

# VLPC Cassette

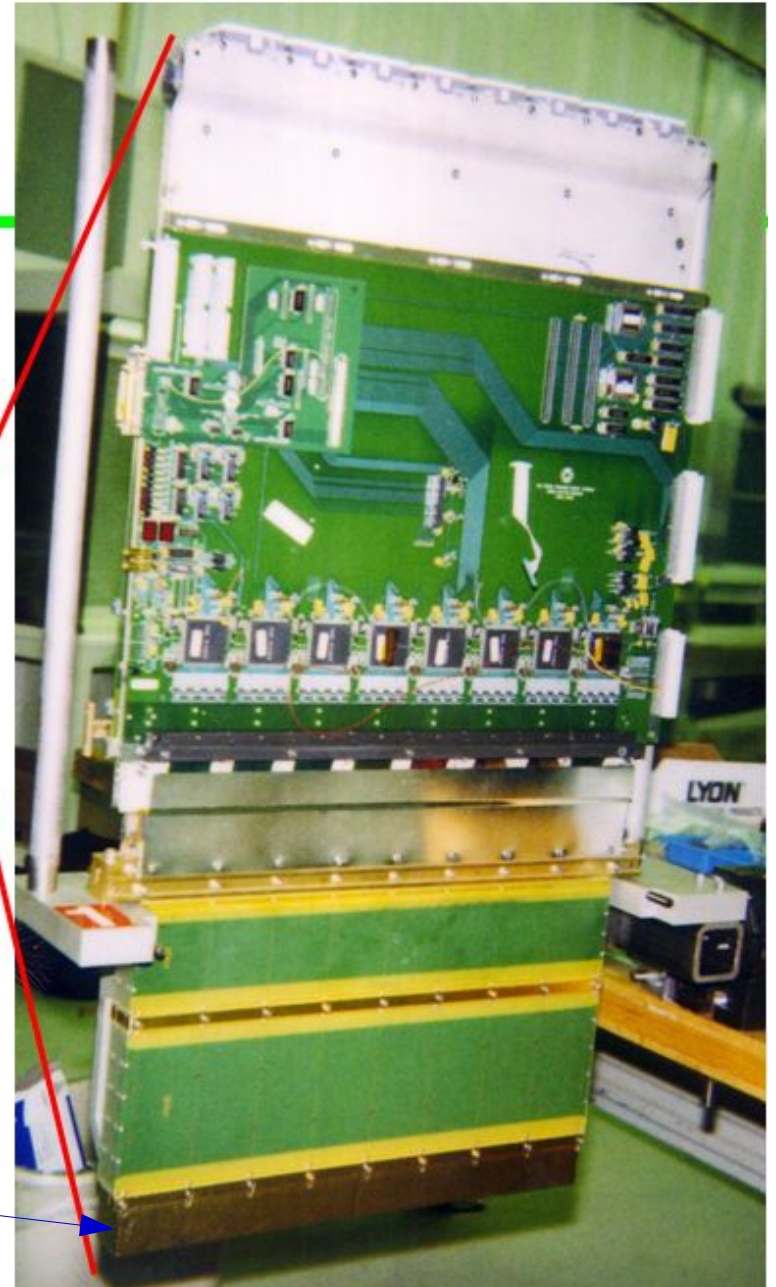
1. Cassette / Cryostat drawings
2. Warm up / Pump purge procedure
3. Cryostat 2 Observations

