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

[Link to Environment Protection Licence EPL6092](#)

**LICENCE MONITORING DATA**  
**MONTHLY SUMMARY REPORT**

for

**1 Jun 2021 to 30 Jun 2021**

Monthly (June 2021) Report Published: 30, July, 2021

Date Obtained: 31/07/2021

## Stack Air Monitoring Requirements

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





**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        | 2.5        | 2.9          | 14.6      |
| <b>Comment:</b> |                  |  |                                    |            |            |              |           |

**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 (Indicative only)   | Milligrams per cubic metre | Continuous                               | Continuous                         | 1.5        | 5.9        | 5.8          | 40.7      |
| <b>Comment:</b><br>Elevated results associated with plant shut down and start up. |                            |  |                                    |            |            |              |           |

**Point 151:**

| Pollutant                     | Units of Measure           | Monitoring frequency required by licence | No. of times measured | Min. Value | Mean Value | Max. Value | 100 Percentile Limit | Exceedance (yes/no) |
|-------------------------------|----------------------------|--|-----------------------|------------|------------|------------|----------------------|---------------------|
| Carbon dioxide                | percent                    | Weekly                                   | 4                     | 6.8        | 7.1        | 7.4        | -                    |                     |
| Dioxins & Furans              | nanograms per cubic metre  | Special Frequency 12                     | 4                     | 0.10       | 0.11       | 0.14       | 0.30                 | No                  |
| Dry Gas Density               | kilograms per cubic metre  | Daily during testing                     | 4                     | 1.33       | 1.33       | 1.34       | -                    |                     |
| Flow                          | cubic metres per second    | Daily during testing                     | 4                     | 213        | 228        | 248        | -                    |                     |
| Hydrogen Chloride             | milligrams per cubic metre | Weekly                                   | 1                     | 36         | 36         | 36         | -                    |                     |
| Hydrogen Fluoride             | milligrams per cubic metre | Weekly                                   | 1                     | 5          | 5          | 5          | -                    |                     |
| Moisture content              | percent                    | Daily during testing                     | 4                     | 12.5       | 13.8       | 14.3       | -                    |                     |
| Molecular weight of stack gas | grams per gram mole        | Daily during testing                     | 4                     | 29.8       | 29.9       | 29.9       | -                    |                     |
| Nitrogen Oxides               | milligrams per cubic metre | Weekly                                   | 4                     | 390        | 397        | 409        | 2000                 | No                  |
| Oxygen                        | percent                    | Daily during testing                     | 4                     | 14.9       | 15.1       | 15.2       | -                    |                     |
| Solid Particles               | milligrams per cubic metre | Weekly                                   | 1                     | 12         | 12         | 12         | 20                   | No                  |

**Point 151 (Continue):**

| Pollutant   | Units of Measure           | Monitoring frequency required by licence | No. of times measured | Min. Value | Mean Value | Max. Value | 100 Percentile Limit | Exceedance (yes/no) |
|---|----------------------------|--|-----------------------|------------|------------|------------|----------------------|---------------------|
| Sulphuric acid mist and sulphur trioxide (SO <sub>3</sub> ) | milligrams per cubic metre | Weekly                                   | 1                     | 4.6        | 4.6        | 4.6        | 100                  | No                  |
| Sulphur dioxide   | milligrams per cubic metre | Weekly                                   | 4                     | 337        | 428        | 474        | 1000                 | No                  |
| Temperature   | degrees Celsius            | Daily during testing                     | 4                     | 161        | 164        | 165        | -                    |                     |
| Velocity  | metres per second          | Daily during testing                     | 4                     | 22.7       | 24.3       | 25.8       | -                    |                     |
| Volumetric flowrate   | cubic metres per second    | Daily during testing                     | 4                     | 213        | 228        | 248        | -                    |                     |
| Type 1 Substances   | milligrams per cubic metre | Weekly                                   | 1                     | 0.14       | 0.14       | 0.14       | -                    |                     |
| Type 2 Substances   | milligrams per cubic metre | Weekly                                   | 1                     | 0.075      | 0.075      | 0.075      | -                    |                     |

Note: **Special Frequency 12 means** "Daily at the commencement of the bypass and one sample every 2 days following confirmation that the first 3 daily sample results are less than the licence limit."

