

BROOKSIDE LABORATORIES, INC.

SATURATED SOIL ANALYSIS

Anthem Country Club
Phoenix, AZ

File Number: 85330
Date Received: 7/9/2021
Date Reported: 7/13/2021

Submitted By: Soil and Water Consulting

Lab Number	0039			0040			
Description	IRONWOOD COURSE			IRONWOOD COURSE			
	FAIRWAY			GREEN			
	3			13			
pH	7.9			7.9			
	(ppm)	meq/l	%	(ppm)	meq/l	%	
Soluble Salts *	2474			419			
Chloride	648			66			
Nitrate (NO ₃ -N)	18.8			2.0			
Bicarbonate	84.22			118.71			
Sulfur	511.36			38.89			
Phosphorus	0.53			1.83			
Calcium	415.55	20.74	37.46	31.03	1.55	23.28	
Magnesium	93.83	7.72	13.94	10.30	0.85	12.74	
Potassium	66.25	1.69	3.06	17.20	0.44	6.61	
Sodium	579.94	25.21	45.55	87.76	3.82	57.37	
TOTAL		55.36	100		6.65	100	
Boron	0.43			0.12			
Iron	0.41			0.71			
Manganese	0.20			0.09			
Copper	0.04			0.06			
Zinc	0.04			0.04			
Aluminum	0.75			0.88			
Ammonium (NH ₄ -N)	2.3			0.6			
ESP (calculated)	7.92			3.74			
SAR (calculated)	6.69			3.49			

* Soluble Salts: mmhos/cm = ppm / 640

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Lab Number	0041			0042			
Description	IRONWOOD COURSE			IRONWOOD COURSE			
	FAIRWAY			GREEN			
	16			3			
pH	7.9			7.9			
	(ppm)	meq/l	%	(ppm)	meq/l	%	
Soluble Salts *	2067			456			
Chloride	401			53			
Nitrate (NO ₃ -N)	12.1			3.8			
Bicarbonate	74.03			52.93			
Sulfur	411.48			64.34			
Phosphorus	0.40			1.06			
Calcium	328.50	16.39	36.76	37.56	1.87	27.17	
Magnesium	78.13	6.42	14.41	12.35	1.02	14.72	
Potassium	60.68	1.55	3.48	17.26	0.44	6.40	
Sodium	465.10	20.22	45.35	82.04	3.57	51.71	
TOTAL		44.59	100		6.90	100	
Boron	0.35			0.11			
Iron	0.80			0.96			
Manganese	0.15			0.07			
Copper	0.03			0.03			
Zinc	0.05			0.03			
Aluminum	1.39			1.33			
Ammonium (NH ₄ -N)	1.6			2.2			
ESP (calculated)	7.04			3.02			
SAR (calculated)	5.99			2.97			

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Lab Number	0043			0044			
Description	IRONWOOD COURSE FAIRWAY 13			IRONWOOD COURSE GREEN 16			
pH	7.9			7.8			
	(ppm)	meq/l	%	(ppm)	meq/l	%	
Soluble Salts *	2018			321			
Chloride	361			53			
Nitrate (NO ₃ -N)	9.6			2.2			
Bicarbonate	59.53			48.57			
Sulfur	401.87			34.28			
Phosphorus	0.19			2.17			
Calcium	308.73	15.41	36.71	24.89	1.24	22.74	
Magnesium	75.80	6.23	14.85	8.42	0.69	12.67	
Potassium	52.90	1.35	3.22	13.95	0.36	6.54	
Sodium	436.52	18.98	45.22	72.91	3.17	58.05	
TOTAL		41.97	100		5.46	100	
Boron	0.28			0.11			
Iron	0.89			1.12			
Manganese	0.12			0.04			
Copper	0.02			0.05			
Zinc	0.03			0.03			
Aluminum	1.64			1.57			
Ammonium (NH ₄ -N)	1.4			1.0			
ESP (calculated)	6.76			3.38			
SAR (calculated)	5.77			3.22			

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Lab Number	0045			0046			
Description	PERSIMMON COURSE			PERSIMMON COURSE			
	BACK RANGE			BACK RANGE			
	GREEN E			GREEN W			
pH	7.9			7.8			
	(ppm)	meq/l	%	(ppm)	meq/l	%	
Soluble Salts *	724			549			
Chloride	152			98			
Nitrate (NO ₃ -N)	4.9			4.8			
Bicarbonate	42.38			59.00			
Sulfur	80.35			65.87			
Phosphorus	0.88			1.54			
Calcium	46.49	2.32	20.02	42.08	2.10	22.41	
Magnesium	15.03	1.24	10.66	12.35	1.02	10.83	
Potassium	20.88	0.53	4.61	19.75	0.51	5.39	
Sodium	172.43	7.50	64.70	132.31	5.75	61.38	
TOTAL		11.59	100		9.37	100	
Boron	0.25			0.26			
Iron	0.56			0.72			
Manganese	0.04			0.02			
Copper	0.03			0.04			
Zinc	0.03			0.03			
Aluminum	0.92			1.12			
Ammonium (NH ₄ -N)	< 0.5			1.2			
ESP (calculated)	6.57			5.25			
SAR (calculated)	5.62			4.61			

