

ANNUAL PERFORMANCE STATEMENT

VIVA ENERGY REFINING PTY LTD

HOLDER OF LICENCE: 46555
ACN: 004 303 842
REGISTERED ADDRESS: LEVEL 16 720 BOURKE ST
DOCKLANDS VIC 3008
PREMISES ADDRESS: 90 REFINERY RD
CORIO VIC 3214

STATEMENT SUMMARY

Statement Period: 01-Jul-2020 To 30-Jun-2021

Total Number of Conditions on Licence: 20
Number of Conditions - Complied: 13
Number of Conditions - Non-Complied: 7

DECLARATION

I, Scott Wyatt declare that the information in this Annual Performance Statement is true and correct. I have made all necessary enquiries, and no matters of significance have been withheld from the EPA

Name: Scott Wyatt Position: Chief Executive Officer

Signed:  Date: 30/09/2021

The most senior Australian-based officer of your organisation for this licence must sign this statement and it must be scanned and uploaded along with this completed APS form via the EPA web portal by 01 October 2021.

In the event this is not possible, the signed statement must be faxed to (03) 8677 9063 by 01 October 2021. In both instances the statement must also be e-certified on the web portal by 01 October 2021.

1. Under Section 31D(5) of the Environment Protection Act 1970, it is an offence to provide false or misleading information in an Annual Performance Statement or conceal any relevant information or document from the Authority. Contravention of subsection (5) is an indictable offence that carries a penalty of 2400 penalty units or imprisonment for two years, or both.

STATEMENT OF COMPLIANCE

Premises Address: 90 REFINERY RD, CORIO VIC 3214

Licensed Activities: The licence-holder refines crude oil to produce a range of petroleum products. This licence allows for discharges to air and discharges of wastewater to Corio Bay.

Scheduled Categories: G03 Oil and Gas Refining

Analysis of performance against environmental Performance Conditions

| Condition Area | Condition Reference | Condition Description | Condition Complied with? |
|----------------|---------------------|---|--------------------------|
| General | LI_G1 | Waste from the premises must not be discharged to the environment except in accordance with this licence. | No |
| General | LI_G2 | You must immediately notify EPA of non-compliance with any condition of this licence. | Yes |
| General | LI_G3 | By 30 September each year you must submit an annual performance statement to EPA for the previous financial year in accordance with the Annual Performance Statement Guidelines (EPA Publication 1320). | Yes |
| General | LI_G4 | Documents and monitoring records used for preparation of the annual performance statement must be retained at the premises for seven years from the date of each statement. | Yes |
| General | LI_G5 | You must implement a monitoring program that enables you and EPA to determine compliance with this licence. | Yes |
| General | LI_G5.1 | You must implement a program to assess performance against the intervention level in Schedule B of the State environment protection policy (Air Quality Management) for sulfur dioxide, benzene and particles as PM10. | Yes |
| General | LI_G5.4 | You must implement a program to assess annually: (a) Performance against the Design Criteria in Schedule A of the State environment protection policy (Air Quality Management) for fluoride; and (b) Within a 1500 metre radius of the premises boundary: (i) any visible injury to vegetation; and (ii) fluoride levels in samples of forage (dry tissue, unwashed) against an annual mean of 40 µg/g and a maximum of 80 µg/g. | Yes |
| Amenity | LI_A1 | Offensive odours must not be discharged beyond the boundaries of the premises. | Yes |
| Amenity | LI_A2 | Unacceptable noise (including vibration) must not be emitted beyond the boundaries of the premises. | No |
| Amenity | LI_A3 | Nuisance dust must not be discharged beyond the boundaries of the premises. | Yes |

