



Appendix A
Acid Sulphate Soil Summary Table

ASS Summary
Kemerton ASS Investigation & Management

Field Testing Results and Laboratory SPOCAS Testing Results

Sample ID							Field Test Results				Lab pH		Acidity					Calculations												
Location	Sample Interval	Duplicate Collected	Soil Horizon Boundary	Moisture Content	Soil Colour	Soil Texture	pH _F	pH _{FOX}	ΔpH	Reaction	pH _{KCl}	pH _{ox}	TAA	TPA	TSA	POS	S _{Cr}	s-TAA	s-TPA	s-TSA	S _{POS}	S _{Cr}	Net Acidity	Net Acidity						
							pH Unit			-	pH Unit		mole H ⁺ / t					% S		% S	mole H ⁺ / t									
							Limit of Reporting	0.01	0.01	0.01	-	0.1	0.1	2	2	2	10	10	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	18.7
							Criteria	4	3	>2	-	4	4	18.7	18.7	18.7	18.7	18.7	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	18.7
K1	0.25	-	0.0 - 0.3	M	Dark brown / grey	Peaty sand	7.8	5.6	2.2	Strong	9.2		<2				<10	<0.02				<0.02	<0.02	<10						
K1	0.5	-	0.3 - 0.75	M	Light brown	Fine grained sand	7.4	5.9	1.5	Strong																				
K1	0.75	-					6.9	5.3	1.6	Slight																				
K1	1	-	0.75 - 1.0	M	Light brown	Fine grained sand with woodchips	5.2	3.5	1.7	Slight	5.2	2.3	62	385	323	<10		0.10	0.62	0.52	<0.02		0.10	66						
K1	1.25	-	1.0 - 2.0	M	Light brown	Fine grained sand	5.9	4.8	1.1	Slight																				
K1	1.5	-					6.7	5	1.7	Slight																				
K1	1.75	-					6.7	5.2	1.5	Slight																				
K1	2	-					6.6	5.1	1.5	Slight																				
K2	0.25	-	0.0 - 0.3	M	Black / grey	Peaty sand	5.6	1.9	3.7	Strong	6.4		2				<10	<0.02				<0.02	<0.02	<10						
K2	0.5	-	0.3 - 0.8	M	Pale grey	Fine to medium grained sand	6.4	3.9	2.5	Slight																				
K2	0.75	-					6.3	4.8	1.5	Slight																				
K2	1	-	0.8 - 1.2	W	Grey	Soft clay, high plasticity	7.1	4.3	2.8	Moderate																				
K2	1.25	-					7.4	5.3	2.1	Slight	5.8	6.5	7	<2	<2	<10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<10				
K2	1.5	-	1.2 - 1.75	W	Grey	Hard sandy clay	7.6	5.6	2	Slight																				
K2	1.75	-					7.8	5.6	2.2	Slight	5.8	6.4	8	<2	<2	<10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<10				
K2	2	-	1.75 - 2.0	W	Pale grey	Fine to medium grained sand	7.2	5.6	1.6	Slight																				
K3	0.25	-	0.0 - 0.3	M	Brown / black	Peaty sand	7.2	5.7	1.5	Extreme																				
K3	0.5	-	0.3 - 0.5	W	Light brown	Sandy clay	7.6	5.5	2.1	Slight	6.7	5.2	<2	<2	<2	<10		<0.02	<0.02	<0.02	<0.02		<0.02	<10						
K3	0.75	-	0.5 - 0.9	W	Pale brown	Fine to medium grained sand	7.4	5.2	2.2	Slight																				
K3	1	-					8.3	5.8	2.5	Slight	6.5	7.4	<2	<2	<2	<10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<10				
K3	1.25	x	0.9 - 1.8	W	Grey	Sandy clay	8.4	5.9	2.5	Slight	6.5	8.8	<2	<2	<2	<10		<0.02	<0.02	<0.02	<0.02		<0.02	<10						
Dup 1		-					8.4	5.7	2.7	Slight	6.9	7.2	<2	<2	<2	32	<0.02	<0.02	<0.02	0.05		0.05	32							
