



SOIL AND WATER CONSULTING

Data Collection Report

Spring 2023

Date of Collection: 3/16/23

Client: The Las Vegas Country Club



Testing Results

	<u>3/5/20</u>	<u>3/25/21</u>	<u>3/16/23</u>
Humidity/Air			
Temperature	20%/73°	20%/65°	33%/65°
Greens			
Temperature	(avg)62°	(avg)52°	(avg)49.8°
Fairway			
Temperature	(avg)60°	(avg)55°	(avg)50.9°

WATER	Acceptable Range For Water Sample	Hole #1 3/5/20	Hole #5 3/25/21	Hole #1 3/16/23
EC	<2.25 mmhos/cm	0.71	0.63	0.72
Sodium		15.81	19.02	19.37
Calcium	20 - 60 ppm	64.00	64.72	71.53
Magnesium	10 - 25 ppm	35.21	39.34	43.74
Potassium	5 - 20 ppm	4.80	4.03	4.06
Sulfur	30 - 90 ppm	165.12	175.44	202.42
Bicarbonate	<120 ppm	231.99	218.43	224.35
Boron	<0.67 ppm	0.09	0.10	0.07
Chloride	<177 ppm	13.79	21.11	20.08

TEE	Acceptable Range For Tissue Sample	1 3/16/23
Nitrogen	3.34%-5.10%	5.70
Phosphorus	0.35% - 0.55%	0.42
Potassium	2.0% - 3.42%	2.77
Calcium	0.25%-0.5%	0.71
Magnesium	0.16%-0.32%	0.40
Sodium	229-1107 ppm	531.50

FAIRWAY	Acceptable Range For Tissue Sample	1 3/16/23
Nitrogen	3.34%-5.10%	5.67
Phosphorus	0.35% - 0.55%	0.42
Potassium	2.0% - 3.42%	2.76
Calcium	0.25%-0.5%	0.68
Magnesium	0.16%-0.32%	0.38
Sodium	229-1107 ppm	364.20

GREENS	Acceptable Range For Tissue Sample	1,10(avg) 3/16/23
Nitrogen	3.0%-6.5%	6.09
Phosphorus	0.2%-0.55%	0.60
Potassium	0.86%-2.55%	2.63
Calcium	0.21%-0.50%	0.42
Magnesium	0.09%-0.22%	0.30
Sodium	506- 2264 ppm	964.05

TEES	Acceptable Range For Alkaline Soils Sample	1,10(avg) 3/5/20	1,10(avg) 3/16/23
Organic Matter (Humus)	2 - 3%	1.71	2.43
Sulfur	12 - 16 ppm	81.50	41.50
Olsen - Phosphorus	13 - 20 ppm	18.50	17.00
Calcium - TEC of 6 - 12	1,000 lbs/acre	3,843.00	3,776.00
Magnesium	>7% base saturation or at least 200 lbs/acre	19.38%/666	19.56%/662
Potassium - TEC of 0 - 35	100 ppm	425.50	401.50
Manganese	>50 ppm	28.50	33.50

FAIRWAYS	Acceptable Range For Alkaline Soils Sample	1,10(avg) 3/5/20	1,10(avg) 3/16/23
Organic Matter (Humus)	2 - 3%	5.14	6.03
Sulfur	12 - 16 ppm	10,509.00	8,381.50
Olsen - Phosphorus	13 - 20 ppm	36.50	22.50
Calcium - TEC of 6 - 12	1,000 lbs/acre	32,579.00	26,777.00
Magnesium	>7% base saturation or at least 200 lbs/acre	5.93%/1,019	5.91%/834
Potassium - TEC of 0 - 35	100 ppm	199.00	140.00
Manganese	>50 ppm	13.00	12.00

GREENS	Acceptable Range For Alkaline Soils Sample	1,10(avg) 3/5/20	1,10(avg) 3/16/23
Organic Matter (Humus)	2 - 3%	0.73	1.07
Sulfur	12 - 16 ppm	199.50	678.50
Olsen - Phosphorus	13 - 20 ppm	84.00	80.00
Calcium - TEC of 6 - 12	1,000 lbs/acre	3,023.00	3,545.00
Magnesium	>7% base saturation or at least 200 lbs/acre	16.86%/403	22.7%/714
Potassium - TEC of 0 - 35	150 ppm	74.00	199.50
Manganese	>50 ppm	32.50	41.50

TEE	Acceptable Range For Saturated Paste Sample	10 3/5/20	10 3/16/23
Nitrate - Ryegrass	5 - 10 ppm	<0.5	<0.5
Phosphorus	2 - 10 ppm	1.60	1.36
Potassium	40 - 100 ppm	16.87	10.87
Calcium	60 - 200 ppm	98.99	69.74
Magnesium	20 - 70 ppm	55.09	36.31
Sodium	0 - 30 ppm	30.55	25.87
Soluble Salts	<1,920 ppm	558.00	432.00
Bicarbonate	<60 ppm	194.47	159.75
Chloride	<1,000 ppm	29.00	26.00
SAR	<4%	0.61	0.63

FAIRWAYS	Acceptable Range For Saturated Paste Sample	10 3/5/20	10 3/16/23
Nitrate - Ryegrass	5 - 10 ppm	<0.5	<0.5
Phosphorus	2 - 10 ppm	0.16	1.07
Potassium	40 - 100 ppm	18.98	42.49
Calcium	60 - 200 ppm	208.30	517.22
Magnesium	20 - 70 ppm	81.01	181.16
Sodium	0 - 30 ppm	21.77	41.92
Soluble Salts	<1,920 ppm	822.00	1,626.00
Bicarbonate	<60 ppm	99.60	220.49
Chloride	<1,000 ppm	18.00	33.00
SAR	<4%	0.32	0.40

GREENS	Acceptable Range For Saturated Paste Sample	1,10(avg) 3/5/20	1,10(avg) 3/16/23
Nitrate - Bentgrass	1-3 ppm	<0.5	<0.5
Phosphorus	2 - 7 ppm	0.90	1.12
Potassium	25-40 ppm	52.03	189.43
Calcium	50- 75 ppm	305.47	477.96
Magnesium	15-30 ppm	142.95	293.21
Sodium	0 - 30 ppm	57.38	125.80
Soluble Salts	<1,000 ppm	1,273.50	2,174.00
Bicarbonate	<60 ppm	916.91	175.04
Chloride	<200 ppm	58.50	126.00
SAR	<4%	0.67	1.11