

lb/A

BROOKSIDE LABORATORIES, INC.

89490-4

SOIL AUDIT AND INVENTORY REPORT

Name Quail Creek Golf Club City Green Valley State AZIndependent Consultant Soil and Water Consulting Date 10/23/2024

Sample Location		TEES	COYOTE	QUAIL	ROADRNR		
Sample Identification			4	4	4		
Lab Number			0049-1	0053-1	0056-1		
Total Exchange Capacity (ME/100 g)			7.59	7.79	8.30		
pH (H ₂ O 1:1)			a 9.0	a 8.5	a 8.2		
Organic Matter (360°C LOI) %			0.56	0.39	1.97		
Estimated Nitrogen Release lb/A			22	16	59		
ANIONS	SOLUBLE SULFUR*	ppm	47	58	77		
	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	14 3	60 13		
EXCHANGEABLE CATIONS	CALCIUM*	lb/A	2360	2488	2316		
		ppm	1180	1244	1158		
	MAGNESIUM*	lb/A	104	112	132		
		ppm	52	56	66		
	POTASSIUM*	lb/A	262	146	372		
		ppm	131	73	186		
	SODIUM*	lb/A	338	316	562		
		ppm	169	158	281		
BASE SATURATION PERCENT							
	Calcium	%	77.73	79.85	69.76		
	Magnesium	%	5.71	5.99	6.63		
	Potassium	%	4.43	2.40	5.75		
	Sodium	%	9.68	8.82	14.72		
	Other Bases	%	2.40	2.90	3.20		
	Hydrogen	%	0.00	0.00	0.00		
EXTRACTABLE MINORS							
	Boron** (ppm)		0.67	0.41	1.16		
	Iron** (ppm)		53	63	60		
	Manganese** (ppm)		41	40	27		
	Copper** (ppm)		0.74	0.59	1.08		
	Zinc** (ppm)		0.94	0.60	5.07		
	Aluminum** (ppm)		76	87	93		
OTHER TESTS	Soluble Salts (mmhos/cm)						
	Chlorides (ppm)						
	NO ₃ -N (ppm)		0.9	< 0.5	6.1		
	NH ₄ -N (ppm)		123.2	2.1	34.8		

a - alkaline soil

* Ammonium Acetate Extractable (pH of 8.1)

** Mehlich III Extractable

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Sample Location			GREENS	COYOTE	QUAIL	ROADRNR		
Sample Identification				4	4	4		
Lab Number				0052-1	0055-1	0058-1		
Total Exchange Capacity (ME/100 g)				5.85	7.77	6.62		
pH (H ₂ O 1:1)				a 8.2	a 8.4	a 7.6		
Organic Matter (360°C LOI) %				0.40	0.26	1.60		
Estimated Nitrogen Release lb/A				16	10	52		
ANIONS	SOLUBLE SULFUR* ppm			32	38	59		
	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	< 9 < 2	9 2	9 2			
EXCHANGEABLE CATIONS	CALCIUM*		lb/A	1702	2384	1980		
			ppm	851	1192	990		
	MAGNESIUM*		lb/A	60	106	82		
			ppm	30	53	41		
	POTASSIUM*		lb/A	464	344	320		
			ppm	232	172	160		
	SODIUM*		lb/A	260	320	308		
			ppm	130	160	154		
BASE SATURATION PERCENT								
Calcium %				72.74	76.71	74.77		
Magnesium %				4.27	5.68	5.16		
Potassium %				10.17	5.68	6.20		
Sodium %				9.66	8.95	10.11		
Other Bases %				3.20	3.00	3.80		
Hydrogen %				0.00	0.00	0.00		
EXTRACTABLE MINORS								
Boron** (ppm)				0.36	0.51	1.05		
Iron** (ppm)				57	77	80		
Manganese** (ppm)				12	20	33		
Copper** (ppm)				0.30	0.37	3.19		
Zinc** (ppm)				0.86	1.18	5.41		
Aluminum** (ppm)				175	183	87		
OTHER TESTS	Soluble Salts (mmhos/cm)							
	Chlorides (ppm)							
	NO3-N (ppm)			1.8	0.7	4.8		
	NH4-N (ppm)			1.1	1.2	1.5		

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Sample Location			FAIRWAYS	COYOTE	QUAIL	ROADRNR		
Sample Identification				4	4	4		
Lab Number				0050-1	0054-1	0057-1		
Total Exchange Capacity (ME/100 g)				14.24	17.97	19.24		
pH (H ₂ O 1:1)				a 8.3	a 8.3	a 8.1		
Organic Matter (360°C LOI) %				2.34	4.04	4.60		
Estimated Nitrogen Release lb/A				67	90	96		
ANIONS	SOLUBLE SULFUR* ppm			82	153	252		
	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	46 10	41 9	50 11			
EXCHANGEABLE CATIONS	CALCIUM*		lb/A	4392	5782	5644		
			ppm	2196	2891	2822		
	MAGNESIUM*		lb/A	178	156	280		
			ppm	89	78	140		
	POTASSIUM*		lb/A	528	416	442		
			ppm	264	208	221		
	SODIUM*		lb/A	644	818	1270		
			ppm	322	409	635		
BASE SATURATION PERCENT								
Calcium %				77.11	80.44	73.34		
Magnesium %				5.21	3.62	6.06		
Potassium %				4.75	2.97	2.95		
Sodium %				9.83	9.90	14.35		
Other Bases %				3.10	3.10	3.30		
Hydrogen %				0.00	0.00	0.00		
EXTRACTABLE MINORS								
Boron** (ppm)				1.12	1.60	2.21		
Iron** (ppm)				233	65	85		
Manganese** (ppm)				61	24	59		
Copper** (ppm)				3.32	2.02	2.19		
Zinc** (ppm)				8.22	13.28	4.06		
Aluminum** (ppm)				108	25	75		
OTHER TESTS	Soluble Salts (mmhos/cm)							
	Chlorides (ppm)							
	NO3-N (ppm)			9.1	6.3	8.1		
	NH4-N (ppm)			17.5	1.4	2.3		

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