

# Quality & Environmental Report

2023

**J&A (INTERNATIONAL) LTD**

January 2, 2024  
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# Quality & Environmental Report

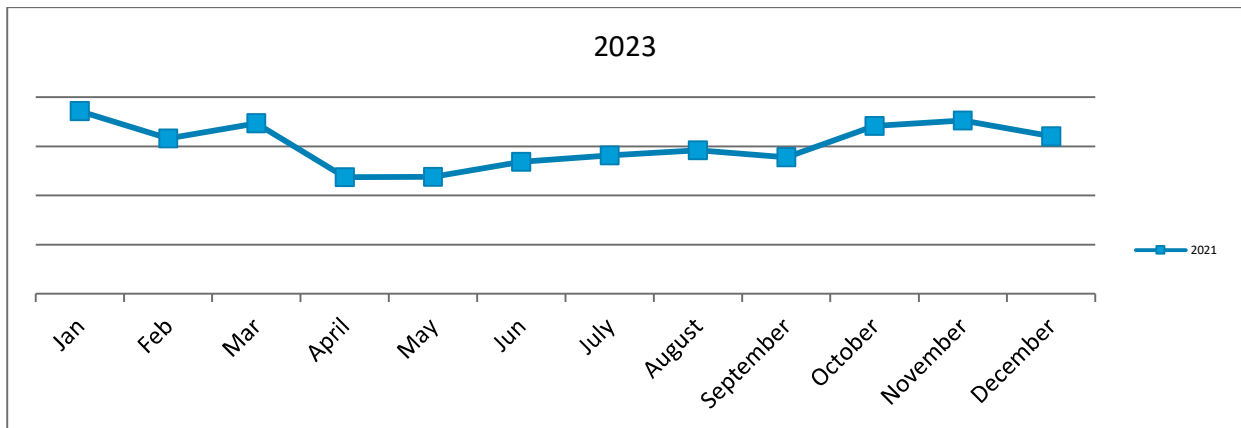
2023

## Introduction

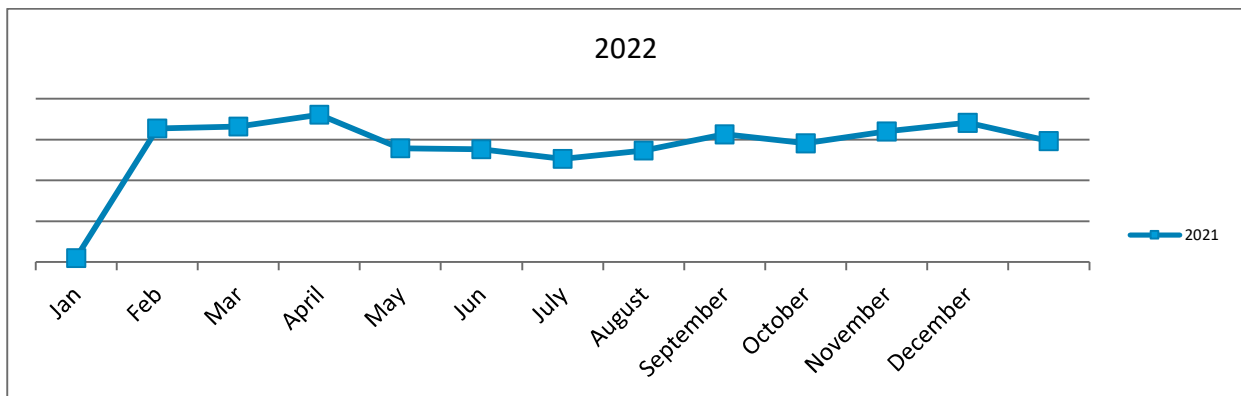
J&A (International) Ltd continued over 2023 to strive to improve its impact on its surrounding environment and increase quality in a demanding marketplace.

## Electricity

The main supply consumption of electric for 2023 is shown below:

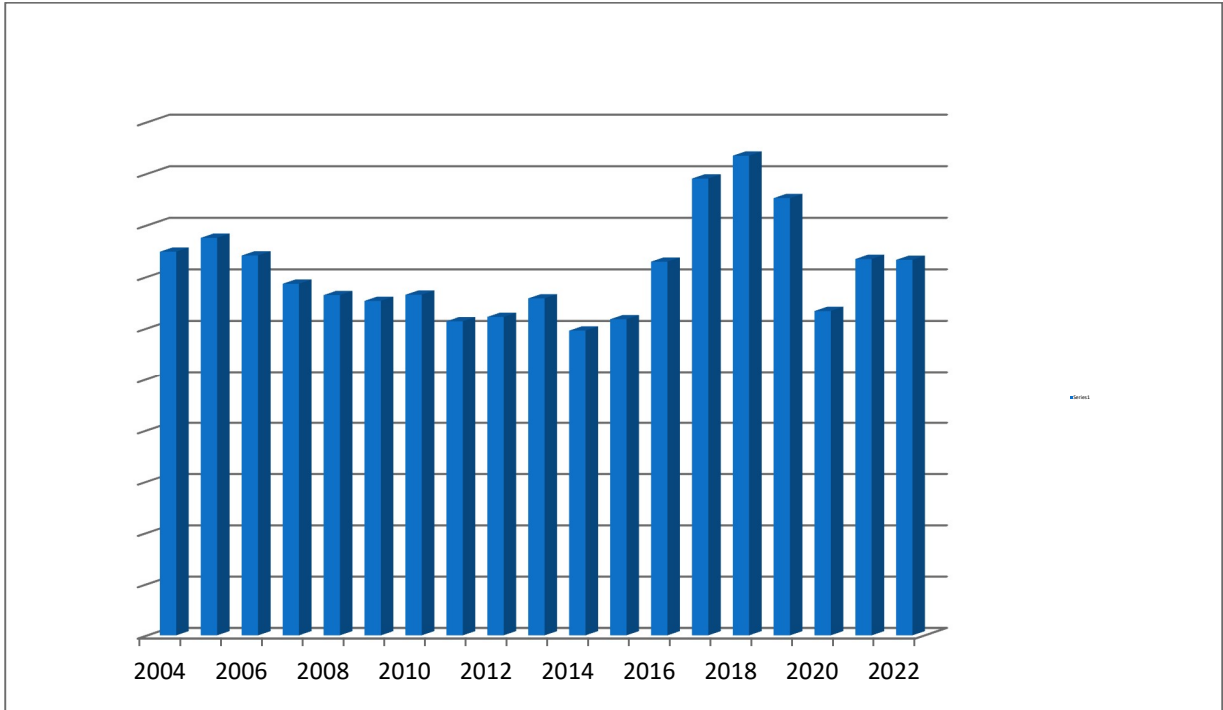


Compared to 2022, showing similar.



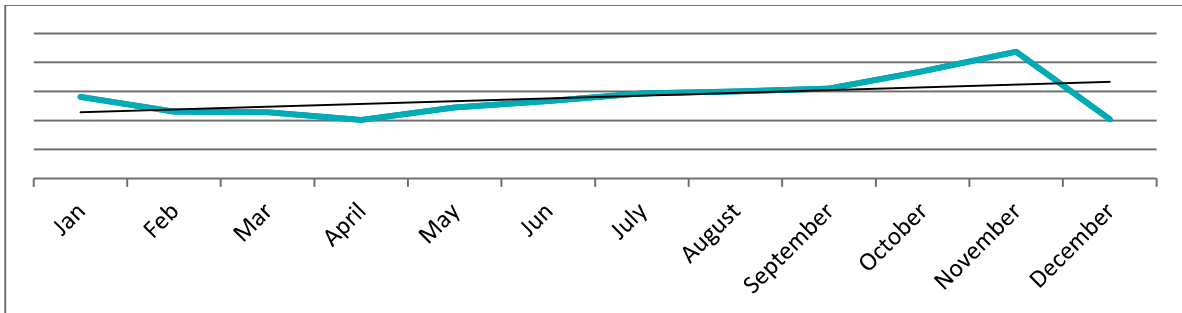
This shows a steady consumption throughout the year, and a slight decrease over 2022.

Over the past few years the main board consumption is shown below :

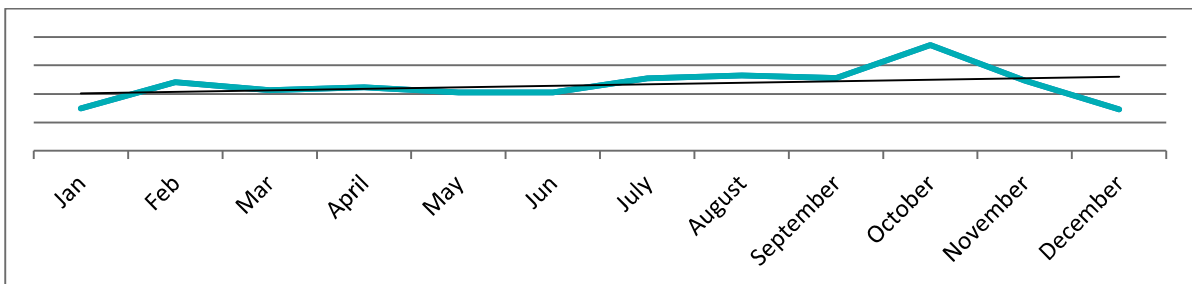


**End Warehouse Consumption**

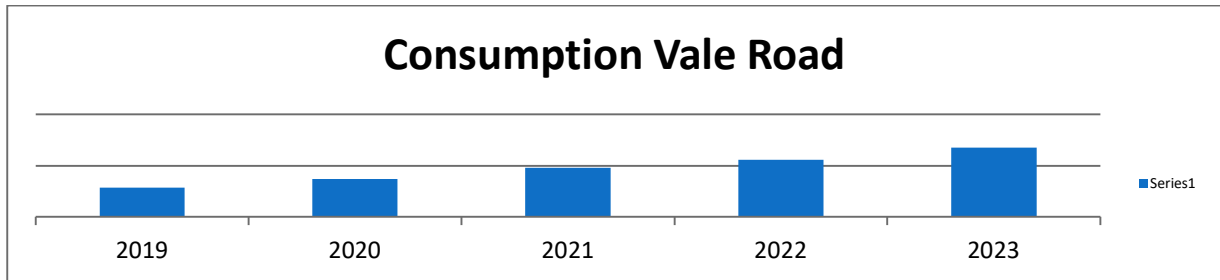
The end warehouse is on a different supply to the rest of the building. The consumption here is shown below shows an increase towards the end of the year and then a decline in December.



