

Appendix 4:
Soil Analysis Results

Sample Site Locations

	Latitude	Longitude
Tomago		
Site 1	-32.819583	151.765333
Site 2	-32.833750	151.736806
Site 3	-32.836194	151.765222
Site 4	-32.837306	151.756917
Site 5	-32.831444	151.757250
Site 6	-32.834083	151.757139
Fullerton Cove		
Site 1	-32.829361	151.821194
Site 2	-32.829694	151.825528
Site 3	-32.832444	151.824194
Site 4	-32.833889	151.825000
Site 5	-32.835667	151.826111
Kooragang		
Site 1	-32.863861	151.720472
Site 2	-32.856028	151.714500
Site 3	-32.852972	151.715278
Site 4	-32.850639	151.715778
Site 5	-32.847250	151.715167
Site 6	-32.856778	151.721528
Site 7	-32.839722	151.706083
Site 8	-32.836056	151.714000
Hexham		
Site 1	-32.866861	151.685528
Site 2	-32.863417	151.685083
Site 3	-32.856111	151.684444
Site 4	-32.850806	151.686083
Site 5	-32.851167	151.667333
Shortland		
Site 1	-32.871250	151.694194
Site 2	-32.868167	151.692167

Results Table Part 1

	Depth	Lab No	EC	pH (CaCl ₂)	Colwell Phosphorus	Bray Phosphorus	Total Carbon	KCl Sulfur	Total Actual Acidity
	cm	Units	dS/m	pH units	mg/kg	mg/kg	%	mg/kg	moles H ⁺ /t
		LOR	0.01	0.04	2	0.06	0.2	2.2	5
Tomago									
Site 1	0-10	4479	0.18	4.50	71	NT	NT	26	100
	25-35	4480	0.05	4.20	6.7	NT	NT	3.2	67
	55-65	4481	0.03	3.80	15	NT	NT	3.2	54
	90-105	4482	0.04	3.80	43	NT	NT	4.9	59
	140-155	4483	0.10	4.20	11	NT	NT	51	38
Site 2	0-10	4484	0.15	6.10	73	NT	NT	12	9.2
	40-50	4485	0.37	7.30	23	NT	NT	46	<5.0
	70-80	4486	0.29	7.50	12	NT	NT	29	<5.0
	110-120	4487	0.05	6.60	7.7	NT	NT	11	<5.0
Site 3	0-10	4488	0.39	4.80	96	NT	NT	110	73
	15-25	4489	0.41	4.80	97	NT	NT	450	48
	60-70	4490	3.00	4.20	19	NT	NT	710	28
	100-110	4491	4.30	5.00	8.9	NT	NT	940	18
	120-130	4492	3.70	5.60	8.0	NT	NT	870	21
Site 4	0-10	4493	0.24	4.60	76	NT	NT	35	110
	20-30	4494	0.68	4.10	18	NT	NT	110	65
	60-70	4495	0.98	4.20	20	NT	NT	160	25
	110-120	4496	1.80	4.00	25	NT	NT	450	43
Site 5	0-10	4497	2.20	4.90	97	NT	NT	680	40
	10-20	4498	3.00	5.70	110	NT	NT	690	17
	60-70	4499	3.60	4.70	56	NT	NT	880	41
	80-90	4500	4.00	3.7	23	NT	NT	850	60
Site 6	0-10	4501	4.00	5.70	130	NT	NT	440	16
	10-20	4502	4.30	5.00	56	NT	NT	680	30
	40-50	4503	5.10	5.10	39	NT	NT	760	26
	70-80	4504	4.30	4.30	41	NT	NT	740	35
	120-130	4505	4.9	5.3	20	NT	NT	1300	9.9
	170-185	4506	4.2	8.2	31	NT	NT	970	<5.0
Fullerton Cove									
Site 1	0-10	3921	1.82	4.504	NT	7.2	14	500	130
	15-25	3922	1.59	3.827	NT	2.7	3	360	150
	30-40	3923	1.97	3.759	NT	3.0	2.5	530	100
	45-55	3924	3.38	3.535	NT	4.9	4.1	980	180
	60-70	3925	3.06	3.939	NT	6.6	1.3	1200	100
	135-145	3926	5.03	7.917	NT	3.9	2	INS	<5.0
Site 2	0-10	3927	0.61	5.106	NT	13	8.7	170	35
	25-35	3928	1.17	4.726	NT	4.4	1.5	350	46
	70-80	3929	2.52	4.175	NT	1.8	2.4	710	100
	110-120	3930	4.67	4.129	NT	2.1	1.3	1700	87
	120-130	3931	5.21	4.452	NT	2.2	1.3	2400	55
	160-170	3932	5.49	7.685	NT	8.7	2.2	1300	<5.0
Site 3	0-10	3933	3.43	6.052	NT	8.4	3.4	560	14

	Depth	Lab No	EC	pH (CaCl ₂)	Colwell Phosphorus	Bray Phosphorus	Total Carbon	KCl Sulfur	Total Actual Acidity
	15-25	3934	5.38	6.314	NT	4.6	0.73	640	13
	35-45	3935	7.35	6.006	NT	4.7	1.1	810	8.7
	50-60	3936	9.61	6.338	NT	2.6	1.9	2900	5.2
	100-110	3937	7.23	7.894	NT	3.2	2	1100	<5.0
Site 5	0-10	3938	0.41	6.376	NT	5.8	5.5	61	5.5
	25-35	3939	0.23	6.961	NT	1.0	3.5	20	<5.0
	40-50	3940	0.22	6.9015	NT	0.48	1.4	35	<5.0
	70-80	3941	0.16	6.679	NT	2.5	1.6	22	5.4
Kooragang									
Site 1	75-85	3879	7.9	8	NT	0.23	5.3	1900	<5.0
	90-100	3880	4.7	7.9	NT	14	1.5	490	<5.0
	140-150	3881	6.3	7.5	NT	21	1.4	INS	<5.0
	220-230	3882	7.3	5.9	NT	14	1.6	1100	<5.0
Site 2	20-30	3883	0.2	4.5	NT	0.40	3.4	54	110
	50-60	3884	0.17	4.2	NT	2.9	0.81	52	75
	105-115	3885	0.11	4.2	NT	0.53	0.39	73	49
	120-130	3886	0.4	5.4	NT	2.0	0.51	150	18
	150-160	3887	1.2	5	NT	4.9	1.2	380	18
Site 3	0-10	3888	10.4	6.96	NT	13	7	460	<5.0
	20-30	3889	3.58	7.22	NT	7.6	0.56	240	<5.0
	40-50	3890	3.64	7.71	NT	10	0.52	250	<5.0
Site 4	0-10	3891	1.98	6.82	NT	20	9.9	220	<5.0
	20-30	3892	3.31	4.64	NT	2.3	4.5	450	72
	50-60	3893	3.35	5.52	NT	3.4	1.9	340	21
	80-90	3894	3.97	5.83	NT	6.9	0.89	290	20
	160-170	3895	1.61	5.46	NT	3.2	2.7	1000	25
Site 5	0-10	3896	6.52	5.63	NT	4.5	7.3	200	23
	20-30	3897	1.92	4.59	NT	0.76	5.5	320	110
	41-50	3898	1.9	3.99	NT	0.49	1.5	240	63
	60-70	3899	1.96	5.82	NT	27	0.81	180	9.7
	130-140	3900	2.97	6.1	NT	6.1	0.67	380	8.7
Site 6	0-10	3901	2.19	5.06	NT	1.5	9.4	210	28
	20-30	3902	1.98	4.49	NT	0.52	5.4	300	95
	45-55	3903	1.05	4.85	NT	1.3	1.2	120	33
	60-70	3904	1.41	5.47	NT	6.9	1.3	140	19
	150-160	3905	2.72	6.1	NT	12	0.67	290	8.6
Site 7	0-10	3906	0.55	4.9	NT	4.6	7.3	51	15
	40-50	3907	1.24	4.08	NT	0.57	1.3	300	110
	75-85	3908	1.36	4.2	NT	4.1	1.3	400	84
	90-100	3909	0.4	4.23	NT	12	0.46	70	28
	128-140	3910	1.02	4.955	NT	0.73	0.59	270	25
	160-170	3911	4.16	5.81	NT	4.2	1	3200	9.7
Site 8	0-10	3912	0.19	5.16	NT	10	5.9	49	25
	40-50	3913	0.51	4.62	NT	3.9	1.1	56	49
	80-90	3914	0.83	4.25	NT	3.1	0.34	86	22
	115-125	3915	0.92	4.078	NT	4.7	0.46	87	39
	160-170	3916	1.13	4.797	NT	18	1.1	240	26
Hexham									

	Depth	Lab No	EC	pH (CaCl ₂)	Colwell Phosphorus	Bray Phosphorus	Total Carbon	KCl Sulfur	Total Actual Acidity
Site 1	0-10	3942	0.27	5.6	NT	2.7	5.2	38	23
	30-40	3943	0.27	5.7	NT	5.3	2.1	100	21
	50-60	3944	0.83	5.6	NT	3.4	3.1	180	23
	90-100	4290	2.9	6.4	NT	13	3.5	460	<5.0
Site 2	15-25	4536	0.89	4.0	71	NT	NT	92	120
	50-60	4537	1.1	3.8	53	NT	NT	140	71
	70-80	4538	1.4	3.7	28	NT	NT	340	63
	85-95	4539	2.1	3.8	37	NT	NT	660	63
	125-135	4540	3.1	5.3	11	NT	NT	1100	11
Site 3	10-30	4541	1.2	4.1	27	NT	NT	140	55
	50-60	4542	1.1	5.6	29	NT	NT	150	11
Site 4	0-10	4543	0.24	4.9	73	NT	NT	25	45
	15-25	4544	0.23	4.6	34	NT	NT	23	74
	35-45	4545	0.39	4.4	22	NT	NT	61	58
	80-90	4546	1.2	5.3	15	NT	NT	180	8
Site 5	10-20	4547	0.50	5.4	83	NT	NT	55	21
	25-35	4548	0.62	5.6	110	NT	NT	89	17
	40-50	4549	0.40	6.0	36	NT	NT	140	13
Shortland									
Site 2	52-58	3917	0.47	5.014	NT	4.8	4.8	110	28
	80-90	3918	1.17	4.478	NT	4.9	2.7	280	57
	110-120	3919	2.08	4.223	NT	2.7	3.3	1100	84
	140-150	3920	2.38	6.237	NT	3.6	3	870	9.9

