

lb/A

BROOKSIDE LABORATORIES, INC.

SOIL AUDIT AND INVENTORY REPORT

89490-1

Name Quail Creek Golf Club City Green Valley State AZIndependent Consultant Soil and Water Consulting Date 3/30/2023

Sample Location		COYOTE	TEE				
Sample Identification			1				
Lab Number			0242-1				
Total Exchange Capacity (ME/100 g)			12.54				
pH (H ₂ O 1:1)			a 8.5				
Organic Matter (360°C LOI) %			0.82				
Estimated Nitrogen Release lb/A			33				
ANIONS	SOLUBLE SULFUR*	ppm	24				
	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	< 5 < 1				
EXCHANGEABLE CATIONS	CALCIUM*	lb/A ppm	4048 2024				
	MAGNESIUM*	lb/A ppm	176 88				
	POTASSIUM*	lb/A ppm	290 145				
	SODIUM*	lb/A ppm	438 219				
BASE SATURATION PERCENT							
Calcium		%	80.70				
Magnesium		%	5.85				
Potassium		%	2.96				
Sodium		%	7.59				
Other Bases		%	2.90				
Hydrogen		%	0.00				
EXTRACTABLE MINORS							
Boron** (ppm)			0.64				
Iron** (ppm)			145				
Manganese** (ppm)			53				
Copper** (ppm)			1.80				
Zinc** (ppm)			1.34				
Aluminum** (ppm)			99				
OTHER TESTS	Soluble Salts (mmhos/cm)						
	Chlorides (ppm)						
	NO ₃ -N (ppm)		4.0				
	NH ₄ -N (ppm)		7.5				

a - alkaline soil

* Ammonium Acetate Extractable (pH of 8.1)

** Mehlich III Extractable

lb/A

BROOKSIDE LABORATORIES, INC.

SOIL AUDIT AND INVENTORY REPORT

89490-1

Name Quail Creek Golf Club City Green Valley State AZIndependent Consultant Soil and Water Consulting Date 3/30/2023

Sample Location	ROADRUNNER	TEE				
Sample Identification		2				
Lab Number		0243-1				
Total Exchange Capacity (ME/100 g)		9.47				
pH (H ₂ O 1:1)		a 7.8				
Organic Matter (360°C LOI) %		3.36				
Estimated Nitrogen Release lb/A		84				
ANIONS	SOLUBLE SULFUR*	ppm	28			
	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			
EXCHANGEABLE CATIONS	CALCIUM*	lb/A	3072			
		ppm	1536			
	MAGNESIUM*	lb/A	100			
		ppm	50			
	POTASSIUM*	lb/A	220			
		ppm	110			
	SODIUM*	lb/A	346			
		ppm	173			
BASE SATURATION PERCENT						
	Calcium	%	81.10			
	Magnesium	%	4.40			
	Potassium	%	2.98			
	Sodium	%	7.94			
	Other Bases	%	3.60			
	Hydrogen	%	0.00			
EXTRACTABLE MINORS						
	Boron** (ppm)		1.08			
	Iron** (ppm)		80			
	Manganese** (ppm)		37			
	Copper** (ppm)		1.57			
	Zinc** (ppm)		4.19			
	Aluminum** (ppm)		66			
OTHER TESTS	Soluble Salts (mmhos/cm)					
	Chlorides (ppm)					
	NO ₃ -N (ppm)		3.5			
	NH ₄ -N (ppm)		14.7			

a - alkaline soil

* Ammonium Acetate Extractable (pH of 8.1)

** Mehlich III Extractable

lb/A

BROOKSIDE LABORATORIES, INC.