| Condition Area | Condition Reference | Condition Description | Condition Complied with? |
|----------------|---------------------|--|--------------------------|
| Air | LI_DA1 | Discharge of waste to air must be in accordance with the 'Discharge to Air' Table. | Yes |
| Air | LI_DA1.12 | Air emissions from all discharge points combined must not exceed 12,900 grams per minute of sulfur dioxide. | No |
| Air | LI_DA1.13 | Air emissions of sulfur dioxide must not exceed : (a) 5,100 grams per minute from all boilers and heaters combined being the sum of DP's 4, 5, 9, 10, 11, 12, 21 and 23; (b) 2,000 grams per minute from Discharge Point 25; and (c) 10,300 grams per minute from Discharge Point 26. | No |
| Air | LI_DA2.1 | Visible emissions to air other than steam must not be discharged from the premises, except in accordance with condition LI_DA1. | No |
| Water | LI_DW1 | Stormwater discharged from the premises must not be contaminated with waste. | No |
| Water | LI_DW2 | Discharge of waste to surface waters must be in accordance with the 'Discharge to Water' Table. | No |
| Water | LI_DW2.5 | Discharge of wastewater must not contain visible floating oil. | Yes |
| Water | LI_DW3.1.1 | The mixing zones, as shown in Schedule 1, extend for (a) a radius of 500 metres from discharge point W1, (b) a radius of 100 metres from discharge point W3, (c) a radius of 80 metres from discharge point W4, and (d) a radius of 120 metres from discharge point W5. | Yes |
| Water | LI_DW4 | You must install and maintain signage showing the (a) extent of the mixing zone, (b) your name, (c) EPA licence number and (d) discharge point number. | Yes |
| Land | LI_DL1 | You must not contaminate land or groundwater. | Yes |

NON-COMPLIANCE DETAIL

Premises Address: 90 REFINERY RD, CORIO VIC 3214

DETAILS OF NON COMPLIANCE WITH LICENCE CONDITION

Condition: LI_G1 Waste from the premises must not be discharged to the environment except in accordance with this licence.

a) Date(s) when the non-compliance occurred (If applicable)

14/07/2020

13/09/2020

22/10/2020

23/03/2021

b) Summary of particulars of non-compliance

14/07/2020, Product leak from YP192 into pipetrack and soil between jetty and SWI
 13/09/2020, Small amount of hydrocarbon leaked from YP59 flange on jetty pipeline
 22/10/2020, Black particulate matter discharged via W1 outfall
 23/03/2021, Discharge of PFAS impacted stormwater to W1 Outfall

c) What is your assessment of environmental impact as a result of non-compliance

14/07/2020, Hydrocarbon impacts to soil and groundwater
 13/09/2020, No hydrocarbon detected in Corio Bay or on the adjoining beach area. No impact marine or plant life.
 22/10/2020, No coloured water detected in Corio Bay beyond the outfall or on the adjoining beach area. No impact marine or plant life. No hydrocarbon was observed.
 23/03/2021, No elevated detection above background in Corio Bay. No impact marine or plant life.

d) Cause of non-compliance

14/07/2020, Corrosion at gusset arrangement, condition of pipetrack allowed dirt to accumulate, pipetrack inspection did not include gusset.
 13/09/2020, Small amount of product seep from flange YP59 while loading at Jetty 1/2, caused by thermal expansion due to product temperature.
 22/10/2020, Investigations inconclusive, suspect drop in operational level of tank reduced settling time and may have permitted overflow of particles from cleaning activities.
 23/03/2021, Valve failure on foam pod.

e) Action taken or that will be taken to mitigate any adverse effects of the non-compliance

14/07/2020, Impacted soil removed, Active recovery of groundwater and LNAPL, ongoing gauging of groundwater wells in the vicinity.
13/09/2020, Loading ceased and flange retorqued.
22/10/2020, additional absorbent boom placed at creek, industrial cleaner engaged to remove accumulation at booms, rate of feed through DAF1 reduced to increase settling time.
23/03/2021, Temporary quarantining of impacted stormwater in Tank 7. Reduce flow rate through DAF to increase settling time of solids, increased skimming off DAF, ongoing monitoring of upstream, outfall and Corio Bay outside mixing zone.

f) Action taken or that will be taken to prevent reoccurrence of the non-compliance

14/07/2020, Inspection procedure to include gusset arrangements, Implement proactive pipetrack remediation program, Jetty Pipeline Procedure updated. Pipetrack lined to protect soil.
13/09/2020, YP59 flange repaired, limits placed on product temperatures allowed in YP59.
22/10/2020, Note to operators to maintain minimum operational level in Tank 7.
23/03/2021, Replaced failed pipe fitting on foam pod, proactive change out of second pod fitting in same service. Assess and implement secondary spill containment for the refinery's bulk foam inventory. Update Refinery Training Guides and procedures with more specific instruction on foam containment and spill control protocols.

