PROJECT	CUSTOMER	TRAIN
Xtrapolis-PRASA	**PRASA**	**250 – TFD**

RTR Train Functional Dynamic Testing TS250 Report

GIB0000007308

	CREATED	VERIFIED	APPROVED	DISTRIBUTION
Name	Tshegofatso SETSHOGWE	Sifiso LUKHELE	Kgomotso NKOANA	Confidentiality Category *Restricted* ☐ *Project* ☐ *Normal* ☑
Date	14/10/2024	14/10/2024	14/10/2024	Control Category *Controlled* ☑ *Not Controlled* ☐
Signature				Language **EN**

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Table of modifications

Rev	Date	Modifications Content	Writer
A0	14/10/2024	Creation	Tshegofatso SETSHOGWE

Internal validations

	Name	Function	Date	Signature
Creator	Tshegofatso SETSHOGWE	EPU Manager	14/10/2024	X Tshegofatso SETSHOGWE EPU Manager
Verifier	Sifiso LUKHELE	Serial Test Manager	14/10/2024	X Sifiso LUKHELE Serial Test Manager
Approver	Kgomotso NKOANA	Test Expert	14/10/2024	X Kgomotso NKOANA Test Expert

Execution Plan

Start Date	10/10/2024
End Date	11/10/2024

Contents

Section 1 – Purpose / Objectives

Section 2 – Dynamic

2.1 Instructions list

2.1.1 TFD-Dynamic

I - Information A - Action R - Result NE - Not Executed

N°	Type	Instruction	File	Result status	Result value	Operator	Vehicle
10001	I	Dynamic Test		OK		Mbavhalelo Funyufunyu - 484649	Train
10002	I	Initial conditions		OK		Mbavhalelo Funyufunyu - 484649	Train
10003	I	This test shall be done under dry weather conditions i.e. no rain		OK		Mbavhalelo Funyufunyu - 484649	Train
10004	I	This test shall be carried out on a straight rail(R>=700m). The track must be well bedded with a maximum gradient =<5% of 3 km length. The track must be dry and clean before commencing the test to prevent degraded adhesion conditions.		OK		Mbavhalelo Funyufunyu - 484649	Train
10005	I	The catenary nominal voltage should be 3.3 +/- 0.3 kV DC.		OK		Mbavhalelo Funyufunyu - 484649	Train
10006	I	The test must be done with a complete 6-car configuration Prasa X'Trapolis Train.		OK		Mbavhalelo Funyufunyu - 484649	Train
10007	I	All routine static tests must be completed before commencing with this test, unless authorization has been given by Management		OK		Mbavhalelo Funyufunyu - 484649	Train
10008	I	Dynamic Pre-Test has been completed		OK		Mbavhalelo Funyufunyu - 484649	Train
10009	I	The test shall be performed in M1 load configuration		OK		Mbavhalelo Funyufunyu - 484649	Train
10010	I	Have a laptop ready with Train Tracer installed and loaded with the dashboard attached.		OK		Mbavhalelo Funyufunyu - 484649	Train
10011	I	Refer to this image for all lamp in alarm module		OK		Mbavhalelo Funyufunyu - 484649	Train
10012	I	Initial Conditions		OK		Mbavhalelo Funyufunyu - 484649	Train
10013	I	Deadman switch 60S1 is in NORMAL position on both TC cars		OK		Mbavhalelo Funyufunyu - 484649	Train
10014	I	The Traction Isolation switch 22S1 should be in NORMAL position on both TC cars		OK		Mbavhalelo Funyufunyu - 484649	Train

10015	A	Put the ERTMS switch 62S1 in ISOLATION position in both TC cars		OK		Mbavhalelo Funyufunyu - 484649	Train
10016	A	Apply the Safety procedure for movements before starting the test below		OK		Mbavhalelo Funyufunyu - 484649	Train
10017	I	All traction units are in black colour on the DDU maintenance screen		OK		Mbavhalelo Funyufunyu - 484649	Train
10018	A	Prepare the train in high voltage with active cab on TC1		OK		Mbavhalelo Funyufunyu - 484649	Train
10019	R	Read Min [TT] BKT_LineVoltageGl : 2700<= x		OK	3248.82	Mbavhalelo Funyufunyu - 484649	Train
10020	I	Movement preparation		OK		Mbavhalelo Funyufunyu - 484649	Train
10021	A	Put the switch 45S1 to 0 position to release the parking brake		OK		Mbavhalelo Funyufunyu - 484649	Train
10022	A	Select Driving Mode to EFFORT position		OK		Mbavhalelo Funyufunyu - 484649	Train
10023	A	Put the direction selector switch in FORWARD position in TC1		OK		Mbavhalelo Funyufunyu - 484649	Train
10024	R	Lamp 31H1 is "ON" on the alarm module		OK		Mbavhalelo Funyufunyu - 484649	Train
10025	R	TA appears on DDU screen		OK		Mbavhalelo Funyufunyu - 484649	Train
10026	A	Force [TT] (TBCU1)DSP2_WR_inv_B_inv_on = 0.0		OK		Mbavhalelo Funyufunyu - 484649	Train
10027	A	Force [TT] (TBCU2)DSP2_WR_inv_B_inv_on = 0.0		OK		Mbavhalelo Funyufunyu - 484649	Train
10028	A	Force [TT] (TBCU3)DSP2_WR_inv_B_inv_on = 0.0		OK		Mbavhalelo Funyufunyu - 484649	Train
10029	A	Force [TT] (TBCU4)DSP2_WR_inv_B_inv_on = 0.0		OK		Mbavhalelo Funyufunyu - 484649	Train
10030	A	Slowly move the Master Controller to TRACTION position		OK		Mbavhalelo Funyufunyu - 484649	Train
10031	R	The train does not move		OK		Mbavhalelo Funyufunyu - 484649	Train
10032	R	Read Defined Variable [TT] (MPU1)BKT_Tbcu1EffAchPerc = 0.0		OK	0	Mbavhalelo Funyufunyu - 484649	Train

10033	R	Read Defined Variable [TT] (MPU1)BKT_Tbcu2EffAchPerc = 0.0		OK	0	Mbavhalelo Funyufunyu - 484649	Train
10034	R	Read Defined Variable [TT] (MPU1)BKT_Tbcu3EffAchPerc = 0.0		OK	0	Mbavhalelo Funyufunyu - 484649	Train
10035	R	Read Defined Variable [TT] (MPU1)BKT_Tbcu4EffAchPerc = 0.0		OK	0	Mbavhalelo Funyufunyu - 484649	Train
10036	A	Release [TT] (TBCU1)DSP2_WR_inv_B_inv_on		OK		Mbavhalelo Funyufunyu - 484649	Train
10037	A	Release [TT] (TBCU2)DSP2_WR_inv_B_inv_on		OK		Mbavhalelo Funyufunyu - 484649	Train
10038	A	Release [TT] (TBCU3)DSP2_WR_inv_B_inv_on		OK		Mbavhalelo Funyufunyu - 484649	Train
10039	A	Release [TT] (TBCU4)DSP2_WR_inv_B_inv_on		OK		Mbavhalelo Funyufunyu - 484649	Train
10040	A	Put the direction selector switch in NEUTRAL position in TC1		OK		Mbavhalelo Funyufunyu - 484649	Train
10041	R	Read Defined Variable [TT] (MPU1)bcu1_tlneb = 0.0		OK	0	Mbavhalelo Funyufunyu - 484649	Train
10042	R	Read Defined Variable [TT] (MPU1)li_drc_tc1dsnozeror1 = 0.0		OK	0	Mbavhalelo Funyufunyu - 484649	Train
10043	A	Put the direction selector switch to FORWARD and again in NEUTRAL position to reset the emergency brake		OK		Mbavhalelo Funyufunyu - 484649	Train
10044	I	Traction and Electric Brake - Wheel Turn Test		OK		Mbavhalelo Funyufunyu - 484649	Train
10045	A	Prepare and run Dynamic dashboard		OK		Mbavhalelo Funyufunyu - 484649	Train
10046	A	Record and SAVE the above dashboard for each car		OK		Mbavhalelo Funyufunyu - 484649	Train
10047	I	Traction and Brake M4 - Wheel Turn Test		OK		Mbavhalelo Funyufunyu - 484649	Train
10048	A	Force [TT] (TBCU1)DSP2_WR_inv_B_inv_on = 0.0		OK		Mbavhalelo Funyufunyu - 484649	Train
10049	A	Force [TT] (TBCU2)DSP2_WR_inv_B_inv_on = 0.0		OK		Mbavhalelo Funyufunyu - 484649	Train
10050	A	Force [TT]		OK		Mbavhalelo Funyufunyu - 484649	Train

		(TBCU3)DSP2_WR_inv_B_inv_on = 0.0					
10051	R	Read Defined Variable [TT] (MPU1)BKT_Tbcu1TcuDrinC1 = 1.0		OK	1	Mbavhalelo Funyufunyu - 484649	Train
10052	R	Read Defined Variable [TT] (MPU1)BKT_Tbcu2TcuDrinC2 = 1.0		OK	1	Mbavhalelo Funyufunyu - 484649	Train
10053	R	Read Defined Variable [TT] (MPU1)BKT_Tbcu3TcuDrinC3 = 1.0		OK	1	Mbavhalelo Funyufunyu - 484649	Train
10054	R	Read Defined Variable [TT] (MPU1)BKT_Tbcu4TcuDrinC4 = 1.0		OK	1	Mbavhalelo Funyufunyu - 484649	Train
10055	A	Put the direction selector switch in FORWARD position		OK		Mbavhalelo Funyufunyu - 484649	Train
10056	A	Put the Master controller in 100% TRACTION immediately, accelerate to speed 15 km/h		OK		Mbavhalelo Funyufunyu - 484649	Train
10057	R	The train is moving forward towards TC1 direction		OK		Mbavhalelo Funyufunyu - 484649	Train
10058	R	Read Min [TT] (MPU1)BKT_Tbcu4EffAchPerc : 1<= x		OK	101	Mbavhalelo Funyufunyu - 484649	Train
10059	R	Read Defined Variable [TT] (MPU1)BKT_Tbcu2EffAchPerc = 0.0		OK	0	Mbavhalelo Funyufunyu - 484649	Train
10060	R	Read Defined Variable [TT] (MPU1)BKT_Tbcu3EffAchPerc = 0.0		OK	0	Mbavhalelo Funyufunyu - 484649	Train
10061	R	Read Defined Variable [TT] (MPU1)BKT_Tbcu1EffAchPerc = 0.0		OK	0	Mbavhalelo Funyufunyu - 484649	Train
10062	I	For FORWARD direction: Speed sensor 1 axle 1 (+) Speed sensor 2 axle 1 (direction) (-) Speed sensor axle 2 (+) Speed sensor axle 3 (+) Speed sensor axle 4 (+)		OK		Mbavhalelo Funyufunyu - 484649	Train
10063	R	Read Min [TT] (TBCU4)dsp2_rd_inv_fq_axle0_4 : 1<= x		OK	3.38	Mbavhalelo Funyufunyu - 484649	Train
10064	R	Result Max [TT] (TBCU4)dsp2_rd_inv_fq_axle1_4 : x <= 0		OK	-3.62	Mbavhalelo Funyufunyu - 484649	Train
10065	R	Read Min [TT] (TBCU4)dsp2_rd_inv_fq_axle2_4 : 1<= x		OK	3.84	Mbavhalelo Funyufunyu - 484649	Train

