46.12
Soluble Salts	<1,920 ppm	446.00	263.00
Bicarbonate	<60 ppm	66.57	78.06
Chloride	<1,000 ppm	53.00	32.00
SAR	<4%	2.21	2.25

GREENS	Acceptable Range For Saturated Paste Sample	Oaks 6 10/5/22	Lakes 6 10/5/22	Island 6 10/5/22
Nitrate-Dominator Bentgrass	1-3 ppm	1.30	1.20	<0.5
Phosphorus	2 - 7 ppm	3.17	2.38	1.20
Potassium	25-40 ppm	108.41	45.72	37.60
Calcium	50- 75 ppm	93.39	68.39	76.49
Magnesium	15-30 ppm	13.49	8.96	26.06
Sodium	0 - 30 ppm	124.87	86.17	60.40
Soluble Salts	<1,000 ppm	753.00	517.00	504.00
Bicarbonate	<60 ppm	72.86	77.22	60.52
Chloride	<200 ppm	69.00	40.00	34.00
SAR	<4%	3.20	2.60	1.52