



RETHINKING Sustainability

Resourcing the world



Veolia - Global Expertise

RETHINK
WASTE

THROUGH
RECYCLING



Water

Water and wastewater
network

Water and wastewater
treatment plants

Industrial process water
and wastewater

Domestic networks



Energy

Electricity production
and distribution

Heating and cooling networks

Renewable energy
and energy efficiency

Air quality



Waste

Waste collection and treatment

Waste reuse and recycling

Waste to energy



**RETHINK
WATER**

**THROUGH
REUSE**



Resourcing the world





RETHINK
ENERGY

THROUGH
RECOVERY

Resourcing the world





**RETHINK
WASTE**

**THROUGH
RECYCLING**



Resourcing the world



Veolia – Australia and New Zealand

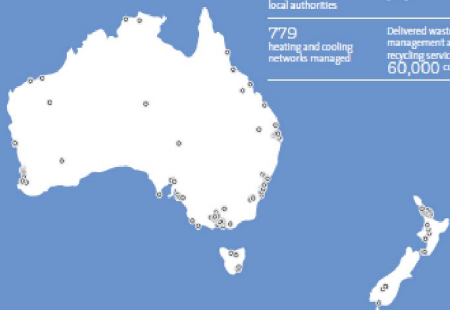
RETHINK
WASTE

THROUGH
RECYCLING

Solving our client's biggest environmental challenges across water, waste and energy.

Across Australia and New Zealand, customers are facing increasing challenges, many of which relate to managing asset costs, competition for resources or ensuring competent skills management; all the while maintaining focus on environmental and social performance in an ever challenging regulatory environment. With this in mind, water, waste and energy often factor high on our customer's lists of challenges and priorities. As such, Veolia is in a position to deliver an interconnected environmental solution that assists our client's to achieve their core performance metrics.

Veolia is the regions only environmental solutions organisation with specific capabilities across water and wastewater treatment, energy management, waste and resource recovery solutions, and industrial cleaning and facilities maintenance services.



Key references and locations.

GLOBAL	AUSTRALIA AND NEW ZEALAND
Revenue (2016): €24.39B	Revenue (2015): AS\$1.45B
Employees: 163,000	Employees: 4,000
100 million residents provided with drinking water	123 water and wastewater treatment plants
61 million people provided with wastewater treatment services	120 waste management, resource recovery and industrial cleaning sites
Collection services for more than 39 million people on behalf of local authorities	Provided water services for more than 4 million people
779 heating and cooling networks managed	Delivered waste management and recycling services for over 60,000 customers

68

Water and wastewater treatment plants managed

4 M

Residents provided with water and wastewater treatment services

60,000

Clients provided with waste management and recycling services

>100

Waste management, resource recovery and industrial services sites

2,833

Energy systems maintained

Veolia NSW Waste Transfer Network

RETHINK
ENERGY

THROUGH
RECOVERY



Clyde Transfer Terminal



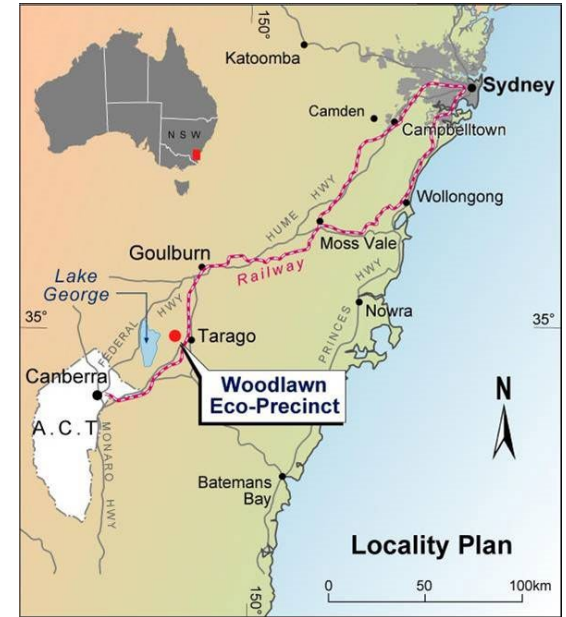
Rail Haulage – Goulburn / Tarago



Banksmeadow Transfer Terminal



Crisps Creek Intermodal



Woodlawn Eco-Precinct NSW

RETHINK
WASTE

THROUGH
RECYCLING

- Integrated Site / Eco-Precinct:

- Mining
- Resource Recovery - Bioreactor Landfill
- Wind and Gas Engine Generation
- Agriculture
- Aquaculture
- 2.5MW Solar Farm



- Woodlawn provides an essential service for Sydney's Municipal Market and provides a critical solution for the commercial sector so they don't impact regional council waste facilities.