NT – Not Tested

INS – Insufficient Sample

Results Table Part 2

	Depth	Chloride	Sulfate-S	Aluminium	Calcium	Potassium	Magnesium	Sodium	Reduced Inorganic Sulfur
		Exchangeable Cations							
	cm	mg/kg	mg/kg	cmol(+)/kg	cmol(+)/kg	cmol(+)/kg	cmol(+)/kg	cmol(+)/kg	(% Scr)
		1.5	5	0.03	0.01	0.07	0.01	0.02	
Tomago									
Site 1	0-10	130	9.0	0.16	7.7	0.54	5.9	0.61	0.020
	25-35	20	30	0.42	4.6	0.15	4.5	0.5	NT
	55-65	21	14	0.8	1.9	0.12	1.9	0.23	0.014
	90-105	9.4	24	0.43	3.5	0.26	3.4	0.29	0.042
	140-155	11	55	0.2	3.5	0.2	2.1	0.079	0.568
Site 2	0-10	46	21	<0.03	12	0.19	5	0.78	NT
	40-50	210	140	<0.03	9.5	0.087	4.5	4	NT
	70-80	160	220	<0.03	8.5	0.11	4.9	2.9	NT
	110-120	42	85	<0.03	5.6	0.23	3.6	0.39	0.008
Site 3	0-10	620	170	0.14	3.6	1.3	11	3.9	0.023
	15-25	3100	540	0.072	2.1	1	8	4.9	NT
	60-70	4400	650	0.12	1.4	0.56	3.7	1	NT
	100-110	4500	960	<0.03	2.4	0.68	5	1.4	0.489
	120-130	4000	850	<0.03	2.9	0.8	5.6	1.5	0.581
Site 4	0-10	190	49	0.31	5.6	1.5	8	0.78	NT
	20-30	630	170	0.4	2.3	0.67	6	1.5	NT
	60-70	1100	180	0.18	1.3	0.43	3.1	0.78	NT
	110-120	2000	490	0.35	1.7	0.45	3.7	0.6	0.012
Site 5	0-10	2200	820	0.047	4.7	1.1	10	3.3	0.027
	10-20	3400	910	0.058	3.9	1	9.3	4.9	NT
	60-70	4300	1200	<0.03	5.6	0.34	11	1	NT
	80-90	4300	980	0.38	2.4	0.51	4.8	0.8	0.024
Site 6	0-10	4500	590	<0.03	3.9	1.2	11	5.8	0.083
	10-20	4600	900	0.033	3.7	1.1	10	3.9	0.039
	40-50	5400	1200	<0.03	3.4	1.2	8.9	3.4	0.021
	70-80	4700	920	0.092	2.9	0.7	6.9	1.5	0.007
	120-130	4800	1500	<0.03	3.8	0.85	6.6	1.4	0.788
	170-185	4600	1100	<0.03	7.6	1	6.8	1.4	0.808
Fullerton Cove									
Site 1	0-10	2300	NT	1.4	8.8	0.95	11	2.4	0.093
	15-25	1600	NT	4.8	4.9	0.8	8.5	1.9	0.031
	30-40	2000	NT	3.4	3.3	0.68	5.2	0.72	0.037
	45-55	3600	NT	4.8	4.5	0.81	6	1.8	0.078
	60-70	2900	NT	3	3.9	0.69	3.6	1.1	0.764
	135-145	5900	NT	<0.03	12	2	11	3.8	2.603
Site 2	0-10	360	NT	<0.03	11	1.6	11	1.9	NT
	25-35	1000	NT	0.28	6	1.1	10	2.3	NT
	70-80	2700	NT	0.57	5.2	1.2	9.3	2.6	NT
	110-120	3100	NT	0.64	11	0.81	4.1	1	0.038
	120-130	3100	NT	0.28	14	0.74	3.6	1	0.321
	160-170	6300	NT	<0.03	12	1.9	11	3.3	0.871

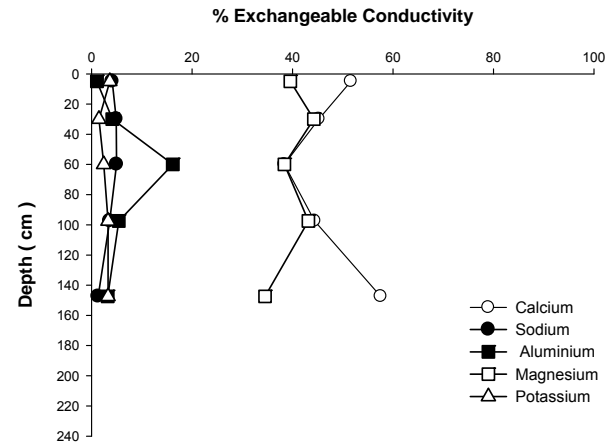
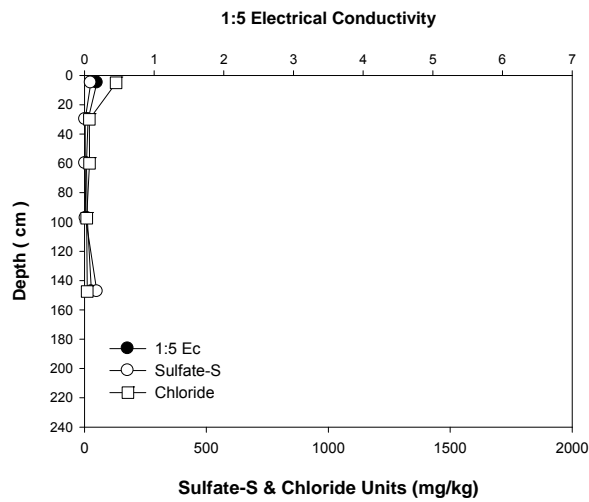
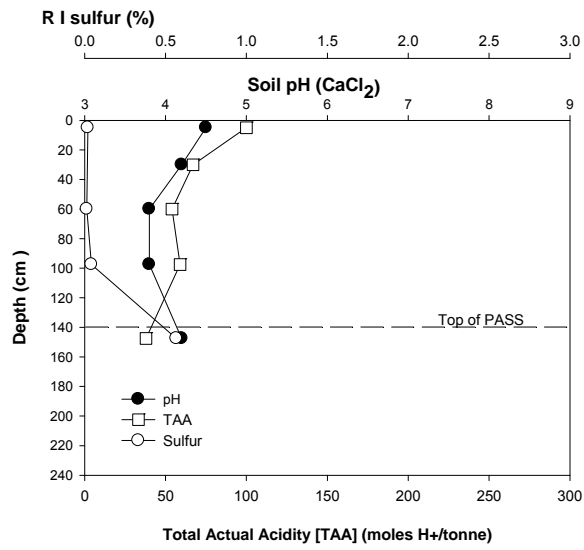
	Depth	Chloride	Sulfate-S	Aluminium	Calcium	Potassium	Magnesium	Sodium	Reduced Inorganic Sulfur
Site 3	0-10	4200	NT	<0.03	8.5	1.5	12	5.5	NT
	15-25	7500	NT	<0.03	5.9	0.81	9.4	3.7	NT
	35-45	8200	NT	<0.03	15	0.83	5.2	1.6	NT
	50-60	12000	NT	<0.03	16	1.1	5.5	2.1	0.506
	100-110	5300	NT	<0.03	11	1.7	8.9	4.3	1.007
Site 5	0-10	150	NT	<0.03	19	1.4	7.6	1	0.030
	25-35	99	NT	<0.03	18	0.51	9.5	2.1	0.030
	40-50	100	NT	<0.03	15	0.56	9	1.5	0.020
	70-80	68	NT	<0.03	14	0.77	7.4	1	0.019
Kooragang									
Site 1	75-85	13000	NT	<0.03	6.5	1.7	8.2	3.8	2.247
	90-100	9600	NT	<0.03	3.1	1.8	6.8	6.1	0.311
	140-150	9800	NT	<0.03	2.9	1.4	6.8	4.7	0.148
	220-230	12000	NT	<0.03	3.3	1.4	7	3.4	1.624
Site 2	20-30	81	NT	0.16	5.1	0.27	6.2	1.8	0.011
	50-60	27	NT	0.37	2.9	0.38	5.2	1.8	0.007
	105-115	54	NT	0.38	1	0.32	2	0.95	0.012
	120-130	350	NT	<0.03	1.4	0.55	2.8	2.5	0.005
Site 3	150-160	1100	NT	<0.03	2.2	0.74	4.5	2.5	0.930
	0-10	19000	NT	<0.03	3.1	1.2	11	8.3	0.043
	20-30	5100	NT	<0.03	1.4	0.7	6.6	4.6	0.006
Site 4	40-50	5300	NT	<0.03	1.3	0.69	6.6	4.2	<0.005
	0-10	2600	NT	<0.03	8.1	0.64	8.4	4.4	0.045
	20-30	4100	NT	0.039	3.4	1	7	4.8	0.019
Site 5	50-60	4300	NT	<0.03	3.4	0.78	7.2	6.1	0.025
	80-90	6200	NT	<0.03	2.8	1.1	7.4	6.9	0.037
	160-170	10000	NT	0.17	4	1.5	7.5	4	2.372
	0-10	2000	NT	<0.03	6.9	0.58	9.4	6.3	0.073
	20-30	2400	NT	0.082	4.3	0.97	6.2	4.1	0.023
Site 6	41-50	2400	NT	0.12	2.4	0.57	6	3	0.017
	60-70	2600	NT	<0.03	2.1	0.5	5	2.6	0.025
	130-140	3700	NT	0.074	2.3	1.1	4.2	1.6	0.441
	0-10	2800	NT	0.34	7.3	2	14	4.4	0.043
	20-30	2400	NT	2.2	3.8	2.1	8.2	3.7	0.021
Site 7	45-55	1300	NT	0.23	2.9	1.4	8.8	3.4	0.021
	60-70	1900	NT	0.088	2.8	1.6	8	2.9	0.019
	150-160	3500	NT	0.046	2	1.2	4.8	1.3	0.024
	0-10	540	NT	0.41	13	3.2	8.9	0.96	NT
	40-50	1100	NT	3.6	6.3	1.1	8.2	1.5	NT
Site 8	75-85	1100	NT	2.2	7.3	1.1	8.9	2.4	NT
	90-100	330	NT	0.68	2.7	0.45	2.9	0.59	0.016
	128-140	740	NT	0.1	4.4	0.8	3.3	0.87	0.018
	160-170	1500	NT	<0.03	13	0.75	2.1	0.51	0.040
	0-10	33	NT	0.11	16	1.5	9.3	0.35	NT
Site 8	40-50	460	NT	0.98	8.5	0.57	9.9	2.4	NT
	80-90	1000	NT	0.7	1.7	0.24	2.5	0.29	NT
	115-125	1300	NT	1.3	1.2	0.43	2.5	0.41	0.020
	160-170	1400	NT	0.97	2	0.75	4.1	0.55	0.818

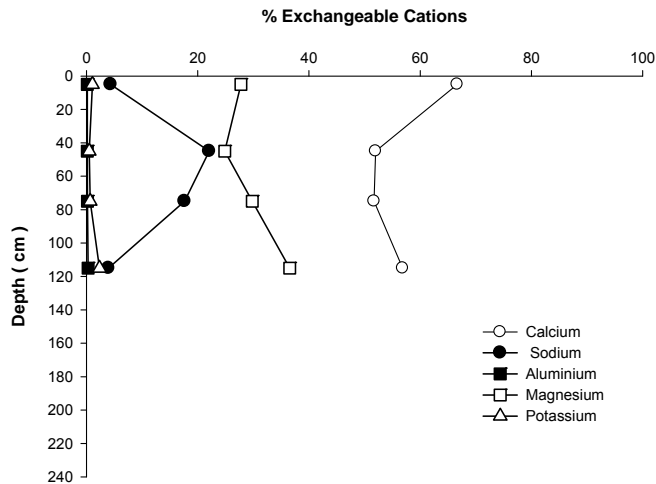
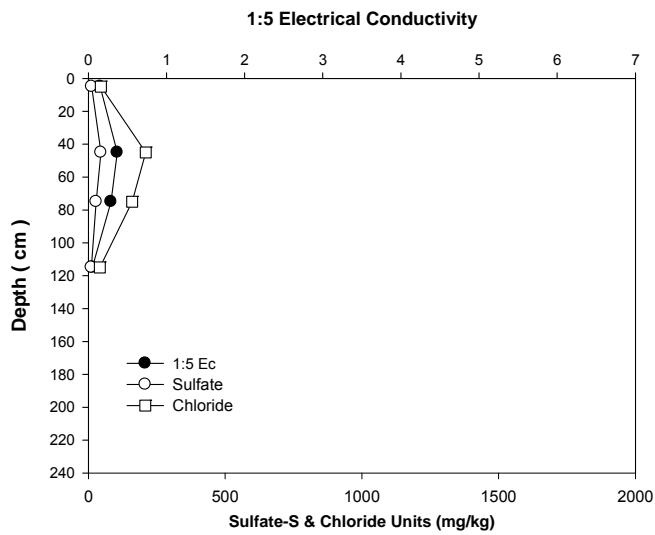
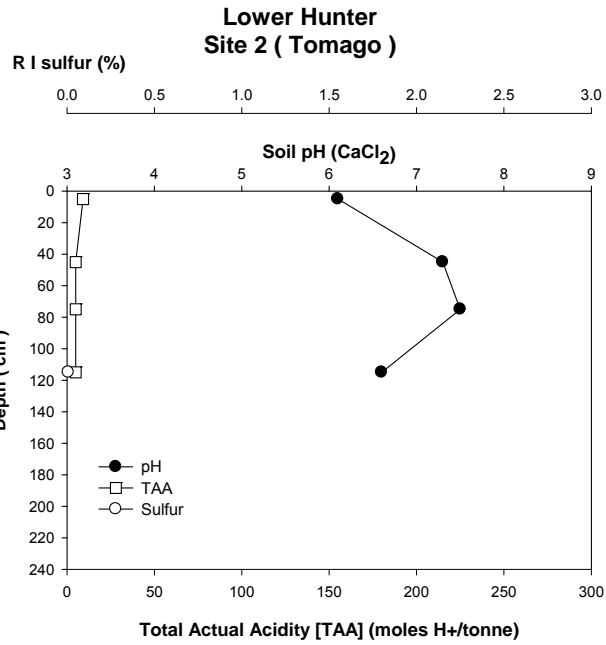
	Depth	Chloride	Sulfate-S	Aluminum	Calcium	Potassium	Magnesium	Sodium	Reduced Inorganic Sulfur
Hexham									
Site 1	0-10	270	NT	<0.03	5.7	1.3	11	4.9	0.017
	30-40	1200	NT	<0.03	4.6	1.3	11	8.5	0.023
	50-60	3200	NT	<0.03	4	1.7	9.5	7.6	0.106
	90-100	4700	NT	<0.03	4.7	1.9	11	7	1.736
Site 2	15-25	820	170	4.7	3.6	1.2	7	2.3	0.033
	50-60	1300	220	2.5	2	0.57	3.9	0.62	0.009
	70-80	1400	380	2.4	1.9	0.53	3.7	0.52	0.009
	85-95	1800	820	2.2	2.2	0.54	3.5	0.49	0.470
	125-135	2900	1200	0.038	4.4	1.1	6.2	1.3	0.984
Site 3	10-30	1200	200	1.5	3.6	1	6.1	2	NT
	50-60	1500	220	<0.03	2.8	0.84	5.6	2.3	0.024
Site 4	0-10	79	17	0.32	8.5	2.7	8.9	0.56	NT
	15-25	100	49	1.1	6.5	1.4	7	1.1	NT
	35-45	300	120	1	5.2	0.69	11	2.5	NT
	80-90	1600	200	<0.03	1.7	0.39	3.6	1.3	0.007
Site 5	10-20	400	57	<0.03	10	1	9	2.9	NT
	25-35	520	150	<0.03	11	1.3	11	3.6	NT
	40-50	330	280	<0.03	7.2	0.91	10	2.6	0.015
Shortland									
Site 2	52-58	350	NT	0.25	8.5	1.8	15	2.7	0.045
	80-90	1200	NT	0.78	6.3	1.7	15	2.9	0.032
	110-120	1600	NT	2.4	4.7	1.8	8.8	0.95	2.437
	140-150	2100	NT	<0.03	6.6	2.9	16	5	2.275