10066	R	Read Min [TT] (TBCU4)dsp2_rd_inv_fq_axle3_4 : 1<= x		OK	4.17	Mbavhalelo Funyufunyu - 484649	Train
10067	R	Read Min [TT] (TBCU4)dsp2_rd_inv_fq_axle4_4 : 1<= x		OK	4.93	Mbavhalelo Funyufunyu - 484649	Train
10068	A	Put the Master controller in BRAKE position until the train comes to a complete stop		OK		Mbavhalelo Funyufunyu - 484649	Train
10069	A	Put the direction selector switch in REVERSE position		OK		Mbavhalelo Funyufunyu - 484649	Train
10070	A	Put the Master controller in TRACTION position and slowly accelerate to speed <5 km/h		OK		Mbavhalelo Funyufunyu - 484649	Train
10071	R	The train is moving backward towards TC2 direction		OK		Mbavhalelo Funyufunyu - 484649	Train
10072	R	Result Max [TT] (TBCU4)dsp2_rd_inv_fq_axle0_4 : x <= 0		OK	-0.52	Mbavhalelo Funyufunyu - 484649	Train
10073	R	Read Min [TT] (TBCU4)dsp2_rd_inv_fq_axle1_4 : 1<= x		OK	1	Mbavhalelo Funyufunyu - 484649	Train
10074	A	Put the Master controller in BRAKE position until the train comes to a complete stop		OK		Mbavhalelo Funyufunyu - 484649	Train
10075	A	Release [TT] (TBCU1)DSP2_WR_inv_B_inv_on		OK		Mbavhalelo Funyufunyu - 484649	Train
10076	I	Traction and Brake M1 - Wheel Turn Test		OK		Mbavhalelo Funyufunyu - 484649	Train
10077	A	Force [TT] (TBCU4)DSP2_WR_inv_B_inv_on = 0.0		OK		Mbavhalelo Funyufunyu - 484649	Train
10078	A	Put the direction selector switch in FORWARD position		OK		Mbavhalelo Funyufunyu - 484649	Train
10079	A	Put the Master controller in 100% TRACTION immediately, accelerate to speed 15 km/h		OK		Mbavhalelo Funyufunyu - 484649	Train
10080	R	The train is moving forward towards TC1 direction		OK		Mbavhalelo Funyufunyu - 484649	Train
10081	R	Read Min [TT] (MPU1)BKT_Tbcu1EffAchPerc : 1<= x		OK	100	Mbavhalelo Funyufunyu - 484649	Train

10082	R	Read Defined Variable [TT] (MPU1)BKT_Tbcu2EffAchPerc = 0.0		OK	0	Mbavhalelo Funyufunyu - 484649	Train
10083	R	Read Defined Variable [TT] (MPU1)BKT_Tbcu3EffAchPerc = 0.0		OK	0	Mbavhalelo Funyufunyu - 484649	Train
10084	R	Read Defined Variable [TT] (MPU1)BKT_Tbcu4EffAchPerc = 0.0		OK	0	Mbavhalelo Funyufunyu - 484649	Train
10085	R	Read Min [TT] (TBCU1)dsp2_rd_inv_fq_axle0_1 : 1<= x		OK	4.07	Mbavhalelo Funyufunyu - 484649	Train
10086	R	Result Max [TT] (TBCU1)dsp2_rd_inv_fq_axle1_1 : x <= 0		OK	-4.18	Mbavhalelo Funyufunyu - 484649	Train
10087	R	Read Min [TT] (TBCU1)dsp2_rd_inv_fq_axle2_1 : 1<= x		OK	4.34	Mbavhalelo Funyufunyu - 484649	Train
10088	R	Read Min [TT] (TBCU1)dsp2_rd_inv_fq_axle3_1 : 1<= x		OK	4.47	Mbavhalelo Funyufunyu - 484649	Train
10089	R	Read Min [TT] (TBCU1)dsp2_rd_inv_fq_axle4_1 : 1<= x		OK	4.59	Mbavhalelo Funyufunyu - 484649	Train
10090	A	Put the Master controller in BRAKE position until the train comes to a complete stop		OK		Mbavhalelo Funyufunyu - 484649	Train
10091	A	Put the direction selector switch in REVERSE position		OK		Mbavhalelo Funyufunyu - 484649	Train
10092	A	Put the Master controller in TRACTION position and slowly accelerate to speed <5 km/h		OK		Mbavhalelo Funyufunyu - 484649	Train
10093	R	The train is moving backward towards TC2 direction		OK		Mbavhalelo Funyufunyu - 484649	Train
10094	R	Result Max [TT] (TBCU1)dsp2_rd_inv_fq_axle0_1 : x <= 0		OK	-0.66	Mbavhalelo Funyufunyu - 484649	Train
10095	R	Read Min [TT] (TBCU1)dsp2_rd_inv_fq_axle1_1 : 1<= x		OK	1.01	Mbavhalelo Funyufunyu - 484649	Train
10096	A	Put the Master controller in BRAKE position until the train comes to a complete stop		OK		Mbavhalelo Funyufunyu - 484649	Train

10097	A	Release [TT] (TBCU2)DSP2_WR_inv_B_inv_on		OK		Mbavhalelo Funyufunyu - 484649	Train
10098	I	Traction and Brake M2 - Wheel Turn Test		OK		Mbavhalelo Funyufunyu - 484649	Train
10099	A	Force [TT] (TBCU1)DSP2_WR_inv_B_inv_on = 0.0		OK		Mbavhalelo Funyufunyu - 484649	Train
10100	A	Put the direction selector switch in FORWARD position		OK		Mbavhalelo Funyufunyu - 484649	Train
10101	A	Put the Master controller in 100% TRACTION immediately, accelerate to speed 15 km/h		OK		Mbavhalelo Funyufunyu - 484649	Train
10102	R	The train moves forward towards TC1 direction		OK		Mbavhalelo Funyufunyu - 484649	Train
10103	R	Read Defined Variable [TT] (MPU1)BKT_Tbcu1EffAchPerc = 0.0		OK	0	Mbavhalelo Funyufunyu - 484649	Train
10104	R	Read Min [TT] (MPU1)BKT_Tbcu2EffAchPerc : 1<= x		OK	100	Mbavhalelo Funyufunyu - 484649	Train
10105	R	Read Defined Variable [TT] (MPU1)BKT_Tbcu3EffAchPerc = 0.0		OK	0	Mbavhalelo Funyufunyu - 484649	Train
10106	R	Read Defined Variable [TT] (MPU1)BKT_Tbcu4EffAchPerc = 0.0		OK	0	Mbavhalelo Funyufunyu - 484649	Train
10107	R	Result Max [TT] (TBCU2)dsp2_rd_inv_fq_axle0_2 : x <= 0		OK	-2.19	Mbavhalelo Funyufunyu - 484649	Train
10108	R	Read Min [TT] (TBCU2)dsp2_rd_inv_fq_axle1_2 : 1<= x		OK	2.3	Mbavhalelo Funyufunyu - 484649	Train
10109	R	Read Min [TT] (TBCU2)dsp2_rd_inv_fq_axle2_2 : 1<= x		OK	2.42	Mbavhalelo Funyufunyu - 484649	Train
10110	R	Read Min [TT] (TBCU2)dsp2_rd_inv_fq_axle3_2 : 1<= x		OK	2.51	Mbavhalelo Funyufunyu - 484649	Train
10111	R	Read Min [TT] (TBCU2)dsp2_rd_inv_fq_axle4_2 : 1<= x		OK	2.61	Mbavhalelo Funyufunyu - 484649	Train
10112	A	Put the Master controller in BRAKE position until the train comes to a complete stop		OK		Mbavhalelo Funyufunyu - 484649	Train

10113	A	Put the direction selector switch in REVERSE position		OK		Mbavhalelo Funyufunyu - 484649	Train
10114	A	Put the Master controller in TRACTION position and slowly accelerate to speed <5 km/h		OK		Mbavhalelo Funyufunyu - 484649	Train
10115	R	The train moves backward towards TC2 direction		OK		Mbavhalelo Funyufunyu - 484649	Train
10116	R	Read Min [TT] (TBCU2)dsp2_rd_inv_fq_axle0_2 : 1<= x		OK	1.07	Mbavhalelo Funyufunyu - 484649	Train
10117	R	Result Max [TT] (TBCU2)dsp2_rd_inv_fq_axle1_2 : x <= 0		OK	-1.22	Mbavhalelo Funyufunyu - 484649	Train
10118	A	Put the Master controller in BRAKE position until the train comes to a complete stop		OK		Mbavhalelo Funyufunyu - 484649	Train
10119	A	Release [TT] (TBCU3)DSP2_WR_inv_B_inv_on		OK		Mbavhalelo Funyufunyu - 484649	Train
10120	I	Traction and Brake M3 - Wheel Turn Test		OK		Mbavhalelo Funyufunyu - 484649	Train
10121	A	Force [TT] (TBCU2)DSP2_WR_inv_B_inv_on = 0.0		OK		Mbavhalelo Funyufunyu - 484649	Train
10122	A	Put the direction selector switch in FORWARD position		OK		Mbavhalelo Funyufunyu - 484649	Train
10123	A	Put the Master controller in 100% TRACTION immediately, accelerate to speed 15 km/h		OK		Mbavhalelo Funyufunyu - 484649	Train
10124	R	The train moves forward towards TC1 direction		OK		Mbavhalelo Funyufunyu - 484649	Train
10125	R	Read Defined Variable [TT] (MPU1)BKT_Tbcu1EffAchPerc = 0.0		OK	0	Mbavhalelo Funyufunyu - 484649	Train
10126	R	Read Defined Variable [TT] (MPU1)BKT_Tbcu2EffAchPerc = 0.0		OK	0	Mbavhalelo Funyufunyu - 484649	Train
10127	R	Read Min [TT] (MPU1)BKT_Tbcu3EffAchPerc : 1<= x		OK	100	Mbavhalelo Funyufunyu - 484649	Train
10128	R	Read Defined Variable [TT] (MPU1)BKT_Tbcu4EffAchPerc = 0.0		OK	0	Mbavhalelo Funyufunyu - 484649	Train
10129	R	Result Max [TT]		OK	-2.82	Mbavhalelo Funyufunyu - 484649	Train

