SAND2015-11071R

October 2015 ZAPP shot series, summary of collected data to be transferred to UNR and WVU

G. Loisel 11/12/2015

UNR data

LOS 330 shot array

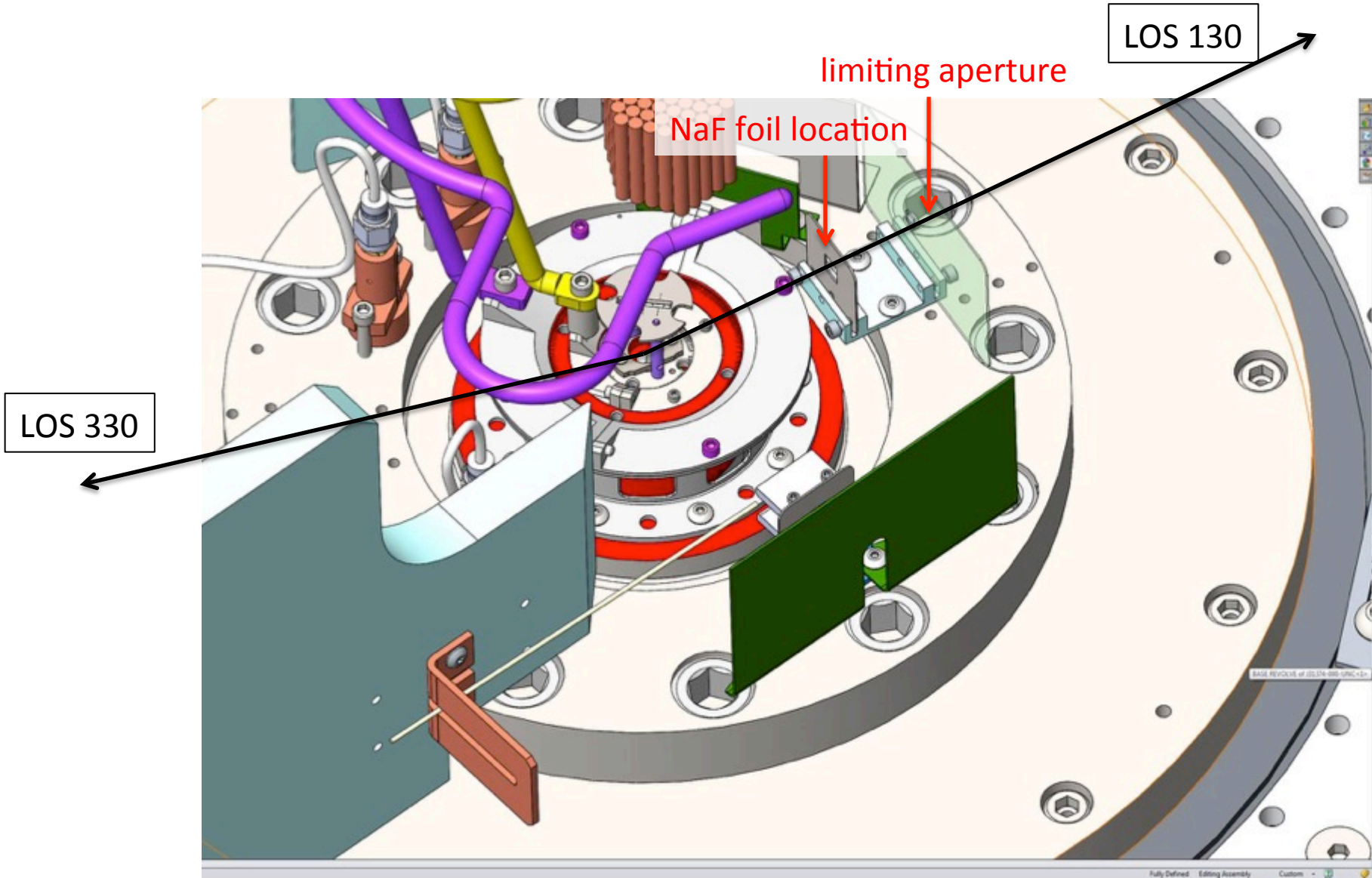
shot	source	target	aperture	filtering	Diagnostics
z2872	z-pinch	none	none	typical	TREX a & b, KAP crystal
z2873	z-pinch	none	none	typical+3.3µm kimfol	TREX a & b, KAP crystal
z2874	z-pinch	none	5x5mm limiting aperture	typical	TREX a & b, KAP crystal

