

Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

all (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Danast Number	20160222	A/NAATA AD 1	
inspection bate	2016	02	22	Report Number	20160222-1	WMATA-AD-1	
Rail Agency Name	Washington I Authority	Metropolitan A	rea Transit	Rail Agency Department	Rail Transportation	Sub- Department	New Carrolton Yard
Rail Agency Department	<u> </u>	Name		Email	Office Pl	none	Mobile Phone
Contact Information							
spection Location	New Carrolto	n Rail Yard – 4	700 Garden Ci	ty Drive, Hyattsville, MD	20785		

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	RTRA-RC-OBS	RTRA-RAD-OBS	RTRA-ST-OBS			
Inspection Units	1	1	1			
Inspection Subunits	1	1	1			
Defects (Number)	2	2	3			
Recommended Finding	No	No	No			
Remedial Action Required	No	No	No			
Recommended Reinspection	Yes	Yes	Yes			

Activity Summaries

Inspection Activity #	1	Inspec	tion Subjec	t Pre-1	rip Ins	spections				Activity Co	ode	RTR	A	RC	OBS
Job Briefing Employee Name/Title	1	ocking C Carrolton	operator n Yard		- 1	Accompanie Inspector?	d No		Out Brief Conducted	On 2/26/16	Time	4:00a 7:30a		Outside Shift	Yes
Related Reports					F	Related CAP	5 / Finding	zs							
	Ref			Rule or	SOP		Standard	<u></u>		Other / Title			Chec	klist Refere	nce
Related Rules, SOPs, Standards, or Other	1	H Section	•	3.13, 3. 3.42, ar		127, 3.41, 5									
	Mai Trac		Yard S	tation	осс	RTA Facility	FT.			At-gra	de	Tunnel	E	levated	N/A
Inspection Location			х			х			Track Type	Х					
Line(s)	Orang Silver	ge and	Tracl Num		Yard	Chain N and/or	larker Station(s)	ł		From				То	
	Nui	Head Ca	I	Numbe	er of Ca	ars									
Vehicles	902 602,	1Ds: 41 ,903, 61 905, 60 907, 91 921, 91	6,904, 3, 913, 6, 919,	Respectiv 6,6, 8, 6, 6,		, 0, 0,	ipment								

Inspector in Charge - Signature		Date
AMBUR I DALEY	Digitally signed by AMBIR I DALEY DNt = CLUS_ OF LOS Government Lou= DT Headquarters, ou=FMCSAHQ, cn=AMBUR I DALEY Date: 2016.02.22 1738:96-05'00'	
Inspector in Charge - Name	Ambur Daley,	



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

Agency/Department	Inform	nation	ì														
		Y	/ΥY	M	IM	[DD		Ni	20	10	0201 W		T\A/ ·	1		
Inspection Date		20	016	C)2	(01	Re	port Numb	per 20	TO	0201-WI	VIA I A	- I VV	т		
Rail Agency Name		Was Auth		Metrop	oolitan	Area Tra	ansit	- 1	il Agency partment	1		f Track uctures	Sub- Dep	artmen	t	RWP Con	nmittee
ail Agency Departmen	ıt			Name				1	Email			Office Phon	ie			Mobile Phor	ie
ontact Information	. •			D										9			
nspection Location		Jacks	son Gral	nam Bu	ilding	600 Fifth	h Stree	et, NW	Washington, ເ	OC 20001	C	dee (k	DC 6)			
nspection Summary																	
nspection Activity #			1			2	2		3			4		5			6
ctivity Code			TRK-GE	N-MTG													
nspection Units		1	1														
nspection Subunits		1	1														
Defects (Number)		1	C														
Recommended Finding			N	0												-	
Remedial Action Requi			N	D													
Recommended Reinspe			N	0												J	
Activity Summaries												,				,	
nspection Activity #	1	Inspe	ection S	ubject	RW	P Comm	nittee	Meeting	g			Activity Co	ode	TR	RK .	GEN	MTG
ob Briefing Employee			g, Gene dent Off		rack an	nd		npanied	No	Out Brief	1	No	Time	080		Outside Shift	No
Name/Title		tures				'	nspec	torr		Conducte	·u		<u> </u>				L
Related Reports	N/A					F	Relate	d CAPS	/ Findings	FTA-Rail-						18 18 6	
	Ref				Rule o	or SOP			Standard			Other / Title				klist Refere	nce
Related Rules, SOPs, Standards, or Other	N/A				N/A				N/A		1	N/A			N/A		
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,										т							
	Ma Tra	ain ack	Yard	Sta	ation	осс	:	RTA Facility	FTA Office	Track Ty	20	At-gra	ide	Tunnel	E	levated	·N/A
Inspection Location]						Х		I I dek Ty	Je						Χ
	+					<u> </u>	-					From				То	
	{			Track		}		Chain M	larker	N/A				N/A			
Line(s)	N/A			Numb		N/A	1 1		Station(s)								
	}					1											
<u> </u>	He	ead Car	Numbe	r	Num	ber of C	ars										
Vehicles		N/	′A			N/A		Equ	ipment								
	EVA			ed the F	Roadwa		er Pro	tection	(RWP) Comm	ittee Meeti	ng	Number	of Defe	ts			0
	that	was co	nvened	to disc	uss the	e impact	of the	e Green	belt Test Tracl	k on the RW	/P	Recomm	nended F	inding?	,		No
	Mai	nual. T	he Gree	nbelt To	est trac	ck is sche	eduled	d to ope	n in early Mar	ch for testi	ηg	Remedi	al Action	Requir	ed?		No
Description	SAF that	E, ROCO t states e" The	C, TRST, : "There Test Tra	OPMS, shall b ack is in	QAQC e no cl a thre	and oth earing o e track t	ner der of work territo	partmer kers or e ry which	nittee consister nts. At issue is equipment to n means work violation of tl	Cardinal Ru any track at ers on track	ile 6 any	Recomr	nended F	Reinspe	ction?	,	No
			iny cied	io ii di											Da	te	
Inspector in Charge - S	Signatı	ire _	TER	REI	LL /	4 W	ILL	_IAN	NS DN: c=U:	signed by TERRELL S, o=U.S. Governme IS 16.02.03 13:46:06 -	nt, ou	LIAMS =DOT Headquarters,	ou=FTAHQ, cn:	=TERRELL A	- 1	1/2016	
Inspector in Charge – Terrell Williams	Name			ction T		ledenia I	Dashi	ell									





	Rule. An exception to this rule must be written, included in the current RWP training and promulgated to all WMATA staff who work on track. The Test Track cannot open until the RWP language is revised. The WMATA Access Guide will also need modification to identify the Greenbelt Test Track as a "hot spot".	
Remedial Action	N/A	



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

all (b) (b)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160202	WMATA–JMC	. 1	
inspection Date	2016	02	02	Report Number	20160202-	VVIVIA I A—JIVIC	,- <u>T</u>	
Rail Agency Name	Washingtor Authority	Metropolitar	Area Transit	Rail Agency Department	Rail Transportation	Sub- Departmen	t	Interlocking Operator Office
Rail Agency Department					Office Ph	one	N	Nobile Phone
Contact Information								
Inspection Location	Greenbelt I	nterlocking Op	erator Office, 5	801 Sunnyside Avenue,	College Park, MD 2	0740		

Inspection Summary

Inspection Activity#	1	2	3	4	5	6
Activity Code	RTTO-GEN-MTG	ROCC-RPB-OBS				
Inspection Units	1	1				
Inspection Subunits	1	1				
Defects (Number)	0	0				
Recommended Finding	0	0				
Remedial Action Required	0	0				
Recommend Reinspection	0	0				

Activity Summaries

Inspection Activity #	1	insp	pection	Subject	G	Generall	Meeti	ng						Activi Code	•	R	πο	GEN	MTG
Job Briefing Employee Name/Title	N/A							ompanie ector?	d	N/A	Out Brief Conducted	d	Yes	Time		000- 300		itside hift	No
Related Reports							Rela	ted CAP	s/	Findings									
n. I. a. In. I. Con	Ref				Rule	e or SOP	,		St	tandard		01	ther/Tit	ile		Che	ecklis	Refere	nce
Related Rules, SOPs, Standards, or Other																			
												L				<u> </u>			
In an ation I and an	Ma Tra		Yard	St	ation	00	cc	RTA Facilit	у	FTA Office	Track Type		At-gr	ade	Tunne	el	Eleva	ted	N/A
Inspection Location]	Х								irack type								Х
Line(s)				Track Numb	er			Chain N	/lar	ker		Fr	rom				T	o	
	He	ad Ca	r Numb	er	Nun	mber of	Cars	T	_					-					
Vehicles								Equ	ıipr	nent									
	FWS	O Tea	m met v	vith the	first s	shift Inte	erlocki	ng Opera	tor	at Greenbe	It yard to		Numb	er of De	efects				0
	intro	duce	the tear	n. The t	eam d	dis cussed	d thei	r roles an	d re	esponsibiliti	es and		Recon	nmend	ed Findi	ng?		1	No
Description											ements. The ements in the	9	Reme	dial Act	ion Red	uired	!?	ľ	No
	yard					p. op c							Recon	nmend	Reinspo	ection	?		No
Remedial Action	N/A																		

Inspector in Charge - Signature	James Cassatt, Jr	Digitally signed by James Cassatt, Jr DN: cn=James Cassatt, Jr, o=FRA, ou=DOT, email=james.cassatt@dot.gov, c=US Date: 2016.02.03 12:56:41 -05'00'	Date Februrary 2, 2016
Inspector in Charge – Name James M. Cassatt	Inspection Team James M. Cassatt, Alexander Nepa, Terre	ell Williams, Stephen Slaughter, Medenia Dashiell	





Inspection Activity#	2	Inst	pection	Subject	Re	epeat B	Backs				-			Activ Code	•	R	осс	RPB	OBS
Job Briefing Employee Name/Title	N/A							ompanie ector?	d	N/A	Out Brief Conducted	t	Yes	Time	1	00 – 300	1	tside hift	No
Related Reports							Rela	ted CAP	s/	Findings									
	Ref				Rule	or SOP	,		St	andard		Oth	er/Tit	le		Ch	ecklist	Refere	nce
Related Rules, SOPs, Standards, or Other	MSR	PH			1.79														
Julian as, or other																			
	Ma Tra		Yard	Sta	ation	oc	cc	RTA Facilit	у	FTA Office	Track Type		At-gr	ade	Tunne	el	Eleva	ed	N/A
Inspection Location		,	Х								і пасктуре							1	Х
						\top						Fro	m				T	0	
Line(s)	N/A			Track Numbe	er			Chain I	Mar	ker					+				
	He	ad Ca	r Numb	er	Num	nber of	Cars												
Vehicles								Eq.	uipn	nent									
											ompliance wi	th	Numb	er of D	efects				0
	rule	1.79. 1)								oserved the	following: ard operator (<u>,,</u> [Recon	nmend	led Findi	ng?			No
		1)	the mo	vement	of his	train. H	lis rad	liotransr	nissi	ions include	d phonetic	"" [Reme	dial Ac	tion Rec	uired	1?		No
Description		2)	spelling to mov The co	g which t ing the e	the ya equipr was p	ird oper ment. persiste	rator p nt witl	oroperly i	repe	eated the tra	nsmission pr	- [Recor	nmend	l Reinspe	ection	1?		No
Remedial Action																			



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

ale (b)(6)

Agency/Department Information

A	2016 /ashingtor		02	1	, .	Report Num					\-TW -:	_		
A	/ashingtor				02		20.							
. }	uthority	n Metro	politan	n Area Tr	1	Rail Agency Department		reenb ird	elt Rail	ub- De	partmen	t	Vehicle Mainter	ance
· -		Name				Email			Office Phon	e		М	lobile Pho	ne
											1			
G	reenbelt F	Rail Yard	5801	Sunnysi	de Avenue	College Park, N	ID 20740							
		1			2	3			4		5			6
	VM-GE	N-MTG												
	:	1	_											
										ļ				
										-				
										-				
tion		10							-	L				
									т					1
1 Ins	spection S	ubject	Dis	cussion	of Rail Yard	Operations			Activity Co	de	VN	1	GEN	MT
N/A						d No			No	Time		l l	Outside Shift	No
N/A				F	Related CAP	S / Findings	N/A		· · · · · · · · · · · · · · · · · · ·					
Ref			Rule	or SOP		Standard			Other / Title			Checkli	ist Refere	nce
N/A			N/A			N/A		1	N/A			N/A		
Main Track	Yard	St	ation	осс	RTA Facilit	FTA y Office	Track Tv	/pe	At-grad	de	Tunnel	Elev	/ated	N/A
					х							,		X
									From				То	
N/A				N/A			N/A				N/A			
.,		Numb	er		and/or	Station(s)					-			
Head C	ar Numbe	er	Num	ber of Ca		uinment	N/A							
	N/A			N/A										
FWSO Ins	spection T	eam m	et with						Number	of Defe	cts			0
provided	an overvi	ew and	tour o	f the Gre			-	wno	Recomm	ended F	inding?		-	No
accompa	nied by th	ne Safet	y Office	er while t	touring the	Major Repair &	Overhaul,		Remedia	Action	Require	d?		No
provided area. The	an outsta e Greenbe	inding o	overviev is acco	w of the untable	capabilities for putting 1	and responsibi 126 rail cars int	lities of ead o service e	ch	Recomm	ended F	Reinspec	tion?		No
nature ,	TERI	REL	LA	WI	LLIA	MS DN: c=US,	o=U.S. Governm LL A WILLIAMS	nent, ou	LIAMS =DOT Headquarters,	ou=FTAHQ,		Date 2/2/2	016	
	N/A Ref N/A Main Track N/A Head C FWSO In: provided accompan provided area. The day and in the provided area.	N/A N/A N/A Main Track N/A Head Car Number N/A FWSO Inspection To provided an overvided and o	1 1 0 No Id No Id No Ition No 1 Inspection Subject N/A N/A Ref N/A Main Yard St Track Vard St N/A Head Car Number N/A FWSO Inspection Team m provided an overview and accompanied by the Safet Truck Shop, Service and Ir provided an outstanding of area. The Greenbelt Yard day and is responsible for nature TERREL TERREL TERREL	VM-GEN-MTG 1 1 0 No Ind No Inspection Subject Inspection Subject Dispection Subject N/A N/A N/A Track Number Num N/A FWSO Inspection Team met with Provided an overview and tour of accompanied by the Safety Office Truck Shop, Service and Inspection Truck Shop, Service and Inspection Truck Shop, Service and Inspection Team met with Inspection Team	VM-GEN-MTG 1 1 0 No	VM-GEN-MTG 1 1 0 No	VM-GEN-MTG 1 1 0 No No No No Ition No Inspection Subject Discussion of Rail Yard Operations Accompanied Inspector? No Related CAPS / Findings Ref Rule or SOP Standard N/A N/A N/A N/A Main Track Yard Station OCC RTA Facility Office X N/A N/A N/A N/A Track Number N/A Chain Marker and/or Station(s) Head Car Number Number of Cars N/A N/A N/A FWSO Inspection Team met with Truck Shop, Service and Inspection and Rail Car Maintenance shops. provided an outstanding overview of the capabilities and responsibiliarea. The Greenbelt Yard is accountable for putting 126 rail cars int day and is responsible for the commissioning of 7000 series rail cars intature TERRELL A WILLIAMS Digitally so Discussion of Rail Yard Operations Accompanied Inspection and Rail Car Maintenance shops. provided an outstanding overview of the capabilities and responsibiliarea. The Greenbelt Yard is accountable for putting 126 rail cars into day and is responsible for the commissioning of 7000 series rail cars into the Carlesker Chair Cha	VM-GEN-MTG 1 1 0 No No dd No tition No 1 Inspection Subject Discussion of Rail Yard Operations N/A Accompanied Inspector? N/A Related CAPS / Findings N/A Ref Rule or SOP Standard N/A N/A N/A Main Track N/A N/A N/A Main Track Number N/A Chain Marker and/or Station(s) Head Car Number Number of Cars N/A N/A FWSO Inspection Team met with accompanied by the Safety Office while touring the Major Repair & Overhaul, Truck Shop, Service and Inspection and Rail Car Maintenance shops. We were provided an outstanding overview of the capabilities and responsibilities of eararea. The Greenbelt Yard is accountable for putting 126 rail cars into service e day and is responsible for the commissioning of 7000 series rail cars. TERRELL A WILLIAMS Digitally signed by TERRELL ON TEAM ON TRANS DIGITAL SIGNED STANS DIGITAL SIGNED SIGNED STANS DIGITAL SIGNE	VM-GEN-MTG 1 1 0 No	VM-GEN-MTG 1 1 0 No No dd No tion No 1 Inspection Subject Discussion of Rail Yard Operations Activity Co 1 Inspection Subject Discussion of Rail Yard Operations N/A Accompanied Inspector? NO Related CAPS / Findings N/A Ref Rule or SOP Standard Other / Title N/A N/A N/A N/A N/A N/A N/A N/A	VM-GEN-MTG 1 1 0 No	VM-GEN-MTG 1 1 1 0 No	VM-GEN-MTG 1 1 0 No No No dd No tion No 1 Inspection Subject Discussion of Rail Yard Operations N/A Accompanied Inspector? N/A Ref Rule or SOP Standard N/A	VM-GEN-MTG 1 1 1 0 0 No No de No No tion No 1 Inspection Subject Discussion of Rail Yard Operations Accompanied Inspector? No Out Brief Conducted No Time 1000 - Outside Shift N/A Ref Rule or SOP Standard Other / Title Checklist Refere N/A N/A N/A N/A N/A N/A Main Track N/A N/A N/A N/A N/A N/A Main Track Track Number Number of Cars N/A N/A Chain Marker and/or Station(s) Head Car Number Number of Cars N/A N/A N/A Equipment N/A N/A N/A FWSO Inspection Team met with And



United States De Federal Transit A	partment of Transportation Administration	ror	m F1A-1K-1
Remedial Action	None		



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

all (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160204-AAN-1					
mspection bate	2016	02	04	Report Number						
Rail Agency Name	Washington Authority	Metropolitan A	Area Transit	Rail Agency Department	RTTO	Sub- Department N/A		N/A		
		Name		Email	Office Phone		r	Mobile Phone		
Rail Agency Department Contact Information)				Not made	e available		
Inspection Location	12750 Layhill Road, Silver Spring, MD 20906									

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	RTRA-RI-RC					
Inspection Units	1					
Inspection Subunits	1					
Defects (Number)	0					
Recommneded Finding	0					
Remedial Action	0					
Rececommended Reinspection	N/A					

Activity Summaries

Inspection Activity #	tr	spection	Subject	Head	end 1	train rid	e, trac	k observations	5	Activity	Code	RTR	Α	RI	RC
Job Briefing Employee Name/Title	N/A				Accompani Inspector?			l yes	Out Brief Conducted	yes	yes Time		D- D	Outside Shift	no
Related Reports	NONE					Related	CAPS	/ Findings	NONE						
	Ref			Rule or	OP			Standard		Other / Tit	le		Check	dist Refer	ence
Related Rules, SOPs, Standards, or Other	N/A			N/A				N/A		N/A			N/A		
standards, or other															
	Main Track	Yard	St	ation	oco		RTA acility	FTA Office	Tue als Tours	At-	grade	Tunne	l Ele	evated	N/A
Inspection Location	Х								Track Type		х				
										From				To	
	B - LINE		Track		2	6	! B (larker	Silver Sprin	g Station		Gler	mont S	itation	
Line(s)	ОИТВО	IND	Numb	per	2	Cr	iain iv	larker							
	Head (ar Numb	er	Numbe	r of C	Cars									
Vehicles							Equ	ipment							•
	Perform	ed un-ann	ounced	head end	traiı	n ride to	obsei	rve track condi	tions and trai	n Numb	er of Defe	ects			0
	1 1	•			_			A train operat		Recor	nmended	Finding?			NONE
Description		requested and examined TSO team identification. He called ROCC to obtain permission for team to enter head end compartment, ROCC acknowledged and permitted one TSO team member in the head end.								Reme	dial Actio	n Require	ed?		NO
	1 '									Recommend Reinspection			on?		NO

alexander.nep	oa@dot.gov	Digitally signed by alexander.nepa@dot.gov DN: cn=alexander.nepa@dot.gov Date: 2016.02.05 14:57:33 -05'00'	Date 02/04/2016
Inspector in Charge – Name Alexander A. Nepa	Inspection Team Alexander Nepa & James Cass	satt	





	During the inspection, track conditions were observed and no exceptions were
	noted. Operator Green gave audible and professional station stops to customers.
	He observed roadway workers and gave appropriate visual and audible warning.
Remedial Action	N/A



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

all (b) (6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160204–WMATA–JMC-1					
inspection bate	2016	02	04	Report Number	20100204-WWMTA-3WIC-1					
Rail Agency Name	Washingtor Authority	Metropolitar	Area Transit	Rail Agency Department	Rail Transportation	Sub- Departn	nent	Glenmont Subdivision		
Rail Agency Department	1	Name		Email	Office Ph	one	N	lobile Phone		
Contact Information	3				i.					
Inspection Location	Silver Spring	s Station, 8400) Colesville Roa							

Inspection Summary

Inspection Activity#	1	2	3	4	5	6
Activity Code	SAFE-GEN-MTG	RTRA-GEN-OBS				
Inspection Units	1	1				
Inspection Subunits	1	3				
Defects (Number)	0	0				
Recommended Finding	0	0				
Remedial Action Required	0	0				
Recommend Reinspection	0	0		_	l	<u> </u>

Activity Summaries

Inspection Activity #	1	insp	pection !	Subject	Gei	neral	Meeti	ng						Activ Code	•	S	AFE	GEN	MTG
Job Briefing Employee Name/Title	N/A	<u> </u>			· - !		Accompanied Inspector?		d	N/A	Out Brief Conducted		Yes	Time		00- 200		itside Shift	No
Related Reports							Rela	ted CAP	s/I	Findings									
- 1 . 1 . 1	Ref				Rule	or SOP	·		St	andard		Ot	her/Tit	le		Ch	ecklis	Refere	nce
Related Rules, SOPs, Standards, or Other									_							<u> </u>			
									L_,		ļl	L_,				Ļ			
	Ma Tra		Yard	St	ation	00	cc	RTA Facilit	у	FTA Office	Track Type		At-gr	ade	Tunne	el l	Eleva	ted	N/A
Inspection Location		,			Х]				ilack Type								Х
Line(s)	RED	LINE		Track Numb	er	1 Ai 2	ND	Chain I	Vlar	ker		Fr	om				T	o .	
	He	ad Ca	r Numbe	er	Num	ber of	Cars								•				
Vehicles								Equ	uipn	nent									
	FWS	O Tea	m Al Ne	paand.	Jim Cas	satt m	etwit	h Sa fety	Offi	<i>c</i> er c	at		Numb	er of D	efects				0
	Silve	r Spri	ing Static	n toin	troduce	the te	eam. T	he team	disc	cussed their	roles and	- 1	Recor	nmend	ed Findi	ng?			No
Description	resp	onsib	ilities. W	e discu	ssed em	nerger	ncy pre	paredne	essa	t the station	i, inquired audit that Ms		Reme	dial Ac	tion Rec	uire	4?	-	No
	abol									ng Station.	a dare enac ivis	_	Recor	nmend	Reinspe	ction	n?	١	No
Remedial Action	N/A				<u> </u>														

Inspector in Charge - Signature	ames Cassatt, Jr	Digitally signed by James Cassatt, Jr DN: cn=James Cassatt, Jr, o=FRA, ou=DOT, email=james.cassatt@dot.gov, c=US Date: 2016.02.04 15:13:21 -05'00'	Date Februrary 4, 2016
Inspector in Charge – Name Jim Cassatt	Inspection Team Jim Cassatt, Al Nepa		





Inspection Activity#	2	Inspection	Subject	Ор	erato	r Obs	ervations						Activi Code	ty	R	TRA	GEN	OBS
Job Briefing Employee Name/Title	N/A						Accompanied N/A Inspector?			Out Brief Conducted		Yes	Time		300- 200		itside Shift	No
Related Reports						Rel	ated CAP	s/	Findings				·					L
Deleted Delete CODe	Ref	Ref Rule or SOP Standard						Oth	ner/Tit	le:		Ch	ecklis	Refere	nce			
Related Rules, SOPs, Standards, or Other															ļ			
	Mair Track	I Vard	d St	ation	oc	cc	RTA Facilit	.y	FTA Office			At-gra	ade	Tunne	el	Eleva	ted	N/A
Inspection Location				Х						Track Type								Х
Line(s)	N/A		Track Numb				Chain N	Mar	ker		Fro	om				Т	o	
Vehicles	Head	l Car Numb	er	Num	ber of	Cars	Equ	uipn	ment						 -			
	I .								nents when	-	Т	Numb	er of De	fects		$\neg \neg$		0
D									ly displayed	on trains aking sure no	ı	Recon	nmende	d Findi	ng?		ı	No
Description										out of service		Reme	dial Act	ion Red	uired	!?	1	Vo
		e last stop									$\Box \Gamma$	Recon	nmend	Reinspe	ection	1?	1	No
Remedial Action	N/A																	



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

all (b) (w)

Agency/Department Information

Increation Date	YYYY	MM	DD	Report Number	20160211	\^/\ <i>/</i> \ T \ _T	\/_1			
Inspection Date	2016	02	11	Report Number	20160211-WMATA-TW-1					
Rail Agency Name	Washington I Authority	Metropolitan <i>i</i>	etropolitan Area Transit Rail Agency Department		Rail Station & Train Operations	Sub- Depart	ment	Train Operations		
		Name		Email	Office P	hone		Mobile Phone		
Rail Agency Department Contact Information				25		4	j.			
Inspection Location	Gallery Place, Metro Station, L'Enfant Plaza, Navy Yard Stations									

Inspection Summary

mspection summary						
Inspection Activity #	1	2	3	4	5	6
Activity Code	OPS-RI-OBS	OPS-RI-OBS				
Inspection Units	1	1				
Inspection Subunits	10	1			<u> </u>	
Defects (Number)	2	0				
Recommended Finding	No	No				
Remedial Action Required	No	No				
Recommended Reinspection	No	No			<u> </u>	

Activity Summaries

Inspection Activity #	1	Insp	pection S	ubject		r Oper Ipliand		/Station	Servicing Pr	ocedures		Activity Co	de	0	PS	RI	OBS
Job Briefing Employee Name/Title	None	•					Accor	npanied	No	Out Brief Conducted		No	Time	10: 12	20 - 200 	Outside Shift	No
Related Reports	N/A						Relat	ed CAPS	/ Findings	N/A							
	Ref				Rule o	r SOP			Standard		Otl	her / Title				cklist Refe	ence
Related Rules, SOPs, Standards, or Other	N/A				SOP #4	10	N/A				N/	Α			N/A	١	
Standards, or Other											L_,				<u> </u>		
nspection Location	Ma Tra	1	Yard	St	ation	000		RTA Facility	FTA Office	Track Type		At-gra	de	Tunne	:1 [Elevated	N/A
		1			х]			Track Type							Х
	<u> </u>										F	rom				То	
			1	Track				Chain N	Marker (N/A				N/A			
Line(s)	N/A			Numl		N/A		and/or	Station(s)								
	He	ad Ca	ır Numbe	r	Numi	per of	Cars										
Vehicles	32, 1, 10, 10, 11, 11, 11, 11, 11, 11, 11,		6 and onsist		Equ	uipment											
Description	FWS	O sta	ff conduc	ted rid	ing insp	ection	s of tr	ains to o	heck compli	ance with the		Number	of Defe	ects			2

Inspector in Charge - Signature	ERRELL A WILLIAMS	Digitally signed by TERRELL A WILLIAMS DN: =US, 0=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=TERRELL A WILLIAMS Date: 2016.02.12 07:45:12 -05'00'	Date 2/11/2016
Inspector in Charge – Name Terrell Williams	Inspection Team Terrell Williams, Stephen Slaughter		





	Door Operations/Station Servicing Procedures – SOP #40 that says that Rail	Recommended Finding?	No
	Operators must follow specific protocol when servicing stations. FWSO observed 10- train consists on the Green, Yellow, Red and Orange lines. Noted 8 of 10 trains	Remedial Action Required?	No
	performed per SOP #40. Green line train 3043 towards Greenbe'lt and Green line toward Branch Ave. train #6073 failed to make announcements and comply with SOP #40.5.2.1 "After train doors open announce: "This is a Green line train to (destination)".	Recommended Reinspection?	· No
Remedial Action	N/A		

Inspection Activity #	2	Inspect	ion Sub	ject M	etro Tr	ansit P	olice De	par	tment enga	gement	Activity C	ode	0	PS	RI	OBS		
Job Briefing Employee Name/Title	None					i i	mpanie ector?	d	No	Out Brief Conducted	No	Time		00- 125	Outside Shift	e No		
Related Reports	N/A				Related CAPS / Findings N/A													
	Ref			Rule	or SOP			St	andard		Other / Title			Checklist Reference				
Related Rules, SOPs, Standards, or Other	N/A			N/A		N/A				N/A			N/A					
Inspection Location	Mai Trac		/ard	Station	00	СС	RTA Facility	y .	FTA Office	Track Type	At-gra	ade	Tunne	I E	Elevated	N/A		
mspection totation				х		ם				таск туре						Х		
											From				То			
.ine(s)	N/A	N/A Track			N/A	1	Chain M						N/A					
	Number			11/1	and/or			tion(s)										
W-1-1	Hea	d Car Nu	mber	Nun	Number of Cars													
Vehicles		N/A			N/A		Equ	ndır	nent	3								
	1								TPD) proper	•	Number	of Defe	cts			0		
			· ,	•				•	busive to fel	low n on Green lir	Recomn	nended	Finding?	,		No		
		~							•	MTPD to repo	Damadi	al Action	n Requir	ed?		No		
Description	passe follow Train calml	nger to loved the p #5015 w	eave the assenge as held	e train with er into seve at the L'En	nout a peral oth	physica ner tra ation f	al alterca ins until for 5 min	atio he l iute		D Officers	Recomn	nended	Reinspe	pection? No				
Remedial Action	N/A																	



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

Agency/Department Information

Inspection Data	YYYY	MM	DD	Report Number	20160212-WMATA-SAS-1						
Inspection Date	2016	02	12	Report Number	20100212-WWATA-3A3-1						
Rail Agency Name	Washington Authority	Metropolitan <i>i</i>	Area Transit	Rail Agency Department	Occupational Safety & Health	Sub- Department	Training				
Rail Agency Department		Name		Email	Office Ph	one	Mobile Phone				
Contact Information											
	3500 Pennsy	Drive,		alle	5)(6)						
Inspection Location	Landover, M	D 20785									
	Carmen Turn	er Facility									

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	EMGT					
Inspection Units	TNG					
Inspection Subunits	OBS					
Defects (Number)	N/A					
Recommneded Finding	N/A					
Remedial Action	N/A					
Rececommended Reinspection	N/A					

Activity Summaries

Inspection Activity #	1	Insp	pection S	ubject	Obs	ervat	ion					Acti	vity Co	de	EM	GT	TNG	OBS	
Job Briefing Employee Name/Title	N/A						Acco	mpanie ctor?	d	N/A	Out Brief Conducted	N	/A	Time		00- 30	Outside Shift	N/A	
Related Reports	N/A						Relat	ed CAP	s/	Findings	N/A								
	Ref				Rule o	r SOP			St	tandard		Other	Other / Title				cklist Refere	ence	
Related Rules, SOPs, Standards, or Other	N/A				N/A				N	/A		N/A				N/A	\		
Standards, or Other																			
	Ma Tra		Yard	St	ation	00	cc	RTA Facilit	у	FTA Office	Track Type		At-gra	de	Tunne	ı	Elevated	N/A	
Inspection Location		1					ם	x			mack Type							×	
		•											1				То		
Line(s)	N/A	N/A Track Number			N/A	N/A Chain Marker			rker	N/A				N/A			***		
	He	ad Ca	r Numbe	r	Num	ber of	Cars				,								
Vehicles		N	I/A			N/A		Equ	uipı	ment									
	FWS	O Insp	pector ob	served	a train	ing co	urse pr	ovided	to \	WMATA em	ployees on	N	umber	of Defe	cts			0	
	Bloo	d Bori	ne Patho	gens fo	r the p	urpos	es of er	nsuring '	W٨	AATA emplo	yees were	Re	ecomm	ended	Finding?			No	
Description	prop	erly ti	rained or	the pr	roper ha	andlin se obi	g of po	tential (were c	or a lear	ictual contar	ninated the beginning	, Re	Remedial Action Required?						
Description	of th	e clas	bloodborne pathogens. The course objectives were clearly stated in the beginning of the class. The instructor was knowledgeable on the subject. He maintained the attention of all students throughout the training. He was well prepared and presented the material in a well-organized manner. Handouts and references									e	ecomm	end Re	inspection	on?			

