



Licence number	L8434/2010/2
Licence holder	Water Corporation
Registered business address	629 Newcastle Street LEEDERVILLE WA 6007
DWER file number	DEC14838/2
Duration	26/05/2023 to 25/05/2043
Date of issue	25/05/2023
Premises details	Alkimos Wastewater Treatment Plant 11 Brindabella Parkway ALKIMOS WA 6038 Legal description – Lot 3000 on Deposited Plan 415979 Certificate of Title Volume 2968 Folio 329

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)	Assessed production capacity
Category 54: Sewage facility: premises – (a) On which sewage is treated (excluding septic); or (b) From which treated sewage is discharged onto land or into waters.	20,000 cubic metres per day
Category 61: Liquid waste facility: premises on which liquid waste produced on other premises (other than sewerage waste) is stored, reprocessed, treated or irrigated.	10,000 tonnes per annual period

This licence is granted to the licence holder, subject to the attached conditions, on 25 May 2023, by:

Neville Welsh
Senior Industry Regulation Officer, Industry Regulation
An officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Works approval and licence history

Date	Reference number	Summary of changes
28/08/2008	W4423/2008/1	Approval to construct Stage 1 of the Alkimos WWTP
26/05/2011	L8434/2010/1	Licence granted.
15/04/2016	L8434/2010/1	Amendment Notice 1: Removal of conditions relating to waste discharge to air, water and land. Addition of conditions regarding waste acceptance, processing, containment infrastructure and monitoring.
04/01/2022	W6523/2021/1	Works Approval for the construction and time limited operations associated with the equipping of oxidation ditch 3 and commissioning works
13/12/2022	W6523/2021/1	Works Approval amendment for the construction and operation of a larger volume bioselector.
25/05/2023	L8434/2010/2	Licence renewal, including reinstatement of treated wastewater sampling conditions previously erroneously removed under Amendment Notice 1.

Interpretation

In this licence:

- (a) the words ‘including’, ‘includes’ and ‘include’ in conditions mean “including but not limited to”, and similar, as appropriate;
- (b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;
- (c) where tables are used in a condition, each row in a table constitutes a separate condition;
- (d) any reference to an Australian or other standard, guideline, or code of practice in this licence:
 - (i) if dated, refers to that particular version; and
 - (ii) if not dated, refers to the latest version and therefore may be subject to change over time;
- (e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act; and
- (f) unless specified otherwise, all definitions are in accordance with the EP Act.

NOTE: This licence requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this licence.

Licence conditions

The licence holder must ensure that the following conditions are complied with:

Premises operation

1. The licence holder must only allow waste to be accepted on to the Premises if:
 - (a) it is of a type listed in Table 1; and
 - (b) the quantity accepted is below any limit listed in Table 1; and
 - (c) it meets any specification listed in Table 1.

Table 1: Waste acceptance

Waste	Waste Code	Quantity Limit	Specification
Putrescible and Organic wastes			
Sewage	N/A	20,000 cubic metres per day (Peak Flow)	Accepted through sewer inflow(s) only.
Sewage waste from reticulated sewage system	K130		Tankered in from pump-stations or other off-site Water Corporation infrastructure only.
Septage waste	K210	10,000 tonnes per annual period	The waste shall be delivered to the plant via an enclosed pipeline.

2. The licence holder must ensure that the wastes accepted onto the premises are only subjected to the process(es) set out in Table 2 and in accordance with any process requirements described in that table.

Table 2: Waste processing

Waste type	Process	Process requirements
Sewage	Wastewater treatment system: physical and biological treatment.	a) Treatment of sewage and septage waste must be at or below the treatment capacity of 20,000 m ³ /day (Peak Flow).
Septage wastes		b) The licence holder must dispose of all collected grit and screenings from the pre-treatment area, via a controlled waste carrier to a licensed landfill.
Sewage sludge and Waste activated sludge	Sludge treatment (thickening and dewatering) and storage	a) Sludge to be removed off-site for further treatment or disposal.

3. The licence holder must ensure that waste material, as specified in Table 3, is only stored and/or treated within vessels or compounds provided with the infrastructure detailed in Table 3.