**Type 1 Substance** means the elements antimony, arsenic, cadmium, lead or mercury or any compound containing one or more of those elements.

**Type 2 Substance** means the elements beryllium, chromium, cobalt, manganese, nickel, selenium, tin or vanadium or any compound containing one or more of those elements.



**Point 151 (Continuous Process Monitoring):**

| <b>Variable</b>                   | <b>Units of Measure</b>    | <b>Monitoring frequency required by licence</b> | <b>No. of times measured</b> | <b>Min. Value</b> | <b>Mean Value</b> | <b>Max Value</b> |
|-----------------------------------|----------------------------|---|------------------------------|-------------------|-------------------|------------------|
| Solid Particles (Indicative Only) | milligrams per cubic meter | Continuous                                      | Continuous                   | 3                 | 11                | 16               |



## Ambient Air Monitoring Requirements

EPL6092 Condition M2.2/M2.3/O4.12, O4.13, O4.14

### O4.12

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

### O4.13

| 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:                      |  |   |                      |                       |

### O4.14

| 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   | 1                    | 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 |
|--|----------------------------------|--|------------------------------------|------------|------------|--------------|------------|
| Benzene  | Parts per billion                | Every 6 days                             | 4                                  | 0.024      | 0.0535     | 0.0490       | 0.092      |
| Fine Particulates  | Micrograms per cubic metre       | Continuous                               | Continuous                         | 4          | 9          | 7            | 24         |
| Iron   | Micrograms per cubic metre       | Every 6 days                             | 4                                  | 0.28       | 0.715      | 0.59         | 1.4        |
| Lead   | Micrograms per cubic metre       | Every 6 days                             | 4                                  | <0.053     | <0.053     | 0.03         | <0.055     |
| Particulates - Deposited Matter  | Grams per square metre per month | Monthly                                  | 1                                  | 0.69       | 0.69       | 0.69         | 0.69       |
| Polycyclic aromatic hydrocarbons   | Nanograms per cubic metre        | 24 hour period every 6 days.             | 4                                  | 0.61       | 0.78       | 0.66         | 1.2        |
| Total suspended particles  | Micrograms per cubic metre       | Every 6 days                             | 4                                  | 8          | 16         | 14           | 28         |
| Zinc   | Micrograms per cubic metre       | Every 6 days                             | 4                                  | <0.11      | <0.11      | 0.06         | <0.11      |
| <b>Comment:</b> Blown fuse in the sampler on 22/6/21 - No Benzene, Iron, Lead, PAH, TSS or Zinc data for this day. |                                  |  |                                    |            |            |              |            |