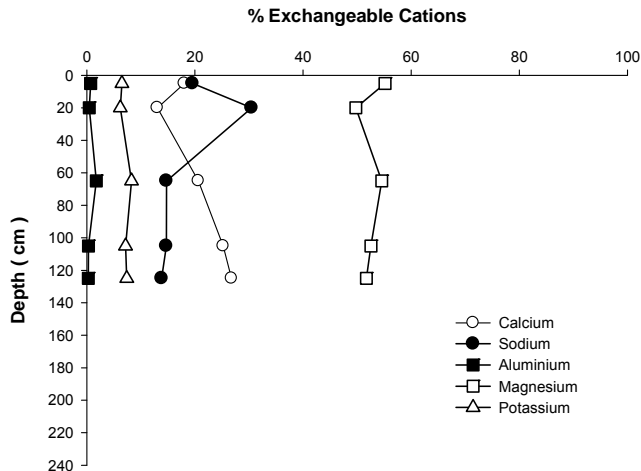
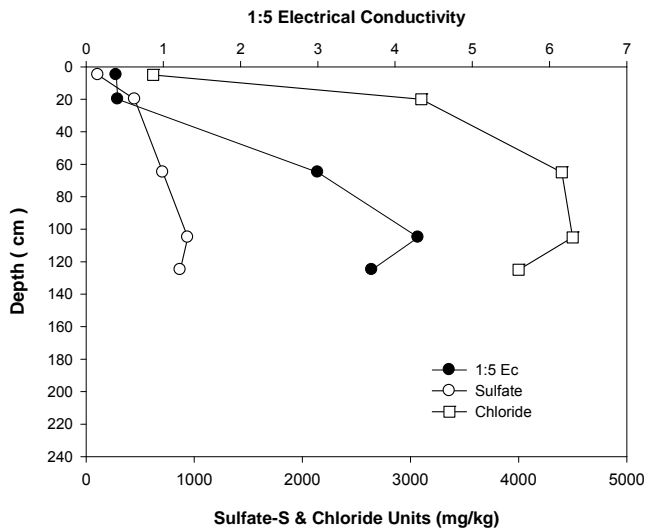
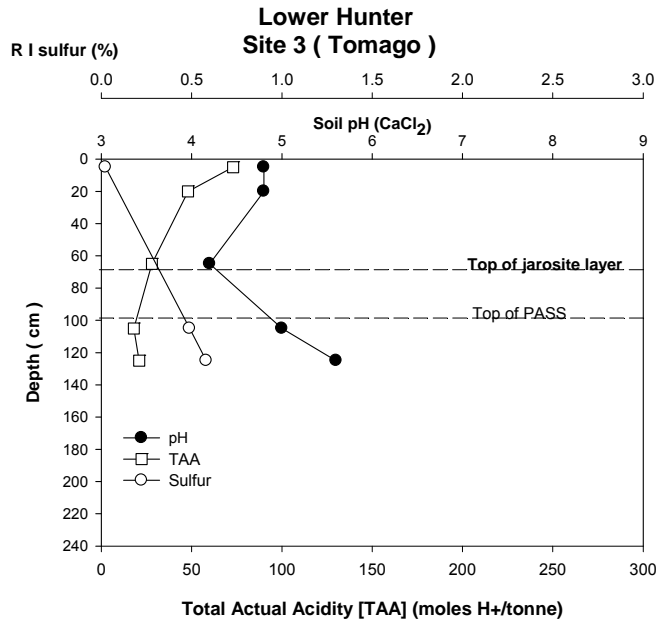
NT – Not Tested

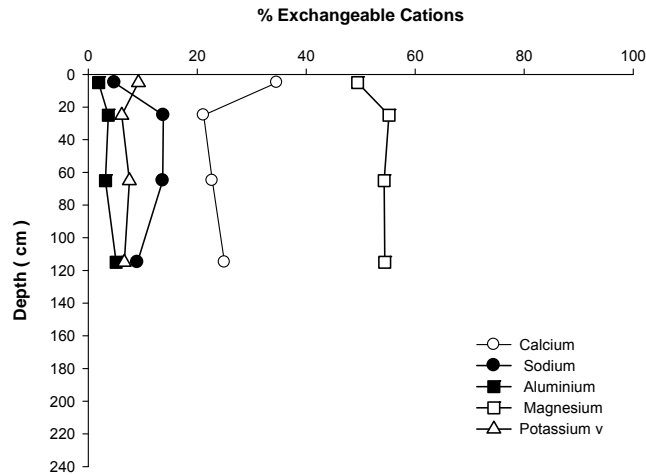
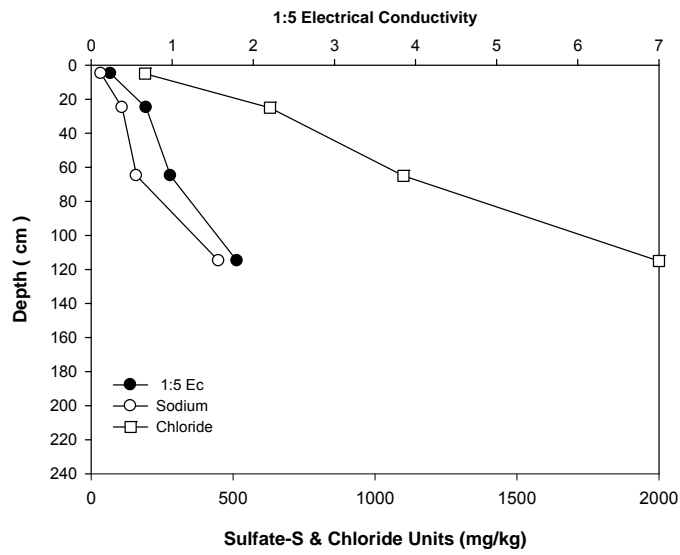
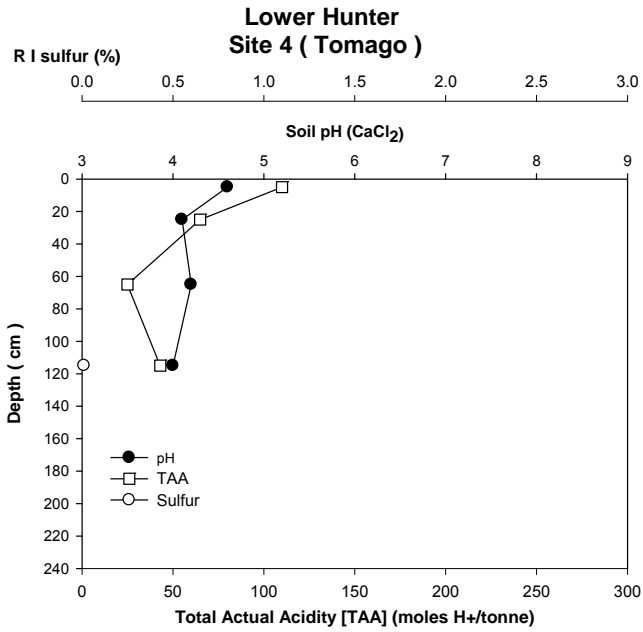
INS – Insufficient Sample

Lower Hunter Site 1 (Tomago)

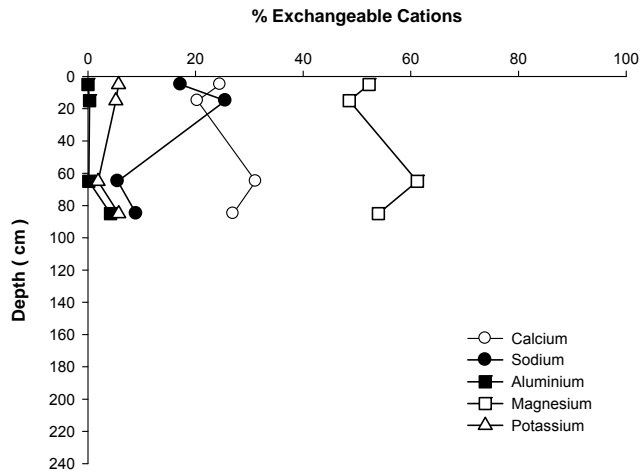
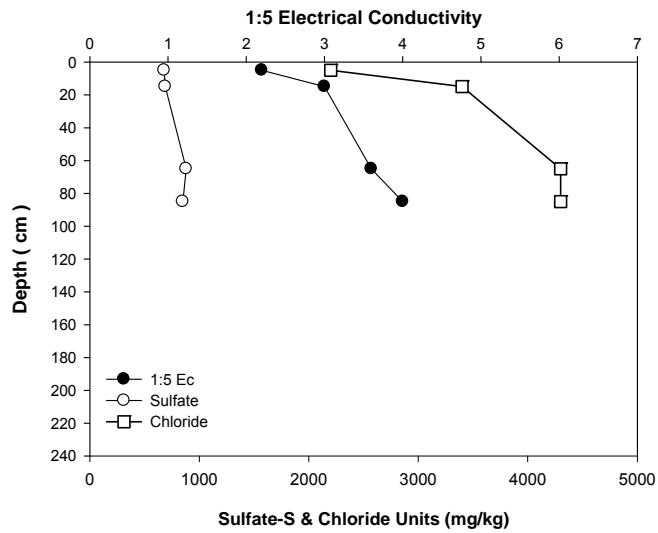
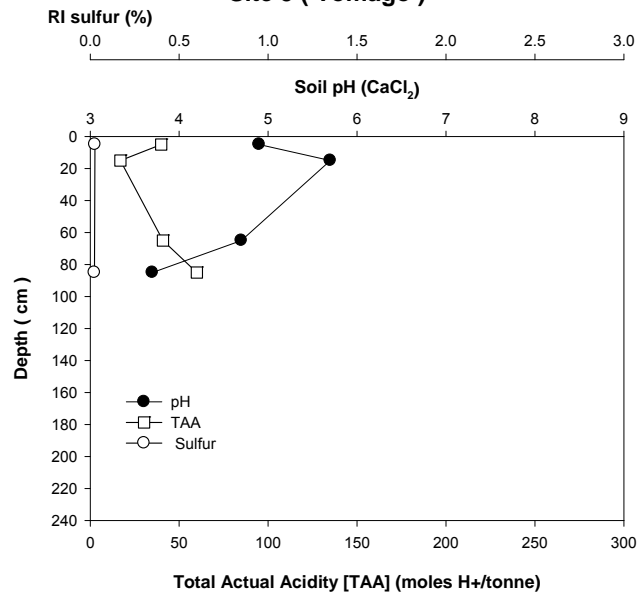


