

lb/A

BROOKSIDE LABORATORIES, INC.

SOIL AUDIT AND INVENTORY REPORT

46715-48

 Name Canyon Gate Country Club City Las Vegas State NV

 Independent Consultant Soil and Water Consulting Date 3/21/2023

Sample Location	TEE	3	15			
Sample Identification						
Lab Number		0193-1	0194-1			
Total Exchange Capacity (ME/100 g)		17.47	16.70			
pH (H ₂ O 1:1)		a 7.7	a 7.5			
Organic Matter (360°C LOI) %		4.76	4.01			
Estimated Nitrogen Release	lb/A	98	90			
ANIONS	SOLUBLE SULFUR*	ppm	72	47		
	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	270 59	206 45		
EXCHANGEABLE CATIONS	CALCIUM*	lb/A ppm	4598 2299	4514 2257		
	MAGNESIUM*	lb/A ppm	976 488	840 420		
	POTASSIUM*	lb/A ppm	596 298	628 314		
	SODIUM*	lb/A ppm	230 115	210 105		
BASE SATURATION PERCENT						
	Calcium	%	65.80	67.57		
	Magnesium	%	23.28	20.96		
	Potassium	%	4.37	4.82		
	Sodium	%	2.86	2.73		
	Other Bases	%	3.70	3.90		
	Hydrogen	%	0.00	0.00		
EXTRACTABLE MINORS						
	Boron** (ppm)		1.81	1.15		
	Iron** (ppm)		141	101		
	Manganese** (ppm)		20	16		
	Copper** (ppm)		1.85	1.25		
	Zinc** (ppm)		22.76	30.10		
	Aluminum** (ppm)		38	47		
OTHER TESTS	Soluble Salts (mmhos/cm)					
	Chlorides (ppm)					
	NO ₃ -N (ppm)		20.3	6.0		
	NH ₄ -N (ppm)		9.7	5.7		

a - alkaline soil

* Ammonium Acetate Extractable (pH of 8.1)

** Mehlich III Extractable

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Sample Location	FAIRWAY	3	15			
Sample Identification						
Lab Number		0195-1	0196-1			
Total Exchange Capacity (ME/100 g)		20.38	16.37			
pH (H ₂ O 1:1)		a 7.7	a 7.4			
Organic Matter (360°C LOI) %		5.39	7.05			
Estimated Nitrogen Release lb/A		102	110			
ANIONS	SOLUBLE SULFUR*	ppm	102	95		
	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	431 94	307 67		
EXCHANGEABLE CATIONS	CALCIUM*	lb/A ppm	5536 2768	4458 2229		
	MAGNESIUM*	lb/A ppm	1108 554	858 429		
	POTASSIUM*	lb/A ppm	558 279	434 217		
	SODIUM*	lb/A ppm	208 104	200 100		
BASE SATURATION PERCENT						
	Calcium	%	67.91	68.08		
	Magnesium	%	22.65	21.84		
	Potassium	%	3.51	3.40		
	Sodium	%	2.22	2.66		
	Other Bases	%	3.70	4.00		
	Hydrogen	%	0.00	0.00		
EXTRACTABLE MINORS						
	Boron** (ppm)		2.63	1.56		
	Iron** (ppm)		115	185		
	Manganese** (ppm)		21	9		
	Copper** (ppm)		1.51	1.54		
	Zinc** (ppm)		35.22	49.33		
	Aluminum** (ppm)		48	64		
OTHER TESTS	Soluble Salts (mmhos/cm)					
	Chlorides (ppm)					
	NO ₃ -N (ppm)		8.5	21.2		
	NH ₄ -N (ppm)		5.5	5.3		

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Sample Location	GREEN	3	15			
Sample Identification						
Lab Number		0197-1	0198-1			
Total Exchange Capacity (ME/100 g)		5.72	4.49			
pH (H ₂ O 1:1)		a 8.3	a 8.6			
Organic Matter (360°C LOI) %		0.74	0.65			
Estimated Nitrogen Release lb/A		30	26			
ANIONS	SOLUBLE SULFUR*	ppm	29	20		
	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	32 7	32 7		
EXCHANGEABLE CATIONS	CALCIUM*	lb/A	1778	1410		
		ppm	889	705		
	MAGNESIUM*	lb/A	190	142		
		ppm	95	71		
	POTASSIUM*	lb/A	120	98		
		ppm	60	49		
	SODIUM*	lb/A	68	56		
		ppm	34	28		
BASE SATURATION PERCENT						
	Calcium	%	77.71	78.51		
	Magnesium	%	13.84	13.18		
	Potassium	%	2.69	2.80		
	Sodium	%	2.58	2.71		
	Other Bases	%	3.10	2.80		
	Hydrogen	%	0.00	0.00		
EXTRACTABLE MINORS						
	Boron** (ppm)		0.43	0.30		
	Iron** (ppm)		63	41		
	Manganese** (ppm)		17	22		
	Copper** (ppm)		0.90	0.52		
	Zinc** (ppm)		5.17	1.92		
	Aluminum** (ppm)		50	44		
OTHER TESTS	Soluble Salts (mmhos/cm)					
	Chlorides (ppm)					
	NO ₃ -N (ppm)		0.9	< 0.5		
	NH ₄ -N (ppm)		2.1	1.0		