WVU data

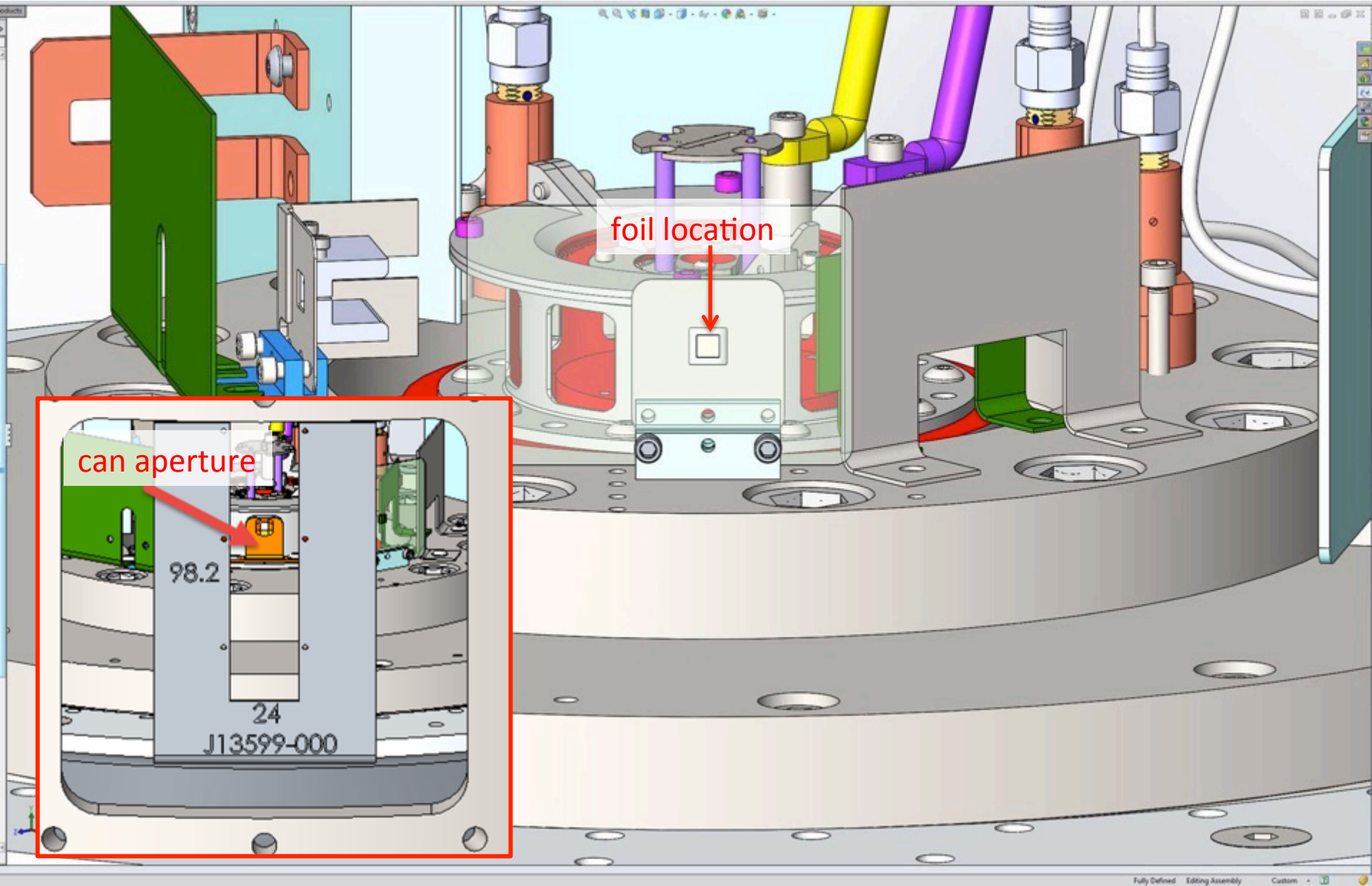
LOS 130 shot array

shot	source	target	can aperture	limiting aperture	Diagnostics
z2870	z-pinch	none	none	3x3mm limiting aperture	TIXTL L & R, KAP crystal
z2871	z-pinch	NaF foil (see slide 6)	stainless steel (see slide 5)	3x3mm limiting aperture	TIXTL L & R, KAP crystal
z2872	z-pinch	none	stainless steel (see slide 5)	3x3mm limiting aperture	TIXTL L & R, KAP crystal