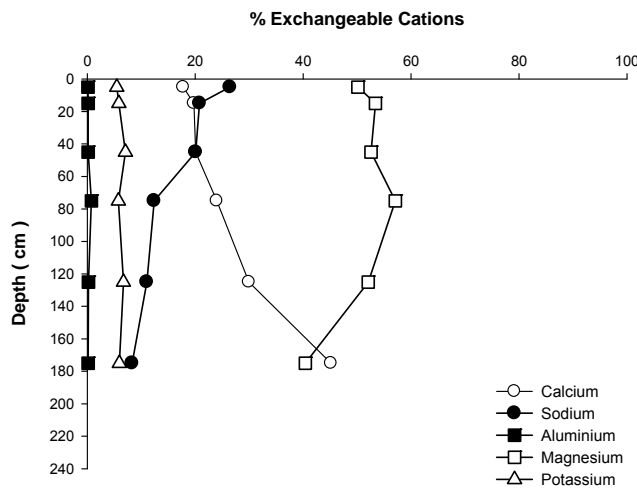
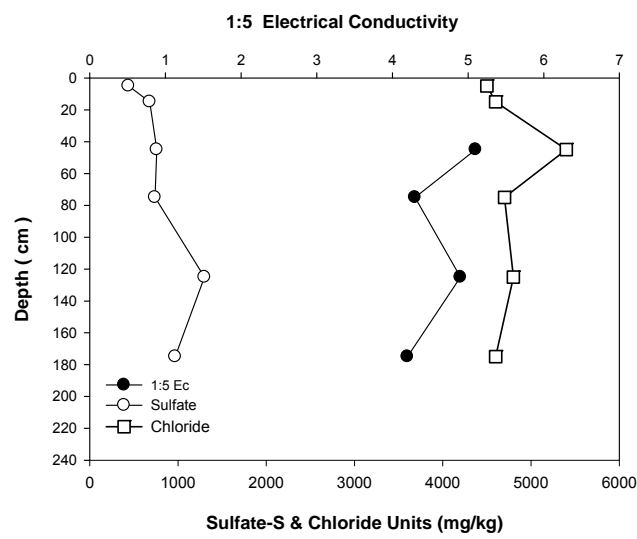
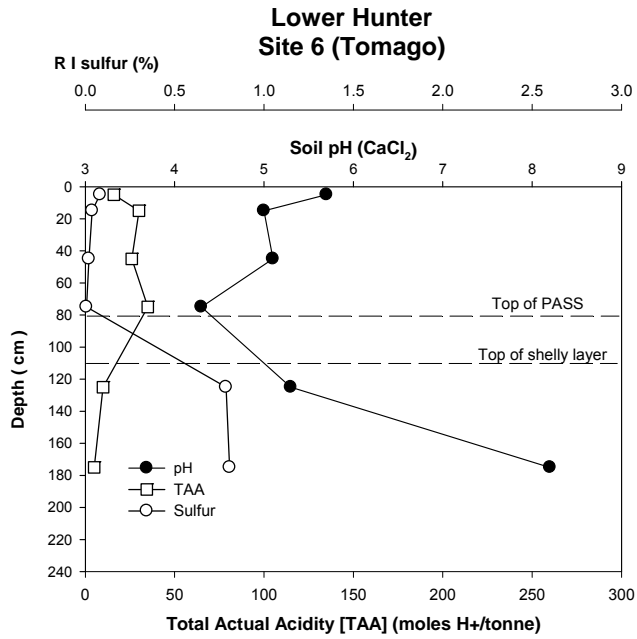


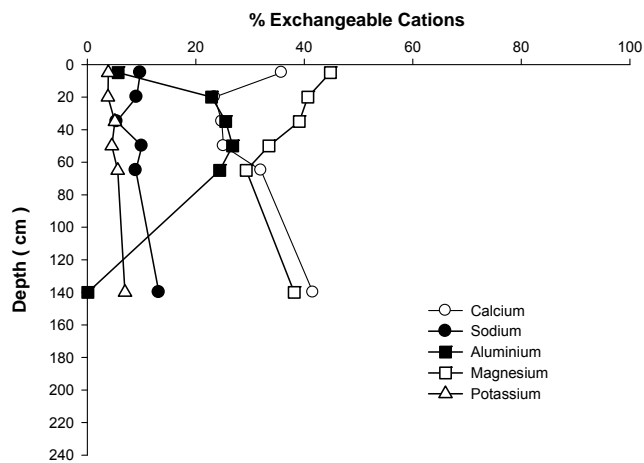
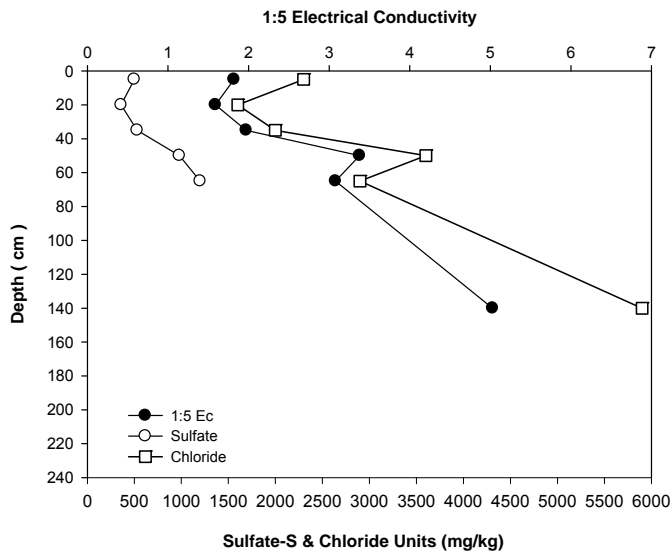
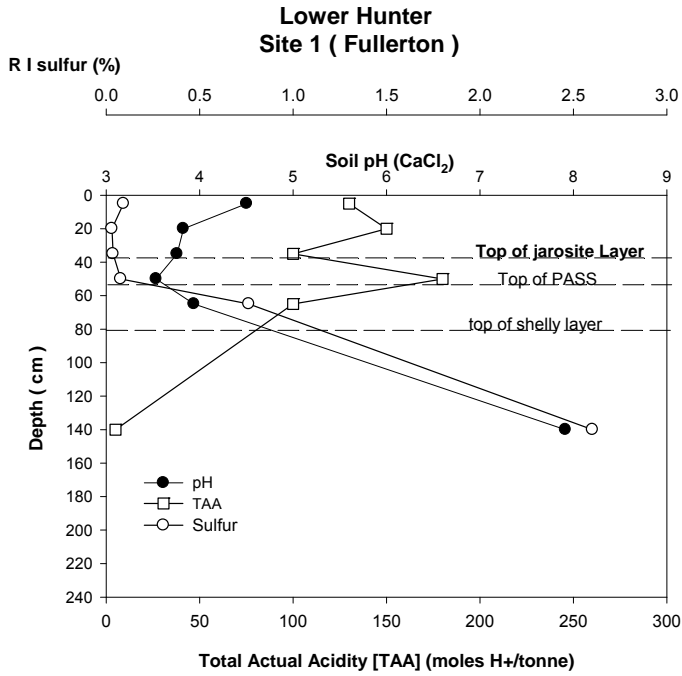


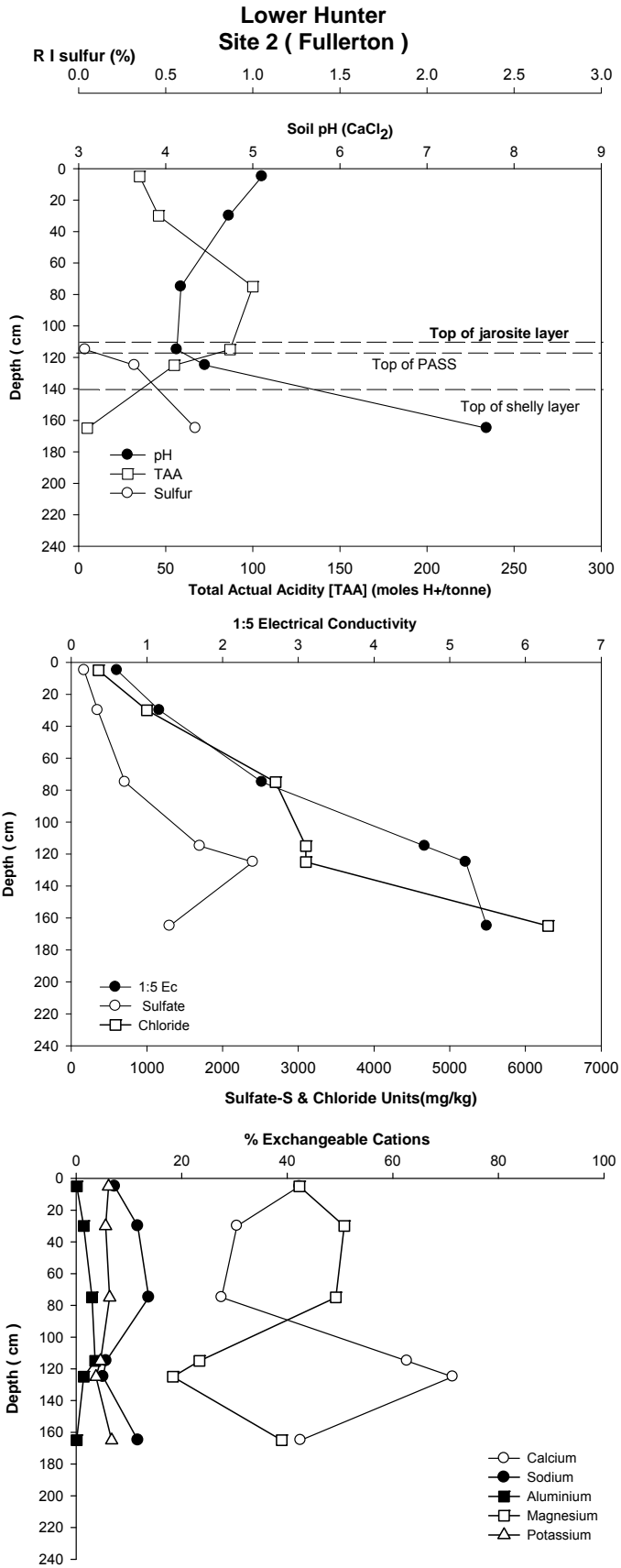


Lower Hunter Site 5 (Tomago)

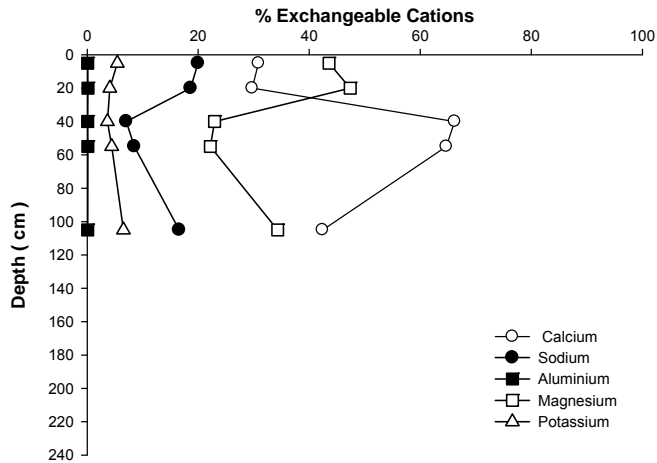
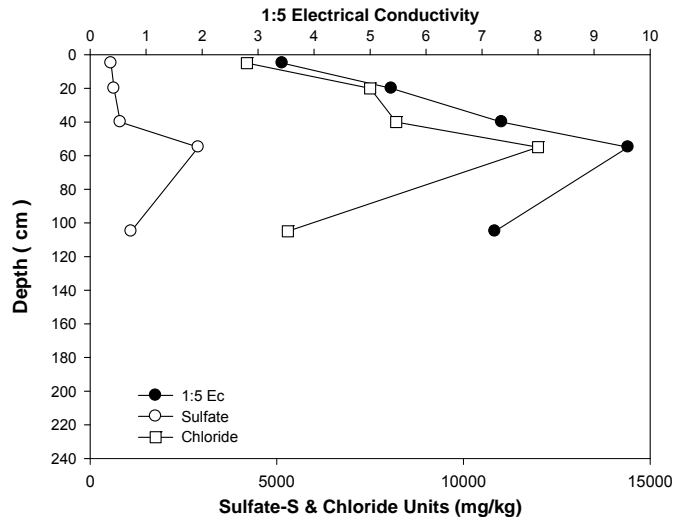
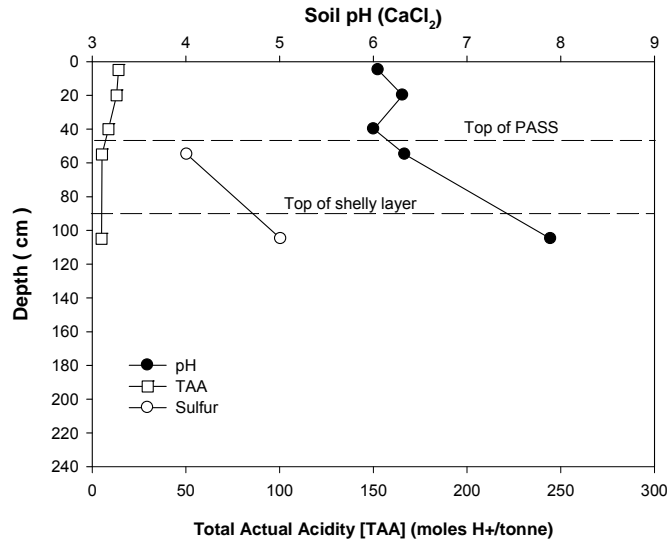