This is the same as 2022 consumption, shown below

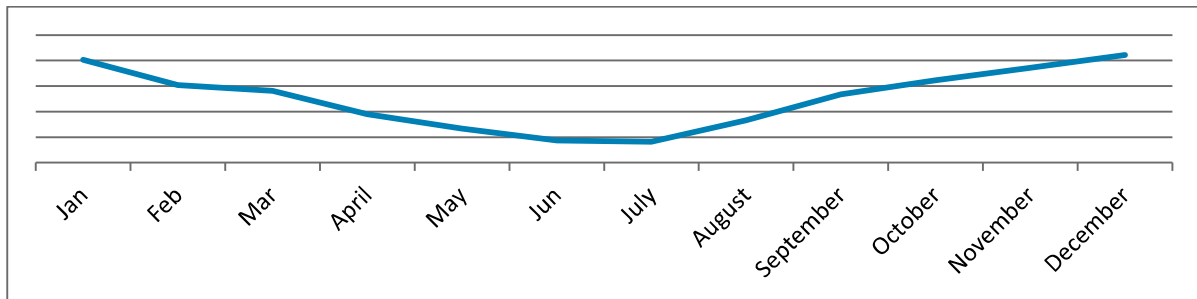


This shows a steady increase of consumption overall in this area:

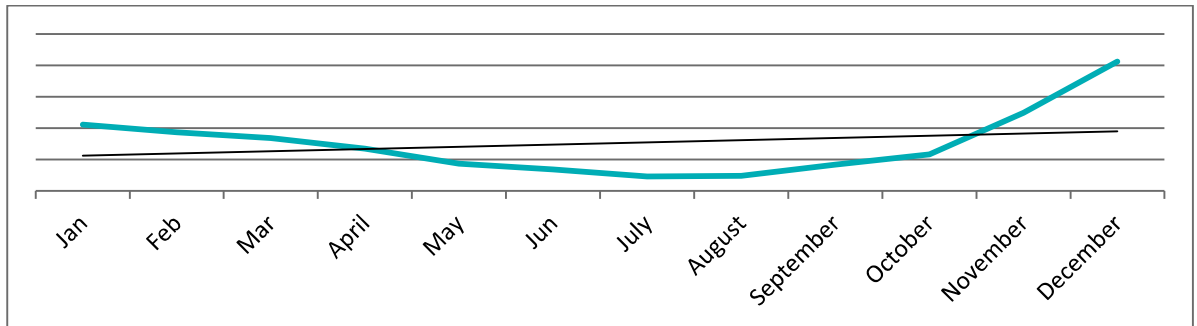


### Carpark Consumption

We have a separate supply for the staff carpark. This had the below consumption: over 2023:

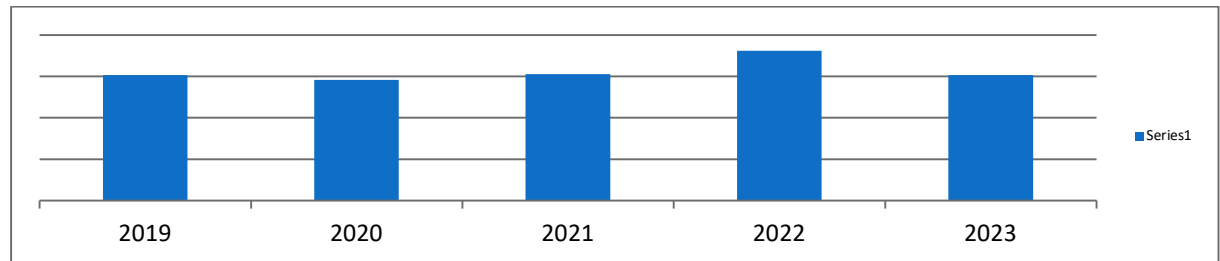


Compared to 2022:

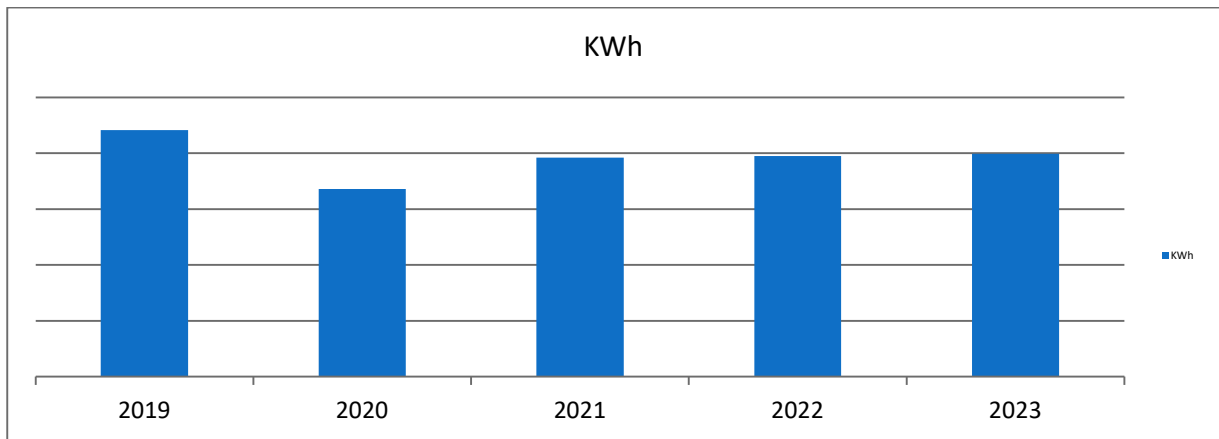


This shows the use of car park lighting changing with the seasons.

Compared to previous years showing a slight reduction on last year overall.



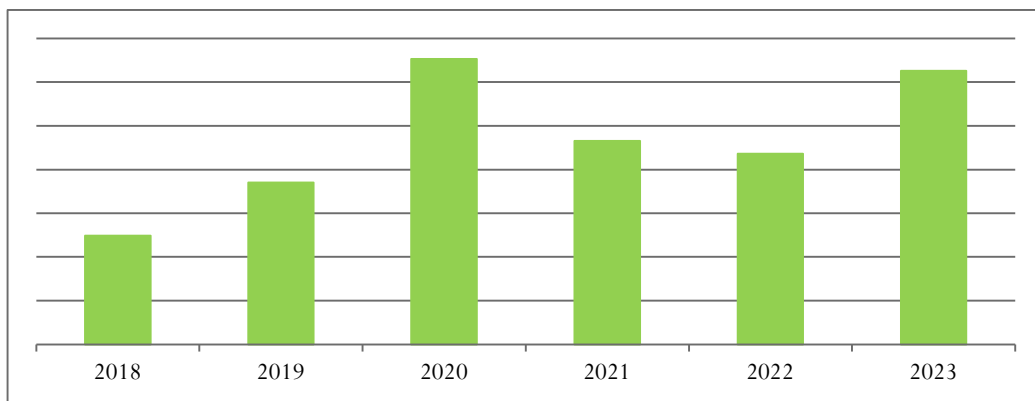
**Overall Total Consumption kWh:**



Solar Panels

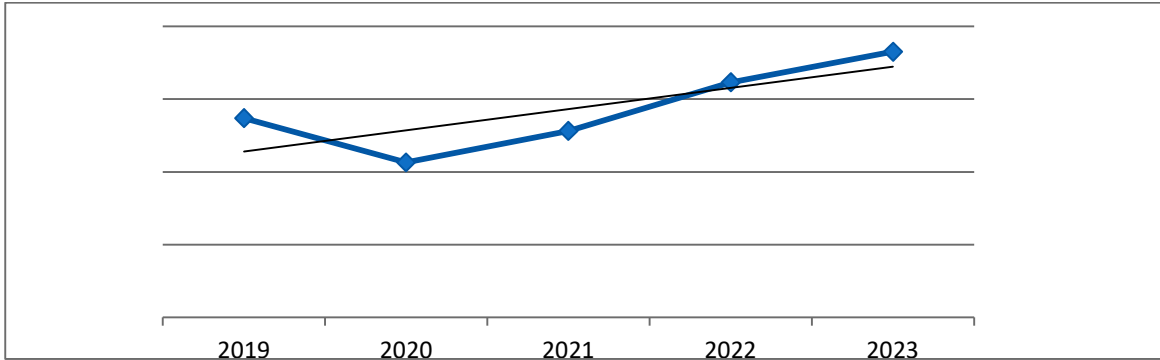


Solar Panels: Overall generation compared to previous years is shown below.



This shows a good increase over 2021 and 2022.

Below shows the overall cost of the past few years, showing the highest cost last year.



## Environmental & Energy Awareness

This is completed as part of the induction process, being carried out with all new starters to the company.

The monthly cost of water, electric, waste and gas is also added to the company intranet, INFO web site.

Regular updates and reminders are also shown in the company newsletter.

## Water Consumption

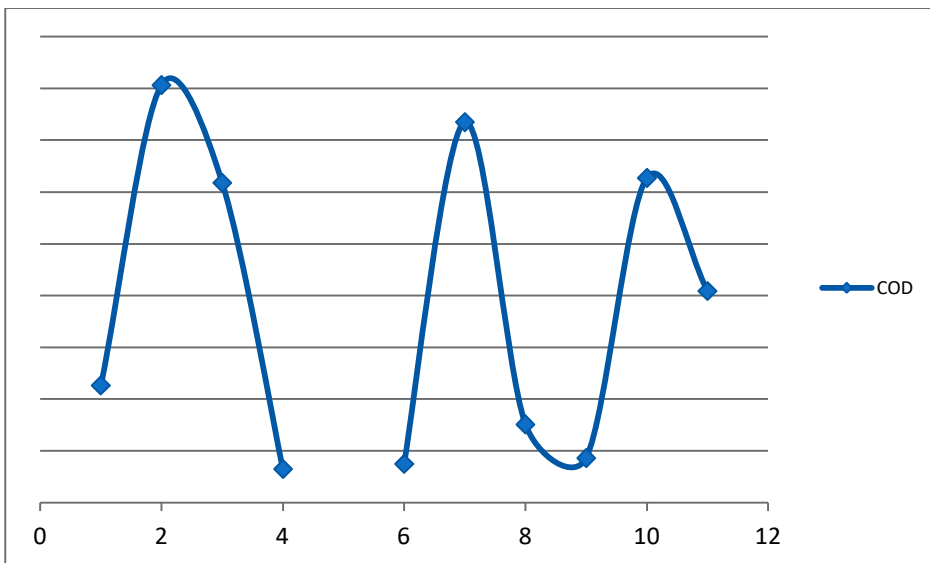
We hold consents for water discharge to the sewer where the levels allowed are shown below:

### Consent 1 – Screen Room Effluent

Chemical Oxygen demand (COD): 20000 mg/l

Suspended solids (TSS): 1000 mg/l

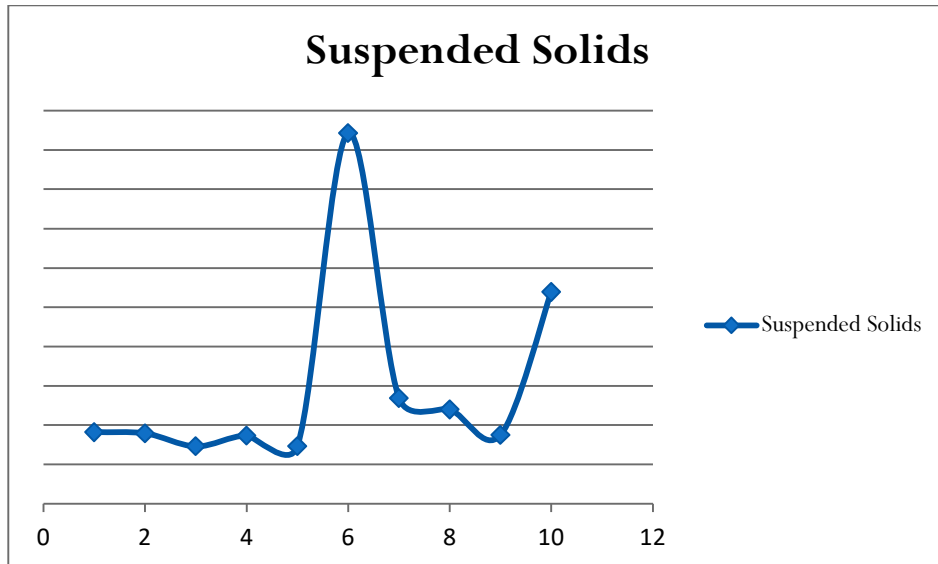
Below show the COD levels recorded over the year:



Levels of COD recorded over the year are:

Well below our consent limit, and a good improvement on last year's results.

Levels of suspended solids over the year is shown below:



This was over our consent at one point due to a blocked tap.

It was the lowest reading ever recorded.

#### Consent 2 – R&D Effluent

Consent for the washing machine in R&D. The limits are:

Chemical Oxygen demand (COD): 2000 mg/l (After one hour quiescent settlement)

Suspended solids (TSS): 1000 mg/l

Sulphate (Free, soluble as SO<sub>4</sub>) : 1000 mg/l

#### Consent 3 – Humidity Water softener Effluent

Chemical Oxygen demand (COD): 2000 mg/l

Suspended solids (TSS): 1000 mg/l

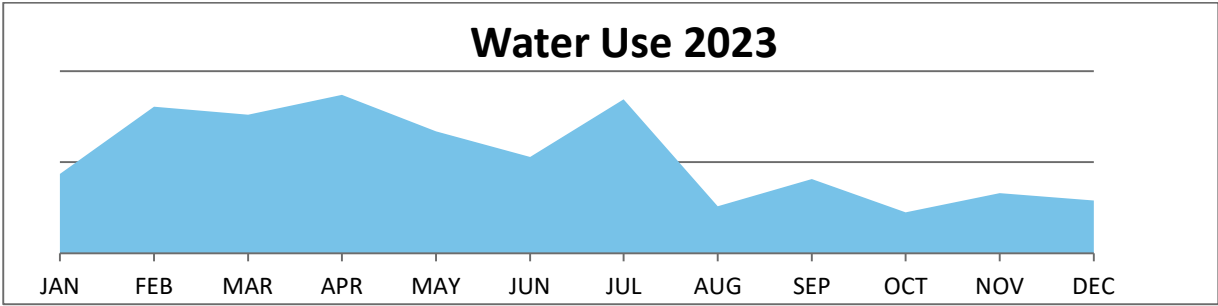
Sulphate (Free, soluble as SO<sub>4</sub>) : 1000 mg/l

### **Water Consumption Levels**

The total water consumption for the year is shown below: (Shown in m<sup>3</sup>)

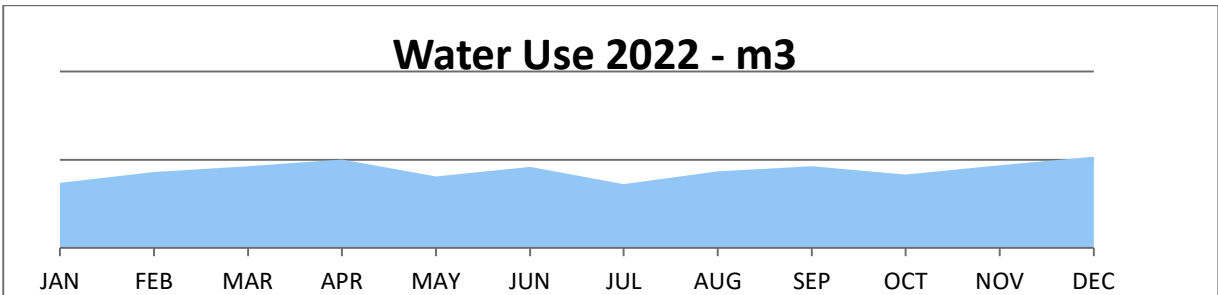
2023 consumption

### Water Use 2023



Compared to 2022:

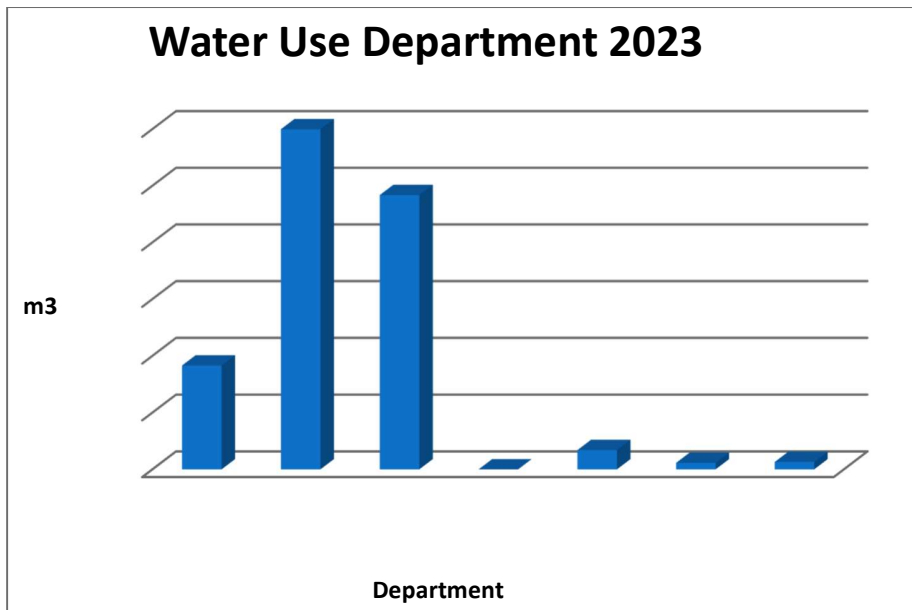
### Water Use 2022 - m3



Departmental use over the year is shown below:

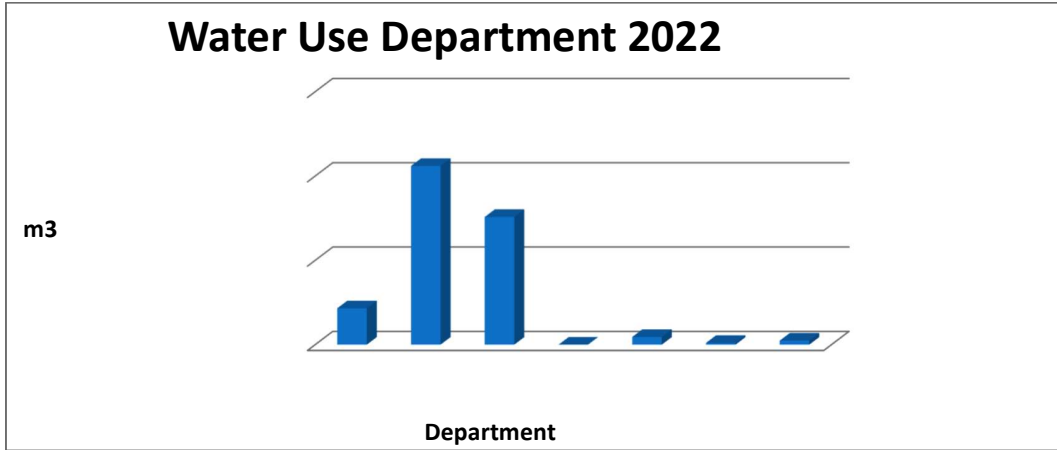
2023:

### Water Use Department 2023



Compared to 2022:

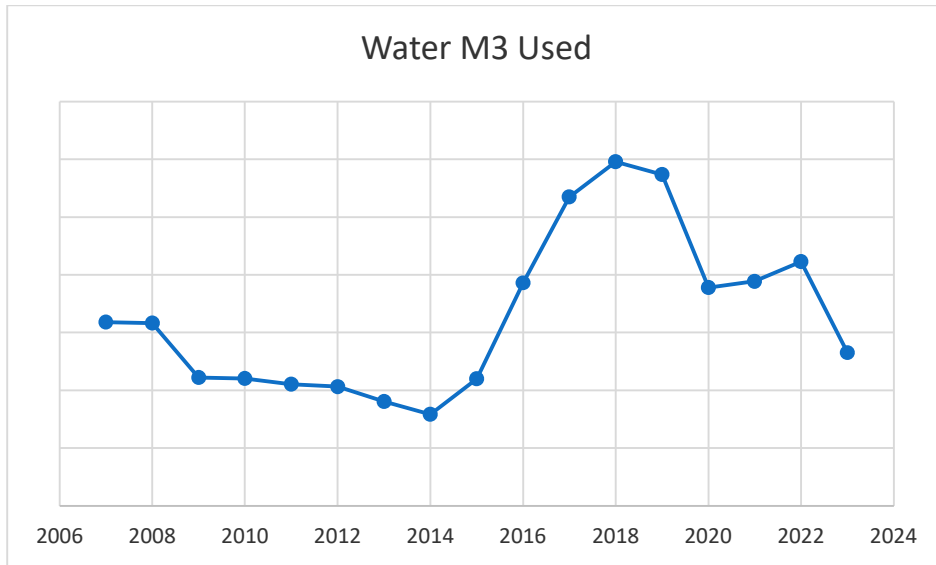




Showing very similar ratio.