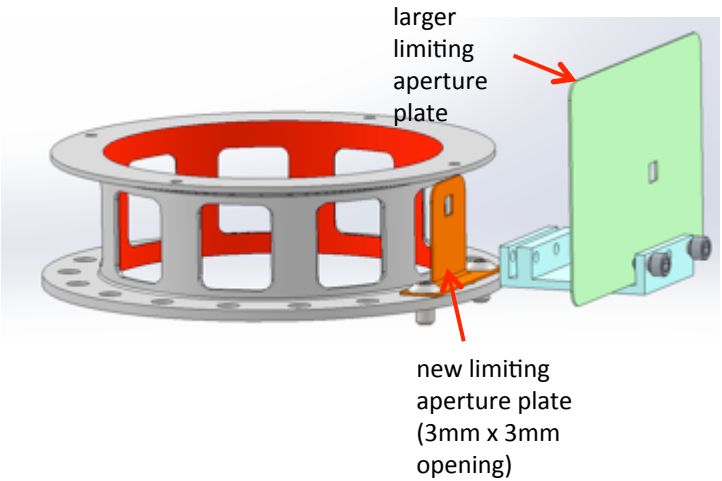
A0499 Anode overview

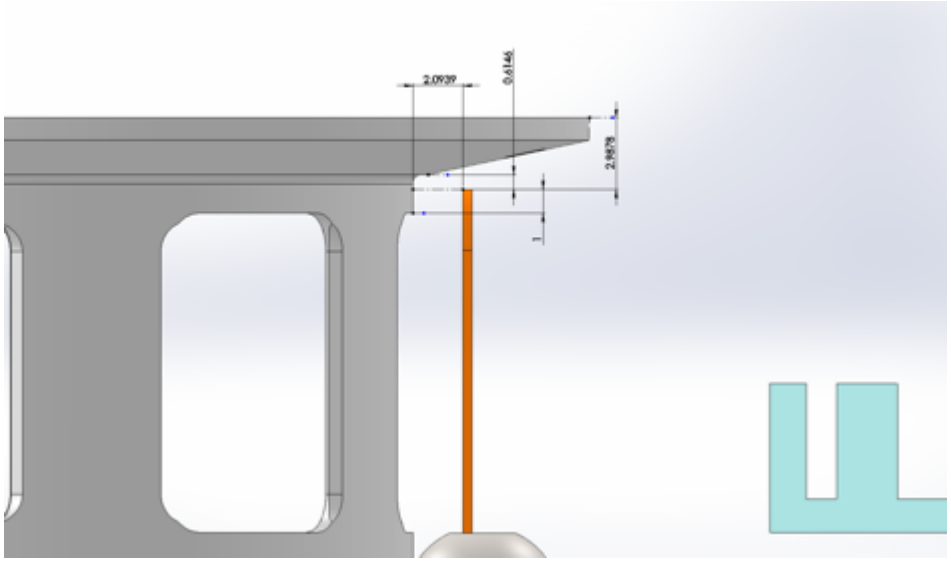


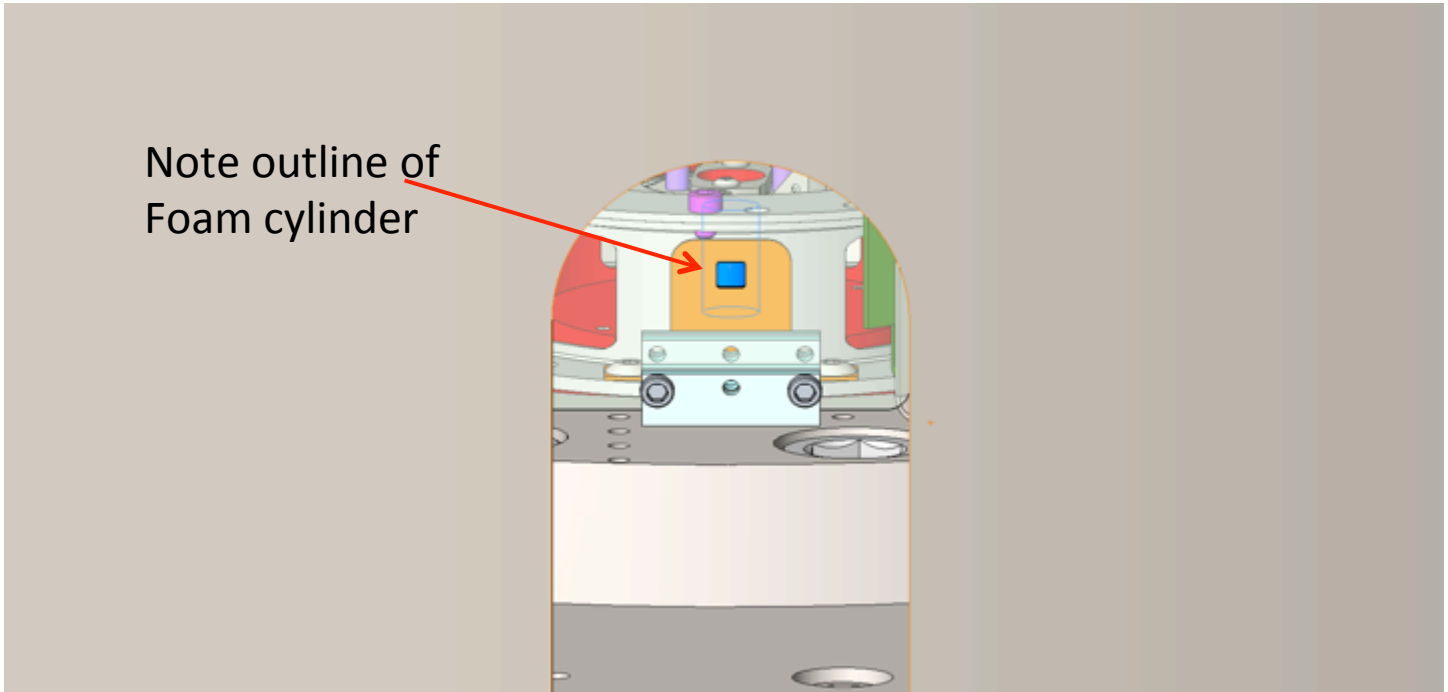
LOS 130, 12º LOS view



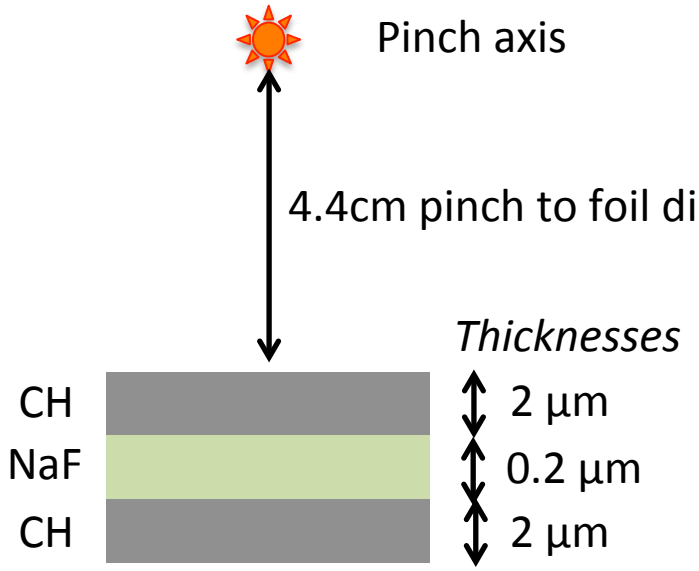
LOS 130 - Can aperture drawings







LOS 130, 3-layered NaF foil specifications



CH layers are used for tamping

Manufacturer K-Tech characterization sheet

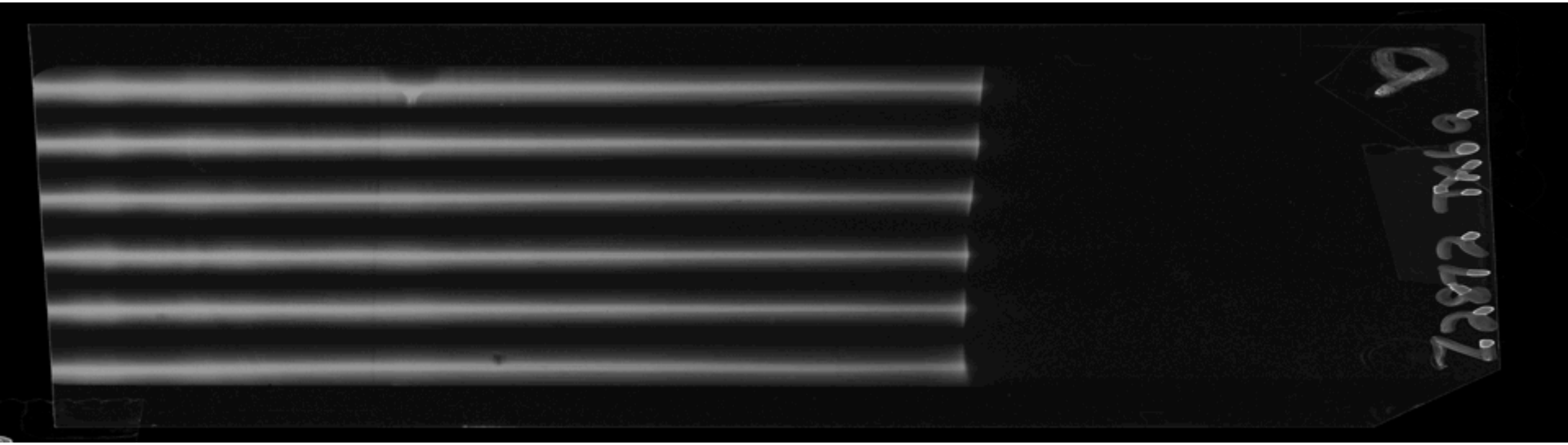
Parameter	Specification	Measured	Uncertainty
Parylene-N [Layer1/Toward Bracket] Production Foils:	2µm	1.78µm	± 0.02µm
Sodium Fluoride Layer [Contact Profilometry] Production Foils:	2000Å	2146 Å	± 46Å
Sodium Aerial Density [INFERRED Aerial Density] Production Foils:	7.3×10^{17} atom/cm^2	INFERRED: 8.30×10^{17} atom/cm^2	N/A
Fluoride Aerial Density [INFERRED Aerial Density] Production Foils:	7.3×10^{17} atom/cm^2	INFERRED: 8.20×10^{17} atom/cm^2	N/A
Parylene-N [Layer2/Away from Bracket] Production Foils:	2µm	1.85µm	± 0.07µm
Parylene-N on Square Bracket:	25µm	29.4µm	± 0.3µm
[redacted]			