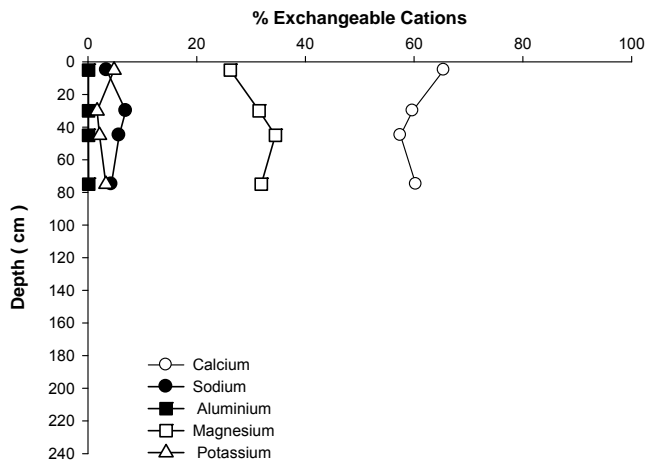
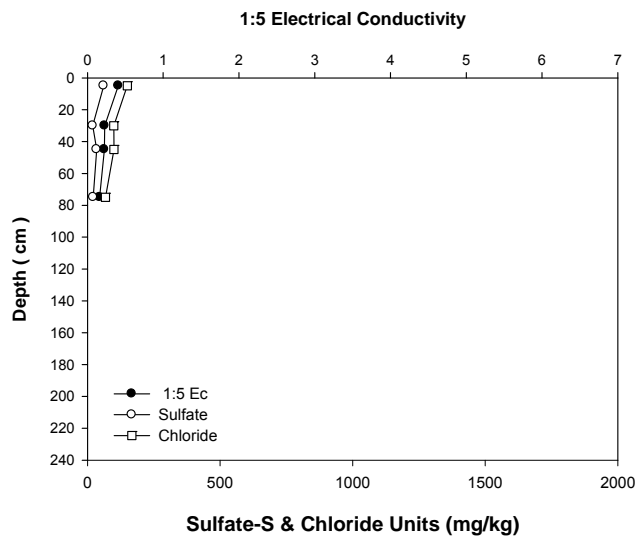
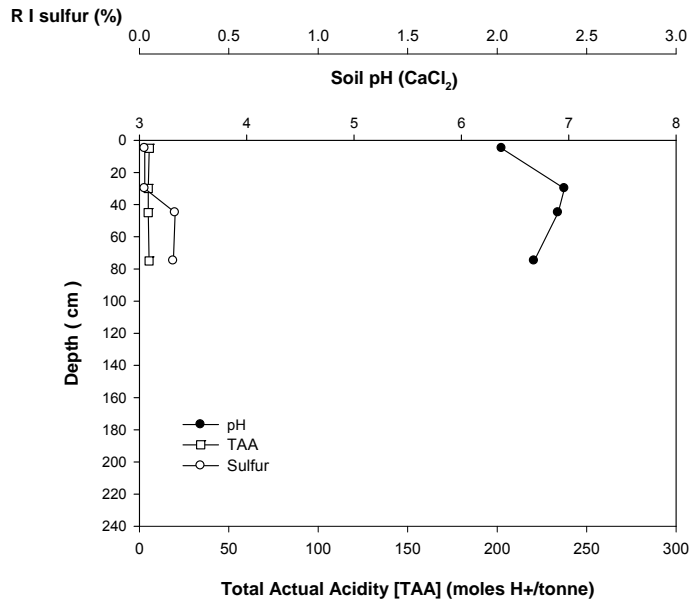




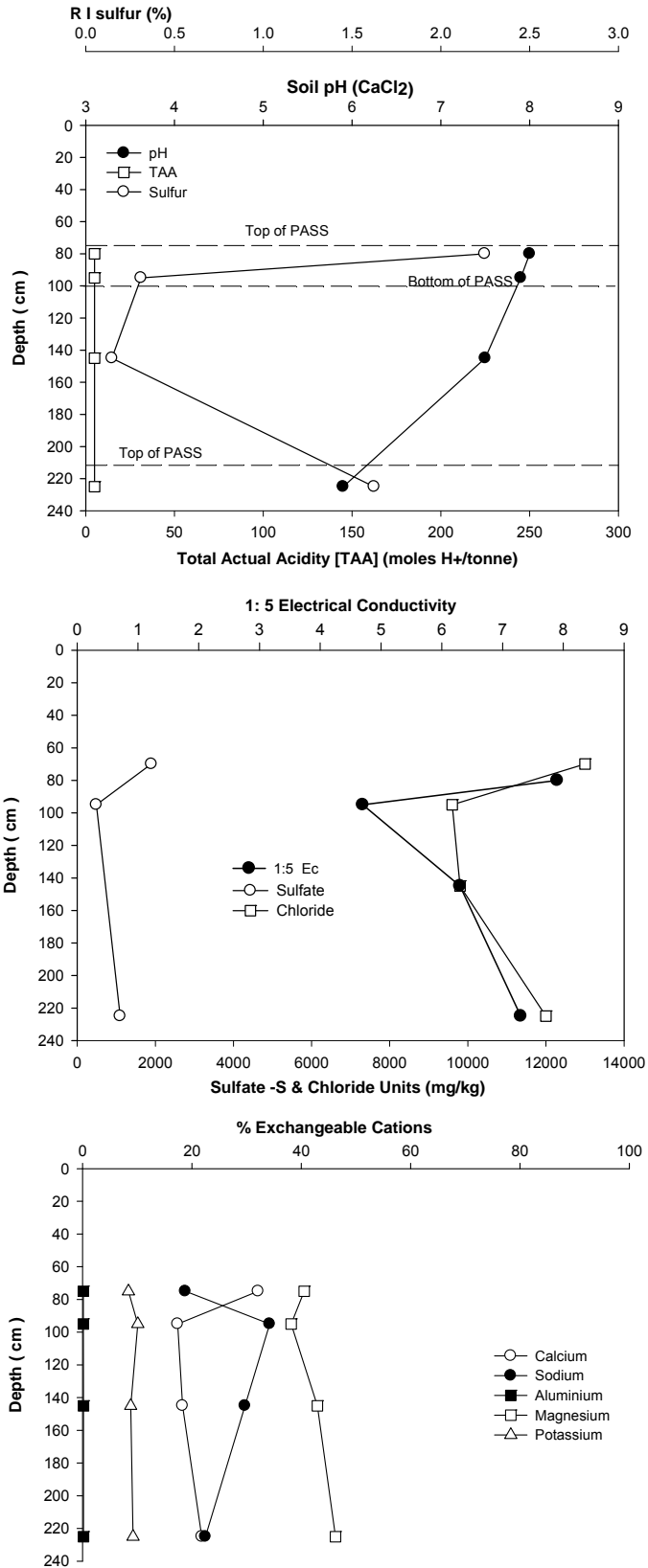
**Lower Hunter
Site 3 (Fullerton)**



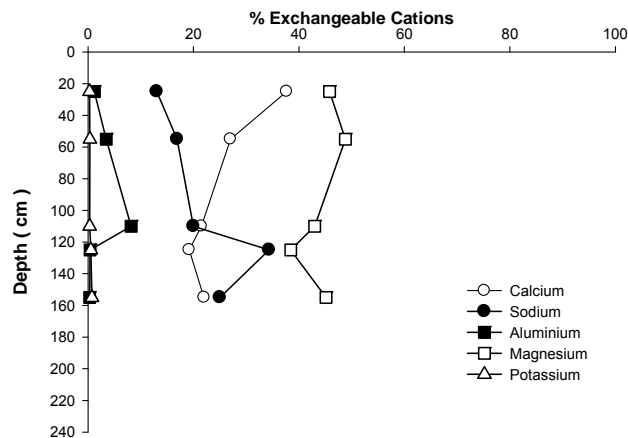
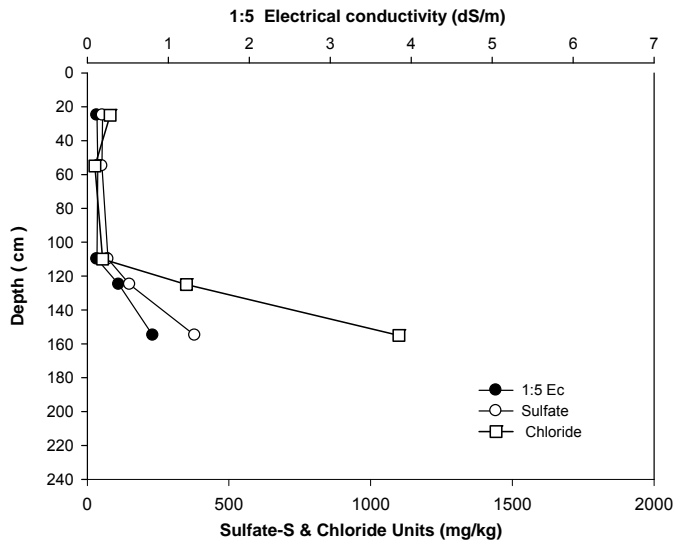
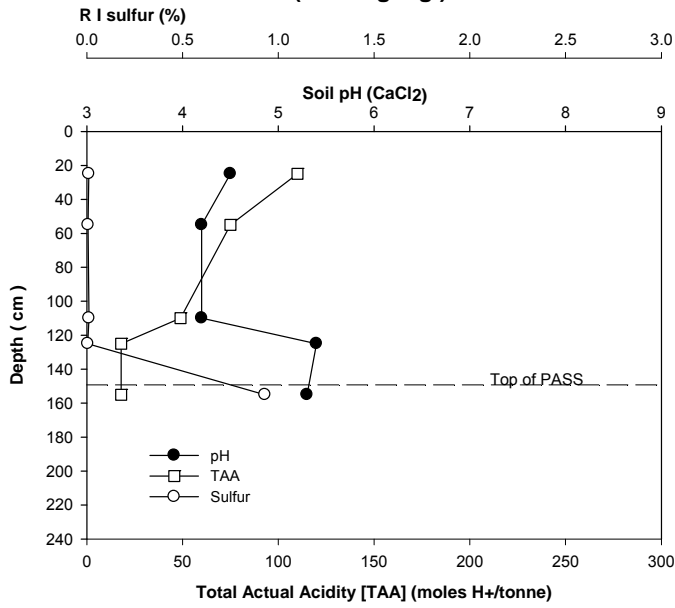
Lower Hunter Site 5 (Fullerton)



