



Bluescope Steel (AIS) Pty Ltd
ABN 19 000 019625
Port Kembla Steelworks
Five Islands Road
Port Kembla 2505
PO Box 1854
Wollongong NSW 2500

BLUESCOPE STEEL (AIS) PTY. LTD.
Port Kembla Steelworks
Licence 6092

[Link to Environment Protection Licence EPL6092](#)

LICENCE MONITORING DATA
MONTHLY SUMMARY REPORT

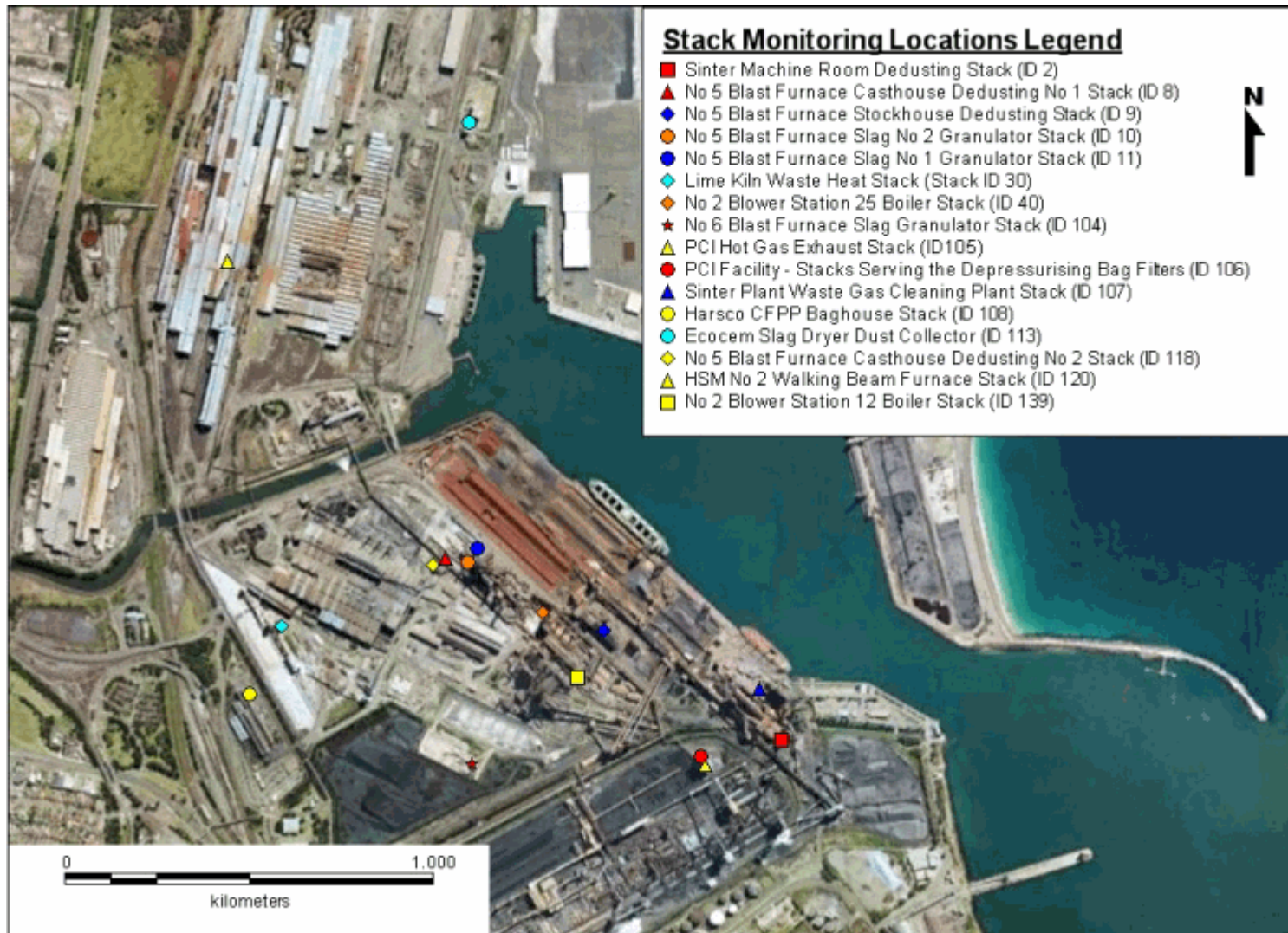
for

1 Nov 2017 to 30 Nov 2017

Monthly (November 2017) Report Published: 5, February, 2018

Stack Air Monitoring Requirements

EPL6092 Conditions L2.4/M2.2/M2.3/M8.2/E1.4





Point 40:

Pollutant	Units of Measure	Monitoring frequency required by licence	No. of times measured during month	Min. Value	Max Value	100 Percentile Limit	Exceedance (yes / no) *
Cadmium (7% Oxygen correction)	Milligrams per cubic metre	Yearly	1	<0.00018	<0.00018	0.10000	no
Carbon Dioxide	Percent	Yearly	4	20	20		no
Carbon Monoxide (7% Oxygen correction)	Milligrams per cubic metre	Yearly	4	<3	<3	400.00	no
Dry Gas Density	Kilograms per cubic metre	Yearly	10	1.4	1.41		no
Mercury (7% Oxygen correction)	Milligrams per cubic metre	Yearly	1	0.0055	0.0055	0.10000	no
Moisture	Percent	Yearly	10	10	11		no
Molecular Weight of stack gases	grams per gram mole	Yearly	10	31.3	31.6		no
Nitrogen Oxides (7% Oxygen correction)	Milligrams per cubic metre	Yearly	4	185	191	600.00	no
Oxygen (O2)	Percent	Yearly	4	3.6	3.8		no
Solid Particles (7% Oxygen corrected)	Milligrams per cubic metre	Yearly	1	5.7	5.7	30.00	no
Sulphur Dioxide (7% Oxygen correction)	Milligrams per cubic metre	Yearly	4	342	352	1,250.00	no
Temperature	Degrees Celcius	Yearly	10	156	166		no
Type 1 and 2 substances in aggregate (7% Oxygen correction)	Milligrams per cubic metre	Yearly	1	0.016	0.016	1.0000	no
Velocity	Metres per second	Yearly	10	8.4	10		no
Volumetric flowrate	Cubic metres per second	Yearly	10	50	61		no
Comment:							



Point 107:

Pollutant	Units of Measure	Monitoring frequency required by licence	No. of times measured during month	Min. Value	Max Value	100 Percentile Limit	Exceedance (yes / no) *
Arsenic	Milligrams per cubic metre	Quarterly in duplicate	1	0.0014	0.0014		no
Cadmium	Milligrams per cubic metre	Quarterly in duplicate	1	0.0012	0.0012		no
Carbon Dioxide	Percent	Quarterly in duplicate	37	3	6.4		no
Dioxins & Furans (15.7% Oxygen correction)	Nanograms per cubic metre	Quarterly in duplicate	2	0.0045	0.0057	0.300000	no
Dry Gas Density	Kilograms per cubic metre	Quarterly in duplicate	50	1.32	1.34		no
Fine Particulates	Milligrams per cubic metre	Quarterly in duplicate	1	2.2	2.2		no
Hydrogen Chloride	Milligrams per cubic metre	Quarterly in duplicate	2	15	16		no
Hydrogen Fluoride	Milligrams per cubic metre	Quarterly in duplicate	2	0.74	0.83		no
Lead	Milligrams per cubic metre	Quarterly in duplicate	1	0.043	0.043		no
Manganese	Milligrams per cubic metre	Quarterly in duplicate	1	0.011	0.011		no
Moisture	Percent	Quarterly in duplicate	50	9.2	11		no
Molecular Weight of stack gases	grams per gram mole	Quarterly in duplicate	50	29.7	30		no
Nickel	Milligrams per cubic metre	Quarterly in duplicate	1	0.0018	0.0018		no
Nitrogen Oxides	Milligrams per cubic metre	Quarterly	37	198	378	2,000.00	no
Oxygen (O2)	Percent	Quarterly in duplicate	37	16	18		no
Solid Particles	Milligrams per cubic metre	Quarterly in duplicate	6	3.8	10	20.00	no
Sulfuric acid mist and sulphur trioxide (as SO3)	Milligrams per cubic metre	Quarterly in duplicate	4	1.2	1.8	100.00	no
Sulphur Dioxide - UV	Milligrams per cubic metre	Quarterly	37	12	268	1,000.00	no
Temperature	Degrees Celcius	Quarterly in duplicate	50	134	142		no
Velocity	Metres per second	Quarterly in duplicate	50	15	20		no
Volumetric flowrate	Cubic metres per second	Quarterly in duplicate	50	300	350		no