UNR

z2872

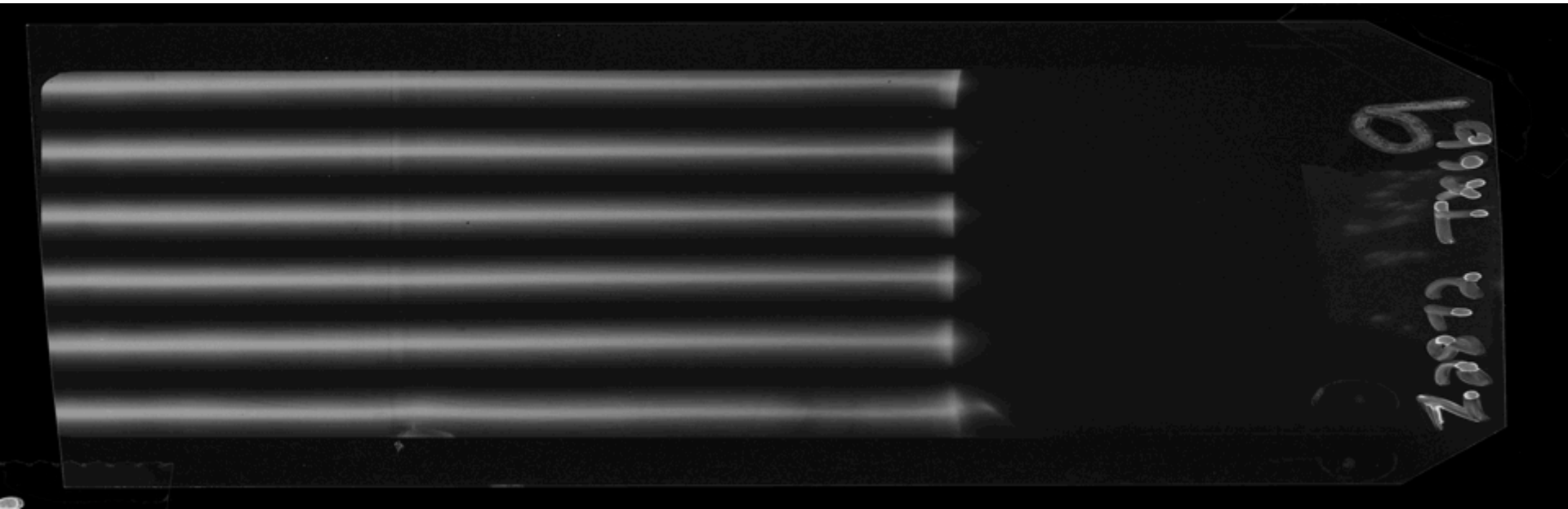
TREX6a

Null – test, instrument aligned to the z-pinch



TREX6b

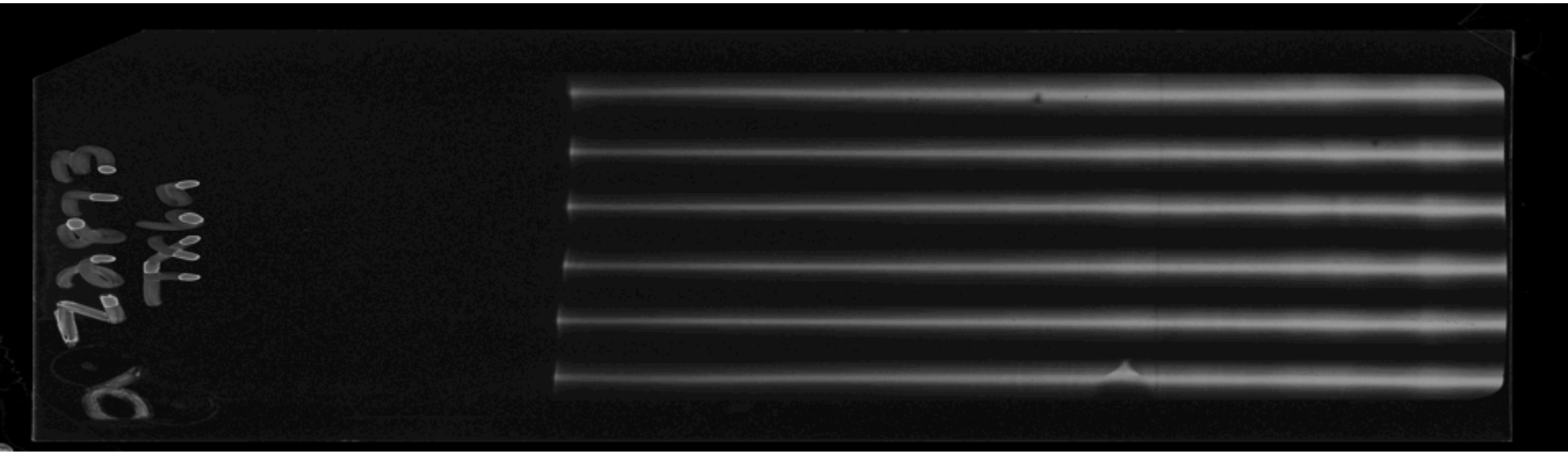
Null – test, instrument aligned to the z-pinch



