

REINHOLD ENVIRONMENTAL Ltd.



**2015 NO<sub>x</sub>-Combustion Round Table  
& Expo Presentations**

February 23 & 24, 2015, in Richmond, VA / Hosted by Dominion

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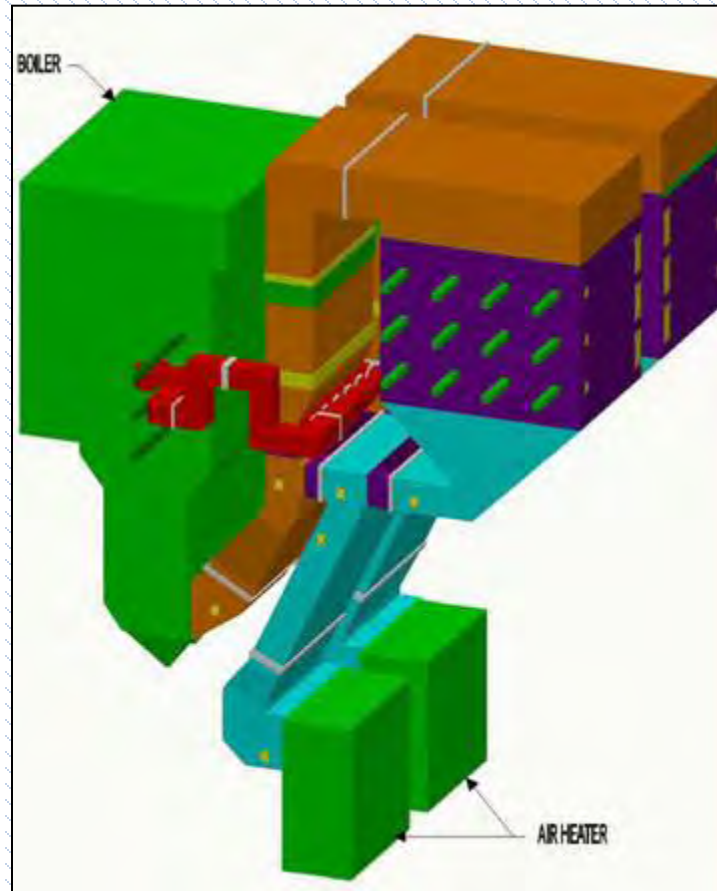
## ***Training Class 4: SCR Catalyst 101***

Part 2: Ron Richard, *REC*

REINHOLD ENVIRONMENTAL LTD.  
2015 NOx-Combustion Round Table  
Richmond, Virginia  
February 23, 2015