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Comment:



Point 2:

Pollutant	Units of Measure	Monitoring frequency required by licence	No. of times measured during month	Min. Value	Mean Value	Median Value	Max Value
Opacity	%	Continuous	Continuous	0.0	1.9	1.6	22.2
Comment: Elevated results associated with plant shut down							

Point 107:

Pollutant	Units of Measure	Monitoring frequency required by licence	No. of times measured during month	Min. Value	Mean Value	Median Value	Max Value
Total Solid Particles	Milligrams per cubic metre	Continuous	Continuous	0.8	3.9	3.1	43.5
Comment: Elevated results associated with plant shut down							



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Ambient Air Monitoring Requirements

EPL6092 Condition M2.2/M2.3/O4.14,O4.15 (Cont.)



O4.14

Pollutant	Monitoring frequency required by licence	No of significant emissions measured during month	100 Percentile Limit	Exceedance (yes/no) *
Emission - KISH Tipping DER 5	Monthly	0	4	no
Comment:				

O4.15

Pollutant	Monitoring frequency required by licence	No of significant emissions measured during month	100 Percentile Limit	Exceedance (yes/no) *
Emission Torpedo Ladle > DER 4	Monthly	0	4	no
Comment:				



Point 141: Receiver 1 (located south of licensed site)

Pollutant	Units of Measure	Monitoring frequency required by licence	No. of times measured during month	Min. Value	Mean Value	Median Value	Max. Value
Fine Particulates	Micrograms per cubic metre	Continuous	Continuous	10.2	21.3	14.2	72.8
Benzene	Parts per billion	Every 6 days	5	0.035	0.068	0.0370	0.17
Iron	Micrograms per cubic metre	Every 6 days	5	0.52	2.232	1.50	5.3
Lead	Micrograms per cubic metre	Every 6 days	5	<0.054	<0.054	0.03	<0.056
Polycyclic aromatic hydrocarbons	Nanograms per cubic metre	24 hour period every 6 days.	5	0.6	1.038	0.61	2.4
Total suspended particles	Micrograms per cubic metre	Every 6 days	5	23	46.6	42.00	77
Zinc	Micrograms per cubic metre	Every 6 days	5	<0.11	<0.11	0.06	<0.11
Comment:							



Point 152: Receiver 2 (located north of licensed site)

Pollutant	Units of Measure	Monitoring frequency required by licence	No. of times measured during month	Min. Value	Mean Value	Median Value	Max. Value
Fine Particulates	Micrograms per cubic metre	Continuous	Continuous	12.8	18.7	16.9	35.5
Benzene	Parts per billion	Every 6 days	5	0.038	0.0684	0.0650	0.13
Iron	Micrograms per cubic metre	Every 6 days	5	1	2.9	2.60	6.3
Lead	Micrograms per cubic metre	Every 6 days	5	<0.054	<0.054	0.03	<0.056
Polycyclic aromatic hydrocarbons	Nanograms per cubic metre	24 hour period every 6 days.	5	0.61	1.138	0.81	2.5
Total suspended particles	Micrograms per cubic metre	Every 6 days	5	26	50.4	49.00	84
Zinc	Micrograms per cubic metre	Every 6 days	5	<0.11	0.129	0.06	0.27
Comment:							