		(TBCU3)dsp2_rd_inv_fq_axle0_3 : x <= 0					
10130	R	Read Min [TT] (TBCU3)dsp2_rd_inv_fq_axle1_3 : 1<= x		OK	2.98	Mbavhalelo Funyufunyu - 484649	Train
10131	R	Read Min [TT] (TBCU3)dsp2_rd_inv_fq_axle2_3 : 1<= x		OK	3.15	Mbavhalelo Funyufunyu - 484649	Train
10132	R	Read Min [TT] (TBCU3)dsp2_rd_inv_fq_axle3_3 : 1<= x		OK	3.26	Mbavhalelo Funyufunyu - 484649	Train
10133	R	Read Min [TT] (TBCU3)dsp2_rd_inv_fq_axle4_3 : 1<= x		OK	3.37	Mbavhalelo Funyufunyu - 484649	Train
10134	A	Put the Master controller in BRAKE position until the train comes to a complete stop		OK		Mbavhalelo Funyufunyu - 484649	Train
10135	A	Put the direction selector switch in REVERSE position		OK		Mbavhalelo Funyufunyu - 484649	Train
10136	A	Put the Master controller in TRACTION position and slowly accelerate to speed <5 km/h		OK		Mbavhalelo Funyufunyu - 484649	Train
10137	R	The train moves backward towards TC2 direction		OK		Mbavhalelo Funyufunyu - 484649	Train
10138	R	Read Min [TT] (TBCU3)dsp2_rd_inv_fq_axle0_3 : 1<= x		OK	1.06	Mbavhalelo Funyufunyu - 484649	Train
10139	R	Result Max [TT] (TBCU3)dsp2_rd_inv_fq_axle1_3 : x <= 0		OK	-1.19	Mbavhalelo Funyufunyu - 484649	Train
10140	A	Put the Master controller in BRAKE position until the train comes to a complete stop		OK		Mbavhalelo Funyufunyu - 484649	Train
10141	I	Wheel Turn Test Results Check		OK		Mbavhalelo Funyufunyu - 484649	Train
10142	A	Analyse the recorded results before continuing with the test. If the results are out of range, the test must be STOPPED immediately, and the respective car motor wiring needs to be checked.		OK		Mbavhalelo Funyufunyu - 484649	Train
10143	R	M4 - Time taken to reach 15km/h Result Max : x <= 24 (s)		OK	19.5	Mbavhalelo Funyufunyu - 484649	Train
10144	R	M1 - Time taken to reach 15km/h Result Max : x <= 24 (s)		OK	18.33	Mbavhalelo Funyufunyu - 484649	Train

10145	R	M2 - Time taken to reach 15km/h Result Max : x <= 24 (s)		OK	18.54	Mbavhalelo Funyufunyu - 484649	Train
10146	R	M3 - Time taken to reach 15km/h Result Max : x <= 24 (s)		OK	18.4	Mbavhalelo Funyufunyu - 484649	Train
10147	R	All M cars reach 15km/h in less than 24 seconds		OK		Mbavhalelo Funyufunyu - 484649	Train
10148	I	All Motors Test Run		OK		Mbavhalelo Funyufunyu - 484649	Train
10149	A	Release [TT] (TBCU1)DSP2_WR_inv_B_inv_on		OK		Mbavhalelo Funyufunyu - 484649	Train
10150	A	Release [TT] (TBCU2)DSP2_WR_inv_B_inv_on		OK		Mbavhalelo Funyufunyu - 484649	Train
10151	A	Release [TT] (TBCU4)DSP2_WR_inv_B_inv_on		OK		Mbavhalelo Funyufunyu - 484649	Train
10152	A	Put the direction selector switch in FORWARD position		OK		Mbavhalelo Funyufunyu - 484649	Train
10153	A	Slowly move the Master Controller to TRACTION position until the train speed reaches 15km/h		OK		Mbavhalelo Funyufunyu - 484649	Train
10154	R	Read Defined Variable [TT] (MPU1)bcu1_tlneb = 1.0		OK	1	Mbavhalelo Funyufunyu - 484649	Train
10155	R	Read Defined Variable [TT] (MPU1)li_drc_tc1dsnozeror1 = 1.0		OK	1	Mbavhalelo Funyufunyu - 484649	Train
10156	A	Put the Master Controller in OFF position		OK		Mbavhalelo Funyufunyu - 484649	Train
10157	R	The train comes to a standstill		OK		Mbavhalelo Funyufunyu - 484649	Train
10158	I	Wheel Diameter Calibration		OK		Mbavhalelo Funyufunyu - 484649	Train
10159	I	Following conditions need to be met in order to successfully calibrate the wheel diameter. Ensure that the OTDR reference value of a Wheel Diameter has been entered.		OK		Mbavhalelo Funyufunyu - 484649	Train
10160	A	1) Train running on a straight track 2) Effort Driving Mode 3) Speed>15km/h 4) No wheel slippage 5) No Emergency Braking 6) Traction Effort = 0% (Coasting) 7) All Traction and Braking Units are working		OK		Mbavhalelo Funyufunyu - 484649	Train
10161	A	On the DDU screen select "First Acquisition Request"		OK		Mbavhalelo Funyufunyu - 484649	Train

10162	A	Check if the wheel diameter for each axle is between 838 mm and 842 mm, see picture attached.		OK		Mbavhalelo Funyufunyu - 484649	Train
10163	R	Read Min/Max [TT] (MPU1)BKT_Bcu1WhDiamAx1 : 839<= x <= 841		OK	840	Mbavhalelo Funyufunyu - 484649	Train
10164	R	Read Min/Max [TT] (MPU1)BKT_Bcu1WhDiamAx2 : 839<= x <= 841		OK	840	Mbavhalelo Funyufunyu - 484649	Train
10165	R	Read Min/Max [TT] (MPU1)BKT_Bcu1WhDiamAx3 : 839<= x <= 841		OK	840	Mbavhalelo Funyufunyu - 484649	Train
10166	R	Read Min/Max [TT] (MPU1)BKT_Bcu1WhDiamAx4 : 839<= x <= 841		OK	840	Mbavhalelo Funyufunyu - 484649	Train
10167	R	Read Min/Max [TT] (MPU1)BKT_Bcu2WhDiamAx1 : 839<= x <= 841		OK	840	Mbavhalelo Funyufunyu - 484649	Train
10168	R	Read Min/Max [TT] (MPU1)BKT_Bcu2WhDiamAx2 : 839<= x <= 841		OK	840	Mbavhalelo Funyufunyu - 484649	Train
10169	R	Read Min/Max [TT] (MPU1)BKT_Bcu2WhDiamAx3 : 839<= x <= 841		OK	840	Mbavhalelo Funyufunyu - 484649	Train
10170	R	Read Min/Max [TT] (MPU1)BKT_Bcu2WhDiamAx4 : 839<= x <= 841		OK	840	Mbavhalelo Funyufunyu - 484649	Train
10171	R	Read Min/Max [TT] (MPU1)BKT_Tbcu1WhDiamAx1 : 839<= x <= 841		OK	841	Mbavhalelo Funyufunyu - 484649	Train
10172	R	Read Min/Max [TT] (MPU1)BKT_Tbcu1WhDiamAx2 : 839<= x <= 841		OK	841	Mbavhalelo Funyufunyu - 484649	Train
10173	R	Read Min/Max [TT] (MPU1)BKT_Tbcu1WhDiamAx3 : 839<= x <= 841		OK	841	Mbavhalelo Funyufunyu - 484649	Train
10174	R	Read Min/Max [TT] (MPU1)BKT_Tbcu1WhDiamAx4 : 839<= x <= 841		OK	840	Mbavhalelo Funyufunyu - 484649	Train
10175	R	Read Min/Max [TT] (MPU1)BKT_Tbcu2WhDiamAx1 : 839<= x <= 841		OK	839	Mbavhalelo Funyufunyu - 484649	Train

10176	R	Read Min/Max [TT] (MPU1)BKT_Tbcu2WhDiamAx2 : 839<= x <= 841		OK	840	Mbavhalelo Funyufunyu - 484649	Train
10177	R	Read Min/Max [TT] (MPU1)BKT_Tbcu2WhDiamAx3 : 839<= x <= 841		OK	840	Mbavhalelo Funyufunyu - 484649	Train
10178	R	Read Min/Max [TT] (MPU1)BKT_Tbcu2WhDiamAx4 : 839<= x <= 841		OK	840	Mbavhalelo Funyufunyu - 484649	Train
10179	R	Read Min/Max [TT] (MPU1)BKT_Tbcu3WhDiamAx1 : 839<= x <= 841		OK	840	Mbavhalelo Funyufunyu - 484649	Train
10180	R	Read Min/Max [TT] (MPU1)BKT_Tbcu3WhDiamAx2 : 839<= x <= 841		OK	840	Mbavhalelo Funyufunyu - 484649	Train
10181	R	Read Min/Max [TT] (MPU1)BKT_Tbcu3WhDiamAx3 : 839<= x <= 841		OK	839	Mbavhalelo Funyufunyu - 484649	Train
10182	R	Read Min/Max [TT] (MPU1)BKT_Tbcu3WhDiamAx4 : 839<= x <= 841		OK	840	Mbavhalelo Funyufunyu - 484649	Train
10183	R	Read Min/Max [TT] (MPU1)BKT_Tbcu4WhDiamAx1 : 839<= x <= 841		OK	840	Mbavhalelo Funyufunyu - 484649	Train
10184	R	Read Min/Max [TT] (MPU1)BKT_Tbcu4WhDiamAx2 : 839<= x <= 841		OK	840	Mbavhalelo Funyufunyu - 484649	Train
10185	R	Read Min/Max [TT] (MPU1)BKT_Tbcu4WhDiamAx3 : 839<= x <= 841		OK	840	Mbavhalelo Funyufunyu - 484649	Train
10186	R	Read Min/Max [TT] (MPU1)BKT_Tbcu4WhDiamAx4 : 839<= x <= 841		OK	840	Mbavhalelo Funyufunyu - 484649	Train
10187	I	Brake Tests		OK		Mbavhalelo Funyufunyu - 484649	Train
10188	I	For each test run, ensure the following are done: -Prepare the dashboard on train tracer to record train performance -Activate the relevant cab -Login to DDU as Maintainer (70979080) -Save each performance (only for speed of 60Km/h) result as .CVS on local drive of service laptop -Ensure there is enough space remaining for each run, else put the train at the end of the line		OK		Mbavhalelo Funyufunyu - 484649	Train

		-From 40km/h tests IT IS FORBIDDEN to do more than one run at a time on the track, each run should start at the beginning/end of the track					
10189	I	Initial Conditions for each car: -ERTMS is ISOLATED -Driving mode set to EFFORT mode		OK		Mbavhalelo Funyufunyu - 484649	Train
10190	I	ALL the brake tests should be done from the extremities of the test track		OK		Mbavhalelo Funyufunyu - 484649	Train
10191	I	Emergency Brake @ 20km/h TC1		OK		Mbavhalelo Funyufunyu - 484649	Train
10192	A	Force [TT] SBK_BrakeDist = 0.0		OK		Mbavhalelo Funyufunyu - 484649	Train
10193	A	Release [TT] SBK_BrakeDist		OK		Mbavhalelo Funyufunyu - 484649	Train
10194	A	Put the direction selector switch in FORWARD position		OK		Mbavhalelo Funyufunyu - 484649	Train
10195	A	Put the Master Controller in MAX TRACTION position until the train speed reaches 20 +/- 2 km/h		OK		Mbavhalelo Funyufunyu - 484649	Train
10196	A	Push the emergency brake mushroom button 44S1		OK		Mbavhalelo Funyufunyu - 484649	Train
10197	R	Result Max [TT] SBK_BrakeDist : x <= 42		OK	21	Mbavhalelo Funyufunyu - 484649	Train
10198	A	Put the direction selector switch in NEUTRAL position		OK		Mbavhalelo Funyufunyu - 484649	Train
10199	A	Release the emergency brake button 44S1		OK		Mbavhalelo Funyufunyu - 484649	Train
10200	I	Service Brake @ 30km/h TC1		OK		Mbavhalelo Funyufunyu - 484649	Train
10201	A	Force [TT] SBK_BrakeDist = 0.0		OK		Mbavhalelo Funyufunyu - 484649	Train
10202	A	Release [TT] SBK_BrakeDist		OK		Mbavhalelo Funyufunyu - 484649	Train
10203	A	Put the direction selector switch in FORWARD position		OK		Mbavhalelo Funyufunyu - 484649	Train
10204	A	Put the Master Controller in MAX TRACTION position until the train speed reaches 30 +/- 2 km/h		OK		Mbavhalelo Funyufunyu - 484649	Train
10205	A	Put the Master Controller in 100% BRAKE position		OK		Mbavhalelo Funyufunyu - 484649	Train
10206	R	Result Max [TT] SBK_BrakeDist : x <= 87		OK	54	Mbavhalelo Funyufunyu - 484649	Train