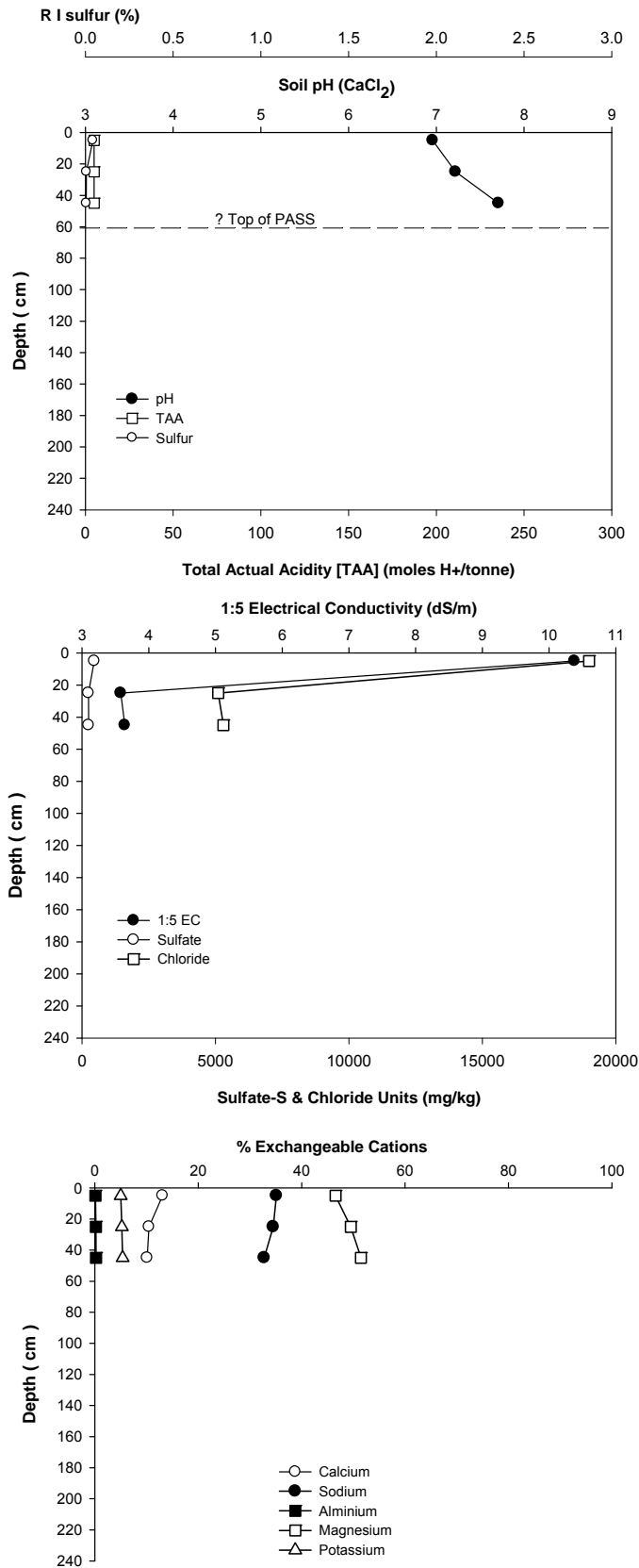
Lower Hunter Site 1 (Kooragang)



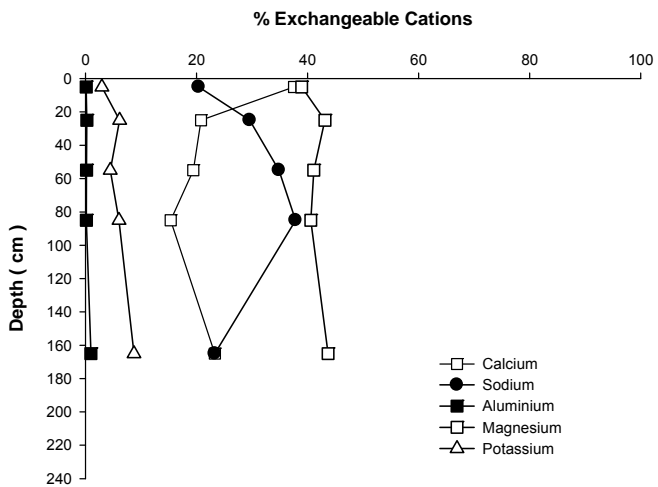
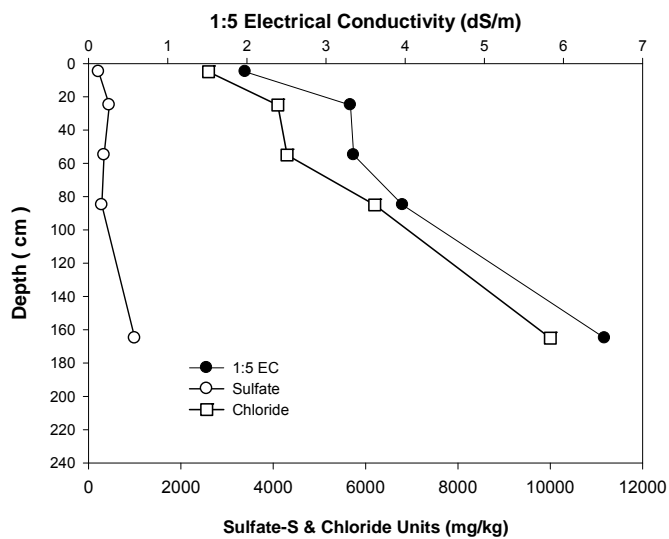
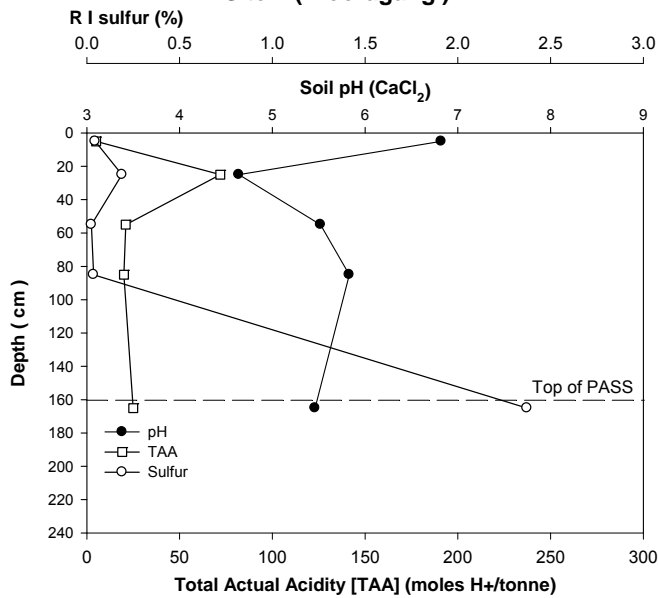
Lower Hunter Site 2 (Kooragang)



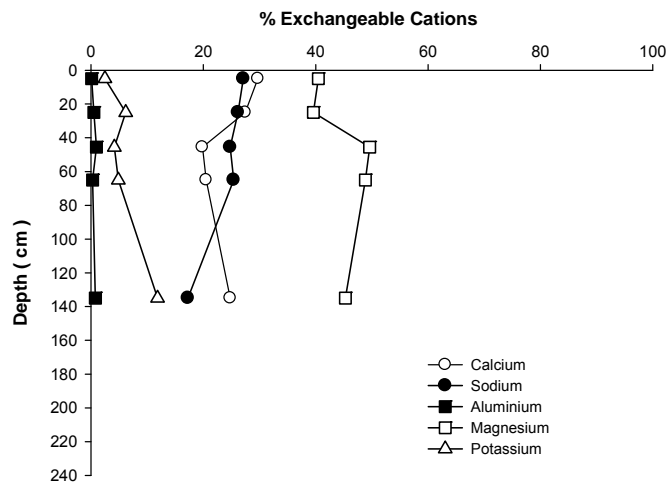
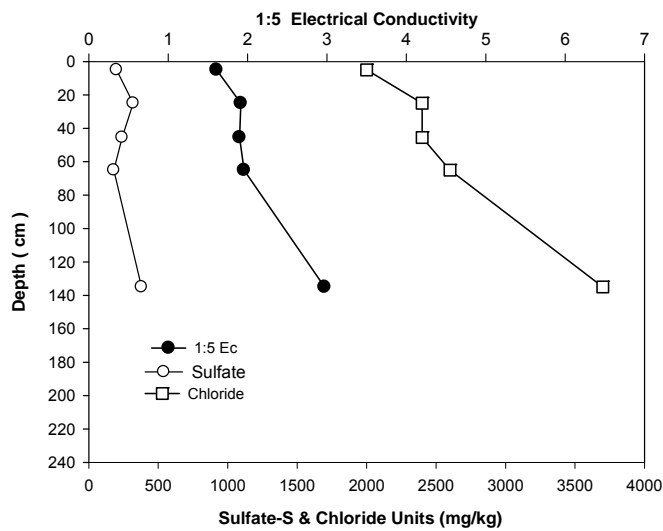
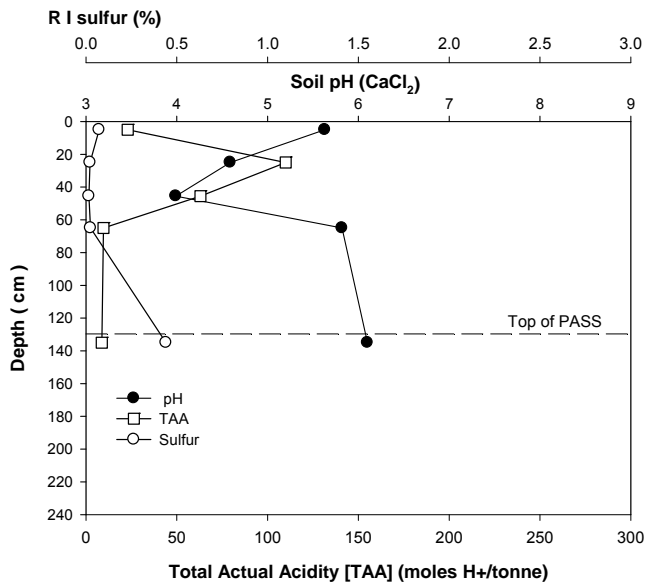
**Lower Hunter
Site 3 (Kooragang)**



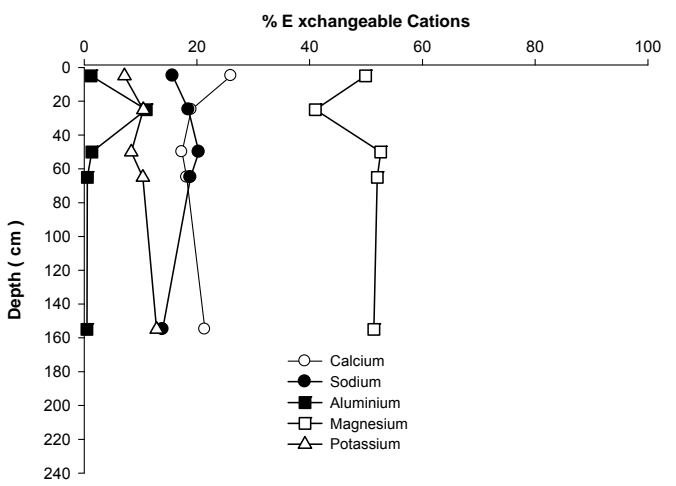
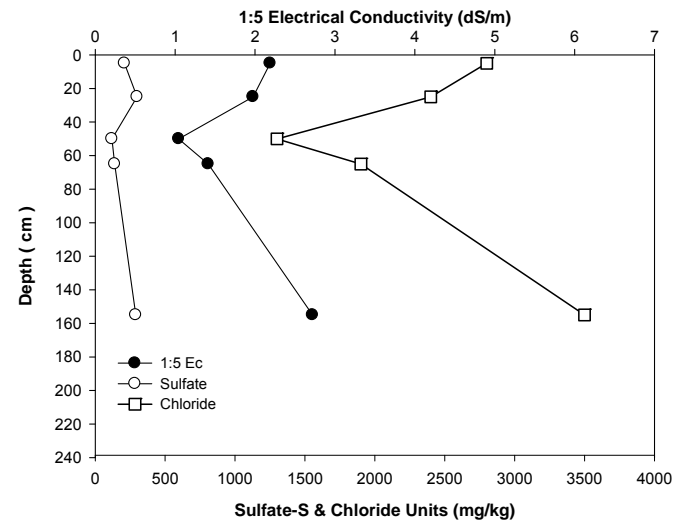
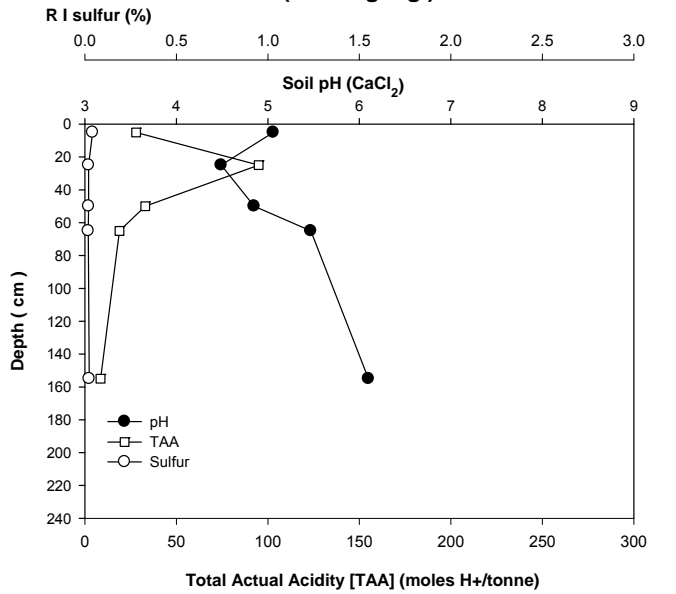
**Lower Hunter
Site 4 (Kooragang)**



