Quakers Hill Water Resource Recovery Facility
June Pollution Monitoring Summary

EPL 1724

Summary period: 01-06-2024 to 30-06-2024
Date obtained: 08-07-2024
Date published: 22-07-2024

Licensee: Sydney Water Corporation
PO Box 399
PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean and 100 percentile data

EPA Point 4 Site code QH0004	Point description: Downstream of the overflow weir in the clean water tank						
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM actual	100 percentile limit	100 percentile actual	within limits
biochemical oxygen demand	mg/L	monthly	30	<2	-	-	yes
nitrogen (total)	mg/L	every 6 days	-	-	45	6.19	yes
phosphorus	mg/L	every 6 days	-	-	5	0.19	yes
total suspended solids	mg/L	monthly	10	<2	-	-	yes

100 percentile means that 100 % of samples (or all samples) taken must not exceed the limit for that pollutant.

3 Day Geometric Mean (3DGM) is a way to average a set of values and is commonly used with water quality assessments which show a great deal of variability. 3DGM is calculated by multiplying the results of the analysis of three samples collected on three consecutive days and then taking the cubed root of that amount.

Table 2: Routine monitoring data

EPA Point 4 Site code QH0004	Point description: Downstream of the overflow weir in the clean water tank					
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	78
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
cadmium	ug/L	monthly	1	-	-	<0.1
chromium	ug/L	monthly	1	-	-	0.6
copper	ug/L	monthly	1	-	-	2.9
nitrogen (ammonia)	mg/L	every 6 days	5	0.03	0.14	0.44
nitrogen (total)	mg/L	every 6 days	5	3.23	4.45	6.19
phosphorus	mg/L	every 6 days	5	0.07	0.16	0.19
total suspended solids	mg/L	every 6 days	5	<2	<2	<2
zinc	ug/L	monthly	1	-	-	14

EPA Point 5 Site code QH0005	Point description: At the outlet of the chlorine contact tank					
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
chlorine (total residual)	mg/L	every 6 days	5	<0.04	<0.04	<0.04
faecal coliforms	CFU/100mL	every 6 days	5	<1	20	33
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

Average and percentile limits are only applied annually for routine monitoring data in Table 2.

Effluent quality monitoring results obtained from EPA Points 4 and 5 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

Quakers Hill Water Resource Recovery Facility May Pollution Monitoring Summary

EPL 1724

Summary period: 01-05-2024 to 31-05-2024
Date obtained: 12-06-2024
Date published: 21-06-2024

Licensee: Sydney Water Corporation
PO Box 399
PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean and 100 percentile data

EPA Point 4 Site code QH0004	Point description: Downstream of the overflow weir in the clean water tank						
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM actual	100 percentile limit	100 percentile actual	within limits
biochemical oxygen demand	mg/L	monthly	30	<2	-	-	yes
nitrogen (total)	mg/L	every 6 days	-	-	45	3.9	yes
phosphorus	mg/L	every 6 days	-	-	5	0.14	yes
total suspended solids	mg/L	monthly	10	<2	-	-	yes

100 percentile means that 100 % of samples (or all samples) taken must not exceed the limit for that pollutant.

3 Day Geometric Mean (3DGM) is a way to average a set of values and is commonly used with water quality assessments which show a great deal of variability. 3DGM is calculated by multiplying the results of the analysis of three samples collected on three consecutive days and then taking the cubed root of that amount.

Table 2: Routine monitoring data

EPA Point 4 Site code QH0004	Point description: Downstream of the overflow weir in the clean water tank					
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	117
biochemical oxygen demand	mg/L	every 6 days	6	<2	<2	<2
cadmium	ug/L	monthly	1	-	-	<0.1
chromium	ug/L	monthly	1	-	-	0.3
copper	ug/L	monthly	1	-	-	3.1
nitrogen (ammonia)	mg/L	every 6 days	6	<0.01	0.02	0.04
nitrogen (total)	mg/L	every 6 days	6	2.5	3.31	3.9
phosphorus	mg/L	every 6 days	6	0.05	0.08	0.14
total suspended solids	mg/L	every 6 days	6	<2	<2	<2
zinc	ug/L	monthly	1	-	-	14

EPA Point 5 Site code QH0005	Point description: At the outlet of the chlorine contact tank					
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
chlorine (total residual)	mg/L	every 6 days	5	<0.04	<0.04	0.07
faecal coliforms	CFU/100mL	every 6 days	5	1	11	22
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

Average and percentile limits are only applied annually for routine monitoring data in Table 2.

