



Impact Fertilisers 107 Greenleaf Road Kooragang NSW EPA Licence 5430
 Sampling requirement : Internal capture pits Monthly on discharge
 Results must comply with section 120 of the Protection of the Environment Operations Act 1997

Notes on Monitoring Data

Hardstand runoff from the site is captured in 1 of 4 First Flush Capture Pits then diluted and recycled for site garden irrigation.
 If the storage capacity of this system is exceeded (approx 450,000 Litres) then subsequent hardstand runoff bypasses the capture pits.

Bypass water is serially mixed and diluted with clean rainwater from the shed roof area (29,170 square metres) prior to discharge.

The following test results are from the bypass sumps of the capture pits - They are not discharge sample results.

27/6/13 - PRP3 Sample

Analyte	Pit 1	Pit 2	Pit 3	Pit 4
pH	6.7	6.7	6.7	6.6
TSS	48	44	45	44
Ammonia	-	-	-	-
Nitrite	-	-	-	-
Nitrate	-	-	-	-
Nitrate + Nitrite	0.34	0.35	0.35	0.35
Kjeldahl Nitrogen	9.5	9	9.9	9.6
Nitrogen as N	9.8	9.4	10.2	10
Total Phosphorous as P	5.2	5.13	5.53	4.95
Reactive Phosphorous as P	-	-	-	-

28/02/2014

Analyte	Pit 1	Pit 2	Pit 3	Pit 4
pH	6.04	6.87	6.78	7.38
TSS	7	175	9	5
Ammonia	1.78	11.9	17.4	16.2
Nitrite	0.01	0.13	0.19	0.2
Nitrate	0.29	0.44	11.5	3.89
Nitrate + Nitrite	0.29	0.57	11.7	4.09
Kjeldahl Nitrogen	5.6	46.2	71.2	23.6
Nitrogen as N	5.9	46.8	82.9	27.7
Total Phosphorous as P	2.22	17.5	20.7	14.1
Reactive Phosphorous as P	1.28	13.6	18.4	15.6

18/11/2013

Analyte	Pit 1	Pit 2	Pit 3	Pit 4
pH	4.81	7.11	8.53	7.98
TSS	5	9	53	5
Ammonia	1	21.9	81.9	9.69
Nitrite	0.01	0.08	0.15	0.25
Nitrate	0.19	0.31	29.8	13.2
Nitrate + Nitrite	0.19	0.39	29.9	13.4
Kjeldahl Nitrogen	1.4	35.4	102	16.5
Nitrogen as N	1.6	35.8	132	29.9
Total Phosphorous as P	1.9	11	28.1	3.56
Reactive Phosphorous as P	1.86	9.49	20.9	3.42

27/08/2014

Analyte	Pit 1	Pit 2	Pit 3	Pit 4
pH	6.63	8.45	7.45	7.21
TSS	7	51	12	20
Ammonia	4.44	74.4	8.03	4.31
Nitrite	0.02	0.46	0.23	0.27
Nitrate	0.22	4.56	5.62	6.27
Nitrate + Nitrite	0.24	5.02	5.85	6.54
Kjeldahl Nitrogen	4.8	85.9	14.1	5.2
Nitrogen as N	5	90.9	20	11.7
Total Phosphorous as P	3.83	21.2	4.18	4.27
Reactive Phosphorous as P	3.63	20.7	3.53	2.79

22/05/2015

Analyte	Pit 1	Pit 2	Pit 3	Pit 4
pH	6.76	-	6.7	6.27
TSS	11	-	23	18
Ammonia	3.56	-	18.4	5.42
Nitrite	0.06	-	0.16	0.05
Nitrate	2.26	-	7.47	0.49
Nitrate + Nitrite	2.32	-	7.63	0.54
Kjeldahl Nitrogen	4.9	-	28	6.4
Nitrogen as N	7.2	-	35.6	6.9
Total Phosphorous as P	3.57	-	15.9	9.17
Reactive Phosphorous as P	3.29	-	16.1	9.3

22/12/2015

Analyte	Pit 1	Pit 2	Pit 3	Pit 4
pH	6.06	6.74	6.24	6.7
TSS	5	24	6	<5
Ammonia	1.6	12.8	68.1	1.94
Nitrite	0.01	0.06	0.08	0.42
Nitrate	0.36	0.37	1.15	1.19
Nitrate + Nitrite	0.37	0.43	1.23	1.61
Kjeldahl Nitrogen	2.6	28.6	185	2.4
Nitrogen as N	3	29	186	4
Total Phosphorous as P	3.3	12.3	100	1.54
Reactive Phosphorous as P	3.34	12.1	108	1.32