# VLPC Cassettes

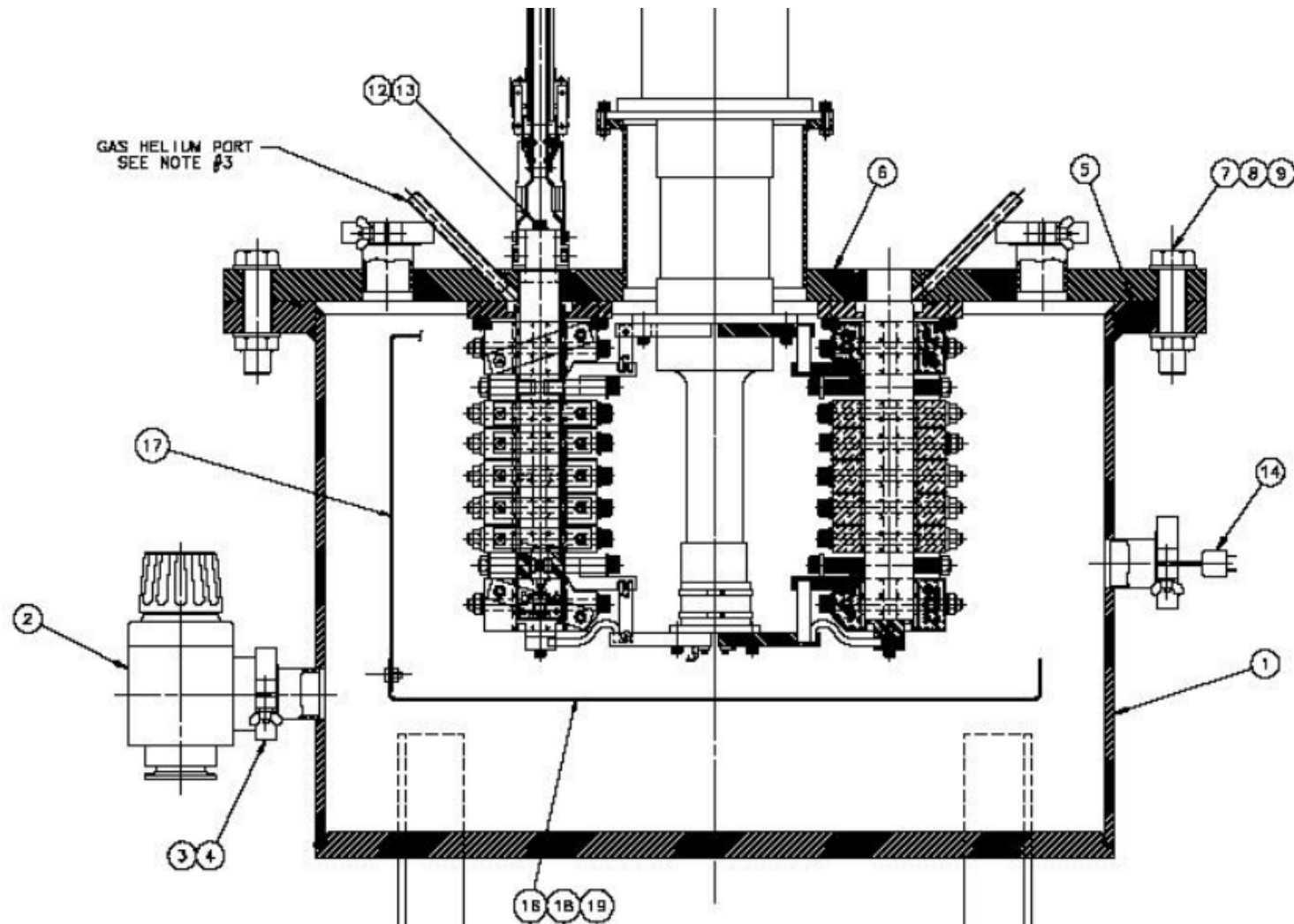
- The cassettes hold the VLPCs in their operating conditions.
- Each cassette has 1024 readout channels.
- 99 Cassettes are required to run our full system.