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Lab Number	0047			0048			
Description	PERSIMMON COURSE			PERSIMMON COURSE			
	FAIRWAY			FAIRWAY			
	5			8			
pH	7.7			7.8			
	(ppm)	meq/l	%	(ppm)	meq/l	%	
Soluble Salts *	2287			2255			
Chloride	378			326			
Nitrate (NO ₃ -N)	33.0			13.5			
Bicarbonate	79.27			81.68			
Sulfur	494.66			523.67			
Phosphorus	2.13			0.85			
Calcium	418.40	20.88	40.78	424.13	21.16	41.49	
Magnesium	85.93	7.07	13.80	81.59	6.71	13.15	
Potassium	69.05	1.77	3.45	58.89	1.51	2.95	
Sodium	494.23	21.49	41.97	497.46	21.63	42.40	
TOTAL		51.20	100		51.01	100	
Boron	0.54			0.48			
Iron	0.88			0.83			
Manganese	0.04			0.03			
Copper	0.03			0.03			
Zinc	0.05			0.03			
Aluminum	1.41			1.41			
Ammonium (NH ₄ -N)	1.4			1.8			
ESP (calculated)	6.73			6.79			
SAR (calculated)	5.75			5.79			

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Lab Number	0049			0050			
Description	PERSIMMON COURSE FAIRWAY 16			PERSIMMON COURSE GREEN 1 FRONT			
pH	7.8			7.8			
	(ppm)	meq/l	%	(ppm)	meq/l	%	
Soluble Salts *	2238			883			
Chloride	357			161			
Nitrate (NO ₃ -N)	26.9			4.8			
Bicarbonate	91.35			45.01			
Sulfur	481.81			126.17			
Phosphorus	2.19			1.27			
Calcium	404.07	20.16	40.98	60.27	3.01	20.54	
Magnesium	84.64	6.96	14.15	18.44	1.52	10.35	
Potassium	61.35	1.57	3.19	28.75	0.74	5.02	
Sodium	471.65	20.51	41.68	215.89	9.39	64.09	
TOTAL		49.20	100		14.65	100	
Boron	0.42			0.34			
Iron	0.61			0.85			
Manganese	0.02			0.03			
Copper	0.03			0.03			
Zinc	0.02			0.02			
Aluminum	1.00			1.40			
Ammonium (NH ₄ -N)	1.3			1.3			
ESP (calculated)	6.50			7.36			
SAR (calculated)	5.57			6.24			

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Lab Number	0051			0052			
Description	PERSIMMON COURSE GREEN 1 BACK			PERSIMMON COURSE GREEN 5			
pH	8.0			7.8			
	(ppm)	meq/l	%	(ppm)	meq/l	%	
Soluble Salts *	498			698			
Chloride	83			130			
Nitrate (NO3-N)	4.8			2.5			
Bicarbonate	48.04			70.57			
Sulfur	59.71			93.33			
Phosphorus	1.72			2.23			
Calcium	23.41	1.17	15.59	46.18	2.30	19.81	
Magnesium	7.50	0.62	8.23	14.99	1.23	10.60	
Potassium	16.91	0.43	5.77	24.45	0.63	5.38	
Sodium	121.37	5.28	70.41	171.80	7.47	64.22	
TOTAL		7.49	100		11.63	100	
Boron	0.30			0.37			
Iron	1.28			0.66			
Manganese	0.06			0.05			
Copper	0.05			0.07			
Zinc	0.03			0.03			
Aluminum	2.09			1.14			
Ammonium (NH4-N)	2.5			< 0.5			
ESP (calculated)	6.52			6.56			
SAR (calculated)	5.59			5.62			

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Lab Number	0053			0054			
Description	PERSIMMON COURSE			PERSIMMON COURSE			
	GREEN			GREEN			
	8			16			
pH	7.9			7.9			
	(ppm)	meq/l	%	(ppm)	meq/l	%	
Soluble Salts *	741			719			
Chloride	134			155			
Nitrate (NO3-N)	5.0			5.7			
Bicarbonate	52.87			229.15			
Sulfur	113.55			92.31			
Phosphorus	1.22			1.50			
Calcium	57.79	2.88	22.81	36.63	1.83	15.64	
Magnesium	17.82	1.47	11.59	12.48	1.03	8.78	
Potassium	26.20	0.67	5.30	24.09	0.62	5.27	
Sodium	175.33	7.62	60.30	189.02	8.22	70.31	
TOTAL		12.64	100		11.69	100	
Boron	0.31			0.37			
Iron	0.49			1.18			
Manganese	0.04			0.07			
Copper	0.03			0.04			
Zinc	0.03			0.03			
Aluminum	0.75			1.98			
Ammonium (NH4-N)	1.1			1.2			
ESP (calculated)	5.98			8.16			
SAR (calculated)	5.17			6.88			

* Soluble Salts: mmhos/cm = ppm / 640