We have 7 areas of main water use.

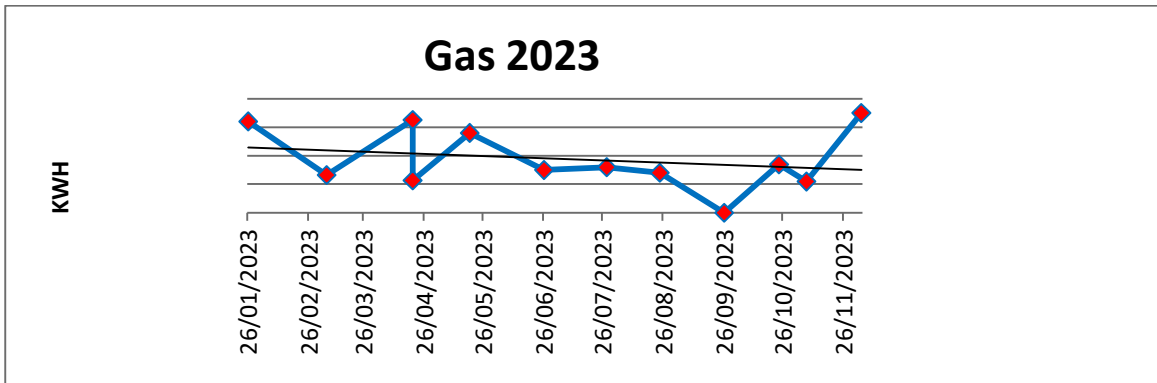
The below graph shows the water consumption over the past 13 years, showing a large reduction over this year.



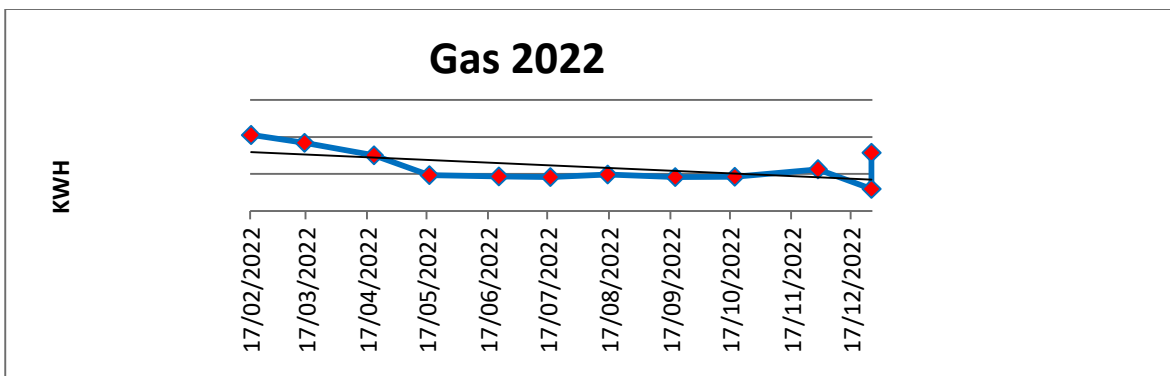
## Gas Consumption

The gas consumption for 2023 is shown below, we changed contracts in October.

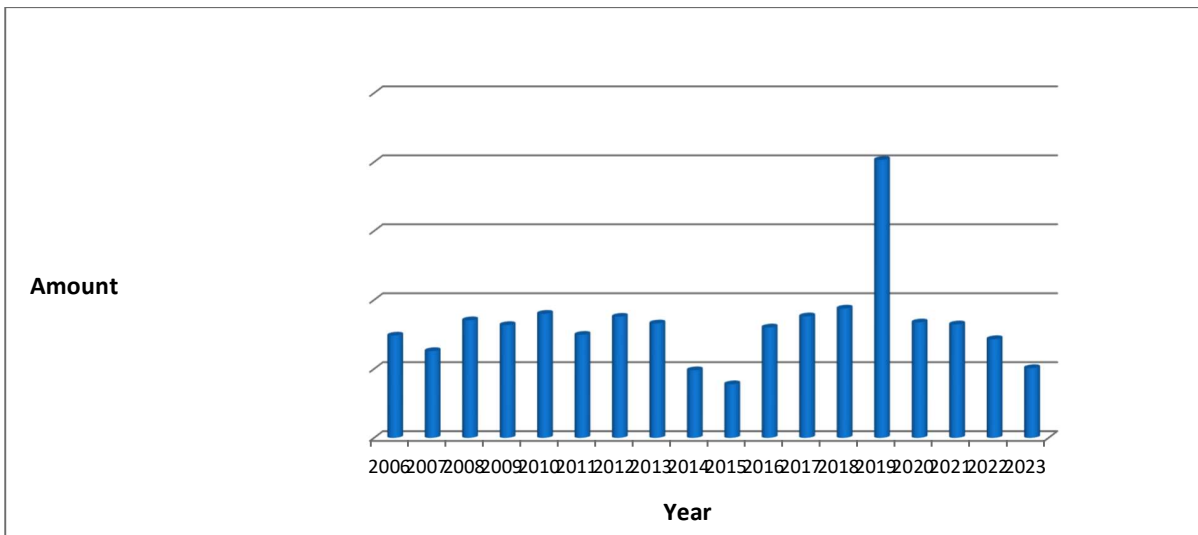




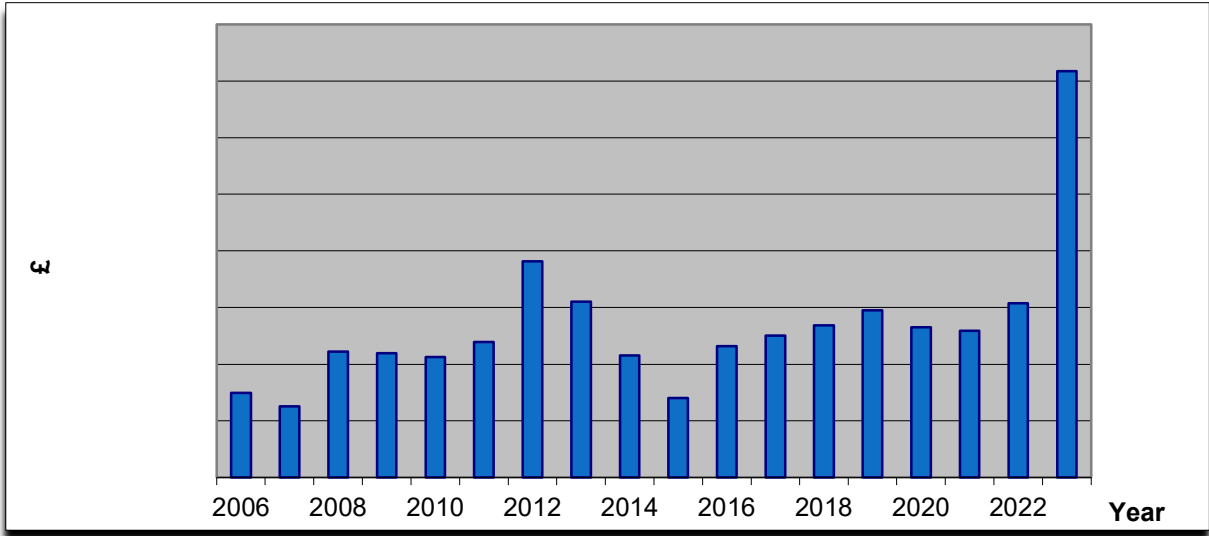
2022 is shown below.



The graph below shows the consumption since 2015, showing a steady decreasing consumption apart from billing and estimation issues (Shown as spikes)



However the cost has risen significantly, shown below

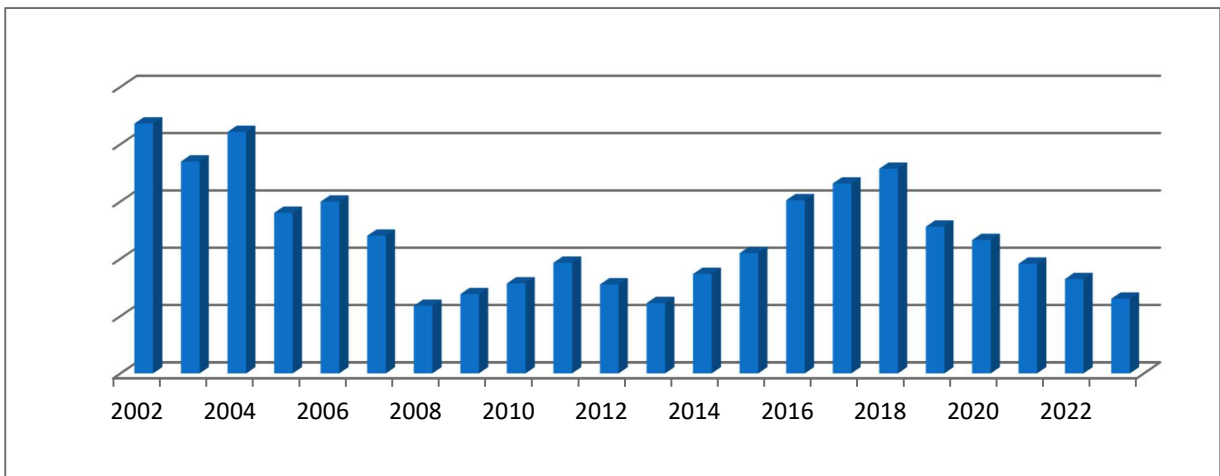


### Air Pollution

The EPA License from the local authority gave us a target emission for the year.

This shows a good decrease over 2022.

Below shows a comparison of totals over the past few years:

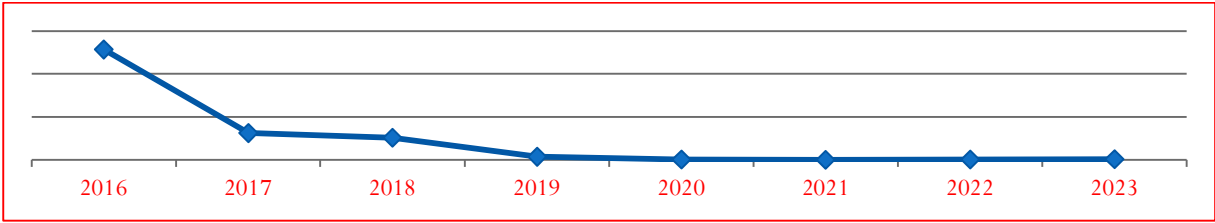


This shows a good reduction over the past few years, and the lowest recorded for 10 years.

