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Teys is a Trade Mark of Teys Australia – A Cargill Joint Venture

Teys Australia Southern Property Pty Ltd (Teys Australia Wagga Wagga)

Environmental Monitoring Data Summary

Environmental Protection Licence number 2262

Executive Summary

Teys Australia Wagga is the holder of Environmental Protection Licence (EPL) 2262. This Licence is administered by the *NSW Environmental Protection Authority (EPA)*, and includes conditions relevant to the site's operation, including environmental monitoring, as is outlined in this report. All environmental monitoring results required under EPL 2262 are submitted to the *EPA* each year in a formal annual return, and interpreted, and submitted to the *NSW Department of Planning and Infrastructure* in an Annual Environmental Management Review (AEMR).

All monitoring specified under EPL 2262 was completed in the 2021/2022 annual reporting period, which covered the period between 6 December 2021 and 5 December 2022.

Nil instances of non – compliance with any of the conditions in EPL 2262 occurred during the reporting period.

Further information is available by contacting the Teys Group Environmental Manager on (07) 31989192

A full copy of EPL 2262 can be obtained on the EPA website from the following URL using the search function for licence number “2262”:

<https://apps.epa.nsw.gov.au/prpoeoapp/>



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Analyte	Unit of Measure	Monitoring frequency required by License	Date of Sampling	Date Data Obtained	Sample Result
Biochemical Oxygen Demand	(mg/L)	Monthly	01/12/2021	21/12/2021	15
			11/01/2022	04/02/2022	1
			02/02/2022	17/02/2022	22
			02/03/2022	06/04/2022	8
			06/04/2022	10/05/2022	13
			04/05/2022	22/05/2022	10
			02/06/2022	21/06/2022	26
			06/07/2022	02/08/2022	8
			03/08/2022	24/08/2022	10
			08/09/2022	11/10/2022	9
			05/10/2022	08/11/2022	5
			03/11/2022	24/11/2022	7
07/12/2022	12/01/2023	7			

EPA Monitoring Point 4: Summary of results for soil monitoring on CFA High irrigation paddock (EPA Monitoring Point 4)

Analyte	Units of measure	Monitoring frequency required by licence	No of times measured during year	Date of Sampling	Date data obtained	Date Published	Mean Value
Conductivity	(dS/m)	Annual	1	12/01/2023	30/01/2023	03/05/2023	0.21
Exchangeable Calcium	(mg/kg)	Annual	1	12/01/2023	30/01/2023	03/05/2023	828
Exchangeable Magnesium	(mg/kg)	Annual	1	12/01/2023	30/01/2023	03/05/2023	237.17
Exchangeable Potassium	(mg/kg)	Annual	1	12/01/2023	30/01/2023	03/05/2023	274.41
Exchangeable Sodium	(mg/kg)	Annual	1	12/01/2023	30/01/2023	03/05/2023	369.15
Exchangeable Sodium Percentage	Percent	Annual	1	12/01/2023	30/01/2023	03/05/2023	19.3
Extractable Phosphorus	(mg/kg)	Annual	1	12/01/2023	30/01/2023	03/05/2023	67.94
Nitrate	(mg/kg)	Annual	1	12/01/2023	30/01/2023	03/05/2023	3.4
Nitrogen (total)	(mg/kg)	Annual	1	12/01/2023	30/01/2023	03/05/2023	359.9
pH	pH	Annual	1	12/01/2023	30/01/2023	03/05/2023	8.5
Phosphorus (total)	(mg/kg)	Annual	1	12/01/2023	30/01/2023	03/05/2023	186.6
Phosphorus Sorption Capacity	(L/kg)	Annual	1	12/01/2023	30/01/2023	03/05/2023	299.3
Total Organic Carbon	(mg/kg)	Annual	1	12/01/2023	30/01/2023	03/05/2023	3221.8

The monitoring data in the table above has been taken from monitoring point 4 in EPL 2262. The monitoring point has been established to monitor the soil on which treated wastewater is applied. The monitoring point is located within in the 'CFA High' irrigation area.

EPA Monitoring Point 6: Summary of results for soil monitoring on CFA Low irrigation paddock (EPA Monitoring point 6).

Analyte	Units of measure	Monitoring frequency required by licence	No of times measured during year	Date of Sampling	Date data obtained	Date Published	Mean Value
Conductivity	(dS/m)	Annual	1	12/01/2023	30/01/2023	03/05/2023	0.4
Exchangeable Calcium	(mg/kg)	Annual	1	12/01/2023	30/01/2023	03/05/2023	1796.00
Exchangeable Magnesium	(mg/kg)	Annual	1	12/01/2023	30/01/2023	03/05/2023	840.66
Exchangeable Potassium	(mg/kg)	Annual	1	12/01/2023	30/01/2023	03/05/2023	258.45
Exchangeable Sodium	(mg/kg)	Annual	1	12/01/2023	30/01/2023	03/05/2023	1400.7
Exchangeable Sodium Percentage	Percent	Annual	1	12/01/2023	30/01/2023	03/05/2023	23.15
Extractable Phosphorus	(mg/kg)	Annual	1	12/01/2023	30/01/2023	03/05/2023	51.1
Nitrate	(mg/kg)	Annual	1	12/01/2023	30/01/2023	03/05/2023	5.5
Nitrogen (total)	(mg/kg)	Annual	1	12/01/2023	30/01/2023	03/05/2023	802.2
pH	pH	Annual	1	12/01/2023	30/01/2023	03/05/2023	7.8
Phosphorus (total)	(mg/kg)	Annual	1	12/01/2023	30/01/2023	03/05/2023	325.4
Phosphorus Sorption Capacity	(L/kg)	Annual	1	12/01/2023	30/01/2023	03/05/2023	362.6
Total Organic Carbon	(mg/kg)	Annual	1	12/01/2023	30/01/2023	03/05/2023	9359.0

The monitoring data in the table above has been taken from monitoring point 6 in EPL 2262. The monitoring point has been established to monitor the soil on which treated wastewater is applied. The monitoring point is located within in the 'CFA Low' irrigation area.