Table 3: Containment infrastructure

Storage vessel or compound	Material	Requirements
Inlet/preliminary treatment works: Screens, Grit Bin, Wash Presses, Screening Bins	Screenings and Grit	Recovered screenings and grit to be stored in an enclosed and sealed bin which is stored within a bunded hardstand area or a hardstand area that is graded to a collection drain which returns leachate to the start of the treatment process.
Oxidation ditches	Wastewater	2x impervious concrete oxidation ditches, each 10ML volumetric capacity.
Flow splitting chamber		Impervious concrete chamber.
Secondary clarifier module: sedimentation tanks		2x impervious concrete tanks
Dissolved Air Flotation Thickening (DAFT) tanks	Sludge and leachate	2x (Duty/standby) impervious concrete tanks.
Thickened sludge storage tank	Thickened sludge and leachate	1x impervious concrete tank.

4. The licence holder must manage the wastewater treatment vessels such that:
- the integrity of the containment infrastructure is maintained;
 - overtopping of the vessels does not occur;
 - there is no seepage loss from the vessels; and
 - vegetation and floating debris (emergent or otherwise) is prevented from growing or accumulating in the vessels.

Monitoring

5. The licence holder must ensure that:
- all water samples are collected and preserved in accordance with AS/NZS 5667.1;
 - all wastewater sampling is conducted in accordance with AS/NZS 5667.10;
 - all microbiological samples are collected and preserved in accordance with AS 2031;
 - all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured unless indicated otherwise in the relevant table; and
 - quarterly monitoring is undertaken at least 45 days apart.

6. The licence holder must undertake the monitoring specified in Table 4 according to the specifications in that table.

Table 4: Monitoring of treated wastewater

Monitoring point reference	Parameter	Units	Averaging period	Frequency
Monitoring location for the final effluent M1, as shown in Figure 2, Schedule 1	pH ¹	pH units	Spot sample	Quarterly
	Biochemical Oxygen Demand (BOD)	mg/L		
	Total Phosphorus (TP)			
	Total Nitrogen (TN)			
	Ammonium Nitrogen			
	Nitrate plus Nitrite Nitrogen			
	Total Suspended Solids (TSS)			
	Oil & Grease			
	Arsenic			
	Cadmium			
	Copper			
	Chromium			
	Lead			
	Mercury			
	Nickel			
Zinc				
<i>E. Coli</i>	cfu/100ml			

Note 1: In situ non-NATA accredited sampling permitted.

7. The licence holder must undertake the monitoring specified in Table 5 according to the specifications in that table.

Table 5: Monitoring of inputs and outputs

Input/Output	Monitoring point reference	Parameter	Units	Averaging period	Frequency
Sewage - Inlet Flow	Inlet mag-flow (DN600)	Volumetric flow rate	m ³ /day	Monthly	Continuous
Septage wastes	None specified	Volume of septage wastes received	m ³ /day	N/A	Each load arriving at the Premises
			Tonnes per annual period	N/A	Annually
Treated wastewater discharged to Ocean Outlet ¹	Determined using Inlet mag-flow (DN600)	Volumetric flow rate	m ³ /day	Monthly	Continuous
Waste sludge tankered off-site	None specified	Total volume	m ³	Monthly and Annual Total	Each load leaving the Premises

Note 1: Ocean outlet authorised for discharge of treated wastewater under Ministerial Statement 755, located as shown in Figure 1, Schedule1.

Records and reporting

8. The licence holder must record the following information in relation to complaints received by the licence holder (whether received directly from a complainant or forwarded to them by the Department or another party) about any alleged emissions from the premises:
- the name and contact details of the complainant, (if provided);
 - the time and date of the complaint;
 - the complete details of the complaint and any other concerns or other issues raised;
 - wind direct, wind speed and temperature at the time of alleged incident/complaint; and
 - the complete details and dates of any action taken by the licence holder to investigate or respond to any complaint.
9. The licence holder must:
- undertake an audit of their compliance with the conditions of this licence during the preceding annual period; and
 - prepare and submit to the CEO by 1 October in each year an Annual Audit Compliance Report in the approved form.