SOIL AUDIT AND INVENTORY REPORT

89490-1

 Name Quail Creek Golf Club City Green Valley State AZ

 Independent Consultant Soil and Water Consulting Date 3/30/2023

Sample Location	COYOTE	FAIRWAY				
Sample Identification		1				
Lab Number		0244-1				
Total Exchange Capacity (ME/100 g)		20.59				
pH (H ₂ O 1:1)		a 7.8				
Organic Matter (360°C LOI) %		3.59				
Estimated Nitrogen Release lb/A		86				
ANIONS	SOLUBLE SULFUR*	ppm	529			
	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	18 4			
EXCHANGEABLE CATIONS	CALCIUM*	lb/A	6712			
		ppm	3356			
	MAGNESIUM*	lb/A	218			
		ppm	109			
	POTASSIUM*	lb/A	588			
		ppm	294			
	SODIUM*	lb/A	646			
		ppm	323			
BASE SATURATION PERCENT						
	Calcium %		81.50			
	Magnesium %		4.41			
	Potassium %		3.66			
	Sodium %		6.82			
	Other Bases %		3.60			
	Hydrogen %		0.00			
EXTRACTABLE MINORS						
	Boron** (ppm)		1.60			
	Iron** (ppm)		59			
	Manganese** (ppm)		42			
	Copper** (ppm)		2.67			
	Zinc** (ppm)		5.55			
	Aluminum** (ppm)		8			
OTHER TESTS	Soluble Salts (mmhos/cm)					
	Chlorides (ppm)					
	NO ₃ -N (ppm)		18.8			
	NH ₄ -N (ppm)		67.5			

a - alkaline soil

* Ammonium Acetate Extractable (pH of 8.1)

** Mehlich III Extractable

lb/A

BROOKSIDE LABORATORIES, INC.

SOIL AUDIT AND INVENTORY REPORT

89490-1

Name Quail Creek Golf Club City Green Valley State AZIndependent Consultant Soil and Water Consulting Date 3/30/2023

Sample Location	QUAIL	FAIRWAY				
Sample Identification		1				
Lab Number		0245-1				
Total Exchange Capacity (ME/100 g)		19.77				
pH (H ₂ O 1:1)		a 8.1				
Organic Matter (360°C LOI) %		4.59				
Estimated Nitrogen Release lb/A		96				
ANIONS	SOLUBLE SULFUR*	ppm	114			
	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	37 8			
EXCHANGEABLE CATIONS	CALCIUM*	lb/A ppm	5724 2862			
	MAGNESIUM*	lb/A ppm	244 122			
	POTASSIUM*	lb/A ppm	800 400			
	SODIUM*	lb/A ppm	1272 636			
BASE SATURATION PERCENT						
	Calcium	%	72.38			
	Magnesium	%	5.14			
	Potassium	%	5.19			
	Sodium	%	13.99			
	Other Bases	%	3.30			
	Hydrogen	%	0.00			
EXTRACTABLE MINORS						
	Boron** (ppm)		2.64			
	Iron** (ppm)		120			
	Manganese** (ppm)		62			
	Copper** (ppm)		3.12			
	Zinc** (ppm)		15.12			
	Aluminum** (ppm)		135			
OTHER TESTS	Soluble Salts (mmhos/cm)					
	Chlorides (ppm)					
	NO ₃ -N (ppm)		2.0			
	NH ₄ -N (ppm)		< 0.5			

a - alkaline soil

* Ammonium Acetate Extractable (pH of 8.1)

** Mehlich III Extractable

lb/A

BROOKSIDE LABORATORIES, INC.

SOIL AUDIT AND INVENTORY REPORT

89490-1

Name Quail Creek Golf Club City Green Valley State AZIndependent Consultant Soil and Water Consulting Date 3/30/2023

Sample Location		ROADRUNNER	FAIRWAY				
Sample Identification			2				
Lab Number			0246-1				
Total Exchange Capacity (ME/100 g)			18.56				
pH (H ₂ O 1:1)			a 8.1				
Organic Matter (360°C LOI) %			4.13				
Estimated Nitrogen Release lb/A			91				
ANIONS	SOLUBLE SULFUR*	ppm	50				
	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	27 6				
EXCHANGEABLE CATIONS	CALCIUM*	lb/A ppm	6024 3012				
	MAGNESIUM*	lb/A ppm	224 112				
	POTASSIUM*	lb/A ppm	458 229				
	SODIUM*	lb/A ppm	630 315				
BASE SATURATION PERCENT							
	Calcium	%	81.14				
	Magnesium	%	5.03				
	Potassium	%	3.16				
	Sodium	%	7.38				
	Other Bases	%	3.30				
	Hydrogen	%	0.00				
EXTRACTABLE MINORS							
	Boron** (ppm)		1.37				
	Iron** (ppm)		35				
	Manganese** (ppm)		34				
	Copper** (ppm)		1.75				
	Zinc** (ppm)		2.95				
	Aluminum** (ppm)		7				
OTHER TESTS	Soluble Salts (mmhos/cm)						
	Chlorides (ppm)						
	NO ₃ -N (ppm)		4.0				
	NH ₄ -N (ppm)		6.2				

a - alkaline soil

* Ammonium Acetate Extractable (pH of 8.1)

