

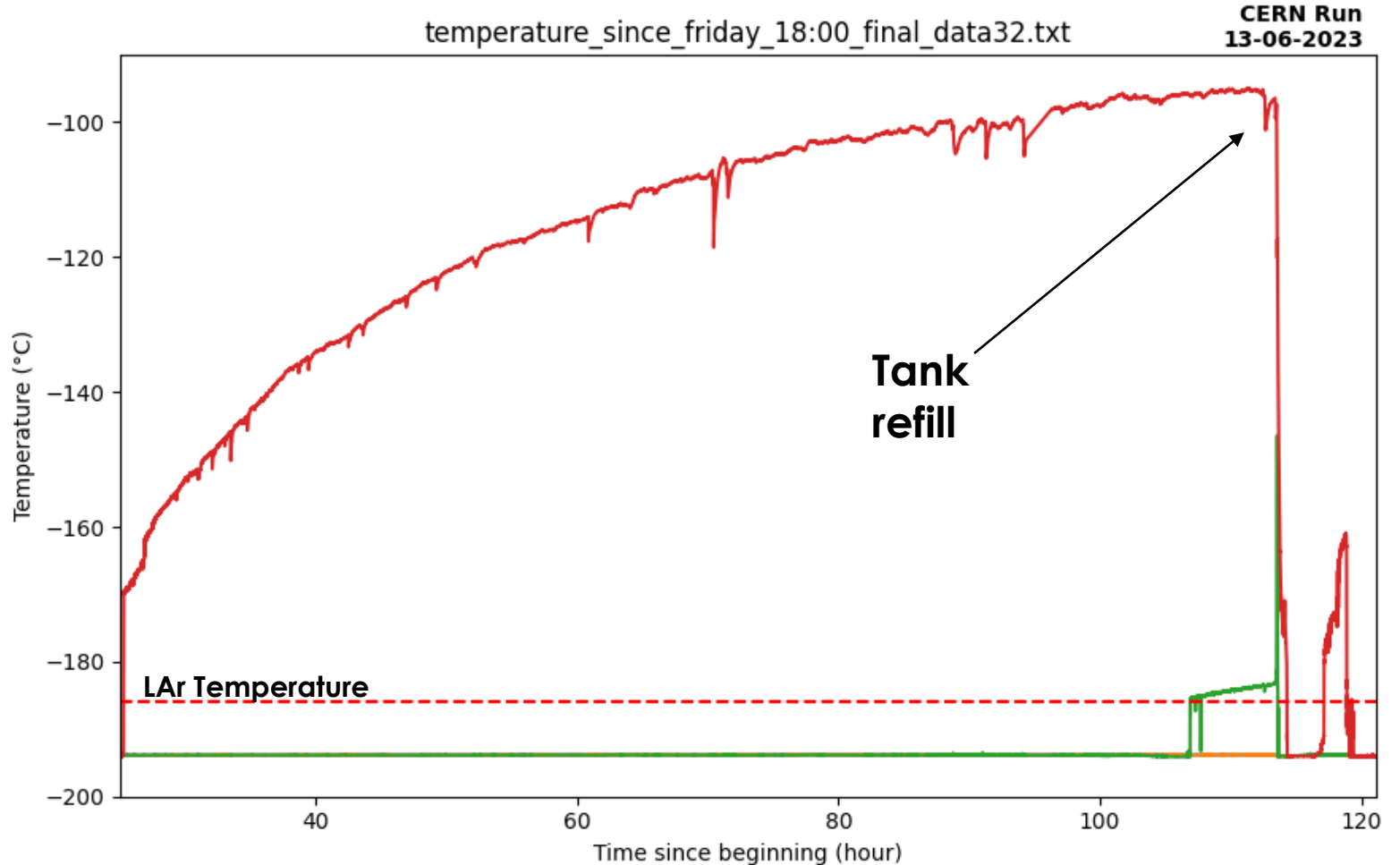
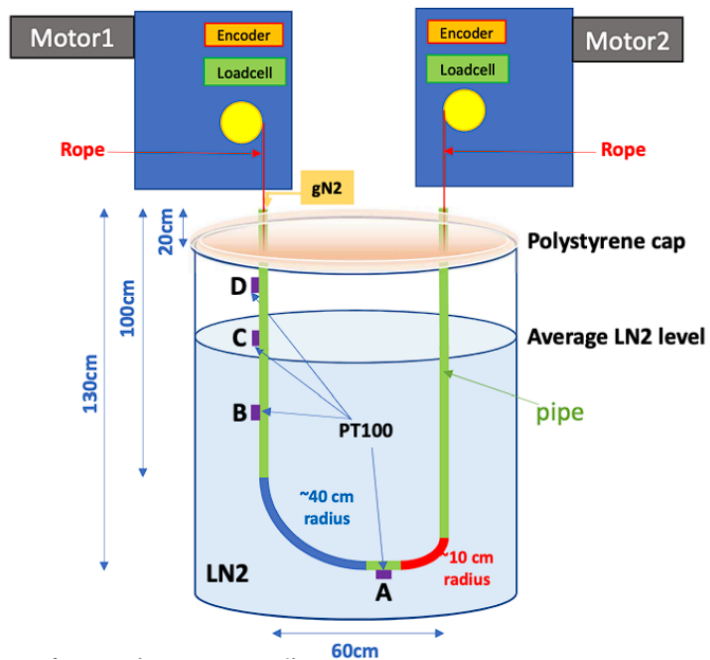
Ice formation monitoring