Premises Address: 90 REFINERY RD, CORIO VIC 3214

DETAILS OF NON COMPLIANCE WITH LICENCE CONDITION

Condition: LI_A2 Unacceptable noise (including vibration) must not be emitted beyond the boundaries of the premises.

a) Date(s) when the non-compliance occurred (If applicable)

05/10/2020

20/11/2020

b) Summary of particulars of non-compliance

05/10/2020, A community member complained about noise from the flare being detected beyond the boundary.
20/11/2020, Two community members complained about noise from the flare being detected beyond the boundary.

c) What is your assessment of environmental impact as a result of non-compliance

05/10/2020, Noise could be heard outside the Refinery boundary by a residential neighbour.
20/11/2020, Noise could be heard outside the Refinery boundary by a residential neighbour.

d) Cause of non-compliance

05/10/2020, Steaming activity caused loud high pitched noise that could be heard outside of the boundary.
20/11/2020, Instrument wear caused Wet Gas Compressor trip on the residual cracker unit (RCCU), resulting in the large flare.

e) Action taken or that will be taken to mitigate any adverse effects of the non-compliance

05/10/2020, The rate of steaming was reduced, returning noise to acceptable levels.
20/11/2020, The feed rate was reduced and removed from the RCCU, allowing air supply line repair and restart.

f) Action taken or that will be taken to prevent reoccurrence of the non-compliance

05/10/2020, The procedure for the activity has been altered to specify the desired steaming rate. Notification of neighbours for the potential for noise during this activity has been included in the procedure.
20/11/2020, Instrument repair added to next maintenance scope to prevent trip.

Premises Address: 90 REFINERY RD, CORIO VIC 3214

DETAILS OF NON COMPLIANCE WITH LICENCE CONDITION

Condition: LI_DA1.12 Air emissions from all discharge points combined must not exceed 12,900 grams per minute of sulfur dioxide.

a) Date(s) when the non-compliance occurred (If applicable)

09/05/2021

b) Summary of particulars of non-compliance

09/05/2021, SO2 bubble limit was exceeded when a feed change was made.

c) What is your assessment of environmental impact as a result of non-compliance

09/05/2021, No SO2 detected at boundary or AAQM station, no off site odour or calls from community.

d) Cause of non-compliance

09/05/2021, A temporary loss of amine when switching between ARU1 and ARU2 caused a large compositional swing in SRU3. The subsequent shift in temperature within the SRU2 incinerator when amine rates were restored caused both units to trip.

e) Action taken or that will be taken to mitigate any adverse effects of the non-compliance

09/05/2021, Restart procedure was recommenced to restore unit and emission levels returned to levels below limits.

f) Action taken or that will be taken to prevent reoccurrence of the non-compliance

09/05/2021, Return sulphur processing units to service.

Premises Address: 90 REFINERY RD, CORIO VIC 3214

DETAILS OF NON COMPLIANCE WITH LICENCE CONDITION

Condition: LI_DA1.13 Air emissions of sulfur dioxide must not exceed :

- (a) 5,100 grams per minute from all boilers and heaters combined being the sum of DP's 4, 5, 9, 10, 11, 12, 21 and 23;
- (b) 2,000 grams per minute from Discharge Point 25; and
- (c) 10,300 grams per minute from Discharge Point 26.

a) Date(s) when the non-compliance occurred (If applicable)

25/02/2021

02/05/2021

09/04/2021

20/05/2021

b) Summary of particulars of non-compliance

25/02/2021, SO2 emissions at Discharge Point (DP) 25 were above licence limits: S30a #236609 was in place for SRU and SCOT restart after COVID shutdown event in 2020.
 02/05/2021, SO2 emissions at DP25 were above licence limits: when a feed change was made.
 09/04/2021, SO2 emissions at DP25 were above licence limits: when Sour Water Treater (SWT) gas was withdrawn from SRU3, S30A #246972 obtained for the re-introduction of secondary feed into SRU3.
 20/05/2021, SO2 emissions at DP25 were above licence limits: when a feed change was made. S30A #250631 was in place for SCOT unit restart.

c) What is your assessment of environmental impact as a result of non-compliance

25/02/2021, SO2 detected at Ambient Air Quality Measurement (AAQM) station remained well below SEPP, Bubble limit was not exceeded, no off site odour or calls from community.
 02/05/2021, No changes to SO2 detected at AAQM station, Bubble limit was not exceeded, no off site odour or calls from community.
 09/04/2021, SO2 detected at AAQM station remained well below SEPP, Bubble limit was not exceeded, no off site odour or calls from community.
 20/05/2021, SO2 detected at AAQM station remained well below SEPP, Bubble limit was not exceeded, no off site odour or calls from community.