(Pit 2 Not Discharging - Weir Gate Closed)

06/01/2016

Analyte	Pit 1	Pit 2	Pit 3	Pit 4
pH	6.8	6.92	6.53	6.97
TSS	6	12	19	8
Ammonia	1.42	5.96	10.2	1.45
Nitrite	0.01	0.04	0.12	0.1
Nitrate	0.39	0.22	7.73	8.4
Nitrate + Nitrite	0.4	0.26	7.85	8.5
Kjeldahl Nitrogen	3.9	9.3	18.7	6
Nitrogen as N	4.3	9.6	26.6	14.5
Total Phosphorous as P	2.77	3.39	16.1	2.22
Reactive Phosphorous as P	2.77	3.3	16.2	2.12



Impact Fertilisers 107 Greenleaf Road Kooragang NSW EPA Licence 5430
 Sampling requirement : Internal capture pits Monthly on discharge

19/06/2016

Analyte	Pit 1	Pit 2	Pit 3	Pit 4
Ammonia	23	-	-	9.4
Arsenic (dissolved)	<0.001	-	-	<0.001
Arsenic (total)	<0.001	-	-	<0.001
Cadmium (dissolved)	0.0001	-	-	<0.0001
Cadmium (total)	0.0003	-	-	0.0001
Lead (dissolved)	0.001	-	-	<0.001
Lead (total)	0.002	-	-	<0.001
Mercury (dissolved)	<0.0001	-	-	<0.0001
Mercury (total)	<0.0001	-	-	<0.0001
Nitrate	0.47	-	-	0.8
Nitrite	0.04	-	-	0.078
Nitrogen (total)	28	-	-	21
pH	8.28	-	-	6.93
Phosphorus (filterable reactive - ortl)	10	-	-	6.2
Phosphorus (total)	11	-	-	6.7
Sulfate	19	-	-	12
Sulfide (Total)	<0.5	-	-	<0.5
Sulfur	6.6	-	-	4
Total Kjeldahl Nitrogen	28	-	-	20
Total Suspended Solids	13	-	-	7
Zinc (dissolved)	0.023	-	-	0.036
Zinc (total)	0.09	-	-	0.098

(Pit 2 and 3 Not Discharging - Weir Gates Closed)

13/10/2016

Analyte	Pit 1	Pit 2	Pit 3	Pit 4
Ammonia	1.1	-	-	2.5
Arsenic (dissolved)	<0.001	-	-	<0.001
Arsenic (total)	<0.001	-	-	<0.001
Cadmium (dissolved)	<0.0001	-	-	<0.0001
Cadmium (total)	0.0001	-	-	<0.0001
Lead (dissolved)	<0.001	-	-	<0.001
Lead (total)	<0.001	-	-	<0.001
Mercury (dissolved)	<0.0001	-	-	<0.0001
Mercury (total)	<0.0001	-	-	<0.0001
Nitrate	0.15	-	-	0.58
Nitrite	0.009	-	-	0.48
Nitrogen (total)	2.1	-	-	4.5
pH	6.6	-	-	6.76
Phosphorus (filterable reactive - ortl)	1.1	-	-	1.5
Phosphorus (total)	1.2	-	-	4.5
Sulfate	5.8	-	-	5
Sulfide (Total)	<0.5	-	-	<0.5
Sulfur	2.3	-	-	1.9
Total Kjeldahl Nitrogen	1.9	-	-	3.5
Total Suspended Solids	11	-	-	<5
Zinc (dissolved)	0.097	-	-	0.027
Zinc (total)	0.13	-	-	0.034

(Pit 2 and 3 Not Discharging - Weir Gates Closed)

27-28/02/2017

Analyte	Pit 1	Pit 2	Pit 3	Pit 4
Ammonia	9.7	-	30	8.5
Arsenic (dissolved)	<0.001	-	0.004	<0.001
Arsenic (total)	<0.001	-	0.004	<0.001
Cadmium (dissolved)	<0.0001	-	0.0001	<0.0001
Cadmium (total)	0.0004	-	0.0014	0.0007
Lead (dissolved)	<0.001	-	<0.001	<0.001
Lead (total)	0.003	-	0.009	0.007
Mercury (dissolved)	<0.0001	-	<0.0001	<0.0001
Mercury (total)	<0.0001	-	<0.0001	<0.0001
Nitrate	0.42	-	1.3	0.48
Nitrite	0.022	-	0.15	0.083
Nitrogen (total)	18	-	100	24
pH	8.22	-	6.77	6.87
Phosphorus (filterable reactive - ortl)	4.2	-	56	4.2
Phosphorus (total)	6.6	-	63	6.6
Sulfate	24	-	240	24
Sulfide (Total)	<0.5	-	<0.5	<0.5
Sulfur	7.8	-	76	7.8
Total Kjeldahl Nitrogen	18	-	100	18
Total Suspended Solids	18	-	63	18
Zinc (dissolved)	0.091	-	0.005	0.091
Zinc (total)	0.28	-	0.2	0.28