10207	A	Put the direction selector switch in NEUTRAL position		OK		Mbavhalelo Funyufunyu - 484649	Train
10208	I	Emergency Brake @ 40km/h TC1		OK		Mbavhalelo Funyufunyu - 484649	Train
10209	A	Force [TT] SBK_BrakeDist = 0.0		OK		Mbavhalelo Funyufunyu - 484649	Train
10210	A	Release [TT] SBK_BrakeDist		OK		Mbavhalelo Funyufunyu - 484649	Train
10211	A	Put the direction selector switch in FORWARD position		OK		Mbavhalelo Funyufunyu - 484649	Train
10212	A	Put the Master Controller in MAX TRACTION position until the train speed reaches 40 +/- 2 km/h		OK		Mbavhalelo Funyufunyu - 484649	Train
10213	A	Push the emergency brake mushroom button 44S1		OK		Mbavhalelo Funyufunyu - 484649	Train
10214	R	Result Max [TT] SBK_BrakeDist : x <= 80		OK	63	Mbavhalelo Funyufunyu - 484649	Train
10215	A	Put the direction selector switch in NEUTRAL position		OK		Mbavhalelo Funyufunyu - 484649	Train
10216	A	Release the emergency brake button 44S1		OK		Mbavhalelo Funyufunyu - 484649	Train
10217	I	Service Brake @ 20km/h TC2		OK		Mbavhalelo Funyufunyu - 484649	Train
10218	A	Force [TT] SBK_BrakeDist = 0.0		OK		Mbavhalelo Funyufunyu - 484649	Train
10219	A	Release [TT] SBK_BrakeDist		OK		Mbavhalelo Funyufunyu - 484649	Train
10220	A	Put the direction selector switch in FORWARD position		OK		Mbavhalelo Funyufunyu - 484649	Train
10221	A	Put the Master Controller in MAX TRACTION position until the train speed reaches 20 +/- 2 km/h		OK		Mbavhalelo Funyufunyu - 484649	Train
10222	A	Put the Master Controller in OFF position		OK		Mbavhalelo Funyufunyu - 484649	Train
10223	R	Result Max [TT] SBK_BrakeDist : x <= 60		OK	25	Mbavhalelo Funyufunyu - 484649	Train
10224	A	Put the direction selector switch in NEUTRAL position		OK		Mbavhalelo Funyufunyu - 484649	Train
10225	I	Emergency Brake @ 30km/h TC2		OK		Mbavhalelo Funyufunyu - 484649	Train
10226	A	Force [TT] SBK_BrakeDist = 0.0		OK		Mbavhalelo Funyufunyu - 484649	Train
10227	A	Release [TT] SBK_BrakeDist		OK		Mbavhalelo Funyufunyu - 484649	Train

10228	A	Put the direction selector switch in FORWARD position		OK		Mbavhalelo Funyufunyu - 484649	Train
10229	A	Put the Master Controller in MAX TRACTION position until the train speed reaches 30 +/- 2 km/h		OK		Mbavhalelo Funyufunyu - 484649	Train
10230	A	Put the Master Controller in OFF position		OK		Mbavhalelo Funyufunyu - 484649	Train
10231	A	Push the emergency brake mushroom button 44S1		OK		Mbavhalelo Funyufunyu - 484649	Train
10232	R	Result Max [TT] SBK_BrakeDist : x <= 62		OK	45	Mbavhalelo Funyufunyu - 484649	Train
10233	A	Put the direction selector switch in NEUTRAL position		OK		Mbavhalelo Funyufunyu - 484649	Train
10234	A	Release the emergency brake button 44S1		OK		Mbavhalelo Funyufunyu - 484649	Train
10235	I	Service Brake @ 40km/h TC2		OK		Mbavhalelo Funyufunyu - 484649	Train
10236	A	Force [TT] SBK_BrakeDist = 0.0		OK		Mbavhalelo Funyufunyu - 484649	Train
10237	A	Release [TT] SBK_BrakeDist		OK		Mbavhalelo Funyufunyu - 484649	Train
10238	A	Put the direction selector switch in FORWARD position		OK		Mbavhalelo Funyufunyu - 484649	Train
10239	A	Put the Master Controller in MAX TRACTION position until the train speed reaches 40 +/- 2 km/h		OK		Mbavhalelo Funyufunyu - 484649	Train
10240	A	Put the Master Controller in 100% BRAKE position		OK		Mbavhalelo Funyufunyu - 484649	Train
10241	R	Result Max [TT] SBK_BrakeDist : x <= 113		OK	83	Mbavhalelo Funyufunyu - 484649	Train
10242	A	Put the direction selector switch in NEUTRAL position		OK		Mbavhalelo Funyufunyu - 484649	Train
10243	I	ERTMS Dynamic		OK		Celiwe Sokhela - 491462	Train
10244	A	Put the ERTMS switch 62S1 in NORMAL position in both TC cars		OK		Celiwe Sokhela - 491462	Train
10245	A	Active cab on TC1		OK		Celiwe Sokhela - 491462	Train
10246	A	Use the procedure attached for ERTMS dynamic commissioning.		OK		Celiwe Sokhela - 491462	Train
10247	R	Dynamic ERTMS commissioning has been completed successfully		OK		Celiwe Sokhela - 491462	Train

10248	I	HIGH SPEED TEST		OK		Mbavhalelo Funyufunyu - 484649	Train
10249	I	For each and the following high-speed test make sure that the train is positioned at the start of the track, and the driver can see the Eurobalise on the track as shown in the picture attached.		OK		Mbavhalelo Funyufunyu - 484649	Train
10250	I	Service Brake @ 50km/h TC1		OK		Mbavhalelo Funyufunyu - 484649	Train
10251	A	Use maintenance code (70979080) to log into DMI screen and do start of mission		OK		Mbavhalelo Funyufunyu - 484649	Train
10252	A	Force [TT] SBK_BrakeDist = 0.0		OK		Mbavhalelo Funyufunyu - 484649	Train
10253	A	Release [TT] SBK_BrakeDist		OK		Mbavhalelo Funyufunyu - 484649	Train
10254	A	Put the direction selector switch in FORWARD position		OK		Mbavhalelo Funyufunyu - 484649	Train
10255	A	Put the Master Controller in MAX TRACTION position until the train speed reaches 50 +/- 2 km/h		OK		Mbavhalelo Funyufunyu - 484649	Train
10256	A	Put the Master Controller in 100% BRAKE position		OK		Mbavhalelo Funyufunyu - 484649	Train
10257	R	Result Max [TT] SBK_BrakeDist : x <= 142		OK	122	Mbavhalelo Funyufunyu - 484649	Train
10258	A	Put the direction selector switch in NEUTRAL position		OK		Mbavhalelo Funyufunyu - 484649	Train
10259	I	Emergency Brake @ 50km/h TC2		OK		Mbavhalelo Funyufunyu - 484649	Train
10260	A	Use maintenance code (70979080) to log into DMI screen and do start of mission		OK		Mbavhalelo Funyufunyu - 484649	Train
10261	A	Force [TT] SBK_BrakeDist = 0.0		OK		Mbavhalelo Funyufunyu - 484649	Train
10262	A	Release [TT] SBK_BrakeDist		OK		Mbavhalelo Funyufunyu - 484649	Train
10263	A	Put the direction selector switch in FORWARD position		OK		Mbavhalelo Funyufunyu - 484649	Train
10264	A	Put the Master Controller in MAX TRACTION position until the train speed reaches 50 +/- 2 km/h		OK		Mbavhalelo Funyufunyu - 484649	Train
10265	A	Push the emergency brake mushroom button 44S1		OK		Mbavhalelo Funyufunyu - 484649	Train
10266	R	Result Max [TT] SBK_BrakeDist : x <= 100		OK	90	Mbavhalelo Funyufunyu - 484649	Train

10267	A	Put the direction selector switch in NEUTRAL position		OK		Mbavhalelo Funyufunyu - 484649	Train
10268	A	Release the emergency brake button 44S1		OK		Mbavhalelo Funyufunyu - 484649	Train
10269	I	For the following tests, ensure the dashboard is running and record each result and save each file as .CSV		OK		Mbavhalelo Funyufunyu - 484649	Train
10270	I	Service Brake @ 60km/h TC1		OK		Celiwe Sokhela - 491462	Train
10271	A	Use maintenance code (70979080) to log into DMI screen and do start of mission		OK		Celiwe Sokhela - 491462	Train
10272	A	Put the train in starting position on the track		OK		Celiwe Sokhela - 491462	Train
10273	A	Force [TT] SBK_BrakeDist = 0.0		OK		Celiwe Sokhela - 491462	Train
10274	A	Release [TT] SBK_BrakeDist		OK		Celiwe Sokhela - 491462	Train
10275	A	Put the direction selector switch in FORWARD position		OK		Celiwe Sokhela - 491462	Train
10276	A	Put the Master Controller in MAX TRACTION position until the train speed reaches 60 +/- 2 km/h		OK		Celiwe Sokhela - 491462	Train
10277	A	Put the Master Controller in 100% BRAKE position		OK		Celiwe Sokhela - 491462	Train
10278	R	Result Max [TT] SBK_BrakeDist : x <= 171		OK	138	Celiwe Sokhela - 491462	Train
10279	A	Put the direction selector switch in NEUTRAL position		OK		Celiwe Sokhela - 491462	Train
10280	I	Service Brake @ 60km/h TC2		OK		Celiwe Sokhela - 491462	Train
10281	A	Use maintenance code (70979080) to log into DMI screen and do start of mission		OK		Celiwe Sokhela - 491462	Train
10282	A	Force [TT] SBK_BrakeDist = 0.0		OK		Celiwe Sokhela - 491462	Train
10283	A	Release [TT] SBK_BrakeDist		OK		Celiwe Sokhela - 491462	Train
10284	A	Put the direction selector switch in FORWARD position		OK		Celiwe Sokhela - 491462	Train
10285	A	Put the Master Controller in MAX TRACTION position until the train speed reaches 60 +/- 2 km/h		OK		Celiwe Sokhela - 491462	Train