- 10.** The licence holder must submit to the CEO an Annual Environmental Report by 1 October in each year. The report shall contain the information listed in Table 6 in the format or form specified in that table.

Table 6: Annual Environmental Report

Condition or table (if relevant)	Parameter	Format or form
Condition 6, Table 4	Summary of treated wastewater monitoring	None specified
Condition 7, Table 5	Summary of monitoring of inputs/outputs	None specified
Condition 8	Complaints summary	None specified
Condition 9	Compliance	Annual Audit Compliance Report (AACR)

- 11.** The licence holder must maintain accurate and auditable books including the following records, information, reports, and data required by this licence:
- (a) the calculation of fees payable in respect of this licence;
 - (b) any maintenance of infrastructure that is performed in the course of complying with conditions 3 and 7 of this licence;
 - (c) monitoring programmes undertaken in accordance with conditions 6 and 7 of this licence; and
 - (d) complaints received under condition 8 of this licence.
- 12.** The books specified under condition 11 must:
- (a) be legible;
 - (b) if amended, be amended in such a way that the original version(s) and any subsequent amendments remain legible and are capable of retrieval;
 - (c) be retained by the licence holder for the duration of the licence; and
 - (d) be available to be produced to an inspector or the CEO as required.

Definitions

In this licence, the terms in Table 7 have the meanings defined.

Table 7: Definitions

Term	Definition
Annual Audit Compliance Report (AACR)	means a report submitted in a format approved by the CEO (relevant guidelines and templates may be available on the Department's website).
annual period	a 12 month period commencing from 1 July until 30 June of the immediately following year.
AS 2031	means the Australian Standard AS 2031 <i>Water quality – Sampling for microbiological analysis</i> .
AS/NZS 5667.1	means the Australian Standard AS/NZS 5667.1 <i>Water Quality – Sampling – Guidance of the Design of sampling programs, sampling techniques and the preservation and handling of samples</i> .
AS/NZS 5667.10	means the Australian Standard AS/NZS 5667.10 <i>Water Quality – Sampling – Guidance on sampling of waste waters</i> .
averaging period	means the time over which a limit is measured or a monitoring result is obtained.
CEO	means Chief Executive Officer of the Department. "submit to / notify the CEO" (or similar), means either: Director General Department administering the <i>Environmental Protection Act 1986</i> Locked Bag 10 Joondalup DC WA 6919 or: info@dwer.wa.gov.au
controlled waste	has the definition in <i>Environmental Protection (Controlled Waste) Regulations</i>
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
EP Act	<i>Environmental Protection Act 1986</i> (WA)
EP Regulations	<i>Environmental Protection Regulations 1987</i> (WA)
hardstand	means a surface with a permeability of 10 ⁻⁹ metres/second or less.
leachate	means liquid released by or water that has percolated through waste and which contains some of its constituents.
licence	refers to this document, which evidences the grant of a licence by the CEO under section 57 of the EP Act, subject to the specified conditions contained within.
licence holder	refers to the occupier of the premises, being the person specified on the front of the licence as the person to whom this licence has been granted.

Term	Definition
Ministerial Statement 755	means ' <i>Ministerial Statement 755 – Alkimos Wastewater Treatment Plant – Site B, City of Wanneroo</i> ' as amended from time to time.
NATA	means the National Association of Testing Authorities, Australia.
NATA accredited	means in relation to the analysis of a sample that the laboratory is NATA accredited for the specified analysis at the time of the analysis.
Ocean Outlet	means the marine discharge point labelled and depicted in Figure 1, Schedule 1.
premises	refers to the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map (Figure 1) in Schedule 1 to this licence.
waste code	means the waste code assigned to the type of controlled waste for purposes of tracking and reporting as specified in the Department of Water and Environmental Regulation's 'Controlled Waste Category List' (May 2018), as amended from time to time.
wastewater treatment vessels	means any vessel, pond or tank containment infrastructure associated with the storage and treatment of wastewater.