Effluent quality monitoring results obtained from EPA Points 4 and 5 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

Quakers Hill Water Resource Recovery Facility
April Pollution Monitoring Summary

EPL 1724

Summary period: 01-04-2024 to 30-04-2024
Date obtained: 06-05-2024
Date published: 20-05-2024

Licensee: Sydney Water Corporation
PO Box 399
PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean and 100 percentile data

EPA Point 4 Site code QH0004	Point description: Downstream of the overflow weir in the clean water tank						
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM actual	100 percentile limit	100 percentile actual	within limits
biochemical oxygen demand	mg/L	monthly	30	<2	-	-	yes
nitrogen (total)	mg/L	every 6 days	-	-	45	5.58	yes
phosphorus	mg/L	every 6 days	-	-	5	0.49	yes
total suspended solids	mg/L	monthly	10	<2	-	-	yes

100 percentile means that 100 % of samples (or all samples) taken must not exceed the limit for that pollutant.

3 Day Geometric Mean (3DGM) is a way to average a set of values and is commonly used with water quality assessments which show a great deal of variability. 3DGM is calculated by multiplying the results of the analysis of three samples collected on three consecutive days and then taking the cubed root of that amount.

Table 2: Routine monitoring data

EPA Point 4 Site code QH0004	Point description: Downstream of the overflow weir in the clean water tank					
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	126
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
cadmium	ug/L	monthly	1	-	-	<0.1
chromium	ug/L	monthly	1	-	-	0.2
copper	ug/L	monthly	1	-	-	3.3
nitrogen (ammonia)	mg/L	every 6 days	5	<0.01	0.02	0.05
nitrogen (total)	mg/L	every 6 days	5	2.55	3.79	5.58
phosphorus	mg/L	every 6 days	5	0.06	0.16	0.49
total suspended solids	mg/L	every 6 days	5	<2	<2	<2
zinc	ug/L	monthly	1	-	-	13

EPA Point 5 Site code QH0005	Point description: At the outlet of the chlorine contact tank					
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
chlorine (total residual)	mg/L	every 6 days	5	<0.04	<0.04	<0.04
faecal coliforms	CFU/100mL	every 6 days	5	3	91	420
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

Average and percentile limits are only applied annually for routine monitoring data in Table 2.

Effluent quality monitoring results obtained from EPA Points 4 and 5 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

Quakers Hill Water Resource Recovery Facility March Pollution Monitoring Summary

EPL 1724

Summary period: 01-03-2024 to 31-03-2024
Date obtained: 05-04-2024
Date published: 18-04-2024

Licensee: Sydney Water Corporation
PO Box 399
PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean and 100 percentile data

EPA Point 4 Site code QH0004	Point description: Downstream of the overflow weir in the clean water tank						
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM actual	100 percentile limit	100 percentile actual	within limits
biochemical oxygen demand	mg/L	monthly	30	<2	-	-	yes
nitrogen (total)	mg/L	every 6 days	-	-	45	3.45	yes
phosphorus	mg/L	every 6 days	-	-	5	0.24	yes
total suspended solids	mg/L	monthly	10	<2	-	-	yes

100 percentile means that 100 % of samples (or all samples) taken must not exceed the limit for that pollutant.

3 Day Geometric Mean (3DGM) is a way to average a set of values and is commonly used with water quality assessments which show a great deal of variability. 3DGM is calculated by multiplying the results of the analysis of three samples collected on three consecutive days and then taking the cubed root of that amount.