d) Cause of non-compliance

25/02/2021, During restart of SRU3 after repairs, feed redirected back from to SRU2, fuel gas adjustments could not be achieved at the same rate causing excess air to react with H₂S resulting in SO₂ exceeding the licence limit, but was below the limit prescribed in S30A #236609.
02/05/2021, A temporary loss of amine from HDS1 to ARU1 resulted in a rapid change in SRU3 feed flow and composition causing a unit upset and exceedance of licence limit.
09/04/2021, During withdrawal of SWT gas feed from SRU3 due to SO₂ emissions approaching DP25 licence limit, could not maintain fuel gas ratio to within control limits.
20/05/2021, Flow disturbance when preparing to take the blower offline as part of the restart process caused SCOT to trip.

e) Action taken or that will be taken to mitigate any adverse effects of the non-compliance

25/02/2021, Not applicable because limits were below those prescribed in S30a #236609.
02/05/2021 Operators altered feed rates and composition and emission levels returned to levels below limits within 1 hour.
09/04/2021, Not applicable because limits were below those prescribed in S30a #246972.
20/05/2021, Start-up procedure was recommenced, unit successfully restored and emission returned to below limits.

f) Action taken or that will be taken to prevent reoccurrence of the non-compliance

25/02/2021, Return sulphur processing units to service.
02/05/2021, Return sulphur processing units to service.
09/04/2021, Return sulphur processing units to service.
20/05/2021, Return sulphur processing units to service.

Premises Address: 90 REFINERY RD, CORIO VIC 3214

DETAILS OF NON COMPLIANCE WITH LICENCE CONDITION

Condition: LI_DA2.1 Visible emissions to air other than steam must not be discharged from the premises, except in accordance with condition LI_DA1.

a) Date(s) when the non-compliance occurred (If applicable)

07/02/2021

b) Summary of particulars of non-compliance

At 4am, Viva Energy self-reported a visible white/blue plume from the DP25 stack that lasted for about 35 minutes. S30a #236609 was in place for SRU and SCOT restart after COVID shutdown event.

c) What is your assessment of environmental impact as a result of non-compliance

No SO2 emissions exceeded licence limits, no ambient air impacts, no off site noise, odour or calls from community.

d) Cause of non-compliance

During SRU3 start-up, a tail gas analyser fault forced a rapid shutdown of the unit to prevent potential process safety issue, excess air used to reduce temperatures in the reactor generated SO3 causing a visible white/blue plume.

e) Action taken or that will be taken to mitigate any adverse effects of the non-compliance

Once it was determined that the reactor temperatures were within normal operating levels the air was gradually reduced and the plume dissipated.

f) Action taken or that will be taken to prevent reoccurrence of the non-compliance

Tail gas analyser was repaired the following day.

Premises Address: 90 REFINERY RD, CORIO VIC 3214

DETAILS OF NON COMPLIANCE WITH LICENCE CONDITION

Condition: LI_DW1 Stormwater discharged from the premises must not be contaminated with waste.

a) Date(s) when the non-compliance occurred (If applicable)

19/07/2020

23/11/2020

22/12/2020

29/01/2021

b) Summary of particulars of non-compliance

19/07/2020, A small amount of hydrocarbon was discharged from W3 outfall
23/11/2020, Hydrocarbon spotting was observed at W1 and W5 Outfalls
22/12/2020, Hydrocarbon spotting was observed at W5 Outfall
29/01/2021, Hydrocarbon spotting was observed at W5 Outfall

c) What is your assessment of environmental impact as a result of non-compliance

19/07/2021, Minimal hydrocarbon was detected in the water discharged at the outfall. There was no impact on the surrounding beach area. There was no impact marine or plant life.
23/11/2020, Minimal hydrocarbon was detected in the water discharged at the outfall. There was no impact on the surrounding beach area. There was no impact marine or plant life.
22/12/2020, Minimal hydrocarbon was detected in the water discharged at the outfall. There was no impact on the surrounding beach area. There was no impact marine or plant life.
29/01/2021, Minimal hydrocarbon was detected in the water discharged at the outfall. There was no impact on the surrounding beach area. There was no impact marine or plant life.

d) Cause of non-compliance

19/07/2021, YP192 pipe leak impacted seaweed was drawn into the Salt Water Intake and discharged via W3 Outfall.
23/11/2020, Heavy rain in short period that caused CDF7 and CDF10 to overflow taking a small amount of hydrocarbon entrained in the water.
22/12/2020, Heavy rain in short period that caused CDF10 to overflow taking a small amount of hydrocarbon entrained in the water.
29/01/2021, Heavy rain in short period that caused CDF10 to overflow taking a small amount of hydrocarbon entrained in the water.