K3	1.5	-					8	6.3	1.7	Slight																				
K3	1.75	-					7.5	6.7	0.8	Slight																				
K3	2	-	1.8 - 2.0	W	Grey	Clay, high plasticity	7.1	5.7	1.4	Slight																				
K4	0.25	-	0.0 - 0.3	M	Black	Peaty sand with grass and roots	6.4	3.4	3	Strong	6.2		2				<10	<0.02				<0.02	<0.02	<10						
K4	0.5	-	0.3 - 1.5	M	Pale grey with patches of brown	Sandy clay	6.8	5	1.8	Slight																				
K4	0.75	-					7.5	5.5	2	Slight																				
K4	1	-					7.9	6	1.9	Slight																				
K4	1.25	-					8.1	6	2.1	Slight	8.7	9.6	<2	<2	<2	<10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<10				

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Field Testing Results and Laboratory SPOCAS Testing Results

Sample ID							Field Test Results				Lab pH		Acidity					Calculations												
Location	Sample Interval	Duplicate Collected	Soil Horizon Boundary	Moisture Content	Soil Colour	Soil Texture	pH _F	pH _{FOX}	ΔpH	Reaction	pH _{KCl}	pH _{ox}	TAA	TPA	TSA	POS	S _{Cr}	s-TAA	s-TPA	s-TSA	S _{POS}	S _{Cr}	Net Acidity	Net Acidity						
							pH Unit			-	pH Unit		mole H ⁺ / t					% S		% S	mole H ⁺ / t									
							Limit of Reporting	0.01	0.01	0.01	-	0.1	0.1	2	2	2	10	10	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	18.7
							Criteria	4	3	>2	-	4	4	18.7	18.7	18.7	18.7	18.7	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	18.7
K4	1.5	-					8.1	6.3	1.8	Slight																				
K4	1.75	-	1.5 - 2.0	M	Brown	Iron indurated sand	8.5	8.5	0	Slight	8.3	8.1	<2	<2	<2	<10		<0.02	<0.02	<0.02	<0.02		<0.02	<10						
K4	2	-					8.6	8.8	-0.2	Slight																				
K5	0.25	-	0.0 - 0.3	M	Black	Peaty sand with grass and roots	7	4.1	2.9	Strong	6.8		<2				<10	<0.02				<0.02	<0.02	<10						
K5	0.5	-	0.3 - 2.0	M	Light brown	Hard clayey sand with small rocks up to 2 mm in diameter	7.8	5.5	2.3	Slight	8.3	7.2	<2	<2	<2	<10		<0.02	<0.02	<0.02	<0.02		<0.02	<10						
K5	0.75	-					8.5	8.5	0	Slight																				
K5	1	-					8.5	6.9	1.6	Slight																				
K5	1.25	-					8.4	6.4	2	Slight																				
K5	1.5	-					8.3	6.7	1.6	Slight																				
K5	1.75	-					8.5	6.5	2	Slight																				
K5	2	x					8.3	6.4	1.9	Slight	7.2	6.5	<2	<2	<2	<10		<0.02	<0.02	<0.02	<0.02				<0.02	<10				
Dup 2		-					8.7	6.1	2.6	Slight	8.5	7.1	<2	<2	<2	29		<0.02	<0.02	<0.02	0.05				0.05	29				
K6	0.25	-	0.0 - 0.3	M	Light brown	Iron indurated sand with peat	8.2	6.5	1.7	Strong	9.4		<2				<10	<0.02				<0.02	<0.02	<10						
K6	0.5	-	0.3 - 0.6	M	Brown	Clayey sand	7.4	5.2	2.2	Extreme	8.4	6.4	<2	<2	<2	<10		<0.02	<0.02	<0.02	<0.02		<0.02	<10						
K6	0.75	-	0.6 - 1.1	W	Light brown	Fine to medium grained sand	6.6	4.7	1.9	Slight																				
K6	1	-					7.6	6.2	1.4	Slight																				
K6	1.25	-					7.3	5.2	2.1	Slight	6.4	6.0	<2	<2	<2		<0.02	<0.02	<0.02						<0.02	<10				