Table 2: Routine monitoring data

EPA Point 4 Site code QH0004	Point description: Downstream of the overflow weir in the clean water tank					
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	112
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
cadmium	ug/L	monthly	1	-	-	<0.1
chromium	ug/L	monthly	1	-	-	<0.2
copper	ug/L	monthly	1	-	-	3.8
nitrogen (ammonia)	mg/L	every 6 days	5	0.01	0.01	0.02
nitrogen (total)	mg/L	every 6 days	5	2.54	3.11	3.45
phosphorus	mg/L	every 6 days	5	0.06	0.11	0.24
total suspended solids	mg/L	every 6 days	5	<2	<2	<2
zinc	ug/L	monthly	1	-	-	20

EPA Point 5 Site code QH0005	Point description: At the outlet of the chlorine contact tank					
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
chlorine (total residual)	mg/L	every 6 days	5	<0.04	<0.04	<0.04
faecal coliforms	CFU/100mL	every 6 days	5	5	16	30
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

Average and percentile limits are only applied annually for routine monitoring data in Table 2.

Effluent quality monitoring results obtained from EPA Points 4 and 5 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

Quakers Hill Water Resource Recovery Facility
February Pollution Monitoring Summary

EPL 1724

Summary period: 01-02-2024 to 29-02-2024
Date obtained: 12-03-2024
Date published: 25-03-2024

Licensee: Sydney Water Corporation
PO Box 399
PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean and 100 percentile data

EPA Point 4 Site code QH0004	Point description: Downstream of the overflow weir in the clean water tank						
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM actual	100 percentile limit	100 percentile actual	within limits
biochemical oxygen demand	mg/L	monthly	30	3	-	-	yes
nitrogen (total)	mg/L	every 6 days	-	-	45	4.48	yes
phosphorus	mg/L	every 6 days	-	-	5	0.55	yes
total suspended solids	mg/L	monthly	10	4	-	-	yes

100 percentile means that 100 % of samples (or all samples) taken must not exceed the limit for that pollutant.

3 Day Geometric Mean (3DGM) is a way to average a set of values and is commonly used with water quality assessments which show a great deal of variability. 3DGM is calculated by multiplying the results of the analysis of three samples collected on three consecutive days and then taking the cubed root of that amount.

Table 2: Routine monitoring data

EPA Point 4 Site code QH0004	Point description: Downstream of the overflow weir in the clean water tank					
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	167
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	4
cadmium	ug/L	monthly	1	-	-	<0.1
chromium	ug/L	monthly	1	-	-	0.3
cobalt	ug/L	bi-annual	1	-	-	0.3
copper	ug/L	monthly	1	-	-	6.2
manganese	ug/L	bi-annual	1	-	-	14.6
molybdenum	ug/L	bi-annual	1	-	-	2.1
nickel	ug/L	bi-annual	1	-	-	1.6
nitrogen (ammonia)	mg/L	every 6 days	5	0.01	0.05	0.18
nitrogen (total)	mg/L	every 6 days	5	3.17	3.99	4.48
phosphorus	mg/L	every 6 days	5	0.1	0.29	0.55
total suspended solids	mg/L	every 6 days	5	<2	4	15
zinc	ug/L	monthly	1	-	-	20

EPA Point 5 Site code QH0005	Point description: At the outlet of the chlorine contact tank					
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
chlorine (total residual)	mg/L	every 6 days	5	<0.04	<0.04	<0.04
faecal coliforms	CFU/100mL	every 6 days	5	2	415	2,000
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

Average and percentile limits are only applied annually for routine monitoring data in Table 2.