END OF CONDITIONS

Schedule 1: Maps

The premises boundary, defined by the cadastral boundary of Lot 3000 on Deposited Plan 415979, is shown in red below. The map includes the Ocean Outlet pipeline (as authorised for treated wastewater discharge in Ministerial Statement 755), shown in yellow and the general location of the Wastewater Treatment Plant (WWTP) central within the lot, shown in green.

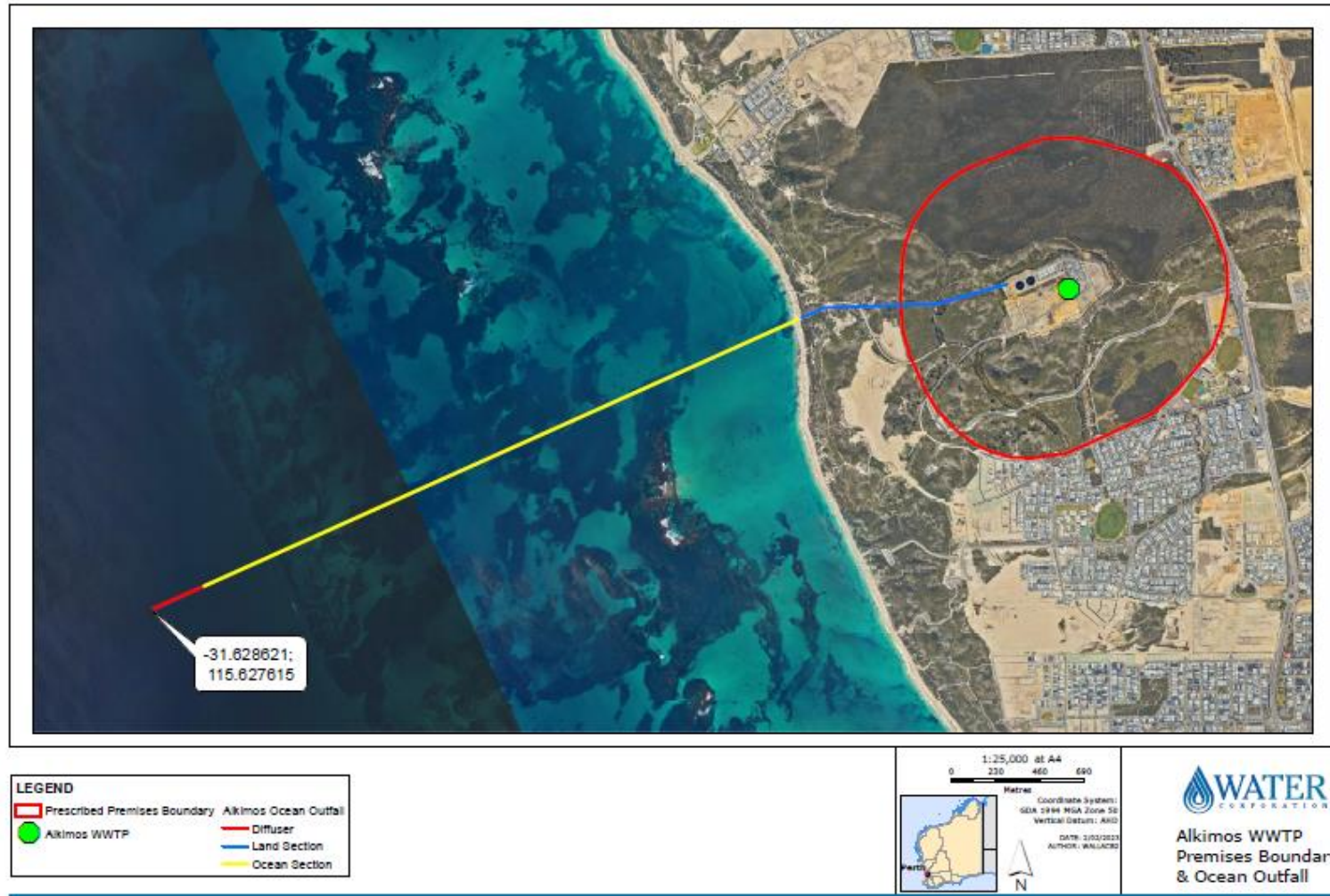


Figure 1: Premises boundary and ocean outlet map

Wastewater Treatment Plant infrastructure layout

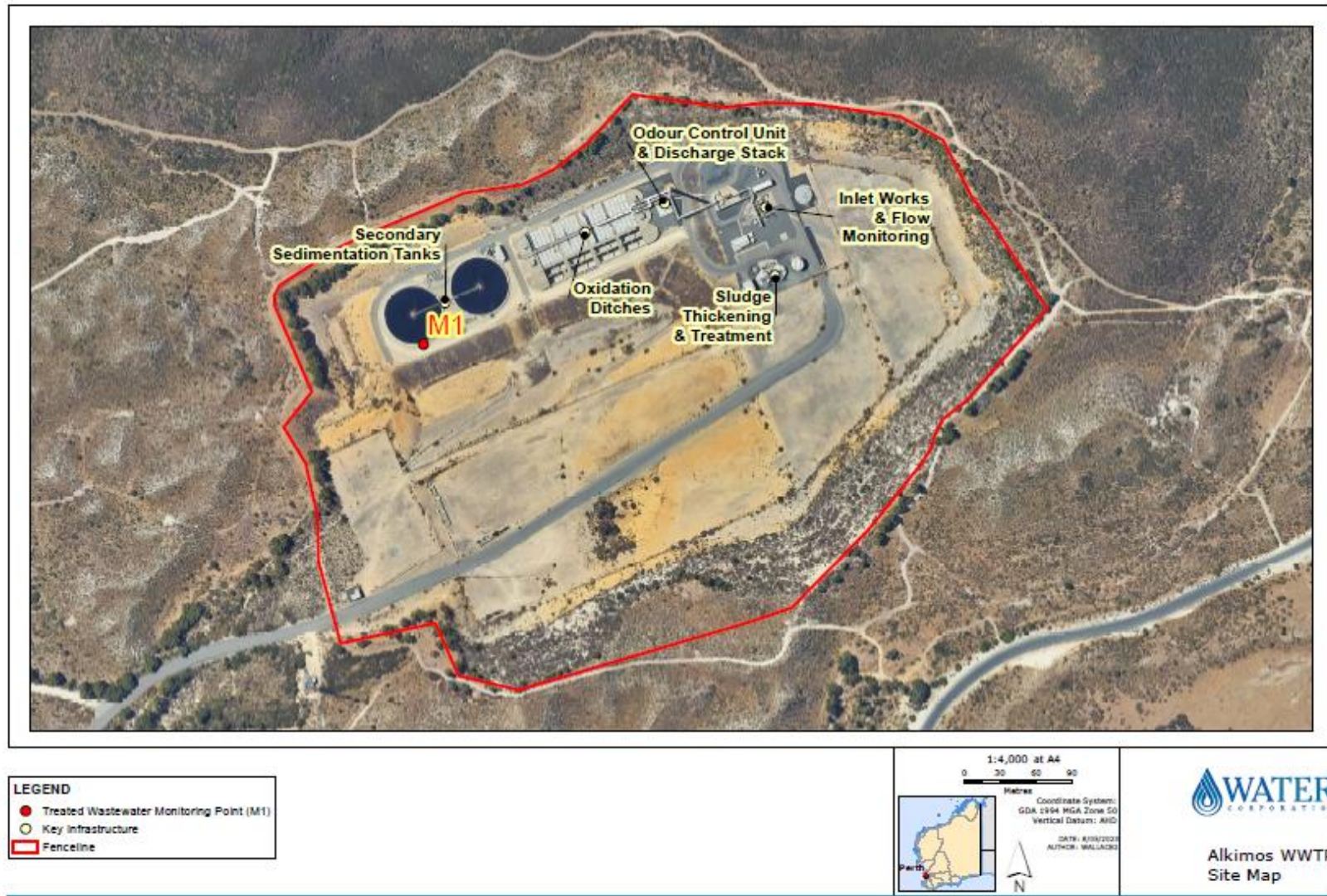


Figure 2: Wastewater Treatment Plant infrastructure layout and wastewater monitoring point (M1)