FROM 09/06 TO 13/06

LUCAS

Temperature changes since Friday 6PM

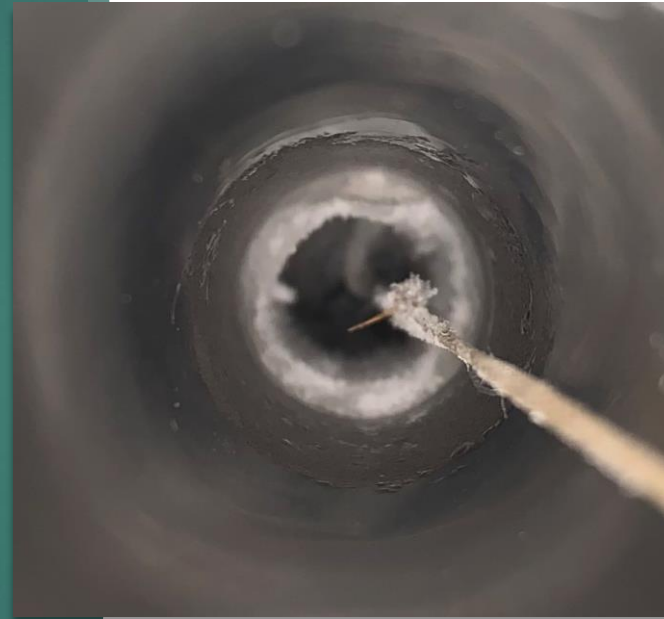
File begins at: 2023-06-08 16:52:18
File finishes at: 2023-06-13 17:58:41



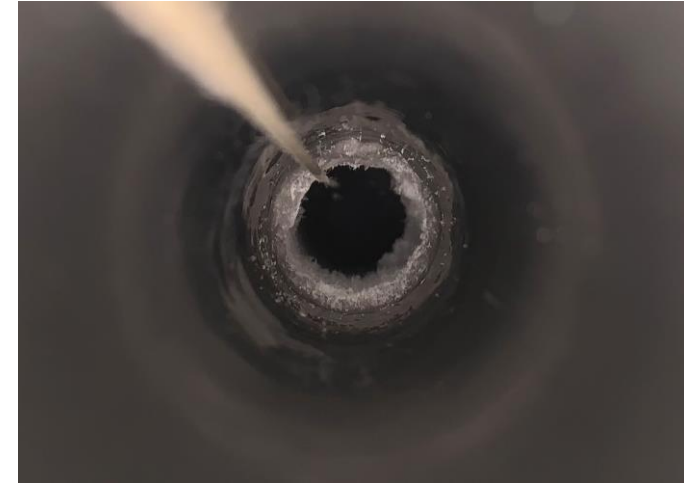
Commentaries :

Friday - 06/09 18:00

- Peter and Pascal was there, no other commentary needed.