10286	A	Put the Master Controller in 100% BRAKE position		OK		Celiwe Sokhela - 491462	Train
10287	R	Result Max [TT] SBK_BrakeDist : x <= 171		OK	147	Celiwe Sokhela - 491462	Train
10288	A	Put the direction selector switch in NEUTRAL position		OK		Celiwe Sokhela - 491462	Train
10289	I	Emergency brake @ 60kh/h TC1		OK		Celiwe Sokhela - 491462	Train
10290	A	Use maintenance code (70979080) to log into DMI screen and do start of mission		OK		Celiwe Sokhela - 491462	Train
10291	A	Force [TT] SBK_BrakeDist = 0.0		OK		Celiwe Sokhela - 491462	Train
10292	A	Release [TT] SBK_BrakeDist		OK		Celiwe Sokhela - 491462	Train
10293	A	Put the direction selector switch in FORWARD position		OK		Celiwe Sokhela - 491462	Train
10294	A	Put the Master Controller in MAX TRACTION position until the train speed reaches 60 +/- 2 km/h		OK		Celiwe Sokhela - 491462	Train
10295	A	Push the emergency brake mushroom button 44S1		OK		Celiwe Sokhela - 491462	Train
10296	R	Result Max [TT] SBK_BrakeDist : x <= 121		OK	118	Celiwe Sokhela - 491462	Train
10297	A	Put the direction selector switch in NEUTRAL position		OK		Celiwe Sokhela - 491462	Train
10298	A	Release the emergency brake button 44S1		OK		Celiwe Sokhela - 491462	Train
10299	A	Put the train at the end of the line		OK		Celiwe Sokhela - 491462	Train
10300	I	Remember to save the .csv result file on the local drive of the PC used		OK		Celiwe Sokhela - 491462	Train
10301	I	Emergency brake @ 60km/h TC2		OK		Celiwe Sokhela - 491462	Train
10302	A	Use maintenance code (70979080) to log into DMI screen and do start of mission		OK		Celiwe Sokhela - 491462	Train
10303	A	Force [TT] SBK_BrakeDist = 0.0		OK		Celiwe Sokhela - 491462	Train
10304	A	Release [TT] SBK_BrakeDist		OK		Celiwe Sokhela - 491462	Train
10305	A	Put the direction selector switch in FORWARD position		OK		Celiwe Sokhela - 491462	Train

10306	A	Put the Master Controller in MAX TRACTION position until the train speed reaches 60 +/- 2 km/h		OK		Celiwe Sokhela - 491462	Train
10307	A	Push the emergency brake mushroom button 44S1		OK		Celiwe Sokhela - 491462	Train
10308	R	Result Max [TT] SBK_BrakeDist : x <= 121		OK	121	Celiwe Sokhela - 491462	Train
10309	A	Release the emergency brake button 44S1		OK		Celiwe Sokhela - 491462	Train
10310	A	Put the direction selector switch in NEUTRAL position		OK		Celiwe Sokhela - 491462	Train
10311	I	Remember to save the .csv result file on the local drive of the PC used		OK		Celiwe Sokhela - 491462	Train
10312	I	Degraded mode @60 km/h TC1		OK		Celiwe Sokhela - 491462	Train
10313	A	Use maintenance code (70979080) to log into DMI screen and do start of mission		OK		Celiwe Sokhela - 491462	Train
10314	I	Degraded mode simulation		OK		Celiwe Sokhela - 491462	Train
10315	A	Force [TT] (TBCU1)f55_b_br_auth = 0.0		OK		Celiwe Sokhela - 491462	Train
10316	A	Force [TT] (TBCU2)f55_b_br_auth = 0.0		OK		Celiwe Sokhela - 491462	Train
10317	A	Force [TT] (TBCU3)f55_b_br_auth = 0.0		OK		Celiwe Sokhela - 491462	Train
10318	A	Force [TT] (TBCU4)f55_b_br_auth = 0.0		OK		Celiwe Sokhela - 491462	Train
10319	A	Put the direction selector switch in FORWARD position		OK		Celiwe Sokhela - 491462	Train
10320	R	Lamp 31H1 is "ON" on the alarm module		OK		Celiwe Sokhela - 491462	Train
10321	R	TA appears on DDU screen		OK		Celiwe Sokhela - 491462	Train
10322	A	Prepare the dashboard on Train Tracer to record the train performance		OK		Celiwe Sokhela - 491462	Train
10323	A	Force [TT] SBK_BrakeDist = 0.0		OK		Celiwe Sokhela - 491462	Train
10324	A	Release [TT] SBK_BrakeDist		OK		Celiwe Sokhela - 491462	Train
10325	A	Put the Master Controller in MAX TRACTION position until the train speed reaches 60 +/- 2 km/h		OK		Celiwe Sokhela - 491462	Train
10326	A	Put the Master Controller in 100% BRAKE position		OK		Celiwe Sokhela - 491462	Train

10327	R	Result Max [TT] SBK_BrakeDist : x <= 171		OK	151	Celiwe Sokhela - 491462	Train
10328	A	Put the train at the end of the line		OK		Celiwe Sokhela - 491462	Train
10329	I	Remember to save the .csv result file on the local drive of the PC used		OK		Celiwe Sokhela - 491462	Train
10330	I	Degraded mode @ 60km/h TC2		OK		Celiwe Sokhela - 491462	Train
10331	A	Use maintenance code (70979080) to log into DMI screen and do start of mission		OK		Celiwe Sokhela - 491462	Train
10332	A	Put the direction selector switch in FORWARD position		OK		Celiwe Sokhela - 491462	Train
10333	R	Lamp 31H1 is ON on the alarm module		OK		Celiwe Sokhela - 491462	Train
10334	R	TA appears on DDU screen		OK		Celiwe Sokhela - 491462	Train
10335	A	Prepare the dashboard on Train Tracer to record the train performance		OK		Celiwe Sokhela - 491462	Train
10336	A	Force [TT] SBK_BrakeDist = 0.0		OK		Celiwe Sokhela - 491462	Train
10337	A	Release [TT] SBK_BrakeDist		OK		Celiwe Sokhela - 491462	Train
10338	A	Put the Master Controller in MAX TRACTION position until the train speed reaches 60 +/- 2 km/h		OK		Celiwe Sokhela - 491462	Train
10339	A	Put the Master Controller in 100% BRAKE position		OK		Celiwe Sokhela - 491462	Train
10340	R	Result Max [TT] SBK_BrakeDist : x <= 171		OK	154	Celiwe Sokhela - 491462	Train
10341	A	Release [TT] (TBCU1)f55_b_br_auth		OK		Celiwe Sokhela - 491462	Train
10342	A	Release [TT] (TBCU2)f55_b_br_auth		OK		Celiwe Sokhela - 491462	Train
10343	A	Release [TT] (TBCU3)f55_b_br_auth		OK		Celiwe Sokhela - 491462	Train
10344	A	Release [TT] (TBCU4)f55_b_br_auth		OK		Celiwe Sokhela - 491462	Train
10345	I	Remember to save the .csv result file on the local drive of the PC used		OK		Celiwe Sokhela - 491462	Train
10346	A	Put the train at the end of the line		OK		Celiwe Sokhela - 491462	Train
10347	I	Normal service brake operation		OK		Celiwe Sokhela - 491462	Train
10348	A	Active cab on TC1		OK		Celiwe Sokhela - 491462	Train

10349	A	Put the direction selector switch in FORWARD position		OK		Celiwe Sokhela - 491462	Train
10350	R	Lamp 31H1 is "ON" on the alarm module		OK		Celiwe Sokhela - 491462	Train
10351	R	TA appears on DDU screen		OK		Celiwe Sokhela - 491462	Train
10352	A	Put the Master controller in TRACTION position until the train speed reaches 10km/h		OK		Celiwe Sokhela - 491462	Train
10353	A	Put the Master controller in LOW BRAKE position until the train reaches a speed less than 3km/h		OK		Celiwe Sokhela - 491462	Train
10354	R	Read Defined Variable [TT] (BCU1)LI_NOT_INHIB = 0.0		OK	0	Celiwe Sokhela - 491462	Train
10355	R	Read Defined Variable [TT] (BCU2)LI_NOT_INHIB = 0.0		OK	0	Celiwe Sokhela - 491462	Train
10356	R	Read Defined Variable [TT] (TBCU1)LI_NOT_INHIB = 0.0		OK	0	Celiwe Sokhela - 491462	Train
10357	R	Read Defined Variable [TT] (TBCU2)LI_NOT_INHIB = 0.0		OK	0	Celiwe Sokhela - 491462	Train
10358	R	Read Defined Variable [TT] (TBCU3)LI_NOT_INHIB = 0.0		OK	0	Celiwe Sokhela - 491462	Train
10359	R	Read Defined Variable [TT] (TBCU4)LI_NOT_INHIB = 0.0		OK	0	Celiwe Sokhela - 491462	Train
10360	A	Put the Master controller in OFF position		OK		Celiwe Sokhela - 491462	Train
10361	R	Observe that the train continues to brake until it comes to a complete stop		OK		Celiwe Sokhela - 491462	Train
10362	R	Read Min [TT] (BCU1)AO_SERV_BRAKE : 1.2<= x		OK	38.3	Celiwe Sokhela - 491462	Train
10363	R	Read Min [TT] (BCU2)AO_SERV_BRAKE : 1.2<= x		OK	38.3	Celiwe Sokhela - 491462	Train
10364	R	Read Min [TT] (TBCU1)AO_SERV_BRAKE : 1.2<= x		OK	38.32	Celiwe Sokhela - 491462	Train
10365	R	Read Min [TT] (TBCU2)AO_SERV_BRAKE : 1.2<= x		OK	38.3	Celiwe Sokhela - 491462	Train
10366	R	Read Min [TT] (TBCU3)AO_SERV_BRAKE : 1.2<= x		OK	38.29	Celiwe Sokhela - 491462	Train

10367	R	Read Min [TT] (TBCU4)AO_SERV_BRAKE : 1.2<= x		OK	38.31	Celiwe Sokhela - 491462	Train
10368	A	Put the ERTMS switch 62S1 in ISOLATION position in both TC cars		OK		Celiwe Sokhela - 491462	Train
10369	I	Brake Distances Results		OK		Celiwe Sokhela - 491462	Train
10370	A	Zip All the recorded CSV files of Braking distances into one folder and upload on teams "shifts reports" channel under a specific train folder. Rename the folder as: TSXX_Braking_Distances		OK		Celiwe Sokhela - 491462	Train
10371	I	Train Acceleration Results		OK		Celiwe Sokhela - 491462	Train
10372	A	Use the following spreadsheet to calculate the acceleration		OK		Celiwe Sokhela - 491462	Train
10373	A			OK		Celiwe Sokhela - 491462	Train
10374	A	On the recorded dashboard, check how long it takes to reach 55km/h from Rec_speed>0 using Trace CSV software. Delta T (s) Delta V (km/h)		OK		Celiwe Sokhela - 491462	Train
10375	R	TC1 Acceleration Result Min : 0.85<= x (m/s²)		OK	0.862	Celiwe Sokhela - 491462	Train
10376	R	TC2 Acceleration Result Min : 0.85<= x (m/s²)		OK	0.879	Celiwe Sokhela - 491462	Train
10377	I	25km/h Speed limit in Reverse Direction		OK		Mbavhalelo Funyufunyu - 484649	Train
10378	A	Active Cab in TC1		OK		Mbavhalelo Funyufunyu - 484649	Train
10379	A	Select Driving Mode to EFFORT position		OK		Mbavhalelo Funyufunyu - 484649	Train
10380	A	Put the direction selector switch in REVERSE position		OK		Mbavhalelo Funyufunyu - 484649	Train
10381	A	Put the Master controller in 100% Traction position		OK		Mbavhalelo Funyufunyu - 484649	Train
10382	R	The maximum train speed reached is 25km/h		OK		Mbavhalelo Funyufunyu - 484649	Train
10383	A	Put the Master controller in OFF position		OK		Mbavhalelo Funyufunyu - 484649	Train
10384	R	The train comes to a complete stop		OK		Mbavhalelo Funyufunyu - 484649	Train