WWTP Process Diagram

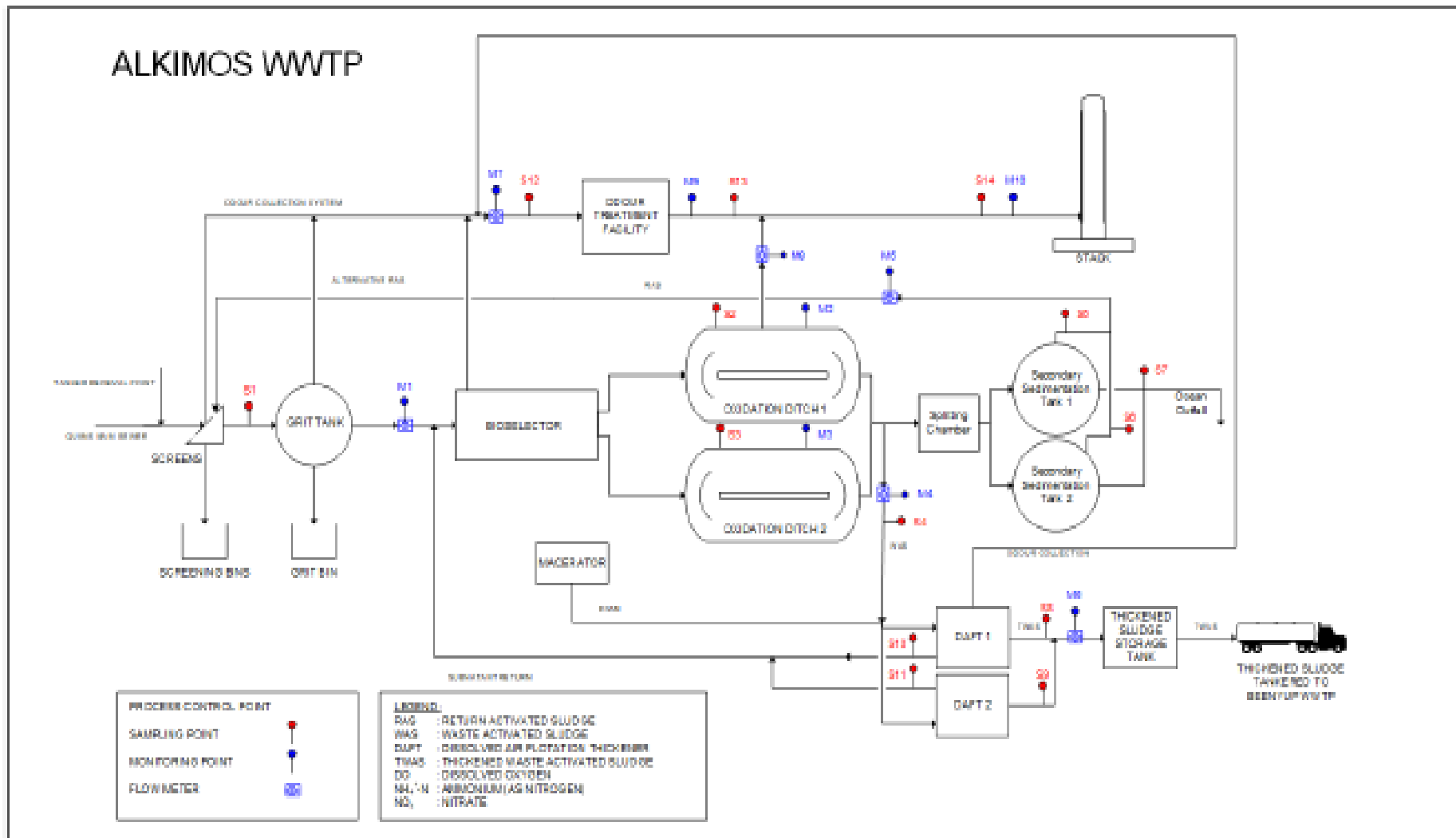


Figure 3: Process diagram