K6	1.5	-	1.1 - 1.7	W	Pale grey	Hard sandy clay	6.6	4.9	1.7	Slight																				
K6	1.75	-					6.2	4.5	1.7	Slight																				
K6	2	-	1.7 - 2.0	W	Pale grey	Fine to medium grained sand	6.4	4.8	1.6	Slight																				
K7	0.25	-	0.0 - 0.8	M	Pale grey	Fine to medium grained sand	6.5	3.7	2.8	Slight	93.6	7.6	<2	<2	<2	<10		<0.02	<0.02	<0.02	<0.02		<0.02	<10						
K7	0.5	-					6.8	4.5	2.3	Slight																				
K7	0.75	-					6.3	4.2	2.1	Slight	5.8	4.4	6	14	8	<10		<0.02	0.02	<0.02	<0.02				<0.02	<10				
K7	1	-	0.8 - 2.0	M	Grey with red oxides	Sandy clay	5.9	4.3	1.6	Slight																				
K7	1.25	-					6.3	4.2	2.1	Slight	5.3	5.1	6	22	16	<10		<0.02	0.03	0.02	<0.02				<0.02	<10				
K7	1.5	-					6.3	4.6	1.7	Slight																				
K7	1.75	-					6.4	4.6	1.8	Slight																				
K7	2	-					6.6	4.6	2	Slight	5.6	5.6	12	10	<2	<10		<0.02	<0.02	<0.02	<0.02				<0.02	12				
K8	0.25	-	0.0 - 0.1	M	Dark brown	Peaty sand	6.1	3.8	2.3	Extreme	6.1		4				<10	<0.02				<0.02	<0.02	<10						
K8	0.5	-	0.1 - 0.8	M	Light brown	Soft sandy clay	7.1	4.2	2.9	Slight																				
K8	0.75	x					7.2	4.7	2.5	Slight	5.7	6.4	8	<2	<2	<10		<0.02	<0.02	<0.02	<0.02				<0.02	<10				

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Location	Sample Interval	Duplicate Collected	Soil Horizon Boundary	Moisture Content	Soil Colour	Soil Texture	pH _F	pH _{FOX}	ΔpH	Reaction	pH _{KCl}	pH _{ox}	TAA	TPA	TSA	POS	S _{Cr}	s-TAA	s-TPA	s-TSA	S _{POS}	S _{Cr}	Net Acidity	Net Acidity						
							pH Unit			-	pH Unit		mole H ⁺ / t					% S					% S	mole H ⁺ / t						
							Limit of Reporting	0.01	0.01	0.01	-	0.1	0.1	2	2	2	10	10	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	18.7
							Criteria	4	3	>2	-	4	4	18.7	18.7	18.7	18.7	18.7	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	18.7
Dup 3							7.7	5.3	2.4	Slight	5.6	4.9	7	7	<2	15		<0.02	<0.02	<0.02	0.02		0.04	22						
K8	1	-	0.8 - 1.1	W	Grey	Clayey sand	7.6	8.4	-0.8	Extreme																				
K8	1.25	-	1.1 - 2.0	W	Pale grey	Crumbly clayey sand	7.8	5.5	2.3	Slight	7.6	8.2	<2	<2	<2	<10		<0.02	<0.02	<0.02	<0.02		<0.02	<10						
K8	1.5	-					8	5.5	2.5	Slight																				
K8	1.75	-					8.3	5.7	2.6	Slight																				
K8	2	-					7.5	4.9	2.6	Moderate	6.2	6.4	<2	<2	<2	<10		<0.02	<0.02	<0.02	<0.02		<0.02	<10						
K9	0.25	-	0.0 - 0.2	M	Black	Peat with grass and roots	8.6	7.4	1.2	Moderate																				
K9	0.5	-	0.2 - 0.9	W	Dark grey	Silty clay	8.1	7.4	0.7	Moderate																				
K9	0.75	-					7.9	7.5	0.4	Moderate																				
K9	1	-	0.9 - 1.5	W	Dark grey	Hard clayey sand	7.6	5.6	2	Extreme	7.2	7.4	<2	<2	<2	<10		<0.02	<0.02	<0.02	<0.02		<0.02	<10						
K9	1.25	-					7.9	6.1	1.8	Slight																				
K9	1.5	-					7.9	6.2	1.7	Slight																				
K9	1.75	-	1.5 - 2.0	W	Dark brown	Sand with silt	7.7	5.9	1.8	Slight																				
