

lb/A

BROOKSIDE LABORATORIES, INC.

84786-6

SOIL AUDIT AND INVENTORY REPORT

Name Brown Dog Farm City Palmer State AKIndependent Consultant Home Office Date 10/28/2024

Sample Location		ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5
PLOT 1						
Sample Identification						
Lab Number		0183-1	0184-1	0185-1	0186-1	0187-1
Total Exchange Capacity (ME / 100 g)		12.30	11.03	13.43	10.65	9.56
pH	Buffer (SMP/Sikora)	7.0	7.0	6.9	7.0	6.8
	H ₂ O (1:1)	6.2	6.2	6.3	6.2	6.0
Organic Matter (360°C LOI) %		10.94	11.57	11.54	10.08	9.37
Estimated Nitrogen Release lb / A		125	126	126	125	122
ANIONS	SOLUBLE SULFUR*					
		ppm	15	17	15	21
	MEHLICH III	lb/A P as P ₂ O ₅ ppm of P	293	293	321	266
			64	64	70	58
	BRAY II	lb/A P as P ₂ O ₅ ppm of P				
EXCHANGABLE CATIONS	OLSEN	lb/A P as P ₂ O ₅ ppm of P				
	CALCIUM*	lb/A	3170	2970	3730	2784
		ppm	1585	1485	1865	1392
	MAGNESIUM*	lb/A	398	324	382	330
		ppm	199	162	191	165
	POTASSIUM*	lb/A	420	228	260	318
		ppm	210	114	130	159
	SODIUM*	lb/A	30	32	40	34
		ppm	15	16	20	17
BASE SATURATION PERCENT						
Calcium %		64.43	67.32	69.43	65.35	59.26
Magnesium %		13.48	12.24	11.85	12.91	12.64
Potassium %		4.38	2.65	2.48	3.83	6.89
Sodium %		0.53	0.63	0.65	0.69	0.82
Other Bases %		5.20	5.20	5.10	5.20	5.40
Hydrogen %		12.00	12.00	10.50	12.00	15.00
EXTRACTABLE MINORS						
Boron* (ppm)		0.72	0.68	0.73	0.61	0.77
Iron* (ppm)		597	582	561	500	385
Manganese* (ppm)		15	15	16	15	13
Copper* (ppm)		2.56	2.36	2.47	2.53	2.55
Zinc* (ppm)		5.89	4.66	7.46	4.83	3.51
Aluminum* (ppm)		1329	1319	1254	1445	1537
OTHER TESTS	Soluble Salts (mmhos/cm)					
	Chlorides (ppm)					
	NO ₃ -N (ppm)		3.0	3.1	2.3	3.1
	NH ₄ -N (ppm)		2.7	0.9	1.4	1.3
						< 0.5

* Mehlich III Extractable

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Sample Location	PLOT 2	ZONE 6	ZONE 7	ZONE 8	ZONE 9	ZONE 10
Sample Identification						
Lab Number		0188-1	0189-1	0190-1	0191-1	0192-1
Total Exchange Capacity (ME/100 g)		8.89	9.58	9.68	10.48	8.95
pH	Buffer (SMP/Sikora) H ₂ O (1:1)	6.9 5.8	6.7 5.8	7.0 5.9	6.9 6.1	7.1 6.3
Organic Matter (360°C LOI) %		10.06	11.29	11.36	9.01	9.38
Estimated Nitrogen Release	lb/A	125	126	126	120	122
ANIONS	SOLUBLE SULFUR*					
	ppm	13	12	14	16	14
	MEHLICH III lb/A P as P ₂ O ₅	284	394	376	229	229
	ppm of P	62	86	82	50	50
	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					
EXCHANGABLE CATIONS	CALCIUM*	lb/A	1900	2118	2200	2716
	ppm		950	1059	1100	1358
	MAGNESIUM*	lb/A	334	310	364	324
	ppm		167	155	182	162
	POTASSIUM*	lb/A	226	266	232	234
	ppm		113	133	116	117
	SODIUM*	lb/A	36	38	36	36
	ppm		18	19	18	18
BASE SATURATION PERCENT						
Calcium	%	53.43	55.27	56.82	64.79	65.14
Magnesium	%	15.65	13.48	15.67	12.88	14.99
Potassium	%	3.26	3.56	3.07	2.86	3.50
Sodium	%	0.88	0.86	0.81	0.75	0.78
Other Bases	%	5.80	5.80	5.60	5.20	5.10
Hydrogen	%	21.00	21.00	18.00	13.50	10.50
EXTRACTABLE MINORS						
Boron* (ppm)		0.80	0.63	0.80	0.75	0.83
Iron* (ppm)		599	643	590	530	507
Manganese* (ppm)		16	11	14	16	14
Copper* (ppm)		2.31	1.82	2.04	2.68	2.29
Zinc* (ppm)		3.09	3.63	4.94	3.42	3.56
Aluminum* (ppm)		1274	1348	1298	1516	1406
OTHER TESTS	Soluble Salts (mmhos/cm)					
	Chlorides (ppm)					
	NO ₃ -N (ppm)	3.6	3.4	3.6	4.4	3.2
	NH ₄ -N (ppm)	2.2	1.2	2.6	1.4	1.7