Effluent quality monitoring results obtained from EPA Points 4 and 5 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

Quakers Hill Water Resource Recovery Facility
January Pollution Monitoring Summary

EPL 1724

Summary period: 01-01-2024 to 31-01-2024
Date obtained: 04-02-2024
Date published: 15-02-2024

Licensee: Sydney Water Corporation
PO Box 399
PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean and 100 percentile data

EPA Point 4 Site code QH0004	Point description: Downstream of the overflow weir in the clean water tank						
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM actual	100 percentile limit	100 percentile actual	within limits
biochemical oxygen demand	mg/L	monthly	30	<2	-	-	yes
nitrogen (total)	mg/L	every 6 days	-	-	45	4.62	yes
phosphorus	mg/L	every 6 days	-	-	5	0.39	yes
total suspended solids	mg/L	monthly	10	<2	-	-	yes

100 percentile means that 100 % of samples (or all samples) taken must not exceed the limit for that pollutant.

3 Day Geometric Mean (3DGM) is a way to average a set of values and is commonly used with water quality assessments which show a great deal of variability. 3DGM is calculated by multiplying the results of the analysis of three samples collected on three consecutive days and then taking the cubed root of that amount.

Table 2: Routine monitoring data

EPA Point 4 Site code QH0004	Point description: Downstream of the overflow weir in the clean water tank					
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	41
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
cadmium	ug/L	monthly	1	-	-	<0.1
chromium	ug/L	monthly	1	-	-	0.4
copper	ug/L	monthly	1	-	-	3.9
nitrogen (ammonia)	mg/L	every 6 days	5	0.01	0.12	0.46
nitrogen (total)	mg/L	every 6 days	5	3.78	4.22	4.62
phosphorus	mg/L	every 6 days	5	0.07	0.19	0.39
total suspended solids	mg/L	every 6 days	5	<2	<2	3
zinc	ug/L	monthly	1	-	-	14

EPA Point 5 Site code QH0005	Point description: At the outlet of the chlorine contact tank					
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
chlorine (total residual)	mg/L	every 6 days	5	<0.04	<0.04	<0.04
faecal coliforms	CFU/100mL	every 6 days	5	2	186	890
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

Average and percentile limits are only applied annually for routine monitoring data in Table 2.

Effluent quality monitoring results obtained from EPA Points 4 and 5 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

Quakers Hill Water Resource Recovery Facility
December Pollution Monitoring Summary

EPL 1724

Summary period: 01-12-2023 to 31-12-2023
Date obtained: 12-01-2024
Date published: 22-01-2024

Licensee: Sydney Water Corporation
PO Box 399
PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean and 100 percentile data

EPA Point 4 Site code QH0004	Point description: Downstream of the overflow weir in the clean water tank						
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM actual	100 percentile limit	100 percentile actual	within limits
biochemical oxygen demand	mg/L	monthly	30	<2	-	-	yes
nitrogen (total)	mg/L	every 6 days	-	-	45	5.55	yes
phosphorus	mg/L	every 6 days	-	-	5	0.14	yes
total suspended solids	mg/L	monthly	10	<2	-	-	yes

100 percentile means that 100 % of samples (or all samples) taken must not exceed the limit for that pollutant.

3 Day Geometric Mean (3DGM) is a way to average a set of values and is commonly used with water quality assessments which show a great deal of variability. 3DGM is calculated by multiplying the results of the analysis of three samples collected on three consecutive days and then taking the cubed root of that amount.

Table 2: Routine monitoring data

EPA Point 4 Site code QH0004	Point description: Downstream of the overflow weir in the clean water tank					
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	119
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
cadmium	ug/L	monthly	1	-	-	<0.1
chromium	ug/L	monthly	1	-	-	0.8
copper	ug/L	monthly	1	-	-	4
nitrogen (ammonia)	mg/L	every 6 days	5	<0.01	0.1	0.42
nitrogen (total)	mg/L	every 6 days	5	3.32	4.11	5.55
phosphorus	mg/L	every 6 days	5	0.06	0.09	0.14
total suspended solids	mg/L	every 6 days	5	<2	<2	<2
zinc	ug/L	monthly	1	-	-	19

EPA Point 5 Site code QH0005	Point description: At the outlet of the chlorine contact tank					
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
chlorine (total residual)	mg/L	every 6 days	5	<0.04	<0.04	0.06
faecal coliforms	CFU/100mL	every 6 days	5	3	6	14
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

Average and percentile limits are only applied annually for routine monitoring data in Table 2.

