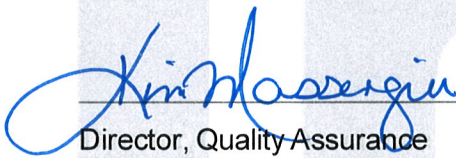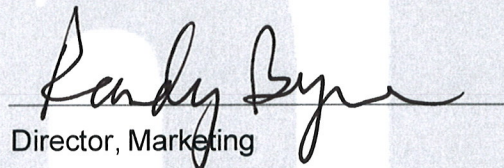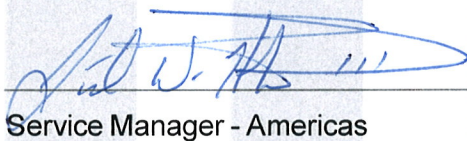# AutoChem® II 2920
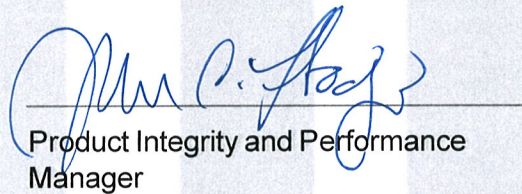
AUTOMATED CATALYST CHARACTERIZATION SYSTEM

This Operator Training Checklist was reviewed and approved by:

_____
Director, Quality Assurance

_____
Director, Marketing

_____
Service Manager - Americas

_____
Product Integrity and Performance
Manager

OPERATOR TRAINING CHECKLIST

mi micromeritics®

REV	ECN #	Description of Change	Checked By	Date
-	180001	Formal Release	m. at~	8-7-2018

1. OVERVIEW

This document contains a checklist to be used for training of MicroActive AutoChem II 2920 system operators. Place a check mark next to the items that were shown and discussed.

2. ORIENTATION

_____	1. Table of Contents and Appendices
_____	2. Manual organization and conventions
_____	3. Equipment description and components discussion
_____	4. Proper exhaust techniques
_____	5. Power up and power down sequence
_____	6. Analyzer and cable connections
_____	7. KwikCool, KwikCool Vortex, and CryoCooler options
_____	8. Sample tube choice, cleaning, handling, and assembly
_____	9. Setup Mass Flow Controller valve for new gasses
_____	10. Trainee prepared sample tube
_____	11. Trainee allowed to load sample
_____	12. Menu structure
_____	13. Mouse and keyboard usage
_____	14. Trainee allowed time to become familiar with software operation
_____	15. Unit Configuration
_____	16. *Help* menu
_____	17. Libraries

3. HARDWARE INSTALLATION AND USE

_____	1. Furnace mounting and removal
_____	2. Sample thermocouple position
_____	3. Cold trap and delay loop installation
_____	4. Septum use
_____	5. Cooling options

_____   6. Sample tube

_____   7. Sample quantity and loading

4. METHODS CREATION

_____   1. Methods creation

_____   2. Methods used in sample information files

5. SAMPLE FILE AND PARAMETER FILE CREATION

_____   1. File menu and sample information file structure

_____   2. Sample information file

_____   3. Analysis conditions file

_____   4. Adsorptive properties file

_____   5. Report options file

_____   6. Available reports

_____   7. Forms in Operator Manual Appendix discussed

6. SAMPLE ANALYSIS

_____   1. Analysis tutorial section in Operator Manual

_____   1. Cold trap installation

_____   2. Start, suspend, monitor, and cancel analysis

_____   3. Indicators, prompts, and valves

_____   4. Effect of alternative analysis conditions

_____   5. Screen reporting of analysis in progress

_____   6. Overlay Experiment View, Stacked Experiment View, and Peak Editor

_____   7. Loop calibration

_____   8. Auxiliary inputs and outputs

7. ANALYSIS REPORTS

_____   1. Interactive reports

_____   2. Starting default reports

_____   3. Changing sample file report options

_____   4. User-defined reports

_____   5. Printed reports

_____   6. Example reports

_____   7. Calculations (internet location)

8. OPTIONS MENU

_____   1. *Options* menu

_____   2. Presentation display options

_____   3. Default method

_____   4. Manage libraries

_____   5. Active metals

_____   6. Signal calibration

_____   7. Units of measurement selections

_____   8. Environmental defaults

_____   9. Graph options

_____   10. Service test mode

9. TROUBLESHOOTING AND MAINTENANCE

_____   1. Error messages (internet location)

_____   2. Preventive maintenance procedures

_____   3. Clean the equipment

_____   4. Clean or change the cold trap or delay path

_____   5. Change the cold trap O-ring

_____   6. Clean or change the foam air filter

_____   7. Change the sample tube filter

_____   8. Change the septum

_____   9. Reposition replace, or adjust the sample thermocouple

_____   10. Recalibrate the sample thermocouple

_____   11. Perform a leak test

_____   12. Perform a reference material analysis

_____   13. Perform a mass flow controller calibration

_____   14. Change gas cylinders

_____   15. Vent the gas exhausts

_____   16. Purge gas

_____   17. Remove or install furnace

_____   18. Change the injection loop

_____   19. Attach the KwikCool or optional CryoCooler

10. RETURNED GOODS AND PARTS ORDERING

_____   1. Returned goods policy

_____   2. Parts and accessories

11. WARRANTY STATEMENT

_____   1. Warranty policy

12. QUESTIONS

_____ All questions on operation resolved? (Enter **Yes** or **No**.)

If **NO**, use the available space to document the question, then forward to the appropriate personnel at Micromeritics for resolution.

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13. *VERIFICATION*

_____ All items on the Operator Training Checklist completed? (Enter **Yes** or **No**)

Name of trainer: _____

Date of training: _____

Company address: _____

_____

_____

_____

Analyzer name: _____

Analyzer serial number: _____

The following section is to be completed by the primary operator trained during this session. Please complete to acknowledge that installation training has been carried out to your satisfaction.

Operator verifying completion of training: _____

Date signed: _____

Operator's title: _____

Operator's phone number: _____