(Pit 2 Not Discharging - Weir Gate Closed)

19/03/2017

Analyte	Pit 1	Pit 2	Pit 3	Pit 4
Ammonia	0.76	49	22	6.6
Arsenic (dissolved)	<0.001	0.002	0.003	0.001
Arsenic (total)	<0.001	0.002	0.004	0.001
Cadmium (dissolved)	<0.0001	0.0002	0.0013	0.0001
Cadmium (total)	0.0001	0.001	0.0014	0.0003
Lead (dissolved)	<0.001	<0.001	<0.001	<0.001
Lead (total)	<0.001	0.003	0.001	0.001
Mercury (dissolved)	<0.0001	<0.0001	<0.0001	<0.0001
Mercury (total)	<0.0001	<0.0001	<0.0001	<0.0001
Nitrate	0.051	0.77	10	8.8
Nitrite	<0.005	0.17	0.14	0.25
Nitrogen (total)	2.1	130	44	20
pH	4.49	8.37	5.18	5.98
Phosphorus (filterable reactive - ortl)	1	16	31	9
Phosphorus (total)	1.3	19	31	9.5
Sulfate	5.9	30	77	18
Sulfide (Total)	<0.5	<0.5	<0.5	<0.5
Sulfur	2.1	9.6	25	6.3
Total Kjeldahl Nitrogen	2.1	130	33	11
Total Suspended Solids	8	34	14	25
Zinc (dissolved)	0.15	0.018	0.55	0.058
Zinc (total)	0.15	0.26	0.54	0.091



Impact Fertilisers 107 Greenleaf Road Kooragang NSW EPA Licence 5430
 Sampling requirement : Internal capture pits Monthly on discharge

07/06/2017

Analyte	Pit 1	Pit 2	Pit 3	Pit 4
Ammonia	4.3	-	19	5.7
Arsenic (dissolved)	<0.001	-	<0.001	<0.001
Arsenic (total)	<0.001	-	0.001	<0.001
Cadmium (dissolved)	0.0003	-	0.0004	<0.0001
Cadmium (total)	0.0005	-	0.0008	0.0002
Lead (dissolved)	<0.001	-	<0.001	<0.001
Lead (total)	0.002	-	0.004	0.001
Mercury (dissolved)	0.0005	-	<0.0001	<0.0001
Mercury (total)	<0.0001	-	<0.0001	<0.0001
Nitrate	0.22	-	0.13	1.7
Nitrite	0.02	-	0.027	0.23
Nitrogen (total)	10	-	70	18
pH	6.25	-	7.91	6.76
Phosphorus (filterable reactive - ortl)	4.9	-	11	4.5
Phosphorus (total)	5.9	-	13	5
Sulfate	21	-	22	13
Sulfide (Total)	<0.5	-	<0.5	<0.5
Sulfur	7.3	-	6.8	4.3
Total Kjeldahl Nitrogen	10	-	70	18
Total Suspended Solids	16	-	37	17
Zinc (dissolved)	0.37	-	0.8	0.087
Zinc (total)	0.5	-	0.47	0.15

(Pit 2 Not Discharging - Weir Gate Closed)

25/08/2017

Analyte	Pit 1	Pit 2	Pit 3	Pit 4
Ammonia	6.5	9	-	4.9
Arsenic (dissolved)	0.001	<0.001	-	<0.001
Arsenic (total)	0.001	<0.001	-	<0.001
Cadmium (dissolved)	0.0002	<0.0001	-	<0.0001
Cadmium (total)	0.0003	0.0003	-	0.0002
Lead (dissolved)	<0.001	<0.001	-	<0.001
Lead (total)	0.001	0.002	-	0.002
Mercury (dissolved)	<0.0001	<0.0001	-	<0.0001
Mercury (total)	<0.0001	<0.0001	-	<0.0001
Nitrate	0.33	0.84	-	0.53
Nitrite	0.012	0.074	-	0.034
Nitrogen (total)	11	17	-	9.7
pH	6.69	7.11	-	6.92
Phosphorus (filterable reactive - ortl)	9.3	6.1	-	4.9
Phosphorus (total)	8.8	6	-	4.7
Sulfate	21	23	-	17
Sulfide (Total)	<0.5	<0.5	-	<0.5
Sulfur	8.4	8.9	-	6.2
Total Kjeldahl Nitrogen	11	17	-	9.2
Total Suspended Solids	11	24	-	8
Zinc (dissolved)	0.068	0.032	-	0.028
Zinc (total)	0.13	0.12	-	0.062