K9	2	-					7.4	6	1.4	Slight																				
K9	2.25	-	2.0 - 2.3	W	Dark grey	Sandy clay	7.6	6.1	1.5	Slight																				
K9	2.5	-	2.3 - 3.0	W	Dark grey	Clay, high plasticity	7.5	5.8	1.7	Slight																				
K9	2.75	-					8.1	5.1	3	Slight	6.2	6.4	4	<2	<2	<10		<0.02	<0.02	<0.02	<0.02		<0.02	<10						
K9	3	-	3.0 - 3.3	W	Dark grey / black	Soft clay	7.5	1.9	5.6	Extreme																				
K9	3.25	-					7.1	1.7	5.4	Extreme	6.8	2.9	<2	441	441	274		<0.02	0.71	0.71	0.44		0.44	274						
K9	3.5	-	3.3 - 4.3	W	Dark brown / grey	Fine to medium grained sand with sulphur smell	6.8	1.7	5.1	Extreme																				
K9	3.75	-					6.9	1.7	5.2	Slight	6.4	3.4	<2	32	32	41		<0.02	0.05	0.05	0.06		0.06	41						
K9	4	x					6	4.7	1.3	Slight	6.4	2.8	<2	22	22	30		<0.02	0.04	0.04	0.05		0.05	30						
Dup 4							7.3	1	6.3	Moderate	6.1	2.8	<2	35	35	41		<0.02	0.06	0.06	0.07		0.07	41						
K9	4.25	-	4.3 - 5.0	W	Grey	Fine to medium grained sand with woodchips and silt	7	1.4	5.6	Extreme	6.4	3.0	<2	81	81	76		<0.02	0.13	0.13	0.12		0.12	76						
K9	4.5	-					6.8	1.7	5.1	Slight																				
K9	4.75	-					6.9	1.7	5.2	Extreme																				
K9	5	-					6.3	1.9	4.4	Extreme	5.9	2.4	2	153	150	161		<0.02	0.24	0.24	0.26		0.26	164						
K10	0.25	-	0.0 - 0.2	D	Brown	Silty sand with roots	6.5	2.2	4.3	Moderate	5.7		8				<10	<0.02				<0.02	0.020	13						
K10	0.5	-	0.2 - 0.7	M	Brown	Fine to medium grained sand	6.6	3.3	3.3	Moderate	5.8	5.3	6	<2	<2	<10		<0.02	<0.02	<0.02	<0.02		<0.02	<10						
K10	0.75	-	0.7 - 1.2	M	Dark grey	Clay, high plasticity	6.2	4.7	1.5	Slight																				
K10	1	-					6.2	5	1.2	Moderate																				
K10	1.25	-					6.6	5.4	1.2	Slight																				
K10	1.5	-	1.2 - 1.8	M	Grey	Clay, hard and crumbly	7.5	5.8	1.7	Slight																				
K10	1.75	-					7.3	6	1.3	Slight																				
K10	2	-	1.8 - 2.7	W	Grey	Clay, high plasticity	6.9	5.7	1.2	Slight																				
K10	2.25	-					6.7	5.3	1.4	Slight																				
K10	2.5	-					6.6	5.6	1	Slight																				

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Location	Sample Interval	Duplicate Collected	Soil Horizon Boundary	Moisture Content	Soil Colour	Soil Texture	pH _F	pH _{FOX}	ΔpH	Reaction	pH _{KCl}	pH _{ox}	TAA	TPA	TSA	POS	S _{Cr}	s-TAA	s-TPA	s-TSA	S _{POS}	S _{Cr}	Net Acidity	Net Acidity						
							pH Unit			-	pH Unit		mole H ⁺ / t					%S					%S	mole H ⁺ / t						
							Limit of Reporting	0.01	0.01	0.01	-	0.1	0.1	2	2	2	10	10	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	18.7
							Criteria	4	3	>2	-	4	4	18.7	18.7	18.7	18.7	18.7	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	18.7
K10	2.75	-					6.8	5.8	1	Strong																				
K10	3	-	2.7 - 4.0	W	Grey	Fine to coarse grained sand with a sulphur smell	6.9	2.4	4.5	Moderate	6.4	4.2	<2	32	32	41		<0.02	0.05	0.05	0.07		0.07	41						
