



SOIL AND WATER CONSULTING

Data Collection Report

Fall 2021

Date of Collection: 10/11/21

Client: East Orange Golf Course



Testing Results

	<u>10/17/18</u>	<u>10/17/19</u>	<u>9/19/20</u>	<u>10/11/21</u>
Humidity/Air Temperature	50%/60°	50%/55°	40%/62°	90%/72°
Green Temperature	(avg)50.1°	(avg)51.25°	(avg)54.66°	(avg)62.7°
Fairway Temperature	(avg)53°	(avg)56.5°	(avg)62.06°	(avg)64.4°

WATER	Acceptable Range For Water Sample	Sprinkler Head <u>10/17/18</u>	Sprinkler Head <u>10/17/19</u>	Sprinkler Head <u>9/19/20</u>	Sprinkler Head <u>10/11/21</u>
EC	<2.25 mmhos/cm	0.83	0.84	0.83	0.89
Sodium		22.77	20.95	24.68	23.59
Calcium	20 - 60 ppm	93.09	96.43	101.10	99.21
Magnesium	10 - 25 ppm	27.97	33.08	32.80	32.33
Potassium	5 - 20 ppm	1.29	1.22	3.08	1.54
Sulfur	30 - 90 ppm	42.90	45.21	49.44	48.54
Bicarbonate	<120 ppm	252.58	251.97	207.64	243.33
Boron	<0.67 ppm	0.13	0.12	0.12	0.13
Chloride	<177 ppm	122.89	109.61	128.00	139.23

TEES	Acceptable Range For Standard Soil Sample	13,14(avg) 10/17/19	7,12(avg) 9/19/20	13,14(avg) 10/11/21
Organic Matter (Humus)	2 - 3%	3.71	4.03	4.17
Sulfur	50 - 100 ppm	22.50	24.00	35.50
Mehlich III - Phosphorus	350 lbs/acre	859.00	886.50	856.50
Calcium	68%	67.41	66.19	65.94
Magnesium	15%	14.89	13.61	12.57
Potassium	5%	4.23	4.36	3.93
Sodium	<2%	1.10	1.02	1.19
Boron	1 - 1.5 ppm	0.69	0.60	0.63
Iron	120 ppm	287.00	276.50	314.50
Manganese	50 ppm	15.50	18.50	15.50

FAIRWAYS	Acceptable Range For Standard Soil Sample	5,13,14(avg) 10/17/19	4,7,12(avg) 9/19/20	5,13,14(avg) 10/11/21
Organic Matter (Humus)	2 - 3%	5.84	4.96	6.19
Sulfur	50 - 100 ppm	19.67	16.67	24.00
Mehlich III - Phosphorus	350 lbs/acre	160.33	213.67	192.67
Calcium	68%	66.58	59.83	62.82
Magnesium	15%	17.04	13.96	14.89
Potassium	5%	2.31	2.62	2.33
Sodium	<2%	1.13	1.12	1.18
Boron	1 - 1.5 ppm	0.84	0.59	0.79
Iron	120 ppm	195.67	179.67	221.67
Manganese	50 ppm	31.00	30.67	33.67

GREENS	Acceptable Range For Standard Soil Sample	5,13,14(avg) 10/17/19	7,12(avg) 9/19/20	5,13,14(avg) 10/11/21
Organic Matter (Humus)	2 - 3%	4.03	3.46	4.10
Sulfur	50 - 100 ppm	22.00	18.00	25.00
Mehlich III - Phosphorus	350 lbs/acre	1,050.33	1,001.00	841.33
Calcium	68%	73.46	75.68	72.31
Magnesium	15%	15.72	13.79	15.14
Potassium	5%	4.73	2.59	3.44
Sodium	<2%	1.15	1.13	1.01
Boron	1 - 1.5 ppm	0.80	0.68	0.86
Iron	120 ppm	341.33	298.00	329.33
Manganese	50 ppm	18.67	14.00	18.67

TEES	Acceptable Range For Saturated Paste Sample	5,14(avg) 10/17/19	7 9/19/20	5,14(avg) 10/11/21
Nitrate -Coolseason	5 - 10 ppm	2.70	16.10	10.40
Phosphorus	2 - 10 ppm	0.69	0.57	0.88
Potassium	40 - 100 ppm	44.51	31.00	39.80
Calcium	60 - 200 ppm	38.54	63.32	48.72
Magnesium	20 - 70 ppm	13.92	14.96	10.42
Sodium	0 - 30 ppm	11.39	10.45	19.58
Soluble Salts	<1,920 ppm	291.00	308.00	344.50
Bicarbonate	<60 ppm	70.27	68.30	50.25
Chloride	<1,000 ppm	47.00	37.00	38.50
SAR	<4%	0.41	0.31	0.66

FAIRWAYS	Acceptable Range For Saturated Paste Sample	5,14(avg) 10/17/19	4,7(avg) 9/19/20	5,14(avg) 10/11/21
Nitrate -Coolseason	5 - 10 ppm	3.35	1.75	32.20
Phosphorus	2 - 10 ppm	0.24	0.15	0.10
Potassium	40 - 100 ppm	7.72	8.42	7.66
Calcium	60 - 200 ppm	47.84	39.69	66.96
Magnesium	20 - 70 ppm	14.30	11.58	16.44
Sodium	0 - 30 ppm	14.55	11.50	19.41
Soluble Salts	<1,920 ppm	256.00	234.50	372.50
Bicarbonate	<60 ppm	48.85	53.45	22.90
Chloride	<1,000 ppm	55.50	44.50	55.00
SAR	<4%	0.48	0.42	0.56

GREENS	Acceptable Range For Saturated Paste Sample	5,14(avg) 10/17/19	7 9/19/20	5,14(avg) 10/11/21
Nitrate - 007 Bentgrass	1-3 ppm	2.30	<0.5	12.85
Phosphorus	2 - 7 ppm	0.75	0.49	0.35
Potassium	25-40 ppm	37.58	17.08	29.69
Calcium	50- 75 ppm	37.58	25.46	61.92
Magnesium	15-30 ppm	10.82	7.04	17.28
Sodium	0 - 30 ppm	9.88	7.07	18.33
Soluble Salts	<1,000 ppm	259.50	189.00	388.00
Bicarbonate	<60 ppm	61.86	53.69	46.05
Chloride	<200 ppm	35.00	16.00	43.00
SAR	<4%	0.37	0.32	0.54