EPA Monitoring Point 7 (Effluent discharge to 59 Hillary St, Wagga Wagga)

No data available as no discharge to this area.

EPA Monitoring Point 9: Summary of results for groundwater monitoring on piezometer 1 - CFA High irrigation area

Analyte	Unit of measure	Monitoring frequency required by Licence	No. of times measured during year	Date of Sampling	Date data obtained	Date Published	Value
Conductivity	(uS/cm)	Annual	1	16/01/2023	02/02/2023	03/05/2023	1530
Nitrate	(mg/L)	Annual	1	16/01/2023	02/02/2023	03/05/2023	13.8
pH	(pH units)	Annual	1	16/01/2023	02/02/2023	03/05/2023	6.7
Standing Water Level	(m)	Annual	1	16/01/2023	02/02/2023	03/05/2023	8.6

EPA Monitoring Point 10: Summary of results for groundwater monitoring on piezometer 5 - CFA High irrigation area

Analyte	Unit of measure	Monitoring frequency required by Licence	No. of times measured during year	Date of Sampling	Date data obtained	Date Published	Value
Conductivity	(uS/cm)	Annual	1	16/01/2023	02/02/2023	03/05/2023	442
Nitrate	(mg/L)	Annual	1	16/01/2023	02/02/2023	03/05/2023	2.2
pH	(pH units)	Annual	1	16/01/2023	02/02/2023	03/05/2023	6.5
Standing Water Level	(m)	Annual	1	16/01/2023	02/02/2023	03/05/2023	5.1

The monitoring data in the table above has been taken from monitoring point 9 and 10 as stated in the EPL 2262. The monitoring point has been established to monitor the groundwater in areas on which treated wastewater is applied. The monitoring points are located within in the 'CFA High' irrigation area.

EPA Monitoring Point 11: Summary of results for groundwater monitoring on piezometer 7 - CFA Low irrigation area

Analyte	Unit of measure	Monitoring frequency required by Licence	No. of times measured during year	Date of Sampling	Date data obtained	Date Published	Value
Conductivity	(uS/cm)	Annual	1	16/01/2023	02/02/2023	03/05/2023	3120
Nitrate	(mg/L)	Annual	1	16/01/2023	02/02/2023	03/05/2023	<0.1
pH	(pH units)	Annual	1	16/01/2023	02/02/2023	03/05/2023	7.1
Standing Water Level	(m)	Annual	1	16/01/2023	02/02/2023	03/05/2023	5.3

The monitoring data in the table above has been taken from monitoring point 11 as stated in the EPL 2262. The monitoring point has been established to monitor the groundwater in areas on which treated wastewater is applied.

EPA Monitoring Point 12: Summary of results for groundwater monitoring on piezometer 8 - CFA Low irrigation area

Analyte	Unit of measure	Monitoring frequency required by Licence	No. of times measured during year	Date of Sampling	Date data obtained	Date Published	Value
Conductivity	(uS/cm)	Annual	1	16/01/2023	02/02/2023	03/05/2023	3700
Nitrate	(mg/L)	Annual	1	16/01/2023	02/02/2023	03/05/2023	<0.1
pH	(pH units)	Annual	1	16/01/2023	02/02/2023	03/05/2023	7.3
Standing Water Level	(m)	Annual	1	16/01/2023	02/02/2023	03/05/2023	1970

EPA Monitoring Point 14: Summary of results for groundwater monitoring on piezometer 9 - CFA Low irrigation area

Analyte	Unit of measure	Monitoring frequency required by Licence	No. of times measured during year	Date of Sampling	Date data obtained	Date Published	Value
Conductivity	(uS/cm)	Annual	1	16/01/2023	02/02/2023	03/05/2023	1820
Nitrate	(mg/L)	Annual	1	16/01/2023	02/02/2023	03/05/2023	0.1
pH	(pH units)	Annual	1	16/01/2023	02/02/2023	03/05/2023	7.1
Standing Water Level	(m)	Annual	1	16/01/2023	02/02/2023	03/05/2023	4.9

Units of measure – Abbreviations outlined in full

mg/L = Concentration in milligrams per litre, which is equivalent unit of measure to parts per million (ppm)

dS/m = Decisiemens per metre, a measure of electrical conductivity, which gives an indication of the concentration of dissolved ions

uS/cm = Microsiemens per centimetre, a measure of electrical conductivity, which gives an indication of the concentration of dissolved ions

mg/kg = Milligrams per kilogram, a measure of concentration of different parameters within a soil sample

L/kg = Litres per kilogram, a measure of the amount of mineral retained by the soil

Correction Log

This section is included to correct any incorrect data which may have been published in good faith.

Teys Australia Southern Property Pty Ltd T/A Teys Australia Wagga Wagga

EPL number 2262

Pollutant:

Table 4: Correction log

Sample date and time	Original data	Corrected data	Date corrected	Date originally published	Reason

Note: No corrections required to date.