



Soil Monitoring Data December 2013

Published: 15 January 2014
 Licensee: Cargill Newcastle
 EPL no.: 5810

EPA Point ID	Date of Sampling	Date Results Received	Pollutant	Measurement Period and Monitoring Frequency Required by Licence	Units of Measure	December 2013		
						Min Value	Mean Value	Max Value
14 – Surface	16-17/12/13	08/01/14	pH	Yearly	pH	6.9	7.2	7.6
			Available Phosphorus (Bray)*	Yearly	mg/kg	2.5	6.2	13.9
			Available Phosphorus (Colwell)**	Yearly	mg/kg	38.0	114.5	306.0
			Chloride	Yearly	mg/kg	40.0	101.7	340.0
			Conductivity	Yearly	µS/cm	130.0	245.5	466.0
			Exchangeable Calcium	Yearly	meq/100g	6.9	9.1	13.5
			Exchangeable Magnesium	Yearly	meq/100g	0.9	1.4	2.5
			Exchangeable Potassium	Yearly	meq/100g	0.3	0.4	0.5
			Exchangeable Sodium	Yearly	meq/100g	0.4	0.8	1.6
			Cation Exchange Capacity	Yearly	meq/100g	8.9	11.6	15.3
			Moisture Content	Yearly	%	10.1	18.0	26.5
14 – Sub-surface	16-17/12/13	08/01/14	pH	Yearly	pH	7.1	7.4	7.8
			Available Phosphorus (Bray)*	Yearly	mg/kg	1.6	2.7	3.8
			Available Phosphorus (Colwell)**	Yearly	mg/kg	17.0	38.3	67.0
			Chloride	Yearly	mg/kg	10.0	31.7	60.0
			Conductivity	Yearly	µS/cm	85.0	123.5	212.0
			Exchangeable Calcium	Yearly	meq/100g	4.6	7.1	14.3
			Exchangeable Magnesium	Yearly	meq/100g	0.6	0.8	1.1
			Exchangeable Potassium	Yearly	meq/100g	0.1	0.2	0.3
			Exchangeable Sodium	Yearly	meq/100g	0.2	0.6	0.8
			Cation Exchange Capacity	Yearly	meq/100g	5.9	8.6	15.8
			Moisture Content	Yearly	%	8.4	12.0	15.5



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						Min Value	Mean Value	Max Value
15 – Surface	16-17/12/13	08/01/14	pH	Yearly	pH	7.4	7.5	7.7
			Available Phosphorus (Bray)*	Yearly	mg/kg	1.8	3.1	4.6
			Available Phosphorus (Colwell)**	Yearly	mg/kg	34	41.7	51
			Chloride	Yearly	mg/kg	30	106.7	240
			Conductivity	Yearly	µS/cm	131	220.0	378
			Exchangeable Calcium	Yearly	meq/100g	5.1	8.6	15
			Exchangeable Magnesium	Yearly	meq/100g	0.4	0.9	1.7
			Exchangeable Potassium	Yearly	meq/100g	0.1	0.2	0.4
			Exchangeable Sodium	Yearly	meq/100g	0.3	0.4	0.6
			Cation Exchange Capacity	Yearly	meq/100g	5.9	10.1	17.6
			Moisture Content	Yearly	%	8.5	15.9	27.7
15 – Sub-surface	16-17/12/13	08/01/14	pH	Yearly	pH	7.7	7.9	8.0
			Available Phosphorus (Bray)*	Yearly	mg/kg	<1.0	1.6	2.9
			Available Phosphorus (Colwell)**	Yearly	mg/kg	8.0	12.0	19.0
			Chloride	Yearly	mg/kg	10.0	13.3	20.0
			Conductivity	Yearly	µS/cm	79.0	93.3	115.0
			Exchangeable Calcium	Yearly	meq/100g	5.3	5.5	5.8
			Exchangeable Magnesium	Yearly	meq/100g	0.2	0.2	0.3
			Exchangeable Potassium	Yearly	meq/100g	<0.1	<0.1	<0.1
			Exchangeable Sodium	Yearly	meq/100g	0.2	0.2	0.2
			Cation Exchange Capacity	Yearly	meq/100g	5.7	5.9	6.3
			Moisture Content	Yearly	%	6.8	9.2	11.9



