



SOIL AND WATER CONSULTING

Data Collection Report

Fall 2021

Date of Collection: 9/29/21

Client: Los Robles Greens Golf Course



Testing Results

	<u>9/13/19</u>	<u>10/23/20</u>	<u>9/29/21</u>
Humidity/Air Temperature	40%/92°	70%/70°	50%/75°
Greens Temperature	(avg)68°	n/r	(avg)58.43°
Fairway Temperature	(avg)66.5°	n/r	(avg)63.67°

WATER	Acceptable Range For Water Sample	Hole #1 9/13/19	Hole #2 10/23/20	Hole #14 9/29/21
pH	6.50	2.80	9.00	8.34
EC	<2.25 mmhos/cm	1.20	0.42	0.64
Sodium		55.04	51.44	75.55
Calcium	20 - 60 ppm	27.85	26.00	36.20
Magnesium	10 - 25 ppm	12.81	11.17	13.40
Potassium	5 - 20 ppm	2.95	6.53	3.32
Sulfur	30 - 90 ppm	228.39	58.29	105.60
Bicarbonate	<120 ppm	0.00	79.86	125.99
Boron	<0.67 ppm	0.17	0.18	0.19
Chloride	<177 ppm	50.72	51.40	81.70

FAIRWAYS	Acceptable Range For Alkaline Soils Sample	3,7,18(avg) 9/13/19	4,10,15(avg) 10/23/20	9,11,17(avg) 9/29/21
Organic Matter (Humus)	2 - 3%	5.86	7.02	3.03
Sulfur	12 - 16 ppm	160.89	66.67	196.67
Olsen - Phosphorus	13 - 20 ppm	22.22	19.33	10.67
Calcium - TEC of 6 - 12	1,000 lbs/acre	6,260.44	5,472.00	3,779.33
Magnesium	>7% base saturation or at least 200 lbs/acre	27.54%/1,694.66	30.00%/1,762.66	24.57%/1,635.33
Potassium - TEC of 0 - 35	100 ppm	663.33	482.67	269.33
Manganese	50-80 ppm	111.00	54.00	71.00

GREENS	Acceptable Range For Alkaline Soils Sample	3,5,9,13,15,17(avg) 9/13/19	2,4,6,10,12,15(avg) 10/23/20	3,5,9,13,14,17(avg) 9/29/21
Organic Matter (Humus)	2 - 3%	1.14	1.05	1.26
Sulfur	12 - 16 ppm	9.36	10.83	28.17
Olsen - Phosphorus	13 - 20 ppm	11.19	7.50	10.83
Calcium - TEC of 6 - 12	1,000 lbs/acre	1,420.22	1,432.33	1,518.00
Magnesium	>7% base saturation or at least 200 lbs/acre	18.19%/228	16.83%/198.3	13.85%/167.66
Potassium - TEC of 0 - 35	150 ppm	128.75	75.33	59.33
Manganese	50-80 ppm	41.64	31.67	77.50

FAIRWAYS	Acceptable Range For Saturated Paste Sample	3,7(avg) 9/13/19	4,10(avg) 10/23/20	9,17(avg) 9/29/21
Nitrate	5-10 ppm	40.15	1.60	<3.6
Phosphorus	2 - 10 ppm	1.75	1.94	1.81
Potassium	40 - 100 ppm	104.16	36.18	69.07
Calcium	60 - 200 ppm	228.76	85.13	179.44
Magnesium	20 - 70 ppm	112.44	45.61	102.39
Sodium	0 - 30 ppm	147.08	117.09	255.07
Soluble Salts	<1,920 ppm	1,504.50	835.50	1,537.00
Bicarbonate	<60 ppm	292.85	158.33	166.51
Chloride	<1,000 ppm	245.50	226.50	455.00
SAR	<4%	2.05	2.55	3.88

GREENS	Acceptable Range For Saturated Paste Sample	3,5,15(avg) 9/13/19	2,10,15(avg) 10/23/20	3,14,17(avg) 9/29/21
Nitrate- Bentgrass/poa	1-3 ppm	4.50	<0.55	2.70
Phosphorus	2 - 7 ppm	4.31	1.86	2.70
Potassium	25-40 ppm	26.82	11.73	9.60
Calcium	50-75 ppm	18.33	17.93	20.12
Magnesium	15-30 ppm	5.88	5.65	5.64
Sodium	0 - 30 ppm	37.56	25.94	39.26
Soluble Salts	<1,000 ppm	257.67	171.33	244.00
Bicarbonate	<60 ppm	77.62	67.46	85.90
Chloride	<200 ppm	26.33	20.00	33.33
SAR	<4%	1.95	1.37	1.99