

Overview of the PQL Process

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Introduction

- Practical Quantitation Limit (PQL)
Workgroup
 - Practical Quantitation Limit (PQL)
Subcommittee

Overview

- Born on September 22, 2004
- Develop the Technical Methodology for setting PQLs
- Met every 1st Wednesday



Definitions

- MDL - The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte.
- The lowest chemical analysis level that can be reliably achieved within specified limits of precision and accuracy during routine operating conditions.

Challenges

- Protective yet practical
- Reproducible yet flexible
- Adaptable to new compounds and technology changes

The Process



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The Flow Chart

- PQL Robust
- PQL Minimum

The “TABLE”

- 190 compounds
 - Published MDL Survey
 - Laboratory Survey
 - Applicable Standards

Examples

- No NPDES Method
- PQL Robust < Standard
- PQL Robust > Standard
- PQL Robust > Standard / PQL Minimum < Standard
- PQL Robust > Standard / PQL Minimum > Standard