Inspector in Charge - Signature	Stephen A. Slaughter Digitally signed by Stephen A. Saughter On Cro-Signerin A. Saughter, oct PMSC, out=FTA, Death abughter indication, cruls and indication and indicat	Date 2/12/2016
Inspector in Charge – Name Stephen A. Slaughter	Inspection Team Stephen A. Slaughter	





	material were given to the students. The instructor encouraged class participation. He responded to student's comments, questions, and concerns in an appropriate manner. He stimulated critical thinking and analysis.	
	The course concluded with a quiz which, ensured course objectives were met and students were well informed of the hazards and precautions of bloodborne pathogens.	
Remedial Action		





	FWSO's Inspectors conducted an unannounced inspection of New Carrolton Yard	Number of Defects	2
	A.M. Put-Ins on Monday morning, February 22, 2016. FWSO Inspectors visited the	Recommended Finding?	No
	Depot Clerk, obtained a copy of the full yard manifest, and observed from the Yard Tower as Train Operators called-in their radios, conducted pre-trip inspections, and	Remedial Action Required?	No
	operated their trains through the yard lead onto the mainline. FWSO Inspections, and operated their trains through the yard lead onto the mainline. FWSO Inspectors also observed the Interlocking Operator directing trains through the yard and managing requests and reports from Train Operators. In all, FWSO Inspectors observed: • 16 Train Operators check-in and sign-out radios between 4:00am and 7:00am; • 14 Train Operators complete pre-trip inspections; • One passenger train intentionally uncoupled to remove and return a 2-car set to the maintenance shop for additional work. This 2-car set was inadvertently made up as part of Train 921 due to the fact that Maximo was unavailable during the evening. • Interlocking Operator dispatch 16 trains into mainline service, and five (5) Prime Movers back to the Yard, as well as a manage the intentional uncoupling in the yard.		
Description	All but two Rail Operators conducted a cursory pre-trip inspection. Operators did not use notepads or checklists to document pre-trip inspections, and no signed forms were provided back to Depot Clerk or Interlocking Operator.	Recommended Reinspection?	Yes
	For the first two trains out, FSWO Inspectors observed Train Operators walking to the trains with no flashlights and without conducting exterior train walk-arounds. For all subsequent inspections, Train Operators walked around the trains with flashlights, and walked through the trains from the trailing car to the operating cab. However, from the vantage point in the Yard Tower, FWSO Inspectors were not able to confirm the thoroughness or quality of the interior inspection.		
	FWSO Inspectors did observe door openings, horn checks, and rolling tests and rolling brake tests for most trains, as well as radio checks from Train Operators prior to receiving direction to depart the yard. FWSO found that: • Train Operators arrived approximately 25 minutes prior to Train Yard Dispatch Time; • Average Train Preparation and Pre-Trip Inspection took 15 minutes. • Longest Pre-Trip Inspection took 30 minutes (Train 602) and appeared substantially more thorough than inspections conducted by other Train Operators; the shortest pre-trip inspection was 5 minutes (Train 901).		
	Operators, the shortest pre-trip inspection was 5 milities (Train 501).		

Inspection Activity #	2	Inspection	Subject	Radi	o Com	nmunications				Activity	Code	e	RTF	RA	RAD	OBS
Job Briefing Employee Name/Title	1	ocking Opera Carrolton Yar		(6)	Inspector?		d	No	Out Brief Conducted	On 2/26/1	6	Time	4:00a 7:30		Outside Shift	Yes
Related Reports				,		Related CAP	S/F	indings								
	Ref			Rule o	SOP		Sta	andard		Other / T	tle			Chec	cklist Refere	nce
Related Rules, SOPs, Standards, or Other	1	PH Section 1, ral Rules		1.78, 1	.79											
	Ma Tra	l Yard	S	ation OCC		C RTA Facilit	y	FTA Office	Track Type	At	At-grade		Tunnel	E	levated	N/A
Inspection Location		Х				x			ilack type	x						
				-						From					То	
Line(s)	Oran Silver	ge and	Track Num		Yard		Chain Marker and/or Station(s)									
Vehicles		Head Car		Numb	er of 0	Cars Eq	uipn	nent								





all	16)	(6)
UXX		(u)

	Number/Train ID		
	FWSO Inspectors observed both the quality of the radio system performance and	Number of Defects	2
	the quality of radio communication, including repeat-backs from Train Operators to the Interlocking Operator prior to leaving New Carrolton Yard and entering the	Recommended Finding?	No
	mainline. FWSO noted:	Remedial Action Required?	No
Description	 Instances where radio interference or garbled messages made clear communication difficult, and messages had to be repeated. Instances where incomplete or informal repeat-backs were provided by train operators or prime mover operators. Interlocking Operator generally managed radio communications in compliance with WMATA standards, and provided complete repeat-backs to Train Operators and Prime Mover Operators. 	Recommended Reinspection?	Yes
Remedial Action	N/A		

Inspection Activity #	3	Ins	pection S	ubject	Shif	t Trans	sfer Brief	ing			Activity Co	ode	RT	RA	ST	OBS
Job Briefing Employee Name/Title	1		ng Operat			Accompanied Inspector?			No	Out Brief Conducted	On 2/26/16	Time	6:45am- 7:00am		Outside Shift	Yes
Related Reports					•		Related	CAPS	/ Findings							
	Ref			Rule or SOP					Standard		Other / Title			Chec	klist Refe	rence
Related Rules, SOPs, Standards, or Other		Manual, Version 2		MSRP	MSRPH, SOP 1											
	Ma Tra		Yard	St	ation	ОС	ר ו	RTA acility	FTA Office	Trook Tome	At-gra	de	Tunnel	E	levated	N/A
Inspection Location			Х					Х		Track Type	х					
				'											То	
Line(s)	Oran Silve	_	nd	Track Numb		Yard		nain Marker nd/or Station(s)								
√ehicles	Nu		id Car r/Train ID)	Numi	oer of (Cars	Equi	ipment			<u> </u>				
	FWS	O Ins	pectors re	eviewe	d the In	terlock	king Oper	ator L	og Book, and	l noted the	Number	of Defe	cts			3
	follo	_									Recomm	ended	Finding?	****		No
		•							y appeared to t correspond t		Remedia	l Action	Require	d?		No
Description	relie	fInte	of shifts Procedu An entry remove rbal briefi rlocking (in the ires Ma y for Sv d from ing with Operato	Yard To anual vitch 29 service, h forma	ch 29 coming back into service, after having been rvice, was missed for February 11, 2016. ormal review of the log book was not conducted for the						nended Reinspection? Yes			Yes	
Remedial Action	N/A															



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

all (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	2016020	201602022-WMATA-WP-1				
mspection bate	2016 02 22 Report Number		201002022-VVIVIATA-VVF-1							
Rail Agency Name	Washington I Authority	Metropolitan <i>i</i>	Area Transit	Rail Agency Department	RTRA	Sub- Depa	rtment			
Rail Agency Department	1	Name		Email	Offic	ce Phone	Mobile	Phone		
Contact Information								•		
Inspection Location	West Fall Chu 7251 B Idylw		s Church, 2204	3						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	RTRA-RC-OBS	RTRA-RAD-OBS				
Inspection Units	8	1				
Inspection Subunits	8	1				
Defects (Number)	3	0				
Recommended Finding	No	No				
Remedial Action Required	No	No				
Recommended Reinspection	No	No				

Activity Summaries

Inspection Activity #	1	Insp	ection Sub	ject	Obse	ervation	of Pre-	Trip In:	spections		Activity C	ode	RTRA	A RC	OBS	
Job Briefing Employee Name/Title	N/A						compa pector		No	Out Brief Conducted	No	Time	0400		- Vec	
Related Reports	N/A					Rei	ated C	APS / F	indings	N/A						
	Ref				Rule c	or SOP			Standard		Other /	Title		Checklist R	eference	
Related Rules, SOPs, Standards, or Other	N/A				3.13, 3.42,	3.14, 3.1 3.45	27, 3.4	41,	N/A		N/A			N/A		
	Mai Trac		Yard	Sta	tion	осс		RTA acility	FTA Office		At-gr	ade	Tunnel	Elevated	N/A	
nspection Location			х							Track Type	х					
j ,		-									From	L		То		
			Track				Cha	ain Ma	rker	N/A			N/A			
Line(s)	N/A		Numb	er	N/A	1	and	d/or St	ation(s)	N/A	I/A			N/A		
	Hea	ad Car	Number		Numb	er of Car	·s			N/A						
Vehicles		N/	/A		1	N/A		Equip	ment	N/A						
										Falls Church	Number	r of Defe	cts		3	
									Overall, WN ing this time		Recomm	nended I	inding?		No	
Description										lid not perform	Remedi	al Action	Action Required?		No	
-	a con	nplian Ilowin	t rolling or	rollin to co	g brake me to a	test pri comple	or to ra	adioing		or departure by	Recomm	nended I	ded Reinspection?			

Inspector in Charge - Signature	WINSLOW L. POWELL	Digitally signed by WinSLOW L FOWELL DIS CHUS, G-MLS Government, ourDOT Headquarters, ourFTAHQ cn-WINSLOW L POWELL Date 2016/02/22 17:4545-45500	Date
Inspector in Charge – Name Winslow Powell	Inspection Team Winslow Powell,		





Remedial Action

United States Department of Transportation Federal Transit Administration

Remedial Action															
Inspection Activity #	2	insp	pection Sub	ject	Obse	ervation o	f Radio Com	munications	;	Activity Co	ode	RTR	A RAD	OBS	
Job Briefing Employee Name/Title	N/A				-1	Accompanied Inspector?		No	Out Brief Conducted	No	No Time		Outsid	Vac	
Related Reports	N/A					Rela	ted CAPS / I	indings	N/A		٠				
	Ref				Rule	or SOP Standard			Other / 1	itle		Checklist R	eference		
Related Rules, SOPs, Standards, or Other	N/A	N/A N/A				N/A			N/A			N/A			
	Mai Trac		Yard	Sta	tion	осс	RTA Facility	FTA Office		At-gra	ide	Tunnel	Elevated	N/A	
nspection Location			Х						Track Type	х					
				L.	T					From			То	I	
Line(s)	N/A		Track		N/A		Chain Ma	rker	N/A			N/A			
Line(s)	IN/A		Numb	er	IN/A	`	and/or St	ation(s)	N/A			N/A			
	Hea	nd Car	r Number		Numb	er of Cars									
Vehicles		N,	/A		١	V/A	Equip	ment	N/A						
	1				_		•		ut the morning.	Number	of Defe	cts		1	
	The interlocking	_		_	_			appropriate ements. FWSO	Recomm	ended F	inding?		No		
Description								Dack require		Remedia	l Action	Required	?	No	
	handl	led ga		ages	well, an	nd informe	•		nterference	Recomm	ended F	Reinspecti	on?	Yes	



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

Agency/Department Information

1	YYYY	ММ	DD	Report Number 2	2016020	201602023-WMATA-SAS-1					
Inspection Date	2016	02	23	Keport Number	201002023-WWATA-3A3-1						
Rail Agency Name	Washington I Authority	Metropolitan A	rea Transit	Rail Agency Department	RTRA	Sub- Depar	Department				
Rail Agency Department Contact Information		Name		Email	Offic	e Phone	N	1obile Phone			
Inspection Location	Red Line				J						

Inspection Summary

1	2	3	4	5	6
RTRA-RI-OBS					
7					
7					
4					
No					
No					
No					
	7 7 4 No No	7 7 4 No No	7 7 4 No No	7 7 7 4 No No No No	7 7 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9

Activity Summaries

spection Activity #	1 1	nspection Sເ	ıbject	Obse	ervation o	f Rail Operat	ions		Activity (ode	RTR.	A RI	OBS
ob Briefing mployee lame/Title	N/A		-			ompanied ector?	No	Out Brief Conducted	No	Time	0800		No
elated Reports	N/A				Rela	ted CAPS / F	indings	N/A					
	Ref			Rule	or SOP		Standard		Other /	Title		Checklist Re	ference
elated Rules, SOPs, tandards, or Other	N/A			1.14, 1.46-: MSRF SR 4.3 SR 4.2 MSRF 3.29, 3.119 3.121 3.167 MSRF #12, #	33, SR 4.3	3, 1.19, -1.84; Rules 4.32, 8, SR 4.54, ing Rules 1, 3.87, .121, , 3.141,	N/A		N/A			N/A	
	Main Track	l Vard	Sta	ntion	occ	RTA Facility	FTA Office		At-g	rade	Tunnel	Elevated	N/A
nspection Location	х							Track Type	>	(X	x	
ine(s)	Red	Trac		Τ'		Chain Ma	rkor		From			То	
	Red		nber	N/A	4	and/or St		See below			See be	elow	
nspector in Charge - Si	ignature	1				<u> </u>						Date	

Form FTA-IR-1 Version date: 1/19/16





Makidaa	Head Car Number	Number of Cars	<u></u>	21/2		
Vehicles	See Description	N/A	Equipment	N/A		
		ng inspections from 0800	, ,	,	Number of Defects	4
	' '	Gallery Place. FWSO did I any workers on the right	•	, ,	Recommended Finding?	No
	are below.	uny workers on the right	cor way. Details or c	ne mspeedons	Remedial Action Required?	No
Description	Gallery Place to DuPont station annoucements, 5115: FWSO observed to DuPont Circle to Van Nobserved the operator 3162: FWSO observed to Van Ness to Medical Control of Control	crain with lead car 3061 ft. Circle. Operator complied and 5 second pause prior crain with lead car 5115 ft. Sess. Operator complied wannouncements were not crain with lead car 3162 ft. Center. Operator complied crain with lead car 3194 ft. Grove. Operator complied crain with lead car 3118 ft. Center. Overspeed train and FWSO observed that portal. FWSO also observed that portal FWSO also observed that	ed with all observed r to opening doors. From 0834 to 0840 op the most observed r to clear. From 0850 to 0900 op the with all observed r to opening doors. From 0902 to 0921 op the eight car marker of the eight car marker of the opening doors. From 0949 to 0957 op complied with all observed with all observed opening doors. From 0949 to 0957 op complied with all observed opening doors.	rules, including perating from ules. FWSO perating from ules. perating from ved rules. at 3 of the 5 perating from red multiple t sound the address perating from	Recommended Reinspection?	No
Remedial Action	N/A					



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

Agency/Department Information

Increasion Date	YYYY	ММ	DD	Donast Number	201602023-WMATA-WP-1				
Inspection Date	2016	02	23	Report Number	201602025-WWATA-WP-1				
Rail Agency Name	il Agency Name Washington Metropolitan Area Transit Authority		Rail Agency Department	RTRA	Sub- Department				
Rail Agency Department Contact Information	Name		Email	Office Phone		٨	Mobile Phone		
Inspection Location	Yellow and R	ed Lines							

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	RTRA-RI-OBS					
Inspection Units	6					
Inspection Subunits	6					
Defects (Number)	2					
Recommended Finding	No					
Remedial Action Required	No					
Recommended Reinspection	No					

Activity Summaries

Inspection Activity #	1	Inspec	tion Subje	ect	Observati	ion of P	re-Trip Ins	pections		Activity (Code	RTR	A RI	OBS
Job Briefing Employee Name/Title	N/A					Accom: Inspect	•	No	Out Brief Conducted	No	Time	0800	1	e No
Related Reports	N/A					Related	Related CAPS / Findings N/A							
	Ref			R	ule or SO	P		Standard		Other /	Title		Checklist Re	eference
Related Rules, SOPs, Standards, or Other	N/A			1 1 N S S N 3 3 3 3 N	ASRPH Ge. 14, 1.17, .46-1.52, .4SRPH Sa R 4.33, SF R 4.227; .4SRPH Op29, 3.83, .119, 3.12, .121.1, 3.167, 3.10, .4SRPH SC .122, #15, #43, #45, #45, #	, 1.18, 1 1.69-1. fety Rul R 4.38, S perating , 3.84, 3 20, 3.12 .79.1, 3. 68; DPs #4A, #16, #35	19, 84; les 4.32, 5R 4.54, g Rules 3.87, 21, 141,	N/A		N/A			N/A	
· · · · · · · · · · · · · · · · · · ·	Ma Tra		Yard	Statio	n OC	сс	RTA Facility	FTA Office	T	At-gr	ade	Tunnel	Elevated	N/A
Inspection Location	x								Track Type	×		х	x	
Line(s)	Yello Red	w and	Track Numbe	r	N/A		Chain Ma and/or St		N/A	From		N/A	То	
L													Date	

Inspector in Charge - Signature	WINSLOW L. POWELL	Digitally signed by WINSLOW L POWELL DNE <=US, 0=US, Government, ou=DOT Headquarters, ou=FTAHQ, cn=WINSLOW L POWELL Date: 2016.02.29 09:24.36 -05:00'	Date
Inspector in Charge – Name Winslow Powell	Inspection Team Winslow Powell	(b)(b)	



Vohiolos	Head Car Number	Number of Cars	Equipment	NI/A		
Vehicles	See Description	N/A	Equipment	N/A		
-	1 '	ng inspections from 0800			Number of Defects	2
	1 '	gton and back to Gallery own–AU and back to Gal			Recommended Finding?	No
	1	the Train Operator and r	•	•	Remedial Action Required?	No
Description	provided credentials to authorization to ride widuty, PPE, compliance wand radio protocol, whimonitor ride quality, us announcements. FWSO any workers on the right. Train 305, Lead Car 300 to 0834 operating from generally complied with when exiting and enterpause prior to opening reliable watch, flashligh visible reading material Operator, who works o (especially Congress He platforms for passenge) Train 309, Lead Car 327 to 0847 operating from complied with MSRPH and entering tunnel poopening doors in statio possession of reliable w stowed and no visible r cab. Radio communica announcement system	the Train Operator and reth him or her in the cab, with electronic device polle the other FWSO Team e of the horn, station bed did not observe any traint of way. Details of the interest of t	equested and receive to assess Train Oper licy, train speed, sign Member rode behind thing and door oper in spassing through an anspections are below train with lead car 3 Reagan National Airps SOPs, including soun an annoucements, and apperator was in possivith cell phone stow racting items in the cell poor lighting in son a makes it difficult to prior to door operation train with lead car 3 o King Street. Operauding sounding horn ints, and 5 second padow. Train Operator Level 2 card, with cell potentially distracting ar from the cab, and nouncements.	red rator fitness for rail adherance, and the cab to ration, and work zone or v. 001 from 0820 port. Operator ding horn d 5 second red and no rab. Train the stations observe on. 275 from 0840 tor generally when exiting when exiting raise prior to reas in the public address		
	to 0910 operating from with MSRPH and applic entering tunnel portals opening doors in statio possession of reliable w stowed and no visible r	O2: FWSO observed 6 car King Street to Pentagon able SOPs, including sour , station annoucements, ns with head out the win vatch, flashlight and RWF eading material or other tions were difficult to he	City. Operator gene nding horn when exi and 5 second pause dow. Train Operator Level 2 card, with c potentially distraction	rally complied ting and prior to was in ell phone	Recommended Reinspection?	No
	to 0926 operating from horn for one portal, an- during the observation station annoucements prior to opening doors possession of reliable v	Page 1933: FWSO observed 6 car Pentagon City to Gallery doverspeed train alarms The train made a stutte were difficult to hear. Tr in stations with head out vatch, flashlight and RWF and no visible reading no	Place. Operator mi were triggered mult r stop at "L'Enfant Pl ain Operator pausec the window. Train O P Level 2 card, with c	ssed sounding tiple times laza, and the fisseconds operator was in urrent sticker,		
	operating from Gallery generally complied wit second pause prior to Operator was in posses cell phone stowed and	observed 8 car train with Place to Tenleytown-AU h MSRPH and applicable opening doors in stations ssion of reliable watch, fland no visible reading mater Operator was relieving a	on the Red Line. Op SOPs, station annou with head out the washlight and RWP Le ial or other potential another operator by	perator cements, and 5 window. Train vel 2 card, with lly distracting taking the train		





Remedial Action	N/A	
	Train 102, Lead Car 3262: FWSO observed 8 car train with lead car 3262 from 1003 to 1014 operating from Tenlytown-AU to Dupont Circle. Operator generally complied with MSRPH and applicable SOPs, station annoucements, and 5 second pause prior to opening doors in stations with head out the window. Train Operator was in possession of reliable watch, flashlight and RWP Level 2 card, with cell phone stowed and no visible reading material or other potentially distracting items in the cab.	



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	201602024 WAATA AD 2				
inspection bate	2016	02	24	Report Number	201602024-WMATA-AD-2				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	RTRA	Sub- Dep	Sub- Department		
Rail Agency Department Contact Information	Name			Email	Offi	ce Phone	ı	Mobile Phone	
			¥				-		
Inspection Location	Green Line								

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	RTRA-RI-OBS					
Inspection Units	1					
Inspection Subunits	6					
Defects (Number)	6					
Recommended Finding	No					
Remedial Action Required	Yes					
Recommended Reinspection	No					

Activity Summaries

Inspection Activity #	1	Inspection	n Subject	Obse	rvation o	f Train Oper	ations		Activity C	ode	RTRA	A RI	OBS
Job Briefing Employee Name/Title	N/A					ompanied ector?	No	Out Brief Conducted	No	Time	13:00 15:25		No
Related Reports	N/A				Rela	ted CAPS / F	indings	N/A					-
	Ref			Rule c	r SOP		Standard		Otl	ner / Title		Checklist Ref	erence
Related Rules, SOPs, Standards, or Other	N/A			1.14, 1.46-1 MSRP SR 4.3 SR 4.2 MSRP 3.29, 3.119 3.121 3.167 MSRP #12, #	3, SR 4.3 27; H Operat 3.83, 3.84 , 3.120, 3 .1, 3.79.1 , 3.168; H SOPs #	3, 1.19, -1.84; Rules 4.32, 8, SR 4.54, ing Rules 4, 3.87, .121, , 3.141,	N/A		N/s	A		N/A	
	Ma Tra	Y	ard St	ation	осс	RTA Facility	FTA Office	Treet Tune	I	At- rade	Tunnel	Elevated	N/A
Inspection Location	х							Track Type		x	x	х	
Line(s)			Tue ele			Chain Ma	rlear		rom			То	
	Gree	n I	Track Number	1 &	2	and/or St	rker		N/A		N/A		

Inspector in Charge - Signature			Date
AMB	UR I DALEY	Digitally signed by AMBUR I DALEY DN: c=US, o=US. Government, ou=DOT Headquarters, ou=FMCSAHQ, cn=AMBUR I DALEY Date: 2016.02.25 17:19-59-05'00'	
Inspector in Charge – Name Ambur Daley	Inspection Team Ambur Daley,	(6)(6)	





Vehicles	Head Car Number	Number of Cars	Fauinment	N/A		
venncies	See Description	N/A	Equipment	N/A		
		rmed 6 announced riding			Number of Defects	6
		avy Yard to West Hyattsv ovided credentials to the			Recommended Finding?	No
		to ride with him or her ir	•	•		
		ce with electronic device		-		
	· ·	le the other FWSO Team horn, station berthing an				
	· · · · · ·	any trains passing throug	•			
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	the inspections are belo				
	Train 503, Lead Car 603	39: FWSO observed 6 car	train with lead car 6	039 from 13:11 to		
		Enfant Plaza to Congress				
		able SOPs, including stat in stations. Train annour				
	public address system.	Train Operator was in po	ssession of reliable v	vatch, flashlight and		
	1	cell phone stowed and n	_			
	1 1	tems in the cab. FWSO Ir em to be sufficient to allo				
	Train 501. Lead Car 50	92: FWSO observed 6 car	train with lead car 5	092 from 13:27 to		
	· '	ongress Heights to Wate				
		SOPs, including station a				
		tions with head out the v light was in bag, with cell	•			
		ntially distracting items in	-			
		ne cab, and public addres	s announcement sys	tem cut out during		
	station announcement	S.				
		observed 8 car train with				
		ont to West Hyattsville. A vere both in the cab, so F				
		noted multiple instance				V
Description:		window into the cab that			Remedial Action Required?	Yes
		onditions. Required horr n Fort Totten and West H				
	1 0.	e prior to opening doors	•		,	
		tion announcements on	the 7000 series vehic	le were audible and		
	clear.					
	1	observed 6 car train with				
		yattsville to U Street. Th the entire mezzainine flo				
		ations in the running rail				
		approach to the station,				
		rindow of the operating one control of the control				
		operator invited the FW				
	that there was a bever	age on the train operator	r console and the Tra	in Operator was		
		RWP Level 2 card. He in month and also stated he				
	matter. The Train Ope	rator failed to pause 5 se	conds prior to openi	ng doors in stations		
	with head out the wind	dow. The ROCC called the	Train Operator and	asked him to have		
	the FWSO Inspector ca St. Station to contact R	II back to the ROCC. The OCC.	rw50 inspection Te	am disemparked at U		
	Lead Car 3350: FWSO	observed 6 car train with	lead car 3250 from 1	14:55 to 15:03		
	operating from U Stree	et to Fort Totten. Operato	or generally complied	d with MSRPH and		
	applicable SOPs, statio	n annoucements, and 5 s	second pause prior to	o opening doors in		
	stations with head out	the window. Train Oper on. The train went out o	ator made two stutt	er stops pulling into en Station.		
	Columbia Heights Stati	on. The trail went out o	A SELVICE OF FOIL FOIL	c Judioiii		





	Lead Car 5080: FWSO observed 6 car train with lead car 5080 from 15:05 to 15:25 operating from Fort Totten to Navy Yard. Operator generally complied with MSRPH and applicable SOPs, station annoucements, and 5 second pause prior to opening doors in stations with head out the window.
Remedial Action	 Submit to FWSO within 5 calendar days the following documentation to close-out concerns identified during the Train Ride Inspections: Report or other documentation from Training Instructor/Supervisor regarding the performance of the Operator of the Train with the Lead Car Number 7070 and the results of his session/training activity. Report from ROCC documenting the station overrun made by the Operator of the Train with the Lead Car Number 3074. Report from Maximo showing the identification of the two indentations in Track 2 at West Hyattsville

Attachement 1:





Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

Agency/Department Information

Inconcetion Data	YYYY	MM	DD	Donart Number	2016022	20160225-WMATA-WP-1				
Inspection Date	2016	02	25	Report Number	ZOTOOZZJ-VVIVIATA-VVP-I					
Rail Agency Name	Washington Authority	Metropolitan	Area Transit	Rail Agency Department	RTRA	Sub- Depar	rtment			
Rail Agency Department Contact Information				Email	Offic	e Phone	N	Mobile Phone		
Inspection Location	West Fall Chi 7251 B Idylw		ls Church, 2204	13						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	RTRA-RC-OBS					
Inspection Units	8					·
Inspection Subunits	8					
Defects (Number)	1					
Recommended Finding	No					
Remedial Action Required	No					
Recommended Reinspection	No					

Activity Summaries

Inspection Activity #	1	Inspec	ction Subj	ect	Obs	ervation o	of Pre-Trip li	nspections		Activity Co	ode	RTRA	A RC	OBS	
Job Briefing Employee Name/Title	N/A				J		ompanied ector?	No	Out Brief Conducted	No	No I Time I		Outside Shift	Yes	
Related Reports	N/A					Rela	ted CAPS /	Findings	N/A						
	Ref				Rule	or SOP	r SOP Standard			Other / T	Γitle		Checklist Re	ference	
Related Rules, SOPs, Standards, or Other	N/A	A 3.13, 3.1 3.42, 3.4				4, 3.127, 3.41, 5 N/A			N/A	N/A					
	Mai Trac		Yard	Stat	tion	осс	RTA Facility	FTA Office		At-gra	ide	Tunnel	Elevated	N/A	
nspection Location	<u></u>		х						Track Type						
					T					From			То		
			Track				Chain M	arker	ker N/A		N/A				
Line(s)	N/A		Numbe	er	N/A	4	and/or S	and/or Station(s) N/A		N/A					
<u> </u>							<u> </u>	<u> </u>							
Vehicles	Hea	ad Car N	Number		Numb	er of Car		pment	N/A						
V CITICICS		N/A	١			N/A									
	1				•		•	med at West		Number	of Defe	cts		1	
Dindian			,			•		-	was compliant 17 performed	Recomm	nended F	inding?		No	
Description		with written rules. FWSO noted one defect during this time. Train 917 performed all required aspects of the pre-trip inspection, but departed the yard 9 minutes								Remedial Action Required?			?	No	
	after	schedu	led pull-o	ut tim	ne.					Recomm	nended R	Reinspecti	on?	Yes	
Remedial Action															

Inspector in Charge - Signature	WINSLOW L. POWELL Digitally signed by WINSLOW L POWELL Dictoria, Pould, Soverment, our DOT Headquardens, our FT AND, Convintios, OW L Dictoria, Out 20 16 02 29 08-407-05 007	Date
Inspector in Charge – Name Winslow Powell	Inspection Team Winslow Powell	



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

Agency/Department Information

Increation Date	YYYY	MM	DD	Report Number	20160225-WMATA-AD-1				
Inspection Date	2016	02	25	Report Number					
Rail Agency Name	Washington I Authority	Metropolitan A	rea Transit	Rail Agency Department	RTRA	Sub- Depart	tment		
Rail Agency Department Contact Information	Name		Email	Office Phone		Mobile Phone			
Inspection Location	New Carrolto 4700 Garden	n Rail Yard City Dr, New C	Carroliton, MD		1				

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	RTRA-RC-OBS	RTRA-RAD-OBS				
Inspection Units	1	1				
Inspection Subunits	6	1				
Defects (Number)	1	3				
Recommended Finding	No	No				
Remedial Action Required	No	Yes				
Recommended Reinspection	Yes	Yes				

Activity Summaries

Inspection Activity #	1	Insp	ection Sub	ject	Obse	ervation o	of Pre	-Trip Ins	spections		Activity C	ode	RTRA	A RC		OBS
Job Briefing Employee Name/Title	N/A						Accompanied Inspector?		No	Out Brief Conducted	No	Time	1330 1600			Yes
Related Reports	N/A					Rei	Related CAPS / Findings N/A									
	Ref				Rule o	or SOP	SOP Standard			Other /	Title		Checklist	Refer	ence	
Related Rules, SOPs, Standards, or Other	N/A	N/A 3.13, 3.1 3.42, 3.4			4, 3.127, 3.41, 5 N/A		N/A			N/A						
	Ma		Yard	Sta	tion	осс	- 1	RTA acility	FTA Office		At-gra	ade	Tunnel	Elevated		N/A
nspection Location			х							Track Type	х	х				
				I					<u>,</u>		From			То		
			Track		Cha		hain Marker N/A		N/A							
Line(s)	N/A		Numb	er	N/A	N/A and/or Sta			ation(s)	N/A	N/A					
Vehicles	He	ad Ca	r Number		Numbe	er of Car	s	Equip	ment	N/A			<u> </u>			_
vernicles ,			/A			N/A				,						_
										arrolton Yard	Number	of Defe	cts			1
	P.M.	-put"	ins" on Thu	irsday	atterno	oon, Febi	ruary	25, 201 Interloc	6. FWSO Ins	pectors or and	Recomn	nended l	Finding?			No
Description	obse	obtained a copy of the PM Put-Ins Log from the Interlocking Operator, and observed from the Yard Tower and Yard Platform as Train Operators called in their									Remedial Action Required?					No
	radios, conducted pre-trip inspections, and operated their trains through the yard lead onto the mainline. FWSO Inspectors also observed the Interlocking Operator directing trains through the yard and managing requests and reports from Train							Recommended Reinspection?				Yes				

Inspector in Charge - Signature	AMBUR I DALEY	Digitally signed by AMBUR I DALEY DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FMCSAHQ, cn=AMBUR I DALEY Date: 2016/03.01 11:37/53-05'00'	Date
Inspector in Charge – Name Ambur Daley	Inspection Team	(6)(6)	





Operators. FWSO also conducted a physical inspection of the Yard Tower. In all, FWSO Inspectors observed: Six (6) Train Operators check-in and sign-out radios between 4:00am and 7:00am; Six (6) Train Operators complete pre-trip inspections; Yard movements involving 2-car consists to makeup trains and two (2) Prime Movers clearing signals into the yard for storage. All but two Rail Operators conducted a cursory pre-trip inspection. Operators did not use notepads or checklists to document pre-trip inspections, and no signed forms were provided back to Depot Clerk or Interlocking Operator. FWSO found that: Train Operators arrived approximately 25 minutes prior to Train Yard Dispatch Time; Average Train Preparation and Pre-Trip Inspection took 15 minutes; Longest Pre-Trip Inspection took 25 minutes (Train 912); the shortest pre-trip inspection was 10 minutes (Train 920). In terms of specific inspection requirements, FWSO noted the following: Few actual defect reports are made by Train Operators. Pre-trip exterior inspections generally consist of the operator walking around the vehicle at normal speed. Most operators did not bend down or slow to examine current collector assemblies, shoe fuses or shunt straps; or to ensure that rotary and air control valves were in the proper location at open ends at the belly of the consist and that brake line switches were in the proper position. Interior inspections generally followed the items called out in the Train Operators' Normal Procedures Checklist. FWSO Inspectors walked with Train Operators conducting interior inspections of their trains, and found that they generally focused on their consoles and indicators, bulkhead doors, cab windows, fire alarms, intercom and interior/exterior lights, conducting the radio check and PA announcement, horn test, and rolling and rolling brake tests. Handbrakes were not checked. **Remedial Action** N/A