K10	3.25	-					6.8	2.1	4.7	Slight																				
K10	3.5	-					7	1.5	5.5	Slight																				
K10	3.75	-					7.1	1.6	5.5	Slight																				
K10	4	-					7	1.7	5.3	Slight	6.1	2.5	<2	66	65	71		<0.02	0.1	0.1	0.11				0.12	72				
K10	4.25	x	4.0 - 5.0	W	Dark brown	Fine to medium grained clayey sand with silt	6.4	2.6	3.8	Extreme	6.2	2.6	4	292	289	273		<0.02	0.47	0.46	0.44		0.44	277						
Dup 5							7.6	1.7	5.9	Slight	5.7	2.4	<2	93	92	93		<0.02	0.15	0.15	0.15				0.15	94				
K10	4.5	-					6.3	2.9	3.4	Extreme																				
K10	4.75	-					6.5	2.1	4.4	Extreme																				
K10	5	-					6.6	2	4.6	Moderate	6.1	2.8	2	171	169	166		<0.02	0.27	0.27	0.27				0.27	169				
K11	0.25	-	0.0 - 0.4	M	Light brown	Fine to medium grained sand	4.7	1.8	2.9	Moderate	5.8	4.2	<2	10	8	<10		<0.02	<0.02	<0.02	<0.02		<0.02	<10						
K11	0.5	-					5.9	3.2	2.7	Slight																				
K11	0.75	-	0.4 - 1.7	M	Light brown with red oxides	Clayey sand	6.2	4.1	2.1	Slight	5.5	5.3	12	15	3	<10		<0.02	0.02	<0.02	<0.02		0.02	13						
K11	1	-					6.3	4.3	2	Slight																				
K11	1.25	-					6.2	3	3.2	Extreme																				
K11	1.5	-					6.2	3.1	3.1	Slight	5.7	5.2	7	9	2	<10		<0.02	<0.02	<0.02	<0.02				0.020	14				
K11	1.75	-					6.2	4.4	1.8	Slight																				
K11	2	-	1.7 - 2.0	W	Light brown	Fine to medium grained sand	6.2	4.5	1.7	Slight																				
K12	0.25	-	0.0 - 0.2	M	Black	Peat with roots	4.8	2.5	2.3	Moderate	6.0		4				<10	<0.02				<0.02	<0.02	<10						
K12	0.5	-	0.2 - 0.4	W	Light brown	Fine to medium grained sand	4.8	2.8	2	Moderate																				
K12	0.75	-	0.4 - 0.7	W	Light brown with red oxides	Sandy clay	5.5	4.1	1.4	Slight	5.2	5.4	18	23	5	<10		0.03	0.04	<0.02	<0.02		0.030	18						
K12	1	-	0.7 - 1.1	D	Light brown / grey	Hard powdery sand with rock up to 2 mm in diameter	5.2	4.3	0.9	Slight																				
K12	1.25	-	1.1 - 2.0	W	Light brown	Sandy clay	5.1	4.3	0.8	Slight																				
K12	1.5	-					5	4.3	0.7	Slight																				
K12	1.75	-					5.1	4.1	1	Slight																				
K12	2	x					5.1	4.1	1	Slight	5.3	5.5	13	10	<2	<10		0.02	<0.02	<0.02	<0.02				0.02	15				
Dup 6							7.4	4.7	2.7	Slight	5.5	5.1	18	15	<2	30		0.03	0.02	<0.02	0.05				0.080	47				
K13	0.25	-	0.0 - 0.2	D	Light brown / black	Peaty sand	5.1	3.6	1.5	Slight	5.6		5				<10	<0.02				<0.02	<0.02	<10						
K13	0.5	-	0.2 - 1.7	M	Pale grey	Fine to medium grained sand	5.2	3.7	1.5	Slight																				
K13	0.75	-					4.6	3.4	1.2	Slight	5.9	3.4	<2	12	11	<0.02		<0.02	<0.02	<0.02					<0.02	<10				
K13	1	-					4.6	3.8	0.8	Slight																				
K13	1.25	-					4.6	4.4	0.2	Slight																				

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Field Testing Results and Laboratory SPOCAS Testing Results

Sample ID							Field Test Results				Lab pH		Acidity					Calculations												