# Typical SCR Layout



# Lots of Steel



# Hoisting Catalyst Module



# Transfer to Monorail



# Inside SCR



# Moving Into Position



# Ammonia Injection Nozzles



# Ammonia Injection Piping



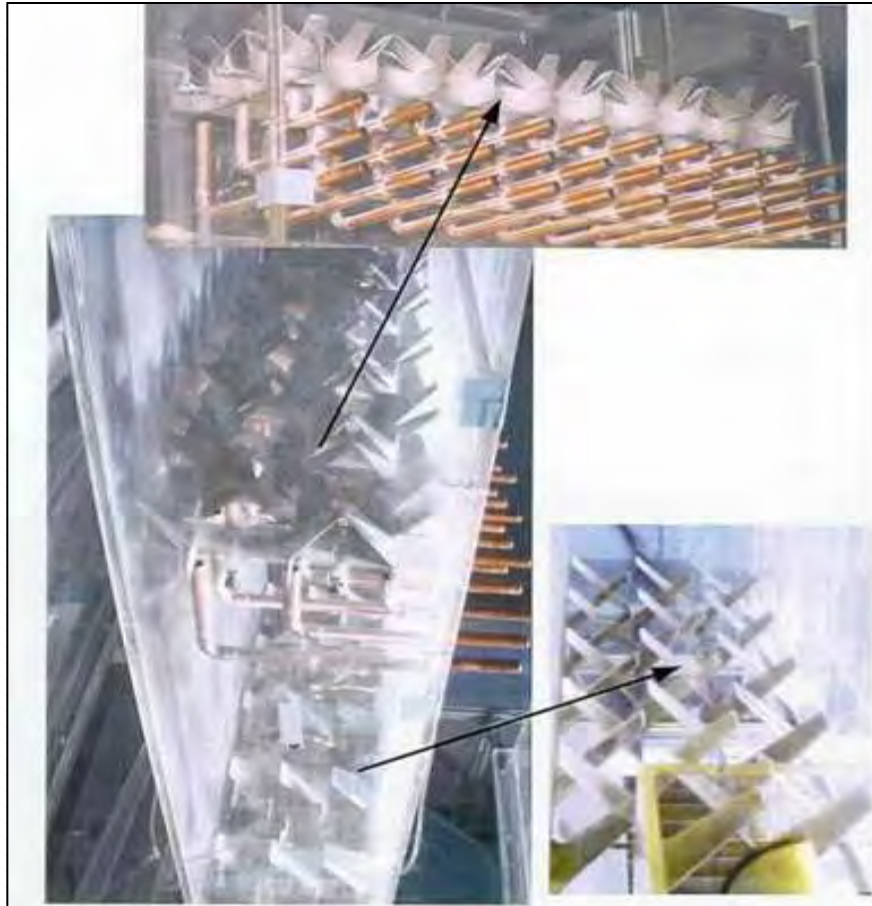
# Delta Wing Ammonia Feed



# Delta Wing