CHEM
TECH

Case study:
Oil & Gas

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Customer:

Independent oil & gas producer

Implementation:

Natural gas processing plant

Customer's problems

The primary concerns:

- **Low yield of high margin product - LPG**

- **Unexpected downtime happened every three weeks**

- **High CO_2 emissions**

Which led to:

- **8% of LPG were going to natural gas stream - low margin product**

- **91% average equipment utilization**

- **108% CO2 emissions to the base scenario**
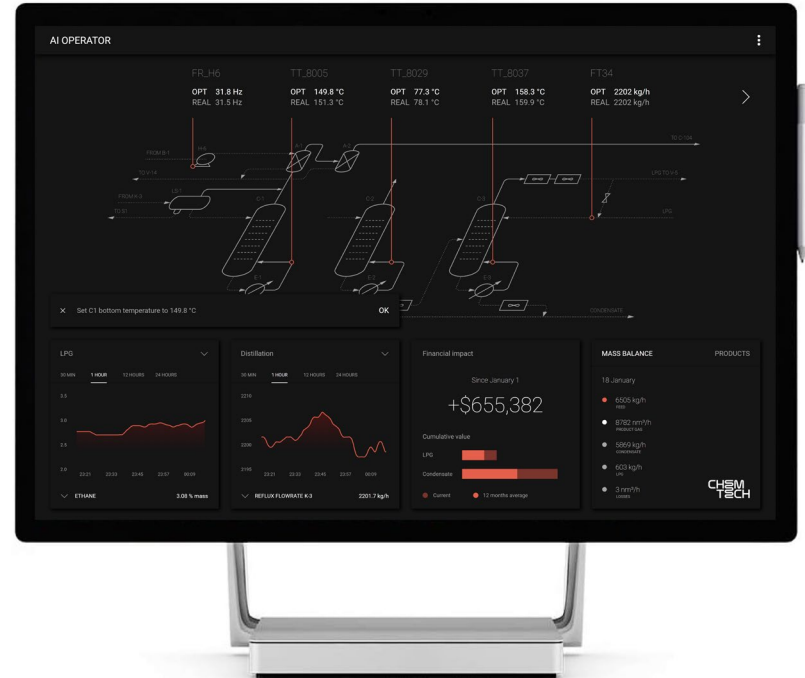
Bottom line:

- **Customer lost around $840k every month**

Result with AI Operator

Achieved metrics:

- **99.6% the yield of LPG**

- **98.7% of equipment utilization**

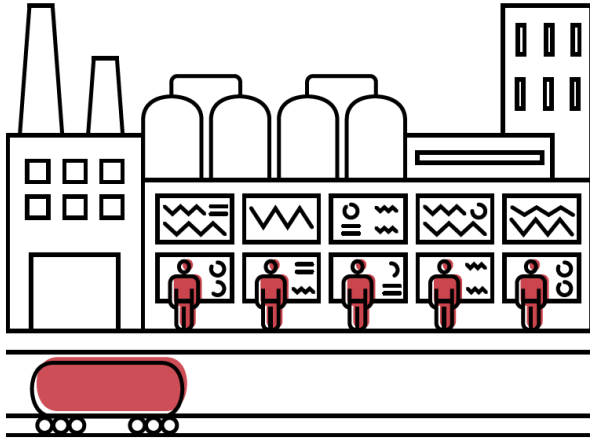- **83% CO$_2$ emissions to the base scenario**

Bottom line:

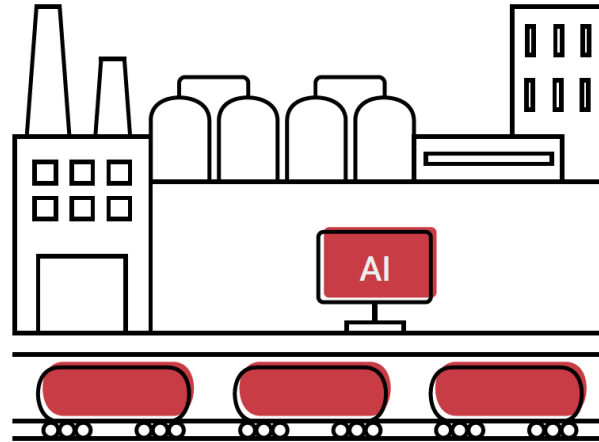- + **$780k additional profit per month**

Before

- **Human mistakes**

- **Low product yield**

After

- **Fully automated decisions**

- **Real-time recommendations**

How we reached the result

Step 1:

• We analyzed 1-year historical data from current sensors and laboratory

Step 2:

• Based on the real-time analyzers, we provided the neural network to manufacture unit optimization.

Step 3:

• The optimal process parameters displayed on the interface and were directly sent to the production automation system

Project risks

Risk of losing money:

- We started the initial project with a 100% money-back guarantee
- After a successful implementation customer connected other manufacturing units

Risk of losing time:

- We had only three online meetings with the customer's team before implementation.
- There were four weeks from the initial meeting to the commercial operation of AI Operator.

Operational risk:

- Product reliability - 99.98%

Customer's IT infrastructure

level of automation:

- Customer had a standard SCADA system

Data for project:

- Historical data from sensors and laboratory: 1-year period

New hardware:

- The customer didn't install any hardware devices

Next steps

Step 1

- Find a production unit for an initial project
- Send historical data from current sensors
- Install AI Operator three weeks after

Step 2:

- Connect additional manufacturing units

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