

BROOKSIDE LABORATORIES, INC.

SOIL AUDIT AND INVENTORY REPORT

Name Western Golf Properties City Lake Forest State CA

Independent Consultant Soil and Water Consulting Date 6/23/2021

Sample Location	BIRCH HILLS GC	TEE	TEE	TEE	FAIRWAY	FAIRWAY
Sample Identification		6	13	15	6	13
Lab Number		2343-1	2344-1	2345-1	2346-1	2347-1
Total Exchange Capacity (ME/100 g)		8.70	8.25	10.24	28.13	27.16
pH (H ₂ O 1:1)		a 7.4	a 7.9	a 7.5	a 7.9	a 7.9
Organic Matter (360°C LOI) %		2.43	2.53	2.10	2.50	3.41
Estimated Nitrogen Release lb/A		69	71	62	70	84
ANIONS	SOLUBLE SULFUR* ppm	64	24	69	149	246
	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 ppm of P	73 16	50 11	92 20	23 5	18 4
EXCHANGEABLE CATIONS	CALCIUM* lb/A	2640	2548	3060	8832	8028
	ppm	1320	1274	1530	4416	4014
	MAGNESIUM* lb/A	270	286	358	970	1076
	ppm	135	143	179	485	538
	POTASSIUM* lb/A	224	106	150	210	262
	ppm	112	53	75	105	131
	SODIUM* lb/A	158	120	234	346	606
	ppm	79	60	117	173	303
BASE SATURATION PERCENT						
	Calcium %	75.86	77.21	74.71	78.49	73.90
	Magnesium %	12.93	14.44	14.57	14.37	16.51
	Potassium %	3.30	1.65	1.88	0.96	1.24
	Sodium %	3.95	3.16	4.97	2.67	4.85
	Other Bases %	4.00	3.50	3.90	3.50	3.50
	Hydrogen %	0.00	0.00	0.00	0.00	0.00
EXTRACTABLE MINORS						
	Boron** (ppm)	0.71	0.75	0.71	0.72	1.05
	Iron** (ppm)	175	240	146	45	102
	Manganese** (ppm)	30	32	36	30	47
	Copper** (ppm)	0.85	0.70	0.69	0.62	1.72
	Zinc** (ppm)	5.48	4.13	4.90	3.86	2.34
	Aluminum** (ppm)	162	128	137	35	22
OTHER TESTS	Soluble Salts (mmhos/cm)					
	Chlorides (ppm)					
	NO ₃ -N (ppm)	14.8	1.6	14.3	4.2	2.9
	NH ₄ -N (ppm)	4.4	4.6	2.7	2.9	2.4

a - alkaline soil

* Ammonium Acetate Extractable (pH of 8.1)

** Mehlich III Extractable

lb/A

BROOKSIDE LABORATORIES, INC.

80046-14

SOIL AUDIT AND INVENTORY REPORT

Name Western Golf Properties City Lake Forest State CAIndependent Consultant Soil and Water Consulting Date 6/23/2021

Sample Location				BIRCH HILLS GC	FAIRWAY	GREEN	GREEN	GREEN	GREEN
Sample Identification					15	4	6	13	15
Lab Number					2348-1	2349-1	2350-1	2351-1	2352-1
Total Exchange Capacity (ME/100 g)					22.58	4.33	5.22	4.45	5.93
pH (H ₂ O 1:1)					a 7.5	a 7.8	a 7.9	a 8.0	a 8.3
Organic Matter (360°C LOI) %					4.37	0.80	0.79	0.75	0.83
Estimated Nitrogen Release lb/A					94	32	32	30	33
ANIONS	SOLUBLE SULFUR* ppm				384	35	74	40	117
	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 ppm of P	60 13	9 2	50 11	46 10	87 19
EXCHANGEABLE CATIONS	CALCIUM*		lb/A		6942	1272	1492	1256	1718
			ppm		3471	636	746	628	859
	MAGNESIUM*		lb/A		792	116	136	128	152
			ppm		396	58	68	64	76
	POTASSIUM*		lb/A		398	256	404	332	436
			ppm		199	128	202	166	218
	SODIUM*		lb/A		246	82	104	92	118
			ppm		123	41	52	46	59
BASE SATURATION PERCENT									
Calcium %					76.86	73.44	71.46	70.56	72.43
Magnesium %					14.61	11.16	10.86	11.99	10.68
Potassium %					2.26	7.58	9.92	9.56	9.43
Sodium %					2.37	4.12	4.33	4.49	4.33
Other Bases %					3.90	3.60	3.50	3.40	3.10
Hydrogen %					0.00	0.00	0.00	0.00	0.00
EXTRACTABLE MINORS									
Boron** (ppm)					1.02	0.80	0.78	0.72	0.79
Iron** (ppm)					95	155	96	117	126
Manganese** (ppm)					46	68	52	54	69
Copper** (ppm)					1.59	1.82	1.51	1.40	2.13
Zinc** (ppm)					3.60	8.05	8.58	7.45	9.48
Aluminum** (ppm)					34	137	103	118	119
OTHER TESTS	Soluble Salts (mmhos/cm)								
	Chlorides (ppm)								
	NO3-N (ppm)				24.1	1.4	1.6	1.3	1.6
	NH4-N (ppm)				4.1	1.8	1.3	1.5	1.9

a - alkaline soil

* Ammonium Acetate Extractable (pH of 8.1)

** Mehlich III Extractable