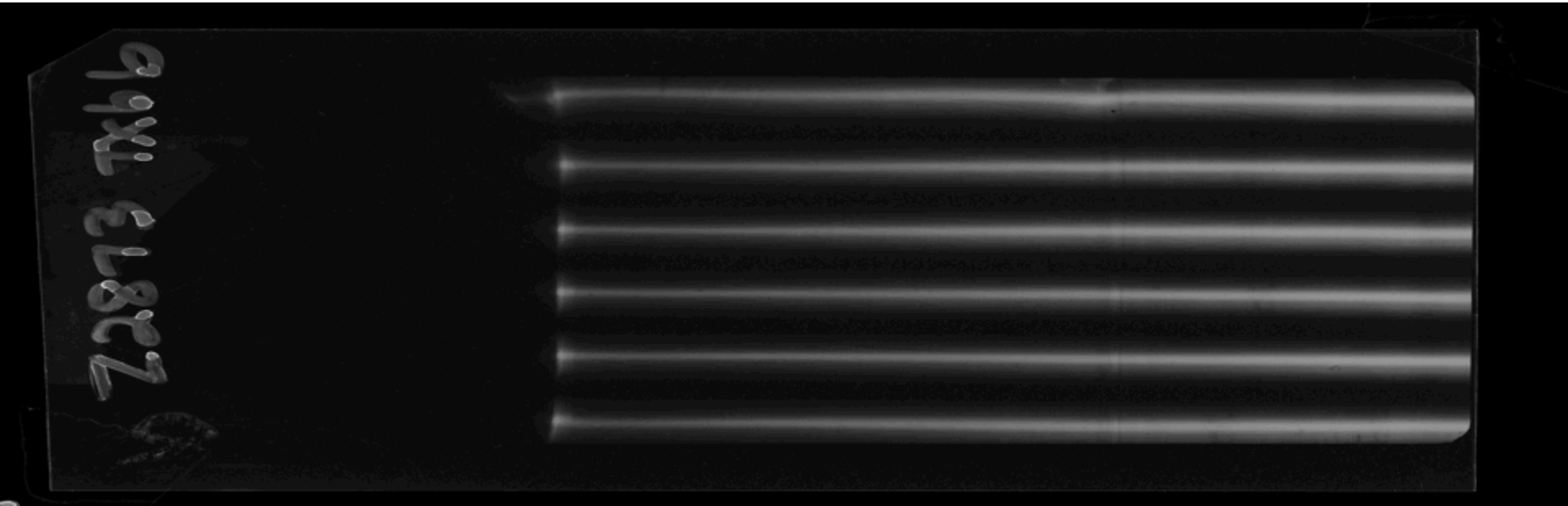
UNR

z2873 same as z2872 with extra 3.3µm kimfol

TREX6a Null – test, instrument aligned to the z-pinch



TREX6b Null – test, instrument aligned to the z-pinch

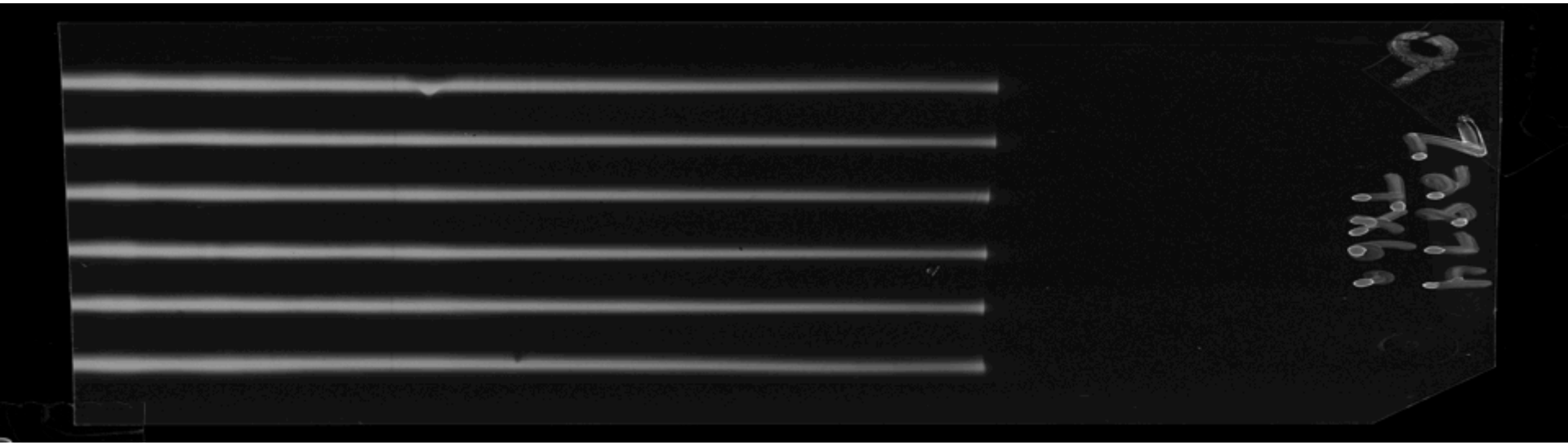


UNR

z2874

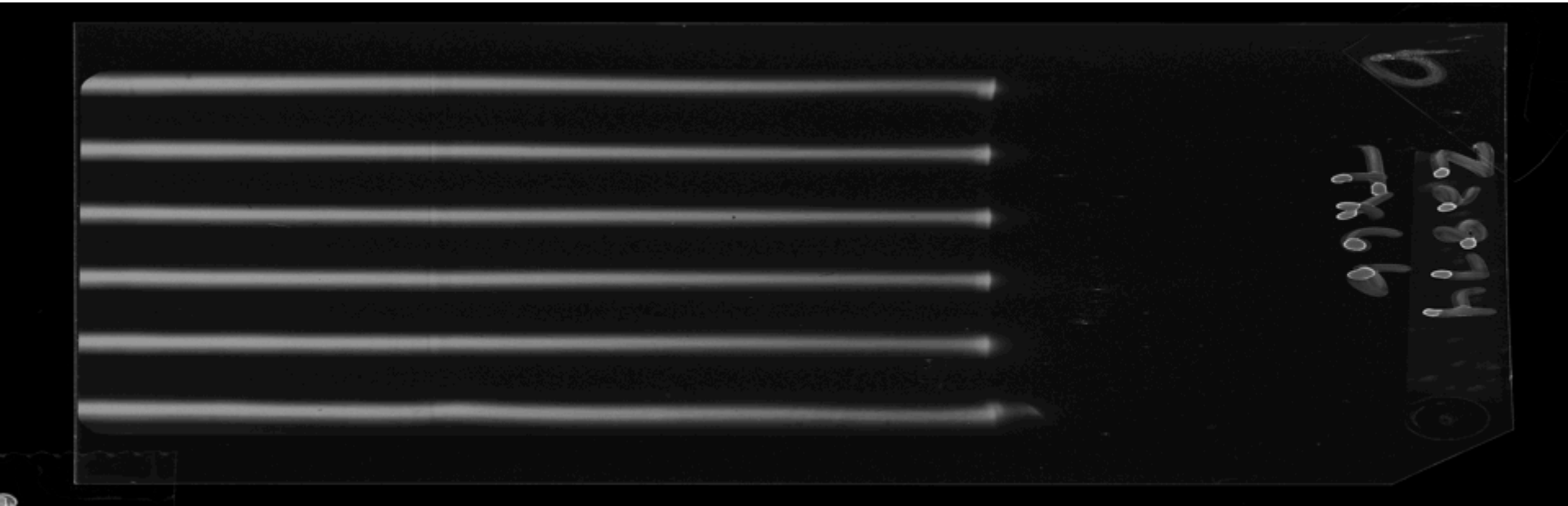