Location	Sample Interval	Duplicate Collected	Soil Horizon Boundary	Moisture Content	Soil Colour	Soil Texture	pH _F	pH _{FOX}	ΔpH	Reaction	pH _{KCl}	pH _{ox}	TAA	TPA	TSA	POS	S _{Cr}	s-TAA	s-TPA	s-TSA	S _{POS}	S _{Cr}	Net Acidity	Net Acidity						
							pH Unit			-	pH Unit		mole H ⁺ / t					% S		% S	mole H ⁺ / t									
							Limit of Reporting	0.01	0.01	0.01	-	0.1	0.1	2	2	2	10	10	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	18.7
							Criteria	4	3	>2	-	4	4	18.7	18.7	18.7	18.7	18.7	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	18.7
K13	1.5	-					4.5	4.4	0.1	Slight																				
K13	1.75	-					4.6	3.8	0.8	Slight	6.0	3.9	<2	13	12	<10		<0.02	0.02	<0.02	<0.02		<0.02	<10						
K13	2	-	1.7 - 2.0	W	Pale grey	Fine to medium grained sand	4.4	3.3	1.1	Slight	5.9	4.0	<2	12	12	<10		<0.02	<0.02	<0.02	<0.02		<0.02	<10						
K14	0.25	-	0.0 - 0.25	D	Light brown	Sandy clay	7.6	5.9	1.7	Slight																				
K14	0.5	-	0.25 - 0.7	M	Light brown	Clayey sand with rock up to 10 mm in diameter	8.3	7	1.3	Slight																				
K14	0.75	-					9.2	6	3.2	Slight	6.7	7.0	<2	<2	<2	<10		<0.02	<0.02	<0.02	<0.02		<0.02	<10						
K14	1	-	0.7 - 1.3	M	Light brown	Clayey sand	9.5	6.1	3.4	Slight	6.5	6.6	<2	<2	<2	<10		<0.02	<0.02	<0.02	<0.02		<0.02	<10						
K14	1.25	-					7.8	6	1.8	Slight																				
K14	1.5	-	1.3 - 2.0	M	Light brown	Hard clay, medium plasticity	8.9	5.9	3	Slight	6.2	6.9	<2	<2	<2	28		<0.02	<0.02	<0.02	0.04		<0.02	<10						
K14	1.75	-					9	5.6	3.4	Slight																				
K14	2	-					8.9	5.7	3.2	Slight	6.0	6.7	2	<2	<2	30		<0.02	<0.02	<0.02	0.05		<0.02	<10						
K15	0.25	-	0.0 - 0.5	M	Light brown	Soft sandy clay	7	5.7	1.3	Slight																				
K15	0.5	-					7	5.9	1.1	Slight																				
K15	0.75	-	0.5 - 0.75	M	Light brown	Clayey sand	7	5.7	1.3	Slight																				
K15	1	x	0.75 - 1.2	W	Light brown with dark brown patches	Clayey sand with rocks up to 5 mm in diameter	7.5	5.7	1.8	Slight	6.3	7.0	<2	<2	<2	28		<0.02	<0.02	<0.02	0.04		<0.02	<10						
Dup 7		-					5.7	5.8	-0.1	Slight	6.1	7	2	<2	<2	<10		<0.02	<0.02	<0.02	<0.02		<0.02	<10						
K15	1.25	-					8	5.6	2.4	Slight	6.1	7.1	<2	<2	<2	27		<0.02	<0.02	<0.02	0.04		<0.02	<10						
K15	1.5	-	1.2 - 1.75	W	Light brown	Fine to medium grained sand	7.9	5.7	2.2	Slight																				
K15	1.75	-					7.6	5.6	2	Slight	5.8	6.4	3	<2	<2	29		<0.02	<0.02	<0.02	0.05		<0.02	<10						
K15	2	-	1.75 - 2.0	W	Brown / grey	Clayey sand	7.3	5.7	1.6	Slight																				
K16	0.25	-	0.0 - 0.3	M	Black / grey	Fine to medium grained peaty sand with roots	5.6	4.4	1.2	Moderate																				
K16	0.5	-	0.3 - 1.3	M	Dark grey	Fine to medium grained sand	5.2	3.8	1.4	Moderate	4.9	2.5	55	213	158	61		0.09	0.34	0.25	0.1		0.1	34						
K16	0.75	-					4.2	3.8	0.4	Slight																				
K16	1	-					3.8	3.1	0.7	Slight																				