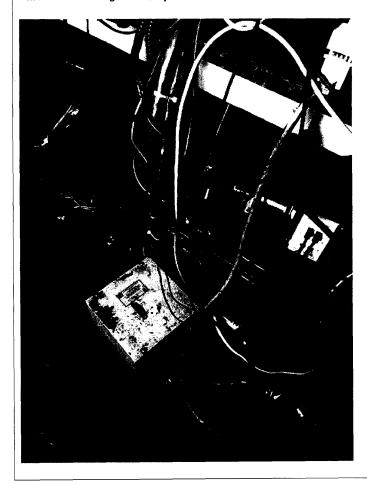
Inspection Activity #	2	Inspection	on Subje	ct	Radio	and Equi	pment Obse	ervation		Activity (Code	RTRA	A RAD	OBS	
Job Briefing Employee Name/Title	N/A					l .	mpanied ector?	No	Out Brief Conducted	No	Time	1330 1600		Yes	
Related Reports	N/A					Related CAPS / Findings N/A									
	Ref				Rule or	SOP	Standard			Other /	Title		Checklist Reference		
Related Rules, SOPs, Standards, or Other	N/A	3.13, 3.14 3.42, 3.45				3.127, 3.41, N/A			N/A			N/A			
	Mai Trac	1 Ya	ard	Stat	ion	осс	RTA Facility	FTA Office	Tuesda Tama	At-gr	rade	Tunnel	Elevated	N/A	
Inspection Location			x						Track Type	x	(
								_		From			То		
			Track		Chain		Chain Ma	rker	N/A			N/A			
ine(s)	N/A		Numbe	r	N/A		and/or St	ation(s)	N/A			N/A			
Vehicles	Hea	d Car Nur	mber	Ţ	Number	of Cars	Equip	ment	N/A						





	N/A	N/A				
	· '	lucted an unannounced	•		Number of Defects	3
	1 .	day afternoon, February d a 15 minute observatio	Recommended Finding?	No		
		s, train operators, prime		Remedial Action Required?	Yes	
Description	concise, and included the note two instances whe supervisor, and two instances the supervisor, and two instances where the supervisor, and two instances are the supervisor and connection system. This condition also lead to electrical specific system.	erlocking operator. Over the appropriate identifying real train operator failed ances where the terming irst contact with a train of A, FWSO also observed the tradio system, the doubtless contributes to arking or even fire. This with appropriate electric	g information. Howe I to respond to the te al supervisor failed to operator entering his the poor condition of terminal monitors, ar the poor radio qualit cabling should be ex	ver, FWSO did erminal b identify territory. I the wires nd the phone by and could	Recommended Reinspection?	Yes
Remedial Action	with appropriat	e electrical outle	ets and UPS. P	ovide FWS	examined, cleaned and co iO with photographic doc is from the issuance of thi	umentatio

Attachment 1 – Wiring for Radio System and Terminals at New Carrolton Yard





Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

Agency/Department Information

Increation Date	YYYY	MM	DD	Danast Number	nber 20160224-WMATA-WP-1				
Inspection Date	2016	02	24	Report Number					
Rail Agency Name	Washington I Authority	Metropolitan A	Area Transit	Rail Agency Department	RTRA	Sub- Depa	rtment		
Rail Agency Department		Name		Email	Offic	e Phone	N	Mobile Phone	
Contact Information)(le)						
Inspection Location	Shady Grove 15903 Somer	Yard ville Drive, Roo	ckville MD, 208	355					

Inspection Summary

mspection summary						
Inspection Activity #	1	2	3	4	5	6
Activity Code	RTRA-RC-PI	RTRA-RC-PI				
Inspection Units	9	2				
Inspection Subunits	9	2				
Defects (Number)	X	2				
Recommended Finding	No	No				
Remedial Action Required	No	No				
Recommended Reinspection	No	Yes				

Activity Summaries

Inspection Activity #	1	Inspect	tion Subj	ect	Inspe	ection of	Vehic	le Secu	rement		Activity Co	ode	RTRA	A RC	PI
Job Briefing Employee Name/Title	N/A						ompa ector		No	Out Brief Conducted	No Time		2100 2330		- I Ves
Related Reports	N/A					Rela	ited C	CAPS / Findings N/A							
	Ref				Rule o	or SOP			Standard		Other / Title			Checklist R	eference
Related Rules, SOPs, Standards, or Other	N/A				3.126		N/A				N/A			N/A	
	Mai Trac		Yard	Stat	ion	осс	1	RTA acility	FTA Office	Track Type	At-gra	de	Tunnel	Elevated	N/A
Inspection Location			х							паск туре	x				
			•	T						From			То		
		Track			Cha			ain Ma	arker N/A				N/A		
Line(s)	N/A		Numbe	r	N/A		and	d/or St	ntion(s) N/A				N/A		
	Hea	ad Car N	umber		Numbe	er of Cars	5			A1/A					
Vehicles		N/A				N/A		Equip	ment	N/A					
	FWS) person	nel perfo	rmed	a phsy	ical insp	ection	of veh	icle securen	ent at the	Number	of Defe	cts		9
	Shad	y Grove '	Yard on t	acks	10A th	rough 21	. FW	SO obs	erved 9 cons	ists stored at	Recomm	ended I	Finding?		No
the facility and noted 0 handbral (b) requires that, "Set handbrake							onrii iule 3.120	Remedia	al Action	n Required	?	No			
Description	To all 104. Out of comics pair 1050 1059 car 1160, no handbrakes applied									Recomn	Recommended Reinspection?			Yes	

Inspector in Charge - Signature	WINSLOW L. POWELL Digitally signed by WINSLOW L POWELL Disc 2US, Government, Due DOT Headquarters, Quie TRAPO, CITE WINSLOW L. POWELL Date: 20.00.227 900.323-3.0500"	Date
Inspector in Charge – Name Winslow Powell	Inspection Team Winslow Powell,	





	Track 11-8 car train with lead car 7060, not inspected	
	Track 12- 6 car train with lead car 5144, no handbrakes applied	
	Track 13- Inaccessible, not inspected	
	Track 14- Inaccessible, not inspected	
	Track 15- No train	
*	Track 16- Not inspected	
	Track 17- 6 car train with lead car 2046, no handbrakes applied	,
	Track 18-6 car train with lead car 3260, no handbrakes applied	
	Track 19- 6 car train with lead car 6046, no hand brakes applied	
	Track 20- Inacessible, not inspected	
	Track 21-8 car train with lead car 3263, no handbrakes applied	
Remedial Action		

Inspection Activity #	2	Inspec	tion Sub	ject	Insp	ection of	Vehicle	Sepa	ration		Activity C	ode	RTRA	A RC	PI
lob Briefing Employee Name/Title	N/A					1	ompani sector?		No	Out Brief Conducted	No	Time	2100 2330		Ves
Related Reports	N/A					Rela	ated CA	PS / F	indings	N/A			-		
	Ref		,,,,,		Rule	or SOP	SOP Standard				Other /	Title	Checklist Reference		
Related Rules, SOPs, Standards, or Other	N/A				3.126	5	N/A				N/A			N/A	
	Main Track		Yard	Sta	tion	осс	RT		FTA Office		At-gr	ade	Tunnel	Elevated	N/A
Inspection Location			Х							Track Type	х				
<u></u>											From			То	
Line(s)		N/A Track				Chain Marker				N/A			N/A		
	N/A Number N/A			4	and/or Station(s) N/A			N/A			N/A				
	Head	d Car N	lumber		Numb	er of Car				11/4			_		****
Vehicles		N/A				N/A		Equip	ment	N/A					
,										on at the Shady	Numbe	r of Defe	cts		2
									spearation a uires that, "S		Recomm	nended	Finding?		No
										locations, yards	Remedi	al Actio	n Required	1?	No
Description	stored with c the tw	less thoupler to cons 19- Ob.	nan 2 fee hooks ov iists was served g	t apar verlap being ap les	t, mea ping. A stored s than	suring on A WMATA I for main 2 feet apa	e foot foot foot foot supervitenance	rom a isor ir e. veen o	nformed FWS cars 4056 an	o anticlimber, 60 that one of	Recomi	mended	Reinspecti	ion?	Yes
Remedial Action	4.10 0.				_								_		



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160224-WMATA-SAS-2					
inspection Date	2016	02	24	Keport Number						
Rail Agency Name	Washington Authority	Metropolitan	Area Transit	Rail Agency Department	Rail Operations	Sub- Department				
Rail Agency Department	tail Agency Department Name			Email	Office Ph	ione	Mobile Phone			
Contact Information	Contact Information									
Inspection Location Orange Line, Train ID 305, L'Enfant		L'Enfant Plaza	Station, Track 1	ale	65(6)					

Inspection Summary

Inspection Activity #	1	2	3	4	5	6	7	8
Activity Code	ROCC- ACCESS- REF							
Inspection Units	1							
Inspection Subunits	1							
Defects (Number)	1							
Recommended Finding	No							
Remedial Action Required?	Yes							
Recommend Reinspection	No							

Individual Inspection Activity

Inspection Activity #	1	Ins	pection S	ubject	Re	efusal of	f Acce	ss						Activity Code	R	occ	ACCESS	REF
Job Briefing Employee Name/Title	N/A							mpanied ector?	ı	No	Out Brief Conducted	N	0	Time	- 1	129- 455	Outside Shift	No
Related Reports	N/A						Rela	ted CAPS	/ Fir	ndings	N/A							
	Ref				Rule	or SOP			Star	ndard		Othe	r/T	itle		CI	necklist Refer	ence
Related Rules, SOPs, Standards, or Other	Safet	y Dire	ective 16	-1														
	49 U.	S.C. 5	329															
	Ma Tra		Yard	s	tation	oc	cc	RTA Facility	,	FTA Office	Too all Too a		At-	grade	Tunn	el	Elevated	N/A
Inspection Location	х										Track Type				х			
Line(s)	Oran	ge		Track Numi		N/A		Chain M	larke	er '		Fron	n				То	
	He	ad Ca	ır Numbe	er	Nur	mber of	Cars	East	ipme					·	h			
Vehicles		20	019			8		Equ	ipme	:111								
											on entered th		lum	ber of D	efects			1
											d at the "8 Car		leco	mmende	ed Findi	ng?	1	No
Description	marker. The train operator waited approximately 5 seconds before opening the train doors. At this time the FSWO Inspector presented his official FTA Inspector Badge								[Action Required?				١	'es			
		and credentials to the train operator and informed the operator that he would like to								to F	O Recommend			1	Vo.			

Inspector in Charge - Signature		Digitally signed by STEPHEN A SLAUGHTER	Date
	STEPHEN A SLAUGHTER	DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=OSTHQ, cn=STEPHEN A SLAUGHTER	February 24, 2016
Inspector in Charge – Name	Inspection Team	Date: 2016.02.26 09:45:53 -05'00'	
Stephen Slaughter	Stephen Slaughter		





	ride in the cab of the train. The FSWO Inspector then entered the train and stood near the cab door. The train operator opened the cab door and informed the FSWO Inspector that he would contact "Central" to get permission for the Inspector to ride in the cab. The train operator proceded to continue the scheduled route. When the train stopped at the Federal Center SW Station, the train operator informed the FSWO that he was still waiting for permission from "Central" for the FWSO Inspector to ride in the cab of the train. When the trained stopped at Cheverly station, 2 WMATA employees entered the lead car of the train. One of the employees, later identified as for WMATA QA, entered the cab. Approximately 90 seconds later, he exited the cab and stood across the aisle from the FSWO Inspector. At approximately 2:55 PM, the train entered the New Carrollton Station, the train's terminal station. FSWO Inspector exited the train along with the 2 WMATA employees and the train operator. The FSWO Inspector asked the train Operator if he ever received permission from "Central" for the FWSO Inspector to enter the cab. The operator relayed that per "Central", the FSWO Inspector did not have permission or clearance to ride in the cab of the train. At no point from L'Enfant Plaza to New Carrollton Station was this information relayed to the FSWO Inspector. WMATA employee asked the train Operator for his contact at the ROCC, and the train Operator relayed that the person at the ROCC who denied the FWSO inspector access to the cab. The FSWO Inspector thanked all WMATA employees for their assistance.	Reinspection?
Remedial Action	WMATA must issue (or re-issue) a system-wide bulletin regarding the agency's obligation "free and uninterrupted access to transit agency properties in the performance of office of the Secretary of Transportation" within 24 hours of receiving this report. Further, the Inspector must be re-instructed, also within 24 hours, and evidence of such re-instruction.	ial duties as specified in U.S.C Title 49, by direction e employee denying such access to an FWSO



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

all (WG)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160216-WMATA-AAN-1						
inspection date	2016	02	16	Report Number	20100210-WWATA-AAN-1						
Rail Agency Name	Washington Authority	Metropolitan A	Area Transit	Rail Agency Department	Track and Structures	Sub- Department		Track Inspection			
Rail Agency Department	ı	Name		Email	Office Phone		Mobile Phone				
Contact Information			9			•					
Inspection Location	Track Geometry Vehicle – C-Line – Huntington Station – Metro Center Station – Track 1										

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-TGV-RC	TRK-TGV-PI				
Inspection Units	1	1				
Inspection Subunits	4	2				
Defects (Number)	0	5				
Recommended Finding	No	No				
Remedial Action Required	No	Yes				
Recommended Reinspection	No	Yes				

Activity Summaries

Inspection Activity #	1	Inch	ection Subj	oct	Rules C	amplian				Activity Co		TRK	TGV	RC	
Job Briefing		шър	ection subj	eci	Rules C	Ť.	mpanied		Out Brief			2130-		la	
Employee Name/Title				_		insp	ector?	Yes	Conducted	Yes	Time	0100	Shift	Ye	
Related Reports						Rela	ted CAPS /	Findings							
	Ref				Rule or S	OP		Standard		Other / T	itle		Checklist F	eference	
Related Rules, SOPs, Standards, or Other	MSR	PH			3.87.1, 3 SOP#23										
	Ma Tra		Yard	Stat	ion	осс	RTA Facility	FTA Office		At-grad	е Т	unnel	Elevated	N/A	
Inspection Location		□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □		×											
					T					From			То		
			Track			1	Chain Ma	rker	C1 CM630+00)		C1CM0	00+00		
Line(s)	C-Lir	ne	Numbe	r	1	ļ	and/or St	ation(s)							
	He	ead Car	Number		Number	of Cars	F 1-								
Vehicles							Equip	ment							
	FWS	O tear	n monitored	the	Track Geo	metry \	ehicle crev	w and their c	ompliance with	Number	of Defec	ts		0	
	1	RPH rul								Recomm	ended Fi	nding?		No	
Description	1	3.87.1 – sounding of horns when exiting or entering tunnels									l Action	Required?	,	No	
	dire	ction o	f traffic					 3.122 – sounding of the horn in short blasts when operated against the normal direction of traffic 3.67 – Rail vehicle not operated past or closer that a point 10-feet in approach of an approach of approach							

Inspector in Charge , Signature alexander.nepa@dot.gov		Digitally signed by alexander.nepa@dot.gov DN: cn=alexander.nepa@dot.gov Date: 2016.02.18 15:48:54 -05'00'	Date 02-16-16
Inspector in Charge – Name Alex Nepa	Inspection Team Alex Nepa, Medenia Dashiell,		

WMATA TRACK INSPECTION PROGRAM

TRACK GEOMETRY INSPECTION REPORT

CLINE

C1 629+00 to C1 00+00

RR: WASHINGTON METRO AREA TRANSIT AUTHORITY (WMATA)

Survey Number:

Chain 629 to Chain 0

Direction: Descending Chain



Washington Metro Area Transit Authority Washington, D.C.

Page 1 of 19 2016-02-16 Run ID: 2016021601

	СН	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
Ĭ	0	0	Class Change	5.00	1	29	Т	(5	1	
Ĭ	0	0	Posted Speed	90.00	1	29	Т	1	5	1	1
١	0	0	Track Change	0.00	1	29	τ	1	5	7	
١	0	9	Track Change	0.00		42	Т		5	1	1
١	0	10	Railroad	WMATA	1	42	Т		5	1	1
آ	0	11	Subdivision	CLINE		42	Т	<u> </u>	5	1	
آ	629	23	Down Marker	629.00	1	2	Т	<u> </u>	5	1	
آ	629	0	Class Change	4.00		3	Т	1	4	1	
١	629	0	Posted Speed	45.00	1] 3	Т		4	1	
Ī	628	90	Platform Start	ł		3	Т		4	1	
ij	622	87	Platform End	1		10	T	1	4	1	
ĺ	622	27	Switch Pt	1		12	T	<u> </u>	4	1	1
k i	622	28	Gage Wide	57.23	6	12	Т	1	4	1	
j	622	32	L Cant Neg	-0.20	16	13	T	1	4	1	1
ĺ	622	2	Gage Change	-0.90	26	13	Т	4	4	1	
ĺ	621	80	Gage Wide	57.15	3	14	T	1	4	1 1	
ĺ	621	56	Frog	1	-	15	{ T		4	1 1	
l	621	50	Gage Change	-0.77	30	15	Т	4	4	1 1	
ĺ	621	36	Gage Change	1.92	4	15	T	4	4	1	
ľ	620	99	Down Chain	620.00	1	19	т	<u> </u>	4	1	38.795415 -77.074968
ĺ	619	51	Frog	1	1	19	T	<u> </u>	4	1 1	38.795547 -77.074943
Ĭ	619	22	Gage Change	1.92	12	20	T	4	4	1	38.795626 -77.074928
ĺ	618	57	Gage Change	-0.98	22	20	Т	4	4	1 1	38.795803 -77.074901
1	618	57	Gage Narrow	56.01	1	20	T	3	4	1 1	38.795803 -77.074901
İ	618	51	Switch Pt	1	1	20	T	1	4	1	38.795819 -77.074899
١	614	23	Gage Wide	57.15	2	23	В	1	1 4	1 1	38.796976 -77.074670
İ	613	54	Excess Elevation	6.37	3	23	В	3	4	1	38.797157 -77.074601
ı	613	26	Excess Elevation	6.36	1 1	23	В	3	4	1 1	38.797231 -77.074565
ı	612	98	Excess Elevation	6.39	3	24	В	3	4	1 1	38.797302 -77.074528
[611	99	L Cant Neg	-0.30	19	25	C	1	4	1 1	38.797543 -77.074382
1	610	95	L Cant Neg	-0.30	23	26	E	<u> </u>	4	1 1	38.797786 -77.074183
	610	2	Gage Wide	57.13	1	27	E	1	4	1 1	38.797989 -77.073978
	610	1 1	Posted Speed	55.00	1	27	E	<u> </u>	5	1	38.797991 -77.073976
	610	1	Class Change	5.00		27	<u>. </u>	<u> </u>	5	1 1	38.797991 -77.073976
	610	99	Down Chain	610.00	1	27	<u> </u>	<u> </u>	5	1 1	38.797994 -77.073973
i	609	99	Gage Wide	57.15	9	27	E	1 1	5	1	38.797996 -77.073971

Page 2 of 19 2016-02-16 Run ID: 2016021601

616	СН	FT	Parameter	Value	Length	Speed	1 TSC	LC	PC	Track	Peak Lat/Long
Gage Narrow	609	61	Gage Wide	57.01	3	27	E	3	5	1	38.798074 -77.073885
Find Find	613	93	Lmt Speed 3	42.00	129	28	C		5	1	38.797528 -77.074392
Solidar Soli	607	37	Gage Narrow	55.98	3	27	T	1	5	1	38.798523 -77.073355
S95 3	601	7	Platform Start	1	1	19	Т		5	1	38.799747 -77.071844
592 49 Switch Pt	600	99	Down Chain	600.00	ı	19	т	1	5	1	38.799962 -77.071589
S91 95 Frog	595	3	Platform End	1	1	19	T	1	5 [1	38.800945 -77.070395
S91 76	592	49	Switch Pt	İ	i	19	T	1	5	1	38.801459 -77.069794
Sept	591	95	Frog	1		19	Т	I	5	1	38.801567 -77.069664
Second Color Seco	591	76	Gage Change	-1.42	1	19	T	5	5	1	38.801604 -77.069618
Second S	591	76	W Grd Face	56.59	2	19	T		5	1	38.801604 -77.069618
S90 12 Down Chain S90.00 21 T 5 1 38.801945 77.069204	591	77	L Cant Neg	-0.60	44	19	Т		5	1	38.801602 -77.069620
S82	590	10	Down Marker	590.00	I	21	Т	1	5	1	38.801942 -77.069210
S80 99 Down Chain S80.00 14 B 5 1 38.803884 -77.066778	590	12	Down Chain	590.00	1	21	Т	1	5	1	38.801945 -77.069204
S74	582	49	Tunnel Start			17	В	1	5	1	38.803420 -77.067410
	580	99	Down Chain	580.00	1	14	В	1	5	1	38.803884 -77.066778
S74	574	94	R Runoff	-3.96	31	1 1	E	0	5	1	38.804568 -77.065245
S73 82 LRunoff	574	1	Posted Speed	45.00	1	12	E	Į	4	1	38.804659 -77.064941
577 4 Lmt Speed 3 51.00 284 14 C 4 1 38.804343 -77.065890 572 88 Frog 13 T 4 4 1 38.804767 -77.064571 572 59 Gage Change 2.03 8 13 T 4 4 1 38.804767 -77.064476 572 38 L Cant Neg -0.10 17 13 T 4 4 1 38.804815 -77.064407 571 56 L N Guard Check 53.49 0 12 T 4 1 1 38.804892 -77.064141 571 55 Switch Pt 12 T 4 1 38.804894 -77.064135 570 99 Down Chain 570.00 13 B 4 1 38.80542 -77.06327 569 28 Tunnel End 12 B 4 1 38.805111 -77.063391 567 32 R Cant Neg -0.70 18 12 B 4 1 38.805333 -77.062771 567 22 Excess Elevation -6.50 9 12 C 3 4 1 38.805347 -77.062788 567 13 Gage Change 1.04 18 12 C 4 4 1 38.805360 -77.062710 567 14 R Align 62 -2.00 12 12 C 0 4 1 38.805358 -77.062771 566 63 Gage Wide 57.39 9 12 C 0 4 1 38.805350 -77.062713 566 63 Gage Wide 57.34 14 12 E 0 4 1 38.805514 -77.062479 566 1 Class Change 5.00 13 E 5 1 38.805506 -77.062406 57.30506 57.062406 57.062406 57.30506 57.062406 57.06	574	1	Class Change	4.00	1	12	E	1	4	1	38.804659 -77.064941
572 88	573	82	L Runoff	-4.64	31	13	E	10	4	1	38.804677 -77.064879
572 59 Gage Change 2.03 8 13 T 4 4 1 38.804795 -77.064476 572 38 L Cant Neg -0.10 17 13 T 4 4 1 38.804815 -77.064407 571 56 L N Guard Check 53.49 0 12 T 4 1 38.804892 -77.064141 571 55 Switch Pt 12 T 4 1 38.804894 -77.064135 570 99 Down Chain 570.00 13 B 4 1 38.805042 -77.063627 569 28 Tunnel End 12 B 4 1 38.805111 -77.063391 567 32 R Cant Neg -0.70 18 12 B 4 1 38.805333 -77.062771 567 22 Excess Elevation -6.50 9 12 C 3 4 1 38.805347 -77.062738 567 13 Gage Change 1.04 18 12 C 4 4 1 38.805360 -77.062710 567 13 Gage Wide 57.39 9 12 C 0 4 1 38.805360 -77.062710 566 63 Gage Wide 57.34 14 12 E 0 4 1 38.805358 -77.062791 566 28 Gage Wide 57.38 16 12 E 0 4 1 38.805566 -77.062406 566 1 Class Change 5.00 13 E 5 1 38.805566 -77.062406	577	4	Lmt Speed 3	51.00	284	14	C	l	4	1	38.804343 -77.065890
572 38 L Cant Neg	572	88	Frog	1	1	13	Т	1	4	1	38.804767 -77.064571
571 56 L N Guard Check 53.49 0 12 T 4 1 38.804892 -77.064141 571 55 Switch Pt 12 T 4 1 38.804894 -77.064135 570 99 Down Chain 570.00 13 B 4 1 38.805042 -77.063627 569 28 Tunnel End 12 B 4 1 38.805111 -77.063627 567 32 R Cant Neg -0.70 18 12 B 4 1 38.805311 -77.062791 567 22 Excess Elevation -6.50 9 12 C 3 4 1 38.805347 -77.062738 567 13 Gage Change 1.04 18 12 C 4 4 1 38.805360 -77.062710 567 13 Gage Wide 57.39 9 12 C 0 4 1 38.805360 -77.062710 567 14 R Align 62 -2.00 12 12 C 3 4 1 38.805368 -77.062713 566 63 Gage Wide 57.34 14 12 E 0 4 1 38.805362 -77.062713 566 28 Gage Wide 57.38 16 12 E 0 4 1 38.805566 -77.062479 566 1 Class Change 5.00 13 E 5 1 38.805566 -77.062479 566 1 Class Change 5.00 13 E 5 1 38.805566 -77.062479 57.0624	572	59	Gage Change	2.03	8	13	T	4	4]	1	38.804795 -77.064476
571 55 Switch Pt	572	38	L Cant Neg	-0.10	[17	13	Т	ļ	4	1	38.804815 -77.064407
570 99 Down Chain 570.00 13 B 4 1 38.805042 -77.063627 569 28 Tunnel End 12 B 4 1 38.805111 -77.063391 567 32 R Cant Neg -0.70 18 12 B 4 1 38.805333 -77.062771 567 22 Excess Elevation -6.50 9 12 C 3 4 1 38.805347 -77.062738 567 13 Gage Change 1.04 18 12 C 4 4 1 38.805360 -77.062710 567 13 Gage Wide 57.39 9 12 C 0 4 1 38.805360 -77.062710 567 14 R Align 62 -2.00 12 12 C 3 4 1 38.805368 -77.062713 566 63 Gage Wide 57.34 14 12 E 0 4 1 38.805361 -77.062562 566 28 Gage Wide 57.38 16 12 E 0 4 1 38.805514 -77.062479 566 1 Class Change 5.00 13 E 5 1 38.805566 -77.062406	571	56	L N Guard Check	53.49	10	12	T	Ī	4	1	38.804892 -77.064141
569 28 Tunnel End 12 B 4 1 38.805111 -77.063391 567 32 R Cant Neg -0.70 18 12 B 4 1 38.805333 -77.062771 567 22 Excess Elevation -6.50 9 12 C 3 4 1 38.805347 -77.062738 567 13 Gage Change 1.04 18 12 C 4 4 1 38.805360 -77.062710 567 13 Gage Wide 57.39 9 12 C 0 4 1 38.805360 -77.062710 567 14 R Align 62 -2.00 12 12 C 3 4 1 38.805358 -77.062713 566 63 Gage Wide 57.34 14 12 E 0 4 1 38.805342 -77.062562 566 28 Gage Wide 57.38 16 12 E 0 4 1 38.805514 -77.062479 566 1 Class Change 5.00 13 E 5 1 38.805566 -77.062406	571	55	Switch Pt	I	Ī	12	Т	Ī	4	1	38.804894 -77.064135
Second S	570	99	Down Chain	570.00	Ī	13	В	1	4	1	38.805042 -77.063627
567 22 Excess Elevation -6.50 9 12 C 3 4 1 38.805347 -77.062738 567 13 Gage Change 1.04 18 12 C 4 4 1 38.805360 -77.062710 567 13 Gage Wide 57.39 9 12 C 0 4 1 38.805360 -77.062710 567 14 R Align 62 -2.00 12 12 C 3 4 1 38.805358 -77.062713 566 63 Gage Wide 57.34 14 12 E 0 4 1 38.805358 -77.062562 566 28 Gage Wide 57.38 16 12 E 0 4 1 38.805514 -77.062479 566 1 Class Change 5.00 13 E 5 1 38.805566 -77.062406	569	28	Tunnel End	1	1	12	В	Ī	4	1	38.805111 -77.063391
567 13 Gage Change 1.04 18 12 C 4 4 1 38.805360 -77.062710 567 13 Gage Wide 57.39 9 12 C 0 4 1 38.805360 -77.062710 567 14 R Align 62 -2.00 12 12 C 3 4 1 38.805358 -77.062713 566 63 Gage Wide 57.34 14 12 E 0 4 1 38.805342 -77.062562 566 28 Gage Wide 57.38 16 12 E 0 4 1 38.805514 -77.062479 566 1 Class Change 5.00 13 E 5 1 38.805566 -77.062406				-0.70	18	12	В]	4	1	38.805333 -77.062771
567 13 Gage Wide 57.39 9 12 C 0 4 1 38.805360 -77.062710 567 14 R Align 62 -2.00 12 12 C 3 4 1 38.805358 -77.062713 566 63 Gage Wide 57.34 14 12 E 0 4 1 38.805432 -77.062562 566 28 Gage Wide 57.38 16 12 E 0 4 1 38.805514 -77.062479 566 1 Class Change 5.00 13 E 5 1 38.805566 -77.062406	567	22	Excess Elevation	-6.50	9	12	C	3	4	1	38.805347 -77.062738
567 14 R Align 62 -2.00 12 12 C 3 4 1 38.805358 -77.062713 566 63 Gage Wide 57.34 14 12 E 0 4 1 38.805432 -77.062562 566 28 Gage Wide 57.38 16 12 E 0 4 1 38.805514 -77.062479 566 1 Class Change 5.00 13 E 5 1 38.805566 -77.062406	567	13	Gage Change	1.04	18	12	C	4	4	1	38.805360 -77.062710
566 63 Gage Wide 57.34 14 12 E 0 4 1 38.805432 -77.062562 566 28 Gage Wide 57.38 16 12 E 0 4 1 38.805514 -77.062479 566 1 Class Change 5.00 13 E 5 1 38.805566 -77.062406	567	13	Gage Wide	57.39	9	12	C	0	4	1	38.805360 -77.062710
566 28 Gage Wide 57.38 16 12 E 0 4 1 38.805514 -77.062479 566 1 Class Change 5.00 13 E 5 1 38.805566 -77.062406	567	14	R Align 62	-2.00	12	12	C	3	4	1	38.805358 -77.062713
566 1 Class Change 5.00 13 E 5 1 38.805566 -77.062406	566	63	Gage Wide	57.34	14	12	E	0	4	1	38.805432 -77.062562
Oldas Change Change	566	28	Gage Wide	57.38	16	12	E	0	4	1	38.805514 -77.062479
566 1 Posted Speed 65.00 13 E 5 1 38.805566 -77.062406	566	1	Class Change	5.00	1	13	E	1	5	1	38.805566 -77.062406
	566	1	Posted Speed	65.00	1	13	E	1	5	1	38.805566 -77.062406