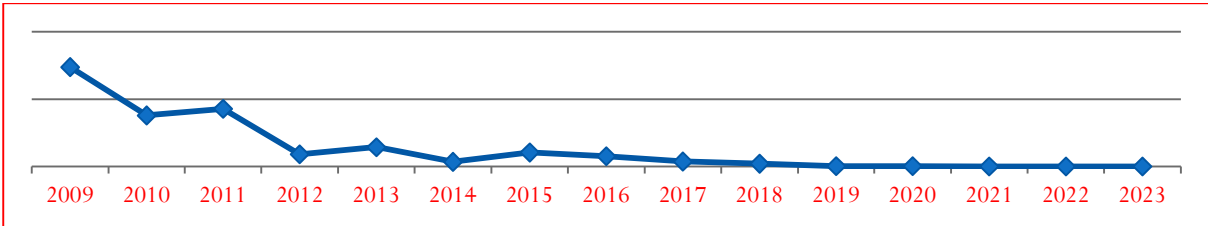
### VOC Air Emissions

The emission of volatile organic compounds (VOC) have been tested at extraction points in the Print Department. The results are shown below:

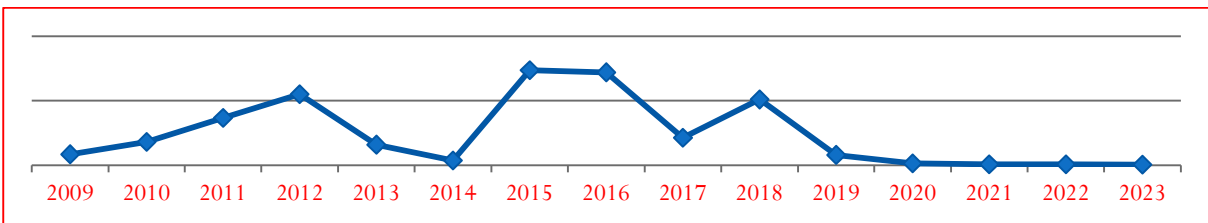
Machine 1



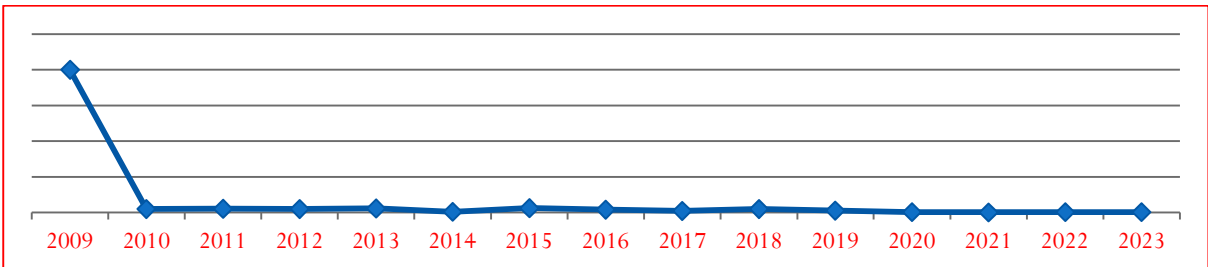
Machine 2



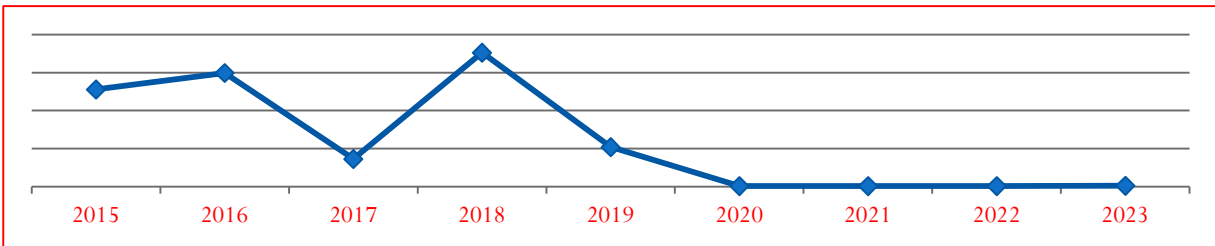
Machine 3



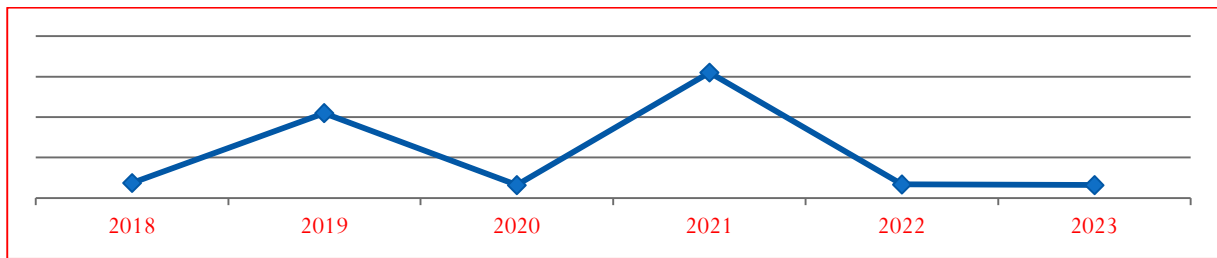
Machine 4



Machine 5



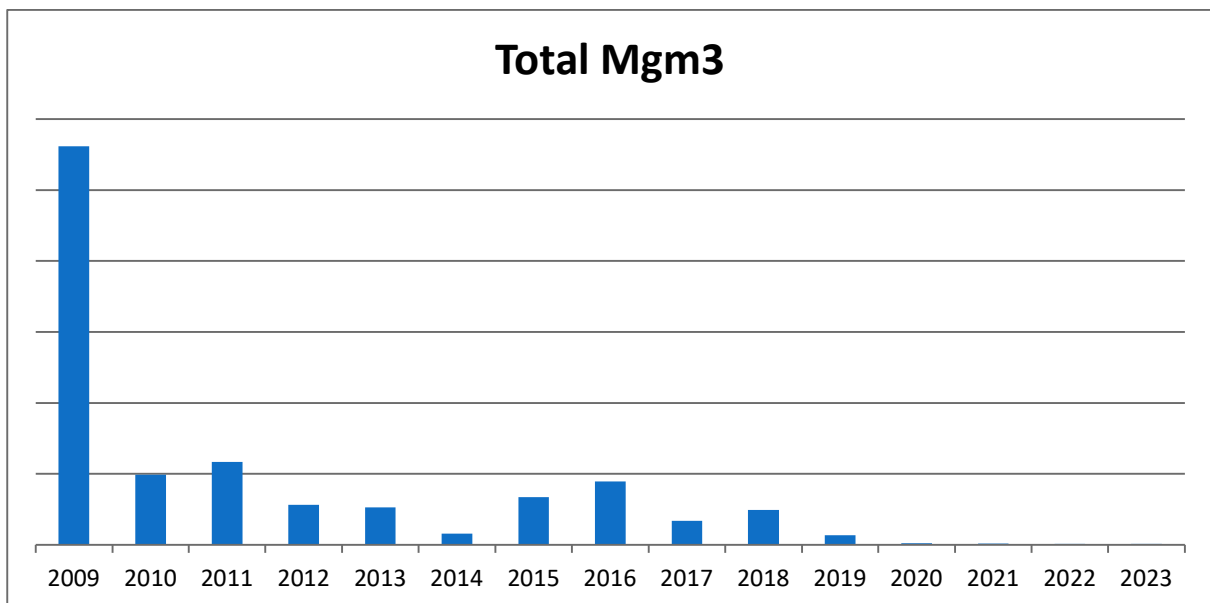
### Machine 6



There were no issues with any of the machines in 2023, with all monitoring under our permit values.

This monitoring is solely dependent on what types of products we are printing at the time of monitoring.

The total output from the machines is shown below from 2009 in mg/3:



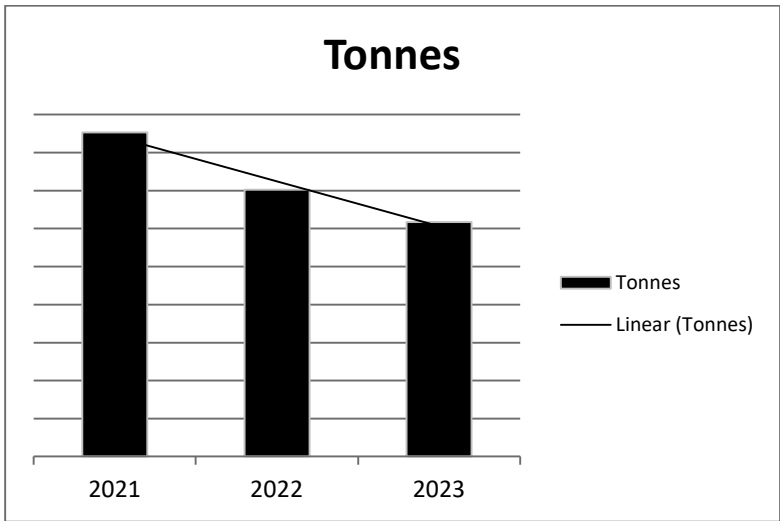
This shows a vast improvement from pollution from these dryers over the years.

There will be no further need to test the VOC emissions annually, as ELDC have told us there is no longer a requirement to test.

## Waste

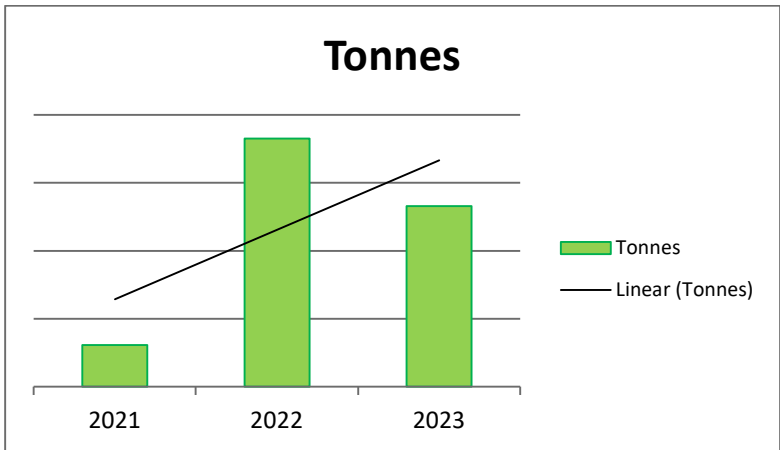
We have different waste streams taken from the site over 2023.