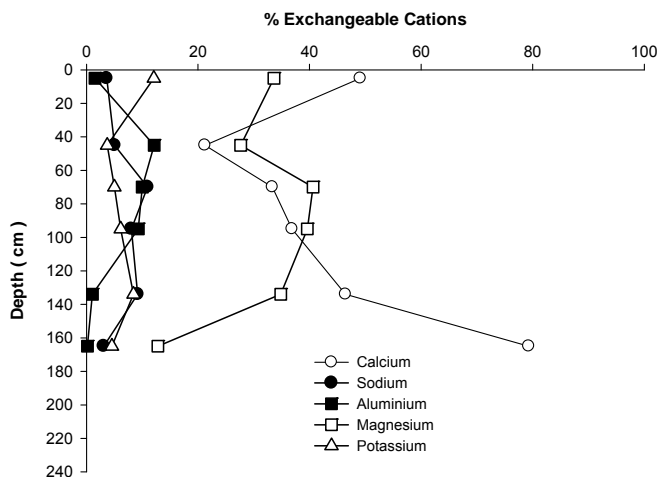
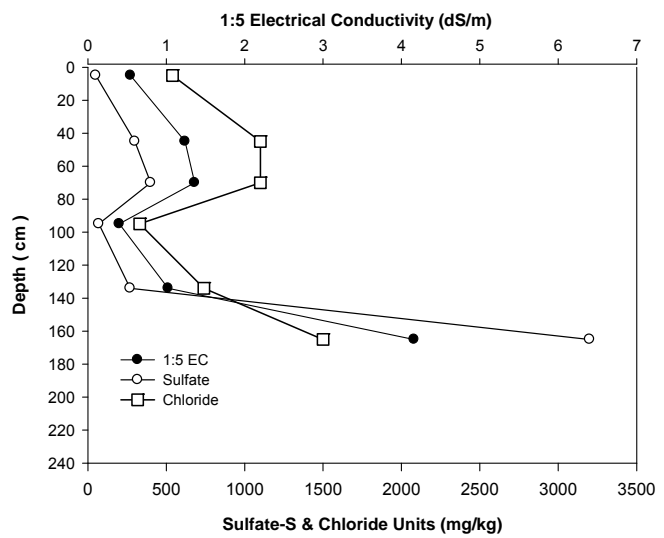
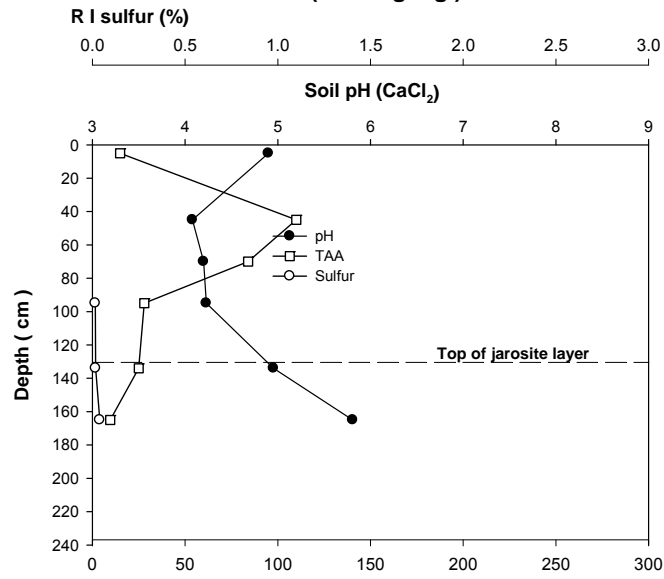
Lower Hunter
Site 5 (Kooragang)



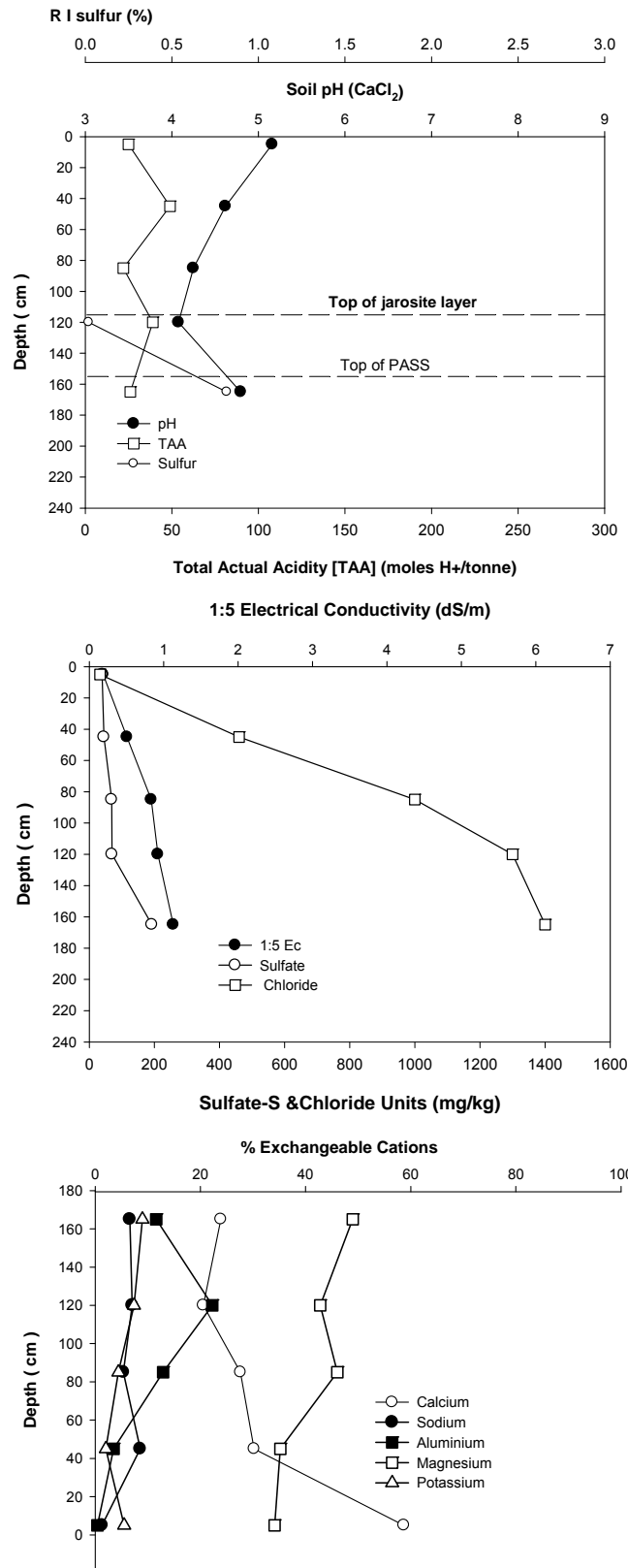
**Lower Hunter
Site 6 (Kooragang)**



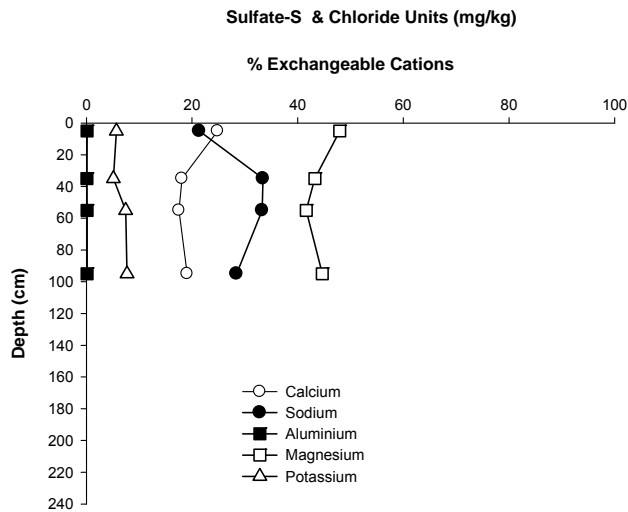
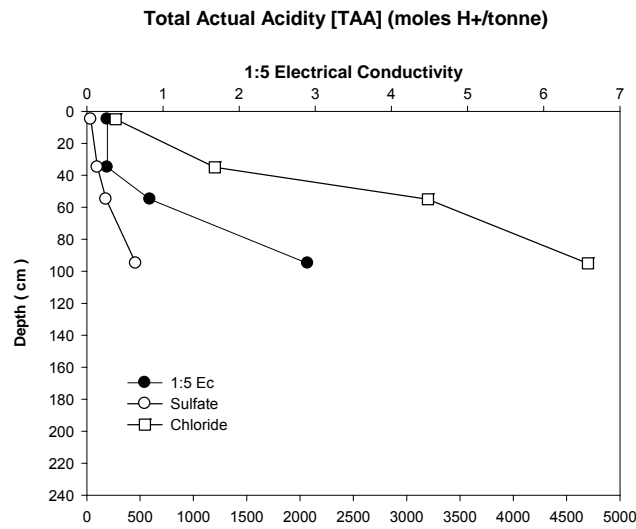
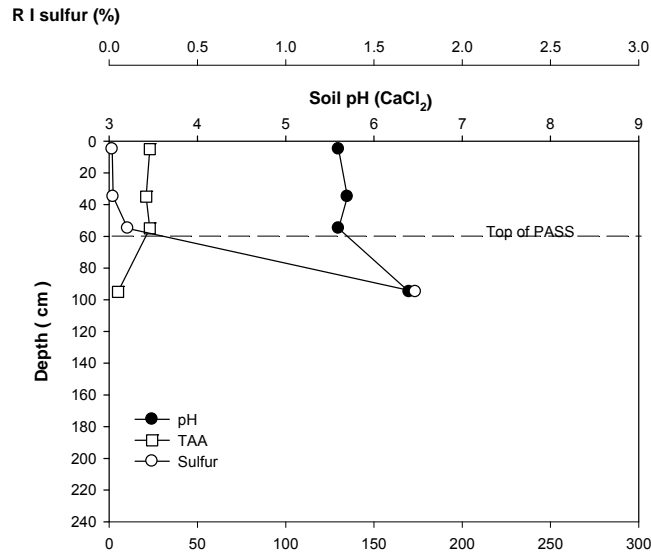
**Lower Hunter
Site 7 (Kooragang)**