Page 3 of 19 2016-02-16 Run ID: 2016021601

See 16	СН	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
	565	57	Gage Wide	57.06	13	13	E	3	5	1	38.805645 -77.062289
Se0 99 Down Chain Se0.00 17 T 5 1 38.80644 -77.060810 557 42 Platform End 18 T 5 1 38.807099 -77.0801124 550 99 Down Chain S50.00 24 C 5 1 38.807099 -77.0802173 550 73 Down Marker S50.00 24 C 5 1 38.808576 -77.082277 550 73 Down Chain S50.00 24 C	565	16	Gage Wide	57.06	14	14	E	3	5	1	38.805721 -77.062182
557 42 Platform End	563	44	Platform Start	1	ı	15	Т	1	5	1	38.806031 -77.061729
	560	99	Down Chain	560.00	1	17	jT	1	5	1	38.806641 -77.060810
	557	42	Platform End			18	T		5	1	38.807099 -77.060124
	550	99	Down Chain	550.00		24	C	1	5	1	38.808514 -77.058277
	550	73	Down Marker	550.00		24	С		5	1	38.808576 -77.058213
533 1	550	12	Down Chain	550.00	1	24	C	1	5	1	38.808578 -77.058211
532 1 Bridge Start	540	99	Down Chain	540.00		25	С		5	1	38.810770 -77.056153
S31 96 Gage Narrow S6.00 2 23 T 1 5 1 38.812633 77.054686 531 31 Gage Narrow S6.01 5 23 T 3 5 1 38.812789 77.054575 531 11 Gage Narrow S5.91 28 23 T 1 5 1 38.812789 77.054575 531 11 Gage Narrow S5.91 28 23 T 1 5 1 38.812844 77.054538 530 83 Gage Narrow S5.98 8 22 T 1 5 1 38.812915 77.054490 530 67 Gage Narrow S5.99 19 22 T 1 5 1 38.812915 77.054490 530 20 Gage Narrow S5.95 11 22 T 1 5 1 38.813102 77.054383 530 1 Bridge End 22 T 1 5 1 38.813112 77.054345 530 99 Down Chain S30.00 22 T 5 1 38.813115 77.054346 529 78 Gage Narrow S5.88 57 22 T 1 5 1 38.813116 77.054309 529 5 Platform Start 22 T 5 1 38.813490 77.054185 522 41 Switch Pt 20 T 5 1 38.814990 77.053063 522 40 L Prof 62 -1.48 2 20 T 5 1 38.814996 77.053062 522 19 L N Guard Check S4.31 0 20 T 5 1 38.81506 77.05284 520 79 Frog 20 T 5 5 1 38.81569 77.052845 520 14 Frog 19 T 5 5 1 38.81569 77.052845 520 99 Down Chain S20.00 19 T 5 5 1 38.81569 77.05288 519 70 Gage Change -1.67 20 19 T 5 5 1 38.815670 77.05288 519 70 Gage Change -1.67 20 19 T 5 5 1 38.815670 77.052845 519 70 Gage Change -1.67 20 19 T 5 5 1 38.815670 77.052826 518 67 L Prof 62 1.39 3 19 B 3 5 1 38.815877 77.052828 519 29 Switch Pt 1 19 T 5 5 1 38.815877 77.052828 519 70 Gage Change -1.67 20 19 T 5 5 1 38.815877 77.052828 519 70 Gage Change -1.67 20 19 T 5 5 1 38.815877 77.052828 519 70 Gage Change -1.67 20 19 T 5 5 1 38.815877 77.052828 519 70 Gage Change -1.67 20 19 T 5 5 1 38.815877 77.052828 519 70 Gage Change	533	1	Posted Speed	75.00	1	23	E	1	5	1	38.812382 -77.054864
S31 31 Gage Narrow 56.01 5 23 T 3 5 1 38.812789 -77.054575	532	1	Bridge Start		1	23	Т		5	1	38.812621 -77.054694
531 11 Gage Narrow 55.91 28 23 T 1 5 1 38.812844 -77.054583 530 83 Gage Narrow 55.98 8 22 T 1 5 1 38.812951 -77.054480 530 67 Gage Narrow 55.99 19 22 T 1 5 1 38.812953 -77.054463 530 20 Gage Narrow 55.95 11 22 T 1 5 1 38.813069 -77.054336 530 1 Bridge End 22 T 5 1 38.813169 -77.054345 530 99 Down Chain 530.00 22 T 5 1 38.81315 -77.054346 529 78 Gage Narrow 55.88 57 22 T 1 5 1 38.81315 -77.054346 529 78 Gage Narrow 55.88 57 22 T 1 5 1 38.81342 -77.054369 529 5 Platform Start 22 T 5 1 38.81342 -77.054365 523 1 Platform End 19 T 5 1 38.81349 -77.053164 522 41 Switch Pt 20 T 5 1 38.814934 -77.053063 522 40 L Prof 62 -1.48 2 20 T 5 1 38.814984 -77.053062 522 19 L N Guard Check 54.31 0 20 T 5 1 38.814984 -77.053028 521 79 Frog 20 T 5 1 38.815076 -77.052848 520 14 Frog 20 T 5 1 38.815076 -77.052888 520 14 Frog 19 T 5 1 38.815076 -77.052888 520 14 Frog 19 T 5 1 38.815076 -77.052888 520 14 Frog 19 T 5 1 38.815070 -77.052888 520 14 Frog 19 T 5 1 38.815670 -77.052888 520 14 Frog 19 T 5 1 38.815760 -77.052888 520 14 Frog 19 T 5 1 38.815070 -77.052888 520 14 Frog 19 T 5 1 38.815710 -77.052843 519 29 Switch Pt 19 T 5 1 38.815771 -77.052843 519 29 Switch Pt 19 T 5 1 38.815771 -77.052843 519 29 Switch Pt 19 T 5 1 38.815877 -77.052828 519 29 Switch Pt 19 T 5 5 1 38.815877 -77.052828 519 29 Switch Pt 19 T 5 5 1 38.815877 -77.052823 518 67 R Prof 62 1.50 6 19 8 3 5 1 38.815877 -77.052823 510 99 Down Chain 510.00 25 C 5 1 38.817976 -77.052823 510 99 Down C	531	96	Gage Narrow	56.00	2	23	τ	1	5	1	38.812633 -77.054686
530 83 Gage Narrow 55.98 8 22 T 1 5 1 38.812915 -77.054490 530 67 Gage Narrow 55.99 19 22 T 1 5 1 38.812953 -77.054493 530 20 Gage Narrow 55.95 11 22 T 1 5 1 38.813069 -77.054335 530 1 Bridge End 22 T 1 5 1 38.81312 -77.054345 530 99 Down Chain 530.00 22 T 5 1 38.813115 -77.054346 529 78 Gage Narrow 55.88 57 22 T 1 5 1 38.813115 -77.054346 529 78 Gage Narrow 55.88 57 22 T 1 5 1 38.813145 -77.054369 529 5 Platform Start 22 T 5 1 38.81342 -77.054185 523 1 Platform End 1 19 T 5 1 38.814790 -77.053164 522 41 Switch Pt 20 T 5 1 38.814934 -77.053063 522 40 L Prof 62 -1.48 2 20 T 5 1 38.814984 -77.053062 522 19 L N Guard Check 54.31 0 20 T 5 1 38.814984 -77.053028 521 79 Frog 20 T 5 1 38.815076 -77.052954 521 40 Gage Change -1.68 21 20 T 5 1 38.815076 -77.05288 520 14 Frog 19 T 5 1 38.815607 -77.052895 520 99 Down Chain 520.00 19 T 5 1 38.81507 -77.052649 520 50 Switch Pt 19 T 5 1 38.81567 -77.052695 518 67 L Prof 62 1.39 3 19 B 3 5 1 38.81567 -77.052629 518 67 R Prof 62 1.50 6 19 B 3 5 1 38.815877 -77.052623 510 99 Down Chain 510.00 25 C 5 1 38.81577 -77.052623 510 99 Down Chain 510.00 25 C 5 1 38.815776 -77.052623 510 75 Down Marker 510.00 25 C 5 1 38.815776 -77.05065 510 75 Down Marker 510.00 25 C 5 1 38.815776 -77.0506959 510 75 Down Marker 510.00 25 C 5 1 38.815776 -77.0506959 510 75 Down Marker 510.00 25 C 5 5 1 38.815776 -77.0506959 510 75 Down Marker 510.00 25 C 5 5 1 38.815776 -77.0506959 510 75 Down Marker 510.0	531	31	Gage Narrow	56.01	5	23	T	3	5	1	38.812789 -77.054575
530 67 Gage Narrow 55.99 19 22 T 1 5 1 38.812953 -77.054463 530 20 Gage Narrow 55.95 11 22 T 1 5 1 38.813069 -77.054383 530 1 Bridge End	531	11	Gage Narrow	55.91	28	23	Т	1 1	5	1	38.812844 -77.054538
530 20 Gage Narrow 55.95 11 22 T 1 5 1 38.813069 -77.054383 530 1 Bridge End	530	83	Gage Narrow	55.98	8	22	T	1	5	1	38.812915 -77.054490
530 1 Bridge End	530	67	Gage Narrow	55.99	19	22	Т] 1	5	. 1	38.812953 -77.054463
530 99 Down Chain 530.00 22 T 5 1 38.813115 77.054346 529 78 Gage Narrow 55.88 57 22 T 1 5 1 38.813168 -77.054309 529 5 Platform Start 22 T 5 1 38.813342 -77.054185 523 1 Platform End 19 T 5 1 38.814790 -77.053164 522 41 Switch Pt 20 T 5 1 38.814934 -77.053063 522 40 L Prof 62 -1.48 2 20 T 3 5 1 38.814936 -77.053062 522 19 L N Guard Check 54.31 0 20 T 5 1 38.815976 -77.052954 521 79 Frog 20 T 5 1 38.815076 -77.052954 521 40 Gage Change -1.68 21 20 T 5 5 1 38.815169 -77.052888 520 14 Frog 19 T 5 1 38.815076 -77.052888 520 14 Frog 19 T 5 1 38.815501 -77.052649 519 70 Gage Change -1.67 20 19 T 5 1 38.815572 -77.052595 519 29 Switch Pt 19 T 5 1 38.815670 -77.052529 518 67 L Prof 62 1.39 3 19 B 3 5 1 38.815817 -77.052423 510 99 Down Chain 510.00 25 C 5 1 38.817912 -77.050959 510 75 Down Marker 510.00 25 C 5 1 38.817912 -77.050959 510 75 Down Marker 510.00 25 C 5 1 38.817976 -77.050959 520 75 Down Marker 510.00 25 C 5 1 38.817976 -77.050959 520 78 Down Marker 510.00 25 C 5 1 38.817976 -77.050959 520 78 Down Marker 510.00 25 C 5 5 1 38.817976 -77.050959 520 78 Down Marker 510.00 25 C 5 5 1 38.817976 -77.050959 520 78 Down Marker 510.00 25 C 5 5 1 38.817976 -77.050959 520 78 Down Marker 510.00 25 C 5 5 1 38.817976 -77.050959 520 78 Down Marker 510.00 25 C 5 5 1 38.817976 -77.050959 520 78 Down Marker 510.00 25 C 5 5 1 38.817976 -77.050959 520 78 Down Marker 510.00 25 C 5 5 1 38.817976 -77.050959 520 78 Down Marker 510.00 25 C	530	20	Gage Narrow	55.95	11	22	T	1 1	5	1	38.813069 -77.054383
529 78 Gage Narrow 55.88 57 22 T 1 5 1 38.813168 -77.054309 529 5 Platform Start	530	1	Bridge End	1	1	22	T		5	1	38.813112 -77.054347
529 5	530	99	Down Chain	530.00	1	22	T	j	5	1	38.813115 -77.054346
523 1	529	78	Gage Narrow	55.88	57	22	T	1	5	1	38.813168 -77.054309
522 41 Switch Pt 20 T 5 1 38.814934 -77.053063 522 40 L Prof 62 -1.48 2 20 T 3 5 1 38.814936 -77.053062 522 19 L N Guard Check 54.31 0 20 T 5 1 38.814984 -77.053028 521 79 Frog 20 T 5 5 1 38.815076 -77.052954 521 40 Gage Change -1.68 21 20 T 5 5 1 38.815169 -77.052888 520 14 Frog 19 T 5 1 38.815468 -77.052673 520 99 Down Chain 520.00 19 T 5 5 1 38.815501 -77.052649 519 70 Gage Change -1.67 20 19 T 5 5 1 38.815572 -77.052698 519 29 Switch Pt 19 T 5 5 1 38.815670 -77.052629 518 67 R Prof 62 1.39 3 19 B 3 5 1 38.815817 -77.052423 510 99 Down Chain 510.00 25 C 5 1 38.817972 -77.050959 510 75 Down Marker 510.00 25 C 5	529	5	Platform Start	1	{	22	Т	1	5	1	38.813342 -77.054185
522 40 L Prof 62	523	1	Platform End	1	1	19	T		5	1	38.814790 -77.053164
522 19 L N Guard Check 54.31 0 20 T 5 1 38.814984 -77.053028 521 79 Frog 20 T 5 1 38.815076 -77.052954 521 40 Gage Change -1.68 21 20 T 5 5 1 38.815169 -77.052888 520 14 Frog 19 T 5 1 38.815468 -77.052673 520 99 Down Chain 520.00 19 T 5 1 38.815501 -77.052649 519 70 Gage Change -1.67 20 19 T 5 5 1 38.815572 -77.052598 519 29 Switch Pt 19 T 5 1 38.815670 -77.052529 518 67 L Prof 62 1.39 3 19 B 3 5 1 38.815817 -77.052423 510 99 Down Chain 510.00 25 C 5 1 38.817976 -77.050959 510 75 Down Marker 510.00 25 C 5 1 38.817976 -77.050959	522	41	Switch Pt	1	1	20	Т		5	1	38.814934 -77.053063
521 79 Frog 20 T 5 1 38.815076 -77.052954 521 40 Gage Change -1.68 21 20 T 5 5 1 38.815169 -77.052888 520 14 Frog 19 T 5 1 38.815468 -77.052673 520 99 Down Chain 520.00 19 T 5 1 38.815501 -77.052649 519 70 Gage Change -1.67 20 19 T 5 5 1 38.815572 -77.052598 519 29 Switch Pt 19 T 5 1 38.815670 -77.052529 518 67 L Prof 62 1.39 3 19 B 3 5 1 38.815817 -77.052423 510 99 Down Chain 510.00 25 C 5 1 38.817912 -77.051006 510 75 Down Marker 510.00 25 C 5 1 38.817976 -77.050959	522	40	L Prof 62	-1.48	2	20	Т	3	5	1	38.814936 -77.053062
521 40 Gage Change	522	19	L N Guard Check	54.31	10	20	Т		5	1	38.814984 -77.053028
520 14 Frog 19 T 5 1 38.815468 -77.052673 520 99 Down Chain 520.00 19 T 5 1 38.815501 -77.052649 519 70 Gage Change -1.67 20 19 T 5 5 1 38.815572 -77.052598 519 29 Switch Pt 19 T 5 1 38.815670 -77.052529 518 67 L Prof 62 1.39 3 19 B 3 5 1 38.815817 -77.052423 518 67 R Prof 62 1.50 6 19 B 3 5 1 38.815817 -77.052423 510 99 Down Chain 510.00 25 C 5 1 38.817912 -77.051006 510 75 Down Marker 510.00 25 C 5 1 38.817976 -77.050959	521	79	Frog	1	1	20	T	((5	1	38.815076 -77.052954
520 99 Down Chain 520.00 19 T 5 1 38.815501 -77.052649 519 70 Gage Change -1.67 20 19 T 5 5 1 38.815572 -77.052598 519 29 Switch Pt 19 T 5 1 38.815670 -77.052529 518 67 L Prof 62 1.39 3 19 B 3 5 1 38.815817 -77.052423 518 67 R Prof 62 1.50 6 19 B 3 5 1 38.815817 -77.052423 510 99 Down Chain 510.00 25 C 5 1 38.817912 -77.051006 510 75 Down Marker 510.00 25 C 5 1 38.817976 -77.050959	521	40	Gage Change	-1.68	21	20	T	5	5	1	38.815169 -77.052888
519 70 Gage Change -1.67 20 19 T 5 5 1 38.815572 -77.052598 519 29 Switch Pt 19 T 5 1 38.815670 -77.052529 518 67 L Prof 62 1.39 3 19 B 3 5 1 38.815817 -77.052423 518 67 R Prof 62 1.50 6 19 B 3 5 1 38.815817 -77.052423 510 99 Down Chain 510.00 25 C 5 1 38.817912 -77.051006 510 75 Down Marker 510.00 25 C 5 1 38.817976 -77.050959	520	14	Frog		1	19	T		5	1	38.815468 -77.052673
519 29 Switch Pt 19 T 5 1 38.815670 -77.052529 518 67 L Prof 62 1.39 3 19 B 3 5 1 38.815817 -77.052423 518 67 R Prof 62 1.50 6 19 B 3 5 1 38.815817 -77.052423 510 99 Down Chain 510.00 25 C 5 1 38.817912 -77.051006 510 75 Down Marker 510.00 25 C 5 1 38.817976 -77.050959	520	99	Down Chain	520.00	1	19	T	[[5	1	38.815501 -77.052649
518 67 L Prof 62 1.39 3 19 B 3 5 1 38.815817 -77.052423 518 67 R Prof 62 1.50 6 19 B 3 5 1 38.815817 -77.052423 510 99 Down Chain 510.00 25 C 5 1 38.817912 -77.051006 510 75 Down Marker 510.00 25 C 5 1 38.817976 -77.050959	519	70	Gage Change	-1.67	20	19	T	5	5	1	38.815572 -77.052598
518 67 R Prof 62 1.50 6 19 B 3 5 1 38.815817 -77.052423 510 99 Down Chain 510.00 25 C 5 1 38.817912 -77.051006 510 75 Down Marker 510.00 25 C 5 1 38.817976 -77.050959	519	29	Switch Pt	1	1	19	Т		5	1	38.815670 -77.052529
510 99 Down Chain 510.00 25 C 5 1 38.817912 -77.051006 510 75 Down Marker 510.00 25 C 5 1 38.817976 -77.050959	518	67	L Prof 62	1.39	3	19	В	3	5	1	38.815817 -77.052423
510 75 Down Marker 510.00 25 C 5 1 38.817976 -77.050959	518	67	R Prof 62	1.50	6	19	В	3	5	1	38.815817 -77.052423
	510	99	Down Chain	510.00	1	25	С		5	1	38.817912 -77.051006
510 12 Down Chain 510.00 25 C 5 1 38.817978 -77.050957	510	75	Down Marker	510.00	-	25	С		5	1	38.817976 -77.050959
•	510	12	Down Chain	510.00	1	25	С	1 1	5	1	38.817978 -77.050957

Page 4 of 19 2016-02-16 Run ID: 2016021601

506 65	СН	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
Soc Color	508	72	Gage Narrow	56.00	2	26	С	1 1	5	1	38.818279 -77.050738
S00 99 Down Chain	506	65	Tunnel Start	Ī	1	27	С		5	1	38.818765 -77.050363
490 99 Down Chain	506	60	L Face Angle27.30	1	2	27	E	1	5	1	38.818774 -77.050355
489 40 Gage Wide	500	99	Down Chain	500.00	1	27	Т		5	1	38.820307 -77.049114
485 12 Gage Wide	490	99	Down Chain	490.00		24	С		5	1	38.822655 -77.047328
481 77 R Face Angle 26.70 3 23 C 5 1 38.824796 77.046489 480 99 Down Chain 480.00 24 E 5 1 38.82580 77.046398 480 71 Down Marker 480.00 24 E 5 1 38.82580 77.046398 480 12 Down Chain 480.00 24 E	489	40	Gage Wide	57.04	3	24	С	3	5	1	38.822805 -77.047241
480 99 Down Chain	485	12	Gage Wide	57.06	7	23	С	3	5	1	38.823906 -77.046740
480	481	77	R Face Angle	26.70	3	23	С	1	5	1	38.824798 -77.046489
480 12	480	99	Down Chain	480.00		24	E		5	1	38.825280 -77.046408
479 60 Gage Wide	480	71	Down Marker	480.00	1	24	E	l	5	1	38.825365 -77.046398
479 56	480	12	Down Chain	480.00	1	24	E		5	1	38.825367 -77.046397
483 4	479	60	Gage Wide	57.00	2	24	E	3	5	1	38.825476 -77.046385
470 99	479	56	Tunnel End	}	1	24	E		5	1	38.825487 -77.046384
467 68	483	4	Lmt Speed 3	72.00	1183	24	С		5	1	38.824480 -77.046563
460 99	470	99	Down Chain	470.00	1	26	В		5	1	38.828048 -77.046123
450 99 Down Chain	467	68	Excess Elevation	-6.29	9	26	С	3	5	1	38.828678 -77.046123
450 88	460	99	Down Chain	460.00	1	30	Т		5	1	38.830753 -77.046405
450 12 Down Chain	450	99	Down Chain	450.00	1	30	С		5	1	38.833484 -77.046671
441 67	450	88	Down Marker	450.00	1	30	С		5	1	38.833522 -77.046668
440 57 Excess Elevation	450	12	Down Chain	450.00	1	30	С		5	1	38.833525 -77.046668
440 99 Down Chain	441	67	Lmt Speed 3	74.00	21	30	С		5	1	38.836159 -77.046336
439 54 Excess Elevation -6.13 1 30 C 4 5 1 38.836375 -77.046337 438 11 Gage Wide 57.02 1 29 C 3 5 1 38.836766 -77.046363 435 88 Excess Elevation -6.28 19 30 C 3 5 1 38.837370 -77.046465 431 95 Excess Elevation -6.20 9 31 C 4 5 1 38.838394 -77.046829 431 46 Excess Elevation -6.40 26 30 C 3 5 1 38.838394 -77.046829 430 99 Down Chain 430.00 30 E 5 1 38.838891 -77.047096 432 38 Lmt Speed 3 69.00 972 30 C 5 1 38.838481 -77.046870 423 51 Bridge Start 30 B 5 1 38.840431 -77.048311 422 51 Excess Elevation 6.42 131 31 B 3 5 1 38.840673 -77.048331 421 1 Excess Elevation 6.16 20 30 C 4 5 1 38.841047 -77.048550 420 68 Excess Elevation 6.12 2 30 C 4 5 1 38.841129 -77.048667 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.	440	57	Excess Elevation	-6.64	62	30	В	2	5	1	38.836094 -77.046338
438 11 Gage Wide 57.02 1 29 C 3 5 1 38.836766 -77.046363 435 88 Excess Elevation -6.28 19 30 C 3 5 1 38.837370 -77.046465 431 95 Excess Elevation -6.20 9 31 C 4 5 1 38.838394 -77.046829 431 46 Excess Elevation -6.40 26 30 C 3 5 1 38.838522 -77.046891 430 99 Down Chain 430.00 30 E 5 1 38.838891 -77.047096 432 38 Lmt Speed 3 69.00 972 30 C 5 1 38.838481 -77.046870 423 51 Bridge Start 30 B 5 1 38.840431 -77.048171 422 51 Excess Elevation 6.42 131 31 B 3 5 1 38.840673 -77.048331 421 1 Excess Elevation 6.16 20 30 C 4 5 1 38.841047 -77.048550 420 68 Excess Elevation 6.12 2 30 C 4 5 1 38.841254 -77.048667 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667 420	440	99	Down Chain	440.00	1	30	С		5	1	38.836249 -77.046336
435 88 Excess Elevation -6.28 19 30 C 3 5 1 38.837370 -77.046465 431 95 Excess Elevation -6.20 9 31 C 4 5 1 38.838394 -77.046829 431 46 Excess Elevation -6.40 26 30 C 3 5 1 38.838522 -77.046891 430 99 Down Chain 430.00 30 E 5 1 38.838891 -77.047096 432 38 Lmt Speed 3 69.00 972 30 C 5 1 38.838481 -77.046870 423 51 Bridge Start 30 B 5 1 38.840431 -77.048711 422 51 Excess Elevation 6.42 131 31 B 3 5 1 38.840673 -77.048331 421 1 Excess Elevation 6.16 20 30 C 4 5 1 38.841047 -77.048550 420 68 Excess Elevation 6.12 2 30 C 4 5 1 38.84129 -77.048598 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667	439	54	Excess Elevation	-6.13	1	30	С	4	5	1	38.836375 -77.046337
431 95 Excess Elevation -6.20 9 31 C 4 5 1 38.838394 -77.046829 431 46 Excess Elevation -6.40 26 30 C 3 5 1 38.838522 -77.046891 430 99 Down Chain 430.00 30 E 5 1 38.838891 -77.047096 432 38 Lmt Speed 3 69.00 972 30 C 5 1 38.838481 -77.046870 423 51 Bridge Start 30 B 5 1 38.840431 -77.048171 422 51 Excess Elevation 6.42 131 31 B 3 5 1 38.840673 -77.048331 421 1 Excess Elevation 6.16 20 30 C 4 5 1 38.841129 -77.048598 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667 420 4	438	11	Gage Wide	57.02	1	29	С	3	5	1	38.836766 -77.046363
431 46 Excess Elevation -6.40 26 30 C 3 5 1 38.838522 -77.046891 430 99 Down Chain 430.00 30 E 5 1 38.838891 -77.047096 432 38 Lmt Speed 3 69.00 972 30 C 5 1 38.838481 -77.046870 423 51 Bridge Start 30 B 5 1 38.840431 -77.048171 422 51 Excess Elevation 6.42 131 31 B 3 5 1 38.840673 -77.048331 421 1 Excess Elevation 6.16 20 30 C 4 5 1 38.841047 -77.048550 420 68 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048598 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667 420 420 420 420 430 4	435	88	Excess Elevation	-6.28	19	30	С	3	5	1	38.837370 -77.046465
430 99 Down Chain 430.00 30 E 5 1 38.838891 -77.047096 432 38 Lmt Speed 3 69.00 972 30 C 5 1 38.838481 -77.046870 423 51 Bridge Start 30 B 5 1 38.840431 -77.048171 422 51 Excess Elevation 6.42 131 31 B 3 5 1 38.840673 -77.048331 421 1 Excess Elevation 6.16 20 30 C 4 5 1 38.841047 -77.048550 420 68 Excess Elevation 6.12 2 30 C 4 5 1 38.841129 -77.048598 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667	431	95	Excess Elevation	-6.20	9	31	С	4	5	1	38.838394 -77.046829
432 38 Lmt Speed 3 69.00 972 30 C 5 1 38.838481 -77.046870 423 51 Bridge Start 30 B 5 1 38.840431 -77.048171 422 51 Excess Elevation 6.42 131 31 B 3 5 1 38.840673 -77.048331 421 1 Excess Elevation 6.16 20 30 C 4 5 1 38.841047 -77.048550 420 68 Excess Elevation 6.12 2 30 C 4 5 1 38.841129 -77.048598 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667	431	46	Excess Elevation	-6.40	26	30	С	3	5	1	38.838522 -77.046891
423 51 Bridge Start 30 B 5 1 38.840431 -77.048171 422 51 Excess Elevation 6.42 131 31 B 3 5 1 38.840673 -77.048331 421 1 Excess Elevation 6.16 20 30 C 4 5 1 38.841047 -77.048550 420 68 Excess Elevation 6.12 2 30 C 4 5 1 38.841129 -77.048598 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667	430	99	Down Chain	430.00	1	30	E		5	1	38.838891 -77.047096
422 51 Excess Elevation 6.42 131 31 B 3 5 1 38.840673 -77.048331 421 1 Excess Elevation 6.16 20 30 C 4 5 1 38.841047 -77.048550 420 68 Excess Elevation 6.12 2 30 C 4 5 1 38.841129 -77.048598 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667	432	38	Lmt Speed 3	69.00	972	30	С		5	1	38.838481 -77.046870
421 1 Excess Elevation 6.16 20 30 C 4 5 1 38.841047 -77.048550 420 68 Excess Elevation 6.12 2 30 C 4 5 1 38.841129 -77.048598 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667	423	51	Bridge Start	1	1	30	В		5	1	38.840431 -77.048171
420 68 Excess Elevation 6.12 2 30 C 4 5 1 38.841129 -77.048598 420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667	422	51	Excess Elevation	6.42	131	31	В	3	5	1	38.840673 -77.048331
420 18 Excess Elevation 6.17 18 30 C 4 5 1 38.841254 -77.048667	421	1	Excess Elevation	6.16	20	30	С	4	5	1	38.841047 -77.048550
LACOUS LISTAGES	420	68	Excess Elevation	6.12	2	30	С	4	5	1	38.841129 -77.048598
420 99 Down Chain 420.00 30 C 5 1 38.841300 -77.048691	420	18	Excess Elevation	6.17	18	30	С	4	5	1	38.841254 -77.048667
	420	99	Down Chain	420.00	1	30	С		5	1	38.841300 -77.048691

Page 5 of 19 2016-02-16 Run ID: 2016021601

418	СН	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
420	418	98	Excess Elevation	6.12	5	29	С	4	5	1	38.841558 -77.048824
419 95	420	94	Down Marker	420.00		29	С	1 1	5	1	38.841574 -77.048832
A19 28	420	12	Down Chain	420.00		29	С		5	1	38.841576 -77.048833
417 70	419	95	Excess Elevation	6.11	1	29	С	4	5	1	38.841589 -77.048839
117 5	419	28	Excess Elevation	6.38	170	29	С	3	5	1	38.841759 -77.048919
1416 60	417	70	Excess Elevation	6.40	47	30	С	3	5	1	38.842165 -77.049104
115	417	5	Excess Elevation	6.16	6	31	С	4	5	1	38.842343 -77.049172
115	416	60	Excess Elevation	6.21	74	31	С	4	5	1	38.842467 -77.049216
110	415	1	Posted Speed	45.00	1	33	С		4	1	38.842888 -77.049359
110	415	1	Class Change	4.00	i	33	С	1 1	4	1	38.842888 -77.049359
A07	410	63	Down Marker	410.00	1	29	т		4	1	38.844059 -77.049705
407 15	410	12	Down Chain	410.00	I	29	Т	1 1	4	1	38.844061 -77.049706
406 35 Gage Wide	407	82	L Prof 62	-1.48	12	27	В	3	4	1	38.844635 -77.049872
406 40	407	15	Bridge Start		1	27	В		4	1	38.844817 -77.049905
406 4 Excess Elevation 6.37 1 28 B 3 4 1 38.845122 -77.049931	406	35	Gage Wide	57.13	2	27	В] 1	4	1	38.845037 -77.049926
406 0 Gage Wide 57.22 10 28 B 1 4 1 38.845132 -77.049931	406	40	L Cant Neg	-0.60	15	27	В		4	1	38.845021 -77.049924
406 7 R Cant Neg	406	4	Excess Elevation	6.37	1	28	В	3	4	1	38.845122 -77.049931
405 73 Excess Elevation 6.49 14 27 B 3 4 1 38.845206 -77.049932	406	0	Gage Wide	57.22	10	28	В	1 1	4	1	38.845132 -77.049931
405 48 Excess Elevation 6.36 5 27 B 3 4 1 38.845275 -77.049931 405 24 L Cant Neg	406	7	R Cant Neg	-0.90	45	27	В		4	1	38.845111 -77.049931
405 24 L Cant Neg	405	73	Excess Elevation	6.49	14	27	В	3	4	1	38.845206 -77.049932
405 3 Excess Elevation 6.40 3 27 E 3 4 1 38.845405 -77.049919 405 1 Gage Wide 57.29 8 28 E 0 4 1 38.845410 -77.049918 406 61 Lmt Speed 3 44.00 36 27 C 4 4 1 38.845299 -77.049930 404 82 Gage Change -0.75 19 27 C 4 4 1 38.845262 -77.049912 403 68 R Cant Neg -0.50 15 28 C 4 1 38.845766 -77.049834 403 54 Gage Wide 57.37 11 28 C 0 4 1 38.845794 -77.049814 403 11 Excess Elevation 6.57 11 28 C 2 4 1 38.845905 -77.049768 402 76 Excess Elevation 6.37 4 28 C 3 4 1 38.845995 -77.049727 402 66 Excess Elevation 6.39 6 28 C 3 4 1 38.846020 -77.049713 402 26 Excess Elevation 6.38 2 28 C 3 4 1 38.846124 -77.049656 402 25 Gage Wide 57.32 35 28 C 0 4 1 38.846126 -77.049655 402 11 Excess Elevation 6.43 9 28 C 3 4 1 38.846126 -77.049655 402 11 Excess Elevation 6.43 9 28 C 3 4 1 38.846126 -77.049655 402 11 Excess Elevation 6.43 9 28 C 3 4 1 38.846126 -77.049651 402 2 Excess Elevation 6.36 2 28 C 3 4 1 38.846136 -77.049621 402 2 Excess Elevation 6.36 2 28 C 3 4 1 38.846136 -77.049621 402 2 Excess Elevation 6.36 2 28 C 3 4 1 38.846136 -77.049621 402 2 Excess Elevation 6.36 2 28 C 3 4 1 38.846136 -77.049621 402 2 Excess Elevation 6.36 2 28 C 3 4 1 38.846136 -77.049621 402 2 Excess Elevation 6.36 2 28 C 3 4 1 38.846136 -77.049621 402 2 Excess Elevation 6.36 2 28 C 3 4 1 38.846136 -77.049621 402 2 Excess Elevation 6.36 2 28 C 3 4 1 38.846136 -77.049621 402 2 Excess Elevation 6.36 2 28 C 3 4 1 38.846136 -77.049621 402 2 Excess Elevation 6.36 2 28 C 3 4 1 38.846136 -77.049621	405	48	Excess Elevation	6.36	5	27	В	3	4	1	38.845275 -77.049931
405 1 Gage Wide	405	24	L Cant Neg	-0.20	24	27	С		4	1	38.845338 -77.049927
406 61 Lmt Speed 3	405	3	Excess Elevation	6.40	3	27	E	3	4	1	38.845405 -77.049919
404 82 Gage Change	405	1	Gage Wide	57.29	8	28	E	0	4	1	38.845410 -77.049918
403 68 R Cant Neg	406	61	Lmt Speed 3	44.00	36	27	С		4	1	38.845299 -77.049930
403 54 Gage Wide 57.37 11 28 C 0 4 1 38.845794 -77.049814 403 11 Excess Elevation 6.57 11 28 C 2 4 1 38.845905 -77.049768 402 76 Excess Elevation 6.37 4 28 C 3 4 1 38.845995 -77.049727 402 66 Excess Elevation 6.39 6 28 C 3 4 1 38.846020 -77.049713 402 26 Excess Elevation 6.38 2 28 C 3 4 1 38.846124 -77.049656 402 25 Gage Wide 57.32 35 28 C 0 4 1 38.846126 -77.049655 402 11 Excess Elevation 6.43 9 28 C 3 4 1 38.846161 -77.049635 402 2 Excess Elevation 6.36 2 28 C 3 4 1 38.846183 -77.049621	404	82	Gage Change	-0.75	19	27	С	4	4	1	38.845462 -77.049912
403 11 Excess Elevation 6.57 11 28 C 2 4 1 38.845905 -77.049768 402 76 Excess Elevation 6.37 4 28 C 3 4 1 38.845995 -77.049727 402 66 Excess Elevation 6.39 6 28 C 3 4 1 38.846020 -77.049713 402 26 Excess Elevation 6.38 2 28 C 3 4 1 38.846124 -77.049656 402 25 Gage Wide 57.32 35 28 C 0 4 1 38.846126 -77.049655 402 11 Excess Elevation 6.43 9 28 C 3 4 1 38.846161 -77.049635 402 2 Excess Elevation 6.36 2 28 C 3 4 1 38.846183 -77.049621 402 2 Excess Elevation 6.36 2 28 C 3 4 1 38.846183 -77.049621	403	68	R Cant Neg	-0.50	15	28	С	1	4	1	38.845756 -77.049834
402 76 Excess Elevation 6.37 4 28 C 3 4 1 38.845995 -77.049727 402 66 Excess Elevation 6.39 6 28 C 3 4 1 38.846020 -77.049713 402 26 Excess Elevation 6.38 2 28 C 3 4 1 38.846124 -77.049656 402 25 Gage Wide 57.32 35 28 C 0 4 1 38.846126 -77.049655 402 11 Excess Elevation 6.43 9 28 C 3 4 1 38.846161 -77.049635 402 2 Excess Elevation 6.36 2 28 C 3 4 1 38.846183 -77.049621	403	54	Gage Wide	57.37	11	28	С	0	4	1	38.845794 -77.049814
402 66 Excess Elevation 6.39 6 28 C 3 4 1 38.846020 -77.049713 402 26 Excess Elevation 6.38 2 28 C 3 4 1 38.846124 -77.049656 402 25 Gage Wide 57.32 35 28 C 0 4 1 38.846126 -77.049655 402 11 Excess Elevation 6.43 9 28 C 3 4 1 38.846161 -77.049635 402 2 Excess Elevation 6.36 2 28 C 3 4 1 38.846183 -77.049621	403	11	Excess Elevation	6.57	11	28	С	2	4	1	38.845905 -77.049768
402 26 Excess Elevation 6.38 2 28 C 3 4 1 38.846124 -77.049656 402 25 Gage Wide 57.32 35 28 C 0 4 1 38.846126 -77.049655 402 11 Excess Elevation 6.43 9 28 C 3 4 1 38.846161 -77.049635 402 2 Excess Elevation 6.36 2 28 C 3 4 1 38.846183 -77.049621	402	76	Excess Elevation	6.37	4	28	С	3	4	1	38.845995 -77.049727
402 25 Gage Wide 57.32 35 28 C 0 4 1 38.846126 -77.049655 402 11 Excess Elevation 6.43 9 28 C 3 4 1 38.846161 -77.049635 402 2 Excess Elevation 6.36 2 28 C 3 4 1 38.846183 -77.049621	402	66	Excess Elevation	6.39	6	28	С	3	4	1	38.846020 -77.049713
402 11 Excess Elevation 6.43 9 28 C 3 4 1 38.846161 -77.049635 402 2 Excess Elevation 6.36 2 28 C 3 4 1 38.846183 -77.049621	402	26	Excess Elevation	6.38	2	28	С	3	4	1	38.846124 -77.049656
402 2 Excess Elevation 6.36 2 28 C 3 4 1 38.846183 -77.049621	402	25	Gage Wide	57.32	35	28	С	0	4	1	38.846126 -77.049655
TO A CONTRACT TO	402	11	Excess Elevation	6.43	9	28	С	3	4	1	38.846161 -77.049635
402 49 R Cant Neg -1.10 65 28 C 4 1 38.846061 -77.049692	402	2	Excess Elevation	6.36	2	28	С	3	4	1	38.846183 -77.049621
	402	49	R Cant Neg	-1.10	65	28	С	1	4	1	38.846061 -77.049692

