

## Soil Monitoring Data December 2018

Point 14

Published: 15/01/2019 Licensee: Cargill Newcastle EPL no.: 5810								
EPA Point ID	Date of Sampling	Date Results Received	Pollutant	Measurement Period & Monitoring Frequency Required by EPL	Units of Measure	December 2018		
						Min Value	Mean Value	Max Value
14 – Surface	04/12/2018	19/12/2018	pH	Yearly	pH	5.7	7.0	7.7
			Available Phosphorus (Bray)	Yearly	mg/kg	14.2	24.7	41.1
			Available Phosphorus (Colwell)	Yearly	mg/kg	23	79	142
			Chloride	Yearly	mg/kg	110	182	260
			Conductivity	Yearly	µS/cm	186	273	336
			Exchangeable Calcium	Yearly	meq/100g	0.4	2.8	8.4
			Exchangeable Magnesium	Yearly	meq/100g	<0.1	0.6	1.6
			Exchangeable Potassium	Yearly	meq/100g	<0.1	0	0.2
			Exchangeable Sodium	Yearly	meq/100g	0.6	1.4	2.2
			Cation Exchange Capacity	Yearly	meq/100g	1.2	4.8	11.6
			Moisture Content	Yearly	%	23.6	34.5	50.8
14 – Sub-surface	04/12/2018	19/12/2018	pH	Yearly	pH	7.2	8.1	8.7
			Available Phosphorus (Bray)	Yearly	mg/kg	6.0	13.9	17.8
			Available Phosphorus (Colwell)	Yearly	mg/kg	18	32	63
			Chloride	Yearly	mg/kg	40	50	70
			Conductivity	Yearly	µS/cm	98	143	179
			Exchangeable Calcium	Yearly	meq/100g	0.6	2.1	4.6
			Exchangeable Magnesium	Yearly	meq/100g	<0.2	0	0.3
			Exchangeable Potassium	Yearly	meq/100g	<0.1	<0.1	<0.2
			Exchangeable Sodium	Yearly	meq/100g	<0.2	2	2.6
			Cation Exchange Capacity	Yearly	meq/100g	0.6	3.0	5.4
			Moisture Content	Yearly	%	9.6	16.4	20.2

Point 15

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EPA Point ID	Date of Sampling	Date Results Received	Pollutant	Measurement Period & Monitoring Frequency Required by EPL	Units of Measure	December 2018		
						Min Value	Mean Value	Max Value
15 – Surface	04/12/2018	19/12/2018	pH	Yearly	pH	7.5	8.3	9.0
			Available Phosphorus (Bray)	Yearly	mg/kg	3.6	5.0	6.9
			Available Phosphorus (Colwell)	Yearly	mg/kg	8	14	17
			Chloride	Yearly	mg/kg	20	50	100
			Conductivity	Yearly	µS/cm	74	115	196
			Exchangeable Calcium	Yearly	meq/100g	1.6	2.4	3.0
			Exchangeable Magnesium	Yearly	meq/100g	<0.2	<0.2	<0.2
			Exchangeable Potassium	Yearly	meq/100g	<0.2	<0.2	0.2
			Exchangeable Sodium	Yearly	meq/100g	<0.2	<0.2	<0.2
			Cation Exchange Capacity	Yearly	meq/100g	1.6	2.6	3.2
			Moisture Content	Yearly	%	5.0	15.6	30.7
15 – Sub-surface	04/12/2018	19/12/2018	pH	Yearly	pH	8.7	8.9	9.0
			Available Phosphorus (Bray)*	Yearly	mg/kg	1.3	1.9	2.5
			Available Phosphorus (Colwell)**	Yearly	mg/kg	<5	<5	<5
			Chloride	Yearly	mg/kg	<10	10	20
			Conductivity	Yearly	µS/cm	75	75	76
			Exchangeable Calcium	Yearly	meq/100g	<0.2	0.2	0.5
			Exchangeable Magnesium	Yearly	meq/100g	<0.2	<0.2	<0.2
			Exchangeable Potassium	Yearly	meq/100g	<0.2	<0.2	<0.2
			Exchangeable Sodium	Yearly	meq/100g	<0.2	<0.2	<0.2
			Cation Exchange Capacity	Yearly	meq/100g	<0.2	0.2	0.5
			Moisture Content	Yearly	%	5.8	7.6	10.8