e) Action taken or that will be taken to mitigate any adverse effects of the non-compliance

19/07/2021, Booms deployed to capture hydrocarbon, source seaweed removed, daily logs maintained until hydrocarbon observed to have subsided.
23/11/2020, Industrial cleaners deployed to remove hydrocarbons from the water in the CDFs
22/12/2020, Industrial cleaners deployed to remove hydrocarbons from the water in CDF10
29/01/2021, Industrial cleaners deployed to remove hydrocarbons from the water in CDF10

f) Action taken or that will be taken to prevent reoccurrence of the non-compliance

19/07/2021, Update procedure for jetty pipeline inspections to include external gussets.
23/11/2020, CDF10 basin design modifications identified and assessment completed. Civil works to commence in 2021 and extend into 2022.
22/12/2020, CDF10 basin design modifications identified and assessment completed. Civil works to commence in 2021 and extend into 2022.
29/01/2021, CDF10 basin design modifications identified and assessment completed. Civil works to commence in 2021 and extend into 2022.

Premises Address: 90 REFINERY RD, CORIO VIC 3214

DETAILS OF NON COMPLIANCE WITH LICENCE CONDITION

Condition: LI_DW2 Discharge of waste to surface waters must be in accordance with the 'Discharge to Water' Table.

a) Date(s) when the non-compliance occurred (If applicable)

06/04/2021

b) Summary of particulars of non-compliance

06/04/2021, BTEX in the W5 Outfall exceeded the EPA licence limit

c) What is your assessment of environmental impact as a result of non-compliance

06/04/2021, There was no hydrocarbon odour or sheen observed at the outfall. There was no impact to marine or plant life observed. There were no community complaints received.

d) Cause of non-compliance

06/04/2021, Heat Exchanger (E2553) Leak caused by biota fouling tubes and accelerating corrosion.

e) Action taken or that will be taken to mitigate any adverse effects of the non-compliance

06/04/2021, Isolation of exchanger. Hydro-test on 132 exchanger tubes identified a single leaking tube, which was cut and plugged, anodes replaced on all tubes.

f) Action taken or that will be taken to prevent reoccurrence of the non-compliance

06/04/2021, Exchanger scheduled for maintenance repair (re-tube) at next outage, frequency of preventative maintenance increased, feasibility assessments of tube materials and chlorine injection to reduce fouling by biota.

AIR ADDITIONAL INFORMATION

Premises Address: 90 REFINERY RD, CORIO VIC 3214

AIR - MONITORING METHODS

| Indicator | Monitoring Method | Number of Samples | | | | Total | % Downtime | NATA Accredited |
|--|-----------------------|-------------------|--------------|--------------|--------------|-------|------------|-----------------|
| | | Q1 (Jul-Sep) | Q2 (Oct-Dec) | Q3 (Jan-Mar) | Q4 (Apr-Jun) | | | |
| Benzene | Emissions estimations | 0 | 0 | 0 | 0 | 0 | | NO |
| Carbon monoxide | Emissions estimations | 0 | 0 | 1 | 0 | 1 | | NO |
| Fluorine compounds (as HF) | Stack test | 0 | 0 | 3 | 2 | 5 | | YES |
| Oxides of nitrogen (as NO ₂) | Stack test | 0 | 0 | 1 | 0 | 1 | | YES |
| Particles | Stack test | 0 | 0 | 1 | 0 | 1 | | YES |
| Particles (as PM ₁₀) | Stack test | 0 | 0 | 1 | 0 | 1 | | YES |
| Sulfur dioxide | Stack test | 0 | 0 | 0 | 0 | 0 | | YES |
| Total volatile organic compounds | Emissions estimations | 0 | 0 | 1 | 0 | 1 | | NO |

AIR - RECORDED VALUES

| Discharge Point Number | Indicator | Units | Licence Limit | | Maximum Recorded Value | 90th Percentile Value | Primary Proxy Indicator | Secondary Proxy Indicator |
|------------------------|----------------------------------|---------|---------------|---|------------------------|-----------------------|-------------------------|---------------------------|
| DP10 | Fluorine compounds (as HF) | g/min | 140 | = | 100.000 | | No Proxy Indicator Used | No Proxy Indicator Used |
| DP26 | Particles | g/min | 1,400 | = | 290.000 | | No Proxy Indicator Used | No Proxy Indicator Used |
| DP26 | Particles (as PM ₁₀) | g/min | 1,000 | = | 200.000 | | No Proxy Indicator Used | No Proxy Indicator Used |
| TANKS | Total volatile organic compounds | to/year | 450 | = | 189.650 | | No Proxy Indicator Used | No Proxy Indicator Used |
| *BUBBLE | Benzene | to/year | 4.500 | = | 1.403 | | | |