** Mehlich III Extractable

lb/A

BROOKSIDE LABORATORIES, INC.

SOIL AUDIT AND INVENTORY REPORT

89490-1

Name Quail Creek Golf Club City Green Valley State AZIndependent Consultant Soil and Water Consulting Date 3/30/2023

Sample Location	COYOTE	GREEN				
Sample Identification		1				
Lab Number		0247-1				
Total Exchange Capacity (ME/100 g)		5.42				
pH (H ₂ O 1:1)		a 8.8				
Organic Matter (360°C LOI) %		0.38				
Estimated Nitrogen Release lb/A		15				
ANIONS	SOLUBLE SULFUR*	ppm	8			
	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	18 4			
EXCHANGEABLE CATIONS	CALCIUM*	lb/A ppm	1744 872			
	MAGNESIUM*	lb/A ppm	58 29			
	POTASSIUM*	lb/A ppm	178 89			
	SODIUM*	lb/A ppm	208 104			
BASE SATURATION PERCENT						
	Calcium	%	80.44			
	Magnesium	%	4.46			
	Potassium	%	4.21			
	Sodium	%	8.34			
	Other Bases	%	2.60			
	Hydrogen	%	0.00			
EXTRACTABLE MINORS						
	Boron** (ppm)		0.33			
	Iron** (ppm)		63			
	Manganese** (ppm)		15			
	Copper** (ppm)		0.28			
	Zinc** (ppm)		0.66			
	Aluminum** (ppm)		149			
OTHER TESTS	Soluble Salts (mmhos/cm)					
	Chlorides (ppm)					
	NO ₃ -N (ppm)		0.9			
	NH ₄ -N (ppm)		< 0.5			

a - alkaline soil

* Ammonium Acetate Extractable (pH of 8.1)

** Mehlich III Extractable

lb/A

BROOKSIDE LABORATORIES, INC.

SOIL AUDIT AND INVENTORY REPORT

89490-1

Name Quail Creek Golf Club City Green Valley State AZIndependent Consultant Soil and Water Consulting Date 3/30/2023

Sample Location		ROADRUNNER	GREEN				
Sample Identification			2				
Lab Number			0248-1				
Total Exchange Capacity (ME/100 g)			5.95				
pH (H ₂ O 1:1)			a 7.8				
Organic Matter (360°C LOI) %			1.62				
Estimated Nitrogen Release lb/A			52				
ANIONS	SOLUBLE SULFUR*	ppm	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				
EXCHANGEABLE CATIONS	CALCIUM*	lb/A ppm	1894 947				
	MAGNESIUM*	lb/A ppm	54 27				
	POTASSIUM*	lb/A ppm	100 50				
	SODIUM*	lb/A ppm	300 150				
BASE SATURATION PERCENT							
	Calcium	%	79.58				
	Magnesium	%	3.78				
	Potassium	%	2.15				
	Sodium	%	10.96				
	Other Bases	%	3.60				
	Hydrogen	%	0.00				
EXTRACTABLE MINORS							
	Boron** (ppm)		0.74				
	Iron** (ppm)		218				
	Manganese** (ppm)		27				
	Copper** (ppm)		4.29				
	Zinc** (ppm)		7.78				
	Aluminum** (ppm)		90				
OTHER TESTS	Soluble Salts (mmhos/cm)						
	Chlorides (ppm)						
	NO ₃ -N (ppm)		6.1				
	NH ₄ -N (ppm)		10.6				

a - alkaline soil

* Ammonium Acetate Extractable (pH of 8.1)

** Mehlich III Extractable