10385	A	Put the direction selector switch in NEUTRAL position		OK		Mbavhalelo Funyufunyu - 484649	Train
10386	A	Remove active cab in TC1		OK		Mbavhalelo Funyufunyu - 484649	Train
10387	I	25km/h Speed limit in Reverse Direction		OK		Mbavhalelo Funyufunyu - 484649	Train
10388	A	Active Cab in TC2		OK		Mbavhalelo Funyufunyu - 484649	Train
10389	A	Select Driving Mode to EFFORT position		OK		Mbavhalelo Funyufunyu - 484649	Train
10390	A	Put the direction selector switch in REVERSE position		OK		Mbavhalelo Funyufunyu - 484649	Train
10391	A	Put the Master controller in 100% Traction position		OK		Mbavhalelo Funyufunyu - 484649	Train
10392	R	The maximum train speed reached is 25km/h		OK		Mbavhalelo Funyufunyu - 484649	Train
10393	A	Put the Master controller in OFF position		OK		Mbavhalelo Funyufunyu - 484649	Train
10394	R	The train comes to a complete stop		OK		Mbavhalelo Funyufunyu - 484649	Train
10395	A	Put the direction selector switch in NEUTRAL position		OK		Mbavhalelo Funyufunyu - 484649	Train
10396	I	DEPOT mode speed limit TC1		OK		Mbavhalelo Funyufunyu - 484649	Train
10397	A	Put the driving mode switch in DEPOT position		OK		Mbavhalelo Funyufunyu - 484649	Train
10398	A	Put the direction selector switch in FORWARD position		OK		Mbavhalelo Funyufunyu - 484649	Train
10399	A	Put the Master controller in 100% Traction position		OK		Mbavhalelo Funyufunyu - 484649	Train
10400	R	The maximum train speed reached is 15km/h		OK		Mbavhalelo Funyufunyu - 484649	Train
10401	A	Put the Master controller in OFF position		OK		Mbavhalelo Funyufunyu - 484649	Train
10402	R	The train comes to a complete stop		OK		Mbavhalelo Funyufunyu - 484649	Train
10403	A	Put the direction selector switch in NEUTRAL position		OK		Mbavhalelo Funyufunyu - 484649	Train
10404	I	DEPOT mode speed limit TC2		OK		Mbavhalelo Funyufunyu - 484649	Train
10405	A	Active cab on TC2		OK		Mbavhalelo Funyufunyu - 484649	Train

10406	A	Put the driving mode switch in DEPOT position		OK		Mbavhalelo Funyufunyu - 484649	Train
10407	A	Put the direction selector switch in FORWARD position		OK		Mbavhalelo Funyufunyu - 484649	Train
10408	A	Put the Master controller in 100% Traction position		OK		Mbavhalelo Funyufunyu - 484649	Train
10409	R	The maximum train speed reached is 15km/h		OK		Mbavhalelo Funyufunyu - 484649	Train
10410	A	Put the Master controller in OFF position		OK		Mbavhalelo Funyufunyu - 484649	Train
10411	R	The train comes to a complete stop		OK		Mbavhalelo Funyufunyu - 484649	Train
10412	A	Put the direction selector switch in NEUTRAL position		OK		Mbavhalelo Funyufunyu - 484649	Train
10413	A	Remove active cab on TC2		OK		Mbavhalelo Funyufunyu - 484649	Train
10414	I	Doors		OK		Celiwe Sokhela - 491462	Train
10415	I	Test 04 - PEA activation and override within timeout [PRASA-40-Val-2]		OK		Celiwe Sokhela - 491462	Train
10416	A	Put the Master controller in TRACTION position and accelerate the train up to 10km/h		OK		Celiwe Sokhela - 491462	Train
10417	A	Press Left and Right Door Authorization Buttons (50S6 and 50S5)		OK		Celiwe Sokhela - 491462	Train
10418	R	When train is running above 5km/h it is not possible to get Door Authorization.		OK		Celiwe Sokhela - 491462	Train
10419	A	Pull any PEA on the train		OK		Celiwe Sokhela - 491462	Train
10420	A	Before 10s elapses with PEA pulled, press the button 44S5 to override the PEA		OK		Celiwe Sokhela - 491462	Train
10421	R	TA lamp is ON		OK		Celiwe Sokhela - 491462	Train
10422	A	Apply brake until the complete stop of the Train.		OK		Celiwe Sokhela - 491462	Train
10423	A	Reset PEA using the switch 44S6		OK		Celiwe Sokhela - 491462	Train
10424	I	Test 06 - PEA activation with timeout respected [PRASA-40-Val-1]		OK		Celiwe Sokhela - 491462	Train
10425	A	Put the Master controller in TRACTION position and accelerate the train up to		OK		Celiwe Sokhela - 491462	Train

		10km/h					
10426	A	Pull another PEA on the train		OK		Celiwe Sokhela - 491462	Train
10427	R	After 10s with PEA pulled, Emergency Brakes should be applied.		OK		Celiwe Sokhela - 491462	Train
10428	A	Put the Master controller in OFF position		OK		Celiwe Sokhela - 491462	Train
10429	A	Press the button 54S3 twice to acknowledge the PEA		OK		Celiwe Sokhela - 491462	Train
10430	A	Reset PEA using the switch 44S6		OK		Celiwe Sokhela - 491462	Train
10431	A	Release Emergency Brakes		OK		Celiwe Sokhela - 491462	Train
10432	I	Test 05 - PEA activation with Train speed lower than 5 km/h [PRASA-40-Val-4]		OK		Celiwe Sokhela - 491462	Train
10433	A	Put the Master controller in TRACTION position, pull any PEA on the train before the train speed reaches 5km/h		OK		Celiwe Sokhela - 491462	Train
10434	R	An alarm appears on DDU screen warning that a PEA was pulled		OK		Celiwe Sokhela - 491462	Train
10435	R	TA lamp turns OFF		OK		Celiwe Sokhela - 491462	Train
10436	R	Emergency Brake is applied		OK		Celiwe Sokhela - 491462	Train
10437	A	Press the button 54S3 twice to acknowledge the PEA		OK		Celiwe Sokhela - 491462	Train
10438	A	Reset the PEA using switch 44S6		OK		Celiwe Sokhela - 491462	Train
10439	A	Open and close the doors on the side where the PEA was pulled		OK		Celiwe Sokhela - 491462	Train
10440	R	All doors are closed on DDU screen		OK		Celiwe Sokhela - 491462	Train
10441	A	Put the Master controller in OFF position		OK		Celiwe Sokhela - 491462	Train
10442	A	Reset Emergency Brakes		OK		Celiwe Sokhela - 491462	Train
10443	I	Test 07 - PEA activation with reset PEA switch permanently active [PRASA-40-Val-3]		OK		Celiwe Sokhela - 491462	Train
10444	A	Force [TT] (MPU1)Io_ubk_tc1resetpea = 1.0		OK		Celiwe Sokhela - 491462	Train
10445	A	Accelerate the train up to 10 km/h.		OK		Celiwe Sokhela - 491462	Train

10446	A	Pull any in TC1 car, but not till its final position		OK		Celiwe Sokhela - 491462	Train
10447	I	The lamp 44H1 (Emergency Brake Interlock Open) turns ON.		OK		Celiwe Sokhela - 491462	Train
10448	R	Read Defined Variable [TT] (MPU1)li_ubk_tc1pealoop = 1.0		OK	1	Celiwe Sokhela - 491462	Train
10449	R	Read Defined Variable [TT] (MPU1)li_dor_tc1alldoorsclosedr1 = 0.0		OK	0	Celiwe Sokhela - 491462	Train
10450	R	Read Defined Variable [TT] (MPU1)li_dor_tc1alldoorsclosedr2 = 0.0		OK	0	Celiwe Sokhela - 491462	Train
10451	R	An alarm appears on DDU screen warning that a PEA was pulled.		OK		Celiwe Sokhela - 491462	Train
10452	I	The lamp 31H1 (Traction Authorized) turns OFF.		OK		Celiwe Sokhela - 491462	Train
10453	R	Traction effort bar graph is indicating no effort on the line voltage module		OK		Celiwe Sokhela - 491462	Train
10454	R	Read Defined Variable [TT] (MPU1)lo_drc_tc1tractionloopr2 = 0.0		OK	0	Celiwe Sokhela - 491462	Train
10455	R	Read Defined Variable [TT] (MPU1)lo_drc_tc1tractionloopr1 = 0.0		OK	0	Celiwe Sokhela - 491462	Train
10456	A	After 10 seconds that PEA has been pulled check that:		OK		Celiwe Sokhela - 491462	Train
10457	R	Read Defined Variable [TT] UBK_EmgcyBrkApld = 1.0		OK	1	Celiwe Sokhela - 491462	Train
10458	I	The lamp 44H4 (Emergency Brake Loop) turns ON.		OK		Celiwe Sokhela - 491462	Train
10459	R	Read Defined Variable [TT] (MPU1)bcu1_tlneb = 0.0		OK	0	Celiwe Sokhela - 491462	Train
10460	A	Release [TT] (MPU1)lo_ubk_tc1resetpea		OK		Celiwe Sokhela - 491462	Train
10461	R	The lamp 51H1 turns OFF (door closed and locked).		OK		Celiwe Sokhela - 491462	Train
10462	A	Set Passenger Emergency Alarm Reset Switch (44S6) to "Reset" position.		OK		Celiwe Sokhela - 491462	Train
10463	R	PEA alarm signal is reset.		OK		Celiwe Sokhela - 491462	Train
10464	A	Move Master Controller Handle (30A1) to "OFF" position.		OK		Celiwe Sokhela - 491462	Train

10465	A	Reset the emergency brake setting the direction switch (S2.2) to "NEUTRAL" and then to "FORWARD" position again.		OK		Celiwe Sokhela - 491462	Train
10466	R	Read Defined Variable [TT] UBK_EmgcyBrkApld = 0.0		OK	0	Celiwe Sokhela - 491462	Train
10467	I	The lamp 44H4 (Emergency Brake Loop) turns OFF.		OK		Celiwe Sokhela - 491462	Train
10468	R	Read Defined Variable [TT] (MPU1)bcu1_tlneb = 1.0		OK	1	Celiwe Sokhela - 491462	Train
10469	I	The lamp 31H1 (Traction Authorized) turns ON.		OK		Celiwe Sokhela - 491462	Train
10470	R	Read Defined Variable [TT] (MPU1)lo_drc_tc1tractionloopr1 = 1.0		OK	1	Celiwe Sokhela - 491462	Train
10471	R	Read Defined Variable [TT] (MPU1)lo_drc_tc1tractionloopr2 = 1.0		OK	1	Celiwe Sokhela - 491462	Train
10472	I	Test 08 - Safety Requirement [PRASA-34A-a]		OK		Celiwe Sokhela - 491462	Train
10473	I	On the beginning the Train shall be stationary.		OK		Celiwe Sokhela - 491462	Train
10474	A	Force [TT] (MPU1)lo_ets_tc2rstotdrr1 = 1.0		OK		Celiwe Sokhela - 491462	Train
10475	A	Force [TT] (MPU1)lo_ets_tc2rstotdrr2 = 1.0		OK		Celiwe Sokhela - 491462	Train
10476	R	Check on DDU that the On-board Train Data Recorder is offline		OK		Celiwe Sokhela - 491462	Train
10477	R	Read Defined Variable [TT] (MPU1)li_rec_tc1thresholdfive1 = 0.0		OK	0	Celiwe Sokhela - 491462	Train
10478	R	Read Defined Variable [TT] (MPU1)li_rec_tc1thresholdfive2 = 0.0		OK	0	Celiwe Sokhela - 491462	Train
10479	R	Read Defined Variable [TT] (MPU1)li_rec_tc2thresholdfive1 = 0.0		OK	0	Celiwe Sokhela - 491462	Train
10480	R	Read Defined Variable [TT] (MPU1)li_rec_tc2thresholdfive2 = 0.0		OK	0	Celiwe Sokhela - 491462	Train
10481	R	Read Defined Variable [TT] (BCU2)LO_SPEED_THRSLD1 = 1.0		OK	1	Celiwe Sokhela - 491462	Train
10482	A	Accelerate the Train up to 4km/h.		OK		Celiwe Sokhela - 491462	Train