EPA Point ID	Sampling Date	Date Results Received	Pollutant	Measurement Period and Monitoring Frequency Required by Licence	Units of Measure	December 2013		
						Min Value	Mean Value	Max Value
16 – Surface	16-17/12/13	08/01/14	pH	Yearly	pH	7.6	7.6	7.7
			Available Phosphorus (Bray)*	Yearly	mg/kg	2.3	7.0	11.6
			Available Phosphorus (Colwell)**	Yearly	mg/kg	40	94.3	140
			Chloride	Yearly	mg/kg	20	133.3	300
			Conductivity	Yearly	µS/cm	176	274.7	385
			Exchangeable Calcium	Yearly	meq/100g	8.3	10.2	13.3
			Exchangeable Magnesium	Yearly	meq/100g	0.6	1.1	1.8
			Exchangeable Potassium	Yearly	meq/100g	0.2	0.3	0.3
			Exchangeable Sodium	Yearly	meq/100g	0.2	0.5	0.9
			Cation Exchange Capacity	Yearly	meq/100g	9.4	12.1	16.4
			Moisture Content	Yearly	%	10.6	18.8	29.3
16 – Sub-surface	16-17/12/13	08/01/14	pH	Yearly	pH	8.0	8.1	8.2
			Available Phosphorus (Bray)*	Yearly	mg/kg	1.2	2.2	3.9
			Available Phosphorus (Colwell)**	Yearly	mg/kg	9.0	26.0	39.0
			Chloride	Yearly	mg/kg	10.0	43.3	110.0
			Conductivity	Yearly	µS/cm	107.0	138.7	188.0
			Exchangeable Calcium	Yearly	meq/100g	7.7	8.8	9.9
			Exchangeable Magnesium	Yearly	meq/100g	0.4	0.5	0.7
			Exchangeable Potassium	Yearly	meq/100g	<0.1	<0.1	0.2
			Exchangeable Sodium	Yearly	meq/100g	0.1	0.3	0.6
			Cation Exchange Capacity	Yearly	meq/100g	8.4	9.7	10.6
			Moisture Content	Yearly	%	7.7	9.2	11.4



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						Min Value	Mean Value	Max Value
17 – Surface	16-17/12/13	08/01/14	pH	Yearly	pH	7	7.3	7.6
			Available Phosphorus (Bray)*	Yearly	mg/kg	3.8	10.6	30
			Available Phosphorus (Colwell)**	Yearly	mg/kg	55	158.3	321
			Chloride	Yearly	mg/kg	70	216.7	330
			Conductivity	Yearly	µS/cm	267	385.3	519
			Exchangeable Calcium	Yearly	meq/100g	6.1	7.4	9
			Exchangeable Magnesium	Yearly	meq/100g	0.6	0.8	0.9
			Exchangeable Potassium	Yearly	meq/100g	0.1	0.2	0.3
			Exchangeable Sodium	Yearly	meq/100g	0.3	0.5	0.7
			Cation Exchange Capacity	Yearly	meq/100g	7.3	8.8	10.4
			Moisture Content	Yearly	%	14.8	26.2	41.5
17 – Sub-surface	16-17/12/13	08/01/14	pH	Yearly	pH	7.6	7.8	7.9
			Available Phosphorus (Bray)*	Yearly	mg/kg	1.2	2.6	6.5
			Available Phosphorus (Colwell)**	Yearly	mg/kg	19	39.5	48
			Chloride	Yearly	mg/kg	10	36.7	50
			Conductivity	Yearly	µS/cm	96	162.5	199
			Exchangeable Calcium	Yearly	meq/100g	4.8	6.2	7.6
			Exchangeable Magnesium	Yearly	meq/100g	0.2	0.2	0.3
			Exchangeable Potassium	Yearly	meq/100g	<0.1	<0.1	<0.1
			Exchangeable Sodium	Yearly	meq/100g	0.2	0.4	0.5
			Cation Exchange Capacity	Yearly	meq/100g	5.4	6.9	8.3
			Moisture Content	Yearly	%	4.8	12.7	17.9