

### Wastewater Monitoring Data April 2013

Published: 14 May 2013  
 Licensee: Cargill Newcastle  
 EPL no.: 1510

Qualifications related to limits  
 Samples taken as per approved methods.

Location/EPA identification no.	Sampling Date	Date Results Received	Pollutant	Measurement Period and Monitoring Frequency Required by Licence	Units of Measure	Value 29/04/13	2013 Values to date		
							Min Value	Mean Value	Max Value
12	29/04/13	08/05/13	pH	Quarterly	pH Unit	7.62	7.62	7.65	7.67
			Sodium Absorption Ratio	Quarterly	-	8.81	8.81	9.20	9.59
			Electrical Conductivity	Quarterly	µS/cm	1,280	1,270	1,275	1,280
			Chloride	Quarterly	mg/L	216	199	208	216
			Calcium	Quarterly	mg/L	27	23	25	27
			Magnesium	Quarterly	mg/L	9	9	10	10
			Sodium	Quarterly	mg/L	207	207	213	219
			Potassium	Quarterly	mg/L	13	13	22	31
			Arsenic	Yearly	mg/L	-	0.006	0.006	0.006
			Cadmium	Yearly	mg/L	-	0.0001	0.0001	0.0001
			Chromium	Yearly	mg/L	-	0.003	0.003	0.003
			Copper	Yearly	mg/L	-	0.005	0.005	0.005
			Lead	Yearly	mg/L	-	0.001	0.001	0.001
			Nickel	Yearly	mg/L	-	0.004	0.004	0.004
			Zinc	Yearly	mg/L	-	0.116	0.116	0.116
			Nitrite	-	mg/L	0.05	0.02	0.04	0.05
			TKN	-	mg/L	28.1	18.20	23.15	28.10
			Total Nitrogen	Quarterly	mg/L	28.2	18.20	23.20	28.20
			Total Phosphorus	Quarterly	mg/L	2.04	0.58	1.31	2.04
			Oil & Grease	Quarterly	mg/L	10	7	9	10
			<b>Organochlorine Pesticides</b>						
			alpha-BHC	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7
			Hexachlorobenzene (HCB)	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7
			beta-BHC	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7
			gamma-BHC	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7
			delta-BHC	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7
Heptachlor	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			
Aldrin	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			

Heptachlor epoxide	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			
trans-Chlordane	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			
alpha-Endosulfan	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			
cis-Chlordane	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			
Dieldrin	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			
4,4-DDE	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			
Endrin	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			
beta-Endosulfan	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			
4,4-DDD	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			
Endrin aldehyde	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			
Endosulfan sulfate	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			
4,4-DDT	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			
Endrin ketone	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			
Methoxychlor	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			
<b>Organophosphate Pesticides</b>									
Dichlorvos	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			
Demton-S-methyl	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			
Monocrotophos	Yearly	µg/L	<5.6	<2.4	<4.0	<5.6			
Dimethoate	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			
Diazinon	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			
Chlorpyrifos-methyl	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			
Parathion-methyl	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			
Malathion	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			
Fenthion	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			
Chloropyrifos	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			
Parathion	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			
Pirimphos-ethyl	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			
Chlorfenvinphos	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			
Bromophos	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			
Fenamiphos	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			
Prothiophos	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			
Ethion	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			
Carbophenothin	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			
Azinphos Methyl	Yearly	µg/L	<4.7	<2.4	<3.6	<4.7			
13	29/04/13	08/05/13	pH	Quarterly	pH Unit	7.7	7.70	7.80	7.89
			Sodium Absorption Ratio	Quarterly	-	1.98	1.98	2.04	2.09
			Electrical Conductivity	Quarterly	µS/cm	741	741	786	830
			Chloride	Quarterly	mg/L	63	62	63	63
			Calcium	Quarterly	mg/L	18	18	19	19
			Magnesium	Quarterly	mg/L	6	6	7	8
			Sodium	Quarterly	mg/L	38	38	41	43
			Potassium	Quarterly	mg/L	24	24	27	30
			Arsenic	Yearly	mg/L	-	0.001	0.001	0.001
			Cadmium	Yearly	mg/L	-	0.0001	0.0001	0.0001

Chromium	Yearly	mg/L	-	0.007	0.007	0.007
Copper	Yearly	mg/L	-	0.142	0.142	0.142
Lead	Yearly	mg/L	-	0.007	0.007	0.007
Nickel	Yearly	mg/L	-	0.023	0.023	0.023
Zinc	Yearly	mg/L	-	1.10	1.10	1.10
Nitrite	-	mg/L	0.08	0.05	0.07	0.08
TKN	-	mg/L	54	54.00	57.20	60.40
Total Nitrogen	Quarterly	mg/L	54.1	54.10	57.25	60.40
Total Phosphorus	Quarterly	mg/L	7.49	7.49	12.95	18.40
Oil & Grease	Quarterly	mg/L	9	5	7	9
Enterococci	Quarterly	CFU/100mL	22,000	20,000	21,000	22,000
Faecal Coliforms	Quarterly	CFU/100mL	110,000	110,000	170,000	230,000