| Discharge Point Number | Indicator | Units | Licence Limit | | Maximum Recorded Value | 90th Percentile Value | Primary Proxy Indicator | Secondary Proxy Indicator |
|------------------------|--|---------|---------------|---|------------------------|-----------------------|-------------------------|---------------------------|
| *BUBBLE | Carbon monoxide | g/min | 2,900 | = | 321.798 | | | |
| *BUBBLE | Oxides of nitrogen (as NO ₂) | g/min | 8,800 | = | 307.482 | | | |
| *BUBBLE | Sulfur dioxide | to/year | 4,475 | = | 291.236 | | | |

* Indicates a bubble limit

WATER ADDITIONAL INFORMATION

Premises Address: 90 REFINERY RD, CORIO VIC 3214

WATER - RECORDED VALUES

| Discharge Point Number | Indicator | Recorded Value Required? | Collected? | Units | Limit Type | Licence Limit | Recorded Value |
|------------------------|--|--------------------------|------------|--------|---------------|---------------|----------------|
| W1 | Dissolved oxygen as mg/L | Required | Yes | mg/l | Minimum | 5 | = 6.700 |
| W3 | Dissolved oxygen as mg/L | Required | Yes | mg/l | Minimum | 5 | = 7.700 |
| W5 | Dissolved oxygen as mg/L | Required | Yes | mg/l | Minimum | 5 | = 6.800 |
| W1 | Suspended solids | Required | Yes | mg/l | Above Ambient | 5 | = 5.000 |
| W3 | Suspended solids | Required | Yes | mg/l | Above Ambient | 5 | = 10.000 |
| W4 | Suspended solids | Required | Yes | mg/l | Above Ambient | 5 | = 2.000 |
| W5 | Suspended solids | Required | Yes | mg/l | Above Ambient | 5 | = 5.000 |
| W1 | Temperature | Required | Yes | Degree | Maximum | 35 | = 31.000 |
| W3 | Temperature | Required | Yes | Degree | Maximum | 35 | = 24.000 |
| W4 | Temperature | Required | Yes | Degree | Maximum | 35 | = 34.000 |
| W5 | Temperature | Required | Yes | Degree | Maximum | 35 | = 34.000 |
| W1 | Benzene, toluene, ethylbenzene, and xyle | Required | Yes | mg/l | Maximum | 0.7 | < 0.080 |
| W5 | Benzene, toluene, ethylbenzene, and xyle | Required | Yes | mg/l | Maximum | 0.7 | = 2.384 |
| W1 | Benzene, toluene, ethylbenzene, and xyle | Required | Yes | mg/l | Annual Median | 0.01 | = 0.003 |
| W5 | Benzene, toluene, ethylbenzene, and xyle | Required | Yes | mg/l | Annual Median | 0.01 | = 0.003 |
| W1 | Copper | Required | Yes | mg/l | Maximum | 0.1 | = 0.005 |
| W5 | Copper | Required | Yes | mg/l | Maximum | 0.1 | = 0.015 |
| W1 | Copper | Required | Yes | mg/l | Annual Median | 0.006 | = 0.003 |
| W5 | Copper | Required | Yes | mg/l | Annual Median | 0.006 | = 0.003 |