K16	1.25	-					3.7	3.2	0.5	Slight																				
K16	1.5	-	1.3 - 2.0	W	Dark brown	Fine sand, hard with slight sulphur smell	4.2	3.2	1	Slight	6.0	3.2	55	213	158	61		0.09	0.34	0.25	0.1		0.18	116						
K16	1.75	-					4.4	2.8	1.6	Slight																				
K16	2	-					4.2	2.5	1.7	Slight	5.6	3.7	7	14	8	36		<0.02	0.02	<0.02	0.06		0.07	44						
K17	0.25	-	0.0 - 0.4	M	Black / grey	Peaty sand	5.3	4	1.3	Slight																				
K17	0.5	-					5	3.8	1.2	Slight	5.4		20			<10	0.03				<0.02	0.03	21							
K17	0.75	-	0.4 - 0.7	M	Dark brown / grey	Fine to medium grained sand	5.1	5	0.1	Slight																				
K17	1	-	0.7 - 1.2	W	Grey	Medium grained sand	4.9	4.8	0.1	Slight																				
K17	1.25	-					4.6	4.1	0.5	Slight																				

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Field Testing Results and Laboratory SPOCAS Testing Results

Sample ID							Field Test Results				Lab pH		Acidity					Calculations													
Location	Sample Interval	Duplicate Collected	Soil Horizon Boundary	Moisture Content	Soil Colour	Soil Texture	pH _F	pH _{FOX}	ΔpH	Reaction	pH _{KCl}	pH _{ox}	TAA	TPA	TSA	POS	S _{Cr}	s-TAA	s-TPA	s-TSA	S _{POS}	S _{Cr}	Net Acidity	Net Acidity							
							pH Unit			-	pH Unit		mole H ⁺ / t					% S					% S	mole H ⁺ / t							
							Limit of Reporting	0.01	0.01	0.01	-	0.1	0.1	2	2	2	10	10	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	18.7
							Criteria	4	3	>2	-	4	4	18.7	18.7	18.7	18.7	18.7	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	18.7
K17	1.5	-	1.2 - 1.65	W	Dark brown	Fine grained sand with iron indurated sand, rocks up to 10 mm in diameter	4.4	3.8	0.6	Slight	4.7	3.3	122	334	212	64		0.2	0.54	0.34	0.1		0.3	186							
K17	1.75	-	1.65 - 1.8	W	Brown	Fine grained sand with patches of light brown sand	4.8	4	0.8	Slight																					
K17	2	x	1.8 - 2.0	W	Dark brown / black	Fine sand with a slight sulphur smell	5.2	4.2	1	Slight	5.8	3.5	14	92	78	50		0.02	0.15	0.12	0.08		0.10	64							
Dup 8		4.9					4.2	0.7	Slight	5.4	3.5	18	106	87	22		0.03	0.17	0.14	0.03		0.06	40								
K18	0.25	-	0.0 - 0.2	W	Black	Peat with roots	4.7	2.9	1.8	Moderate	5.9		8				<10	<0.02			<0.02		<0.02	10							
K18	0.5	-	0.2 - 2.0	W	Light brown	Fine to medium grained sand	4.4	3.3	1.1	Slight																					
K18	0.75	-					5.1	4.9	0.2	Slight	5.7	3.7	5	22	17	31		<0.02	0.03	0.03	0.05		0.06	36							
K18	1	-					5.2	5.2	0	Slight																					
K18	1.25	-					4.1	4.8	-0.7	Slight																					
K18	1.5	-					5.2	4.2	1	Slight																					
K18	1.75	-					4.6	3.8	0.8	Slight																					
K18	2	-					4.7	2.3	2.4	Extreme	5.8	3.6	4	41	37	58		<0.02	0.07	0.06	0.09		0.10	62							
K19	0.25	-	0.0 - 0.25	D	Black / grey	Peaty sand with roots	5.2	4	1.2	Slight																					
K19	0.5	-	0.25 - 0.8	D	Grey / brown	Fine to medium grained sand	4.7	4.7	0	Slight																					
