

Single Cell Cavity Activity Outline

1. ANL EP optimization (TE1AES005)
2. R&D cavities
 - A. Tumble, 2 cavities (TE1ACC004, NR-6, TE1CAT001, TE1CAT002)
 - B. Laser re-melting, 2 cavities (TE1ACC003)
 - C. CMP process, 1-2 cavities (TE1ACC002)
 - D. ECS investigation, 2 cavities (TE1ACC005, TE1ACC006)
 - E. manufacturing optimization, 2 cavities
 - F. Atomic Layer Deposition (ALD) cavities
 - G. Traveling wave cavity, 2 cavities (TW1AES001, TW1AES002)
3. Vendor qualification
 - RRCAT Collaboration, 2 cavities (TE1CAT001, TE1CAT002)
 - ABLE EP 2 cavities (NR-4), 3 TE1PAVxxx cavities
4. Infrastructure support
 - Diode T-map and second sound development 1 cavity (TE1ACC001)
 - ANL HPR water verification 1 cavity (TE1ACC001)
 - X-ray at NorthStar (TE1ACC004, TE1CAT002) (completed)
 - 1-cell cavity for Dubna (NR-6)
5. Basic R&D
 - A. EP cavity Q-slope studies
 - B. General Q-slope studies (TE1AES002)
 - C. Cut-out study (TE1AES004)

Serial Number	Aliases	Current Location	Current Plan	Current Status	Latest Performance	Best Performance	History	Travelers
NR-1	NR1	ANL	ANL RF commissioning	RESERVED: ONSITE	25.7 MV/m (Quench)	26.5 MV/m (FE and Quench)	Link	Link
NR-2	NR2	CORNELL UNIVERSITY		RESERVED: OFFSITE			Link	Link
NR-3	NR3	CORNELL UNIVERSITY		RESERVED: OFFSITE			Link	Link
NR-4	NR4	IB1	ABLE EP	RESERVED: ONSITE	30.9 MV/m (Quench)	32.7 MV/m ()	Link	Link
NR-5	NR5	ICB	E-beam remelting of pit	RESERVED: ONSITE			Link	Link
NR-6	NR6	A0 - SERVICE BUILDING	Cut out candidate	RESERVED: ONSITE	32.2 MV/m (Quench)	32.2 MV/m (Quench)	Link	Link
TE1ACC001		ICB		RESERVED: OFFSITE	38.5 MV/m (Quench)	41.3 MV/m (FE)	Link	Link
TE1ACC002		CABOT		RESERVED: OFFSITE	34.1 MV/m (Quench)	37.1 MV/m (Quench)	Link	Link
TE1ACC003		MDTL		RESERVED: ONSITE	40.2 MV/m (Quench)	42 MV/m (Quench)	Link	Link
TE1ACC004		IB4	Tumble polishing	RESERVED: ONSITE	40.5 MV/m (Quench)	40.5 MV/m (Quench)	Link	Link
TE1ACC005		IB1	Eddy current scanning	RESERVED: ONSITE	38.1 MV/m (Quench)	38.1 MV/m (Quench)	Link	Link
TE1ACC006		MP9	Eddy current scanning	RESERVED: ONSITE			Link	Link
TE1AES001		JLAB	Vertical EP	RESERVED: OFFSITE			Link	Link
TE1AES002		CORNELL UNIVERSITY		RESERVED: OFFSITE			Link	Link
TE1AES003		ICB	Cut out study	RESERVED: ONSITE			Link	Link
TE1AES004		ICB	To be cut	RESERVED: OFFSITE	34 MV/m (Quench)	39.6 MV/m (quench)	Link	Link
TE1AES005		ANL		RESERVED: OFFSITE	36.3 MV/m (Quench)	36.3 MV/m (Quench)	Link	Link
TE1AES006		CORNELL UNIVERSITY		RESERVED: OFFSITE			Link	Link
TE1CAT001		A0 - SERVICE BUILDING		RESERVED: ONSITE	19.2 MV/m (Quench)	19.2 MV/m (Quench)	Link	Link
TE1CAT002		ANL		RESERVED: OFFSITE	20.9 MV/m (quench)	20.9 MV/m (quench)	Link	Link
TE1PAV001		A0 - SERVICE BUILDING	EP at ANL	RESERVED: ONSITE			Link	Link
TE1PAV002		ICB	EP at ANL	RESERVED: ONSITE			Link	Link
TE1PAV003		ICB	EP at ANL	RESERVED: ONSITE			Link	Link
TE1PAV004		PAVAC		RESERVED: OFFSITE			Link	Link
TE1PAV005		PAVAC		RESERVED: OFFSITE			Link	Link
TE1PAV006		PAVAC		RESERVED: OFFSITE			Link	Link
TE1PAV007		PAVAC		RESERVED: OFFSITE			Link	
TE1RRC001		RRCAT		RESERVED: OFFSITE			Link	
TW1AES001		ICB		RESERVED: ONSITE	16 MV/m (quench)	16 MV/m (quench)	Link	
TW1AES002		IB1		RESERVED: ONSITE	22 MV/m (quench)	22 MV/m (quench)	Link	

For next two weeks

- TE1ACC003 (Laser)
 - HPR did not remove cracked molding residual, in queue to cut open
- TE1ACC005&006 (ECS)
 - TE1ACC005 EP (ANL) completed, in queue for 120C bake
- TW1AES001&002 (traveling wave)
 - TW2 RF test done (IB1), NbTi flanges in progress
- TE1CAT002 (Tumble Polishing)
 - EP completed, in queue for H-bake out.
- TE1AES004 (basic SRF)
 - In queue to cut open
- NR-4 (ABLE electropolishing)
 - in queue for optical inspection and H bake out
- TE1PAVxxx incoming inspection and optical insp. Done.
 - TE1PAV002&003 in queue for EP, TE1PAV001 in queue for 120C bake.