VLPC modules & interconnects reside within here

1 m



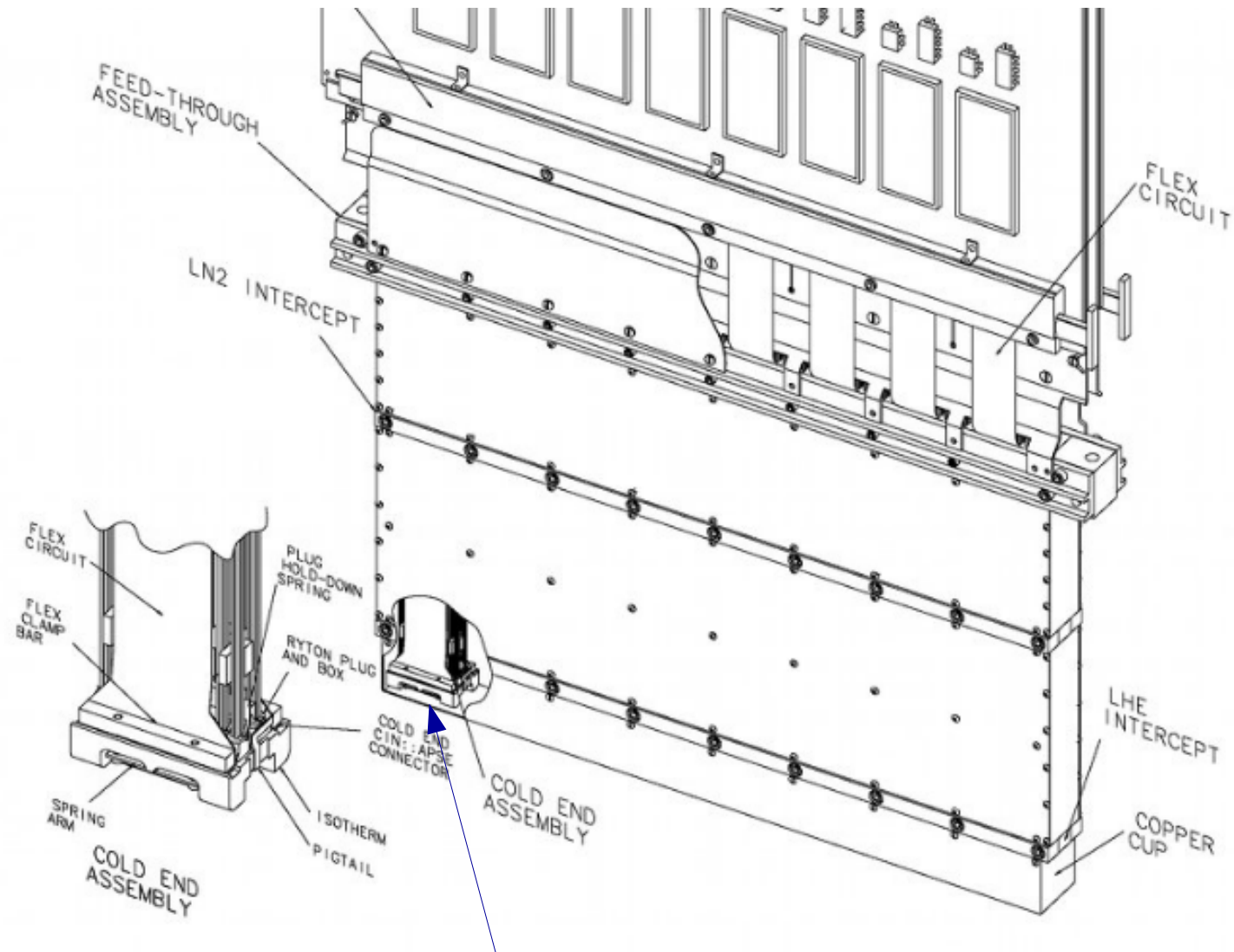
# VLPC Cryostat



**Sectional Elevation**

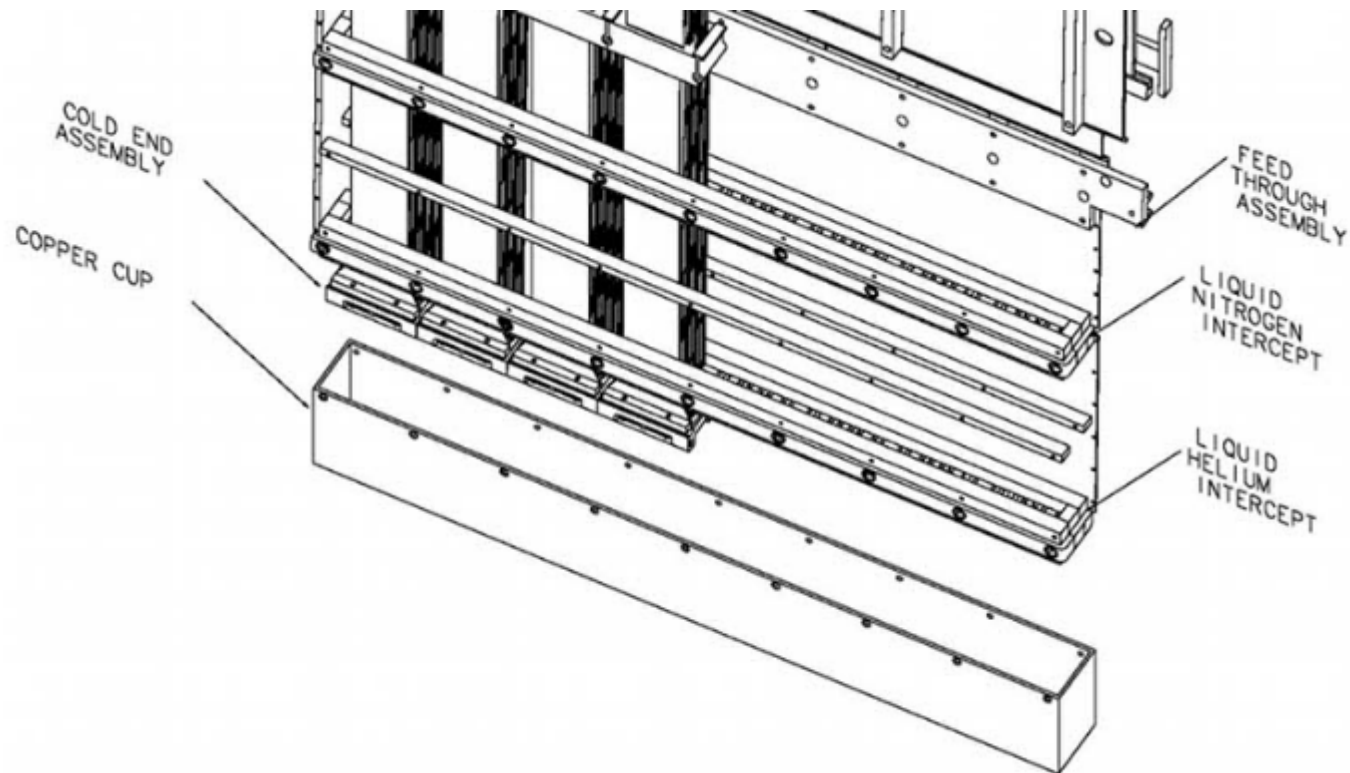
(CASSETTE NOT SHOWN IN RIGHT HAND SLOT)  
(ITEMS #10 AND #17 ROTATED 90° FOR CLARITY)

# VLPC Cassette



Hypothesis is that water is forcing apart connections here, which leads to dead channels

# VLPC Cassette



<http://mice.iit.edu/micenotes/public/pdf/MICE0141/MICE0141.pdf>  
For full mechanical drawing of cryostat

<http://mice.iit.edu/micenotes/public/pdf/MICE0136/MICE0136.pdf>  
Commissioning report

# Warm up procedure

1. Turn off cold head
2. When the cold end reaches -10C begin pumping on the cassette space.
3. Cold space got down to -14 → -13 psi, compared to atmosphere.
4. Wait until cryostat warmed up to room temperature (>24 hrs).
5. Heat the cassette to 35C, (takes about 7 hrs)
6. Perform 8 pump purge cycles of the cassette space with helium.
7. Fill cassette space with helium

