

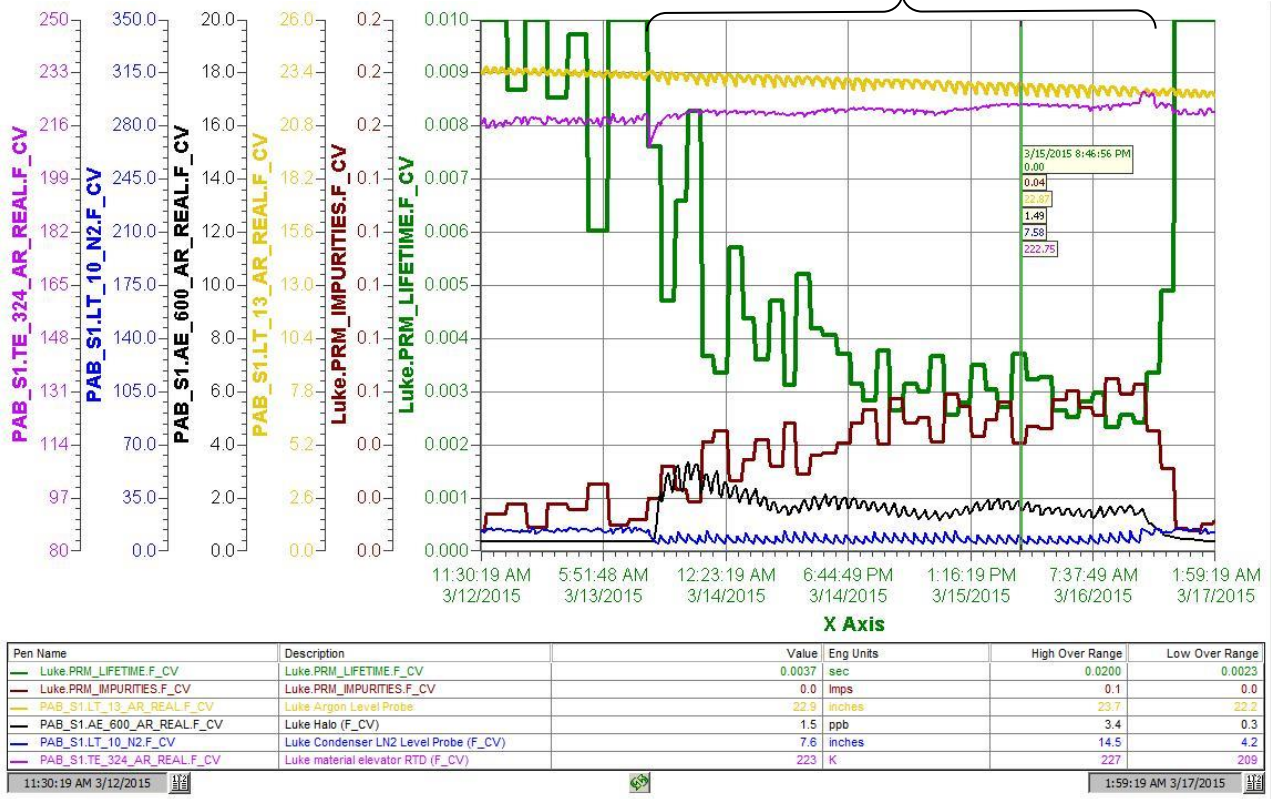
BNL 30 Awg wire with PFA insulation Test 3/13/2015 – 3/26/2015

Date of Receipt	4/1/15 , logbook entries# 5087 - 5096
Sample Name/Description	30 Awg wire with PFA insulation http://www2.dupont.com/Teflon_Industrial/en_US/products/product_by_name/teflon_pfa/
Sample	
Composition:	Teflon® PFA is a perfluoroalkoxy copolymer resin
Picture Location:	data base
Weight:	72.2 g
Dimensions/Area:	(picture), wire dia = 0.255 mm, wire+insulation dia =0.9 mm
Source:	Hucheng Chen, Bo Yu
Preparation:	no cleaning requested
Submerging in LAr or LH2	x
Time in the airlock(hrs)	
Purge:	24 h from the bottle and 2 h from Luke
Vacuum:	3 min after closing airlock
Room Temperature	
Start Time/Date, End Time/Date :	3/13/2015 12:40 PM, 3/16/2015 2:45 PM
PrM run # :	23690
Condenser state:	on
Filter state:	off
H2O reading:	3 ppb to 17.9 ppb
Lifetime:	after turning internal filter OFF lifetime slowly decreased from >6 ms and stabilized at 2.5 - 3.5 ms
Liquid Test	
Start Time/Date, End Time/Date :	3/18/2015 10:17 AM 3/23/2015 11:40 AM
PrM run # :	23751
Condenser state:	on
Filter state/settings:	off
H2O reading:	1.2 ppb to 3 ppb
Temperature:	95 K
Liquid Level	21.3 inches
Lifetime:	from >8 ms to 4-7 ms range
VaporTest	
Start Time/Date, End Time/Date :	3/24/2015 2:40 PM, 3/26/2015 3:45 PM
PrM run # :	23811
Condenser state:	on
Filter state/settings:	off
H2O reading:	no change
Temperature:	217 K
Liquid Level	20.6 inches
Lifetime:	> 5 ms
Zero Test -Room Temp.	last zero test 9/30/2014
H2O reading:	increased from 2 ppb to 12-20 ppb range
Lifetime:	decreased from 8 ms to 3-4 ms range