Page 6 of 19 2016-02-16 Run ID: 2016021601

401 87	СН	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
401 58	401	97	Gage Wide	57.33	12	28	С	0	4	1	38.846196 -77.049614
401 51 Gage Wide 57.21 10 28 C 1 4 1 38.846506 -77.049538 401 19 Excess Elevation 6.40 11 29 C 3 4 1 38.846506 -77.049582 400 99 Excess Elevation 6.50 11 28 C 2 4 1 38.846538 -77.049482 400 93 R Cant Neg	401	82	Excess Elevation	6.42	8	28	С	3	4	1	38.846231 -77.049589
401 19 Excess Elevation	401	58	Excess Elevation	6.59	15	28	С	2	4	1	38.846289 -77.049550
A00 99 Excess Elevation 6.50 11 28 C 2 4 1 38.846433 -77.049445	401	51	Gage Wide	57.21	10	28	С	1 1	4	1	38.846306 -77.049538
400 93	401	19	Excess Elevation	6.40	11	29	С	3	4	1	38.846385 -77.049482
400 69 Excess Elevation 6.42 5 29 C 3 4 1 33.846501 -77.049387 400 67 Gage Wide 57.38 64 29 C 0 4 1 38.846506 -77.049381 400 69 L Cant Neg -0.90 20 29 C 4 1 38.846599 -77.049381 400 45 R Cant Neg -0.70 25 29 C 4 1 38.846599 -77.049381 400 44 Gage Wide 57.23 13 29 C 1 4 1 38.846592 -77.049331 400 27 Gage Wide 57.13 3 29 C 1 4 1 38.846594 -77.049331 400 27 Gage Wide 57.13 3 29 C 1 4 1 38.846544 -77.049301 400 99 Down Chain 400.00 28 C 4 1 38.846544 -77.049301 400 99 Down Chain 6.55 16 29 C 2 4 1 38.846574 -77.049301 399 55 Gage Wide 57.11 1 29 C 3 4 1 38.846573 -77.049041 399 18 Gage Wide 57.11 1 29 C 3 4 1 38.846500 -77.049056 399 89 Gage Wide 57.28 20 29 C 0 4 1 38.846500 -77.048905 398 99 Excess Elevation 6.45 6 29 C 3 4 1 38.846500 -77.048908 398 83 Excess Elevation 6.45 6 29 C 3 4 1 38.846500 -77.048908 398 83 Excess Elevation 6.45 6 29 C 3 4 1 38.846500 -77.048908 398 83 Excess Elevation 6.45 6 29 C 3 4 1 38.846900 -77.048908 398 44 Gage Wide 57.26 20 29 C 3 4 1 38.846900 -77.048908 398 44 Gage Wide 57.20 6 29 E 1 4 1 38.846900 -77.048908 398 44 Gage Wide 57.12 2 29 E 1 4 1 38.846900 -77.048908 398 56 Excess Elevation 6.36 22 29 E 1 4 1 38.846900 -77.048908 398 57 Face Selevation 6.50 20 20 E 1 4 1 38.846900 -77.048908 398 58 Gage Wide 57.12 2 29 E 1 4 1 38.846900 -77.048908 398 57 Gage Wide 57.12 2 29 E 1 4 1 38.846900 -77.048908 398 58 Gage Wide 57.12 2 29 E 1 4 1 38.846900 -77.048908 398 59 Dow	400	99	Excess Elevation	6.50	11	28	С	2	4	1	38.846433 -77.049445
400 67 Gage Wide	400	93	R Cant Neg	-0.70	20	29	С		4	1	38.846444 -77.049435
400 69	400	69	Excess Elevation	6.42	5	29	С	3	4	1	38.846501 -77.049387
400	400	67	Gage Wide	57.38	64	29	С	0	4	1	38.846506 -77.049383
400	400	69	L Cant Neg	-0.90	20	29	С		4 [1	38.846499 -77.049389
	400	45	R Cant Neg	-0.70	25	29	С	1 1	4	1	38.846552 -77.049341
100 98 Down Chain	400	44	Gage Wide	57.23	13	29	С	1 1	4	1	38.846557 -77.049337
399 67 Excess Elevation 6.55 16 29 C 2 4 1 38.846720 77.049166 399 56 Gage Wide 57.19 5 29 C 1 4 1 38.846743 77.049140 399 18 Gage Wide 57.11 1 29 C 3 4 1 38.846811 77.049041 399 24 Excess Elevation 6.56 23 29 C 2 4 1 38.846800 77.049056 398 98 Gage Wide 57.26 20 29 C 0 4 1 38.846850 77.048991 398 95 Excess Elevation 6.45 6 29 C 3 4 1 38.846855 77.048984 398 83 Excess Elevation 6.40 7 29 C 3 4 1 38.846855 77.048984 398 66 Excess Elevation 6.36 2 29 C 3 4 1 38.846855 77.048984 398 44 Gage Wide 57.21 10 29 E 1 4 1 38.846943 77.048843 398 16 Gage Wide 57.21 10 29 E 1 4 1 38.846943 77.048630 397 64 Gage Wide 57.12 2 29 E 3 4 1 38.84708 77.048620 397 18 Gage Wide 57.12 2 29 E 3 4 1 38.84708 77.048849 404 15 Lmt Speed 3 43.00 639 28 C 4 1 38.84714 77.048847 395 1 Posted Speed 40.00 27 T 4 1 38.84793 77.04841 390 99 Down Chain 390.00 28 T 4 1 38.84992 77.04816 382 28 Gage Wide 57.17 6 25 B 0 4 1 38.84992 77.04816 382 28 Gage Wide 57.17 6 25 B 4 1 38.84992 77.048416 382 28 Gage Wide 57.17 6 25 B 4 1 38.84913 77.04809 382 34 R Cant Neg -1.70 95 25 B 4 1 38.84913 77.04800 381 58 Excess Elevation -6.39 2 25 C 3 4 1 38.84913 77.04807 380 19 Gage Wide 57.21 15 24 C 1 4 1 38.84961 77.043807 380 19 Gage Wide 57.21 15 24 C 1 4 1 38.84961 77.043807 380 19 Gage Wide 57.21 15 24 C 1 4 1 38.84961 77.043426 380 39 Down Chain 380.00 24 C 4 1 38.84961 77.043467 380 39 Down Chain 380.00 24 C 4 1 38.849615 77.043467 380 380 99 Down Chain 380.00 24 C 4 1	400	27	Gage Wide	57.13	3	29	С	1 1	4	1	38.846594 -77.049301
399 56 Gage Wide 57.19 5 29 C 1 4 1 38.846743 -77.049140 399 18 Gage Wide 57.11 1 29 C 3 4 1 38.846811 -77.049041 399 24 Excess Elevation 6.56 23 29 C 2 4 1 38.846800 -77.049056 398 98 Gage Wide 57.26 20 29 C 0 4 1 38.846800 -77.048981 398 95 Excess Elevation 6.45 6 29 C 3 4 1 38.846855 -77.048984 398 83 Excess Elevation 6.40 7 29 C 3 4 1 38.846875 -77.048984 398 66 Excess Elevation 6.36 2 29 C 3 4 1 38.846875 -77.048949 398 44 Gage Wide 57.21 10 29 E 1 4 1 38.846943 -77.048643 398 16 Gage Wide 57.20 6 29 E 1 4 1 38.846992 -77.048690 397 64 Gage Wide 57.12 2 29 E 1 4 1 38.847078 -77.048690 397 18 Gage Wide 57.12 2 29 E 3 4 1 38.84714 -77.048691 404 15 Lmt Speed 3 43.00 639 28 C 4 1 38.847154 -77.048647 390 99 Down Chain 390.00 28 T 4 1 38.848992 -77.043616 382 28 Gage Wide 57.17 6 25 B 1 4 1 38.849915 -77.043693 381 58 Excess Elevation -6.39 2 25 C 3 4 1 38.849173 -77.043897 380 19 Gage Wide 57.21 15 24 C 1 4 1 38.849173 -77.043897 380 99 Down Chain 380.00 24 C 4 1 38.849173 -77.043897 380 99 Down Chain 380.00 24 C 4 1 38.849173 -77.043897 380 99 Down Chain 380.00 24 C 4 1 38.849616 -77.043492 380 99 Down Chain 380.00 24 C 4 1 38.849616 -77.043492 380 99 Down Chain 380.00 24 C 4 1 38.849675 -77.043492 380 99 Down Chain 380.00 24 C 4 1 1 38.849675 -77.043492 380 99 Down Chain 380.00 24 C 4 1 1 38.849675 -77.043492 380 99 Down Chain 380.00 24 C 4 1 1 1 38.849675 -77.043492 380 99 Down Chain 380.00 24 C 4 1 1 1	400	99	Down Chain	400.00	1	29	С		4	1	38.846651 -77.049242
399 18 Gage Wide	399	67	Excess Elevation	6.55	16	29	С	2	4	1	38.846720 -77.049166
399 24 Excess Elevation 6.56 23 29 C 2 4 1 38.846800 -77.049056 398 98 Gage Wide 57.26 20 29 C 0 4 1 38.846850 -77.048984 398 95 Excess Elevation 6.45 6 29 C 3 4 1 38.846855 -77.048984 398 83 Excess Elevation 6.40 7 29 C 3 4 1 38.846875 -77.048949 398 66 Excess Elevation 6.36 2 29 C 3 4 1 38.846875 -77.048949 398 44 Gage Wide 57.21 10 29 E 1 4 1 38.846906 -77.048843 398 16 Gage Wide 57.20 6 29 E 1 4 1 38.846992 -77.048643 397 64 Gage Wide 57.18 6 29 E 1 4 1 38.847078 -77.048620 397 18 Gage Wide 57.12 2 29 E 3 4 1 38.84714 -77.048489 404 15 Lmt Speed 3 43.00 639 28 C 4 1 38.84714 -77.04847 395 1 Posted Speed 40.00 27 T 4 1 38.847145 -77.047841 390 99 Down Chain 390.00 28 T 4 1 38.848182 -77.04366 382 28 Gage Wide 57.17 6 25 B 0 4 1 38.84918 -77.04369 382 28 Gage Wide 57.17 6 25 B 1 4 1 38.849173 -77.04369 381 58 Excess Elevation -6.39 2 25 C 3 4 1 38.84913 -77.04389 381 58 Excess Elevation -6.39 2 25 C 3 4 1 38.84913 -77.04389 380 19 Gage Wide 57.21 15 24 C 1 4 1 38.849601 -77.043457 380 99 Down Chain 380.00 24 C 1 4 1 38.849601 -77.043457 380 99 Down Chain 380.00 24 C 1 4 1 38.849601 -77.043457 380 99 Down Chain 380.00 24 C 1 4 1 38.849601 -77.043457 380 99 Down Chain 380.00 24 C 1 4 1 38.849601 -77.043457 380 99 Down Chain 380.00 24 C 1 4 1 38.849601 -77.043457 380 99 Down Chain 380.00 24 C 1 4 1 38.849601 -77.043457 380 99 Down Chain 380.00 24 C 1 4 1 38.849601 -77.043457 380 99 Down Chain 380.00 24 C 1 4 1 1 38.849601 -77.043457 380 99 D	399	56	Gage Wide	57.19	5	29	С	1 1	4	1	38.846743 -77.049140
398 98 Gage Wide 57.26 20 29 C 0 4 1 38.846850 -77.048991 398 95 Excess Elevation 6.45 6 29 C 3 4 1 38.846855 -77.048949 398 83 Excess Elevation 6.40 7 29 C 3 4 1 38.846875 -77.048949 398 66 Excess Elevation 6.36 2 29 C 3 4 1 38.846875 -77.048949 398 44 Gage Wide 57.21 10 29 E 1 4 1 38.846906 -77.048643 398 16 Gage Wide 57.20 6 29 E 1 4 1 38.84693 -77.048643 397 64 Gage Wide 57.18 6 29 E 1 4 1 38.847078 -77.048620 397 18 Gage Wide 57.12 2 29 E 3 4 1 38.84714 -77.048483 404 15 Lmt Speed 3 43.00 639 28 C 4 1 38.84714 -77.049847 395 1 Posted Speed 40.00 27 T 4 1 38.84715 -77.046316 383 52 Gage Wide 57.32 12 25 B 0 4 1 38.84713 -77.04368 382 28 Gage Wide 57.17 6 25 B 1 4 1 38.849185 -77.043989 382 28 Gage Wide 57.17 6 25 B 4 1 38.849185 -77.043989 381 58 Excess Elevation -6.39 2 25 C 3 4 1 38.84913 -77.04387 380 99 Down Chain 380.00 24 C 1 4 1 38.849615 -77.043476 380 99 Down Chain 380.00 24 C 1 4 1 38.849615 -77.043492 380 99 Down Chain 380.00 24 C 1 4 1 38.849615 -77.043492 380 99 Down Chain 380.00 24 C 1 4 1 38.849615 -77.043457 380 99 Down Chain 380.00 24 C 1 4 1 38.849615 -77.043492 380 99 Down Chain 380.00 24 C 1 4 1 38.849615 -77.043457 380 99 Down Chain 380.00 24 C 1 4 1 38.849645 -77.043457 380 99 Down Chain 380.00 24 C 1 4 1 38.849645 -77.043457 380 99 Down Chain 380.00 24 C 1 4 1 38.849645 -77.043457 380 99 Down Chain 380.00 24 C 1 4 1 38.849645 -77.043457 380 99 Down Chain 380.00 24 C 1 4 1 38.849645 -77.043457 380 380 99 Down Chain 3	399	18	Gage Wide	57.11	1	29	С	3	4	1	38.846811 -77.049041
398 95 Excess Elevation 6.45 6 29 C 3 4 1 38.846855 -77.048984 398 83 Excess Elevation 6.40 7 29 C 3 4 1 38.846875 -77.048949 398 66 Excess Elevation 6.36 2 29 C 3 4 1 38.846905 -77.048949 398 44 Gage Wide 57.21 10 29 E 1 4 1 38.84693 -77.048843 398 16 Gage Wide 57.20 6 29 E 1 4 1 38.846992 -77.048767 397 64 Gage Wide 57.18 6 29 E 1 4 1 38.847078 -77.048767 397 18 Gage Wide 57.18 6 29 E 1 4 1 38.847078 -77.048620 397 18 Gage Wide 57.12 2 29 E 3 4 1 38.84714 -77.048489 404 15 Lmt Speed 3 43.00 639 28 C 4 1 1 38.845714 -77.049847 395 1 Posted Speed 40.00 27 T 4 1 38.847453 -77.047841 390 99 Down Chain 390.00 28 T 4 1 38.845714 -77.049847 383 52 Gage Wide 57.32 12 25 B 0 4 1 38.849185 -77.043465 382 28 Gage Wide 57.17 6 25 B 1 4 1 38.849185 -77.043989 382 34 R Cant Neg -1.70 95 25 B 4 1 38.849113 -77.043807 380 19 Gage Wide 57.21 15 24 C 1 4 1 38.849615 -77.043457 38.84999 Down Chain 380.00 24 C 4 1 1 38.849616 -77.043457 380.44061 -77.043457 380 99 Down Chain 380.00 24 C 1 4 1 38.849616 -77.043457 380.44061 -77.043457 380.44061 -77.043457 380.44061 -77.043457 380.44061 -77.043457 380.44061 -77.043457 380.44061 -77.043457 380.44061 -77.043457 -77.043457 -77.043457 380.44061 -77.043457 -77.0434	399	24	Excess Elevation	6.56	23	29	С	2	4	1	38.846800 -77.049056
398 83 Excess Elevation 6.40 7 29 C 3 4 1 38.846875 -77.048949 398 66 Excess Elevation 6.36 2 29 C 3 4 1 38.846905 -77.048945 398 44 Gage Wide 57.21 10 29 E 1 4 1 38.84693 -77.048843 398 16 Gage Wide 57.20 6 29 E 1 4 1 38.846992 -77.048767 397 64 Gage Wide 57.18 6 29 E 1 4 1 38.847078 -77.048620 397 18 Gage Wide 57.12 2 29 E 3 4 1 38.847154 -77.048489 404 15 Lmt Speed 3 43.00 639 28 C 4 1 38.84714 -77.049847 395 1 Posted Speed 40.00 27 T 4 1 38.847453 -77.047841 390 99 Down Chain 390.00 28 T 4 1 38.848122 -77.046316 383 52 Gage Wide 57.32 12 25 B 0 4 1 38.84992 -77.04346 382 28 Gage Wide 57.17 6 25 B 1 4 1 38.849185 -77.043989 382 34 R Cant Neg -1.70 95 25 B 4 1 38.84913 -77.043087 380 19 Gage Wide 57.21 15 24 C 1 4 1 38.84961 -77.043457 380 99 Down Chain 380.00 24 C 4 1 38.84961 -77.043457 380 99 Down Chain 380.00 24 C 4 1 38.84961 -77.043457 380 99 Down Chain 380.00 24 C 4 1 38.84961 -77.043457 380 99 Down Chain 380.00 24 C 4 1 38.84961 -77.043457 380 99 Down Chain 380.00 24 C 4 1 38.84961 -77.043457 380 99 Down Chain 380.00 24 C 4 1 38.84961 -77.043457 380 99 Down Chain 380.00 24 C 4 1 38.84961 -77.043457 380 99 Down Chain 380.00 24 C 4 1 38.84961 -77.043457 380 99 Down Chain 380.00 24 C 4 1 38.84961 -77.043457 380 99 Down Chain 380.00 24 C 4 1 38.84961 -77.043457 380 99 Down Chain 380.00 24 C 4 1 38.84961 -77.043457 380 99 Down Chain 380.00 24 C 4 1 1 38.84961 -77.043457 380 380 380 380 380 380 380 380 380	398	98	Gage Wide	57.26	20	29	С	0	4	1	38.846850 -77.048991
398 66 Excess Elevation 6.36 2 29 C 3 4 1 38.846905 -77.048905 398 44 Gage Wide 57.21 10 29 E 1 4 1 38.846943 -77.048843 398 16 Gage Wide 57.20 6 29 E 1 4 1 38.846992 -77.048767 397 64 Gage Wide 57.18 6 29 E 1 4 1 38.847078 -77.048620 397 18 Gage Wide 57.12 2 29 E 3 4 1 38.847154 -77.048489 404 15 Lmt Speed 3 43.00 639 28 C 4 1 38.84714 -77.049847 395 1 Posted Speed 40.00 27 T 4 1 38.847453 -77.047841 390 99 Down Chain 390.00 28 T 4 1 38.847453 -77.046316 383 52 Gage Wide 57.32 12 25 B 0 4 1 38.84992 -77.043466 382 28 Gage Wide 57.17 6 25 B 1 4 1 38.849185 -77.043989 382 34 R Cant Neg -1.70 95 25 B 4 1 38.849173 -77.043087 380 19 Gage Wide 57.21 15 24 C 1 4 1 38.849645 -77.043457 38.84991 -77.043457 380 99 Down Chain 380.00 24 C 1 4 1 38.849645 -77.043457 380 99 Down Chain 380.00 24 C 1 4 1 38.849645 -77.043457 380 99 Down Chain 380.00 24 C 1 4 1 38.849645 -77.043457 380 99 Down Chain 380.00 24 C 1 4 1 38.849645 -77.043457 380 99 Down Chain 380.00 24 C 1 4 1 38.849645 -77.043457 380 99 Down Chain 380.00 24 C 1 4 1 38.849645 -77.043457 380 380 99 Down Chain 380.00 24 C 1 4 1 38.849645 -77.043457 380 380 99 Down Chain 380.00 24 C 1 4 1 38.849645 -77.043457 380 380 99 Down Chain 380.00 24 C 1 4 1 38.849645 -77.043457 380 380 99 Down Chain 380.00 24 C 1 4 1 38.849645 -77.043457 380 380 99 Down Chain 380.00 24 C 1 4 1 38.849645 -77.043457 380 380 99 Down Chain 380.00 24 C 1 4 1 380.00 380.00 380.00 380.00 380.00 380.00 380.00 380.00 380.00 380.00 380.00	398	95	Excess Elevation	6.45	6	29	С	3	4	1	38.846855 -77.048984
398 44 Gage Wide	398	83	Excess Elevation	6.40	7	29	С	3	4	1	38.846875 -77.048949
398 16 Gage Wide 57.20 6 29 E 1 4 1 38.846992 -77.048767 397 64 Gage Wide 57.18 6 29 E 1 4 1 38.847078 -77.048620 397 18 Gage Wide 57.12 2 29 E 3 4 1 38.847154 -77.048489 404 15 Lmt Speed 3 43.00 639 28 C 4 1 38.845714 -77.049847 395 1 Posted Speed 40.00 27 T 4 1 38.84753 -77.047841 390 99 Down Chain 390.00 28 T 4 1 38.848122 -77.046316 383 52 Gage Wide 57.32 12 25 B 0 4 1 38.848992 -77.044346 382 28 Gage Wide 57.17 6 25 B 1 4 1 38.849185 -77.043989 382 34 R Cant Neg -1.70 95 25 B 4 1 38.849173 -77.044008 381 58 Excess Elevation -6.39 2 25 C 3 4 1 38.849131 -77.043807 380 19 Gage Wide 57.21 15 24 C 1 4 1 38.849645 -77.043457 380 99 Down Chain 380.00 24 C 4 1 38.849645 -77.043457	398	66	Excess Elevation	6.36	2	29	С	3	4	1	38.846906 -77.048905
397 64 Gage Wide 57.18 6 29 E 1 4 1 38.847078 -77.048620 397 18 Gage Wide 57.12 2 29 E 3 4 1 38.847154 -77.048489 404 15 Lmt Speed 3 43.00 639 28 C 4 1 38.847154 -77.049847 395 1 Posted Speed 40.00 27 T 4 1 38.847453 -77.047841 390 99 Down Chain 390.00 28 T 4 1 38.848122 -77.046316 383 52 Gage Wide 57.32 12 25 B 0 4 1 38.848122 -77.044346 382 28 Gage Wide 57.17 6 25 B 1 4 1 38.849185 -77.043989 382 34 R Cant Neg -1.70 95 25 B 4 1 38.849173 -77.043007 380 19 Gage Wide 57.21 15 24 C 1 4 1 38.84961 -77.043457 380 99 Down Chain 380.00 24 C 4 1 38.849645 -77.043457 380 99 Down Chain 380.00 24 C 4 1 38.849645 -77.043457 380 99 Down Chain 380.00 24 C 4 1 38.849645 -77.043457 380 99 Down Chain 380.00 24 C 4 1 38.849645 -77.043457 380 99 Down Chain 380.00 24 C 4 1 38.849645 -77.043457 380 99 Down Chain 380.00 24 C 4 1 38.849645 -77.043457 380 99 Down Chain 380.00 24 C 4 1 38.849645 -77.043457 380 40 40 40 40 40 40 40	398	44	Gage Wide	57.21	10	29	E	1 1	4	1	38.846943 -77.048843
397 18 Gage Wide 57.12 2 29 E 3 4 1 38.847154 -77.048489 404 15 Lmt Speed 3 43.00 639 28 C 4 1 38.845714 -77.049847 395 1 Posted Speed 40.00 27 T 4 1 38.847453 -77.047841 390 99 Down Chain 390.00 28 T 4 1 38.848122 -77.046316 383 52 Gage Wide 57.32 12 25 B 0 4 1 38.84892 -77.04346 382 28 Gage Wide 57.17 6 25 B 1 4 1 38.849185 -77.043989 382 34 R Cant Neg -1.70 95 25 B 4 1 38.849173 -77.044008 381 58 Excess Elevation -6.39 2 25 C 3 4 1 38.849313 -77.043807 380 19 Gage Wide 57.21 15 24 C 1 4 1 38.849601 -77.043457 380 99 Down Chain 380.00 24 C 4 1 38.84965 -77.043457	398	16	Gage Wide	57.20	6	29	E	1 1	4	1	38.846992 -77.048767
404 15	397	64	Gage Wide	57.18	6	29	E	1	4	1	38.847078 -77.048620
395 1 Posted Speed 40.00 27 T 4 1 38.847453 -77.047841 390 99 Down Chain 390.00 28 T 4 1 38.848122 -77.046316 383 52 Gage Wide 57.32 12 25 B 0 4 1 38.848992 -77.044346 382 28 Gage Wide 57.17 6 25 B 1 4 1 38.849185 -77.043989 382 34 R Cant Neg -1.70 95 25 B 4 1 38.849173 -77.044008 381 58 Excess Elevation -6.39 2 25 C 3 4 1 38.849313 -77.043807 380 19 Gage Wide 57.21 15 24 C 1 4 1 38.849601 -77.043492 380 99 Down Chain 380.00 24 C 4 1 38.849645 -77.043457	397	18	Gage Wide	57.12	2	29	E	3	4	1	38.847154 -77.048489
390 99 Down Chain 390.00 28 T 4 1 38.848122 -77.046316 383 52 Gage Wide 57.32 12 25 B 0 4 1 38.848992 -77.044346 382 28 Gage Wide 57.17 6 25 B 1 4 1 38.849185 -77.043989 382 34 R Cant Neg -1.70 95 25 B 4 1 38.849173 -77.044008 381 58 Excess Elevation -6.39 2 25 C 3 4 1 38.849313 -77.043807 380 19 Gage Wide 57.21 15 24 C 1 4 1 38.849601 -77.043492 380 99 Down Chain 380.00 24 C 4 1 38.849645 -77.043457 380.4008	404	15	Lmt Speed 3	43.00	639	28	С		4	1	38.845714 -77.049847
383 52 Gage Wide 57.32 12 25 B 0 4 1 38.848992 -77.044346 382 28 Gage Wide 57.17 6 25 B 1 4 1 38.849185 -77.043989 382 34 R Cant Neg -1.70 95 25 B 4 1 38.849173 -77.044008 381 58 Excess Elevation -6.39 2 25 C 3 4 1 38.849313 -77.043807 380 19 Gage Wide 57.21 15 24 C 1 4 1 38.849601 -77.043492 380 99 Down Chain 380.00 24 C 4 1 38.849645 -77.043457 380.40000 380.40000 380.400000 380.400000000000000000000000000000000000	395	1	Posted Speed	40.00	1	27	T		4	1	38.847453 -77.047841
382 28 Gage Wide 57.17 6 25 B 1 4 1 38.849185 -77.043989 382 34 R Cant Neg -1.70 95 25 B 4 1 38.849173 -77.044008 381 58 Excess Elevation -6.39 2 25 C 3 4 1 38.849313 -77.043807 380 19 Gage Wide 57.21 15 24 C 1 4 1 38.849601 -77.043492 380 99 Down Chain 380.00 24 C 4 1 38.849645 -77.043457 380.4007	390	99	Down Chain	390.00	1	28	Т		4	1	38.848122 -77.046316
382 34 R Cant Neg	383	52	Gage Wide	57.32	12	25	В	0	4	1	38.848992 -77.044346
381 58 Excess Elevation -6.39 2 25 C 3 4 1 38.849313 -77.043807 380 19 Gage Wide 57.21 15 24 C 1 4 1 38.849601 -77.043492 380 99 Down Chain 380.00 24 C 4 1 38.849645 -77.043457	382	28	Gage Wide	57.17	6	25	В	1 1	4	1	38.849185 -77.043989
380 19 Gage Wide 57.21 15 24 C 1 4 1 38.849601 -77.043492 380 99 Down Chain 380.00 24 C 4 1 38.849645 -77.043457	382	34	R Cant Neg	-1.70	95	25	В	1	4	1	38.849173 -77.044008
380 99 Down Chain 380.00 24 C 4 1 38.849645 -77.043457	381	58	Excess Elevation	-6.39	2	25	С	3	4	1	38.849313 -77.043807
360 39 DOWN CHAIN 30000 71 0/0/00 71 0/0/00	380	19	Gage Wide	57.21	15	24	С	1 1	4	1	38.849601 -77.043492
379 89 Gage Wide 57.23 7 24 C 1 4 1 38.849670 -77.043436	380	99	Down Chain	380.00	1	24	С		4	1	38.849645 -77.043457
	379	89	Gage Wide	57.23	7	24	С	1	4	1	38.849670 -77.043436