Ammonia Feed



# Static Mixer Ammonia Feed



# Static Mixer Ammonia Feed



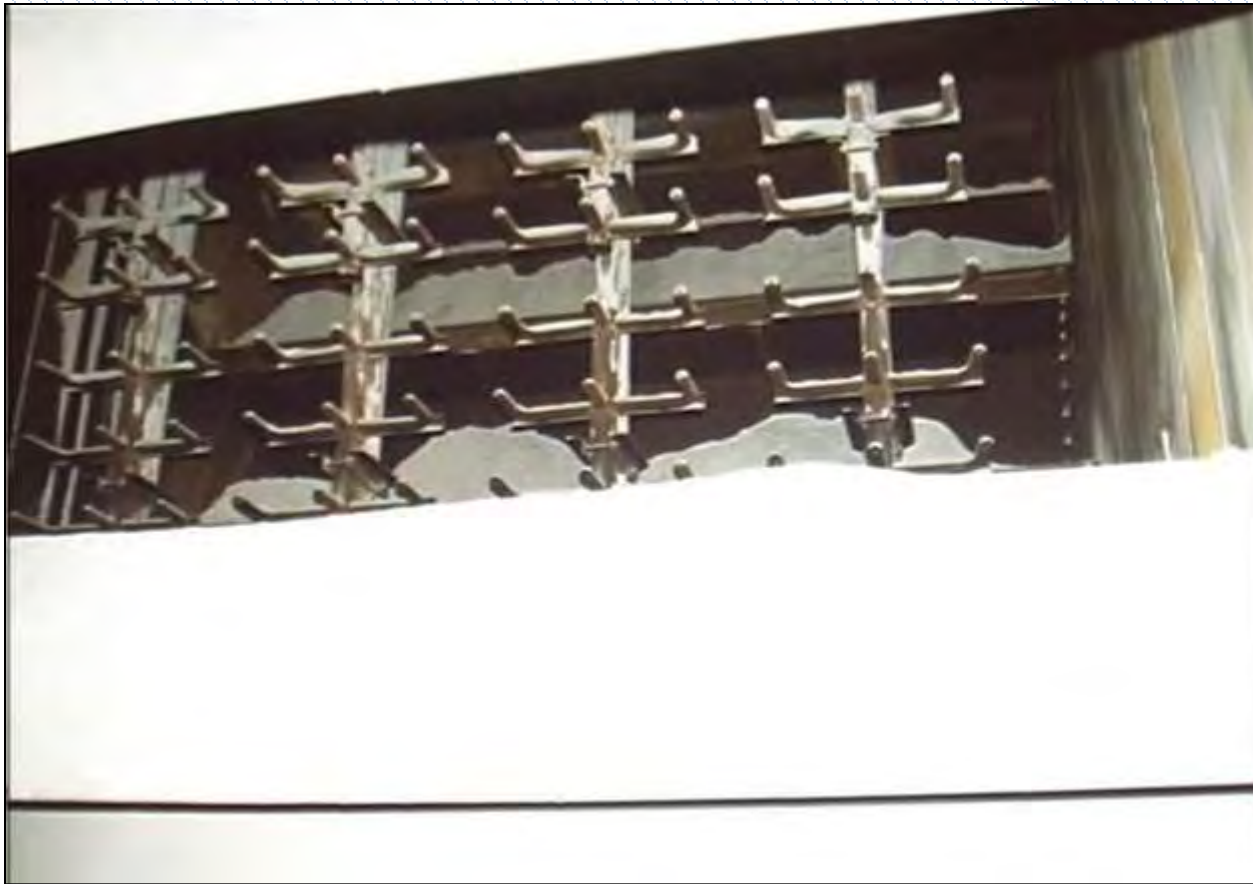
# Static Mixer Ammonia Feed



# Turning Vane Deposits



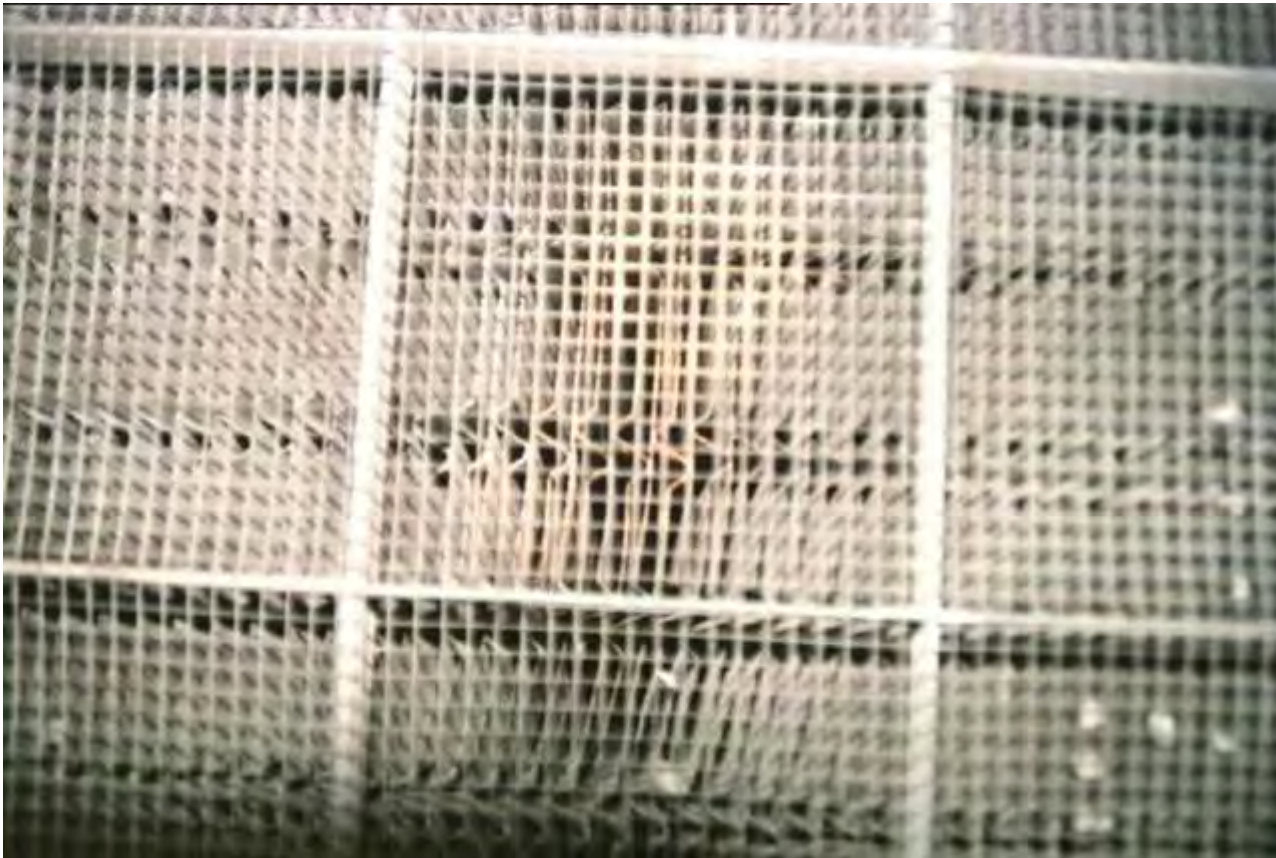
# Turning Vane Deposits



# Clean Honeycomb Catalyst



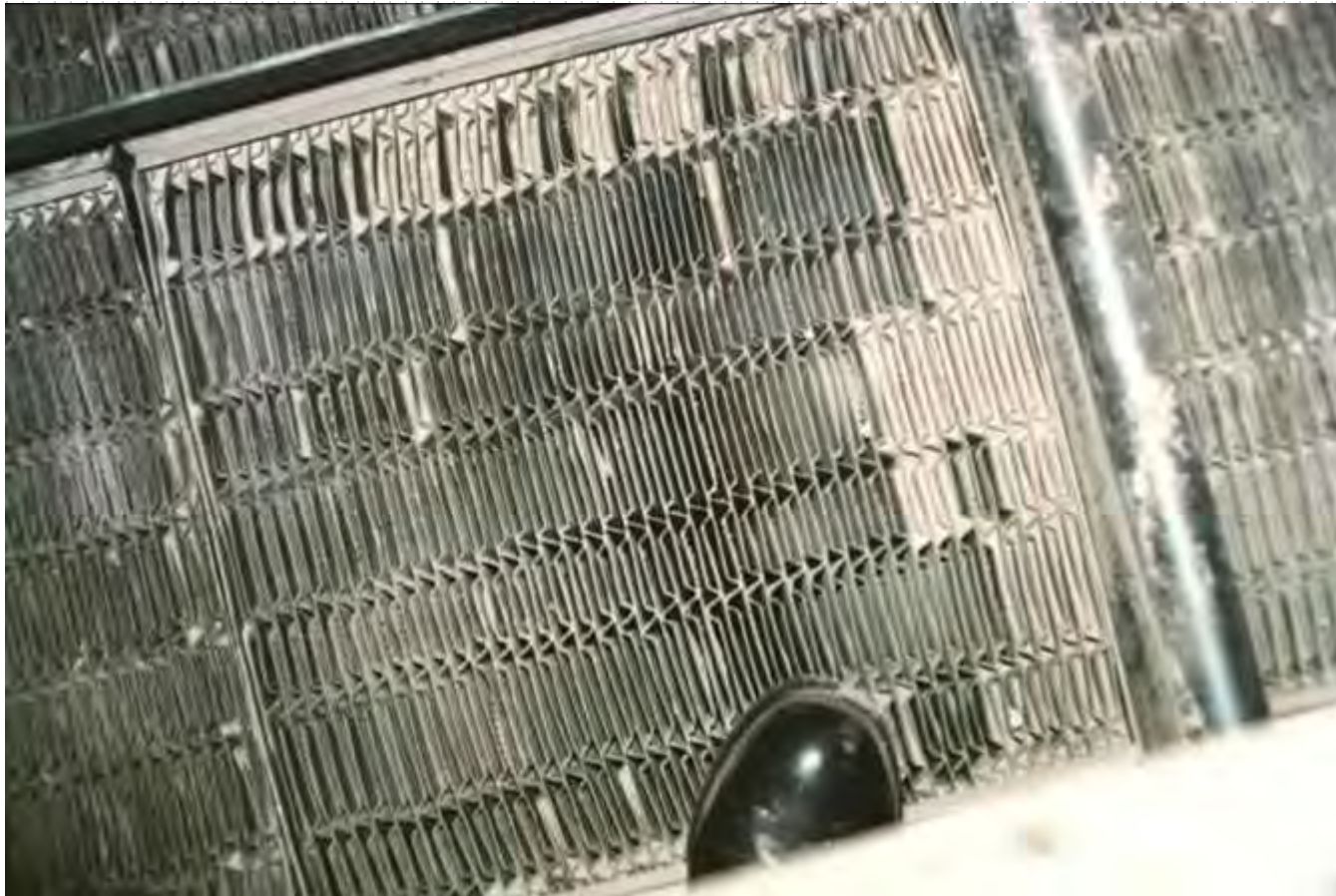