10483	R	Read Defined Variable [TT] (BCU2)LO_SPEED_THRSLD1 = 0.0		OK	0	Celiwe Sokhela - 491462	Train
10484	A	Accelerate the Train up to 10km/h.		OK		Celiwe Sokhela - 491462	Train
10485	R	Read Defined Variable [TT] (MPU1)li_rec_tc1thresholdfive1 = 0.0		OK	0	Celiwe Sokhela - 491462	Train
10486	R	Read Defined Variable [TT] (MPU1)li_rec_tc1thresholdfive2 = 0.0		OK	0	Celiwe Sokhela - 491462	Train
10487	R	Read Defined Variable [TT] (MPU1)li_rec_tc2thresholdfive1 = 0.0		OK	0	Celiwe Sokhela - 491462	Train
10488	R	Read Defined Variable [TT] (MPU1)li_rec_tc2thresholdfive2 = 0.0		OK	0	Celiwe Sokhela - 491462	Train
10489	R	Read Defined Variable [TT] (BCU2)LO_SPEED_THRSLD1 = 0.0		OK	0	Celiwe Sokhela - 491462	Train
10490	R	Read Defined Variable [TT] (MPU1)REC_Speed5ThresholdFail = 1.0		OK	1	Celiwe Sokhela - 491462	Train
10491	A	Apply brake until the complete stop of the Train.		OK		Celiwe Sokhela - 491462	Train
10492	R	Read Defined Variable [TT] (BCU2)LO_SPEED_THRSLD1 = 1.0		OK	1	Celiwe Sokhela - 491462	Train
10493	R	The OTDR is maintained OFF.		OK		Celiwe Sokhela - 491462	Train
10494	A	Release [TT] (MPU1)lo_ets_tc2rstotdrr1		OK		Celiwe Sokhela - 491462	Train
10495	R	The OTDR is turned ON.		OK		Celiwe Sokhela - 491462	Train
10496	I	Test 09 - Safety Requirement [PRASA-23-Val-2]		OK		Celiwe Sokhela - 491462	Train
10497	I	On the beginning the Train shall be stationary.		OK		Celiwe Sokhela - 491462	Train
10498	A	Force [TT] (BCU2)LO_SPEED_THRSLD1 = 0.0		OK		Celiwe Sokhela - 491462	Train
10499	R	Read Undefined Variable [TT] (MPU1)DCU1_TC1_HwIOStatus		OK	4660	Celiwe Sokhela - 491462	Train
10500	I	TrainTracer gives a numerical information through the variable "DCU1_TC1_HwIOStatus". In order to check the state of the bits 2 and 8, with the help of a programable calculator (use the computer's one), change the numerical information to a word information and read the state of these		OK		Celiwe Sokhela - 491462	Train

		bits.					
10501	R	DCU1_TC1_HwIOStatus.bit2 = 1		OK		Celiwe Sokhela - 491462	Train
10502	R	DCU1_TC1_HwIOStatus.bit8 = 0		OK		Celiwe Sokhela - 491462	Train
10503	R	Read Defined Variable [TT] (MPU1)li_rec_tc1thresholdfive1 = 0.0		OK	0	Celiwe Sokhela - 491462	Train
10504	R	Read Defined Variable [TT] (MPU1)li_rec_tc1thresholdfive2 = 0.0		OK	0	Celiwe Sokhela - 491462	Train
10505	R	Read Defined Variable [TT] (MPU1)li_rec_tc2thresholdfive1 = 0.0		OK	0	Celiwe Sokhela - 491462	Train
10506	R	Read Defined Variable [TT] (MPU1)li_rec_tc2thresholdfive2 = 0.0		OK	0	Celiwe Sokhela - 491462	Train
10507	A	Accelerate the Train up to 10km/h and check the variable "DCU1_TC1_HwIOStatus" as soon as the speed overpasses 5km/h (according to DDU's speed value).		OK		Celiwe Sokhela - 491462	Train
10508	R	Read Undefined Variable [TT] (MPU1)DCU1_TC1_HwIOStatus		OK	4656	Celiwe Sokhela - 491462	Train
10509	R	DCU1_TC1_HwIOStatus.bit2 = 0		OK		Celiwe Sokhela - 491462	Train
10510	R	DCU1_TC1_HwIOStatus.bit8 = 1		OK		Celiwe Sokhela - 491462	Train
10511	R	Read Defined Variable [TT] (MPU1)li_rec_tc1thresholdfive1 = 1.0		OK	1	Celiwe Sokhela - 491462	Train
10512	R	Read Defined Variable [TT] (MPU1)li_rec_tc1thresholdfive2 = 1.0		OK	1	Celiwe Sokhela - 491462	Train
10513	R	Read Defined Variable [TT] (MPU1)li_rec_tc2thresholdfive1 = 1.0		OK	1	Celiwe Sokhela - 491462	Train
10514	R	Read Defined Variable [TT] (MPU1)li_rec_tc2thresholdfive2 = 1.0		OK	1	Celiwe Sokhela - 491462	Train
10515	I	Test 10 - Safety Requirement [PRASA-23-Val-1]		OK		Celiwe Sokhela - 491462	Train
10516	R	Read Undefined Variable [TT] (MPU1)DCU1_TC1_HwIOStatus		OK	4912	Celiwe Sokhela - 491462	Train
10517	R	DCU1_TC1_HwIOStatus.bit2 = 1		OK		Celiwe Sokhela - 491462	Train
10518	R	DCU1_TC1_HwIOStatus.bit8 = 0		OK		Celiwe Sokhela - 491462	Train

10519	A	Release [TT] (BCU2)LO_SPEED_THRSLD1		OK		Celiwe Sokhela - 491462	Train
10520	I	Test 11 - Safety Requirement [PRASA-23-Val-4]		OK		Celiwe Sokhela - 491462	Train
10521	I	In case it is not possible to go further at the same direction, change cab and perform the tests with the opposite cab active.		OK		Celiwe Sokhela - 491462	Train
10522	A	Force [TT] (BCU1)LO_SPEED_THRSLD1 = 1.0		OK		Celiwe Sokhela - 491462	Train
10523	A	Force [TT] (BCU2)LO_SPEED_THRSLD1 = 1.0		OK		Celiwe Sokhela - 491462	Train
10524	R	Relay 61k3 permanently supplied in all cars.		OK		Celiwe Sokhela - 491462	Train
10525	R	DCU1_TC1_HwIOStatus.bit2 = 1		OK		Celiwe Sokhela - 491462	Train
10526	R	DCU1_TC1_HwIOStatus.bit8 = 0		OK		Celiwe Sokhela - 491462	Train
10527	I	TrainTracer gives a numerical information through the variable "DCU1_TC1_DiagData1". In order to check the state of the bits 22 and 23, with the help of a programable calculator (use the computer's one), change the numerical information to a Dword information and read the state of these bits.		OK		Celiwe Sokhela - 491462	Train
10528	R	Read Undefined Variable [TT] (MPU1)DCU1_TC1_DiagData1		OK	0	Celiwe Sokhela - 491462	Train
10529	R	DCU1_TC1_DiagData1.bit22 = 0		OK		Celiwe Sokhela - 491462	Train
10530	R	DCU1_TC1_DiagData1.bit23 = 0		OK		Celiwe Sokhela - 491462	Train
10531	A	Accelerate the Train up to 10km/h and check the status of the variables "DCU1_TC1_HwIOStatus" and "DCU1_TC1_DiagData1" when the speed overpasses 5km/h (according to DDU's speed value).		OK		Celiwe Sokhela - 491462	Train
10532	R	Read Undefined Variable [TT] (MPU1)DCU1_TC1_HwIOStatus		OK	4912	Celiwe Sokhela - 491462	Train
10533	R	DCU1_TC1_HwIOStatus.bit2 = 1		OK		Celiwe Sokhela - 491462	Train
10534	R	DCU1_TC1_HwIOStatus.bit8 = 1		OK		Celiwe Sokhela - 491462	Train

10535	R	Read Undefined Variable [TT] (MPU1)DCU1_TC1_DiagData1		OK	0	Celiwe Sokhela - 491462	Train
10536	R	DCU1_TC1_DiagData1.bit22 = 1		OK		Celiwe Sokhela - 491462	Train
10537	R	DCU1_TC1_DiagData1.bit23 = 0		OK		Celiwe Sokhela - 491462	Train
10538	A	Force [TT] (MPU1)OTDR_5kphSpeedFlt = 1.0		OK		Celiwe Sokhela - 491462	Train
10539	R	Check on DDU screen the appearance of an IOS (838) requiring a reparation at the end of the day.		OK		Celiwe Sokhela - 491462	Train
10540	A	Release [TT] (MPU1)OTDR_5kphSpeedFlt		OK		Celiwe Sokhela - 491462	Train
10541	A	Release [TT] (BCU1)LO_SPEED_THRSLD1		OK		Celiwe Sokhela - 491462	Train
10542	A	Release [TT] (BCU2)LO_SPEED_THRSLD1		OK		Celiwe Sokhela - 491462	Train
10543	A	Brake the train until its complete stop.		OK		Celiwe Sokhela - 491462	Train
10544	I	Test 12 - Safety Requirement [PRASA-23-Val-5]		OK		Celiwe Sokhela - 491462	Train
10545	A	For the following test use OTDR web portal to force the speed of above 5km/h		OK		Celiwe Sokhela - 491462	Train
10546	R	Relays 61k1 permanently supplied in all cars plus relays 61k2 in TC1 and TC2 cars.		OK		Celiwe Sokhela - 491462	Train
10547	R	Read Undefined Variable [TT] (MPU1)DCU1_TC1_HwIOStatus		OK	4660	Celiwe Sokhela - 491462	Train
10548	R	DCU1_TC1_HwIOStatus.bit2 = 1		OK		Celiwe Sokhela - 491462	Train
10549	R	DCU1_TC1_HwIOStatus.bit8 = 1		OK		Celiwe Sokhela - 491462	Train
10550	R	Read Defined Variable [TT] (MPU1)li_rec_tc1thresholdfive1 = 1.0		OK	1	Celiwe Sokhela - 491462	Train
10551	R	Read Defined Variable [TT] (MPU1)li_rec_tc2thresholdfive1 = 1.0		OK	1	Celiwe Sokhela - 491462	Train
10552	R	Check on DDU screen the appearance of an IOS (839) requiring a reparation at the end of the day.		OK		Celiwe Sokhela - 491462	Train
10553	R	Read Defined Variable [TT] (MPU1)DOR_FDcuSpeedThr = 1.0		OK	1	Celiwe Sokhela - 491462	Train
10554	A	Accelerate the Train up to 10km/h.		OK		Celiwe Sokhela - 491462	Train