| Discharge Point Number | Indicator | Recorded Value Required? | Collected? | Units | Limit Type | Licence Limit | Recorded Value |
|------------------------|---------------------------|--------------------------|------------|--------|---------------|---------------|----------------|
| W1 | Nickel | Required | Yes | mg/l | Maximum | 0.2 | = 0.005 |
| W5 | Nickel | Required | Yes | mg/l | Maximum | 0.2 | = 0.002 |
| W1 | Nickel | Required | Yes | mg/l | Annual Median | 0.07 | = 0.003 |
| W5 | Nickel | Required | Yes | mg/l | Annual Median | 0.07 | = 0.001 |
| W1 | Zinc | Required | Yes | mg/l | Maximum | 0.5 | = 0.052 |
| W5 | Zinc | Required | Yes | mg/l | Maximum | 0.5 | = 0.022 |
| W1 | Zinc | Required | Yes | mg/l | Annual Median | 0.02 | = 0.205 |
| W5 | Zinc | Required | Yes | mg/l | Annual Median | 0.02 | = 0.012 |
| W1 | Total residual chlorine | Required | Yes | mg/l | Maximum | 0.1 | = 0.100 |
| W3 | Total residual chlorine | Required | Yes | mg/l | Maximum | 0.2 | = 0.200 |
| W4 | Total residual chlorine | Required | Yes | mg/l | Maximum | 0.2 | = 0.100 |
| W5 | Total residual chlorine | Required | Yes | mg/l | Maximum | 0.1 | = 0.100 |
| W1 | Total organic carbon | Required | Yes | mg/l | Above Ambient | 10 | = 5.000 |
| W3 | Total organic carbon | Required | Yes | mg/l | Above Ambient | 10 | = 10.000 |
| W4 | Total organic carbon | Required | Yes | mg/l | Above Ambient | 10 | = 4.000 |
| W5 | Total organic carbon | Required | Yes | mg/l | Above Ambient | 10 | = 8.000 |
| W1 | Total organic carbon | Required | Yes | mg/l | Annual Median | 2 | = 2.000 |
| W3 | Total organic carbon | Required | Yes | mg/l | Annual Median | 2 | = 2.000 |
| W4 | Total organic carbon | Required | Yes | mg/l | Annual Median | 2 | = 2.000 |
| W5 | Total organic carbon | Required | Yes | mg/l | Annual Median | 2 | = 2.000 |
| W1 | Temperature above ambient | Required | Yes | Degree | Above Ambient | 12 | = 10.000 |
| W3 | Temperature above ambient | Required | Yes | Degree | Above Ambient | 12 | = 1.000 |
| W4 | Temperature above ambient | Required | Yes | Degree | Above Ambient | 12 | = 10.000 |
| W5 | Temperature above ambient | Required | Yes | Degree | Above Ambient | 12 | = 11.000 |
| W1 | Dissolved oxygen as mg/L | Optional | No | mg/l | Annual Median | | = |

| Discharge Point Number | Indicator | Recorded Value Required? | Collected? | Units | Limit Type | Licence Limit | Recorded Value |
|------------------------|--|--------------------------|------------|--------|-----------------|---------------|----------------|
| W3 | Dissolved oxygen as mg/L | Optional | No | mg/l | Annual Median | | = |
| W5 | Dissolved oxygen as mg/L | Optional | No | mg/l | Annual Median | | = |
| W1 | Suspended solids | Optional | No | mg/l | 90th Percentile | | = |
| W1 | Suspended solids | Optional | No | mg/l | Annual Median | | = |
| W1 | Suspended solids | Optional | No | mg/l | Maximum | | = |
| W3 | Suspended solids | Optional | Yes | mg/l | 90th Percentile | | = 17.000 |
| W3 | Suspended solids | Optional | Yes | mg/l | Annual Median | | = 6.000 |
| W3 | Suspended solids | Optional | Yes | mg/l | Maximum | | = 19.000 |
| W4 | Suspended solids | Optional | No | mg/l | 90th Percentile | | = |
| W4 | Suspended solids | Optional | No | mg/l | Annual Median | | = |
| W4 | Suspended solids | Optional | No | mg/l | Maximum | | = |
| W5 | Suspended solids | Optional | No | mg/l | 90th Percentile | | = |
| W5 | Suspended solids | Optional | No | mg/l | Annual Median | | = |
| W5 | Suspended solids | Optional | No | mg/l | Maximum | | = |
| W1 | Temperature | Optional | No | Degree | Annual Median | | = |
| W1 | Temperature | Optional | No | Degree | Minimum | | = |
| W3 | Temperature | Optional | No | Degree | Annual Median | | = |
| W3 | Temperature | Optional | No | Degree | Minimum | | = |
| W4 | Temperature | Optional | No | Degree | Annual Median | | = |
| W4 | Temperature | Optional | No | Degree | Minimum | | = |
| W5 | Temperature | Optional | No | Degree | Annual Median | | = |
| W5 | Temperature | Optional | No | Degree | Minimum | | = |
| W1 | Benzene, toluene, ethylbenzene, xylene | Optional | No | mg/l | Minimum | | = |
| W5 | Benzene, toluene, ethylbenzene, xylene | Optional | No | mg/l | Minimum | | = |
| W1 | Benzene, toluene, ethylbenzene, xylene | Optional | No | mg/l | Minimum | | = |