# Clean Plate Catalyst



# Plugged Honeycomb Catalyst



# Plugged Plate Catalyst



# Rake Type Soot Blower



# Sonic Horn



# Dirty Catalyst Station X



# Dirty Catalyst Station Y



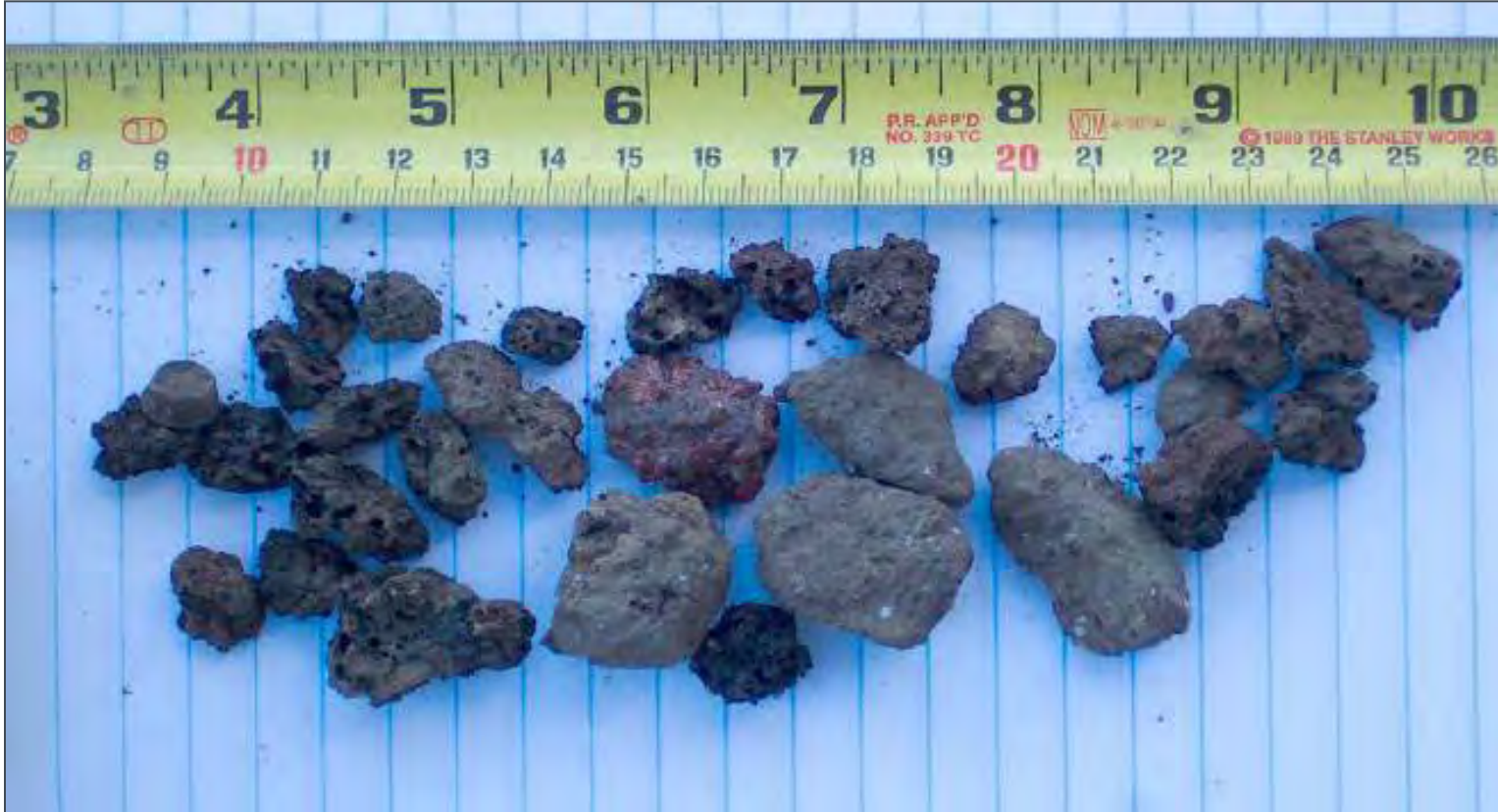