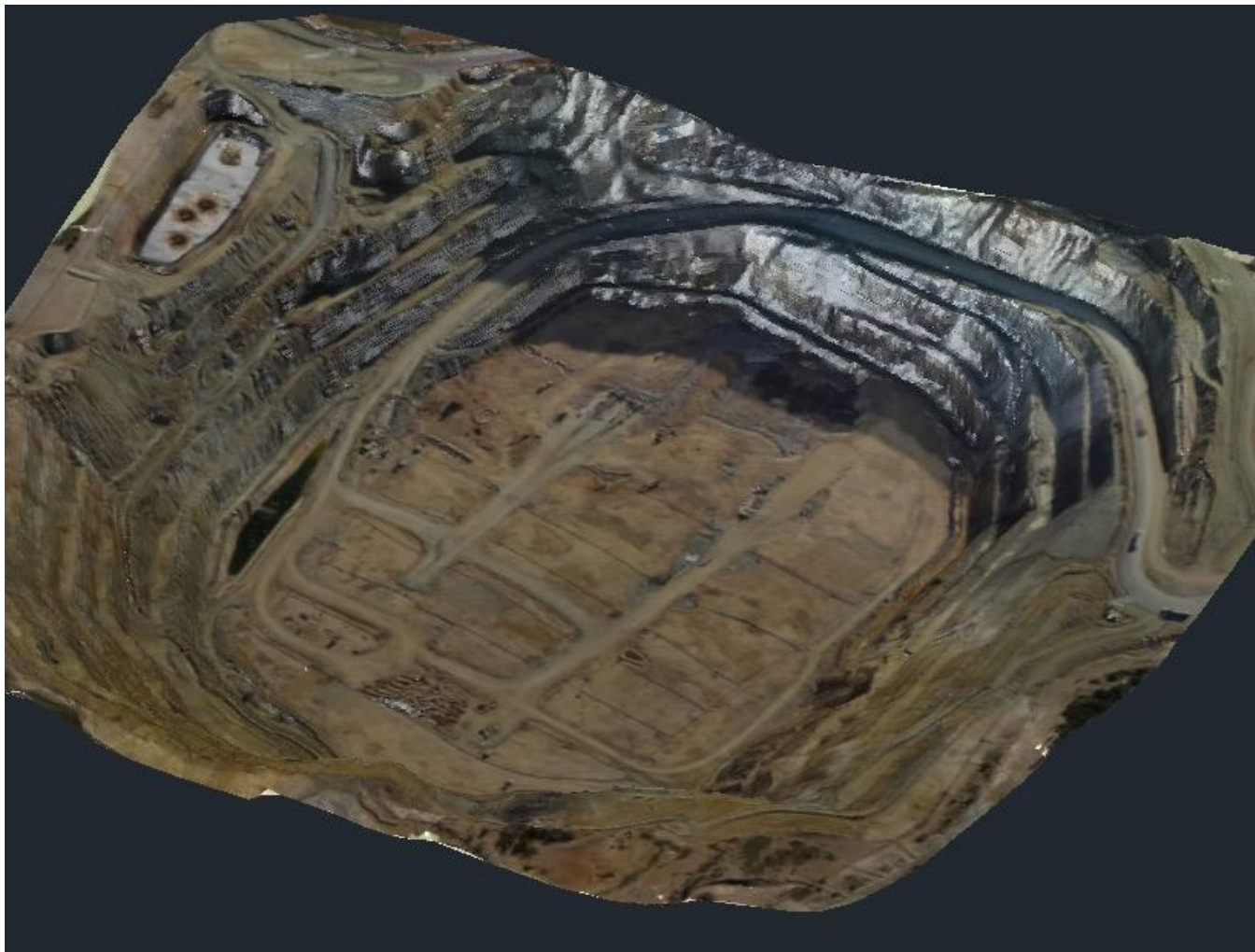
Woodlawn Eco Precinct NSW

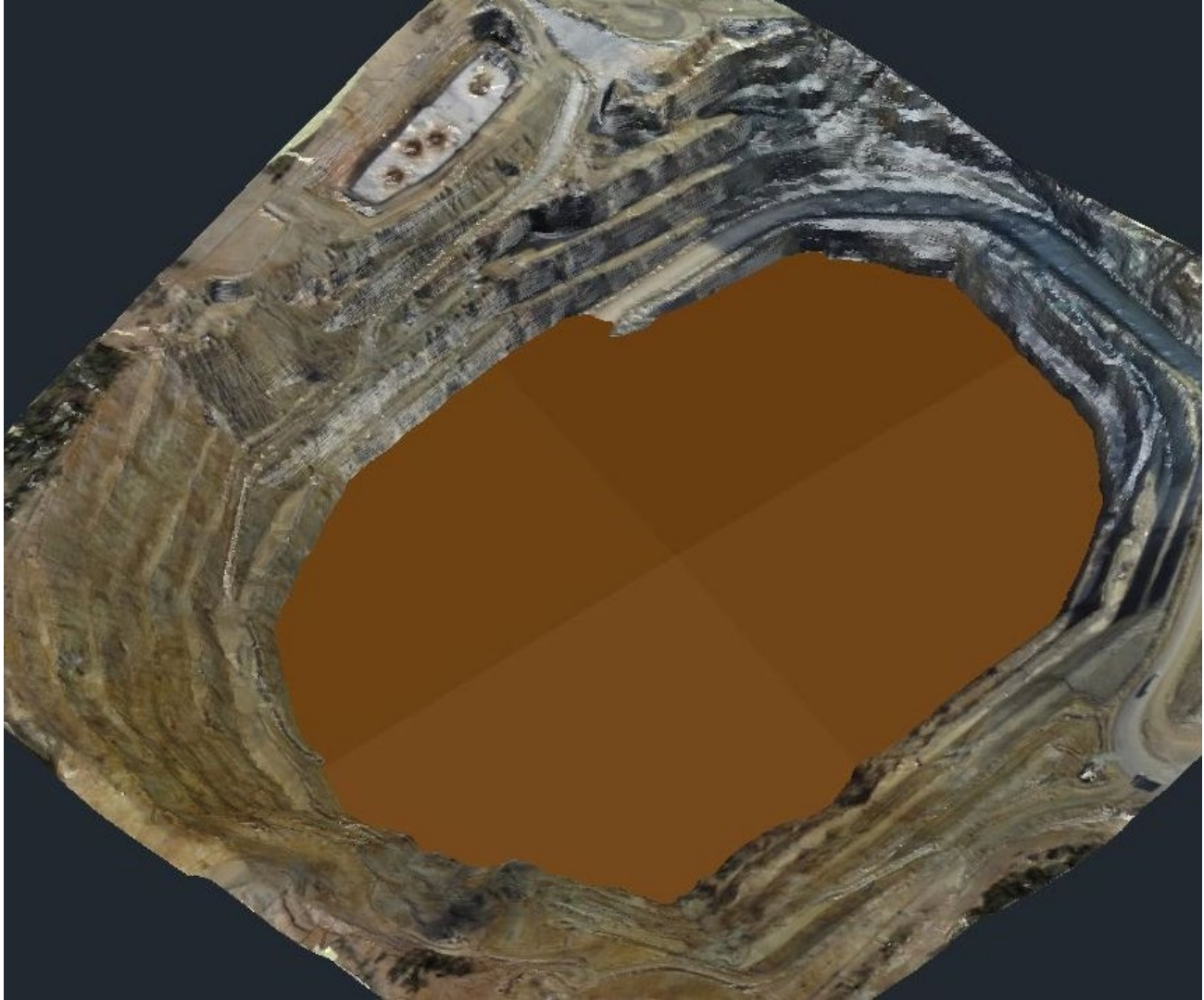
RETHINK
ENERGY

THROUGH
RECOVERY

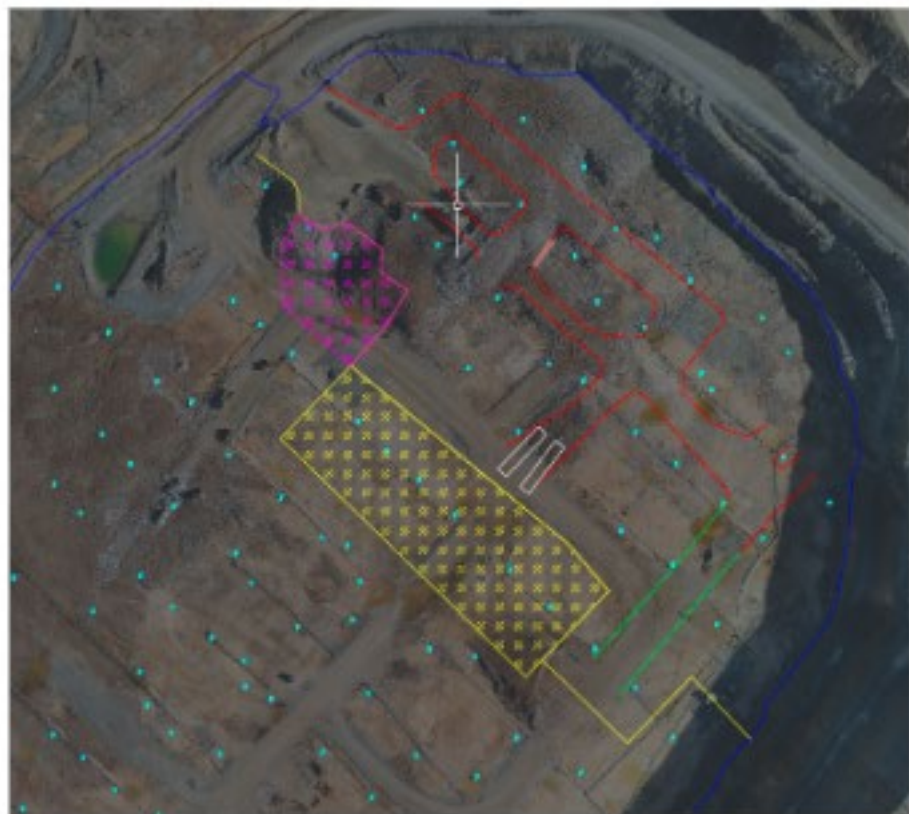