TREX6a

Null – test, instrument aligned to the z-pinch



TREX6b

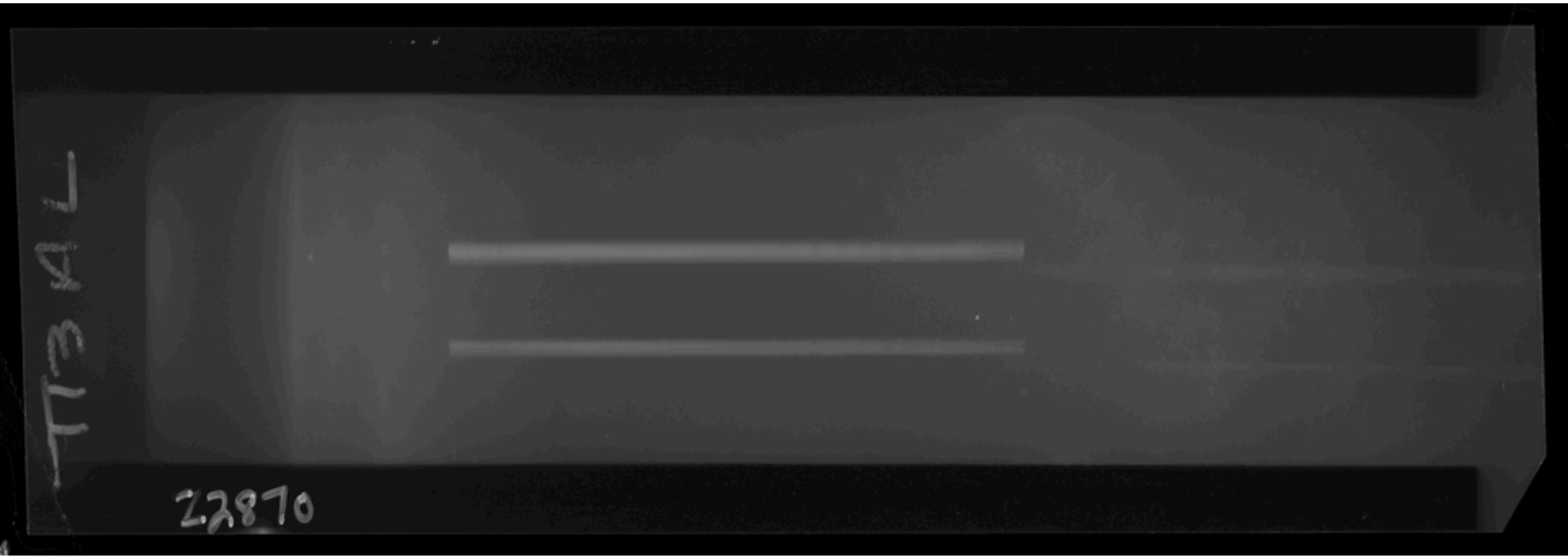
Null – test, instrument aligned to the z-pinch



WVU

z2870 Null - test

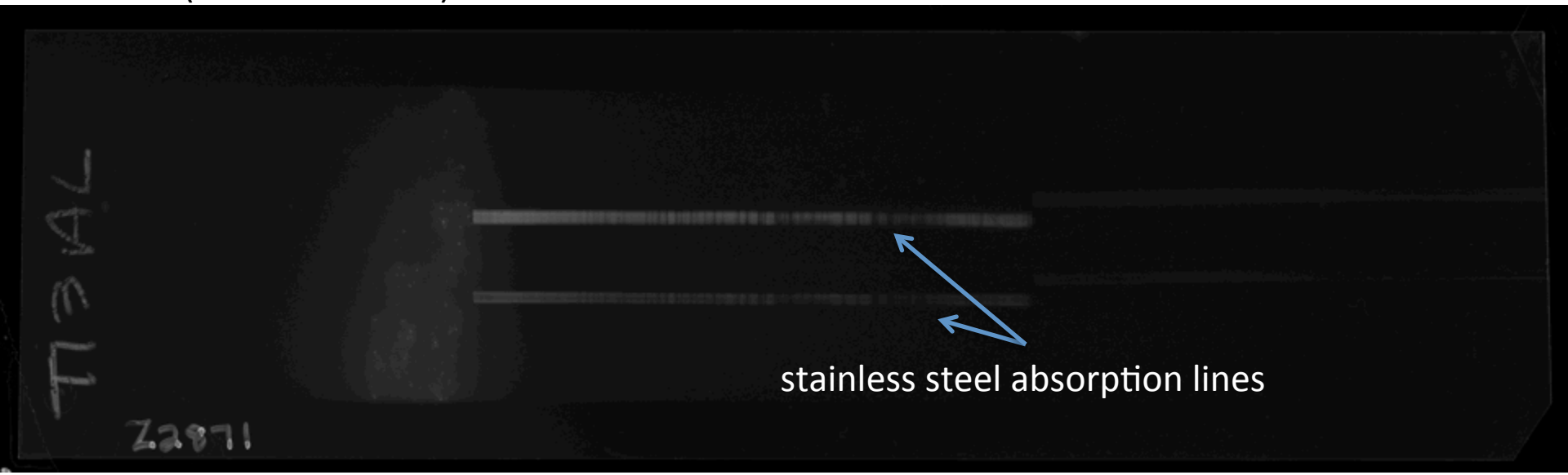
T13AL Null – test, instrument aligned to the z-pinch