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

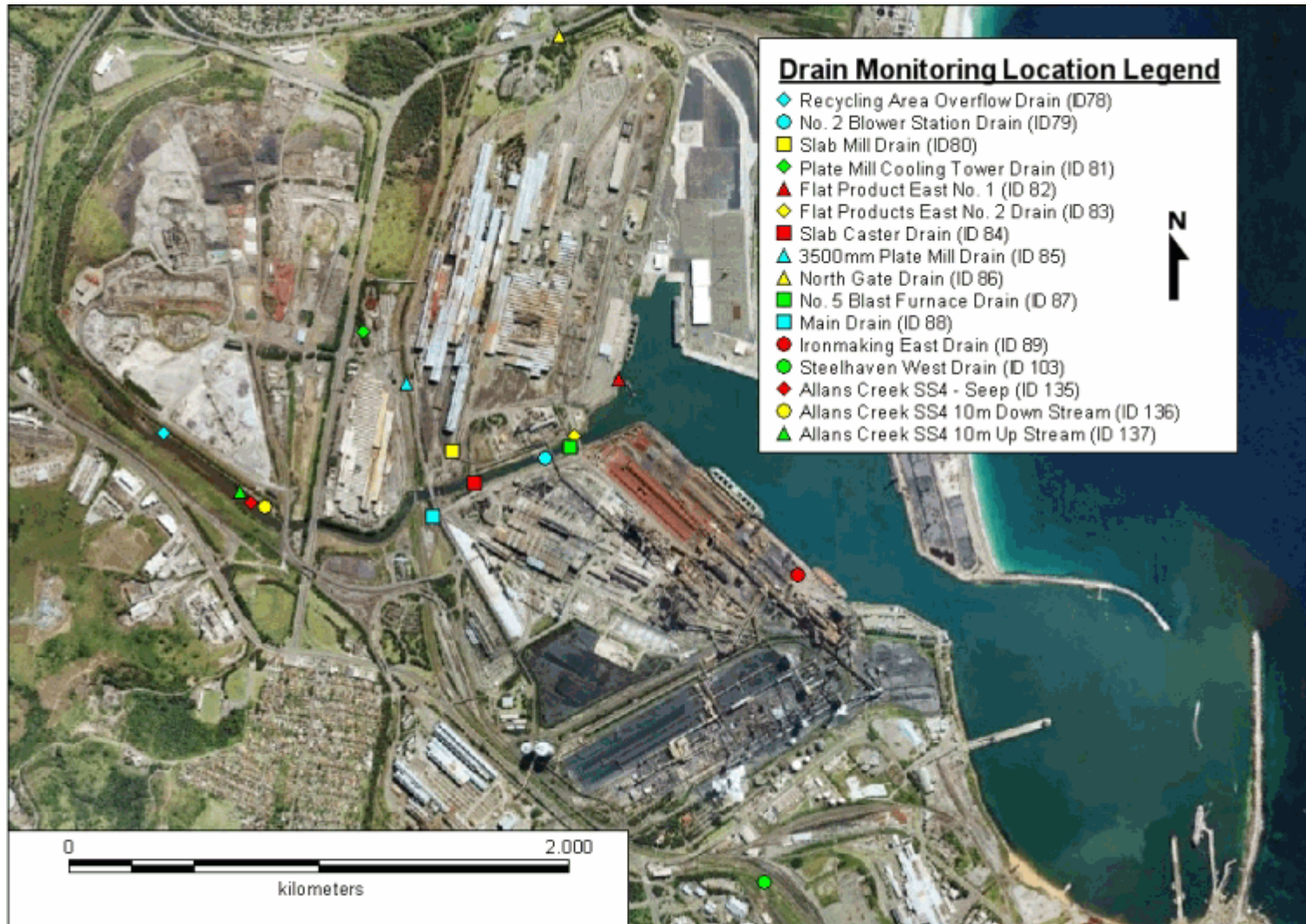
| Pollutant                        | Units of Measure                 | Monitoring frequency required by licence | No. of times measured during month | Min. Value | Mean Value | Median Value | Max. Value |
|----------------------------------|----------------------------------|--|------------------------------------|------------|------------|--------------|------------|
| Benzene                          | Parts per billion                | Every 6 days                             | 5                                  | 0.029      | 0.0832     | 0.0750       | 0.13       |
| Fine Particulates                | Micrograms per cubic metre       | Continuous                               | Continuous                         | 7          | 17         | 15           | 33         |
| Iron                             | Micrograms per cubic metre       | Every 6 days                             | 5                                  | 0.98       | 2.156      | 2.40         | 2.9        |
| Lead                             | Micrograms per cubic metre       | Every 6 days                             | 5                                  | <0.053     | <0.053     | 0.03         | <0.055     |
| Particulates - Deposited Matter  | Grams per square metre per month | Monthly                                  | 1                                  | 0.99       | 0.99       | 0.99         | 0.99       |
| Polycyclic aromatic hydrocarbons | Nanograms per cubic metre        | 24 hour period every 6 days.             | 5                                  | 1.2        | 2.16       | 2.20         | 2.9        |
| Total suspended particles        | Micrograms per cubic metre       | Every 6 days                             | 5                                  | 24         | 41         | 45           | 62         |
| Zinc                             | Micrograms per cubic metre       | Every 6 days                             | 5                                  | <0.11      | 0.199      | 0.21         | 0.3        |
| <b>Comment:</b>                  |                                  |  |                                    |            |            |              |            |