- Bioreactor Landfill Commenced operation in 2004 with a total volume of 33.4 Million m³
- Capturing methane to generate sustainable power
- Currently generating over 7 MW for over 10,000 homes
- Planned extension to 24 MW as gas capture increases







27/05/2019 to 21/06/2019



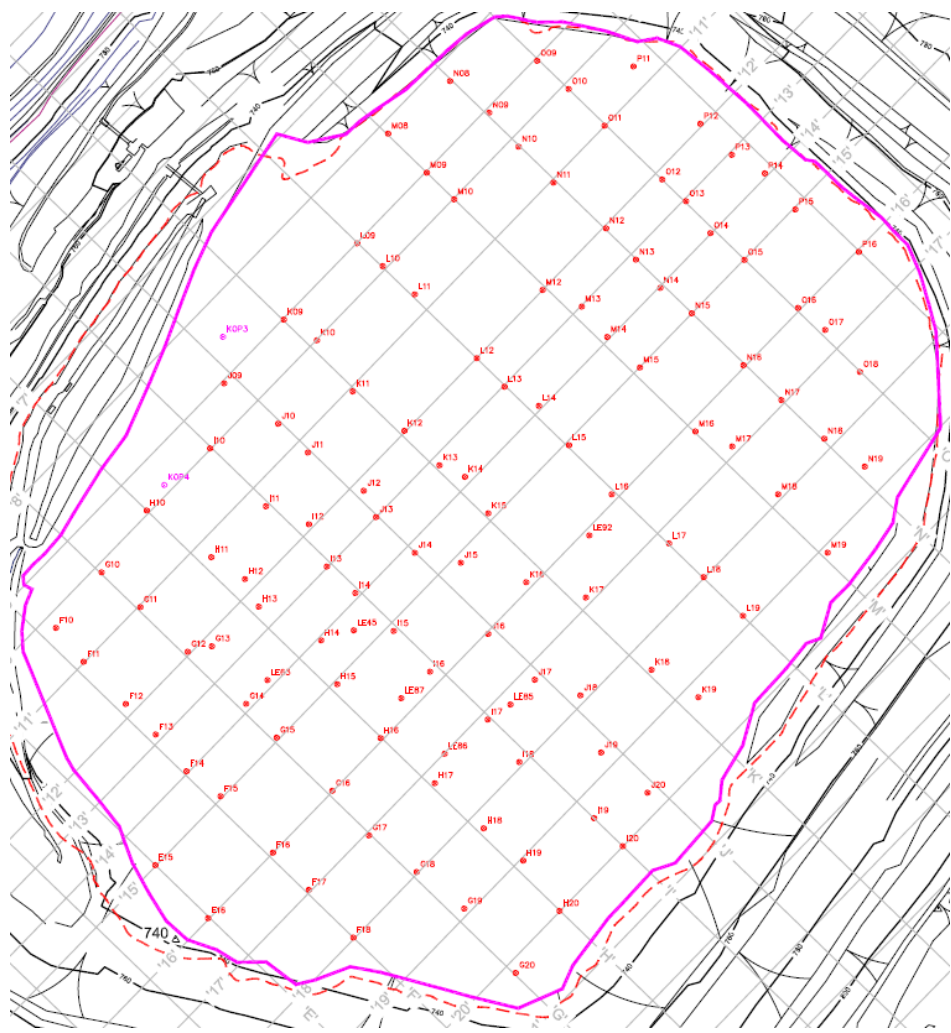
- Current road
- Road need to be built
- Crest line of tipping lift
-  Tipping area
-  Preferred local waste tipping area