| Discharge Point Number | Indicator | Recorded Value Required? | Collected? | Units | Limit Type | Licence Limit | Recorded Value |
|------------------------|--|--------------------------|------------|-------|-----------------|---------------|----------------|
| W5 | Benzene, toluene, ethylbenzene, xylene | Optional | No | mg/l | Minimum | | = |
| W1 | Copper | Optional | No | mg/l | 90th Percentile | | = |
| W5 | Copper | Optional | No | mg/l | 90th Percentile | | = |
| W1 | Copper | Optional | No | mg/l | 90th Percentile | | = |
| W5 | Copper | Optional | No | mg/l | 90th Percentile | | = |
| W1 | Nickel | Optional | No | mg/l | 90th Percentile | | = |
| W5 | Nickel | Optional | No | mg/l | 90th Percentile | | = |
| W1 | Nickel | Optional | No | mg/l | 90th Percentile | | = |
| W5 | Nickel | Optional | No | mg/l | 90th Percentile | | = |
| W1 | Zinc | Optional | No | mg/l | 90th Percentile | | = |
| W5 | Zinc | Optional | No | mg/l | 90th Percentile | | = |
| W1 | Zinc | Optional | No | mg/l | 90th Percentile | | = |
| W5 | Zinc | Optional | No | mg/l | 90th Percentile | | = |
| W1 | Total residual chlorine | Optional | No | mg/l | Annual Median | | = |
| W1 | Total residual chlorine | Optional | No | mg/l | Minimum | | = |
| W3 | Total residual chlorine | Optional | No | mg/l | Annual Median | | = |
| W3 | Total residual chlorine | Optional | No | mg/l | Minimum | | = |
| W4 | Total residual chlorine | Optional | No | mg/l | Annual Median | | = |
| W4 | Total residual chlorine | Optional | No | mg/l | Minimum | | = |
| W5 | Total residual chlorine | Optional | No | mg/l | Annual Median | | = |
| W5 | Total residual chlorine | Optional | No | mg/l | Minimum | | = |
| W1 | Total organic carbon | Optional | No | mg/l | 90th Percentile | | = |
| W3 | Total organic carbon | Optional | No | mg/l | 90th Percentile | | = |
| W4 | Total organic carbon | Optional | No | mg/l | 90th Percentile | | = |
| W5 | Total organic carbon | Optional | No | mg/l | 90th Percentile | | = |

| Discharge Point Number | Indicator | Recorded Value Required? | Collected? | Units | Limit Type | Licence Limit | Recorded Value |
|------------------------|---------------------------|--------------------------|------------|--------|-----------------|---------------|----------------|
| W1 | Total organic carbon | Optional | No | mg/l | 90th Percentile | | = |
| W3 | Total organic carbon | Optional | No | mg/l | 90th Percentile | | = |
| W4 | Total organic carbon | Optional | No | mg/l | 90th Percentile | | = |
| W5 | Total organic carbon | Optional | No | mg/l | 90th Percentile | | = |
| W1 | Temperature above ambient | Optional | No | Degree | Annual Median | | = |
| W1 | Temperature above ambient | Optional | No | Degree | Maximum | | = |
| W1 | Temperature above ambient | Optional | No | Degree | Minimum | | = |
| W3 | Temperature above ambient | Optional | No | Degree | Annual Median | | = |
| W3 | Temperature above ambient | Optional | No | Degree | Maximum | | = |
| W3 | Temperature above ambient | Optional | No | Degree | Minimum | | = |
| W4 | Temperature above ambient | Optional | No | Degree | Annual Median | | = |
| W4 | Temperature above ambient | Optional | No | Degree | Maximum | | = |
| W4 | Temperature above ambient | Optional | No | Degree | Minimum | | = |
| W5 | Temperature above ambient | Optional | No | Degree | Annual Median | | = |
| W5 | Temperature above ambient | Optional | No | Degree | Maximum | | = |
| W5 | Temperature above ambient | Optional | No | Degree | Minimum | | = |

WATER - SAMPLING RECORD AND FLOW

Number of Samples

| Q1 (Jul - Sep) | Q2 (Oct - Dec) | Q3 (Jan - Mar) | Q4 (Apr - Jun) | Total |
|----------------|----------------|----------------|----------------|-------|
| 774 | 847 | 831 | 829 | 3,281 |

Discharge (ML)

| Q1 (Jul - Sep) | Q2 (Oct - Dec) | Q3 (Jan - Mar) | Q4 (Apr - Jun) | Total |
|----------------|----------------|----------------|----------------|---------|
| 27,783.00000 | 26,180.00000 | 27,727.00000 | 28,629.00000 | 110,319 |