

Title:		Copy No: ##
SOP No.: 3.03/2.3/S	Effective Date: June 20, 2013	Location: ###

QSM Approval: _____

Nitrogen Concentration

1. Introduction

All sample extracts are concentrated to the final analytical volume using a mini-vap nitrogen purging apparatus. To maximize the recovery of the analytes and minimize the possibility of cross contamination the following procedures are followed.

2. Procedure

- 2.1 Check periodically the Ultra High Purity or High Purity Nitrogen tanks and replace when the pressure falls below 100 psi.
- 2.2 Replace the Oxytrap purge cartridges after 5-7 tanks have been emptied where required.
- 2.3 Thoroughly rinse tips of the nitrogen blow down apparatus (mini-vap) with hexane before and after use.
- 2.4 Care must be taken to ensure the sample does not contact the tip of the mini-vap during transfer.
- 2.5 Always place the sample vials in a container or rack when concentrating the samples to prevent accidental loss of sample.
- 2.6 Adjust the rate of nitrogen flow with the needle valve to cause a slight agitation of sample surface (too strong or too light a flow may blow sample out of vial or volatilize analytes. To avoid loss of sample place the rack of samples under the blow down apparatus with needle valve shut off. Turn on nitrogen and slowly open needle valve until sample surface shows a slight agitation). Flow may need to be increased as sample volume decreases.
- 2.7 When analysing for PCDD's and PCDF's samples are blown down just to dryness.

3. Revisions

October 2001: New header added
Section 3 added

November 2005: Section 2.6 – Added “too light” flow may blow sample out; Added “Flow may need to be increased as sample volume decreases.”

June 2013: Reviewed by: Alison Walkey
Changed sentence structure to second-person imperatives.

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