Page 7 of 19 2016-02-16 Run ID: 2016021601

CH	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
380	22	R Cant Neg	-1.40	61	24	C	1	4	1	38.849592 -77.043500
380	79	Down Marker	380.00	1	23	C		4	1 1	38.849704 -77.043418
380	12	Down Chain	380.00	Ī	23	C	1	4	1 1	38.849706 -77.043416
379	48	R Cant Neg	-0.40	15	23	C	1	4	[1	38.849837 -77.043328
379	71	L Cant Neg	-0.70	58	23	C	1	4	1 1	38.849771 -77.043365
378	70	Gage Wide	57.31	9	23	C	0	4	1 1	38.850037 -77.043210
378	69	L Cant Neg	-0.70	19	23	С		4	1	38.850037 -77.043210
377	74	Gage Wide	57.16	5	22	С	1	4	1	38.850286 -77.043103
377	76	Excess Elevation	-6.46	16	22	С	3	4	1	38.850281 -77.043105
377	40	Gage Wide	57.12	3	22	С	3	4	1	38.850375 -77.043074
377	32	Excess Elevation	-6.38	2	22	С	3	4	1	38.850396 -77.043068
377	18	Excess Elevation	-6.40	4	22	С	3	4	1	38.850434 -77.043058
376	51	Gage Wide	57.12	1 1	21	С	3	4	1	38.850615 -77.043023
376	14	Gage Wide	57.13	2	21	С	1	4	1	38.850714 -77.043010
375	79	Gage Wide	57.14	4	21	С	1	4	1	38.850809 -77.043004
375	2	Gage Wide	57.18	8	20	С	1	4	1	38.851020 -77.043016
374	53	L Cant Neg	-0.40	17	20	E		4	1	38.851150 -77.043036
371	61	Switch Pt		1	17	E		4	1	38.851926 -77.043298
371	42	Gage Change	-2.93	1	17	E	4	4	1	38.851974 -77.043319
371	34	L N Guard Check	54.19	0	17	E		4	1	38.851992 -77.043326
371	34	R Cant Neg	-0.60	14	17	E		4	1	38.851992 -77.043326
370	95	Frog		1	17	Т		4	1	38.852094 -77.043369
370	71	Gage Change	-2.07	5	17	T	4	4	1	38.852156 -77.043395
370	99	Down Chain	370.00	1	17	T		4	1	38.852328 -77.043468
368	48	Platform Start		1	18	Т		4	1	38.852718 -77.043629
362	42	Platform End		Ī	15	T		4	1	38.854319 -77.044272
360	26	Frog		1	17	T		4	1	38.854882 -77.044506
360	0	Gage Change	2.18	2	18	T	4	4	1	38.854948 -77.044539
360	99	Down Chain	360.00	1	18	Т	I	4	1	38.854948 -77.044539
359	39	Switch Pt		1	19	T	I	4	1	38.855108 -77.044601
352	96	Lmt Speed 3	38.00	94	21	С	1	4	1	38.857200 -77.045738
350	99	Down Chain	350.00	1	21	В	1	4	1	38.857418 -77.045968
349	47	R Align 62	-1.86	14	21	В	3	4	1	38.857520 -77.046098
349	43	L Align 62	-1.96	16	21	В	3	4	1	38.857528 -77.046108
349	47	Gage Wide	57.37	39	21	В	0	4	1	38.857520 -77.046098
348	97	L Align 62	1.69	2	23	c (3	4	1	38.857613 -77.046225

Page 8 of 19 2016-02-16 Run ID: 2016021601

CH FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
348 57	Tunnel Start	1	i	23	E	1 1	4	1	38.857684 -77.046332
348 48	Gage Wide	57.19	5	23	E	1 1	4	1	38.857700 -77.046356
348 38	L Align 62	-1.72	5	24	E	3	4	1	38.857717 -77.046384
348 9	Gage Wide	57.27	13	23	E	0	4	1	38.857764 -77.046465
349 12	Lmt Speed 3	37.00	61	23	С		4 j	1	38.857630 -77.046249
347 80	Gage Change	-0.77	29	23	В	4	4	1	38.857809 -77.046548
346 78	Gage Wide	57.15	5	23	С	1 1	4	1	38.857949 -77.046856
344 87	Gage Wide	57.26	7	24	С	0	4	1	38.858127 -77.047483
344 39	Gage Change	0.74	30	24	С	4	4	1	38.858153 -77.047647
344 37	Gage Wide	57.50	19	23	С	0	4	1	38.858154 -77.047654
344 3	Gage Wide	57.22	6	23	С	1 1	4	1	38.858168 -77.047772
343 49	Gage Wide	57.15	5	22	С	11	4	1	38.858182 -77.047960
340 68	Down Marker	340.00	l	20	E	1 1	4	1	38.858160 -77.048598
340 12	Down Chain	340.00	1	19	E	<u> </u>	4	1	38.858159 -77.048601
340 0	Posted Speed	45.00	i	19	E		4	1	38.858159 -77.048601
347 16	Lmt Speed 3	37.00	493	14	С	1	4	1	38.857942 -77.046838
337 63	Gage Narrow	55.97	5	13	Т	1 1	4	1	38.858056 -77.049419
337 34	Platform Start		1	12	T		4	1	38.858044 -77.049519
331 28	Platform End	1	Ī	6	T	<u> </u>	4	1	38.857775 -77.051607
330 99	Down Chain	330.00	1	17	Т	1 1	4	1	38.857718 -77.052048
320 99	Down Chain	320.00	Ī	25	С	1	4	1	38.857379 -77.055512
312 85	Gage Wide	57.21	11	25	С	1 1	4	1	38.857832 -77.057922
312 42	Gage Wide	57.18	7	24	С	1	4	1	38.857894 -77.058050
310 39	Down Marker	310.00	1	24	С	1	4	1	38.857901 -77.058065
310 12	Down Chain	310.00	Ī	24	С	1	4	1	38.857903 -77.058067
309 55	Gage Wide	57.34	9	24	С	0	4	1	38.857972 -77.058197
309 19	Gage Wide	57.17	4	24	С	1 1	4	1	38.858031 -77.058298
307 91	Gage Wide	57.30	19	23	С	0	4	1	38.858263 -77.058633
306 42	Gage Change	0.77	30	24	С	4	4	1	38.858571 -77.058973
306 42	Gage Wide	57.37	15	24	С	0	4	1	38.858571 -77.058973
301 59	Gage Wide	57.14	3	27	С	111	4	1	38.859779 -77.059615
300 99	Down Chain	300.00	1	26	Ε		4	1	38.860212 -77.059656
299 87	Gage Wide	57.18	3	25	Ε	11	4	1	38.860247 -77.059656
298 1	Class Change	5.00	Ī	22	Ε		5	1	38.860754 -77.059606
298 1	Posted Speed	55.00	Ī	22	E	1 1	5	1	38.860754 -77.059606
313 11	Lmt Speed 3	42.00	1231	20	С		5	1	38.857827 -77.057910

Page 9 of 19 2016-02-16 Run ID: 2016021601

СН	FT	Parameter	Value	Len	gth	Speed	TSC	L	СР	C	Track	Peak Lat/Long
296	61	Platform Start	1	1		17	T	Ī	1 :	5	1	38.861134 -77.059552
290	59	Platform End	1	1		18	T	1	5	5	1	38.862770 -77.059318
290	99	Down Chain	290.00	1		18	T	T	5	5 1	1	38.862930 -77.059295
289	91	Switch Pt	1	1		18	T	T	5	5 1	1	38.862955 -77.059292
289	83	L Cant Neg	-0.80] 1	6	18	T	1	5	1	1	38.862976 -77.059289
289	64	L N Guard Check	54.07	1)	19	Т	1	5	1	1	38.863028 -77.059281
289	25	Frog	1	1		19	Т	1	5	1	1	38.863134 -77.059266
289	5	Gage Change	2.48	1	6	19	Т	5	5	- 1	1	38.863188 -77.059258
288	90	Frog	1	1		20	T	1	5	1	1	38.863229 -77.059253
288	69	L N Guard Check	54.48	1 0	,	20	τ	1	5	Ī	1	38.863283 -77.059245
288	71	R Cant Neg	-1.00	1	8	20	T	l	5	1	1	38.863278 -77.059246
288	9	L N Guard Check	53.77	2	:	21	T		5	Ī	1	38.863446 -77.059222
288	8	Switch Pt	1	1	Ī	21	T	Ī	5	ī	1	38.863452 -77.059221
280	14	Down Marker	280.00	1	-	26	С	1	5	ī	1	38.865533 -77.058486
280	12	Down Chain	280.00	1	<u> </u>	26	С	Ī	5	Ī	1	38.865535 -77.058484
276	1	Posted Speed	40.00	-		29	С	1	4	Ī	1	38.866414 -77.057664
276	1	Class Change	4.00	T		29	С	Ī	4	1	1	38.866414 -77.057664
285	56	Lmt Speed 3	53.00	79	3	30	С	<u> </u>	4	T	1	38.864435 -77.059032
270	99	Down Chain	270.00	1		23	Т		1 4	T	1	38.867548 -77.056154
268	39	R Cant Pos	3.80	16	5	23	T		4	ī	1	38.867851 -77.055745
264	22	Platform Start	1	T	Ī	12	T		4	ī	1	38.868637 -77.054684
260	99	Down Chain	260.00	1	١	9	T		4	Ī	1	38.869430 -77.053613
258	17	Platform End	1	1		0	Т		4	Ī	1	38.869774 -77.053148
257	58	Switch Pt		1	-	8	Т		4	1	1	38.869885 -77.052998
257	27	Gage Narrow	55.94	7	1	10	Т [1	4	T	1	38.869943 -77.052920
257	11	Gage Change	0.74	16	1	11	T	4	4	Ī	1	38.869973 -77.052879
257	19	L Cant Neg	-0.50	30	-	12	т [4	1	1	38.869956 -77.052902
256	81	R Cant Neg	-0.30	16	1	13	T		4	Ī	1	38.870027 -77.052805
256	56	Frog		1	Ī	13	T		4	1	1	38.870076 -77.052739
256	38	L Cant Neg	-0.60	19	1	15	T		4	T	1	38.870108 -77.052696
256	13	Gage Change	-3.16	21	1	15	T	4	4	1	1	38.870157 -77.052630
250	99	Down Chain	250.00	ı	1	23	C		4	ī	1	38.871479 -77.051356
250	97	Down Marker	250.00	Ī	Ī	24	C		4	Ī	1	38.871492 -77.051351
250	12	Down Chain	250.00	1	1	23	C		4	Ī	1	38.871495 -77.051350
243	1	Posted Speed	75.00	1	l	24	E		5	Ī	1	38.873311 -77.051754
243	1	Class Change	5.00	1	١	24	Εj		5	i	1	38.873311 -77.051754

Page 10 of 19 2016-02-16 Run ID: 2016021601

240 99 Down Chain 240.00 27 T 5 1 38.873917 -77.052465 230 99 Down Chain 230.00 29 C 5 1 38.875907 -77.054861 220 99 Down Chain 220.00 26 T 5 1 38.878063 -77.057010 220 64 Down Marker 220.00 26 T 5 1 38.878145 -77.057091 220 12 Down Chain 220.00 26 T 5 1 38.878147 -77.057093 219 17 Tunnel End 27 T 5 1 38.878328 -77.057269 210 99 Down Chain 210.00 26 T 5 1 38.880220 -77.059506 200 49 Excess Elevation 6.17 5 29 C 4 5 1 38.882288 -77.061538 200 22 Excess Elevation 6.43 28 29 C 3 5 1 38.882351 -77.061590 200 99 Down Chain 200.00 29 C 5 1 38.882403 -77.061649 199 87 Excess Elevation 6.15 10 29 C 4 5 1 38.882435 -77.061649	СН	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
220 99	245	35	Lmt Speed 3	35.00	893	26	С	1	5	1	38.872924 -77.051467
220 99 Down Chain 220.00 26 T 5 1 38.878053 77.057019	240	99	Down Chain	240.00	1	27	Т	1	5	1	38.873917 -77.052465
220	230	99	Down Chain	230.00	I	29	С	1	5	1	38.875907 -77.054861
220 12 Down Chain 220.00 26 T 5 1 38.878147 77.057089 219 17 Tunnel End 210.00 26 T 5 1 38.878147 77.057089 210 99 Down Chain 210.00 26 T 5 1 38.878147 77.057089 210 99 Down Chain 210.00 26 T 5 1 38.80220 77.057269 220 49 Excess Elevation 6.17 5 29 C 4 5 1 38.80220 77.051538 200 22 Excess Elevation 6.43 28 29 C 3 5 1 38.80236 77.061520 200 99 Down Chain 200.00 29 C 5 1 38.802403 77.061520 200 99 Down Chain 200.00 29 C 4 5 1 38.802403 77.061520 201	220	99	Down Chain	220.00	1	26	Т	1	5	1	38.878063 -77.057010
219 17	220	64	Down Marker	220.00	1	26	T	1	5	1	38.878145 -77.057091
210 99 Down Chain 210.00 26 T 5 1 38.80220 77.059506	220	12	Down Chain	220.00		26	Т		5	1	38.878147 -77.057093
200 49 Excess Elevation 6.17 5 29 C 4 5 1 38.882288 77.061538 200 22 Excess Elevation 6.43 28 29 C 3 5 1 38.88238 77.061530 200 99 Down Chain 200.00 29 C 5 1 38.882403 77.061627 199 87 Excess Elevation 6.15 10 29 C 4 5 1 38.882403 77.0616427 199 11 Excess Elevation 6.28 96 27 C 3 5 1 38.882405 77.061649 199 11 Excess Elevation 6.28 96 27 C 3 5 1 38.88270 77.0616772 198 45 Excess Elevation 6.25 14 25 C 4 5 1 38.88270 77.061877 193 91 Platform Start 16 T 5 1 38.88372 77.062620 190 99 Down Chain 190.00 12 T 5 1 38.883912 77.063735 187 93 Platform End 190.00 12 T 5 1 38.88540 77.063735 187 187 38 Switch Pt 9 C 5 1 38.88540 77.063735 186 75 Frog 12 E 5 1 38.88541 77.063735 185 91 Gage Change -2.69 29 15 T 5 1 38.88591 77.063838 185 91 Gage Change -2.69 29 15 T 5 1 38.88593 77.063838 180 99 Down Chain 180.00 23 C 5 1 38.88532 77.064338 180 99 Down Chain 180.00 23 C 5 1 38.88532 77.064338 180 12 Down Chain 180.00 23 C 5 1 38.88533 77.064338 180 12 Down Chain 180.00 23 C 5 1 38.88533 77.064338 180 12 Down Chain 180.00 23 C 5 1 38.88533 77.064338 170 170 170 99 Down Chain 180.00 23 C 5 1 38.88533 77.064338 170 1	219	17	Tunnel End	1	1	27	Т	1	5	1	38.878328 -77.057269
200 22 Excess Elevation 6.43 28 29 C 3 5 1 38.882351 77.061590	210	99	Down Chain	210.00	1	26	Т	1	5	1	38.880220 -77.059506
200 99 Down Chain 200.00 29 C 5 1 38.882403 -77.061627 199 87 Excess Elevation 6.15 10 29 C 4 5 1 38.882403 -77.061649 199 11 Excess Elevation 6.28 96 27 C 3 5 1 38.882619 -77.061772 198 45 Excess Elevation 6.25 14 25 C 4 5 1 38.882619 -77.061877 193 91 Platform Start 16 T 5 1 38.88372 -77.062620 193 57 R Face Angle 27.40 8 16 T 5 1 38.88372 -77.062620 190 99 Down Chain 190.00 12 T 5 1 38.88362 -77.062676 190 99 Down Chain 190.00 12 T 5 1 38.88540 -77.06379 187 93 Platform End 2 B 5 1 38.88540 -77.063536 187 38 Switch Pt 9 C 5 1 38.88543 -77.063673 186 75 Frog 112 E 5 1 38.885634 -77.063673 186 75 Frog 12 E 5 1 38.885718 -77.063785 185 91 Gage Change -2.69 29 15 T 5 5 1 38.885718 -77.063698 185 58 Switch Pt 15 T 5 5 1 38.885718 -77.063698 180 99 Down Chain 180.00 23 C 5 1 38.88726 -77.064389 180 99 Down Chain 180.00 23 C 5 1 38.88726 -77.064389 180 12 Down Chain 180.00 23 C 5 1 38.88736 -77.064389 180 12 Down Chain 180.00 23 C 5 1 38.88736 -77.064389 170 99 Down Chain 170.00 20 E 5 1 38.88933 -77.063654 170 99 Down Chain 170.00 20 E 5 1 38.88933 -77.063654 160 64 Gage Wide 57.04 4 26 B 3 5 1 38.89123 -77.063670 159 62 Gage Wide 57.00 4 26 B 5 5 1 38.89123 -77.063670 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.89122 -77.063787 150 150 Gage Wide 57.00 4 26 B 3 5 1 38.89122 -77.063787 150 150 Gage Wide 57.00 4 26 B 3 5 1 38.89122 -77.063787 150 150 Gage Wide 57.00 4 26 B 3 5 1 38.89122 -77.063787 150 150 Gage	200	49	Excess Elevation	6.17	5	29	С	4	5	1	38.882288 -77.061538
199 87	200	22	Excess Elevation	6.43	28	29	С	3	5	1	38.882351 -77.061590
199	200	99	Down Chain	200.00	1	29	С	1	5	1	38.882403 -77.061627
198 45 Excess Elevation 6.25 14 25 C 4 5 1 38.882780 -77.061877 193 91 Platform Start 16 T 5 1 38.883872 -77.062620 193 57 R Face Angle 27.40 8 16 T 5 1 38.883872 -77.062626 190 99 Down Chain 190.00 12 T 5 1 38.883952 -77.063636 187 93 Platform End 2 B 5 1 38.88340 -77.063199 187 93 Platform End 2 B 5 1 38.885340 -77.063536 187 38 Switch Pt 9 C 5 1 38.885475 -77.063637 187 15 L N Guard Check 54.18 0 11 C 5 1 38.885532 -77.063673 186 75 Frog 12 E 5 1 38.885532 -77.063735 186 41 Frog 14 T 5 1 38.885634 -77.063785 185 91 Gage Change -2.69 29 15 T 5 5 1 38.885634 -77.063857 185 61 L N Guard Check 53.89 0 16 T 5 1 38.885912 -77.063988 185 58 Switch Pt 15 T 5 1 38.88592 -77.063903 180 99 Down Chain 180.00 23 C 5 1 38.88726 -77.064383 180 12 Down Chain 180.00 23 C 5 1 38.887326 -77.064383 171 41 Tunnel Start 18 C 5 1 38.88933 -77.06794 160 64 Gage Wide 57.04 4 26 B 3 5 1 38.89123 -77.065949 160 64 Gage Wide 57.04 4 26 B 3 5 1 38.891292 -77.065949 160 99 Down Chain 160.00 26 B 5 1 38.891292 -77.065949 160 99 Down Chain 160.00 26 B 5 1 38.891292 -77.065949 160 99 Down Chain 160.00 26 B 5 1 38.891292 -77.065949 160 99 Down Chain 160.00 26 B 5 1 38.891292 -77.065949 160 99 Down Chain 160.00 26 B 5 1 38.891292 -77.065949 160 99 Down Chain 160.00 26 B 5 1 38.891292 -77.065949 160 99 Down Chain 160.00 26 B 5 1 38.891292 -77.065949 160 99 Down Chain 160.00 26 B 5 1 38.891292 -77.065949 160 99 Down Chain	199	87	Excess Elevation	6.15	10	29	С	4	5	1	38.882435 -77.061649
193 91 Platform Start 16 T 5 1 38.883672 -77.062620 193 57 R Face Angle 27.40 8 16 T 5 1 38.883672 -77.062626 190 99 Down Chain 190.00 12 T 5 1 38.883692 -77.062676 190 99 Down Chain 190.00 12 T 5 1 38.884840 -77.06379 187 93 Platform End 2 B 5 1 38.885340 -77.063637 187 38 Switch Pt 9 C 5 1 38.885475 -77.063637 187 15 L N Guard Check 54.18 0 11 C 5 1 38.885532 -77.063673 186 75 Frog 12 E 5 1 38.885532 -77.063785 186 41 Frog 14 T 5 1 38.885634 -77.063785 185 91 Gage Change -2.69 29 15 T 5 5 1 38.885473 -77.063857 185 61 L N Guard Check 53.89 0 16 T 5 1 38.885912 -77.063988 185 58 Switch Pt 15 T 5 1 38.88592 -77.063903 180 99 Down Chain 180.00 23 C 5 1 38.887272 -77.063933 180 12 Down Chain 180.00 23 C 5 1 38.887326 -77.064796 169 1 Posted Speed 55.00 21 E 5 1 38.88933 -77.06796 169 1 Posted Speed 55.00 21 E 5 1 38.88933 -77.06796 160 64 Gage Wide 57.04 4 28 B 3 5 1 38.89123 -77.067972 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.891292 -77.069787	199	11	Excess Elevation	6.28	96	27	С	3	5	1	38.882619 -77.061772
193 57	198	45	Excess Elevation	6.25	14	25	С	4	5	1	38.882780 -77.061877
190 99	193	91	Platform Start	ļ	Ī	16	Т		5	1	38.883872 -77.062620
187 93 Platform End	193	57	R Face Angle	27.40	8	16	T		5	1	38.883952 -77.062676
187 38 Switch Pt	190	99	Down Chain	190.00	1	12	Т		5	1	38.884840 -77.063199
187 15 L N Guard Check 54.18 0 11 C 5 1 38.885532 -77.063673 186 75 Frog 12 E 5 1 38.885634 -77.063735 186 41 Frog 14 T 5 1 38.885634 -77.063735 185 91 Gage Change -2.69 29 15 T 5 5 1 38.885843 -77.063857 185 61 L N Guard Check 53.89 0 16 T 5 1 38.885912 -77.063898 185 58 Switch Pt 15 T 5 1 38.885922 -77.063898 186 99 Down Chain 180.00 23 C 5 1 38.887272 -77.064838 180 99 Down Marker 180.00 23 C 5 1 38.887326 -77.064838 180 12 Down Chain 180.00 23 C 5 1 38.887326 -77.064838 171 41 Tunnel Start 18 C 5 1 38.887332 -77.06734 170 99 Down Chain 170.00 20 E 5 1 38.88933 -77.067624 169 1 Posted Speed 55.00 21 E 5 1 38.889153 -77.066762 160 64 Gage Wide 57.04 4 26 B 3 5 1 38.89123 -77.069702 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.89123 -77.069702 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.89123 -77.069702 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.89123 -77.069702 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.89123 -77.069702 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.89123 -77.069702 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.89123 -77.069702 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.891292 -77.069702 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.891292 -77.069702 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.891292 -77.069702 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.891292 -77.069702 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.891292 -77.069702 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.891292 -77.069702 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.891292 -77.069702 159 62 Gage Wide 57.00 4	187	93	Platform End	1	1	2	В		5	1	38.885340 -77.063536
186 75 Frog 12 E 5 1 38.885634 -77.063735 186 41 Frog 14 T 5 1 38.885718 -77.063785 185 91 Gage Change -2.69 29 15 T 5 5 1 38.885843 -77.063857 185 61 L N Guard Check 53.89 0 16 T 5 1 38.885912 -77.063898 185 58 Switch Pt 15 T 5 1 38.885922 -77.063903 180 99 Down Chain 180.00 23 C 5 1 38.887272 -77.064796 180 80 Down Marker 180.00 23 C 5 1 38.887326 -77.064838 180 12 Down Chain 180.00 23 C 5 1 38.887328 -77.064838 171 41 Tunnel Start 18 C 5 1 38.88933 -77.06794 170 99 Down Chain 170.00 20 E 5 1 38.88933 -77.06796 169 1 Posted Speed 55.00 21 E 5 1 38.89573 -77.067025 160 64 Gage Wide 57.04 4 26 B 3 5 1 38.89123 -77.069702 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.89123 -77.069707 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.89123 -77.069707 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.89123 -77.069707 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.89123 -77.069707 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.89123 -77.069707 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.89123 -77.069707 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.89123 -77.069707 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.89123 -77.069707 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.89123 -77.069707 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.89123 -77.069707 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.89123 -77.069707 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.89123 -77.069707 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.89123 -77.069707 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.89123 -77.069707 159 62 Gage Wide 57.0	187	38	Switch Pt	l	1	9	С		5	1	38.885475 -77.063637
186 41 Frog	187	15	L N Guard Check	54.18	10	111	С		5	1	38.885532 -77.063673
185 91 Gage Change	186	75	Frog	ſ	I	12	E		5	1	38.885634 -77.063735
185 61 L N Guard Check 53.89 0 16 T 5 1 38.885912 -77.063898 185 58 Switch Pt 15 T 5 1 38.885922 -77.063903 180 99 Down Chain 180.00 23 C 5 1 38.887272 -77.064796 180 80 Down Marker 180.00 23 C 5 1 38.887326 -77.064838 180 12 Down Chain 180.00 23 C 5 1 38.887328 -77.064839 171 41 Tunnel Start 18 C 5 1 38.889133 -77.066734 170 99 Down Chain 170.00 20 E 5 1 38.889393 -77.067096 169 1 Posted Speed 55.00 21 E 5 1 38.889153 -77.067652 172 70 Lmt Speed 3 72.00 283 24 C 5 1 38.891084 -77.069549 160 99 Down Chain 160.00 26 B 3 5 1 38.891213 -77.069702 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.891292 -77.069787	186	41	Frog	l	1	14	Т	Ī	5 [1	38.885718 -77.063785
185 58 Switch Pt	185	91	Gage Change	-2.69	29	15	Т	5	5	1	38.885843 -77.063857
180 99 Down Chain 180.00 23 C 5 1 38.887272 -77.064796 180 80 Down Marker 180.00 23 C 5 1 38.887326 -77.064838 180 12 Down Chain 180.00 23 C 5 1 38.887326 -77.064839 171 41 Tunnel Start 18 C 5 1 38.889133 -77.066734 170 99 Down Chain 170.00 20 E 5 1 38.889393 -77.067096 169 1 Posted Speed 55.00 21 E 5 1 38.889573 -77.067355 172 70 Lmt Speed 3 72.00 283 24 C 5 1 38.889153 -77.066762 160 64 Gage Wide 57.04 4 26 B 3 5 1 38.891084 -77.069549 160 99 Down Chain 160.00 26 B 5 1 38.891213 -77.069702 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.891292 -77.069787	185	61	L N Guard Check	53.89	10	16	T	1	5	1	38.885912 -77.063898
180 80 Down Marker 180.00 23 C 5 1 38.887326 -77.064838 180 12 Down Chain 180.00 23 C 5 1 38.887328 -77.064839 171 41 Tunnel Start 18 C 5 1 38.889133 -77.066734 170 99 Down Chain 170.00 20 E 5 1 38.889393 -77.067096 169 1 Posted Speed 55.00 21 E 5 1 38.889573 -77.067095 172 70 Lmt Speed 3 72.00 283 24 C 5 1 38.889153 -77.066762 160 64 Gage Wide 57.04 4 26 B 3 5 1 38.891213 -77.069709 160 99 Down Chain 160.00 26 B 5 1 38.891213 -77.069709 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.891213 -77.069787	185	58	Switch Pt	1	1	15	Т	ſ	5	1	38.885922 -77.063903
180 12 Down Chain 180.00 23 C 5 1 38.887328 -77.064839 171 41 Tunnel Start 18 C 5 1 38.889133 -77.066734 170 99 Down Chain 170.00 20 E 5 1 38.889393 -77.067096 169 1 Posted Speed 55.00 21 E 5 1 38.889573 -77.067055 172 70 Lmt Speed 3 72.00 283 24 C 5 1 38.889153 -77.066762 160 64 Gage Wide 57.04 4 26 B 3 5 1 38.891084 -77.069549 160 99 Down Chain 160.00 26 B 5 1 38.891213 -77.069702 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.891292 -77.069787	180	99	Down Chain	180.00	T	23	C		5	1	38.887272 -77.064796
171 41 Tunnel Start 18 C 5 1 38.889133 -77.066734 170 99 Down Chain 170.00 20 E 5 1 38.889393 -77.067096 169 1 Posted Speed 55.00 21 E 5 1 38.889573 -77.067355 172 70 Lmt Speed 3 72.00 283 24 C 5 1 38.889153 -77.066762 160 64 Gage Wide 57.04 4 26 B 3 5 1 38.891084 -77.069549 160 99 Down Chain 160.00 26 B 5 1 38.891213 -77.069702 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.891292 -77.069787	180	80	Down Marker	180.00	1	23	c	1	5	1	38.887326 -77.064838
170 99 Down Chain 170.00 20 E 5 1 38.889393 -77.067096 169 1 Posted Speed 55.00 21 E 5 1 38.889573 -77.067355 172 70 Lmt Speed 3 72.00 283 24 C 5 1 38.889153 -77.066762 160 64 Gage Wide 57.04 4 26 B 3 5 1 38.891084 -77.069549 160 99 Down Chain 160.00 26 B 5 1 38.891213 -77.069702 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.891292 -77.069787	180	12	Down Chain	180.00	1	23	C	Ī	5	1	38.887328 -77.064839
169 1 Posted Speed 55.00 21 E 5 1 38.889573 -77.067355 172 70 Lmt Speed 3 72.00 283 24 C 5 1 38.889153 -77.066762 160 64 Gage Wide 57.04 4 26 B 3 5 1 38.891084 -77.069549 160 99 Down Chain 160.00 26 B 5 1 38.891213 -77.069702 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.891292 -77.069787	171	41	Tunnel Start	1	ī	18	C	1	5	1	38.889133 -77.066734
172 70 Lmt Speed 3 72.00 283 24 C 5 1 38.889153 -77.066762 160 64 Gage Wide 57.04 4 26 B 3 5 1 38.891084 -77.069549 160 99 Down Chain 160.00 26 B 5 1 38.891213 -77.069702 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.891292 -77.069787	170	99	Down Chain	170.00	ī	20	E	1	5	1	38.889393 -77.067096
160 64 Gage Wide 57.04 4 26 B 3 5 1 38.891084 -77.069549 160 99 Down Chain 160.00 26 B 5 1 38.891213 -77.069702 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.891292 -77.069787	169	1	Posted Speed	55.00	1	21	E	1	5	1	38.889573 -77.067355
160 99 Down Chain 160.00 26 B 5 1 38.891213 -77.069702 159 62 Gage Wide 57.00 4 26 B 3 5 1 38.891292 -77.069787	172	70	Lmt Speed 3	72.00	283	24	c	Ī	5	1	38.889153 -77.066762
159 62 Gage Wide 57.00 4 26 B 3 5 1 38.891292 -77.069787	160	64	Gage Wide	57.04	4	26	В	3	5	1	38.891084 -77.069549
	160	99	Down Chain	160.00	Ī	26	В	1	5	1	38.891213 -77.069702
158 96 Gage Change 0.73 15 26 C 5 5 1 38.891436 -77.069926	159	62	Gage Wide	57.00	1 4	26	В	3	5	1	38.891292 -77.069787
, , , = = - , , , , , , , , , , , , , ,	158	96	Gage Change	0.73	15	26	c	5	5	1	38.891436 -77.069926