**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                                  | 2.6        | 3.26       | 2.90         | 5.3        |
| Lead                      | Micrograms per cubic metre | Every 6 days                             | 5                                  | <0.053     | <0.053     | 0.03         | 0.064      |
| Total suspended particles | Micrograms per cubic metre | Every 6 days                             | 5                                  | 26         | 36         | 38           | 46         |
| Zinc                      | Micrograms per cubic metre | Every 6 days                             | 5                                  | <0.11      | <0.11      | 0.06         | 0.13       |
| <b>Comment:</b>           |                            |  |                                    |            |            |              |            |

## 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 |
|------------------------------|--------------------|--|------------------------------------|------------|------------|--------------|------------|
| Volume of Liquids Discharged | Kilolitres per day | Daily                                    | Continuous                         | 0          | 0          | 0.00         | 0          |
| <b>Comment:</b>              |                    |  |                                    |            |            |              |            |

**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                             | 6                                  | <0.06      | 0.25      | 5.0 (5.0)                            | no                      |
| Cyanide                      | Milligrams per litre | Every 8 days                             | 6                                  | <0.02      | <0.02     | 0.30 (0.30)                          | no                      |
| Filtrable Iron               | Milligrams per litre | Every 8 days                             | 6                                  | <0.01      | <0.01     | 0.3 (0.3)                            | no                      |
| Oil and Grease               | Milligrams per litre | Every 8 days                             | 6                                  | <5         | <5        | 20 (50)                              | no                      |
| pH                           |                      | Every 8 days                             | 6                                  | 8.1        | 8.2       | 6.5-9.0 (6.5-9.0)                    | no                      |
| Temperature                  | Degrees Celcius      | Every 8 days                             | 6                                  | 21.2       | 26.2      | 40 (40)                              | no                      |
| Total Iron                   | Milligrams per litre | Every 8 days                             | 6                                  | 0.09       | 0.14      | 3 (50)                               | no                      |
| Total Suspended Solids       | Milligrams per litre | Every 8 days                             | 6                                  | <3         | 4         | 50 (500)                             | no                      |
| Total Zinc                   | Milligrams per litre | Every 8 days                             | 6                                  | <0.05      | <0.05     | 3 (3)                                | no                      |
| Volume of Liquids Discharged | Kilolitres per day   | Daily                                    | Continuous                         | 619017     | 752550    |                                      |                         |
| <b>Comment:</b>              |                      |  |                                    |            |           |                                      |                         |

**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) * |
|------------------------------|--------------------|--|------------------------------------|------------|-----------|--------------------------------------|-------------------------|
| Volume of Liquids Discharged | Kilolitres per day | Daily                                    | Continuous                         | 437        | 5250      |                                      |                         |
| <b>Comment:</b>              |                    |  |                                    |            |           |                                      |                         |



**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) * |
|------------------------------|--------------------|--|------------------------------------|------------|-----------|--------------------------------------|-------------------------|
| Volume of Liquids Discharged | Kilolitres per day | Daily                                    | Continuous                         | 220        | 1287      |                                      |                         |
| <b>Comment:</b>              |                    |  |                                    |            |           |                                      |                         |