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Sample Location	TEE	5				
Sample Identification						
Lab Number		0527-1				
Total Exchange Capacity (ME/100 g)		14.69				
pH (H ₂ O 1:1)		a 7.6				
Organic Matter (360°C LOI) %		4.46				
Estimated Nitrogen Release	lb/A	95				
ANIONS	SOLUBLE SULFUR*	ppm	56			
	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	147 32			
EXCHANGEABLE CATIONS	CALCIUM*	lb/A ppm	3886 1943			
	MAGNESIUM*	lb/A ppm	720 360			
	POTASSIUM*	lb/A ppm	746 373			
	SODIUM*	lb/A ppm	212 106			
BASE SATURATION PERCENT						
	Calcium	%	66.13			
	Magnesium	%	20.42			
	Potassium	%	6.51			
	Sodium	%	3.14			
	Other Bases	%	3.80			
	Hydrogen	%	0.00			
EXTRACTABLE MINORS						
	Boron** (ppm)		2.49			
	Iron** (ppm)		124			
	Manganese** (ppm)		14			
	Copper** (ppm)		1.33			
	Zinc** (ppm)		25.07			
	Aluminum** (ppm)		67			
OTHER TESTS	Soluble Salts (mmhos/cm)					
	Chlorides (ppm)					
	NO ₃ -N (ppm)		17.8			
	NH ₄ -N (ppm)		6.1			

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Name Canyon Gate Country Club City Las Vegas State NVIndependent Consultant Soil and Water Consulting Date 3/21/2023

Sample Location		FAIRWAY	5				
Sample Identification							
Lab Number			0528-1				
Total Exchange Capacity (ME/100 g)			18.99				
pH (H ₂ O 1:1)			a 7.7				
Organic Matter (360°C LOI) %			5.86				
Estimated Nitrogen Release		lb/A	104				
ANIONS	SOLUBLE SULFUR*	ppm	93				
	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	302 66				
EXCHANGEABLE CATIONS	CALCIUM*	lb/A ppm	5138 2569				
	MAGNESIUM*	lb/A ppm	1056 528				
	POTASSIUM*	lb/A ppm	432 216				
	SODIUM*	lb/A ppm	224 112				
BASE SATURATION PERCENT							
	Calcium	%	67.64				
	Magnesium	%	23.17				
	Potassium	%	2.92				
	Sodium	%	2.56				
	Other Bases	%	3.70				
	Hydrogen	%	0.00				
EXTRACTABLE MINORS							
	Boron** (ppm)		3.39				
	Iron** (ppm)		143				
	Manganese** (ppm)		15				
	Copper** (ppm)		1.86				
	Zinc** (ppm)		34.51				
	Aluminum** (ppm)		33				
OTHER TESTS	Soluble Salts (mmhos/cm)						
	Chlorides (ppm)						
	NO ₃ -N (ppm)		5.5				
	NH ₄ -N (ppm)		5.1				

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Sample Location	GREEN	5				
Sample Identification						
Lab Number		0529-1				
Total Exchange Capacity (ME/100 g)		6.18				
pH (H ₂ O 1:1)		a 8.6				
Organic Matter (360°C LOI) %		0.72				
Estimated Nitrogen Release lb/A		29				
ANIONS	SOLUBLE SULFUR*	ppm	51			
	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					
EXCHANGEABLE CATIONS	OLSEN lb/A P as P ₂ O ₅ ppm of P	78 17				
	CALCIUM*	lb/A ppm	1894 947			
	MAGNESIUM*	lb/A ppm	214 107			
	POTASSIUM*	lb/A ppm	162 81			
	SODIUM*	lb/A ppm	80 40			
BASE SATURATION PERCENT						
	Calcium %		76.62			
	Magnesium %		14.43			
	Potassium %		3.36			
	Sodium %		2.81			
	Other Bases %		2.80			
	Hydrogen %		0.00			
EXTRACTABLE MINORS						
	Boron** (ppm)		1.38			
	Iron** (ppm)		49			
	Manganese** (ppm)		39			
	Copper** (ppm)		0.87			
	Zinc** (ppm)		5.42			
	Aluminum** (ppm)		41			
OTHER TESTS	Soluble Salts (mmhos/cm)					
	Chlorides (ppm)					
	NO ₃ -N (ppm)		< 0.5			
	NH ₄ -N (ppm)		0.8			

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