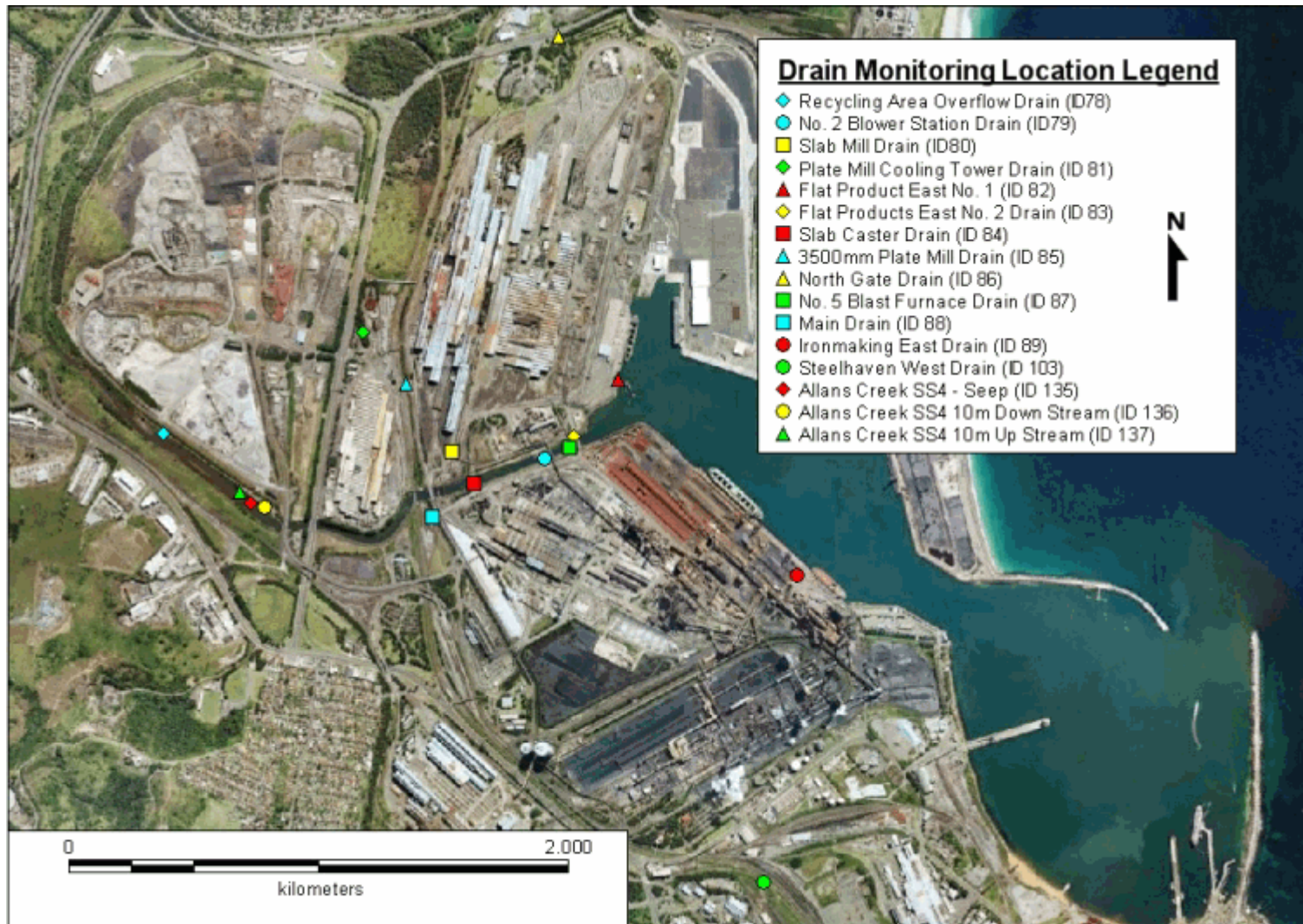


Point 153: Receiver 3 (located west of licensed site)