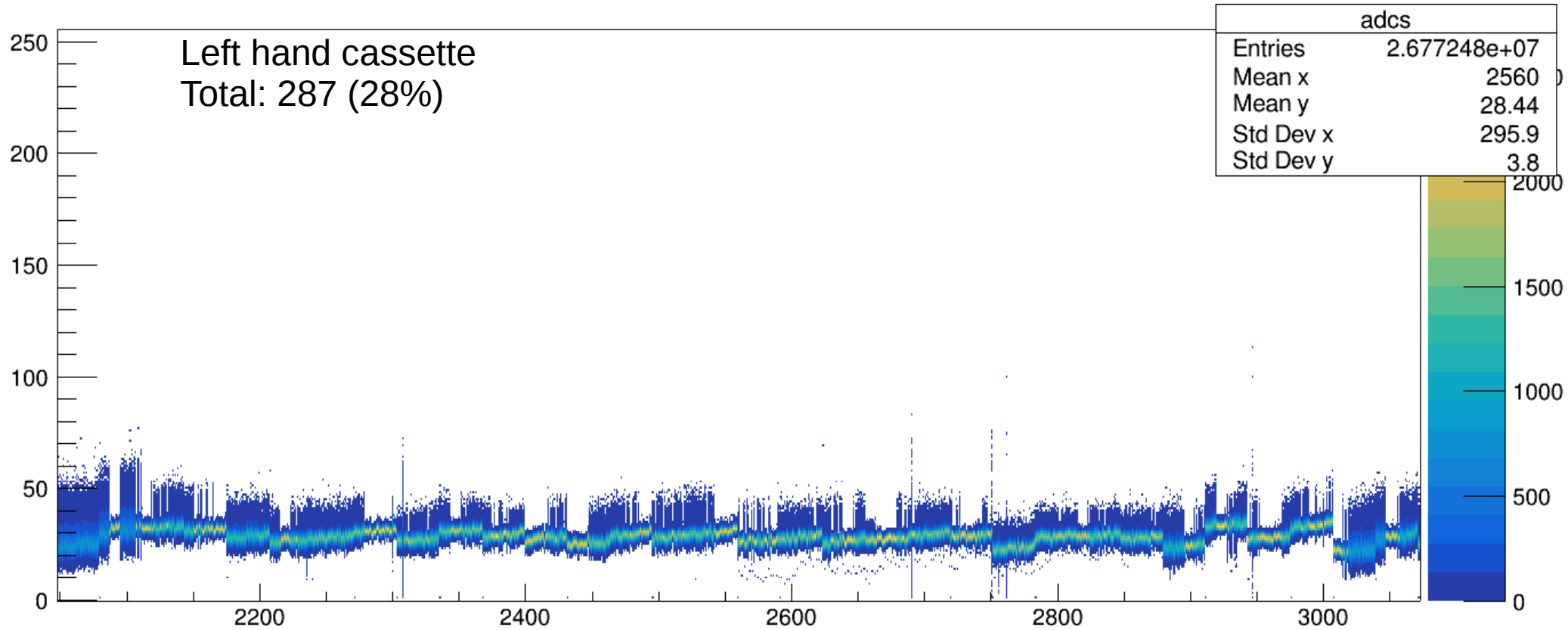
# Cool down procedure

Note, some of the details have been trimmed out to keep it concise

1. Leak check cassette space
2. Perform 7 pump purge cycles.
3. Fill with helium
4. Begin cooldown.

[http://mice.iit.edu/modules/tracker/html/TrackerDocuments/MICE-VLPC\\_Ops.doc](http://mice.iit.edu/modules/tracker/html/TrackerDocuments/MICE-VLPC_Ops.doc)  
(original operating procedures)

# Cryo 2 dead channels





# Cryo 2 dead channels