Effluent quality monitoring results obtained from EPA Points 4 and 5 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

Quakers Hill Water Resource Recovery Facility November Pollution Monitoring Summary

EPL 1724

Summary period: 01-11-2023 to 30-11-2023
Date obtained: 06-12-2023
Date published: 14-12-2023

Licensee: Sydney Water Corporation
PO Box 399
PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean and 100 percentile data

EPA Point 4 Site code QH0004	Point description: Downstream of the overflow weir in the clean water tank						
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM actual	100 percentile limit	100 percentile actual	within limits
biochemical oxygen demand	mg/L	monthly	30	<2	-	-	yes
nitrogen (total)	mg/L	every 6 days	-	-	45	5.38	yes
phosphorus	mg/L	every 6 days	-	-	5	0.08	yes
total suspended solids	mg/L	monthly	10	<2	-	-	yes

100 percentile means that 100 % of samples (or all samples) taken must not exceed the limit for that pollutant.

3 Day Geometric Mean (3DGM) is a way to average a set of values and is commonly used with water quality assessments which show a great deal of variability. 3DGM is calculated by multiplying the results of the analysis of three samples collected on three consecutive days and then taking the cubed root of that amount.

Table 2: Routine monitoring data

EPA Point 4 Site code QH0004	Point description: Downstream of the overflow weir in the clean water tank					
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	129
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
cadmium	ug/L	monthly	1	-	-	<0.1
chromium	ug/L	monthly	1	-	-	1.2
copper	ug/L	monthly	1	-	-	4.7
nitrogen (ammonia)	mg/L	every 6 days	5	0.01	0.02	0.07
nitrogen (total)	mg/L	every 6 days	5	4.13	4.76	5.38
phosphorus	mg/L	every 6 days	5	0.06	0.07	0.08
total suspended solids	mg/L	every 6 days	5	<2	<2	<2
zinc	ug/L	monthly	1	-	-	17

EPA Point 5 Site code QH0005	Point description: At the outlet of the chlorine contact tank					
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
chlorine (total residual)	mg/L	every 6 days	5	<0.04	<0.04	<0.04
faecal coliforms	CFU/100mL	every 6 days	5	1	10	30
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

Average and percentile limits are only applied annually for routine monitoring data in Table 2.

Effluent quality monitoring results obtained from EPA Points 4 and 5 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

Quakers Hill Water Resource Recovery Facility
October Pollution Monitoring Summary

EPL 1724

Summary period: 01-10-2023 to 31-10-2023
Date obtained: 03-11-2023
Date published: 17-11-2023

Licensee: Sydney Water Corporation
PO Box 399
PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean and 100 percentile data

EPA Point 4 Site code QH0004	Point description: Downstream of the overflow weir in the clean water tank						
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM actual	100 percentile limit	100 percentile actual	within limits
biochemical oxygen demand	mg/L	monthly	30	<2	-	-	yes
nitrogen (total)	mg/L	every 6 days	-	-	45	6.51	yes
phosphorus	mg/L	every 6 days	-	-	5	0.14	yes
total suspended solids	mg/L	monthly	10	<2	-	-	yes

100 percentile means that 100 % of samples (or all samples) taken must not exceed the limit for that pollutant.

3 Day Geometric Mean (3DGM) is a way to average a set of values and is commonly used with water quality assessments which show a great deal of variability. 3DGM is calculated by multiplying the results of the analysis of three samples collected on three consecutive days and then taking the cubed root of that amount.

