

BROOKSIDE LABORATORIES, INC.

SOIL AUDIT AND INVENTORY REPORT

Name Western Golf Properties City Lake Forest State CA

Independent Consultant Soil and Water Consulting Date 3/13/2019

Sample Location REVERE GC		LEXINGTO	LEXINGTO	LEXINGTO	LEXINGTO	LEXINGTO
Sample Identification		TEE 5	TEE 14	FAIRWAY	FAIRWAY	GREEN 5
Lab Number		0075-1	0076-1	0077-1	0078-1	0079-1
Total Exchange Capacity (ME/100 g)		14.23	15.67	47.65	33.80	8.33
pH (H ₂ O 1:1)		a 8.1	a 8.5	a 7.7	a 7.8	a 8.4
Organic Matter (360°C LOI) %		4.01	4.14	5.88	5.79	2.37
Estimated Nitrogen Release lb/A		90	91	104	104	67
ANIONS	SOLUBLE SULFUR* ppm	29	22	4773	2251	46
	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	119 26	92 20	289 63	376 82	55 12
EXCHANGEABLE CATIONS	CALCIUM* lb/A	3800	4552	16508	10476	2012
	ppm	1900	2276	8254	5238	1006
	MAGNESIUM* lb/A	492	464	510	670	206
	ppm	246	232	255	335	103
	POTASSIUM* lb/A	680	588	914	1354	974
	ppm	340	294	457	677	487
	SODIUM* lb/A	616	528	608	856	436
	ppm	308	264	304	428	218
BASE SATURATION PERCENT						
Calcium %		66.76	72.62	86.61	77.49	60.38
Magnesium %		14.41	12.34	4.46	8.26	10.30
Potassium %		6.13	4.81	2.46	5.14	14.99
Sodium %		9.41	7.32	2.77	5.51	11.38
Other Bases %		3.30	2.90	3.70	3.60	3.00
Hydrogen %		0.00	0.00	0.00	0.00	0.00
EXTRACTABLE MINORS						
Boron** (ppm)		1.51	1.07	1.85	2.74	0.64
Iron** (ppm)		131	72	83	97	76
Manganese** (ppm)		46	27	31	46	31
Copper** (ppm)		2.63	3.44	3.16	2.77	1.62
Zinc** (ppm)		22.56	16.65	16.71	21.82	20.49
Aluminum** (ppm)		132	100	55	104	71
OTHER TESTS	Soluble Salts (mmhos/cm)					
	Chlorides (ppm)					
	NO ₃ -N (ppm)	2.3	5.3	3.7	2.5	0.6
	NH ₄ -N (ppm)	4.2	5.5	8.8	6.6	5.5

a - alkaline soil

* Ammonium Acetate Extractable (pH of 8.1)

** Mehlich III Extractable

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Sample Location REVERE GC			LEXINGTO	CONCORD	CONCORD	CONCORD	
Sample Identification			GREEN 14	TEE 14	FAIRWAY	GREEN 14	
Lab Number			0080-1	0081-1	0082-1	0083-1	
Total Exchange Capacity (ME/100 g)			8.11	12.38	17.30	9.14	
pH (H ₂ O 1:1)			a 8.6	a 8.3	a 7.9	a 8.7	
Organic Matter (360°C LOI) %			2.25	3.43	4.06	2.02	
Estimated Nitrogen Release lb/A			65	84	91	60	
ANIONS	SOLUBLE SULFUR* ppm		18	16	495	23	
	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	50 11	69 15	87 19	78 17	
EXCHANGEABLE CATIONS	CALCIUM* lb/A ppm		1840 920	3524 1762	5192 2596	2378 1189	
	MAGNESIUM* lb/A ppm		198 99	450 225	368 184	274 137	
	POTASSIUM* lb/A ppm		1096 548	320 160	798 399	722 361	
	SODIUM* lb/A ppm		484 242	414 207	534 267	406 203	
	BASE SATURATION PERCENT						
	Calcium	%	56.72	71.16	75.03	65.04	
	Magnesium	%	10.17	15.15	8.86	12.49	
	Potassium	%	17.33	3.31	5.91	10.13	
	Sodium	%	12.97	7.27	6.71	9.66	
	Other Bases	%	2.80	3.10	3.50	2.70	
	Hydrogen	%	0.00	0.00	0.00	0.00	
	EXTRACTABLE MINORS						
	Boron** (ppm)		0.72	1.24	1.19	0.75	
	Iron** (ppm)		68	78	65	65	
	Manganese** (ppm)		30	20	26	37	
	Copper** (ppm)		1.67	3.13	1.84	1.63	
	Zinc** (ppm)		22.50	17.54	4.94	17.98	
	Aluminum** (ppm)		61	70	9	41	
OTHER TESTS	Soluble Salts (mmhos/cm)						
	Chlorides (ppm)						
	NO ₃ -N (ppm)		0.6	2.0	3.8	< 0.5	
	NH ₄ -N (ppm)		6.0	4.9	6.1	6.0	

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** Mehlich III Extractable