



SOIL AND WATER CONSULTING

Data Collection Report

Fall 2020

Date of Collection: 10/14/20

Client: The Las Vegas Country Club



Testing Results

	<u>9/29/18</u>	<u>9/21/19</u>	<u>10/14/20</u>
Humidity/Air Temperature	15%/98°	10%/90°	10%/94°
Greens Temperature	(avg)68.2°	(avg)63°	(avg)72°
Fairway Temperature	(avg)70.65°	(avg)62.5°	(avg)71°

WATER	Acceptable Range For Water Sample	Hole #2 9/29/18	Hole #7 9/21/19	Hole #16 10/14/20
EC	<2.25 mmhos/cm	0.78	0.68	0.79
Sodium		18.90	17.24	19.24
Calcium	20 - 60 ppm	72.83	75.16	73.07
Magnesium	10 - 25 ppm	37.42	39.70	39.75
Potassium	5 - 20 ppm	6.72	3.70	4.94
Sulfur	30 - 90 ppm	182.76	164.49	187.50
Bicarbonate	<120 ppm	215.98	238.67	217.81
Boron	<0.67 ppm	0.09	0.09	0.09
Chloride	<177 ppm	14.30	18.72	18.04

TEE	Acceptable Range For Tissue Sample	8 10/14/20
Nitrogen	3.34%-5.10%	5.25
Phosphorus	0.35% - 0.55%	0.69
Potassium	2.0% - 3.42%	2.32
Calcium	0.25%-0.5%	0.68
Magnesium	0.16%-0.32%	0.37
Sodium	229-1107 ppm	501.00

FAIRWAY	Acceptable Range For Tissue Sample	8 10/14/20
Nitrogen	3.34%-5.10%	5.33
Phosphorus	0.35% - 0.55%	0.70
Potassium	2.0% - 3.42%	2.73
Calcium	0.25%-0.5%	0.69
Magnesium	0.16%-0.32%	0.38
Sodium	229-1107 ppm	408.00

GREENS	Acceptable Range For Tissue Sample	8,17(avg) 10/14/20
Nitrogen	3.0%-6.5%	3.87
Phosphorus	0.2%-0.55%	0.66
Potassium	0.86%-2.55%	2.41
Calcium	0.21%-0.50%	1.08
Magnesium	0.09%-0.22%	0.37
Sodium	506- 2264 ppm	433.50

TEES	Acceptable Range For Alkaline Soils Sample	2,11(avg) 9/29/18	7,16(avg) 9/21/19	8,17(avg) 10/14/20
Organic Matter (Humus)	2 - 3%	2.46	2.88	3.21
Sulfur	12 - 16 ppm	294.00	35.50	38.50
Olsen - Phosphorus	13 - 20 ppm	26.50	24.00	18.50
Calcium - TEC of 6 - 12	1,000 lbs/acre	4,830.00	4,203.00	4,454.00
Magnesium	>7% base saturation or at least 200 lbs/acre	18.07%/716	21.60%/791	22.35%/869
Potassium - TEC of 0 - 35	100 ppm	393.50	218.50	237.50
Manganese	>50 ppm	20.00	24.00	18.00

FAIRWAYS	Acceptable Range For Alkaline Soils Sample	2,11(avg) 9/29/18	7,16(avg) 9/21/19	8,17(avg) 10/14/20
Organic Matter (Humus)	2 - 3%	5.25	3.53	3.44
Sulfur	12 - 16 ppm	8,789.50	7,033.50	213.00
Olsen - Phosphorus	13 - 20 ppm	36.00	29.00	25.00
Calcium - TEC of 6 - 12	1,000 lbs/acre	29,344.00	22,107.00	5,006.00
Magnesium	>7% base saturation or at least 200 lbs/acre	7.49%/997	7.46%/879	19.55%/814
Potassium - TEC of 0 - 35	100 ppm	225.50	178.50	238.50
Manganese	>50 ppm	17.00	17.00	23.50

GREENS	Acceptable Range For Alkaline Soils Sample	2,11(avg) 9/29/18	7,16(avg) 9/21/19	8,17(avg) 10/14/20
Organic Matter (Humus)	2 - 3%	0.72	0.88	0.84
Sulfur	12 - 16 ppm	104.00	327.00	165.00
Olsen - Phosphorus	13 - 20 ppm	49.00	105.50	40.50
Calcium - TEC of 6 - 12	1,000 lbs/acre	3,352.00	3,350.00	2,814.00
Magnesium	>7% base saturation or at least 200 lbs/acre	11.97%/291	18.95%/516	16.17%/353
Potassium - TEC of 0 - 35	150 ppm	59.00	209.00	66.00
Manganese	>50 ppm	16.50	50.00	36.00

TEE	Acceptable Range For Saturated Paste Sample	16 9/21/19	8 10/14/20
Nitrate - Ryegrass	5 - 10 ppm	<0.5	17.90
Phosphorus	2 - 10 ppm	1.71	2.24
Potassium	40 - 100 ppm	13.45	12.43
Calcium	60 - 200 ppm	58.66	66.80
Magnesium	20 - 70 ppm	32.32	39.10
Sodium	0 - 30 ppm	23.56	22.77
Soluble Salts	<1,920 ppm	353.00	538.00
Bicarbonate	<60 ppm	187.91	141.97
Chloride	<1,000 ppm	22.00	36.00
SAR	<4%	0.61	0.55

FAIRWAYS	Acceptable Range For Saturated Paste Sample	16 9/21/19	8 10/14/20
Nitrate - Ryegrass	5 - 10 ppm	1.50	11.30
Phosphorus	2 - 10 ppm	0.94	1.07
Potassium	40 - 100 ppm	41.72	35.55
Calcium	60 - 200 ppm	465.55	226.42
Magnesium	20 - 70 ppm	163.16	114.30
Sodium	0 - 30 ppm	50.51	37.94
Soluble Salts	<1,920 ppm	1,583.00	1,034.00
Bicarbonate	<60 ppm	202.55	140.09
Chloride	<1,000 ppm	52.00	35.00
SAR	<4%	0.51	0.51

GREENS	Acceptable Range For Saturated Paste Sample	7,16(avg) 9/21/19	8,17(avg) 10/14/20
Nitrate - Bentgrass	1-3 ppm	<0.6	<3.1
Phosphorus	2 - 7 ppm	0.75	1.06
Potassium	25-40 ppm	97.18	59.54
Calcium	50- 75 ppm	383.55	224.39
Magnesium	15-30 ppm	206.40	107.13
Sodium	0 - 30 ppm	87.29	42.79
Soluble Salts	<1,000 ppm	1,718.50	1,061.00
Bicarbonate	<60 ppm	234.28	175.74
Chloride	<200 ppm	106.00	50.50
SAR	<4%	0.88	0.59