1. Room temperature test

1



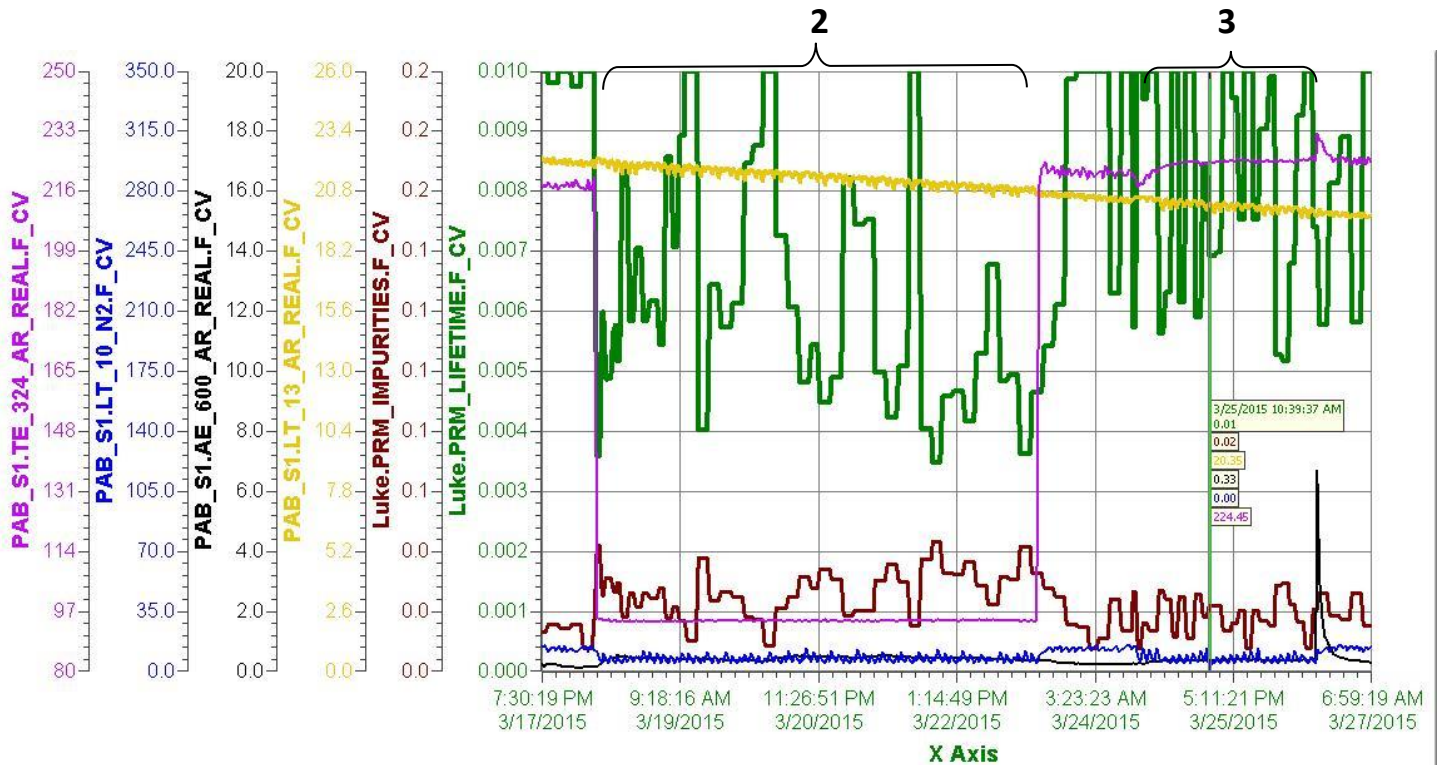
Lifetime – green pen

Impurities – brown pen

Liquid level – yellow pen

Water – black pen (in room temp water meter didn't work for some time, actually water increased to 17.9 ppb)

- 2. Liquid test
- 3. Vapor Test



Pen Name	Description	Value	Eng Units	High Over Range	Low Over Range
Luke.PRM_LIFETIME.F_CV	Luke.PRM_LIFETIME.F_CV	0.0069	sec	0.0200	0.0035
Luke.PRM_IMPURITIES.F_CV	Luke.PRM_IMPURITIES.F_CV	0.0	imps	0.0	0.0
PAB_S1.LT_13_AR_REAL.F_CV	Luke Argon Level Probe	20.4	inches	22.3	19.6
PAB_S1.AE_600_AR_REAL.F_CV	Luke Halo (F_CV)	0.3	ppb	6.7	0.1
PAB_S1.LT_10_N2.F_CV	Luke Condenser LN2 Level Probe (F_CV)	0.0	inches	14.5	0.0
PAB_S1.TE_324_AR_REAL.F_CV	Luke material elevator RTD (F_CV)	224	K	232	94

Lifetime – green pen

Impurities – brown pen

Liquid level – yellow pen

Water – black pen

Temperature – magenta pen