(Pit 3 Not Discharging - Weir Gate Closed)

06/11/2017

Analyte	Pit 1	Pit 2	Pit 3	Pit 4
Ammonia	1.1	10	4	0.81
Arsenic (dissolved)	<0.001	0.005	<0.001	<0.001
Arsenic (total)	<0.001	0.005	<0.001	<0.001
Cadmium (dissolved)	0.0007	<0.0001	<0.0001	<0.0001
Cadmium (total)	<0.0001	0.0002	<0.0001	<0.0001
Lead (dissolved)	0.002	0.003	<0.001	<0.001
Lead (total)	<0.001	<0.001	<0.001	<0.001
Mercury (dissolved)	<0.0001	<0.0001	<0.0001	<0.0001
Mercury (total)	<0.0001	0.0001	0.0005	<0.0001
Nitrate	0.23	0.5	0.73	0.54
Nitrite	<0.005	0.08	0.059	<0.005
Nitrogen (total)	1.6	17	6.4	1.5
pH	6.24	6.95	6.65	6.65
Phosphorus (filterable reactive - ortl)	1.1	8.3	3.1	0.65
Phosphorus (total)	1.2	7.8	3.1	0.66
Sulfate	4.1	25	15	4.8
Sulfide (Total)	<0.5	<0.5	<0.5	<0.5
Sulfur	1.5	9.3	5.2	1.8
Total Kjeldahl Nitrogen	1.3	16	5.6	0.99
Total Suspended Solids	<5	<5	<5	<5
Zinc (dissolved)	0.078	0.052	0.053	0.023
Zinc (total)	0.067	0.042	0.053	0.018

26/02/2018

Analyte	Pit 1	Pit 2	Pit 3	Pit 4
Ammonia	3.7	24	1.8	2.1
Arsenic (dissolved)	<0.001	<0.001	<0.001	<0.001
Arsenic (total)	<0.001	<0.001	<0.001	<0.001
Cadmium (dissolved)	0.0003	0.00003	0.0001	0.0001
Cadmium (total)	<0.0001	<0.0001	<0.0001	<0.0001
Lead (dissolved)	0.003	0.003	0.001	0.001
Lead (total)	<0.001	<0.001	<0.001	<0.001
Mercury (dissolved)	<0.0001	<0.0001	<0.0001	<0.0001
Mercury (total)	<0.0001	<0.0001	<0.0001	<0.0001
Nitrate	0.16	0.047	0.56	2.3
Nitrite	0.041	0.035	0.018	0.053
Nitrogen (total)	12	37	3.2	7.4
pH	6.23	6.17	6.29	8.64
Phosphorus (filterable reactive - ortl)	3.2	7.1	1.5	0.91
Phosphorus (total)	3.5	7.8	1.9	1.2
Sulfate	11	7.7	3.2	4.3
Sulfide (Total)	<0.5	<0.5	<0.5	<0.5
Sulfur	3.8	2.5	1.3	1.8
Total Kjeldahl Nitrogen	12	37	2.6	5
Total Suspended Solids	<5	8	6	11
Zinc (dissolved)	0.17	0.11	0.056	0.076
Zinc (total)	0.069	<0.005	0.028	0.03



Impact Fertilisers 107 Greenleaf Road Kooragang NSW EPA Licence 5430
 Sampling requirement : Internal capture pits Monthly on discharge

21/03/2018

Analyte	Pit 1	Pit 2	Pit 3	Pit 4
Ammonia	5.7	-	8.5	4.4
Arsenic (dissolved)	<0.001	-	0.001	<0.001
Arsenic (total)	<0.001	-	0.001	<0.001
Cadmium (dissolved)	0.0001	-	<0.0001	0.0001
Cadmium (total)	0.0002	-	0.0001	0.0002
Lead (dissolved)	<0.001	-	<0.001	<0.001
Lead (total)	0.001	-	<0.001	<0.001
Mercury (dissolved)	<0.0001	-	<0.0001	<0.0001
Mercury (total)	<0.0001	-	<0.0001	<0.0001
Nitrate	0.31	-	0.53	1.7
Nitrite	0.019	-	0.016	0.18
Nitrogen (total)	10	-	15	8.5
pH	6.11	-	6.44	6.38
Phosphorus (filterable reactive - ortl)	7.5	-	11	4.6
Phosphorus (total)	7.9	-	11	4.6
Sulfate	13	-	12	13
Sulfide (Total)	<0.5	-	<0.5	<0.5
Sulfur	4.2	-	4	4.2
Total Kjeldahl Nitrogen	9.8	-	15	6.6
Total Suspended Solids	10	-	8	<5
Zinc (dissolved)	0.096	-	0.025	0.066
Zinc (total)	0.15	-	0.061	0.076