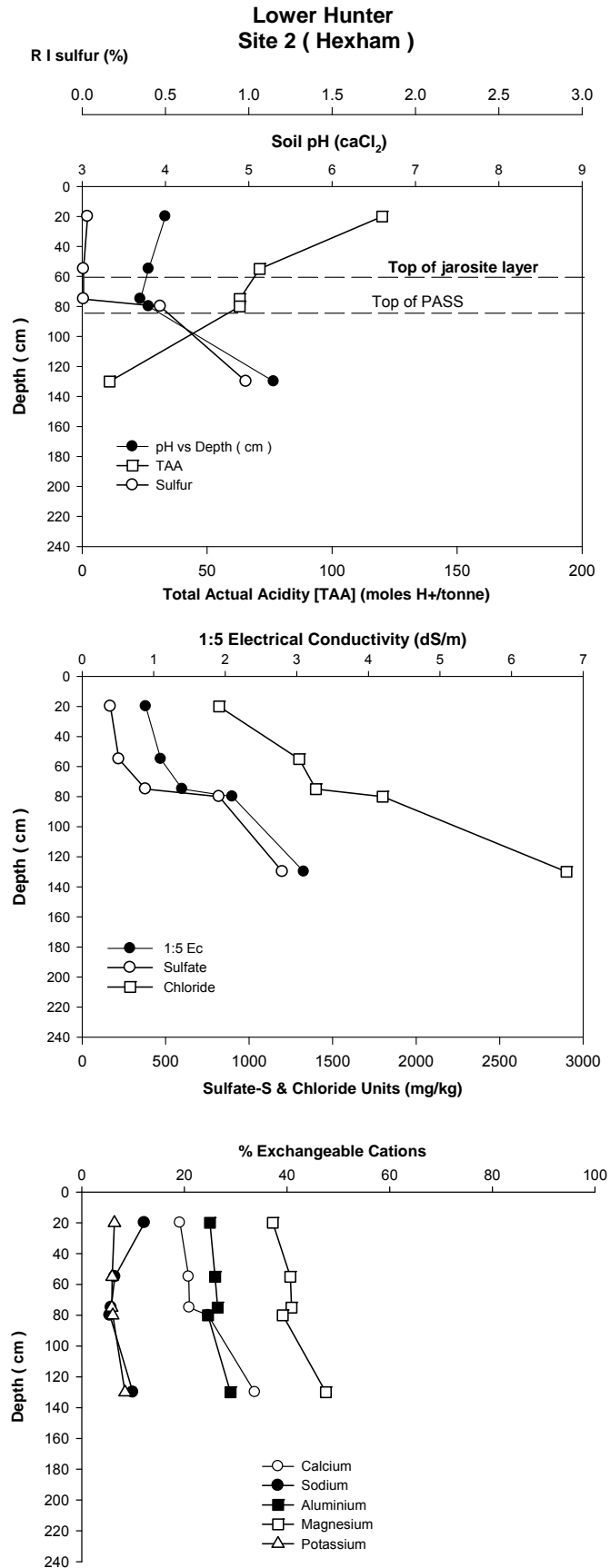


Lower Hunter Site 8 (Kooragang)

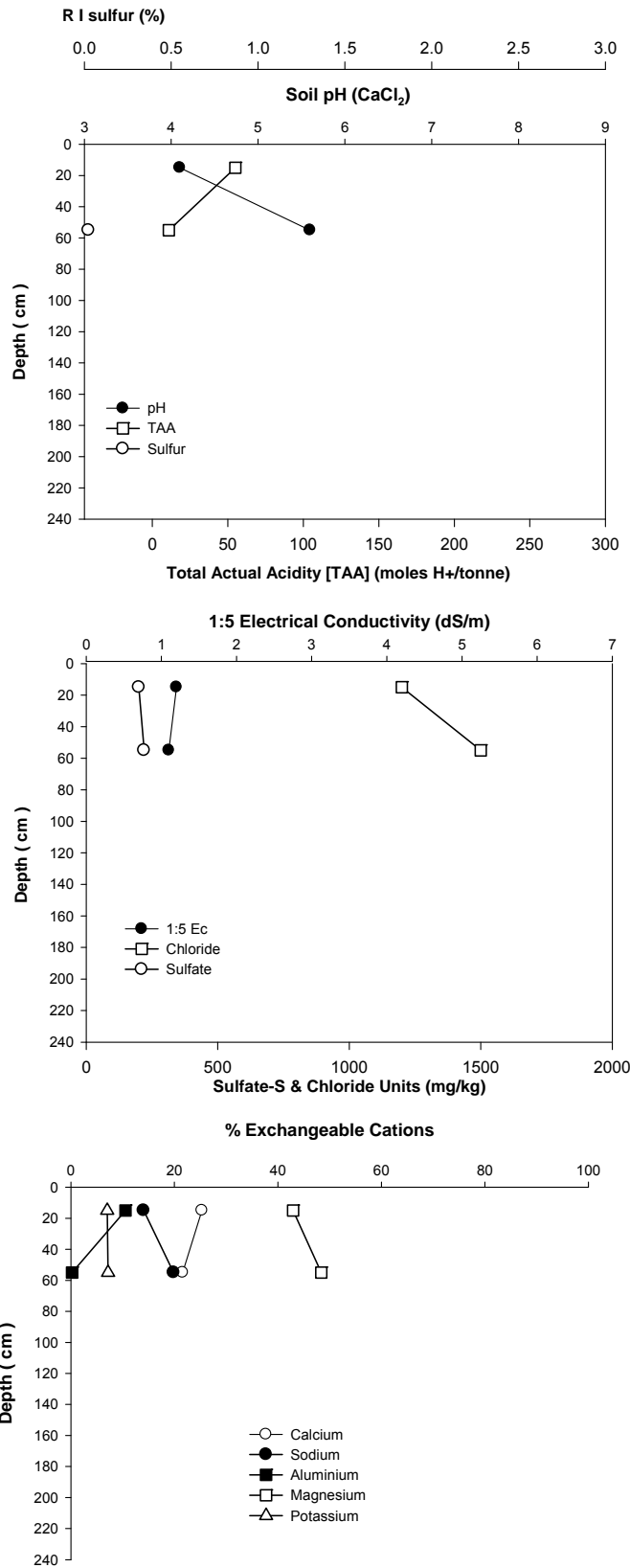


Lower Hunter Site 1 (Hexham)

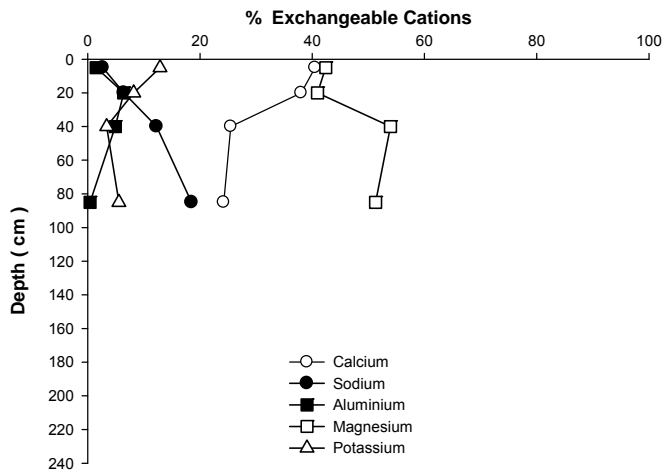
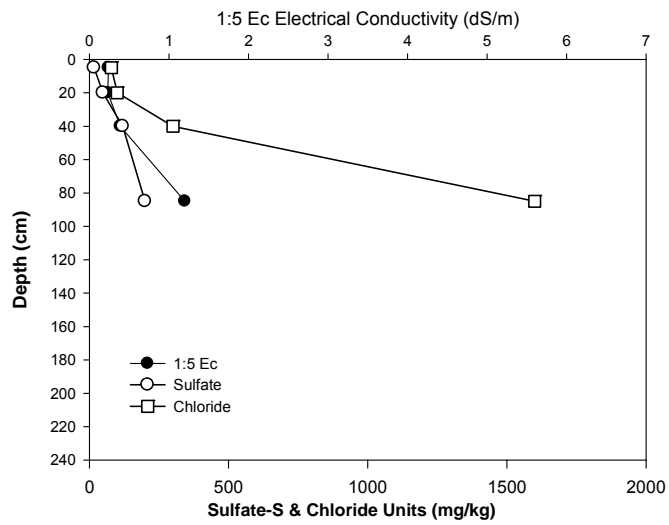
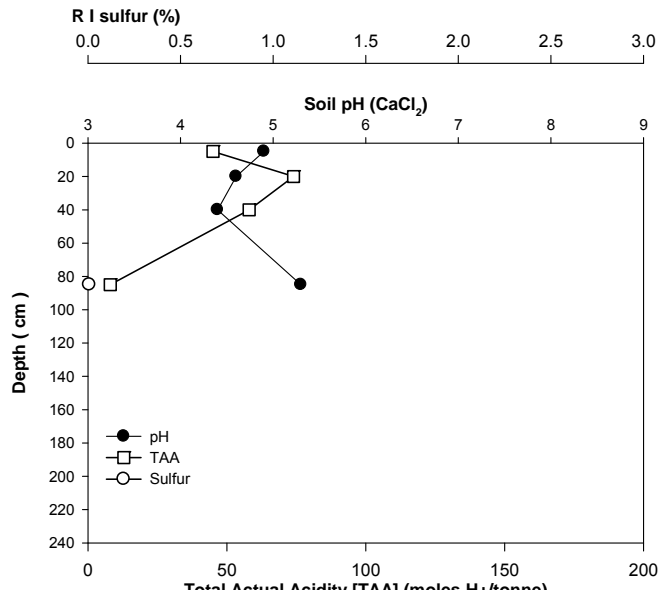




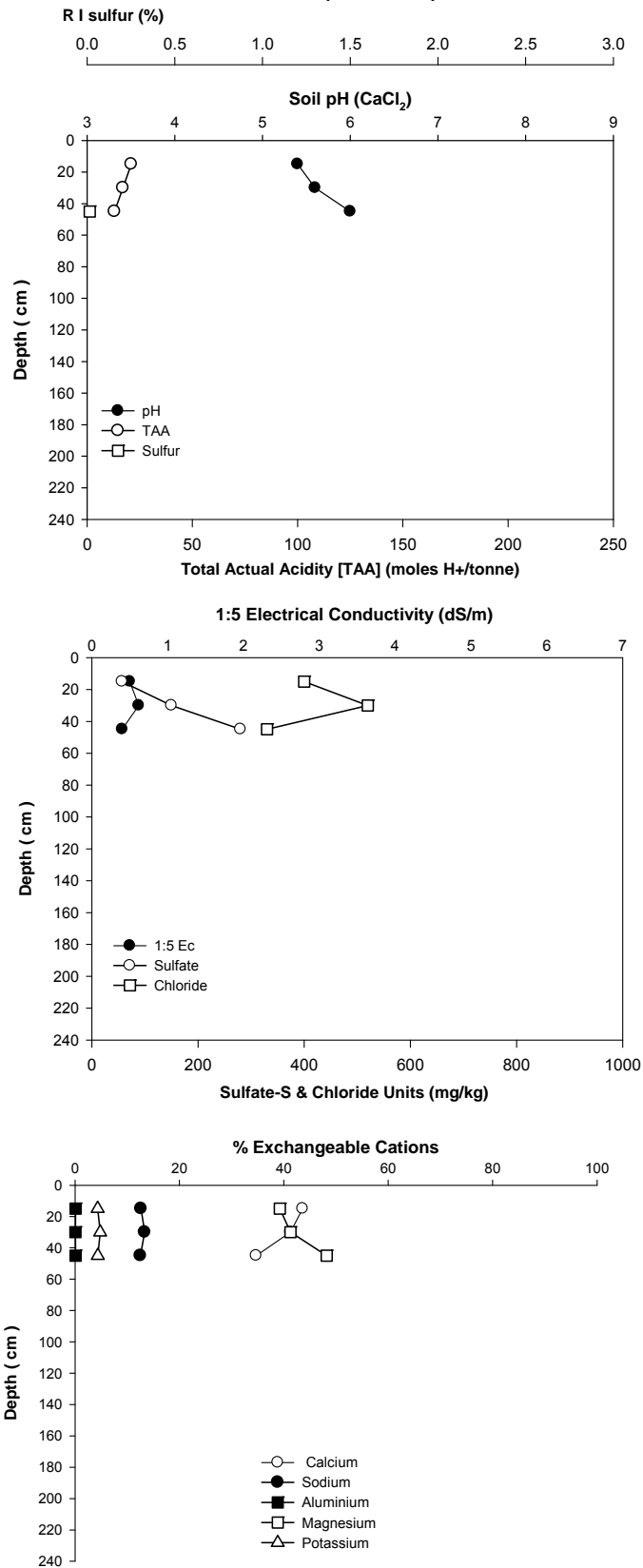
Lower Hunter Site 3 (Hexham)



Lower Hunter Site 4 (Hexham)



Lower Hunter Site 5 (Hexham)



**Lower Hunter
Site 2 (Shortland)**

