QCL WATER SCIENCE

MANTECH
OPTIMIZE YOUR RESULTS. PROTECT OUR ENVIRONMENT.

Multi-Parameter Analysis Systems

Eurofins

Since 2008 Eurofins has been using MANTECH systems at various facilities around the world. Their first system ran 200,000 samples in five years. The unit analyzed 7 different parameters per sample and operated 24 hours/day, 7 days/ week. This generated €5,000,000 in revenue. Their initial investment was €60,000.

The system discussed in this case study analyses pH, conductivity, alkalinity (speciated), turbidity and absolute color from a single 50ml tube. The cost per sample was 0.91 Euros. After factoring in the non-revenue generating quality control samples, it was revealed that the Return on Investment for this system was only 21 days. With Mantechs RapidAlk™ and IntelliRinse™ technologies, and small volume sample tubes, it is the most sustainable and the "greenest" system on the market, as it reduces plastic waste and reagent consumption.

Analysis

Hourly Labour Rate:	€35.00
PC Titrate System Price:	€60,000
Overhead Percentage:	50%
Percentage of Quality Control Samples:	25%
Total Selling Price for all Parameters:	€25.00

Case Specifics	
Samples per Year (including QC, spikes, blanks, etc.)	40,000
Samples per Day (based on 250 working days)	160
Cost per Day	
Technician Time per Day with PC-Titrate	€45.69
Supply Cost per day with PC-Titrate (based on 250 working days, includes consumables, electrodes, reagents, tubes, etc.)	€53.05
Total Cost per day for Technician and Supplies	€159.14
Cost Calculations	
Divided by Number of Analyses per day = Analysis Cost per Sample for 4-7 Parameters	€0.91
Selling Price Per Sample	€25.00
Gross Profit Margin per Sample	€24.09
Result	
Instrument Payback time in days	21

Notes

1. Estimated values are conservative. For example, for sample tubes, a cost of $0.15/tube + 10% extra was assumed
2. Analysis cost is total cost for 4-7 parameters per sample using a PC-Titrate TitraSip™ Autosampler
3. The technician time will decrease if sample run lists were automatically imported from Excel/LIMS
4. Technician time includes an estimate for preparing standards, titrants, etc
5. Reagents cost vary based on purchasing them versus preparing in-house. Note, purchasing reagents will decrease the amount of technician time required
6. Additional savings are realized froma decreased turnaround time, improved QC protocol, and the ability to operate unattended overnight
7. Instrument payback takes into account only revenue-generating samples (i.e., not the percentage of QC samples entered above)

FOR MORE INFORMATION CONTACT:
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