Page 11 of 19 2016-02-16 Run ID: 2016021601

158 70 Gage Wide		CH	FI		Parameter	Value	Leng	th	Speed	TSC	ŁC	.	PC	Track	Peak Lat/Long
158 45 Gage Wide		159	2	_	L Cant Neg	-0.50	31	i	26	C	1	1	5	1	
188 6 Gage Wide		158	70	1	Gage Wide	57.54	48	- 1	26	C	10	1	5	1	38.891494 -77.069977
157 88 Gage Wide	į	158	45	İ	Gage Wide	57.03	2	-	26	С	3	T	5	1	38.891552 -77.070025
157 70 Gage Wide		158 ~	6	_	Gage Wide	57.13	12	- 1	27	С	1 1	1	5	1	38.891643 -77.070096
156 28	į	157	88	1	Gage Wide	57.05	5	1	27	С	3	T	5	1	38.891686 -77.070127
156 5 Gage Wide	١	157	70	1	Gage Wide	56.99	2	1	27	С	3	1	5	1	38.891729 -77.070157
156	Ì	156	28	1	Gage Wide	57.05	4	- 1	27	С	3	1	5	1	38.892083 -77.070358
155 74	ł	156	5	1	Gage Wide	57.18	19	1	27	С	1 1	1 :	5	1	38.892142 -77.070385
155 75 Gage Wide	١	156	1	1	L Cant Neg	-0.80	21	1	27	С	1	1 :	5	1	38.892150 -77.070388
155 48 Gage Change	١	155	74	1	L Cant Neg	-1.20	19		28	С	1	1	5	1	38.892220 -77.070417
154 88 Gage Wide	1	155	75	1	Gage Wide	57.58	25	1	28	С	0	1 :	5	1	38.892220 -77.070417
154 43 Gage Wide 57.28 30 27 E 0 5 1 38.892571 -77.070522 153 62 Gage Wide 57.00 3 27 E 0 5 1 38.892571 -77.070558 152 1 Class Change 4.00 27 E 4 5 1 38.892791 -77.070588 152 1 Posted Speed 45.00 27 E 4 1 38.893232 -77.070588 158 95 Lmt Speed 3 41.00 495 27 C 4 1 38.893322 -77.070588 150 99 Down Chain 150.00 28 T 4 1 38.893781 -77.070580 150 99 Down Marker 150.00 28 T 4 1 38.893789 77.070610 150 12 Down Chain 150.00 28 T 4 1 38.893789 77.070611 148 42 L Cant Neg -0.70 15 23 T 4 1 38.894221 -77.070629 147 90 L Cant Neg -0.40 22 22 T 4 1 38.894363 -77.070651 148 57 Gage Change -2.18 8 20 T 4 4 1 38.894729 -77.070651 145 86 Gage Wide 57.35 9 21 T 4 1 38.89492 -77.070661 145 86 Gage Wide 57.35 9 21 T 4 1 38.89492 -77.070664 144 75 Platform End 140.00 19 T 4 1 38.89521 -77.070757 138 59 Platform End 140.00 19 T 4 1 38.89573 -77.070757 138 57 Gage Wide 57.35 13 20 B 0 4 1 38.89573 -77.070757	1	155	48	1	Gage Change	-1.01	27	1	28	С	5	:	5	1	38.892291 -77.070443
153 62 Gage Wide	١	154	89	1	Gage Wide	57.00	6	Ī	28	С	3	1 5	5 1	1	38.892448 -77.070492
152	1	154	43	1	Gage Wide	57.28	30	I	27	E	0	5	5]	1	38.892571 -77.070522
152 1	1	153	62	1	Gage Wide	57.00	3	1	27	E	4	5	1	1	38.892791 -77.070558
158 95 Lmt Speed 3	١	152	1	1	Class Change	4.00	1	1	27	E	Ī	4	1	1	38.893232 -77.070588
150 99 Down Chain 150.00 28 T 4 1 38.893781 -77.070610 150 99 Down Marker 150.00 28 T 4 1 38.893789 -77.070611 150 12 Down Chain 150.00 28 T 4 1 38.893789 -77.070611 148 42 L Cant Neg -0.70 15 23 T 4 1 38.893792 -77.070611 148 42 L Cant Neg -0.40 22 22 T 4 1 38.89421 -77.070629 147 90 L Cant Neg -0.40 22 22 T 4 1 38.894633 -77.070646 146 57 Gage Change -2.18 8 20 T 4 4 1 38.894729 -77.070652 146 59 L Cant Neg -1.50 14 21 T 4 4 1 38.894720 -77.070651 145 86 Gage Change 0.94 27 21 T 4 4 1 38.894922 -77.070661 145 86 Gage Wide 57.35 9 21 T 0 4 1 38.894922 -77.070660 145 88 R Cant Neg -1.60 15 20 T 4 1 38.89493 -77.070664 145 60 Switch Pt 21 T 4 1 38.89493 -77.070664 145 60 R Cant Neg -3.20 14 20 T 4 1 38.89493 -77.070664 144 75 Platform Start 19 T 4 1 38.89493 -77.070738 138 69 Platform End 19 T 4 1 38.896880 -77.070757 136 37 Gage Wide 57.35 13 20 B 0 4 1 38.895513 -77.070756	١	152	1	1	Posted Speed	45.00	1	1	27	E	1	4	1	1	38.893232 -77.070588
150 99 Down Marker 150.00 28 T 4 1 38.893789 -77.070611 150 12 Down Chain 150.00 28 T 4 1 38.893792 -77.070611 148 42 L Cant Neg -0.70 15 23 T 4 1 38.894221 -77.070629 147 90 L Cant Neg -0.40 22 22 T 4 1 38.894363 -77.070635 147 3 Frog 20 T 4 1 38.894603 -77.070646 146 57 Gage Change -2.18 8 20 T 4 4 1 38.894729 -77.070652 146 59 L Cant Neg -1.50 14 21 T 4 1 38.894720 -77.070651 145 86 Gage Change 0.94 27 21 T 4 4 1 38.894922 -77.070661 145 86 Gage Wide 57.35 9 21 T 0 4 1 38.894922 -77.070661 145 88 R Cant Neg -1.60 15 20 T 4 1 38.894914 -77.070660 145 60 Switch Pt 21 T 4 1 38.89491 -77.070664 145 60 R Cant Neg -3.20 14 20 T 4 1 38.894991 -77.070664 145 60 R Cant Neg -3.20 14 20 T 4 1 38.894991 -77.070664 144 75 Platform Start 19 T 4 1 38.896522 -77.070738 138 69 Platform End 19 T 4 1 38.89680 -77.070757 136 37 Gage Wide 57.35 13 20 B 0 4 1 38.897513 -77.070786	1	158	95	1	Lmt Speed 3	41.00	495	1	27	С	l	1 4	1	1	38.891891 -77.070258
150 12 Down Chain 150.00 28 T 4 1 38.893792 -77.070611 148 42 L Cant Neg -0.70 15 23 T 4 1 38.894221 -77.070629 147 90 L Cant Neg -0.40 22 22 T 4 1 38.894363 -77.070635 147 3 Frog 20 T 4 1 38.894603 -77.070646 146 57 Gage Change -2.18 8 20 T 4 4 1 38.894729 -77.070646 146 57 Gage Change -1.50 14 21 T 4 1 38.894729 -77.070651 145 86 Gage Change 0.94 27 21 T 4 4 1 38.894720 -77.070661 145 86 Gage Wide 57.35 9 21 T 0 4 1 38.894922 -77.070661 145 88 R Cant Neg -1.60 15 20 T 4 1 38.894914 -77.070660 145 60 Switch Pt 21 T 4 1 38.894993 -77.070664 145 60 R Cant Neg -3.20 14 20 T 4 1 38.894991 -77.070664 144 75 Platform Start 19 T 4 1 38.89522 -77.070777 140 99 Down Chain 140.00 19 T 4 1 38.896880 -77.070787 138 69 Platform End 19 T 4 1 38.89513 -77.070786	1	150	99	1	Down Chain	150.00	1	ī	28	T	1	1 4	1	1	38.893781 -77.070610
148 42 L Cant Neg	١	150	99	1	Down Marker	150.00	1	1	28	Т	l	4	1	1	38.893789 -77.070611
147 90 L Cant Neg	١	150	12	1	Down Chain	150.00	1	ī	28	Т		4	1	1	38.893792 -77.070611
147 3 Frog 20 T 4 1 38.894603 -77.070646 146 57 Gage Change -2.18 8 20 T 4 4 1 38.894729 -77.070652 146 59 L Cant Neg -1.50 14 21 T 4 4 1 38.894720 -77.070651 145 86 Gage Change 0.94 27 21 T 4 4 1 38.894922 -77.070661 145 86 Gage Wide 57.35 9 21 T 0 4 1 38.894922 -77.070661 145 88 R Cant Neg -1.60 15 20 T 4 1 38.894914 -77.070660 145 60 Switch Pt 21 T 4 1 38.894991 -77.070664 145 60 R Cant Neg -3.20 14 20 T 4 1 38.894991 -77.070664 144 75 Platform Start 19 T 4 1 38.896522 -77.070738 138 69 Platform End 19 T 4 1 38.896880 -77.070757 136 37 Gage Wide 57.35 13 20 B 0 4 1 38.897513 -77.070786	1	148	42	1	L Cant Neg	-0.70	15	1	23	T		4	1	1	38.894221 -77.070629
146 57 Gage Change	1	147	90		L Cant Neg	-0.40	22	1	22	Т		4	T	1	38.894363 -77.070635
146 59 L Cant Neg	١	147	3	1	Frog	1	1	Ţ	20	Т		4	1	1	38.894603 -77.070646
145 86 Gage Change 0.94 27 21 T 4 4 1 38.894922 -77.070661 145 86 Gage Wide 57.35 9 21 T 0 4 1 38.894922 -77.070661 145 88 R Cant Neg -1.60 15 20 T 4 1 38.894914 -77.070660 145 60 Switch Pt 21 T 4 1 38.894993 -77.070664 145 60 R Cant Neg -3.20 14 20 T 4 1 38.894991 -77.070664 144 75 Platform Start 19 T 4 1 38.895225 -77.070674 140 99 Down Chain 140.00 19 T 4 1 38.896522 -77.070738 138 69 Platform End 19 T 4 1 38.89680 -77.070786 136 37 Gage Wide 57.35 13 20 B 0 4 1 38.897513 -77.070786	1_	146	57	1	Gage Change	-2.18	8	Ī	20	Τ	4	4	T	1	38.894729 -77.070652
145 86 Gage Wide 57.35 9 21 T 0 4 1 38.894922 -77.070661 145 88 R Cant Neg -1.60 15 20 T 4 1 38.894914 -77.070660 145 60 Switch Pt 21 T 4 1 38.894993 -77.070664 145 60 R Cant Neg -3.20 14 20 T 4 1 38.894991 -77.070664 144 75 Platform Start 19 T 4 1 38.895225 -77.070674 140 99 Down Chain 140.00 19 T 4 1 38.896822 -77.070738 138 69 Platform End 19 T 4 1 38.896820 -77.070757 136 37 Gage Wide 57.35 13 20 B 0 4 1 38.897513 -77.070786	1	146	59	1	L Cant Neg	-1.50	14	Ī	21	Т		4	Ī	1	38.894720 -77.070651
145 88 R Cant Neg	1_	145	86	I	Gage Change	0.94	27	T	21	т (4	4	1	1	38.894922 -77.070661
145 60 Switch Pt 21 T 4 1 38.894993 -77.070664 145 60 R Cant Neg -3.20 14 20 T 4 1 38.894991 -77.070664 144 75 Platform Start 19 T 4 1 38.895225 -77.070674 140 99 Down Chain 140.00 19 T 4 1 38.896522 -77.070738 138 69 Platform End 19 T 4 1 38.896880 -77.070757 136 37 Gage Wide 57.35 13 20 B 0 4 1 38.897513 -77.070786	1_	145	86	l	Gage Wide	57.35	9	1	21	T	0	4	T	1	38.894922 -77.070661
145 60 R Cant Neg	Ī	145	88	Ţ	R Cant Neg	-1.60	15	T	20	T		4	j	1	38.894914 -77.070660
144 75 Platform Start 19 T 4 1 38.895225 -77.070674 140 99 Down Chain 140.00 19 T 4 1 38.896522 -77.070738 138 69 Platform End 19 T 4 1 38.896880 -77.070757 136 37 Gage Wide 57.35 13 20 B 0 4 1 38.897513 -77.070786		145	60	I	Switch Pt		1	ī	21	Τ		4	Ī	1	38.894993 -77.070664
140 99 Down Chain 140.00 19 T 4 1 38.896522 -77.070738 138 69 Platform End 19 T 4 1 38.896880 -77.070757 136 37 Gage Wide 57.35 13 20 B 0 4 1 38.897513 -77.070786	Ī	145	60	Γ	R Cant Neg	-3.20	14	ī	20	τ		4	1	1	38.894991 -77.070664
138 69 Platform End 19 T 4 1 38.896880 -77.070757 136 37 Gage Wide 57.35 13 20 B 0 4 1 38.897513 -77.070786	Ī	144	75	Ī	Platform Start		Ī	ī	19	Τ		1 4	T	1	38.895225 -77.070674
136 37 Gage Wide 57.35 13 20 B 0 4 1 38.897513 -77.070786	Ī	140	99	I	Down Chain	140.00	1	ī	19	Т		4	1	1	38.896522 -77.070738
	Ī	138	69	1	Platform End		1	ī	19	T	~	4	1	1	38.896880 -77.070757
135 73 Gage Wide 57.18 6 20 B 1 4 1 38.897688 -77.070782		136	37	1	Gage Wide	57.35	13	ī	20	В	0	4	1	1	38.897513 -77.070786
	1	135	73	I	Gage Wide	57.18	6	ī	20	В	1	4	ı	1	38.897688 -77.070782



Page 12 of 19 2016-02-16 Run ID: 2016021601

СН	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
130	8	Gage Wide	57.15	3	26	С	1	4	1	38.899127 -77.070151
130	99	Down Chain	130.00	1	26	С]	4	1	38.899145 -77.070135
127	40	L Cant Neg	-0.50	21	29	С		4	1	38.899654 -77.069510
127	16	Gage Wide	57.18	5	29	С	1	4	1	38.899695 -77.069441
127	5	L Cant Neg	-0.20	19	29	С	[4	1	38.899712 -77.069412
126	96	Gage Wide	57.38	22	29	С	0	4	1	38.899728 -77.069384
126	41	L Cant Neg	-0.20	16	30	С	1	4	1	38.899810 -77.069228
125	58	R Cant Neg	-1.20	48	29	С		4	1	38.899924 -77.068977
123	47	L Cant Neg	-0.20	14	29	С		4	1	38.900133 -77.068291
123	0	L Cant Neg	-0.30	36	30	E	1	4	1	38.900163 -77.068132
122	61	R Cant Neg	-0.80	17	30	E		4	1	38.900184 -77.067998
120	68	Down Marker	120.00	1	32	E		4	1	38.900243 -77.067317
120	0	Posted Speed	75.00	Ī	32	Ε		5	1	38.900243 -77.067314
120	12	Down Chain	120.00	1	32	E	1	5	1	38.900243 -77.067314
120	0	Class Change	5.00	1	32	E]	5	1	38.900243 -77.067314
134	11	Lmt Speed 3	40.00	1121	33	С	1	5	1	38.898185 -77.070697
110	99	Down Chain	110.00	1	31	T		5	1	38.900448 -77.063829
100	99	Down Chain	100.00	Ī	32	Т	1	5	1	38.900669 -77.060345
90	71	L Face Angle27.20	i	4	27	С		5	1	38.900880 -77.057119
90	14	L Face Angle27.10	1	5	28	С	1	5	1	38.900891 -77.056921
90	99	Down Chain	90.00	1	28	С	l	5	1	38.900894 -77.056868
90	80	Down Marker	90.00	1	28	С	1	5	1	38.900897 -77.056792
90	12	Down Chain	90.00	1	28	С	1	5	1	38.900898 -77.056788
87	1	Class Change	4.00	1	29	С	1	4	1	38.900944 -77.055741
87	1	Posted Speed	40.00	1	29	С	1	4	1	38.900944 -77.055741
86	90	L Face Angle26.50	l	4	29	С	[4	1	38.900945 -77.055706
86	12	L Face Angle27.40	Ī	6	29	C	1	4	1	38.900955 -77.055434
80	99	Down Chain	80.00	1	30	Т	1	4	1	38.901021 -77.053293
77	51	Gage Narrow	55.99	1	27	T	Ţ 1	4	1	38.901049 -77.052424
74	3	Platform Start	l		18	T	l	4	1	38.901091 -77.051208
70	99	Down Chain	70.00	ī	18	T	i	4	1	38.901144 -77.049798
67	98	Platform End		ī	18	Т	1	4	1	38.901172 -77.049093
67	42	Switch Pt]	1	19	T	1	4	1	38.901180 -77.048897
66	76	Frog		$\overline{}$	19	Т	l	4	1	38.901189 -77.048667
66	63	L Cant Neg	-0.40	17	19	T	i	4	1	38.901191 -77.048625
66	58	Gage Change	1.10	13	19	T	4	4	1	38.901192 -77.048604
	<u> </u>		<u></u>							

Page 13 of 19 2016-02-16 Run ID: 2016021601

СН	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
66	45	L Cant Neg	-0.40	15	19	Т	1 1	4	1	38.901194 -77.048562
65	10	Frog	I	1	21	T		4	1	38.901214 -77.048088
64	27	L N Guard Check	54.36	10	20	В	1 1	4	1	38.901226 -77.047801
64	23	Switch Pt	1	1	21	В		4	1	38.901227 -77.047784
64	24	R Cant Neg	-0.80	17	21	В	1 1	4	1	38.901227 -77.047791
60	99	Down Chain	60.00	1	17	E	1 1	4	1	38.901451 -77.046344
60	66	Down Marker	60.00	1	17	E	1 1	4	1	38.901491 -77.046230
60	12	Down Chain	60.00	İ	17	Ε	1 1	4	1	38.901492 -77.046226
62	59	Lmt Speed 3	37.00	52	19	С	<u> </u>	4	1	38.901320 -77.046807
56	66	Lmt Speed 3	38.00	30	21	С	1 1	4	1	38.902002 -77.044737
50	99	Down Chain	50.00	1	22	T	1 1	4	1	38.902149 -77.042882
46	43	Platform Start	i	1	17	T	1 1	4	1	38.902219 -77.041638
40	37	Platform End	1		17	Т	1 1	4	1	38.902346 -77.039526
40	99	Down Chain	40.00	1	16	Т	1 1	4	1	38.902354 -77.039397
30	99	Down Chain	30.00	1	23	Т		4	1	38.902586 -77.035914
30	87	Down Marker	30.00	1	22	Т		4	1	38.902589 -77.035862
30	12	Down Chain	30.00	1	22	Т		4	1	38.902589 -77.035858
28	59	Gage Change	-2.72	16	20	T	4	4	1	38.902624 -77.035368
27	80	L N Guard Check	53.97	0	20	Т	1	4	1	38.902643 -77.035096
26	48	Platform Start	1	1	19	Т		4	1	38.902676 -77.034633
25	52	Gage Wide	57.18	4	19	Т	1	4	1	38.902701 -77.034299
20	91	L Face Angle28.90	1	12	19	T		4	1	38.902821 -77.032699
20	43	Platform End	1	1	19	T		4	1	38.902834 -77.032528
20	99	Down Chain	20.00	1	20	Т	1	4	1	38.902845 -77.032379
13	19	Gage Change	0.77	14	26	С	4	4	1	38.902936 -77.030013
13	15	R Align 31	-1.29	2	26	С	3	4	1	38.902933 -77.029996
13	19	Gage Wide	57.35	16	26	С	0	4	1	38.902935 -77.030010
13	16	R Cant Neg	-1.10	48	25	С		4	1	38.902935 -77.030007
11	79	R Cant Neg	-0.60	24	26	С		4	1	38.902822 -77.029551
11	9	R Cant Neg	-0.80	20	26	С	1	4	1	38.902738 -77.029331
10	99	Down Chain	10.00		25	С	1	4	1	38.902574 -77.029010
9	74	L Cant Neg	-1.40	34	25	С	1	4	1	38.902531 -77.028942
8	48	Gage Wide	57.42	10	26	C	0	4	1	38.902286 -77.028628
8	42	R Cant Neg	-0.90	17	26	С	1	4	1	38.902276 -77.028617
8	18	Gage Change	-0.87	30	26	С	4	4	1	38.902222 -77.028562
6	54	Gage Wide	57.12	3	24	С	3	4	1	38.901838 -77.028269

Page 14 of 19 2016-02-16 Run ID: 2016021601

CH	FT	Parameter	Value	Length)	Speed	TSC	LC	PC	Track	Peak Lat/Long
5	60	Gage Wide	57.39	25	-	25	С	0	4	1 1	38.901598 -77.028155
5	32	Gage Change	-0.83	28	Ī	26	E	4	4	1 1	38.901524 -77.028129
5	7	Down Marker	5.00	1	Ī	26	Ε	1	4	1 1	38.901452 -77.028107
3	10	Posted Speed	38.00	1	Ī	23	E	l	4	1 1	38.900936 -77.028013
12	51	Lmt Speed 3	34.00	806	Ī	22	С	1	4	1	38.902787 -77.029452
2	80	Platform Start	Ī	ì	1	22	Т	1	4	1 1	38.902787 -77.029452
0	99	Down Chain	0.00	1	T	1	В	l	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	T	1 }	В	1	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	ı	T	1	В]	4	1	38.902787 -77.029452
0	0	Down Chain	0.00		T	1	В		4	1	38.902787 -77.029452
0	0	Down Chain	0.00		Ī	1	В		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	Ī	1	В	<u> </u>	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	Ī	1	В	1	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	Ī	1	В		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	Ţ	T	1	В		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	i	ī	1	В		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	ī	1	В		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	Ī	1	В		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	ı	1	1	В		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	ı	T	1	В		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	Ī	1	В		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	Ī	1	В		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	T	1	В		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	Ī	1	В		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	T	1 [В		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	Ī	1	В		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	Ī	1	В		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	<u> </u>	Ī	1	В		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	ī	1	В		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	I	Τ	1	В		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	T	1	В	- 1	4	1	38.902787 -77.029452
0	0	Down Chain	0.00]	1	1	В	1	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	T	1	В	l	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	Ī	1	В	-	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	Ī	ī	1	В		4	1	38.902787 -77.029452
0	0	Down Chain	0.00		Ī	1	В	l	4	1	38.902787 -77.029452

Page 15 of 19 2016-02-16 Run ID: 2016021601

0 0 Down Chain	СН	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
Down Chain	0	0	Down Chain	0.00	1	1 1	В		4	1	38.902787 -77.029452
Down Chain	0	0	Down Chain	0.00	1	1 1	В	1	4	1	38.902787 -77.029452
0 0 Down Chain	0	0	Down Chain	0.00	1	1 1	В		4	1	38.902787 -77.029452
Down Chain	0	0	Down Chain	0.00	1	1 1	В		4	1	38.902787 -77.029452
Down Chain	0	0	Down Chain	0.00	Ī	1 1	В		4	1	38.902787 -77.029452
0 0 Down Chain	0	0	Down Chain	0.00	Ī	1 1	В		4	1	38.902787 -77.029452
0 0 Down Chain	0	0	Down Chain	0.00	1	11	В	1	4	1	38.902787 -77.029452
0 0 Down Chain	0	0	Down Chain	0.00	1.	1	В		4	1	38.902787 -77.029452
0 0 Down Chain	0	0	Down Chain	0.00	1	1 1	В		4	1	38.902787 -77.029452
0 0 Down Chain	0	0	Down Chain	0.00	Ī	1 1	В		4	1	38.902787 -77.029452
Down Chain	0	0	Down Chain	0.00	1	1 1	С	1 1	4	1	38.902787 -77.029452
O O Down Chain	0	0	Down Chain	0.00	1	1 1	С]	4	1	38.902787 -77.029452
O O Down Chain	0	0	Down Chain	0.00	1	1	С		4	1	38.902787 -77.029452
Down Chain	0	0	Down Chain	0.00	i	1 1	С	1 1	4	1	38.902787 -77.029452
0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787	0	0	Down Chain	0.00	l	1	С		4	1	38.902787 -77.029452
0 0 Down Chain	0	0	Down Chain	0.00	1	1 1	С		4	1	38.902787 -77.029452
0	0	0	Down Chain	0.00	Ī	1	С		4	1	38.902787 -77.029452
Down Chain	0	0	Down Chain	0.00	T	1 1	С		4	1	38.902787 -77.029452
0 0 Down Chain	0	0	Down Chain	0.00	1	111	С	1 1	4	1	38.902787 -77.029452
0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain	0	0	Down Chain	0.00	1	1 1	С	1 1	4	1	38.902787 -77.029452
0 0 Down Chain	0	0	Down Chain	0.00	1	1 1 1	С		4	1	38.902787 -77.029452
0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1	0	0	Down Chain	0.00	Ī	111	С		4	1	38.902787 -77.029452
0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain	0	0	Down Chain	0.00	1	1 1	С		4	1	38.902787 -77.029452
0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452	0	0	Down Chain	0.00	I	1 1	С		4	1	38.902787 -77.029452
0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452	0	0	Down Chain	0.00	1	1	С		4	1	38.902787 -77.029452
0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452	0	0	Down Chain	0.00	1	1 1	С		4	1	38.902787 -77.029452
0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452	0	0	Down Chain	0.00	Ī	[1 [С		4	1	38.902787 -77.029452
0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452	0	0	Down Chain	0.00	1	1 1	С		4	1	38.902787 -77.029452
0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452	0	0	Down Chain	0.00	Ī	111	С		4	1	38.902787 -77.029452
0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452	0	0	Down Chain	0.00	1	1	С		4	1	38.902787 -77.029452
0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452 0 0 Down Chain 0.00 1 C 4 1 38.902787 -77.029452	0	0	Down Chain	0.00	Ī] 1]	С	1	4	1	38.902787 -77.029452
0 0 Down Chain	0	0	Down Chain	0.00	ī	1 1	С	l	4	1	38.902787 -77.029452
0 0 Down Chain 0.00 1 1 C 4 1 1 38.902787 -77.029452	0	0	Down Chain	0.00	1	1 1	С		4	1	38.902787 -77.029452
- John Silani	0	0	Down Chain	0.00	-	1	С		4	1	38.902787 -77.029452
0 0 Down Chain 0.00 1 1 C 4 1 1 38.902787 -77.029452	0	0	Down Chain	0.00	1] 1	С		4	1	38.902787 -77.029452
	0	0	Down Chain	0.00	ı	1	С		4	1	38.902787 -77.029452

Page 16 of 19 2016-02-16 Run ID: 2016021601

CH	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
1 0	0	Down Chain	0.00	1	1	С		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С	1 1	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1	С		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	I	1	С		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	111	С	1 1	4 [1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1	С	1	4 [1	38.902787 -77.029452
0	0	Down Chain	0.00		1 1	С	1 1	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С		4	1	38.902787 -77.029452
0	0	Down Chain	0.00]	1	С]]	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1	С	i i	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	I	1	С		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1	С		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С	1	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С	1 1	4	1	38.902787 -77.029452
0	0	Down Chain	0.00		111	С		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	Ī	11	С		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	l	1	С	<u> </u>	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	Ī	1 1	С	1	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1	С		4	1	38.902787 -77.029452
0	0	Down Chain	0.00		1 1	C.	<u> </u>	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1	С]]	4.	1	38.902787 -77.029452
0	0	Down Chain	0.00	Ī	1 1	С		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С	1 1	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С	1 1	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	ſ	1 1 1	С	1 1	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	111	С		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С		4	1	38.902787 -77.029452
<u>'</u>		<u> </u>	<u> </u>							

Page 17 of 19 2016-02-16 Run ID: 2016021601

СН	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
0	0	Down Chain	0.00	1	1	С	1	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С	1	4	1	38.902787 -77.029452
1 0	0	Down Chain	0.00	1	1	С	1	4	1	38.902787 -77.029452
0	0	Down Chain	0.00		1 1	С		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С	1	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1	С		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	111	С		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1	С		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С	<u> </u>	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1	С	1	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1	С	ŀ	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	Ī	11	С	1	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	11	С	<u> </u>	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С	1	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	!	1	С	Ī	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1	С	1	4	1	38.902787 -77.029452
0 1	0	Down Chain	0.00	I	1	C		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	11	c	1	4	1	38.902787 -77.029452
0 1	0	Down Chain	0.00	1	1 1	c	Ī	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	C		4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	11	C	1	4	1	38.902787 -77.029452
0	0	Down Chain	0.00		1	C	1	4	1	38.902787 -77.029452
0 1	0	Down Chain	0.00	1	1 1	c	1	4	1	38.902787 -77.029452
0	0	Down Chain	0.00		1	c	Ī	4	1	38.902787 -77.029452
0	0	Down Chain	0.00		1	c	1	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1 1	11	c	ī	4	1	38.902787 -77.029452
0	0	Down Chain	0.00		1	c	1	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1 1	1	c	T	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1 1	1	C	Ī	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1 1	1	c	 i	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1 1	1	ci	1	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1 1	1	ci	1	4 1	1	38.902787 -77.029452
0	0	Down Chain	0.00	1 1	1	c l	<u> </u>	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	<u> </u>	1	ci	<u>-</u> -	4	1	38.902787 -77.029452
					<u>-</u>	 -	<u>-</u> -	<u>.</u>		<u> </u>

Page 18 of 19 2016-02-16 Run ID: 2016021601

CH	FT	Parameter	Value	Length	Speed	TSC	LC PC	Track	Peak Lat/Long
0	0	Down Chain	0.00	1	1 1	С	4] 1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С	4	1 1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С	4	j 1	38.902787 -77.029452
0	0	Down Chain	0.00	l	1 1	С	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С	4	1 1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С	4	1 1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1	С	4] 1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С	4	1 1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1	С	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С	4	1 1	38.902787 -77.029452
0	0	Down Chain	0.00	1	111	С	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1 1	С	4] 1	38.902787 -77.029452
0	0	Down Chain	0.00	1	111	С	4	1 1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	I	11	С	4] 1	38.902787 -77.029452
0	0	Down Chain	0.00	I	1 1	С	4	j 1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С	4	1 1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	i	1 1	С	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1 1	С	4	1	38.902787 -77.029452
0	0	Down Chain	0.00		1 1	С	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	i	1 1	С	4] 1	38.902787 -77.029452
0	0	Down Chain	0.00		1 1	С	4	1 1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	I	1 1 1	С	4	1 1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С	4	1 1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	ı	1	С	4	1 1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1 1	С	4	1 1	38.902787 -77.029452
0	0	Down Chain	0.00	1	1 1	С	4	1	38.902787 -77.029452
0	0	Down Chain	0.00	Ī	1 1	С	4	1 1	38.902787 -77.029452

Page 19 of 19 2016-02-16 Run ID: 2016021601

C1 629+00 to C1 00+00

CH		FT	Parameter		Value	Length		Speed	TSC		LC	PC		Track	Peak Lat/Long
0	1	0	Down Chain	<u> </u>	0.00	1	1	1	C	1	1	4	1	1	38.902787 -77.029452
0	1	0	Down Chain		0.00		1	1	С	1	1	4	1	1	38.902787 -77.029452
0	1	0	Down Chain]	0.00		1	1	C	1	I	4	ı	1	38.902787 -77.029452
0	1	0	Down Chain		0.00		Ī	1	C	I	1	4	1	1	38.902787 -77.029452
1_0	l	0	Down Chain	Į	0.00		I	1	C	1	1	4	ļ	1	38.902787 -77.029452
1_0	1	0	Down Chain	1	0.00	1	ī	1	C	Ī	1	4	1	1	38.902787 -77.029452
0		0	Down Chain	- 1	0.00	1	Ī	1	С	1	1	4	1	1	38.902787 -77.029452
0	ĺ	0	Down Chain		0.00	1	Ī	1	С	T	1	4	1	1	38.902787 -77.029452
0	1	0	Down Chain	ì	0.00	1	1	1	С	Ī	1	4	ĺ	1	38.902787 -77.029452
0	1	0	Down Chain	I	0.00	1	Ī	1	С	T	1	4	i	1	38.902787 -77.029452
0	l	0	Down Chain	Ī	0.00		Ī	1	С	1	1	4	l	1	38.902787 -77.029452
0	ĺ	0	Down Chain	ſ	0.00	I	l	1	С	1	1	4	l	1	38.902787 -77.029452
0	[0	Down Chain	J	0.00		Ī	1	С	1	1	4	1	1	38.902787 -77.029452
0		0	Down Chain	l	0.00		Ī	1	С	Ī	1	4	Ī	1	38.902787 -77.029452
0	1	0	Down Chain	ĺ	0.00		1	1	С	1	1	4	1	1	38.902787 -77.029452
0		0	Down Chain	1	0.00		1	1	С	T	1	4		1	38.902787 -77.029452
0		0	Down Chain	Ī	0.00	1	Ī	1 [С	T	I	4	!	1	38.902787 [-77.029452
0	Ī	0	Down Chain	İ	0.00		Ī	1	С	Ī	T	4	1	1	38.902787 -77.029452
0		0	Down Chain		0.00	Ì	Ī	1	С	T	1	4	1	1	38.902787 -77.029452
0		0	Down Chain	-	0.00		I	1	С	Ī	-	4	1	1	38.902787 -77.029452
0		0	Down Chain		0.00	1	1	1	С	1	1	4	ı	1	38.902787 -77.029452
0		0	Down Chain		0.00	1	Ī	1	С	1	-	4	Ī	1	38.902787 -77.029452
0		0	Down Chain	1	0.00	1	Ī	1	С	l	Ī	4		1	38.902787 -77.029452
0		0	Down Chain		0.00	1		1	С	Ī	Ī	4		1	38.902787 -77.029452
0		0	Down Chain		0.00		Ī	1	С	T	ı	4		1	38.902787 -77.029452
0		0	Down Chain	1	0.00	1		1	С	1	J	4		1	38.902787 -77.029452
0		0	Down Chain	ł	0.00	1	Ī	1	С	1	Ī	4		1	38.902787 -77.029452
0		0	Down Chain		0.00]	1	С	ī	ī	4		1	38.902787 -77.029452
0		0	Down Chain	1	0.00	1		1	С	1]	4		1	38.902787 -77.029452
0		0	Down Chain		0.00	1 1		1	С	1	T	4		1	38.902787 -77.029452

Notes:

Cant Exceptions are in degrees
The following fields are irrelevant for Cant Exceptions: LC, PC