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1b/A

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NameBrown Dog FarmCityPalmerStateAK

Independent ConsultantHome OfficeDate10/28/2024

Sample Location				FIELD	RANUNC	PEONIES	ANNUALS		
Sample Identification									
Lab Number					0193-1	0194-1	0195-1		
Total Exchange Capacity (ME / 100 g)					14.64	11.39	11.96		
pH		Buffer (SMP / Sikora) H ₂ O (1:1)			6.8 5.5	6.9 6.5	6.9 5.9	— — —	— — —
Organic Matter (360°C LOI) %					14.18	8.72	7.66		
Estimated Nitrogen Release lb / A					127	119	113		
ANIONS	SOLUBLE SULFUR* ppm				59	11	55		
	PHOSPHORUS	MEHLICH III	lb/A	P as P ₂ O ₅ ppm of P	843 184	224 49	334 73		
		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					
	EXCHANGABLE CATIONS	CALCIUM*		lb/A	—	2982 1491	3188 1594	2834 1417	— — —
MAGNESIUM*		lb/A	—	352 176	384 192	396 198	— — —	— — —	
POTASSIUM*		lb/A	—	102 51	210 105	172 86	— — —	— — —	
SODIUM*		lb/A	—	118 59	62 31	84 42	— — —	— — —	
BASE SATURATION PERCENT									
Calcium		%			50.92	69.97	59.24		
Magnesium		%			10.02	14.05	13.80		
Potassium		%			0.89	2.36	1.84		
Sodium	%			1.75	1.18	1.53			
Other Bases	%			6.40	4.90	5.60			
Hydrogen	%			30.00	7.50	18.00			
EXTRACTABLE MINORS									
Boron* (ppm)					1.04	1.06	1.17		
Iron* (ppm)					611	470	383		
Manganese* (ppm)					13	12	8		
Copper* (ppm)					1.56	2.68	2.60		
Zinc* (ppm)					5.37	3.03	1.62		
Aluminum* (ppm)					1103	1566	1624		
OTHER TESTS	Soluble Salts (mmhos / cm)								
	Chlorides (ppm)								
	NO ₃ -N (ppm)				36.1	1.2	24.7		
	NH ₄ -N (ppm)				3.2	0.9	< 0.5		

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SOIL AUDIT AND INVENTORY REPORT

NameBrown Dog FarmCityPalmerStateAK

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Sample Location		WOODIES	WOODIES				
Sample Identification							
Lab Number			0196-1				
Total Exchange Capacity (ME / 100 g)			14.43				
pH	Buffer (SMP/Sikora)		6.8				
	H ₂ O (1:1)		5.7				
Organic Matter (360°C LOI) %			10.37				
Estimated Nitrogen Release		lb / A	125				
ANIONS	SOLUBLE SULFUR*						
		ppm	23				
	PHOSPHORUS	MEHLICH III lb/A P as P ₂ O ₅	458				
		ppm of P	100				
		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					
EXCHANGABLE CATIONS	CALCIUM*		lb/A	3388			
		ppm		1694			
	MAGNESIUM*		lb/A	316			
		ppm		158			
	POTASSIUM*		lb/A	184			
		ppm		92			
	SODIUM*		lb/A	36			
		ppm		18			
BASE SATURATION PERCENT							
	Calcium	%		58.70			
	Magnesium	%		9.12			
	Potassium	%		1.63			
	Sodium	%		0.54			
	Other Bases	%		6.00			
	Hydrogen	%		24.00			
EXTRACTABLE MINORS							
	Boron* (ppm)			1.18			
	Iron* (ppm)			495			
	Manganese* (ppm)			15			
	Copper* (ppm)			2.68			
	Zinc* (ppm)			5.20			
	Aluminum* (ppm)			1340			
OTHER TESTS	Soluble Salts (mmhos/cm)						
	Chlorides (ppm)						
	NO ₃ -N (ppm)			43.8			
	NH ₄ -N (ppm)			1.1			

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