*Picture from
the top of the
left tube*



*Picture from
the top of the
right tube*

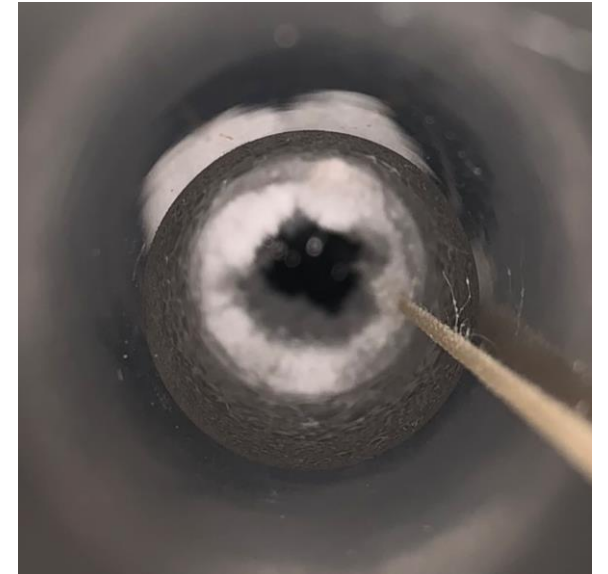
Commentaries :

Saturday - 06/10 14:31

- Seems to have LN2 at the bottom of the tube : might prevent ice formation ? Need to check tension inside.
- I thought ice was blocking the source, but by checking tension it seems fine.
- Every other parameter seems fine.
- Cryo level dropped by 5% in 20h. So ~6%/day ? I'll check on Sunday
- Monitoring for motors stopped around 2AM (on Saturday). I had to put it back on.



*Picture from
the top of the
left tube*

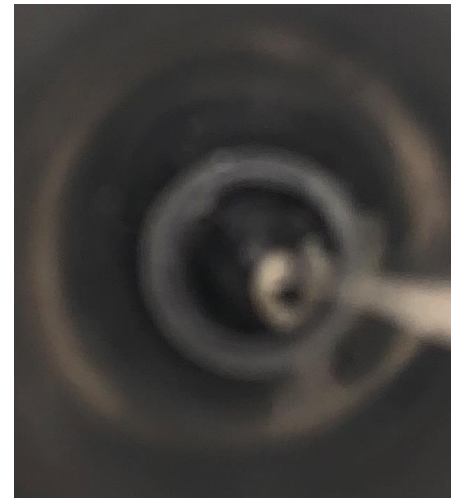


*Picture from
the top of the
right tube*

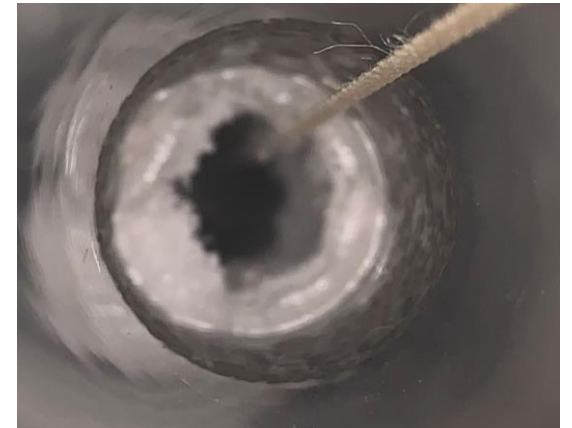
Commentaries :

Sunday - 06/11 14:53

- Monitoring stopped again at 6:45 AM. 16h 16min from the start. It was ~15h yesterday. The program seems to stop around those time (15h after starting).
- By forgetting to put the lid on the left tube, the plastic cap blocked the pulley and stop the movement. Fixed it by relax, putting rope back on pulley then locate and move it back to its position.
- 6% less LN2 in the tank. So, it seems 6%/day.
- Liquid air inside tube, around 50cm from the top (position 570).
- Every other parameters seems fine



