

AQMD M313 Pilot Test – Phase One

Step One

Review *Practical Preparation Guide for Instrument Optimization Mix* and *M313 Instrument Configuration Guide*

Email bparrack@aqmd.gov by June 1st to secure participation in pilot test

Order all required instrument configuration parts and/or consumables which are not currently in inventory.

Order all standards required for IOM preparation which are not currently in inventory

Step Two

Configure instrument according to directions in *M313 Instrument Configuration Guide*

Prepare IOM standard according to *Practical Preparation Guide for Instrument Optimization Mix*; enter all recorded masses into the Preparation tab in the *Prep + Discrimination Template*. The areas that require user entry are colored light blue—see *Prep + Discrimination Examples*

Step Three

Inject replicate IOM injections onto an equilibrated instrument using the following sequence:

1. Solvent Blank
2. IOM Injection #1
3. Solvent Blank
4. IOM Injection #2

Review chromatograms for appropriate integrations

Step Four

Enter the following information into the Discrimination tab in the *Prep + Discrimination Template* for each component added to the IOM.

- Manufacturer
- Lot #
- % Purity
- Retention Time
- Area Counts

The areas that require user entry are colored light blue in the *Prep + Discrimination Template*

Step Five

Assess results from IOM in the *Prep + Discrimination Template*

Instrument optimization following the suggestions from *M313 Instrument Configuration Guide* must be performed in case of the following failures:

- Ethylene glycol, EGDE, and/or propylene glycol co-elution
- The “% of Normalized” value for any of the hydrocarbons falls below 85% or exceeds 115%
- Triglyme is not detected
- The retention times for EGDE or Methyl Palmitate drift more than 0.1 minutes between injections

Step Six

Once the instrument demonstrates successful QC for all components in Step Five, make 5 additional, consecutive IOM injections. You will now have 7 IOM injections in sum—record the 7 area counts for Triglyme in the LOD section of the Preparation tab in the ***Prep + Discrimination Template***.

The template will automatically calculate an estimated LOD for you. If the LOD calculates above 0.02 g/L, return to step two and optimize for instrument sensitivity.

Step Seven

Upload the complete and “passing” ***Prep + Discrimination Template*** (along with the two associated Blank and IOM chromatograms) to a location to be determined for review and acceptance into Phase Two of the Pilot Study

Contacts

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Hanna Lignell	(909) 396-2169	hlignell@aqmd.gov	IOM Preparation; Practical Preparation Guide for IOM