**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) * |
|------------------------------|--------------------|--|------------------------------------|------------|-----------|--------------------------------------|-------------------------|
| Volume of Liquids Discharged | Kilolitres per day | Daily                                    | Continuous                         | 0          | 229       |                                      |                         |
| <b>Comment:</b>              |                    |  |                                    |            |           |                                      |                         |

**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        | 8.2       | 6.5-9.0              | no                      |
| Temperature                  | Degrees Celcius      | 24/year. Min 15 days apart               | 2                                  | 18.2       | 18.2      | 35.00                | no                      |
| Total Suspended Solids       | Milligrams per litre | 24/year. Min 15 days apart               | 2                                  | <3         | 4         | 50.00                | no                      |
| Volume of Liquids Discharged | Kilolitres per day   | Daily                                    | Continuous                         | 31970      | 37820     |                      | no                      |
| <b>Comment:</b>              |                      |  |                                    |            |           |                      |                         |



**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                             | 3                                  | <0.06      | <0.06     | 10.0 (10.0)                          | no                      |
| Cyanide                      | Milligrams per litre | Every 8 days                             | 3                                  | <0.02      | <0.02     | 0.30 (0.30)                          | no                      |
| Filtrable Iron               | Milligrams per litre | Every 8 days                             | 3                                  | <0.01      | <0.01     | 1.5 (1.5)                            | no                      |
| Lead                         | Milligrams per litre | Every 8 days                             | 3                                  | <0.02      | <0.02     | 0.5 (0.5)                            | no                      |
| Mercury                      | Micrograms per litre | Every 8 days                             | 3                                  | <0.5       | <0.5      | 1.5 (1.5)                            | no                      |
| pH                           |                      | Every 8 days                             | 3                                  | 8.2        | 8.2       | 6.5-11.0 (6.5-11.0)                  | no                      |
| Temperature                  | Degrees Celcius      | Every 8 days                             | 3                                  | 18.2       | 19.2      | 40 (40)                              | no                      |
| Total Iron                   | Milligrams per litre | Every 8 days                             | 3                                  | 0.1        | 0.43      | 7 (100)                              | no                      |
| Total Suspended Solids       | Milligrams per litre | Every 8 days                             | 3                                  | <3         | 3         | 70 (500)                             | no                      |
| Volume of Liquids Discharged | Kilolitres per day   | Daily                                    | Continuous                         | 1960       | 2161      |                                      |                         |
| <b>Comment:</b>              |                      |  |                                    |            |           |                                      |                         |

**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 | 24/year. Min 15 days apart               | 2                                  | <0.06      | <0.06     | 7.5 (7.5)                            | no                      |
| Cyanide                      | Milligrams per litre | 24/year. Min 15 days apart               | 2                                  | <0.02      | <0.02     | 0.30 (0.30)                          | no                      |
| Oil and Grease               | Milligrams per litre | 24/year. Min 15 days apart               | 2                                  | <5         | <5        | 20 (50)                              | no                      |
| pH                           |                      | 24/year. Min 15 days apart               | 2                                  | 8.1        | 8.2       | 6.5-9.0 (6.5-9.0)                    | no                      |
| Temperature                  | Degrees Celcius      | 24/year. Min 15 days apart               | 2                                  | 16.2       | 17.2      | 40 (40)                              | no                      |
| Total Suspended Solids       | Milligrams per litre | 24/year. Min 15 days apart               | 2                                  | 4          | 4         | 100 (200)                            | no                      |
| Total Zinc                   | Milligrams per litre | 24/year. Min 15 days apart               | 2                                  | <0.05      | <0.05     | 3 (3)                                | no                      |
| Volume of Liquids Discharged | Kilolitres per day   | Daily                                    | Continuous                         | 24617      | 29097     |                                      |                         |
| <b>Comment:</b>              |                      |  |                                    |            |           |                                      |                         |



**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         |                                      |                         |
| <b>Comment:</b>              |                    |  |                                    |            |           |                                      |                         |