**General Waste** – Diverted from landfill



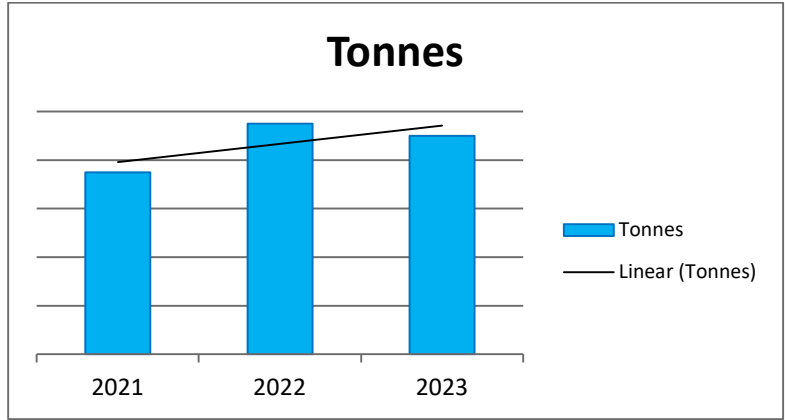
This shows an excellent reduction over 2023.

**Organic Waste** – Any grass, hedging, leaves etc



This shows a reduction over 2023.

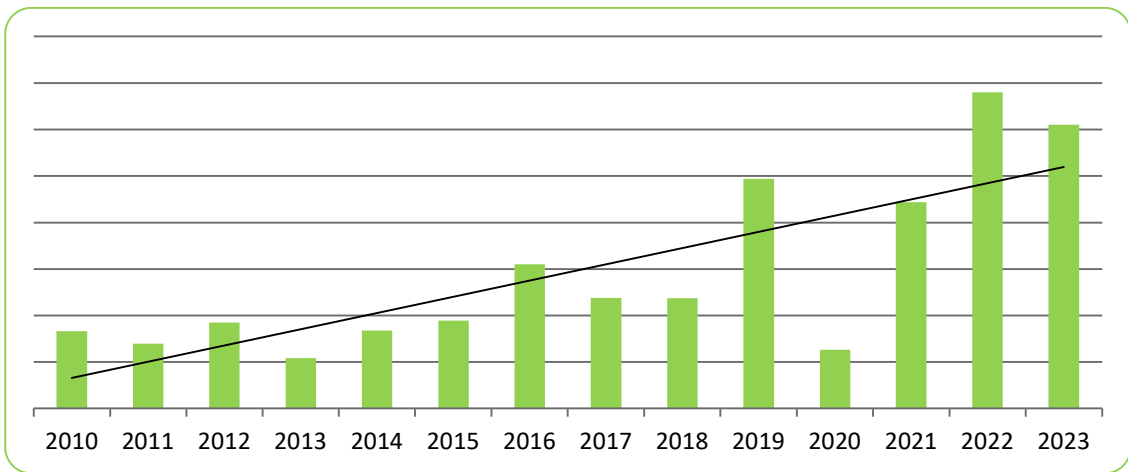
**Dry Mixed Recycling** – Paper, card, plastics.



A reduction of recycled materials collected over the year, compared to last.

Overall, a good reduction of waste generated by the site.

The graph below compares the total to previous years (In Tonnes)



We will be working to reduce this even further in 2024.

The hazardous waste company collects from us on a monthly basis.

The amount recycled is shown below:



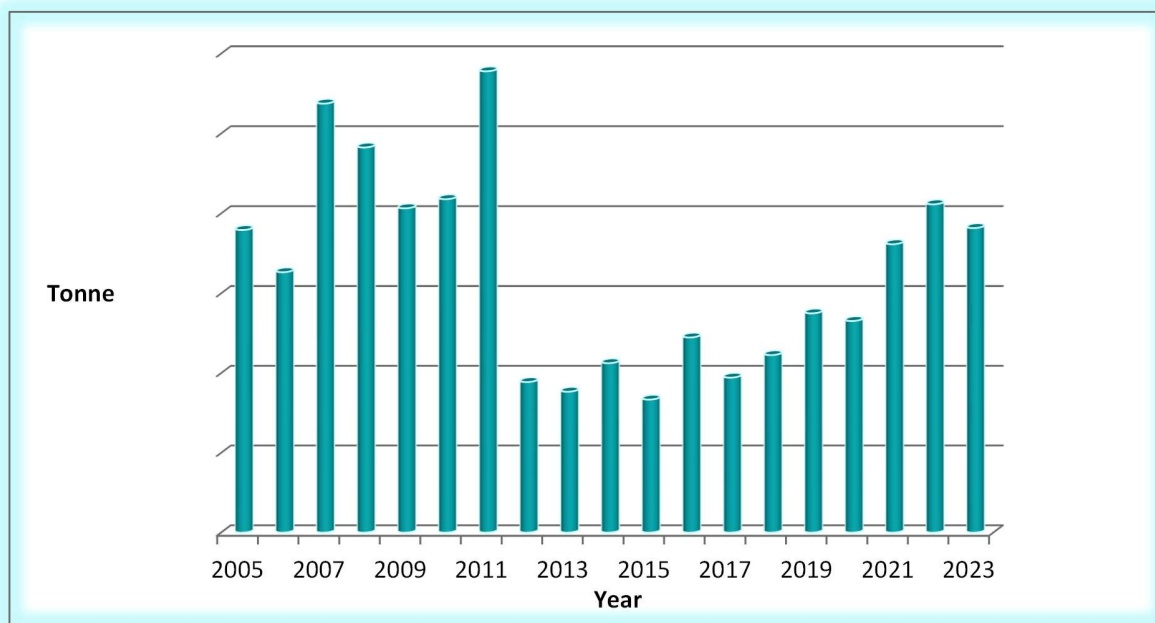
## Packaging Waste

Below shows the amount of packaging waste sent to our customers over 2023.

The values are derived from purchasing stock data.

The packaging rates were below the 50T threshold for reporting requirements.

The value has decreased from the previous year:



## Plastic Packaging Tax (PPT)

We are below the reporting threshold of 10T.



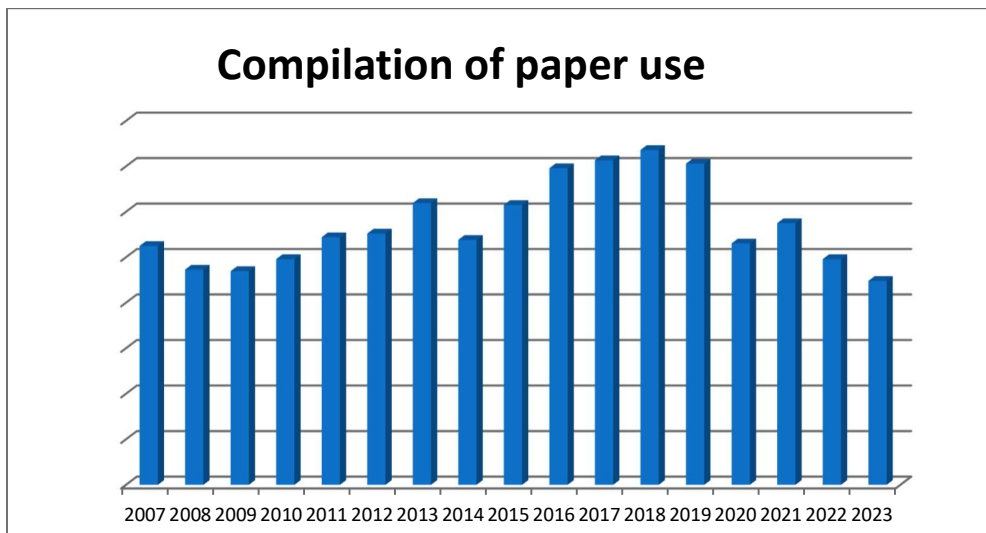
## Recycling

Below is the recycling carried out throughout the year:

### Cardboard & Mixed Paper Recycling

This was carried out throughout the year with no issues. There are no weights available from this service.

Compared to previous years shown below:



This shows a good decrease and the least we have used since 2007.

### Plastic & Tins

These were collected and recycled without any issues.

### Electrical & Electronic

There were collections of the electrical waste during the year, with no issues raised.

No heat-seal machines were returned to us for disposal.

### Batteries

These were collected and recycled without any issues.

### Light Tubes & Bulbs

Recycled with no issues.

### Metal

No issues recycling metal.

## **Ink Cartridges**

These were collected monthly with no issues.

The HP take back scheme was utilized for the collection of HP cartridges and oil from the Indigo machine.

## **Crisp Packets**

The crisp packet drop off scheme was ended during 2022. Recycling is still taking place and the packets are taken to the local supermarket for recycling.

## **Disposable Gloves**

J&A are part of the Spontex Recycling scheme to recycle disposable gloves. We have recycled almost a quarter of a million gloves so far.

The recycling of gloves makes a donation to our chosen charity of Lives in Horncastle.

## **Solvent Print Wipes**

These have been recycled with no issues.

## **Local Authority Permit**

We did have a local authority visit this year. The permit we hold was reviewed where we were in compliance.

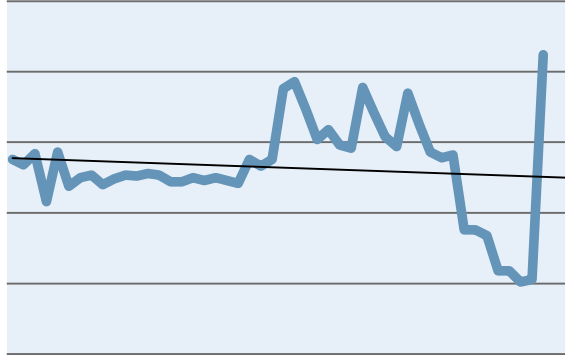
## **Container Storage**

The ink storage containers have to be monitored to ensure they meet the requirement of the ink and products kept inside them.

The temperature range has to be between 5 degrees and 30 degrees C. The chart below shows the readings which are taken weekly over the year.