Two white boxes are
tippers

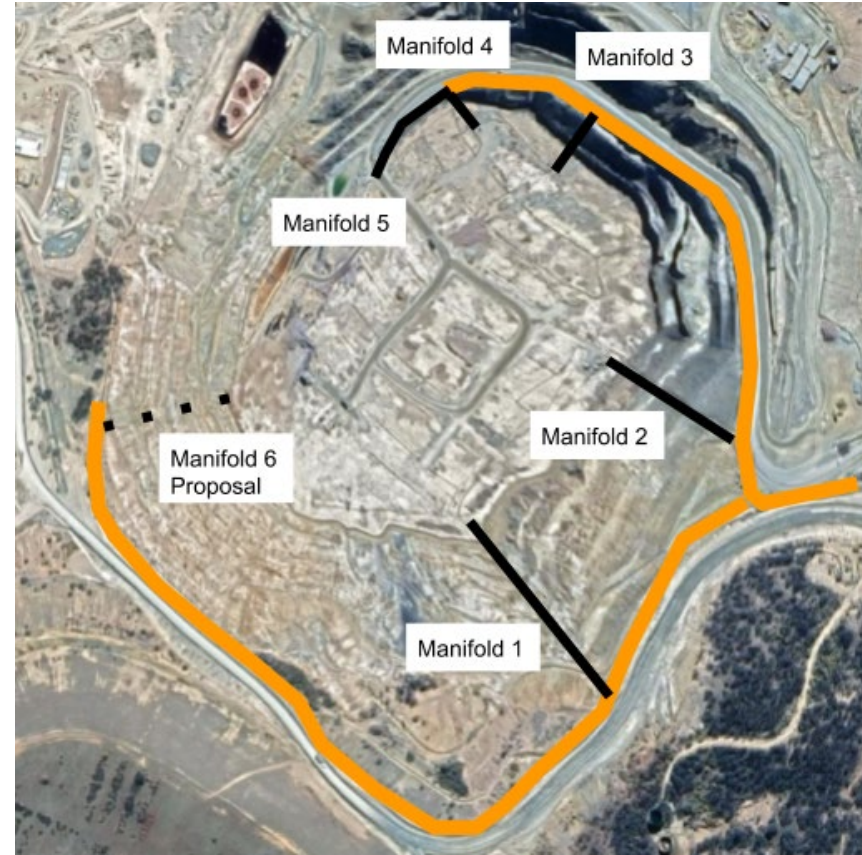
Estimated duration: 4 weeks

Major work:

- L line L12 - L15 take offline
- Clay lining eastern wall



Gas wells and Manifolds



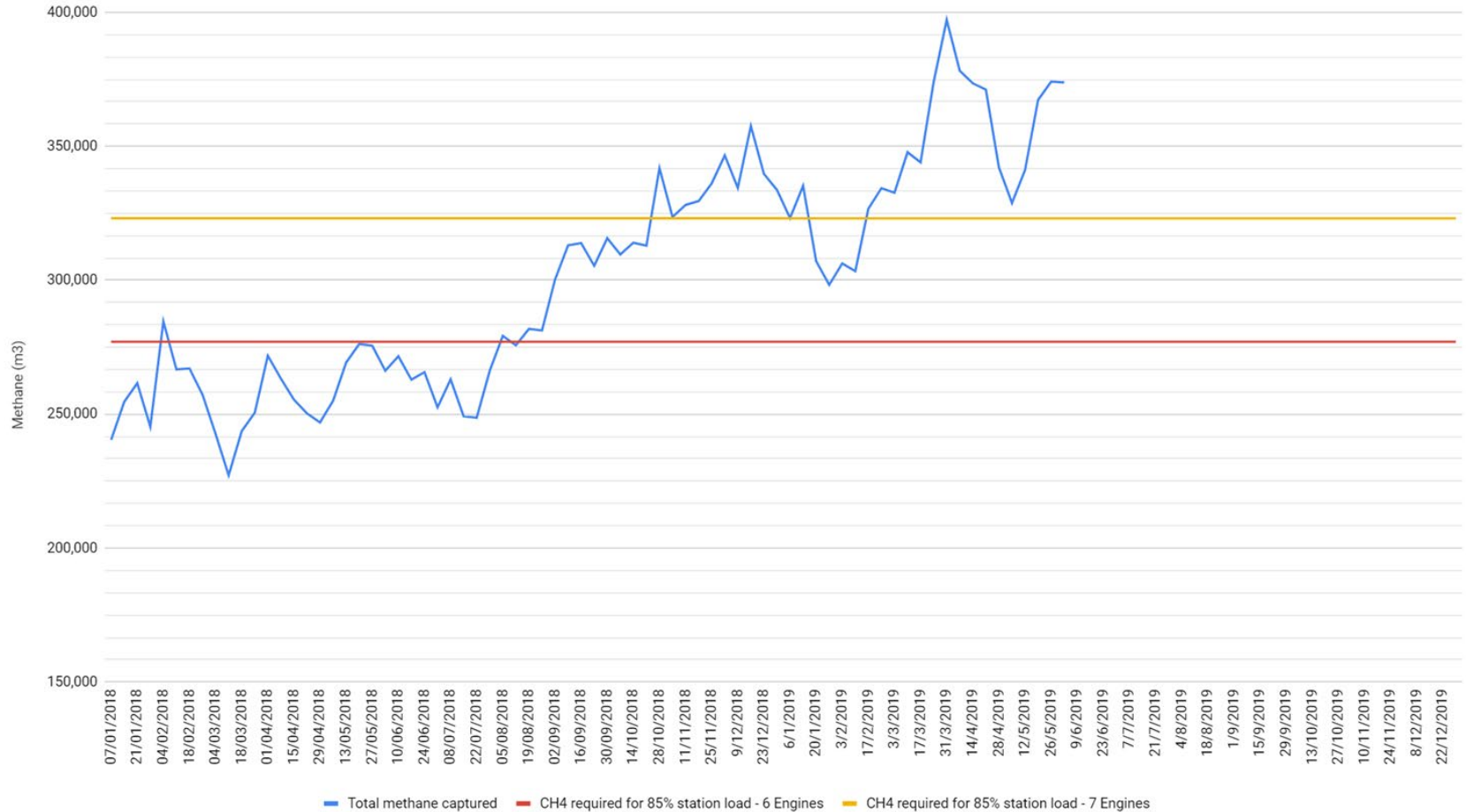
Woodlawn Bioenergy

RETHINK
WASTE

THROUGH
RECYCLING



Methane Captured 2018-2019



Woodlawn Bioenergy



Challenges and Opportunities

- Variability of the gas quality and quantity
- Maintenance
- Predicting additional engines required - access to capital
- Waste heat - Aquaculture and Hydroponics
- CO2 recovery initiatives

Generation Journey - constant challenges - rewarding past 2 years.

IT'S WITH
YESTERDAY'S **OLD**
THAT WE BUILD
A NEW
TOMORROW



Resourcing the world



Thank you

Henry Gundry

Woodlawn Eco-Precinct Manager

henry.gundry@veolia.com

Mob: 0400 233 592