

lb/A

BROOKSIDE LABORATORIES, INC.

SOIL AUDIT AND INVENTORY REPORT

80046-25

Name Western Golf Properties City Lake Forest State CAIndependent Consultant Soil and Water Consulting Date 10/17/2022

Sample Location <u>SAN RAMON GC</u>			TEE	TEE	TEE	FAIRWAY	FAIRWAY
Sample Identification			10	13	14	10	13
Lab Number			0368-1	0369-1	0370-1	0371-1	0372-1
Total Exchange Capacity (ME/100 g)			14.23	19.86	13.04	27.40	29.52
pH (H ₂ O 1:1)			a 8.1	a 8.4	a 8.4	a 8.4	a 8.6
Organic Matter (360°C LOI) %			4.52	4.18	4.46	6.76	5.97
Estimated Nitrogen Release lb/A			95	92	95	109	105
ANIONS	SOLUBLE SULFUR* ppm		36	70	39	69	65
	MEHLICH III lb/A P as P ₂ O ₅ ppm of P						
	BRAY II lb/A P as P ₂ O ₅ ppm of P						
	OLSEN lb/A P as P ₂ O ₅ ppm of P		78 17	41 9	55 12	60 13	18 4
EXCHANGEABLE CATIONS	CALCIUM* lb/A ppm		3466 1733	4410 2205	3244 1622	5924 2962	5926 2963
	MAGNESIUM* lb/A ppm		918 459	1424 712	794 397	2046 1023	2320 1160
	POTASSIUM* lb/A ppm		160 80	124 62	196 98	314 157	308 154
	SODIUM* lb/A ppm		490 245	988 494	452 226	1308 654	1754 877
	BASE SATURATION PERCENT						
	Calcium %		60.89	55.51	62.19	54.05	50.19
	Magnesium %		26.88	29.88	25.37	31.11	32.75
	Potassium %		1.44	0.80	1.93	1.47	1.34
	Sodium %		7.49	10.81	7.54	10.38	12.92
	Other Bases %		3.30	3.00	3.00	3.00	2.80
	Hydrogen %		0.00	0.00	0.00	0.00	0.00
EXTRACTABLE MINORS							
Boron** (ppm)			3.80	2.90	2.87	5.83	7.33
Iron** (ppm)			162	220	132	77	44
Manganese** (ppm)			46	79	25	44	48
Copper** (ppm)			6.14	1.77	3.43	3.43	2.66
Zinc** (ppm)			14.55	3.86	10.85	4.80	2.79
Aluminum** (ppm)			120	296	89	199	229
OTHER TESTS	Soluble Salts (mmhos/cm)						
	Chlorides (ppm)						
	NO ₃ -N (ppm)		9.3	3.7	9.8	5.8	7.1
	NH ₄ -N (ppm)		1.6	1.0	0.9	3.4	2.1

a - alkaline soil

* Ammonium Acetate Extractable (pH of 8.1)

** Mehlich III Extractable

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Sample Location				SAN	RAMON	GC	FAIRWAY	GREEN	GREEN	GREEN	GREEN	
Sample Identification							14	10	13	14	PG	
Lab Number							0373-1	0374-1	0375-1	0376-1	0377-1	
Total Exchange Capacity (ME/100 g)							28.82	12.21	10.21	6.20	7.49	
pH (H ₂ O 1:1)							a 8.5	a 8.3	a 8.2	a 8.1	a 8.3	
Organic Matter (360°C LOI) %							6.30	2.44	1.96	0.78	1.95	
Estimated Nitrogen Release							lb/A	106	69	59	31	59
ANIONS	SOLUBLE SULFUR*						ppm	95	110	89	41	48
	PHOSPHORUS	MEHLICH III		lb/A	P as P ₂ O ₅							
					ppm of P							
		BRAY II		lb/A	P as P ₂ O ₅							
					ppm of P							
		OLSEN		lb/A	P as P ₂ O ₅		110	151	96	60	69	
					ppm of P		24	33	21	13	15	
EXCHANGEABLE CATIONS	CALCIUM*						lb/A	5930	3452	3026	1848	2090
							ppm	2965	1726	1513	924	1045
	MAGNESIUM*						lb/A	2244	436	332	204	300
							ppm	1122	218	166	102	150
	POTASSIUM*						lb/A	548	422	282	196	278
							ppm	274	211	141	98	139
	SODIUM*						lb/A	1430	386	262	124	198
							ppm	715	193	131	62	99
BASE SATURATION PERCENT												
Calcium							%	51.44	70.68	74.09	74.52	69.76
Magnesium							%	32.44	14.88	13.55	13.71	16.69
Potassium							%	2.44	4.43	3.54	4.05	4.76
Sodium							%	10.79	6.87	5.58	4.35	5.75
Other Bases							%	2.90	3.10	3.20	3.30	3.10
Hydrogen							%	0.00	0.00	0.00	0.00	0.00
EXTRACTABLE MINORS												
Boron** (ppm)							6.69	1.69	1.25	0.68	1.19	
Iron** (ppm)							90	197	132	147	193	
Manganese** (ppm)							49	43	48	41	28	
Copper** (ppm)							3.65	2.82	1.60	0.44	1.82	
Zinc** (ppm)							7.28	12.80	5.69	3.10	5.10	
Aluminum** (ppm)							178	32	33	53	75	
OTHER TESTS	Soluble Salts (mmhos/cm)											
	Chlorides (ppm)											
	NO3-N (ppm)						3.7	2.2	2.6	1.9	3.0	
	NH4-N (ppm)						5.8	0.8	0.7	1.3	0.5	

a - alkaline soil

* Ammonium Acetate Extractable (pH of 8.1)

** Mehlich III Extractable