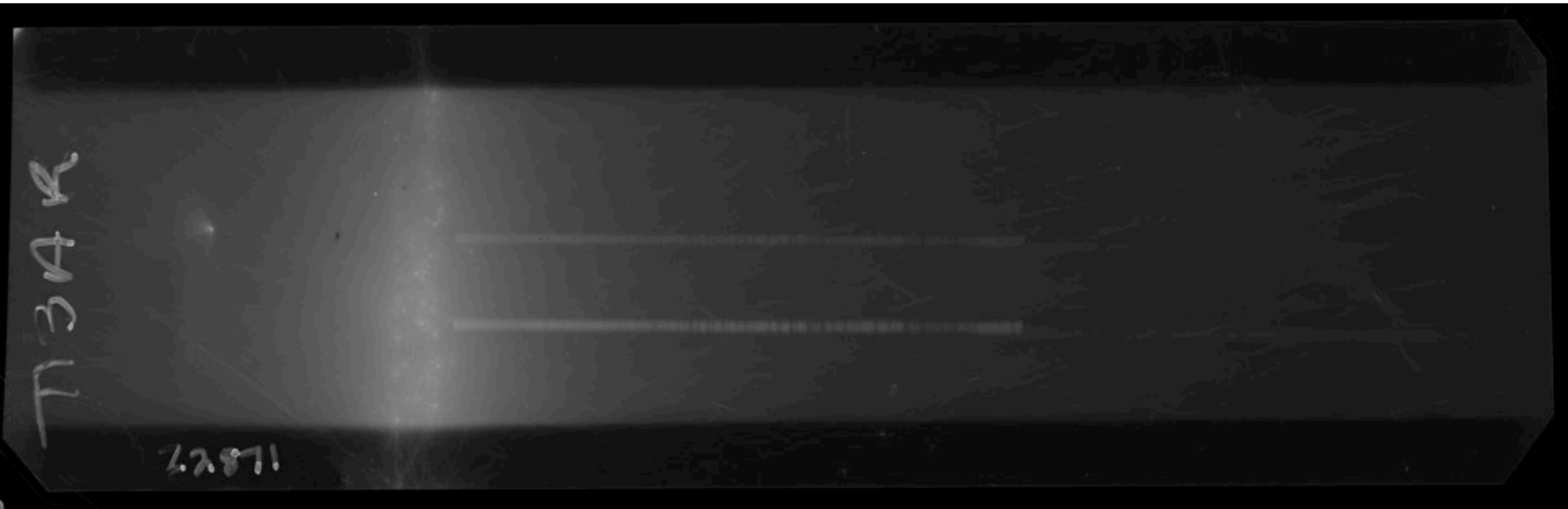
T13AR data was compromised due to shot-generated debris

WVU z2871 added a SS limiting aperture next to the return current can, target is NaF foil (see slides 5 & 6)

T13AL

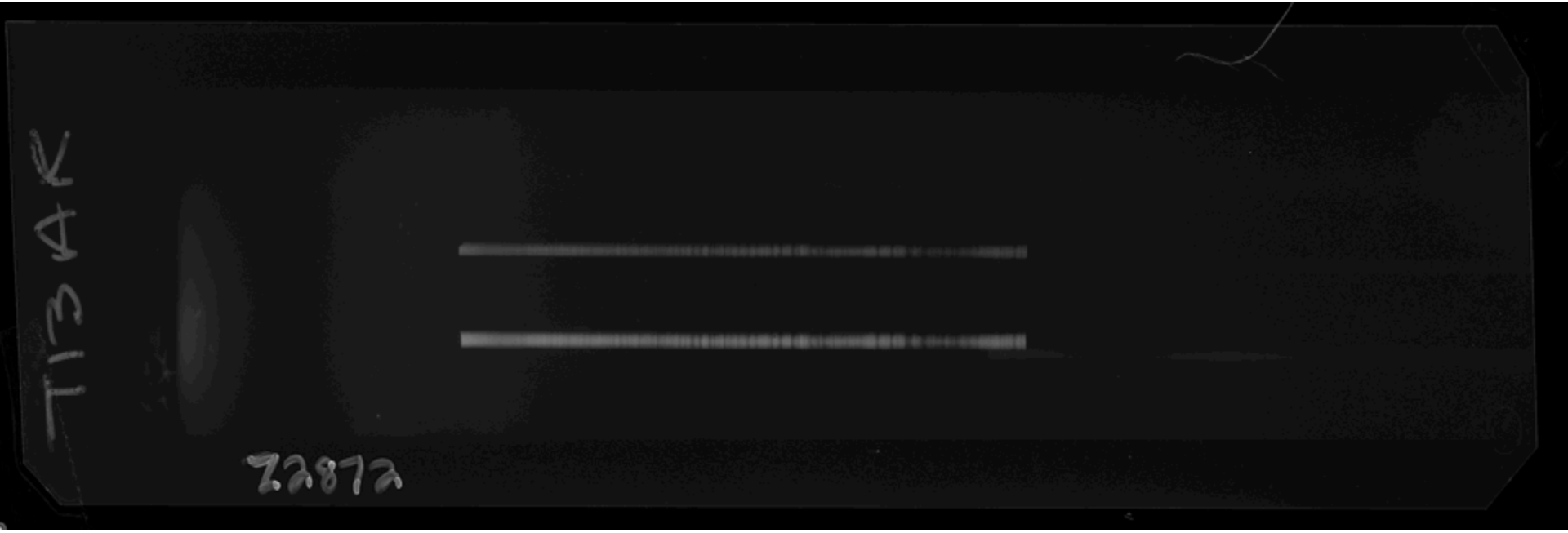


T13AR



WVU

z2872 SS limiting aperture next to the return current can (see slide 5), no foil target

T13AL data was compromised due to debris

T13AR