*Picture from
the top of the
left tube*



*Picture from
the top of the
right tube*

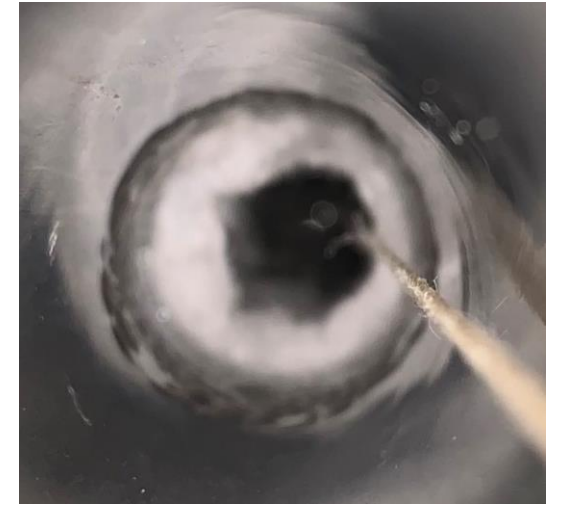
Commentaries :

Monday - 06/12 09:10

- Monitoring stopped again at 4:44 AM.
- 5% less LN2 in the tank. So, it seems 6.6%/day.
- When flushing with Laetitia (put gN2 at 250 and block air exit on left side), some liquid was seen on the right side.
- Every other parameters seems fine



*Picture from
the top of the
left tube*



*Picture from
the top of the
right tube*

Commentaries :

Tuesday - 06/13 09:10

- Monitoring stopped again at 2:27 AM.
- When putting the source at the hot garage, the gN2 tube was stuck. Tension rose at 60N. Relax then take off plastic cap. Shorten the gN2 pipe inside tube (more than 10cm was inside).
- Some ice seems to have formed into the left tube (DS4). Maybe too much manipulation (to take pictures, to measure LN2 inside the tube ...) increased humidity.
- I started the morning program from Marie's slides. Took 3 hours to complete. Forgot to take the last data to check the drift (I restarted the program before, so data unusable).

Flushing LN2 at 250L/h to see effect on ice :


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Time	12/06/2023 11:00	12:00	12:50	14:00	15:05
Right Side (DS2)					
Left Side (DS4)					
T shaped gN2 pipe	NO	NO	NO	YES	YES
gN2 Total flow	250L/h, right side	250L/h, right side	250L/h, right side	250L/h split in both sides	250L/h split in both sides
LN2 in tube	56cm from top -> position 564				55cm from top -> position 565
%LN2 in tank	81%	~ 80%	~ 80%	~ 80%	~ 80%

Pictures are cropped to be visible so do not pay attention on sizes, more on shapes.

Flushing LN2 at 250L/h to see effect on ice :

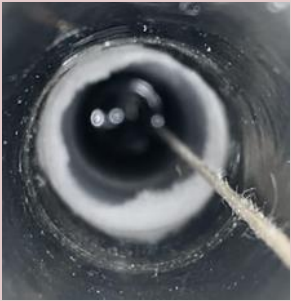





10

Time	16:00	17:00	13/06/2023 9:00	11:25	13:00
Right Side (DS2)					
Left Side (DS4)					
T shaped gN2 pipe	YES	YES	YES	YES	YES
gN2 Total flow	250L/h	250L/h	250L/h	250L/h	250L/h
LN2 in tube	56cm from top -> position 564				58 from top -> position 562
% LN2 in tank	~ 80%	~ 80%	75%	~98%	98.4%

Pictures are cropped to be visible so do not pay attention on sizes, more on shapes.

Flushing LN2 at 250L/h to see effect on ice :

11

Time	14:14	15:30	17:30		
Right Side (DS2)					
Left Side (DS4)					
T shaped gN2 pipe	YES	YES	YES		
gN2 Total flow	250L/h	250L/h	120L/h		
LN2 in tube		54cm so position 566	52 so position 568		
% LN2 in tank	98%	97,5%	99%		

Pictures are cropped to be visible so do not pay attention on sizes, more on shapes.