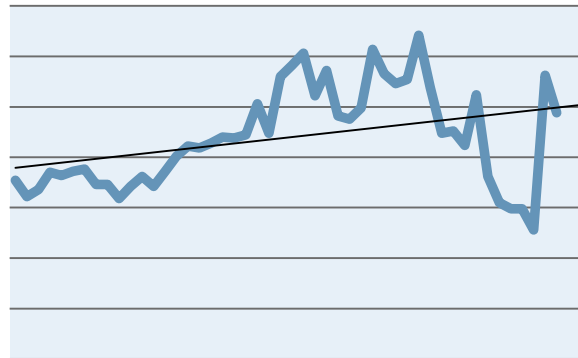
Minimum reading:

### Container 1 Minimum



Maximum Reading:

### Container 1 Maximum



### Emissions from the building

This was checked weekly with no concern.

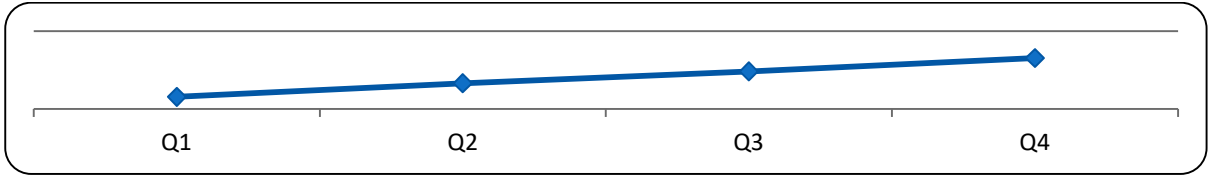
### VOC Emissions

These were measured with the results shown above with no concern.

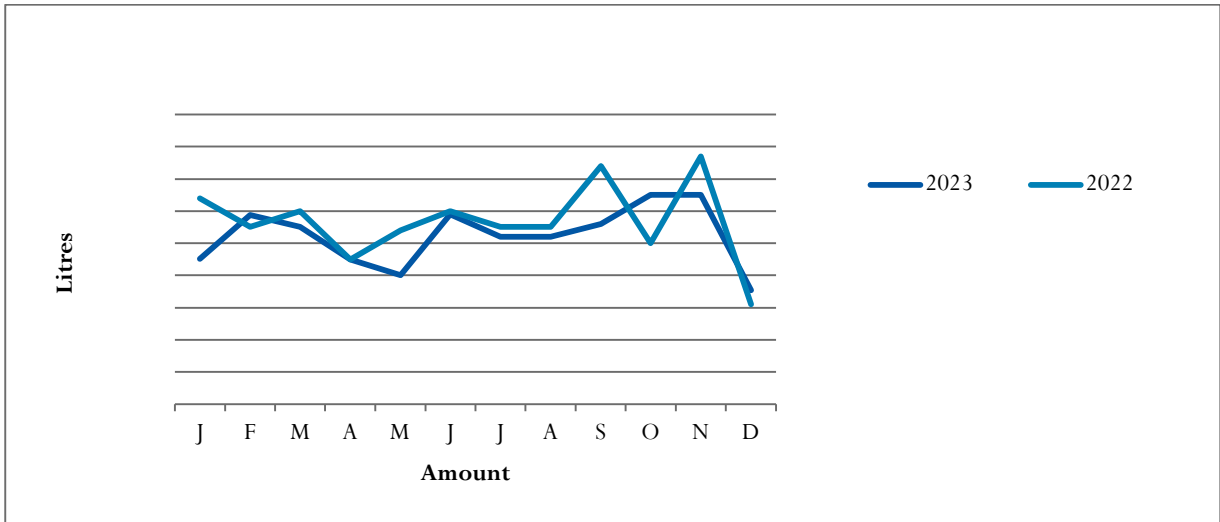
### Solvent Management Plan

This is checked and recorded each quarter.

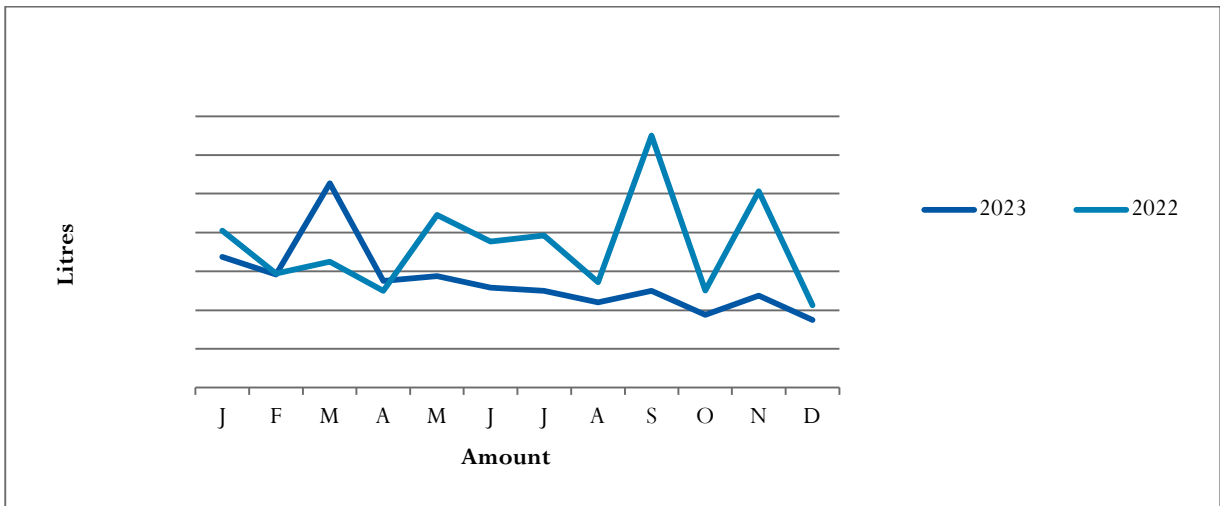
The results are shown for each quarter of the year below, shown in Tonnes:



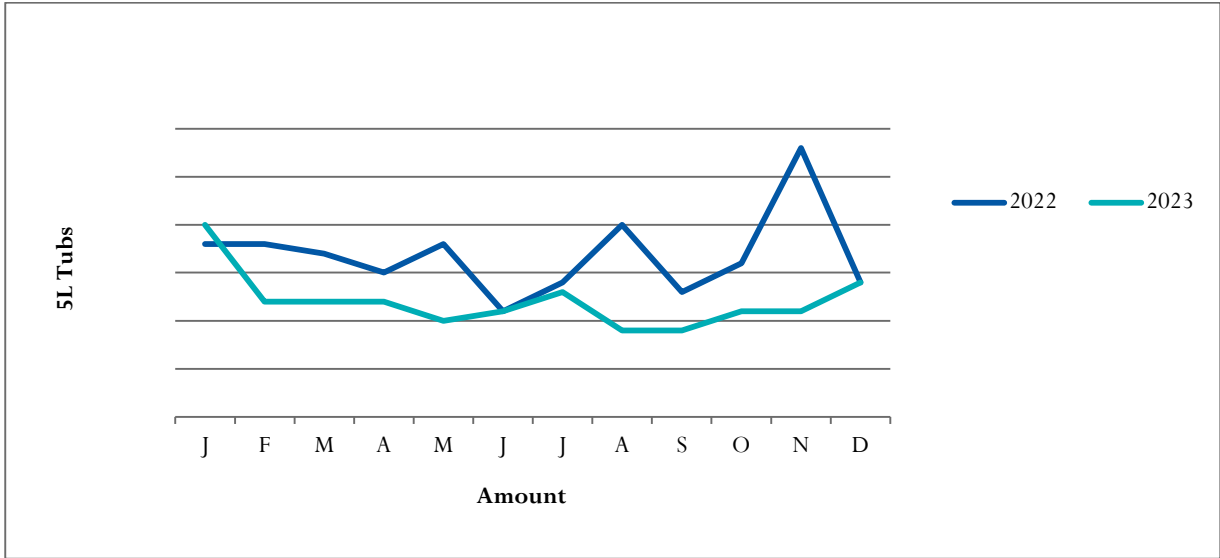
There was a reduction in the consumption compared to previous year:



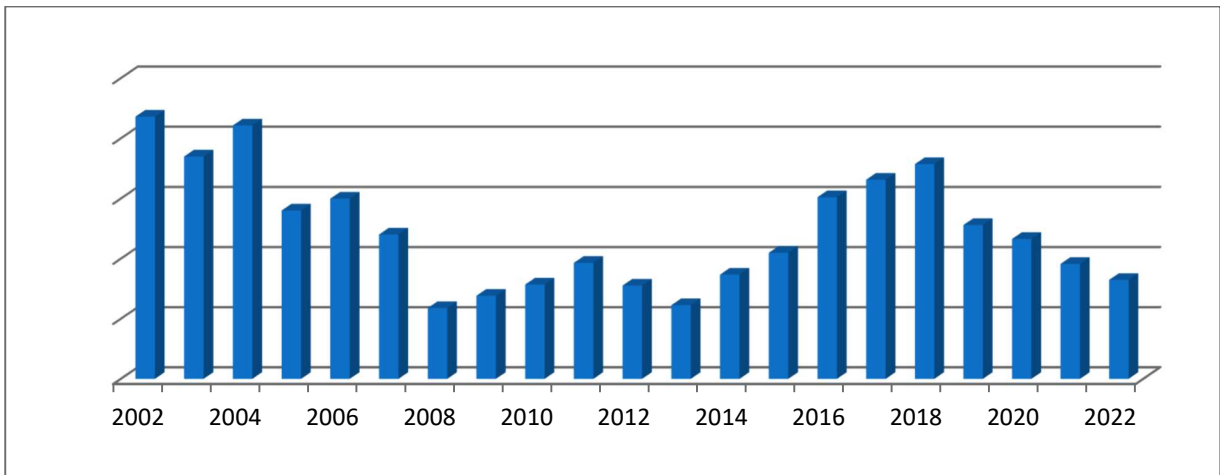
There was also a decrease in the use of the chemical, shown below:



Emulsion consumption also decreased over 2023, shown below:



Overall solvent consumption is compared to previous year shown below:



This shows a good reduction over the past few years.

### Cleaning operation

A cleaning review was submitted to the local authority for 2023.

### Waste Materials

Waste materials are reducing due to improved technology, better nesting of work and better utilization of space.

### Environmental Protection Manual

This is combined with the H&S Handbook and is available in hard copy form in every department.

There is a copy available at the Environmental notice board and on the company intranet 'info'.

A copy was also submitted to the local authority.

## Staff Training

Carried out throughout 2023 where required.

Performance reviews were carried out for the first time, with further training being highlighted where required.

A Training Needs analysis is also periodically carried out.

## Environmental Complaints

There have been no formal environmental complaints received.

## Internal & External audits

Internal and External audits were carried out throughout the year.