Pollutant	Units of Measure	Monitoring frequency required by licence	No. of times measured during month	Min. Value	Mean Value	Median Value	Max. Value
Iron	Micrograms per cubic metre	Every 6 days	5	0.48	1.276	1.40	1.7
Lead	Micrograms per cubic metre	Every 6 days	5	<0.054	<0.054	0.03	<0.056
Total suspended particles	Micrograms per cubic metre	Every 6 days	5	28	31.2	32.00	34
Zinc	Micrograms per cubic metre	Every 6 days	5	<0.11	<0.11	0.06	0.26
Comment:							

Water and/or Land Monitoring Requirements

EPL6092 Condition M2.5/M2.6/M8.1/M8.3





Point 78:

Pollutant	Units of Measure	Monitoring frequency required by licence	No. of times measured during month	Min. Value	Mean Value	Median Value	Max. Value
pH		Daily during any discharge which is not due to Wet Weather Conditions	0				
Total Suspended Solids	Milligrams per litre	Daily during any discharge which is not due to Wet Weather Conditions	0				
Volume of Liquids Discharged	Kilolitres per day	Daily	Continuous	0	38.333	0.00	873
Comment: No flow at time of sampling.							



Point 79:

Pollutant	Units of Measure	Monitoring frequency required by licence	No. of times measured during month	Min. Value	Max Value	100 percentile Dry limit (Wet limit)	Exceedance (yes / no) *
Ammonia	Milligrams per litre	Every 8 days	4	<0.06	<0.06	5.0 (5.0)	no
Cyanide	Milligrams per litre	Every 8 days	4	<0.02	<0.02	0.30 (0.30)	no
Filtrable Iron	Milligrams per litre	Every 8 days	4	<0.01	<0.01	0.3 (0.3)	no
Oil and Grease	Milligrams per litre	Every 8 days	4	<5	<5	20 (50)	no
pH		Every 8 days	4	8.1	8.1	6.5-9.0 (6.5-9.0)	no
Temperature	Degrees Celcius	Every 8 days	4	25	27	40 (40)	no
Total Iron	Milligrams per litre	Every 8 days	4	0.07	0.17	3 (50)	no
Total Suspended Solids	Milligrams per litre	Every 8 days	4	3	17	50 (500)	no
Total Zinc	Milligrams per litre	Every 8 days	4	<0.05	<0.05	3 (3)	no
Volume of Liquids Discharged	Kilolitres per day	Daily	Continuous	576269	740721		
Comment:							

Point 80:

Pollutant	Units of Measure	Monitoring frequency required by licence	No. of times measured during month	Min. Value	Max Value	100 percentile Dry limit (Wet limit)	Exceedance (yes / no) *
Cyanide	Milligrams per litre	6/yr. Min 50 days apart.	1	<0.02	<0.02	0.20 (0.00)	no
pH		6/yr. Min 50 days apart.	1	7.2	7.2	6.5-9.0 (0.0-0.0)	no
Volume of Liquids Discharged	Kilolitres per day	Daily	Continuous	297	2338		
Comment:							



Point 82:

Pollutant	Units of Measure	Monitoring frequency required by licence	No. of times measured during month	Min. Value	Max Value	100 percentile Dry limit (Wet limit)	Exceedance (yes / no) *
Cyanide	Milligrams per litre	Quarterly grab sample. Min 80 days apart	1	0.029	0.029	0.30 (0.00)	no
Volume of Liquids Discharged	Kilolitres per day	Daily	Continuous	0	1936		
Comment:							

Point 83:

Pollutant	Units of Measure	Monitoring frequency required by licence	No. of times measured during month	Min. Value	Max Value	100 percentile Dry limit (Wet limit)	Exceedance (yes / no) *
Cyanide	Milligrams per litre	Quarterly grab sample. Min 80 days apart	2	<0.02	<0.02	0.15 (0.00)	no
Volume of Liquids Discharged	Kilolitres per day	Daily	Continuous	178	652		
Comment:							



Point 85:

