



SOIL AND WATER CONSULTING

Data Collection Report

Summer 2018

Date of Collection: 6/22/18

Client: Coyote Springs Golf Club



Testing Results

	<u>6/9/16</u>	<u>6/28/17</u>	<u>6/22/18</u>
Humidity/Air Temperature	10%/100°	9%/105°	8%/108°
Greens Temperature	79°	73°	65.6°
Fairway Temperature	78°	75°	69.2°

WATER	Acceptable Range For Water Sample	Hole #6 <u>6/9/16</u>	Hole #4 <u>6/28/17</u>	Hole #3 <u>6/22/18</u>
EC	<2.25 mmhos/cm	0.76	0.79	0.77
Sodium		89.22	82.81	83.65
Calcium	20 - 60 ppm	42.63	43.43	41.84
Magnesium	10 - 25 ppm	18.44	21.22	19.12
Potassium	5 - 20 ppm	11.75	11.87	14.81
Sulfur	30 - 90 ppm	90.12	102.81	93.42
Bicarbonate	<120 ppm	278.79	258.46	325.98
Boron	<0.67 ppm	0.35	0.35	0.35
Chloride	<177 ppm	30.64	31.15	31.32

TEE	Acceptable Range For Tissue Sample	3 <u>6/22/18</u>
Nitrogen	3.34%-5.10%	3.66
Phosphorus	0.35% - 0.55%	0.57
Potassium	2.0% - 3.42%	2.50
Calcium	0.25%-0.5%	0.51
Magnesium	0.16%-0.32%	0.31
Sodium	229-1107 ppm	1,410.00

FAIRWAY	Acceptable Range For Tissue Sample	3 <u>6/22/18</u>
Nitrogen	3.34%-5.10%	2.55
Phosphorus	0.35% - 0.55%	0.46
Potassium	2.0% - 3.42%	2.28
Calcium	0.25%-0.5%	0.70
Magnesium	0.16%-0.32%	0.35
Sodium	229-1107 ppm	2,060.00

GREENS	Acceptable Range For Tissue Sample	3,12 (avg) <u>6/22/18</u>
Nitrogen	3.0%-6.5%	3.54
Phosphorus	0.2%-0.55%	0.62
Potassium	0.86%-2.55%	1.84
Calcium	0.21%-0.50%	0.72
Magnesium	0.09%-0.22%	0.31
Sodium	506- 2264 ppm	1,935.00

TEES	Acceptable Range For Alkaline Soils Sample	5 3/12/16	4 6/2/17	3,12(avg) 6/22/18
Organic Matter (Humus)	2 - 3%	2.92	2.49	1.30
Sulfur	12 - 16 ppm	18.00	35.00	43.00
Olsen - Phosphorus	13 - 20 ppm	14.00	14.00	24.00
Calcium - TEC of 6 - 12	1,000 lbs/acre	5,064.00	4,572.00	4,355.00
Magnesium	>7% base saturation or at least 200 lbs/acre	7.13%/262	8.24%/286	16.25%/587
Potassium - TEC of 0 - 35	100 ppm	150.00	193.00	250.00
Manganese	>50 ppm	n/a	n/a	14.00

FAIRWAYS	Acceptable Range For Alkaline Soils Sample	5 3/12/16	4 6/2/17	3,12(avg) 6/22/18
Organic Matter (Humus)	2 - 3%	4.11	3.64	1.36
Sulfur	12 - 16 ppm	22.00	53.00	59.00
Olsen - Phosphorus	13 - 20 ppm	28.00	27.00	16.00
Calcium - TEC of 6 - 12	1,000 lbs/acre	3,462.00	3,394.00	4,426.00
Magnesium	>7% base saturation or at least 200 lbs/acre	9.09%/246	10.31%/290	16.262%/606
Potassium - TEC of 0 - 35	100 ppm	213.00	269.00	280.00
Manganese	>50 ppm	n/a	n/a	23.50

GREENS	Acceptable Range For Alkaline Soils Sample	5 3/12/16	4 6/2/17	3,12(avg) 6/22/18
Organic Matter (Humus)	2 - 3%	0.52	0.62	0.64
Sulfur	12 - 16 ppm	15.00	11.00	22.00
Olsen - Phosphorus	13 - 20 ppm	16.00	11.00	22.50
Calcium - TEC of 6 - 12	1,000 lbs/acre	2,492.00	2,232.00	3,407.00
Magnesium	>7% base saturation or at least 200 lbs/acre	7.25%/148	8.62%/162	12.35%/324
Potassium - TEC of 0 - 35	150 ppm	384.00	370.00	172.00
Manganese	>50 ppm	n/a	n/a	24.50

TEE	Acceptable Range For Saturated Paste Sample	4,13 (avg) 6/2/17	3 6/22/18
Nitrate - Ryegrass	5 - 10 ppm	<0.5	<0.5
Phosphorus	2 - 10 ppm	2.00	3.03
Potassium	40 - 100 ppm	13.61	43.90
Calcium	60 - 200 ppm	43.38	57.85
Magnesium	20 - 70 ppm	6.64	22.82
Sodium	0 - 30 ppm	116.33	127.22
Soluble Salts	<1,920 ppm	471.00	675.00
Bicarbonate	<60 ppm	214.76	307.49
Chloride	<1,000 ppm	51.50	68.00
SAR	<4%	4.30	3.58

FAIRWAY	Acceptable Range For Saturated Paste Sample	4,13 (avg) 6/2/17	3 6/22/18
Nitrate - Ryegrass	5 - 10 ppm	<0.7	<0.5
Phosphorus	2 - 10 ppm	2.81	1.19
Potassium	40 - 100 ppm	41.32	44.79
Calcium	60 - 200 ppm	60.07	48.00
Magnesium	20 - 70 ppm	10.19	23.72
Sodium	0 - 30 ppm	138.95	161.78
Soluble Salts	<1,920 ppm	652.00	740.00
Bicarbonate	<60 ppm	178.15	287.97
Chloride	<1,000 ppm	85.50	70.00
SAR	<4%	4.38	4.77

GREENS	Acceptable Range For Saturated Paste Sample	4,13 (avg) 6/2/17	3,12 (avg) 6/22/18
Nitrate - Bentgrass	1-3 ppm	<0.5	<0.5
Phosphorus	2 - 7 ppm	1.95	5.83
Potassium	25-40 ppm	20.37	34.15
Calcium	50- 75 ppm	26.72	39.27
Magnesium	15-30 ppm	4.06	12.44
Sodium	0 - 30 ppm	38.15	63.17
Soluble Salts	<1,000 ppm	233.50	393.00
Bicarbonate	<60 ppm	125.68	212.32
Chloride	<200 ppm	23.00	30.00
SAR	<4%	1.84	2.26