K19	0.75	-					4	4.3	-0.3	Slight																					
K19	1	x	0.8 - 1.5	W	Grey / brown	Fine to medium grained sand	4.1	4	0.1	Slight	6.1	3.6	2	13	11	<10		<0.02	0.02	<0.02	<0.02		<0.02	<10							
Dup 9		4.5					4.6	-0.1	Slight	6.5	3.1	<2	12	12	<10		<0.02	<0.02	<0.02	<0.02		<0.02	<10								
K19	1.25	-					4	3.8	0.2	Slight	6.2	3	<2	10	10	32		<0.02	<0.02	<0.02	0.05		0.05	32							
K19	1.5	-	1.5 - 2.0	W	Dark brown	Fine sand, hard and compacted	4.3	4.5	-0.2	Slight																					
K19	1.75	-					5.1	3.3	1.8	Slight																					
K19	2	-					5.3	3.3	2	Slight	4.9	3.3	76	202	126	55		0.12	0.32	0.2	0.09		0.21	130							
K20	0.25	-	0.0 - 0.2	M	Black / grey	Peaty sand	4.9	5	-0.1	Moderate																					
K20	0.5	-	0.2 - 1.1	M	Grey / brown	Fine to medium grained sand	5	4.7	0.3	Slight																					
K20	0.75	-					4.4	4.7	-0.3	Slight																					
K20	1	-					4.7	4.6	0.1	Slight																					
K20	1.25	-	1.1 - 2.0	W	Dark brown	Fine grained sand	4.6	4.1	0.5	Moderate	5.6	2.9	15	35	20	35		0.02	0.06	0.03	0.06		0.080	50							
K20	1.5	-					4.6	4	0.6	Slight																					
K20	1.75	-					4.9	3.7	1.2	Slight																					
K20	2	-					5.2	3.9	1.3	Slight	5.6	2.8	25	112	88	49		0.04	0.18	0.14	0.08		0.120	74							
K21	0.25	-	0.0 - 0.2	D	Grey / dark brown	Peaty sand with roots	5.4	4	1.4	Moderate																					
K21	0.5	-	0.2 - 1.0	D	Grey / dark brown	Fine to medium grained sand	4.6	4	0.6	Slight																					
K21	0.75	-					4.5	4.8	-0.3	Slight																					

ASS Summary
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Sample ID							Field Test Results				Lab pH		Acidity					Calculations													
Location	Sample Interval	Duplicate Collected	Soil Horizon Boundary	Moisture Content	Soil Colour	Soil Texture	pH _F	pH _{FOX}	ΔpH	Reaction	pH _{KCl}	pH _{ox}	TAA	TPA	TSA	POS	S _{Cr}	s-TAA	s-TPA	s-TSA	S _{POS}	S _{Cr}	Net Acidity	Net Acidity							
							pH Unit			-	pH Unit		mole H ⁺ / t					%S					%S	mole H ⁺ / t							
							Limit of Reporting	0.01	0.01	0.01	-	0.1	0.1	2	2	2	10	10	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	18.7
							Criteria	4	3	>2	-	4	4	18.7	18.7	18.7	18.7	18.7	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	18.7
K21	1	-				grained sand	4	3.9	0.1	Slight	5.7	3.1	8	32	24	35		<0.02	0.05	0.04	0.06		0.07	43							
K21	1.25	-	1.0 - 1.25	W	Grey / dark brown	Fine to medium grained sand	4.1	4.4	-0.3	Slight																					
K21	1.5	-	1.25 - 2.0	W	Dark brown / black	Fine grained sand with iron indurated sand	4.7	4.4	0.3	Slight	5.7	2.9	4	26	23	31		<0.02	0.04	0.04	0.05		0.06	35							
K21	1.75	-					4.7	3.8	0.9	Slight																					
K21	2	x					5.1	4.4	0.7	Slight	5.4	3.7	28	95	67	44		0.04	0.15	0.11	0.07		0.12	72							
Dup 10							5.1	4	1.1	Slight	5.1	3.8	48	137	88	19		0.08	0.22	0.14	0.03		0.11	67							