(Pit 2 Not Discharging - Weir Gate Closed)

05/06/2018

Analyte	Pit 1	Pit 2	Pit 3	Pit 4
Ammonia	18	15	11	1.5
Nitrate	0.089	0.1	3.3	1.3
Nitrite	0.015	0.036	0.38	0.053
Nitrogen (total)	24	17	17	4.2
pH	7.24	7.06	6.77	6.83
Phosphorus (filterable reactive - ortl)	26	12	8	1.6
Phosphorus (total)	28	14	8.1	1.8
Sulfate	18	35	24	3.7
Sulfide (Total)	<0.5	0.5	0.8	0.7
Sulfur	7.7	12	8.2	2.5
Total Kjeldahl Nitrogen	24	17	13	2.8
Total Suspended Solids	21	22	<5	<5
Zinc (dissolved)	0.007	0.021	0.046	0.025
Zinc (total)	0.18	0.2	0.17	0.13

04/09/2018

Analyte	Pit 1	Pit 2	Pit 3	Pit 4
Ammonia	2.2	4.5	14	0.76
Nitrate	0.043	0.14	1.8	0.19
Nitrite	<0.005	0.038	0.085	0.019
Nitrogen (total)	2.9	9.4	30	1.5
pH	7.11	6.92	6.57	6.88
Phosphorus (filterable reactive - ortl)	5.9	4.7	16	0.58
Phosphorus (total)	6.8	6.4	16	0.79
Sulfate	4	22	31	1.8
Sulfide (Total)	<0.5	<0.5	<0.5	<0.5
Sulfur	1	6.6	9.2	0.5
Total Kjeldahl Nitrogen	2.9	9.2	28	1.3
Total Suspended Solids	18	35	7	13
Zinc (dissolved)	0.009	0.034	0.088	0.019
Zinc (total)	0.082	0.17	0.1	0.036

05/10/2018

Analyte	Pit 1	Pit 2	Pit 3	Pit 4
Ammonia	2.5	-	1.8	0.71
Nitrate	0.26	-	0.066	0.13
Nitrite	0.03	-	0.013	0.008
Nitrogen (total)	4.6	-	3.7	1.4
pH	6.58	-	6.81	6.25
Phosphorus (filterable reactive - ortl)	1.9	-	1.6	0.46
Phosphorus (total)	2.1	-	2.3	0.5
Sulfate	8.5	-	4.7	8.5
Sulfide (Total)	<0.5	-	<0.5	<0.5
Sulfur	3.1	-	1.8	3.2
Total Kjeldahl Nitrogen	4.3	-	3.6	1.3
Total Suspended Solids	8	-	49	<5
Zinc (dissolved)	0.09	-	0.05	0.21
Zinc (total)	0.1	-	0.12	0.21

(Pit 2 Not Discharging - Weir Gate Closed)



Impact Fertilisers 107 Greenleaf Road Kooragang NSW EPA Licence 5430
Sampling requirement : Internal capture pits Monthly on discharge

29/11/2018

<u>Analyte</u>	<u>Pit 1</u>	<u>Pit 2</u>	<u>Pit 3</u>	<u>Pit 4</u>
Ammonia	2.5	10	8.3	1.8
Nitrate	0.16	0.66	0.66	0.36
Nitrite	0.009	0.34	0.07	0.088
Nitrogen (total)	5.1	22	17	3
pH	6.38	6.66	6.68	6.79
Phosphorus (filterable reactive - ortl	1.7	6.2	7.4	1.1
Phosphorus (total)	1.7	7	7.8	1.1
Sulfate	12	38	31	5.3
Sulfide (Total)	1.6	<0.5	1.6	1.6
Sulfur	4.4	13	10	11
Total Kjeldahl Nitrogen	4.9	21	16	2.6
Total Suspended Solids	<5	6	7	<5
Zinc (dissolved)	0.096	0.049	0.046	0.04
Zinc (total)	0.081	0.073	0.053	0.047