### External Audit

BSI Audited on:

11<sup>th</sup> & 12<sup>th</sup> May

26<sup>th</sup> & 27<sup>th</sup> October – No NCR's were raised.

### Internal Audit

There were 29 internal Environmental and quality audits completed over the year. This is an increase in audits.

Various other observations were noted with most being actioned and implemented for improvements to the system.

## Sustainability & Efficiency Group

Meetings were held online via lifestize/Teams. The focus of the group has been on reducing the companies impact on the environment and surroundings, wherever possible.

## Environmental Targets – 3 year plans:

### ENV1 - To reduce VOC's to below the 2022 target

This target is achieved.

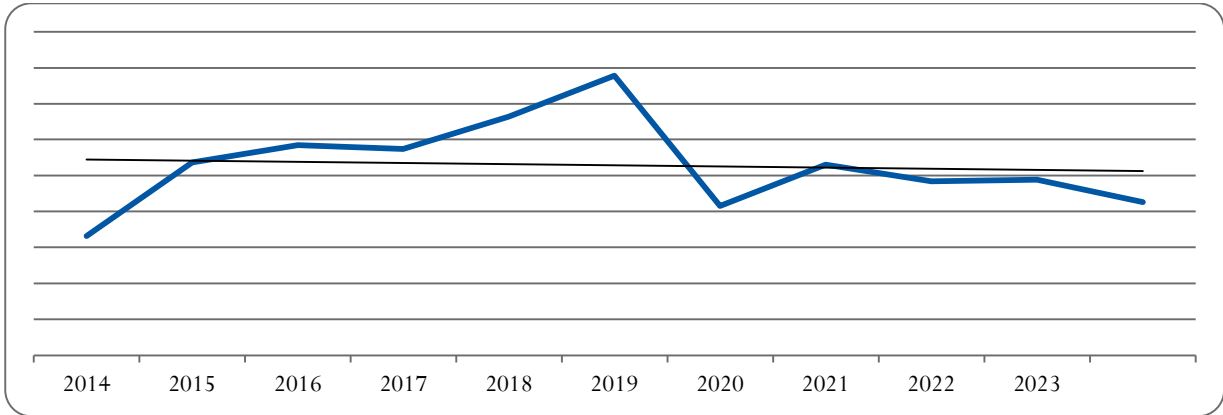
### ENV2 - To reduce general waste – to be below the 2019 level.

This target is achieved.

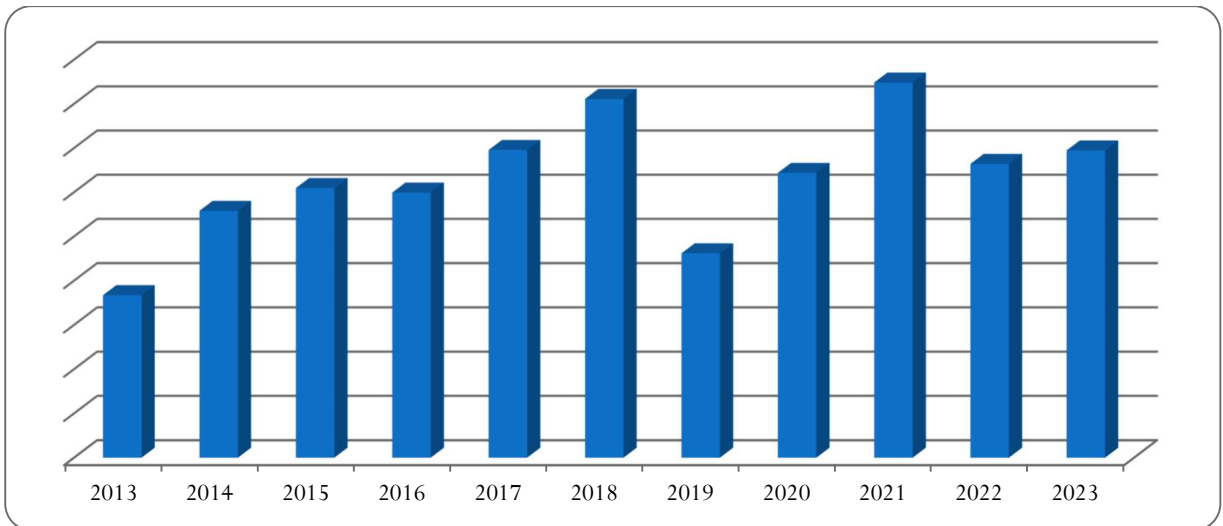
### ENV3 - To reduce the consumption of solvent based ink

To reduce the consumption of solvent based ink compared to 2022.

Below shows the use of Products over the past few years, showing a decrease over 2023.



Previous years is shown below:



### ENV4 – To reduce the consumption of energy

To reduce the consumption of energy based on 2022

There was a very slight increase in 2023 overall. We will be working to reduce over 2024.



## Quality

Below are the performances of quality system items:

### Internal Intranet – Info web site

This content is updated on a regular basis.

### Machine Manuals

These have been added to the PPM system when they are available.

### Skills Matrix

This was updated at regular intervals. The most recent version is available on the info web site.

### Calibration

This schedule was run to schedule. No issues.

### Training

3 and 6 month reviews were carried out throughout the year.

Performance reviews were carried out for all areas of the business. This highlights any areas for improvement and training needs.

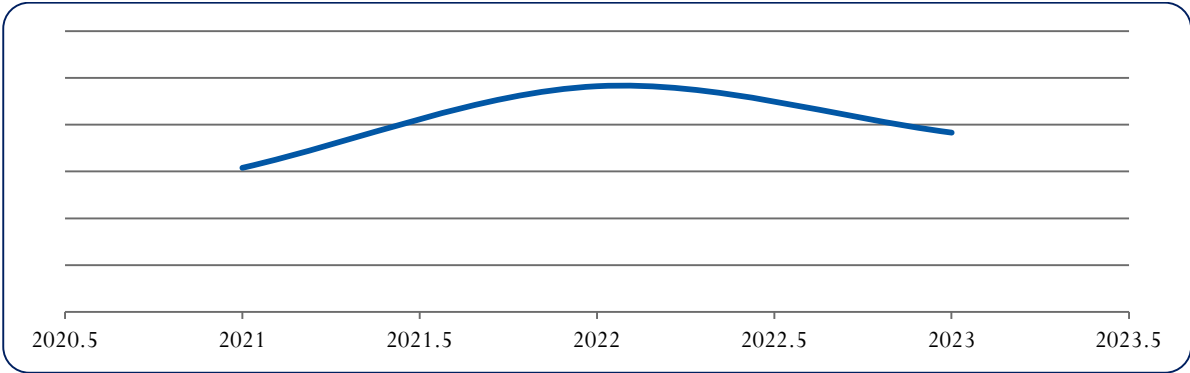
The training records were updated accordingly every couple of months.

Internal training was carried out as required.

### Customer Complaints

The graph below shows the level of complaints over the past couple of years, showing a reduction over 2023.



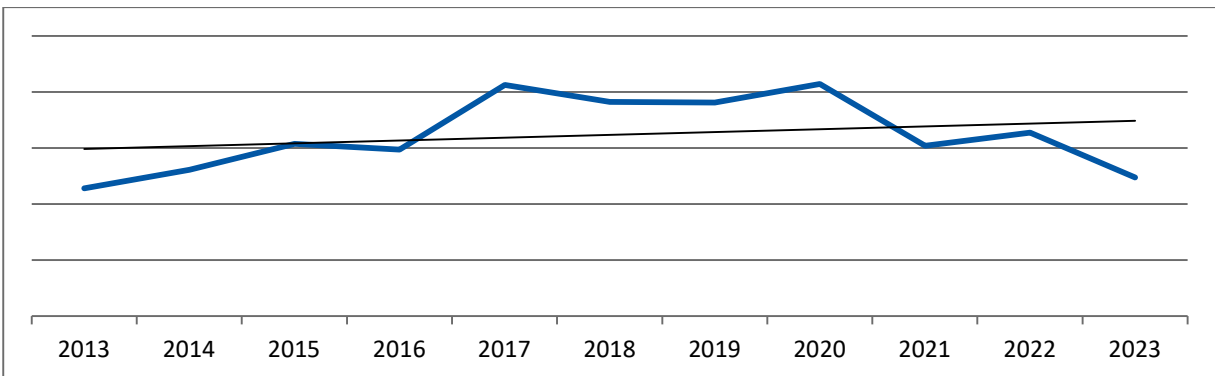


### Quality Targets – 3 year plans

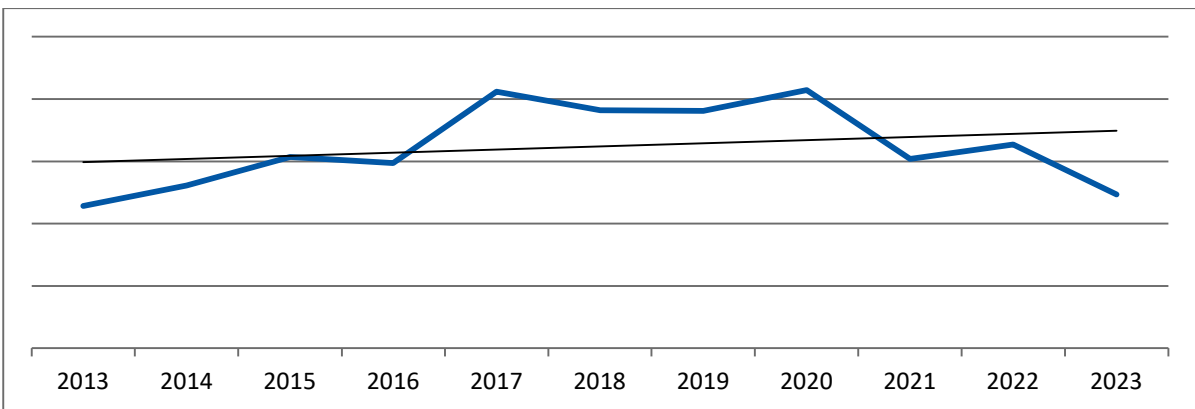
The below is the status of the current plans:

#### QUAL1 - To reduce reprints – To reduce compared to the previous year.

Below compares the reprints and non-conformities to previous years showing a good decrease on last year.



Reprints shown as a percentage of orders is shown below:



This shows a very good improvement.

**QUAL2 - To reduce lead times of products – based on 2019 times.**

Target Achieved.

**QUAL3 – To reduce customer complaints**

To reduce customer complaints based on 2022

Target Achieved.