# Dirty Catalyst Station Y



# Cleaned Catalyst Station Y



# LPA (Popcorn Ash)



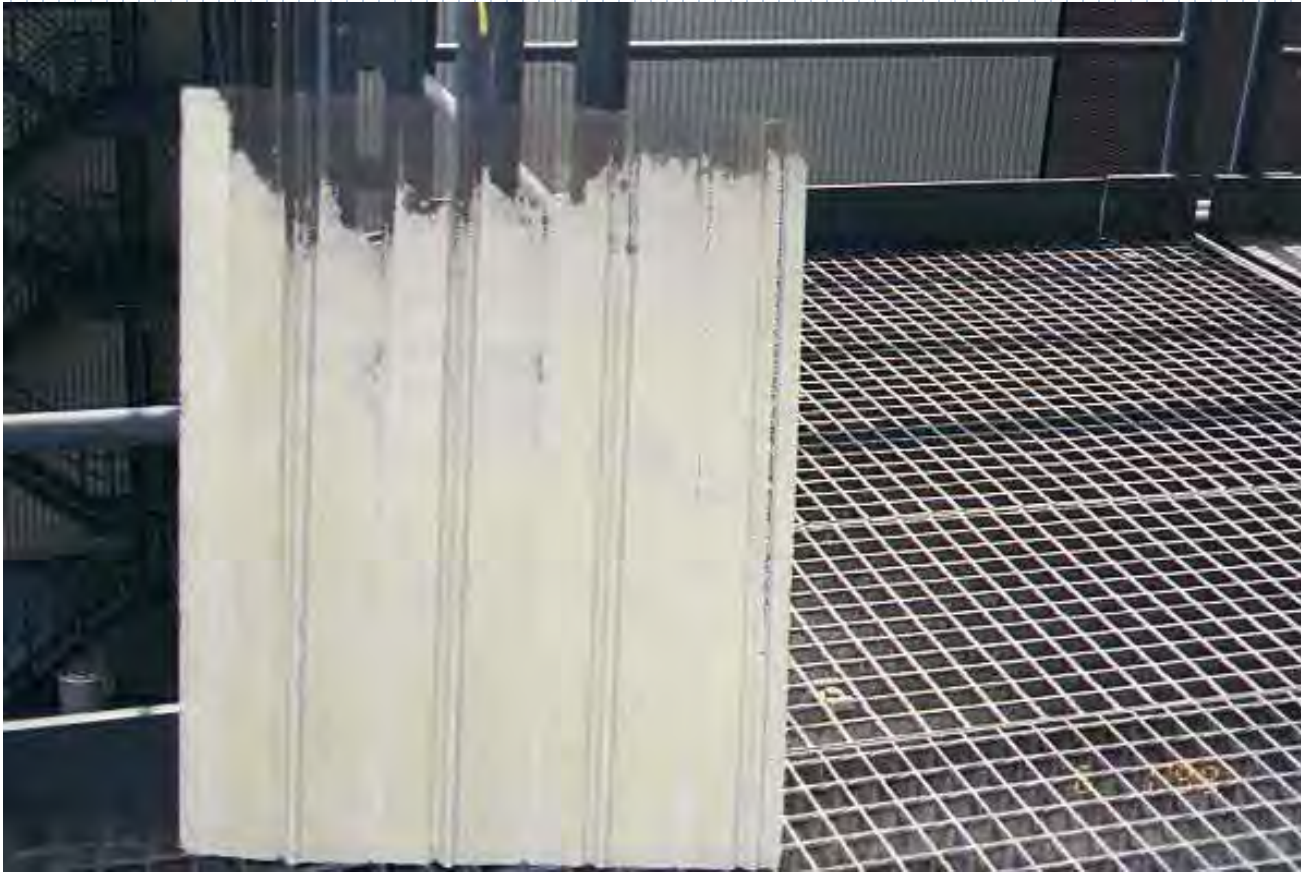
# One Vendor's LPA Screen



# Economizer Leak



# Ash Erosion of Plate Catalyst



# Sampling Plate Catalyst

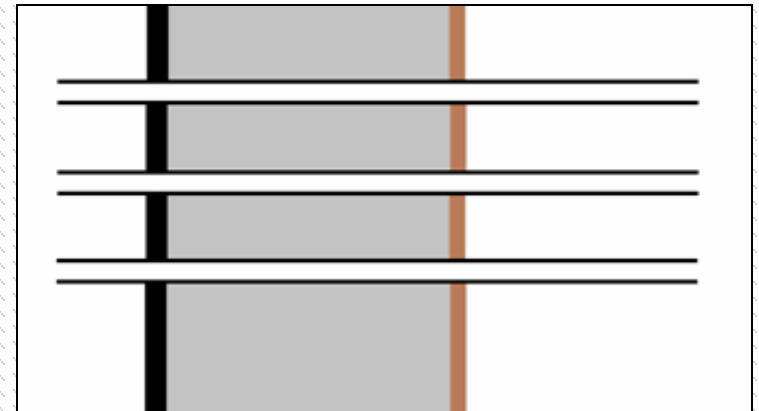


# Honeycomb Test Element



## Sampling Grid

- Check that the sample lines are firmly attached and terminate in the correct location
- Look for holes in the lines
- The sample lines tend to plug or corrode holes through the tube wall at the hot/cold interface



# Thank You!

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