## Point 16

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EPA Point ID	Date of Sampling	Date Results Received	Pollutant	Measurement Period & Monitoring Frequency Required by EPL	Units of Measure	December 2018		
						Min Value	Mean Value	Max Value
16 – Surface	04/12/2018	19/12/2018	pH	Yearly	pH	7.3	7.9	8.2
			Available Phosphorus (Bray)	Yearly	mg/kg	5.9	10.7	14.0
			Available Phosphorus (Colwell)	Yearly	mg/kg	21	36	48
			Chloride	Yearly	mg/kg	30	73	140
			Conductivity	Yearly	µS/cm	135	210	319
			Exchangeable Calcium	Yearly	meq/100g	4.6	6.4	8.9
			Exchangeable Magnesium	Yearly	meq/100g	<0.2	0.7	1.4
			Exchangeable Potassium	Yearly	meq/100g	<0.2	0.2	0.4
			Exchangeable Sodium	Yearly	meq/100g	<0.2	0.2	0.3
			Cation Exchange Capacity	Yearly	meq/100g	5.0	7.5	10.8
			Moisture Content	Yearly	%	8.8	15.1	24.3
16 – Sub-surface	04/12/2018	19/12/2018	pH	Yearly	pH	8.4	8.7	8.9
			Available Phosphorus (Bray)*	Yearly	mg/kg	1.7	2.9	3.5
			Available Phosphorus (Colwell)**	Yearly	mg/kg	7	10	13
			Chloride	Yearly	mg/kg	<10	8	10
			Conductivity	Yearly	µS/cm	76	87	98
			Exchangeable Calcium	Yearly	meq/100g	<0.2	0.9	1.9
			Exchangeable Magnesium	Yearly	meq/100g	<0.2	<0.2	<0.2
			Exchangeable Potassium	Yearly	meq/100g	<0.2	<0.2	<0.2
			Exchangeable Sodium	Yearly	meq/100g	<0.2	<0.2	<0.2
			Cation Exchange Capacity	Yearly	meq/100g	<0.2	1.0	2.1
			Moisture Content	Yearly	%	5.4	7.0	8.0

## Point 17

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						Min Value	Mean Value	Max Value
17 – Surface	05/12/2018	19/12/2018	pH	Yearly	pH	5.9	7.0	8.2
			Available Phosphorus (Bray)	Yearly	mg/kg	6.9	34.0	84.7
			Available Phosphorus (Colwell)	Yearly	mg/kg	17	69	120
			Chloride	Yearly	mg/kg	40	210	580
			Conductivity	Yearly	µS/cm	124	352	569
			Exchangeable Calcium	Yearly	meq/100g	0.8	3.5	7.6
			Exchangeable Magnesium	Yearly	meq/100g	<0.2	0.6	1.7
			Exchangeable Potassium	Yearly	meq/100g	<0.1	0.1	0.4
			Exchangeable Sodium	Yearly	meq/100g	<0.1	0.3	0.7
			Cation Exchange Capacity	Yearly	meq/100g	0.8	4.5	10
			Moisture Content	Yearly	%	9.7	28.1	43.1
17 – Sub-surface	05/12/2018	19/12/2018	pH	Yearly	pH	8.3	8.5	8.6
			Available Phosphorus (Bray)*	Yearly	mg/kg	3.9	16.0	25.9
			Available Phosphorus (Colwell)**	Yearly	mg/kg	10	18	26
			Chloride	Yearly	mg/kg	10	35	50
			Conductivity	Yearly	µS/cm	79	137	195
			Exchangeable Calcium	Yearly	meq/100g	<0.2	<0.2	<0.2
			Exchangeable Magnesium	Yearly	meq/100g	<0.2	<0.2	<0.2
			Exchangeable Potassium	Yearly	meq/100g	<0.2	<0.2	<0.2
			Exchangeable Sodium	Yearly	meq/100g	<0.2	<0.2	<0.2
			Cation Exchange Capacity	Yearly	meq/100g	<0.2	<0.2	<0.2
			Moisture Content	Yearly	%	7.0	13.7	18.2