

BROOKSIDE LABORATORIES, INC.

SOIL AUDIT AND INVENTORY REPORT

Name Western Golf Properties City Lake Forest State CA

Independent Consultant Soil and Water Consulting Date 6/21/2022

Sample Location	BIRCH HILLS GC	TEE	TEE	TEE	FAIRWAY	FAIRWAY
Sample Identification		7	11	12	7	11
Lab Number		0389-1	0390-1	0391-1	0392-1	0393-1
Total Exchange Capacity (ME/100 g)		10.29	9.07	11.91	21.04	26.99
pH (H ₂ O 1:1)		a 7.5	a 7.4	7.2	a 7.5	a 7.8
Organic Matter (360°C LOI) %		2.13	2.05	2.86	3.78	2.93
Estimated Nitrogen Release lb/A		63	61	77	88	79
ANIONS	SOLUBLE SULFUR* ppm	55	35	113	84	68
	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	41 9	32 7	119 26	9 2	9 2
EXCHANGEABLE CATIONS	CALCIUM* lb/A	3142	2794	3684	5900	8720
	ppm	1571	1397	1842	2950	4360
	MAGNESIUM* lb/A	328	280	360	1038	808
	ppm	164	140	180	519	404
	POTASSIUM* lb/A	300	206	264	284	274
	ppm	150	103	132	142	137
	SODIUM* lb/A	128	132	166	358	232
	ppm	64	66	83	179	116
BASE SATURATION PERCENT						
	Calcium %	76.34	77.01	77.33	70.10	80.77
	Magnesium %	13.28	12.86	12.59	20.56	12.47
	Potassium %	3.74	2.91	2.84	1.73	1.30
	Sodium %	2.70	3.16	3.03	3.70	1.87
	Other Bases %	3.90	4.00	4.20	3.90	3.60
	Hydrogen %	0.00	0.00	0.00	0.00	0.00
EXTRACTABLE MINORS						
	Boron** (ppm)	0.63	0.78	0.71	1.01	0.80
	Iron** (ppm)	174	207	303	199	118
	Manganese** (ppm)	29	36	28	52	46
	Copper** (ppm)	0.82	1.03	1.37	1.61	1.39
	Zinc** (ppm)	5.78	6.51	7.10	3.16	2.76
	Aluminum** (ppm)	87	189	182	328	49
OTHER TESTS	Soluble Salts (mmhos/cm)					
	Chlorides (ppm)					
	NO ₃ -N (ppm)	2.4	14.0	4.8	2.7	4.7
	NH ₄ -N (ppm)	1.0	0.6	0.9	2.7	< 0.5

a - alkaline soil

* Ammonium Acetate Extractable (pH of 8.1)

** Mehlich III Extractable

lb/A

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SOIL AUDIT AND INVENTORY REPORT

80046-21

 Name Western Golf Properties City Lake Forest State CA

 Independent Consultant Soil and Water Consulting Date 6/21/2022

Sample Location				BIRCH HILLS GC	FAIRWAY	GREEN	GREEN	GREEN	GREEN
Sample Identification					12	7	8	11	12
Lab Number					0394-1	0395-1	0396-1	0397-1	0398-1
Total Exchange Capacity (ME/100 g)					18.24	3.29	3.57	3.42	4.07
pH (H ₂ O 1:1)					a 7.7	a 7.9	a 7.6	a 7.7	a 7.6
Organic Matter (360°C LOI) %					2.68	0.53	0.45	0.59	0.72
Estimated Nitrogen Release lb/A					74	21	18	24	29
ANIONS	SOLUBLE SULFUR* ppm				101	25	16	20	28
	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	14 3	27 6	14 3	9 2	18 4
EXCHANGEABLE CATIONS	CALCIUM*		lb/A		5320	948	1068	1006	1224
			ppm		2660	474	534	503	612
	MAGNESIUM*		lb/A		822	104	100	88	112
			ppm		411	52	50	44	56
	POTASSIUM*		lb/A		212	170	128	190	158
			ppm		106	85	64	95	79
	SODIUM*		lb/A		260	70	86	78	84
			ppm		130	35	43	39	42
BASE SATURATION PERCENT									
Calcium %					72.92	72.04	74.79	73.54	75.18
Magnesium %					18.78	13.17	11.67	10.72	11.47
Potassium %					1.49	6.62	4.60	7.12	4.98
Sodium %					3.10	4.63	5.24	4.96	4.49
Other Bases %					3.70	3.50	3.80	3.70	3.80
Hydrogen %					0.00	0.00	0.00	0.00	0.00
EXTRACTABLE MINORS									
Boron** (ppm)					0.90	0.50	0.33	0.41	0.42
Iron** (ppm)					221	103	107	96	115
Manganese** (ppm)					52	35	41	45	49
Copper** (ppm)					1.73	1.01	1.17	1.31	1.41
Zinc** (ppm)					2.80	4.33	5.58	5.75	6.27
Aluminum** (ppm)					320	173	210	177	179
OTHER TESTS	Soluble Salts (mmhos/cm)								
	Chlorides (ppm)								
	NO3-N (ppm)				2.1	1.2	0.8	1.2	2.7
	NH4-N (ppm)				0.9	3.0	< 0.5	0.5	0.8

a - alkaline soil

* Ammonium Acetate Extractable (pH of 8.1)

** Mehlich III Extractable