10555	R	Read Undefined Variable [TT] (MPU1)DCU1_TC1_HwIOStatus		OK	4660	Celiwe Sokhela - 491462	Train
10556	R	DCU1_TC1_HwIOStatus.bit2 = 0		OK		Celiwe Sokhela - 491462	Train
10557	R	DCU1_TC1_HwIOStatus.bit8 = 1		OK		Celiwe Sokhela - 491462	Train
10558	R	Read Undefined Variable [TT] (MPU1)DCU1_TC1_DiagData1		OK	0	Celiwe Sokhela - 491462	Train
10559	R	DCU1_TC1_DiagData1.bit22 = 0		OK		Celiwe Sokhela - 491462	Train
10560	R	DCU1_TC1_DiagData1.bit23 = 0		OK		Celiwe Sokhela - 491462	Train
10561	R	Read Defined Variable [TT] (MPU1)li_rec_tc1thresholdfive1 = 1.0		OK	1	Celiwe Sokhela - 491462	Train
10562	R	Read Defined Variable [TT] (MPU1)li_rec_tc2thresholdfive1 = 1.0		OK	1	Celiwe Sokhela - 491462	Train
10563	A	Decelerate the Train untill comes to a complete stop and check the status of the variables "DCU1_TC1_HwIOStatus" and "DCU1_TC1_DiagData1" as soon as the speed is below 5km/h.		OK		Celiwe Sokhela - 491462	Train
10564	R	Read Undefined Variable [TT] (MPU1)DCU1_TC1_HwIOStatus		OK	4656	Celiwe Sokhela - 491462	Train
10565	R	DCU1_TC1_HwIOStatus.bit2 = 0, if 5km/h > train speed > 3km/h.		OK		Celiwe Sokhela - 491462	Train
10566	R	DCU1_TC1_HwIOStatus.bit2 = 1, if train speed < 3km/h.		OK		Celiwe Sokhela - 491462	Train
10567	R	DCU1_TC1_HwIOStatus.bit8 = 1		OK		Celiwe Sokhela - 491462	Train
10568	R	Read Undefined Variable [TT] (MPU1)DCU1_TC1_DiagData1		OK	0	Celiwe Sokhela - 491462	Train
10569	R	DCU<i>_<car>_DiagData1.bit22 = 0		OK		Celiwe Sokhela - 491462	Train
10570	R	DCU<i>_<car>_DiagData1.bit23 = 1		OK		Celiwe Sokhela - 491462	Train
10571	R	Read Defined Variable [TT] (MPU1)li_rec_tc1thresholdfive1 = 0.0		OK	0	Celiwe Sokhela - 491462	Train
10572	R	Read Defined Variable [TT] (MPU1)li_rec_tc2thresholdfive1 = 0.0		OK	0	Celiwe Sokhela - 491462	Train
10573	R	Read Defined Variable [TT] (MPU1)DOR_FDcuSpeedThr = 0.0		OK	0	Celiwe Sokhela - 491462	Train

10574	I	Rescue Mode and Emergency Disconnection		OK		Celiwe Sokhela - 491462	Train
10575	I	BACKUP MODE		OK		Mbavhalelo Funyufunyu - 484649	Train
10576	A	Active cab in TC1		OK		Mbavhalelo Funyufunyu - 484649	Train
10577	A	Put the backup mode switch 27S1 in Backup position		OK		Mbavhalelo Funyufunyu - 484649	Train
10578	A	Put the Driving Direction Switch to FORWARD position		OK		Mbavhalelo Funyufunyu - 484649	Train
10579	A	Hold pressed the "Master's Deadman Device (30A1.S4)" and move "Master Controller handle (30A1)" to initial "Traction" zone position.		OK		Mbavhalelo Funyufunyu - 484649	Train
10580	I	Low tractive effort demand is requested.		OK		Mbavhalelo Funyufunyu - 484649	Train
10581	R	Although the low tractive effort demand has been requested, the Train moves with a standard tractive demand		OK		Mbavhalelo Funyufunyu - 484649	Train
10582	A	Move "Master Controller (30A1)" handle to extreme "Traction" zone position		OK		Mbavhalelo Funyufunyu - 484649	Train
10583	R	Verify that there wasn't an impact on train movement and the tractive demand was maintained		OK		Mbavhalelo Funyufunyu - 484649	Train
10584	A	Release the Master's Deadman Device (30A1.S4) for more than 5 seconds		OK		Mbavhalelo Funyufunyu - 484649	Train
10585	R	Train applies emergency brake		OK		Mbavhalelo Funyufunyu - 484649	Train
10586	I	The Deadman device must remain pressed to allow traction in backup mode, otherwise the emergency brake loop is opened when the timer relay expire.		OK		Mbavhalelo Funyufunyu - 484649	Train
10587	A	Set the master controller to "OFF" position.		OK		Mbavhalelo Funyufunyu - 484649	Train
10588	A	Set the Driving Direction Switch to NEUTRAL and then to FORWARD position again		OK		Mbavhalelo Funyufunyu - 484649	Train
10589	R	Emergency brake released on Train.		OK		Mbavhalelo Funyufunyu - 484649	Train
10590	I	From now on, when operating the master controller don't forget to maintain anyone of the deadman devices pressed.		OK		Mbavhalelo Funyufunyu - 484649	Train

10591	A	Move "Master Controller (30A1)" handle to "Traction" zone position.		OK		Mbavhalelo Funyufunyu - 484649	Train
10592	R	Train starts to move.		OK		Mbavhalelo Funyufunyu - 484649	Train
10593	A	Keeping the Master's handle within traction zone, check that the train is capable to reach 25km/h.		OK		Mbavhalelo Funyufunyu - 484649	Train
10594	R	Verify that train reaches, but does not exceed the speed of 25km/h.		OK		Mbavhalelo Funyufunyu - 484649	Train
10595	I	On Backup mode, train speed is limited to 25km/h.		OK		Mbavhalelo Funyufunyu - 484649	Train
10596	A	Move "Master Controller (30A1)" handle to initial "Brake" zone position.		OK		Mbavhalelo Funyufunyu - 484649	Train
10597	I	Low brake effort demand is requested.		OK		Mbavhalelo Funyufunyu - 484649	Train
10598	R	Verify that the train starts to brake with a standard brake effort.		OK		Mbavhalelo Funyufunyu - 484649	Train
10599	A	Move "Master Controller (30A1)" handle to extreme "Brake" zone position (stop before achieving "Emergency Brake" position).		OK		Mbavhalelo Funyufunyu - 484649	Train
10600	I	High brake effort demand is requested.		OK		Mbavhalelo Funyufunyu - 484649	Train
10601	R	Verify that there wasn't an impact on train movement, and the brake demand was maintained.		OK		Mbavhalelo Funyufunyu - 484649	Train
10602	I	On Backup Mode, brake system considers a single brake demand and disregards master controller handle position within brake zone.		OK		Mbavhalelo Funyufunyu - 484649	Train
10603	R	Train stops.		OK		Mbavhalelo Funyufunyu - 484649	Train
10604	I	BACKUP MODE TC2		OK		Mbavhalelo Funyufunyu - 484649	Train
10605	A	Active cab in TC2		OK		Mbavhalelo Funyufunyu - 484649	Train
10606	A	Press the automatic start button 20S1 to prepare the train in high voltage		OK		Mbavhalelo Funyufunyu - 484649	Train
10607	R	After few seconds, the train is prepared in high voltage with HSCBs closed		OK		Mbavhalelo Funyufunyu - 484649	Train
10608	A	Put the backup mode switch 27S1 in Backup position		OK		Mbavhalelo Funyufunyu - 484649	Train

10609	A	Put the Driving Direction Switch to FORWARD position		OK		Mbavhalelo Funyufunyu - 484649	Train
10610	A	Hold pressed the "Master's Deadman Device (30A1.S4)" and move "Master Controller handle (30A1)" to initial "Traction" zone position.		OK		Mbavhalelo Funyufunyu - 484649	Train
10611	I	Low tractive effort demand is requested.		OK		Mbavhalelo Funyufunyu - 484649	Train
10612	R	Although the low tractive effort demand has been requested, the Train moves with a standard tractive demand		OK		Mbavhalelo Funyufunyu - 484649	Train
10613	A	Move "Master Controller (30A1)" handle to extreme "Traction" zone position		OK		Mbavhalelo Funyufunyu - 484649	Train
10614	R	Verify that there wasn't an impact on train movement and the tractive demand was maintained		OK		Mbavhalelo Funyufunyu - 484649	Train
10615	A	Release the Master's Deadman Device (30A1.S4) for more than 5 seconds		OK		Mbavhalelo Funyufunyu - 484649	Train
10616	R	Train applies emergency brake		OK		Mbavhalelo Funyufunyu - 484649	Train
10617	I	The Deadman device must remain pressed to allow traction in backup mode, otherwise the emergency brake loop is opened when the timer relay expire.		OK		Mbavhalelo Funyufunyu - 484649	Train
10618	A	Set the master controller to "OFF" position.		OK		Mbavhalelo Funyufunyu - 484649	Train
10619	A	Set the Driving Direction Switch to NEUTRAL and then to FORWARD position again		OK		Mbavhalelo Funyufunyu - 484649	Train
10620	R	Emergency brake released on Train.		OK		Mbavhalelo Funyufunyu - 484649	Train
10621	I	From now on, when operating the master controller don't forget to maintain anyone of the deadman devices pressed.		OK		Mbavhalelo Funyufunyu - 484649	Train
10622	A	Move "Master Controller (30A1)" handle to "Traction" zone position.		OK		Mbavhalelo Funyufunyu - 484649	Train
10623	R	Train starts to move.		OK		Mbavhalelo Funyufunyu - 484649	Train
10624	A	Keeping the Master's handle within traction zone, check that the train is capable to reach 25km/h.		OK		Mbavhalelo Funyufunyu - 484649	Train

10625	R	Verify that train reaches, but does not exceed the speed of 25km/h.		OK		Mbavhalelo Funyufunyu - 484649	Train
10626	I	On Backup mode, train speed is limited to 25km/h.		OK		Mbavhalelo Funyufunyu - 484649	Train
10627	A	Move "Master Controller (30A1)" handle to initial "Brake" zone position.		OK		Mbavhalelo Funyufunyu - 484649	Train
10628	I	Low brake effort demand is requested.		OK		Mbavhalelo Funyufunyu - 484649	Train
10629	R	Verify that the train starts to brake with a standard brake effort.		OK		Mbavhalelo Funyufunyu - 484649	Train
10630	A	Move "Master Controller (30A1)" handle to extreme "Brake" zone position (stop before achieving "Emergency Brake" position).		OK		Mbavhalelo Funyufunyu - 484649	Train
10631	I	High brake effort demand is requested.		OK		Mbavhalelo Funyufunyu - 484649	Train
10632	R	Verify that there wasn't an impact on train movement, and the brake demand was maintained.		OK		Mbavhalelo Funyufunyu - 484649	Train
10633	I	On Backup Mode, brake system considers a single brake demand and disregards master controller handle position within brake zone.		OK		Mbavhalelo Funyufunyu - 484649	Train
10634	R	Train stops.		OK		Mbavhalelo Funyufunyu - 484649	Train
10635	I	End of Test		OK		Mbavhalelo Funyufunyu - 484649	Train

Section 3 – Report summaries

3.1 Results status

Test Instruction Sheet	Compliant	Incomplete	Non-compliant
Dynamic	X		

3.2 Tools used

Function	Tool name	Tool number	Next Calibration date

Vehicle	Equipment	Expected version	Version loaded
Train			