Pollutant	Units of Measure	Monitoring frequency required by licence	No. of times measured during month	Min. Value	Max Value	100 Percentile Limit	Exceedance (yes / no) *
Oil and Grease	Milligrams per litre	24/year. Min 15 days apart	2	<5	<5	20.0000	no
pH		24/year. Min 15 days apart	2	8.1	8.3	6.5-9.0	no
Temperature	Degrees Celcius	24/year. Min 15 days apart	2	21	23	35.00	no
Total Suspended Solids	Milligrams per litre	24/year. Min 15 days apart	2	14	16	50.00	no
Volume of Liquids Discharged	Kilolitres per day	Daily	Continuous	34607	37279		no
Comment:							



Point 87:

Pollutant	Units of Measure	Monitoring frequency required by licence	No. of times measured during month	Min. Value	Max Value	100 percentile Dry limit (Wet limit)	Exceedance (yes / no) *
Ammonia	Milligrams per litre	Every 8 days	4	<0.06	<0.06	10.0 (10.0)	no
Cyanide	Milligrams per litre	Every 8 days	4	<0.02	<0.02	0.30 (0.30)	no
Filtrable Iron	Milligrams per litre	Every 8 days	4	<0.01	<0.01	1.5 (1.5)	no
Lead	Milligrams per litre	Every 8 days	4	<0.02	0.02	0.5 (0.5)	no
Mercury	Micrograms per litre	Every 8 days	4	<0.5	<0.5	1.5 (1.5)	no
pH		Every 8 days	4	8.1	8.2	6.5-11.0 (6.5-11.0)	no
Temperature	Degrees Celcius	Every 8 days	4	20	22	40 (40)	no
Total Iron	Milligrams per litre	Every 8 days	4	0.15	0.23	7 (100)	no
Total Suspended Solids	Milligrams per litre	Every 8 days	4	6	10	70 (500)	no
Volume of Liquids Discharged	Kilolitres per day	Daily	Continuous	1429	1771		
Comment:							



Point 88:

Pollutant	Units of Measure	Monitoring frequency required by licence	No. of times measured during month	Min. Value	Max Value	100 percentile Dry limit (Wet limit)	Exceedance (yes / no) *
Ammonia	Milligrams per litre	Every 8 days	5	<0.06	0.2	7.5 (7.5)	no
Cyanide	Milligrams per litre	Every 8 days	4	<0.02	<0.02	0.30 (0.30)	no
Oil and Grease	Milligrams per litre	Every 8 days	4	<5	<5	20 (50)	no
pH		Every 8 days	10	8.2	8.9	6.5-9.0 (6.5-9.0)	no
Temperature	Degrees Celcius	Every 8 days	4	21	22	40 (40)	no
Total Suspended Solids	Milligrams per litre	Every 8 days	4	9	13	100 (200)	no
Total Zinc	Milligrams per litre	Every 8 days	4	<0.05	0.08	3 (3)	no
Volume of Liquids Discharged	Kilolitres per day	Daily	Continuous	955	60139		
Comment:							

Point 89:

Pollutant	Units of Measure	Monitoring frequency required by licence	No. of times measured during month	Min. Value	Max Value	100 percentile Dry limit (Wet limit)	Exceedance (yes / no) *
Volume of Liquids Discharged	Kilolitres per day	Daily	Continuous	0	0		
Comment:							



Point 135:

Pollutant	Units of Measure	Monitoring frequency required by licence	No. of times measured during month	Min. Value	Mean Value	Median Value	Max. Value
Ammonia	Milligrams per litre	1 sample in Licence. Q1. 1 sample in Q3. 1 sample following a rainfall event of more than 10mm in a 24 hour period.	1	<0.06	<0.06	0.0300	<0.06
pH		1 sample in Licence. Q1. 1 sample in Q3. 1 sample following a rainfall event of more than 10mm in a 24 hour period.	1	8.1	8.1	8.10	8.1
Temperature	Degrees Celcius	1 sample in Licence. Q1. 1 sample in Q3. 1 sample following a rainfall event of more than 10mm in a 24 hour period.	1	22	22	22.00	22
Comment:							