

BROOKSIDE LABORATORIES, INC.

SATURATED SOIL ANALYSIS

Boulder City Municipal Golf Course
1 Clubhouse Drive
Boulder City, NV 89005

File Number: 48318
Date Received: 3/17/2008
Date Reported: 3/19/2008

Submitted By: Soil and Water Consulting

Lab Number	1418			1419			
Description	TEES			TEES			
	TEE			TEE			
	1 (W)			6 (W)			
pH	7.5			7.4			
	(ppm)	meq/l	%	(ppm)	meq/l	%	
Soluble Salts *	992			973			
Chloride	141			139			
Nitrate (NO3-N)	1.6			3.7			
Bicarbonate	201.70			166.92			
Sulfur	143.77			136.64			
Phosphorus	1.62			1.29			
Calcium	118.19	5.90	37.32	118.40	5.91	38.84	
Magnesium	41.13	3.38	21.41	40.09	3.30	21.68	
Potassium	18.48	0.47	2.99	16.38	0.42	2.75	
Sodium	139.17	6.05	38.29	128.48	5.59	36.73	
TOTAL		15.80	100		15.21	100	
Boron	0.19			0.15			
Iron	0.59			0.74			
Manganese	0.03			0.03			
Copper	0.05			0.04			
Zinc	0.02			0.02			
Aluminum	1.04			1.38			
Ammonium (NH4-N)	< 0.1			< 0.1			
ESP (calculated)	2.80			2.52			
SAR (calculated)	2.81			2.60			

* Soluble Salts: mmhos/cm = ppm / 640

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Lab Number	1420
Description	TEES
	TEE
	13 (W)

pH	7.6
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	(ppm)	meq/l	%	(ppm)	meq/l	%
Soluble Salts *	902					
Chloride	128					
Nitrate (NO ₃ -N)	0.4					
Bicarbonate	189.18					
Sulfur	119.08					
Phosphorus	1.17					
Calcium	105.25	5.25	37.24			
Magnesium	35.07	2.88	20.45			
Potassium	16.74	0.43	3.04			
Sodium	127.42	5.54	39.28			
TOTAL		14.10	100			
Boron	0.16					
Iron	0.33					
Manganese	0.02					
Copper	0.04					
Zinc	0.02					
Aluminum	0.78					
Ammonium (NH ₄ -N)	< 0.1					
ESP (calculated)	2.72					
SAR (calculated)	2.75					

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Lab Number	1421			1422			
Description	FAIRWAYS			FAIRWAYS			
	FAIRWAY			FAIRWAY			
	1 (W)			6 (W)			
pH	7.7			7.4			
	(ppm)	meq/l	%	(ppm)	meq/l	%	
Soluble Salts *	1094			1210			
Chloride	168			177			
Nitrate (NO ₃ -N)	5.2			6.2			
Bicarbonate	219.78			204.48			
Sulfur	139.25			173.56			
Phosphorus	2.04			1.76			
Calcium	120.22	6.00	35.21	153.25	7.65	39.87	
Magnesium	43.13	3.55	20.82	54.09	4.45	23.19	
Potassium	18.37	0.47	2.76	18.60	0.48	2.48	
Sodium	161.53	7.02	41.22	151.99	6.61	34.45	
TOTAL		17.04	100		19.18	100	
Boron	0.22			0.18			
Iron	1.16			0.55			
Manganese	0.04			0.05			
Copper	0.04			0.05			
Zinc	0.04			0.04			
Aluminum	2.31			1.08			
Ammonium (NH ₄ -N)	0.1			< 0.1			
ESP (calculated)	3.36			2.63			
SAR (calculated)	3.21			2.69			

* Soluble Salts: mmhos/cm = ppm / 640

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Lab Number	1423
Description	FAIRWAYS
	FAIRWAY
	13 (W)

pH	7.4
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	(ppm)	meq/l	%	(ppm)	meq/l	%
Soluble Salts *	1203					
Chloride	177					
Nitrate (NO ₃ -N)	0.4					
Bicarbonate	223.96					
Sulfur	176.72					
Phosphorus	0.86					
Calcium	153.52	7.66	39.84			
Magnesium	53.79	4.42	23.00			
Potassium	14.09	0.36	1.87			
Sodium	156.06	6.79	35.28			
TOTAL		19.23	100			
Boron	0.24					
Iron	0.40					
Manganese	0.05					
Copper	0.05					
Zinc	0.03					
Aluminum	0.80					
Ammonium (NH ₄ -N)	< 0.1					
ESP (calculated)	2.73					
SAR (calculated)	2.76					

* Soluble Salts: mmhos/cm = ppm / 640

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Lab Number	1424			1425			
Description	GREENS			GREENS			
	GREEN			GREEN			
	1 (W)			6 (W)			
pH	7.5			7.7			
	(ppm)	meq/l	%	(ppm)	meq/l	%	
Soluble Salts *	1210			1082			
Chloride	180			155			
Nitrate (NO ₃ -N)	5.0			5.7			
Bicarbonate	108.50			162.75			
Sulfur	191.17			158.39			
Phosphorus	0.63			0.86			
Calcium	143.30	7.15	38.33	122.13	6.09	36.26	
Magnesium	49.57	4.08	21.85	43.19	3.55	21.13	
Potassium	19.91	0.51	2.73	20.65	0.53	3.14	
Sodium	159.19	6.92	37.10	152.61	6.64	39.47	
TOTAL		18.66	100		16.81	100	
Boron	0.16			0.20			
Iron	0.51			0.66			
Manganese	0.03			0.03			
Copper	0.05			0.05			
Zinc	0.08			0.06			
Aluminum	0.77			0.87			
Ammonium (NH ₄ -N)	< 0.1			< 0.1			
ESP (calculated)	2.96			3.10			
SAR (calculated)	2.92			3.02			

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Lab Number	1426
Description	GREENS GREEN 13 (W)

pH	7.6
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	(ppm)	meq/l	%	(ppm)	meq/l	%
Soluble Salts *	864					
Chloride	123					
Nitrate (NO ₃ -N)	2.7					
Bicarbonate	150.23					
Sulfur	119.35					
Phosphorus	0.78					
Calcium	98.43	4.91	36.23			
Magnesium	35.05	2.88	21.26			
Potassium	14.05	0.36	2.65			
Sodium	124.31	5.40	39.86			
TOTAL		13.56	100			

Boron	0.16
Iron	0.65
Manganese	0.03
Copper	0.03
Zinc	0.05
Aluminum	1.13
Ammonium (NH ₄ -N)	< 0.1

ESP (calculated)	2.70
SAR (calculated)	2.74

* Soluble Salts: mmhos/cm = ppm / 640