Table 2: Routine monitoring data

EPA Point 4 Site code QH0004	Point description: Downstream of the overflow weir in the clean water tank					
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	147
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
cadmium	ug/L	monthly	1	-	-	<0.1
chromium	ug/L	monthly	1	-	-	0.4
copper	ug/L	monthly	1	-	-	5.4
nitrogen (ammonia)	mg/L	every 6 days	5	0.01	0.02	0.06
nitrogen (total)	mg/L	every 6 days	5	4.73	5.7	6.51
phosphorus	mg/L	every 6 days	5	0.06	0.1	0.14
total suspended solids	mg/L	every 6 days	5	<2	<2	<2
zinc	ug/L	monthly	1	-	-	18

EPA Point 5 Site code QH0005	Point description: At the outlet of the chlorine contact tank					
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
chlorine (total residual)	mg/L	every 6 days	5	<0.04	<0.04	<0.04
faecal coliforms	CFU/100mL	every 6 days	5	2	11	22
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

Average and percentile limits are only applied annually for routine monitoring data in Table 2.

Effluent quality monitoring results obtained from EPA Points 4 and 5 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

Quakers Hill Water Resource Recovery Facility September Pollution Monitoring Summary

EPL 1724

Summary period: 01-09-2023 to 30-09-2023
Date obtained: 05-10-2023
Date published: 13-10-2023

Licensee: Sydney Water Corporation
PO Box 399
PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean and 100 percentile data

EPA Point 4 Site code QH0004	Point description: Downstream of the overflow weir in the clean water tank						
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM actual	100 percentile limit	100 percentile actual	within limits
biochemical oxygen demand	mg/L	monthly	30	<2	-	-	yes
nitrogen (total)	mg/L	every 6 days	-	-	45	6.49	yes
phosphorus	mg/L	every 6 days	-	-	5	0.13	yes
total suspended solids	mg/L	monthly	10	<2	-	-	yes

100 percentile means that 100 % of samples (or all samples) taken must not exceed the limit for that pollutant.

3 Day Geometric Mean (3DGM) is a way to average a set of values and is commonly used with water quality assessments which show a great deal of variability. 3DGM is calculated by multiplying the results of the analysis of three samples collected on three consecutive days and then taking the cubed root of that amount.

Table 2: Routine monitoring data

EPA Point 4 Site code QH0004	Point description: Downstream of the overflow weir in the clean water tank					
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	93
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
cadmium	ug/L	monthly	1	-	-	<0.1
chromium	ug/L	monthly	1	-	-	0.9
copper	ug/L	monthly	1	-	-	4.2
nitrogen (ammonia)	mg/L	every 6 days	5	0.01	0.02	0.08
nitrogen (total)	mg/L	every 6 days	5	5.19	5.52	6.49
phosphorus	mg/L	every 6 days	5	0.07	0.09	0.13
total suspended solids	mg/L	every 6 days	5	<2	<2	<2
zinc	ug/L	monthly	1	-	-	19

EPA Point 5 Site code QH0005	Point description: At the outlet of the chlorine contact tank					
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
chlorine (total residual)	mg/L	every 6 days	5	<0.04	<0.04	0.04
faecal coliforms	CFU/100mL	every 6 days	5	2	18	32
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

Average and percentile limits are only applied annually for routine monitoring data in Table 2.

Effluent quality monitoring results obtained from EPA Points 4 and 5 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

Quakers Hill Water Resource Recovery Facility August Pollution Monitoring Summary

EPL 1724

Summary period: 01-08-2023 to 31-08-2023
Date obtained: 05-09-2023
Date published: 14-09-2023

Licensee: Sydney Water Corporation
PO Box 399
PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean and 100 percentile data

EPA Point 4 Site code QH0004	Point description: Downstream of the overflow weir in the clean water tank						
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM actual	100 percentile limit	100 percentile actual	within limits
biochemical oxygen demand	mg/L	monthly	30	2	-	-	yes
nitrogen (total)	mg/L	every 6 days	-	-	45	5.14	yes
phosphorus	mg/L	every 6 days	-	-	5	0.16	yes
total suspended solids	mg/L	monthly	10	<2	-	-	yes

100 percentile means that 100 % of samples (or all samples) taken must not exceed the limit for that pollutant.

3 Day Geometric Mean (3DGM) is a way to average a set of values and is commonly used with water quality assessments which show a great deal of variability. 3DGM is calculated by multiplying the results of the analysis of three samples collected on three consecutive days and then taking the cubed root of that amount.

Table 2: Routine monitoring data

EPA Point 4 Site code QH0004	Point description: Downstream of the overflow weir in the clean water tank					
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	80
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
cadmium	ug/L	monthly	1	-	-	<0.1
chromium	ug/L	monthly	1	-	-	<0.2
cobalt	ug/L	bi-annual	1	-	-	0.3
copper	ug/L	monthly	1	-	-	3.1
manganese	ug/L	bi-annual	1	-	-	4.4
molybdenum	ug/L	bi-annual	1	-	-	1.7
nickel	ug/L	bi-annual	1	-	-	1.5
nitrogen (ammonia)	mg/L	every 6 days	5	<0.01	<0.01	0.01
nitrogen (total)	mg/L	every 6 days	5	4.31	4.68	5.14
phosphorus	mg/L	every 6 days	5	0.08	0.11	0.16
total suspended solids	mg/L	every 6 days	5	<2	<2	<2
zinc	ug/L	monthly	1	-	-	22

EPA Point 5 Site code QH0005	Point description: At the outlet of the chlorine contact tank					
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
chlorine (total residual)	mg/L	every 6 days	5	<0.04	<0.04	<0.04
faecal coliforms	CFU/100mL	every 6 days	5	<1	2	8
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

Average and percentile limits are only applied annually for routine monitoring data in Table 2.

Effluent quality monitoring results obtained from EPA Points 4 and 5 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

Quakers Hill Water Resource Recovery Facility
July Pollution Monitoring Summary

EPL 1724

Summary period: 01-07-2023 to 31-07-2023
Date obtained: 08-08-2023
Date published: 15-08-2023

Licensee: Sydney Water Corporation
PO Box 399
PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean and 100 percentile data

EPA Point 4 Site code QH0004	Point description: Downstream of the overflow weir in the clean water tank						
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM actual	100 percentile limit	100 percentile actual	within limits
biochemical oxygen demand	mg/L	monthly	30	<2	-	-	yes
nitrogen (total)	mg/L	every 6 days	-	-	45	9.78	yes
phosphorus	mg/L	every 6 days	-	-	5	0.19	yes
total suspended solids	mg/L	monthly	10	<2	-	-	yes

100 percentile means that 100 % of samples (or all samples) taken must not exceed the limit for that pollutant.

3 Day Geometric Mean (3DGM) is a way to average a set of values and is commonly used with water quality assessments which show a great deal of variability. 3DGM is calculated by multiplying the results of the analysis of three samples collected on three consecutive days and then taking the cubed root of that amount.

Table 2: Routine monitoring data

EPA Point 4 Site code QH0004	Point description: Downstream of the overflow weir in the clean water tank					
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	95
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
cadmium	ug/L	monthly	1	-	-	<0.1
chromium	ug/L	monthly	1	-	-	1.1
copper	ug/L	monthly	1	-	-	5.7
nitrogen (ammonia)	mg/L	every 6 days	5	0.01	0.01	0.01
nitrogen (total)	mg/L	every 6 days	5	4.73	6.3	9.78
phosphorus	mg/L	every 6 days	5	0.07	0.14	0.19
total suspended solids	mg/L	every 6 days	5	<2	<2	<2
zinc	ug/L	monthly	1	-	-	23

EPA Point 5 Site code QH0005	Point description: At the outlet of the chlorine contact tank					
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
chlorine (total residual)	mg/L	every 6 days	6	<0.04	<0.04	<0.04
faecal coliforms	CFU/100mL	every 6 days	6	<1	3	6
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

Average and percentile limits are only applied annually for routine monitoring data in Table 2.

Effluent quality monitoring results obtained from EPA Points 4 and 5 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).