Exception Report Curve Analysis Section Chain 629 to Chain 0

Page 1 of 2 2016-02-16 Run ID: 2016021601

C1 629+00 to C1 00+00

Elevation plus(+) = L Rail High, minus(-) = R Rail High

Curvature plus(+) = Curve to Right, minus(-) = Curve to Left

					т	т					т—												
	-				 	 	Ave	rage	-		┼─		Limiting	Point			<u> </u>						
Track	Star			ding	ļ	ļ	Curve		Sp	eed			Curve	Elev	Total	_		_im	iting	Spe	ed a	et	
 	СН	FT	CH		Len	Spd		inches	Post	Lmt	СН	FT	Deg/M	inches	FT Gn	P_	3"	4"	5"	6"	7"	8"	9"
1	617	16	608	4	889	25	6/52	5.94	45	43	613	93	6/54	5.89	129	1	43	45	47	50	52	54	56
1	584	62	574	43	981	15	3/50	4.21	55	52	577	4	3/49	4.15	284	1	52	55	58	62	64	67	70
1	571	31	564	41	711	12	-5/58	-6.08	45	46	5671		-6/00	-6.02			46	49	51	53	56	58	60
1	557	6	546	70	1195	25	-1/16	-4.32	65	87	555	17	-1/07	-2.98			87 9	94	100	107	112	118	123
1	544	16	533	36	1121	25	-0/45	-2.26	65	94	541	50	-0/49	-2.19			94 1	03	111	119	126	132	139
1	520	84	514	7	524	23	-0/33	-2.52	75	116	516	73	-0/38	-3.12			1161	26	135	143	150	158	164
1	513	20	506	56	765	27	0/52	4.03	75	105	5085		0/55	4.11			105 1	12	119	125	131	137	143
1	496	37	478	95	1891	25	-1/51	-4.06	75	73	483	4	-1/52	-4.00	1183	1	73	78	83	87	92	96	100
1	473	82	464	28	847	26	-2/07	-5.80	75	77	469	91	-2/06	-5.71			77 8	31	85	89	93	97	100
1	457	15	447	74	1075	30	1/52	5.70	75	80	453	60	1/53	5.58			80 8	35	89	94	98	101	105
1	445	34	441	68	435	30	-2/27	-6.40	75	74	441	67	-2/26	-6.40	21	1	74 7	78	82	85	89	92	95
1	441	68	426	54	1487	31	-2/32	-5.80	75	70	432	38	-2/34	-5.79	972	1	70 7	74	77	81	84	87	90
1	426	54	416	98	1154	33	1/27	6.15	75	93	420	44	1/30	6.06		7	93 9	18	103	107	112	116	120
1	416	98	413	54	257	33	0/46	3.69	75	109	416	98	0/49	3.80		7	109 1	17	124	131	137	143	149
1	410	49	405	17	469	28	6/45	6.27	45	44	406	61	6/46	6.26	36	1	44 4	6	49	51	53	55	57
1	405	17	396	97	981	29	6/42	6.23	45	44	404	15	6/41	6.00	639	1	44 4	6	48	51	53	55	57
1	386	58	372	78	1445	25	-7/23	-5.99	40	41	380	44	-7/24	-5.78		1	41 4	3	46	48	50	52	53
1	359	65	351	90	826	21	-5/27	-2.98	40	39	352	96	-5/27	-2.73	94	1	39 4	2	45	48	50	53	55
1	351	90	348	11	222	23	-6/45	-3.62	40	37	349	12	-6/45	-3.57	61	1	37 4	0	43	45	47	49	52
1	348	11	339	54	779	24	-6/59	-4.01	40	37	347	16	-7/00	-3.87	493	1	37 4	0	43	45	47	49	51
1	326	66	317	87	922	26	2/49	4.38	45	61	322	61	2/52	4.35		1	61 6	4	68	72	75	78	82
1	317	87	298	51	1629	27	5/39	4.09	45	42	313	11	5/40	4.02	1231	1	42 4	5	48	50	53	55	57
1	288	15	274	30	1405	30	3/28	4.29	55	54	285	56	3/30	4.04	793	1	54 5	7	61	64	67	70	73
1	256	46	241	50	1511	25	-7/34	-3.96	40	36	245	35	-7/33	-3.84	893	1	36 3	8	41	43	45	47	49
1	237	91	226	62	1072	30	0/43	3.11	75	105	234	55	0/45	2.89		1	05 1	14	122	129	136	143	149
1	207	45	203	81	437	29	1/21	5.47	75	93	203	28	1/22	5.42		7	93 9	9	104	109	113	118	122
1	203	81	196	72	692	29	1/16	5.65	75	97	197	14	1/12	4.86		1	97 10)3	108	114	119	124	128
1	190	74	187	28	253	11	-0/12	-0.03	75	141	188	79	-0/12	-0.01		1	41 16	35	185	202	218	233	248
1	185	40	169	82	1666	26	-1/49	-4.17	75	73	172	70	-1/54	-4.11	283	2	73 7	8	83	87	91	95	99
1	163	0	152	42	1143	28	5/39	3.89	55	41	158	95	5/38	3.76	495	1	41 4	4	47	50	52	55	57
1	139	91	120	56	1801	30	5/55	4.26	45	41	134	11	5/55	3.86	1121	1	41 4	4	46	49	51	53	56

Exception Report Curve Analysis Section Chain 629 to Chain 0

Page 2 of 2 2016-02-16 Run ID: 2016021601

C1 629+00 to C1 00+00

Elevation plus(+) = L Rail High, minus(-) = R Rail High

Curvature plus(+) = Curve to Right, minus(-) = Curve to Left

	┼		├		 -		Ave	rage	├				Limiting	Point						_		
Track	_	ting		ding			Curve			eed			Curve	Elev	Total		Lim	iting	Sne	ed a	t	
	СН	FT	СН	FT	Len	Spd	Deg/M	inches	Post	Lmt	СН	FT	Deg/M	inches	FT Grp	3"	4"	5"	6"	7"	8"	9"
1	94	5	86	82	901	29	0/19	1.59	75	139	93	34	0/19	1.49		139	154	168	180	192	203	213
1	65	55	59	74	657	16	-7/02	-4.00	40	37	62	59	-7/10	-3.95	52 1	37	40	42	45	47	49	51
1	59	74	53	69	596	20	6/51	4.32	40	39	56	66	6/53	4.23	30 1	39	41	44	46	48	50	52
1	17	20	3	10	1387	26	8/05	3.91	40	34	12	51	8/07	3.72	806 1	34	37	39	41	43	45	47

Page 1 of 14 2016-02-16 Run ID: 2016021601

		判	-]	-	_]	_]	\exists	_]	-	_	_]_	7-	.].	٦.	_]	_]	_]_]_]_]_	7-	7.	7.			_
		∞].	2	~ -	2	2	4	4	2	5	5	\ -	\ \ \	, ,	ᆟ.	4	4	2	5	5	5	\ -	┪–	٦,	, ,	_ -	2	5
	Lim		~ ·	~].	<u></u>	~ ·			_	0	0	5	-	, -	ار	<u>ا</u> .		0	0	5	5	2	┦~		- -		2	_
1		- ا ه		- - -	٦ -					-	0	0	-		- - -	<u>-</u> -		0	0	0	0			-	┥-	╢-		0 5
		- ام	- - -	٦ ا ،	بر ء ا د	٦ ، ا	 				0	0	-	-	, , ,	<u>ا</u> .		0	0	0	0	0		- -	-	- -		\dashv
	Twist-31		7	- - -	7	J.	1]			0	0	-	-	-	-			0	0	_ 0	-	-	-	┥~	-		
	Tot	2	<u>ا</u> ۔	-	7	٦,	٦-	ᅴ.				-0	-	-	1-	٠,	┧				0	0	0	-	-	- -	4.	4
	2 Cl		7	ار د ا د	- -	- -	<u>ا</u> د	<u>ا</u> .	ᅴ.		ᅴ	0	0	-	┦-	- -					0	0			- -	- -		
	Warp Exc 2		, -	,	, ,	, ,		J.	٦. ا			0	0	-	-	┧-	┨-	- -				-	0			-	닊-	ᅱ
	Tot E	1	-	_ _ - -	_ ا د	- -	- - -] -	<u>ا</u> .]	ᅴ	0	0	-]_ -	- -	- -	- -				_	_	 _	 _	 	- -	
	, 2Cl T		 ا ه	_ل ه ا ه	- -	-	- -	- -	닠-			ر اہ		ا ا	ا_ ا	┦~	- -	닊.	닊		ᅱ	0	0	<u> </u>	<u> </u> °	-¦	<u> </u>	긱
	m Off Exc 2	-	-	-	- -	- -	- -	-	- -		\dashv	\dashv	0	<u> </u>	<u> </u>	-	- -	-	4	4	4	$\stackrel{\circ}{\dashv}$	0	-	-	-	\ - -	
	-	1_	┦~	- -	- -	- -	- -	┦~	┦-	┦.	<u>]</u>		٩	31	<u></u>	┦	┦-	┩.	니.	ျ	ျ	긔	0	0	<u>°</u>	°		깈
	_		-	- -	- -	-	ᅱ_	-	- -	닊.	닊.	긱	긔	1]_	1-	<u> </u>].	잌.	익.	익	긔	0	0	0	<u> </u> -	1-	
	ofile Exc 2 Cl FT Dror	1-	┥—	- -		- -	- -	┦-	-	4-	4.	4		0	°	∤	4-]	깈.	깈.	잌.		0	1	2	0		<u></u>
	ፈ "	-	°	_] °	-	٦) -	<u> </u>] - -	<u>]</u> .	\rfloor		0	0] <u> </u>		<u>]</u>	<u>]</u> .	<u>]</u>]	깈	<u></u>	2	6	0	٥	,
	Tot De Exc	ı	-		-	1-	` <u>-</u>	\ - -		<u> </u>	기.	잌.		0	0	c				기.	잌.	의	의	_	2	0]_	إ
	off 2 Cl Drop	-	<u>^</u>	°	-	°			\ - -) °	기· 니-	깈.		0	0	0	-	<u> </u>	기.] '].	깈	의	0	0	0	0	<u>`</u>
	Rockoff t Exc (c FT	°	<u>°</u>	<u> </u>	0	0	<u> °</u>] <u>-</u>	\ 		<u>]</u>	<u> </u>		٥	0	0] <u>-</u>	٠١٥	<u> </u>	واد	<u>]</u>	<u> </u>	ျ	٥	0	0	0	
	ĞΞ	0	<u> °</u>	0	<u> </u>	<u> </u>] 0	٥	واد	<u> </u>	واد].		٥	0	0] <u>-</u>	<u> ا</u>	وا	واد	وا]		٥	0	0	c	,]
	>	0	0	0	0	0	<u> </u>] <u>-</u>			واد].	<u>의</u>	೦	0	0	<u> </u> -	٠١٥		واد	وا	<u> </u>	وا	٥	0	0	0	•]
	Crosslevel Tot Exc 2 Exc FT D	°	<u> °</u>	0	0	0	1	0] 0	ء [د	واد	ا [일.	٥	<u> </u>	6	0]	٥	و ا	ه [د	2		٥	0	0	0	
1	E E	<u> </u>	<u> </u>	<u> </u> _	0	0]] <u> </u>	ء إ	<u> </u>	واد	<u>ال</u>	일.	의	0	<u> </u> _	0	وا		واد	وا	ار	9	٥	<u> </u>	0	0	Ī
) 	nent 2 2 C	0	0	0	0	<u> °</u>	0	0] <u> </u>		1	<u> 기</u>	잌.	의	0	0	<u> </u>	0	<u>ا</u>	<u> </u>	واد	_ [_	일.	의	و	0	0	
	Alignment Tot Exc 2 Cl Exc FT Dro	°	0	0	0	<u> °</u>	<u> °</u>	0	0	٥	١	<u> </u>	٠]	ျ	0	12	0] c	, c	وا	ه ا	<u></u>	٥	0	٥	0	٥	
		0	0	0	0	0	0	0	c	-	ء [د	<u> </u>	<u> </u>	의	0	_	0	<u> </u> -	ء [د	ء [د		<u>]</u>]	0	၀	0	0	
	Wide Gage Tight Gage ot Exc 2 Cl Tot Exc xc FT DropExc FT	0	0	0	0	0]_	0	<u>_</u>	-	٥	٤			0	0	0	0	ء ا	ء ا	۰	3 6	2	27	٥	0	0	
	age Tight 2 Cl Tot DropExc	0	0	0	0	0	_	0	<u> -</u>	c		2			0	0	0] <u> </u>	ء ا	2	وا	2]	၀		<u> </u>	<u>ಿ</u>	0	
	Wide Gage Tot Exc 2 Cl Exc FT Drop	0	0	0	0	7	_	_	2	0			<u> </u>	잌.	0	3	7	<u> </u> _		<u> </u>	واد		<u>기</u>	잌.	의	ျ	0	
	/ide Ga Exc FT	0	0	0	0	6	2	_	12	0	-		<u></u>	잌.	ျ	39	27	0	=	_ _			وا	기.		٥	0	
	μH	2	의	0	0	1 2	_	_	7	<u>-</u>	c	\ -	<u>ا</u> -	익.		3	2	0	c	\ -		2	<u>ا</u> ۔	긔.		0	0	
	ᇤ	0	0	6	23	0	66	-	8	66	=	2	2 8	3	-	66	-	8	g	12	2	3 8	\$ 8	3	8	8	75	
	땅	<u> </u>	<u></u>	0	679	629	620	610	610	009	590			080	574	570	995	260	550	5.50	550			250	520	510	510	

Page 2 of 14 2016-02-16 Run ID: 2016021601

		JI:	_	_		ı —	, —	, —	. —	, —	, —	-	- ,-	-			_											
		취.			_	_	<u> -</u>	_	_	-	-	- [- -	-	-	-	_	-	-]-]-	7-	-]-	7.	\exists	7	-	_
		٦/-	<u>~</u>]	S	5	5	2	5	5	5	5	1	٠]٠	٠]٠	5	~	S	2	2	4	4	4	-	- -	4	4	4	4
	Lim	5	의.	ျှ	٥	5	5	0	3	5	2	7		٠ [٥	0	0	4	2	0	4	4	-	, -	,	5	-]		0
Lmt	-	4 J	>	0	0	0	0	-	0	0	0	0	- -	-]	2	-	0	0	0	0	0	 -	- -	- -	- - -	ار دا		0
	2 CI]	0	이	0	0	9	0	0	0	0	-		٦ -		0	0	0	0	0	-	-	, -	- - -	- - -	لـ اه	0
Twict-31	Exc	ı –	٦ - آ							0	0	0	-	- -	<u></u>	7		- 0	0	0	0	-	-	-	, -	- -	-	
Ę	Tot L	3 -	5					ᅴ		0	0	0	-	-	 	.		0	0	0	0	- 0	-	-	-	- -	4.	0
	2 CI		3	9	0	0	0	0		0	0	0			7	٦ -		0	0	0	0	0	-	_ c	- -	-{-	긕.	
Warn		١.	> «	٠ ١	0	0	0	0	0	0	0	0	0	-	, ,	<u>- ا</u>	-	0	0	0	0	0	-	-	-	- , -	, ,	
>	Tot Exc		> 6	5].						0	0	0	0	-	,	<u>ا</u> ر				ᅴ	0	_	0	-	-	-	_ -	-
	2 Ci Drop	-	> <	ء ا	٥	- -	0	ᅴ.	<u>ا</u>		0	0	0	 	, ,	- - -	<u>ا</u> ر	ᅴ		ᅴ	ᅴ	0		_ 	 	-¦-	- -	
Run Off	Exc	_	-	7-	<u>-</u> -	ᅴ	1	1	1			0	0	-	1-	,			님			0	-0	-	-	-	-	-
Rui	Tot Exc	-	, -	<u>ا</u> ر	J,	<u>ا</u> ۔	니. 이	니. 이	ᅴ. 이	ᅴ	ᅴ	0	0	-	 	- -	_ . -			-	ا	0	0	0		-	- -	
	2 Cl 7	-	_ -	, ,	٦- ، ا ه	م]،	اه	اه	ـا۔ ءاء	ب. اه	_ -	-	0	_ 	- -	- -		ᅴ	닊	닠.		اہ	0	 	 	 	-	-
Profile	Exc FF	-	-	-	-	,	,	٦-	-	4.			-0	0	-	- -	- -	4	-		_ .	27	0 (0 0	0	°	-	
¥.	Tot Exc	-	 -	, -	<u>ا</u> ۔	- - -	ــا. ء آ د	ا د		 		_	_ 0	0]_ -	- -	┦-	4.		┦.	<u> </u>	긕	0		_	0	-	4
	َ ۾	0	-	, -	┥-	┨-			-	┥.			0	0		-∤-	-{-	┥.	{-	-{-	┥.			0 0	0 0	0	-	\dashv
Rockoff	Exc 2 FT L	0	-	-	, -	- -	- -	-	-	-	 		0	<u> </u>	-	-	-	┦-						_	-	-	-	-
Roc	_	-	-	 - -	, c	<u>ا</u> ۔ ه ا ه	٦-	ــاــ ماره	,	ار ه ا د	<u>ا</u> .		0	- 0	-	┥–	┦-	- -	- -	- -	- -		٦	0	0	0		4
	ವ ಕ್ಷ	0	 	- L	_ لـ ه د	ـــــــــــــــــــــــــــــــــــــ	_ا_ ءاء	ـ لـ - اد	_ _ - -	ـاـ ءاء	니. 이	ᅴ	_	2] 	ļ	ᆛ_	ᆛ-		- -	- -	긕.	_ 	0		<u> </u>	<u>{</u> -	Ļ
Crosslevel		-	-	-	-	, -	ار ء ا د	, -	┥~	╣-			62	55	12	1-	- -	-{-	_ -		- -		8	2	0 0	0	22 0	-{
S	Tot Exc Exc FT	0		 c	_ل_ ه ه	 ه ا ه	_ _ -	_ا_ - اد	_ -	ـ اـ ه ا د	- -	긖.	_ _	4	4	_ _	-				-	႕.	2		0		- -	إ
		0	0	-	, - -	۔ ء ء	_ا_ ءاء	, -	- -	┤-	-	닊.	_ -	0	0	- -	- -	- -			닠-	닠.			0	0 0] <u>"</u>	-
Alignment	Exc 2 Cl FT Dro	0	-	-	-	-	, -	, - , -	, -	, -	, ,	با ا ه	ᅴ	0	0	-	- -	۔ ، ا	- -	- -	╣-	┥.	_ .		0	0	0	┨
Alig	Exc	0	0	-	-	- - -	 _ _ ا د	- -	, -	- -	<u>ا</u> ر	<u>ا</u>	ᅴ	0	0	-	-	-	- -	- -	- -	- -			0	-	0	4
		7	0	0	0	-	, - -	-	-	, -	- - -	- - - -	<u>ا</u>	0	0	0	-	_ _ ، ه	_ _ -	_ _ >	┥~	┨-	┥	ᅴ	0	- 0	0	<u> </u>
light (DropExc FT	1	0	0	-	-	, -	7=	-	, -		5	5	7	0	0	-	,	-	-	-	,]			0	0	1
ge]	D Pool	0	0	2	0	0	·	-		۰	ء ا	٦,]	-	0	0	-	, -	-		, =	- - -		~ 	듸	0	5	1
Wide Gage Tight Gage	Exc FT Dro	0	0	2	0	0	7	-	0	٦	, <	2 0	٦	-	0	0	0	6	, c	· -	, <u>«</u>		2	E	7	٥	32	1
ĭŅ ;	Exc	9	0	2	0]=]=	0]	<u> </u>	<u></u>		0	0	9	13			Ⅎℸ	٦.		m		0	1	1
	티	12	66	8	8	12	2	8	8	g	:\ 8	8 3	2	8	66	66	8	2	:]-	. 8	2 [8	3 5	3 3	£ .	8	79	12	
	B	510	200	490	480	180	480	674	94	4.05	1 5		400	440	430	420	420	5	414	410	410	2 2	3 3	<u>s</u>	380	380	380	}
																										_		

Page 3 of 14 2016-02-16 Run ID: 2016021601

		÷	- اع	7-	7-	7-	7-	٦-	7-	7-	7-	٦	7-	٦-	٦-	٦-	٦-	٦-	٦-	٦-	-	- 7	- ,-	-	-	-	_
		Pstd Cle Trk]_]_]_	<u> </u>] _	4=	1-	: -	<u> </u> _	<u> </u> _	<u> </u> _]:	1:	1:	<u> </u> -	1	1=	:]:	<u>: </u>	<u>:]-</u>	<u>:]-</u>	<u>:]-</u>	<u>-[</u>	.]
			1-	1	<u> </u>	- -	_	. 4	14	4	4	4	1_	<u>`</u> [<u>'</u>	<u> </u>	<u>] </u>	1 4	. 4	4			<u> </u>	۰] ۰	, _ ~	2	
		ri m	3 <u>-</u>	<u> </u>	<u> </u>	14	10		0	4	0	<u> </u> _	0) <u>-</u>)	ه اد	9			4	1	·]	٠] ر	· \	·	5 0	Ī
- mt	Spd			<u> </u>	<u>- [-</u>	· c	·]-	0	0	0	0	0	<u> </u> -		٥		<u>,</u>	- -	0	0	6		-	0		0	Ī
		2 CI Drop	6	· c			0	0	0	0	0	0	0	0	-	· -	· c	, 0	0	0	0	0	-	0			1
	Twist-31	Exc	0		0	0	-	0	0	0	0	-	0	0	-	-			-	-	0	-	-	-	-	0	1
	Ţ	Tot Exc	-	-		-	10	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	1
		2 Cl Drop	-	10	0	0	0	0	0	-	0	0	0	1-	-	1-			0	-	0	1-	-	-	-	-	
	Warp	Exc.	0	0	0	0	-	0	0	0	0	0	0	0	-	0	0	-	0	0	0	0	-	-	-	0	
	*	Tot J Exc	0	-	-	0	-	-	0	0	0	0	0	-	-	-	-	-	-	-	0	-	-	-	-	0	
		2 Ci Drop	0	-		-	-	-	0	0	0	0	0	-	0	-	-	-	-	-	-		_ °	-	-		<u> </u>
	Run Off	Exc 2	-	-	-	-	-	0	-	0	0	0	0	-	-	-	-	-	0	0	-	0	-	-	0	0	
	Run	Tot Exc	-	-	-	-	-	0	0	0	0	0	0	_ o	-	0	0	0	0	0	0	0	0	0	0		
		2Cl 1 Drop I	0	-		0	-	0	0	0	0	0	0	0	_ 	_			0	0	0	0	0	0			
		Exc 2	-	-	-	-	-	0	0	0	-	0	0	-	0	-	-	-	0) 0	0	0 () 0	0	0	0	
		Tot Exc	-	-	_	0	-	0	0	0	ا		0		ļ	 	 	_	_	_			لـــا		_		
		۰	0	-	0	0	0	0	0				\dashv	0	0	0	0	0	0	9	0	0	0	0	0		
	off			-	-	П		\dashv	ᅱ	\dashv	\dashv	ᅱ	-	0	0	°	° -	0	0	$\stackrel{\circ}{\dashv}$	0	0	0	0	0	2	
			0	0	0	0	0	٥	<u></u>		긔	1	4	0	0	<u> </u>	<u> </u>	°		긔	0				0		
	1	2 Cl Tot Drop Exc	0	0		٥	٥	یا	긔	긔	긔	긔	긔	0	0	0	0	ိ	의	긔	긔	의	긔	의	긔	<u></u>	
	level	c 2Cl T Drop	0	0	0	0	0		긔	의	긔	긔	긔	0	0	0	0	٥	의	의	٥		의	의			
	Crosslevel	t Exc	0	°	0	°		يا	긔	긔	긔		긔		0	0	0	ိ		긔	یا	의		븨	اد	يا	
>	-	2 Cl Tot Drop Exc	0	0	೨	٥	의	의	긔	릐	긔	긔	의	의	0	0	0	ಿ	의	의	븨	의	의	의	의	의	
C1 623+00 t6 C1 00+00	ment		0	0	0	_	<u></u>	릐	긔	긔	긔	긔		의	0	0	0	9	긔	긔	긔	의	의	의	의	의	
2	Alignment	Exc FT	0	0	37	೨		긔	긔	긔	긔		의	긔	٥	0	0	٥	의	의	의	의	의	의			
≌ ?			0	0	4	의		의	의	의	의	잌	의	의	٥	0	0	0	의	의	의	의	의	의	의	의	
1670	Tight Gage	S E	0	0	0	의	2	의	의	의		의.	의	긔	٥	0	0	<u></u>		의	의	의			ا		
3	Tight.	DropExc	٥	0	٥	의	긔	의	<u></u>	의	의	의.	의	೨	의	೨		0	듸.	의		의	의	의	의	의	
	jage	4	긔	0		의	의		2	믜	<u>~</u>]	긔.	의	의	긔	의	의	의	의.	믜	의	의	의	의	의	의	
	Wide Gage	EX.	<u></u>	<u></u>	2	긔	의		<u>=</u>		8	<u>~</u>].							의.	의.	의			<u></u>	의	의	
	>	- 1		읙	~	읙	릐		7	릐	<u>~</u>].	┥	4	읙	읙			의	ᅱ·	┥	읙	릐		의		릐	
		FT	8	8	8	88	12	8	8	33	2	8	-	8	14	12	-	8	8	8	6	2	-	8	8	8	
		CH	370	360	350	340	340	330	320	<u>e</u>	<u>.</u>	8	867 788	290	780	280	276	270	760	250	250	250	243	740	230	220	

Page 4 of 14 2016-02-16 Run ID: 2016021601

		.	 -	1—	1—	1—	1—	ı —	1—	1—	1	1	1	1	1—	1—	1	1	1—	ı —	1—	ı —	1-	ı —	,_	1-7
		Į,]_]_]_]_	<u> </u> _		<u> </u> _		<u> </u>			_			_	_	<u> -</u>		_	_	_	<u> -</u>	
		Pstd Cls	5	2	\ <u>\</u>	2	5	2	~	S	2	S	4	4	4	4	4	4	4	2	2	S	~	N	2	5
		C; ji	S	0	0	0	0	S	S	0	0	0	0	4	4	0	0	0	4	5	0	0	0	5	5	2
Lmt	Spd	Tot Exc	0	0	0	0	0	0	0	0	-	0	-	0	0	0	0	0	0	0	-	0	0	0	0	0
		2 Cl Drop	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Twist-31	Exc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Ţ	Tot Exc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2 Cl Drop	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Warp		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	-	Tot Exc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2 Cl Drop	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	RunOff	Exc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Ŗ	Tot Exc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2 Cl Tot Drop Exc	0	0	0	0	0	0	0	- -	0	0	0	0	<u> </u>	0	0	- 	이	0	0	<u> </u>	0	٥	٥	0
	Profile	Exc	0	0	0	0	0	0	0	9	9	•	•	0	9	0	0	이	리	0	0	0	0	0	0	0
	Α,	Tot	0	0	0	0	0	0	0	9	0	0	9	0	0	0	9	9	0	0	9	0	9	0	0	0
		2 Cl Drop	0	0	0	0	0	0	9	9	9	0	9	0	9	9	0	9	0	9	9	9	0	0	9	0
	Rockoff	Exc 2 Cl FT Dro	0	0	0	0	0	0	•	0	•	0	0	0	•	0	0	0	•	0	0	0	0	0	•	0
		2 Cl Tot Drop Exc	0	0	<u></u>	٥	<u> </u>	<u> </u>	<u> </u>	ြ	୍ରା	ျှ	<u> </u>	<u></u>	<u> </u>	<u> </u>		<u></u>	의	၀	٥	ြ	٥	೨	٥	<u></u>
	(e]		0	0	1	-	و	٥	၀	٥	و	၀	٥	0	٥	٥	و	0	٥	0	٥	٥	٥	٥	٥	0
	osslev	Exc	0	0	33	120	0	٥	و	0	٥	ا	ا	٥	٥	٥	ပါ	و	ا		٥	٥	ا	٥	ا	٥
		2 Cl Tot Drop Exc	0	0	2	3	٥	<u></u>	<u></u>	೨	اد	و	<u></u>	٥	و	و	<u></u>	٥	و	و	<u>ا</u>	٥	و	ျှ	٥	ြ
8 6 6	ent	2 Cl Droj	0	0	<u> </u>	೨	의	೨	의	의	의	의	의	의	의	의	의	의	의	의	의	의	의	의	의	의
ပ်	Alignment	Tot Exc 2 Cl Exc FT Drop	0	0	0	0	0	٥	ا	٥	္	ြ	္	٥	ျှ	ြ	ျ	٥	٥	0	٥	ا	٥	٥	٥	9
C1 629+00 to C1 00+00	∢	Tot Exc	0	0	0	٥	၀	೨	의	<u></u>	의	의	의	<u></u>	0	의	의	의	의	의	의	의	의	의	의	의
529±(Tight Gage	Exc FT	0	0	ျ	٥	ച		<u></u>	<u></u>	의	<u></u>		<u></u>	의		의	의	<u></u>	೨				<u></u>		
ธ	Tight	2 Cl Tot DropExc	0	0	٥	٥	의	٥	의		의	<u>ျ</u>		의	٥	의	의	의	릐				의			의
	age	7. ZC	0	0	<u></u>	<u></u>	의	의	의	긔	긔	듸	의	의	긔	긔		7	의	긔	의	긔	긔	긔	긔	의
	Wide Gage	Tot Exc 2 Cl Exc FT Drop	0	0	0	0		٥		ျ	4	160	٥		의	4	22	127	릐	<u></u>	9		릐	의	릐	의
	*		0	0	의		9	의		읙	ᅴ	12	읙	읙	읙	긕		2	릐	읙	읙	읙			읙	의
		FT	49	12	66	66	66	66	80	12	66	8	_	66	8	12	8	8	89	12	٥	66	8	8	8	12
		СН	220	220	210	200	190	180	180	180	170	160	152	150	150	150	140	130	120	120	120	110	100	8	8	8

Page 5 of 14 2016-02-16 Run ID: 2016021601

		1		,																								
		当	-	-	-	-	-	-]=]_]_]_	7-	.].	7	-]_]_]_	7_	7_	7-	7.	7	_]		-
	Pstd	5	4	4	4	4	4	4	4	4	4	4	1-	٦,	# -	4	4	_	-	-	-	┨—	-	┨-		긔.		_
	_	5	0	0	-	4	4	-	-	-		{	 -	┥-	┥.	닉	_	4	4	4	4	14	1_	<u>`</u> `	<u>" </u>	⁴].	4	4
± 73		- 1	-					4	0	0	4	4	<u>-</u>	2 إــٰ	긱.	긔	0	4	4	4	4	4	4	<u> </u>	<u>: [</u> :	4	4	4
Lmt		пĺ	្ឋា	0	0	0	0	2	0	0	0	0	0	- ا	2	0	-	0	0	0	0	0	0		9	٠ د	0	0
	2 CI		0	0	0	0	0	0	0	0	0	0	0	6	, ,		0	0	0	0	0	0	0	-	, -	٦ ، ا د	7	 0
Twist-31	Exc	[]	0	0	0	0	0	0	9		0	0	0	0	-	5		0	0	0	0	-	-	-	-	<u>-</u>	<u>ا</u>	0
Ž	Tot L				히	히	7		히	히		0	0	-	-	 					0	0	-	∤	┨—	-	4.	-
	2 CI		키		ᅴ	ᅴ	ᅴ	ᅴ	ᅴ	ᅴ	ᅴ	0	0	-	┦~	-			긝			0	0	0	┨—	-1-	┥.	긔
Warp	Exc 2	1	٦,							기			0	-	-	- -	-	-		၂	ᅱ	ᅱ		-	- -	┨-	┥-	
	Tot E	ł	_ . -						닠.	_	_	_			- -	٦.	- -	\dashv	۲				° —	0	0] <u>_</u>	<u>` </u> `	
		- 1	닊-	닠.	-]	긕.	긕.	깈.	깈.	긔	긔	٥	0] =	<u>]</u>	잌.	긔	긔	의	의	의	0	0	<u> </u> _		وال	기
₩	c 2Ci Drop	-].	<u></u>	깈.	긔.	긔.	긔.	긔.	잌.	잌.		٥	0	0			<u></u>			0	0	0	0	0	0	, •	>
⋾	Exc FT	0	<u>]</u>	기.	일.	<u>]</u>	<u>၂</u>	<u></u>		ا			0	0	0	. <	،	0	0	0	0	-	0	0	0	-		5
1	Tot Exc	-	<u> </u>			وا		<u>J</u>	وا	وا	وا	0	0	0	0	1		٥]	0	٥]:	ᅴ.		이	0	0	-	-	7
	2CI Drop	٥		٠ ١	٠ د	ء ه	، د	ء ه	ء د	ء د	٠ د	٥		0	0	. -	ء [د	5	<u>ا</u> ،	5	ا]		0	0		 	
Profile	EX F	0	7	3	5	5/6	7	7	5	٦,	5	<u>ار</u>	7	0	0	-	, -	,	,	,	,	-	ᅴ	0	0	-	1-	4
	Exc	0		3/6	5	5	- اه	5	7	- - -	- -	<u> </u>	<u>ا</u>		0	- -	١.	٠,	-	_ ء ا د				_	0	0	ļ_	4
5	Drop	0	-	7	3		5	, -	7-			 	J.	7	-0	-	-									_	-	┨
Rockoff	FT Dro	0	-	, -	,	, -	, -		-	-	, -	-	1		_	-	-	┥-		-	-	- -	- -	{	\dashv	0	- -	\dashv
Ž,	z X	0	_ ا _	, -	٦-	- -	J_	-	- -	- -	-	- -	- -			 _	-	- -	- -	┨-	- -	- -		4	ျ	0	-	-
٠ ز	T Drop E	0	_ل ا ه	- -	- -].	۲.	_	0]_	ᆛ~	- -	니_	٦_	니_	<u>기</u> .	잌.	깈	۵	0	
slevel	FT	_	-	-	-	-	-	1-	1-	1-	1-	15].	긕.	0	_	<u> </u> _	15	<u> </u>	1-	1-	7	기.	잌.	의	의	0	
Crosslevel		<u> </u>	<u> °</u>	<u> </u>	-ļ-	- -	<u> </u> _	\ - -	1_	°]_	<u> </u>	<u> </u>	<u>]</u> .	٥	0	<u> </u>	_ اِ	<u> </u>) c	·] c	ع [د	٥].		ျ	0	
	പ	<u> </u>	0	-1	<u> </u>	٦٢	- -	- -		12		ع إد	<u> </u>].	의	0	0		<u> </u>	ء إ	- إ	واد	واد	기.	일.	٥	0	
Alignment Tot Exc 2 Cl	۵	<u> </u>	-	1-	<u> </u> _	15	1-	10			<u> </u> c	<u> </u>].	의	0	<u> </u> º] =			<u> </u>	ء [د	2	ا_	일.	0	0	
Alignment of Exc 2 (F	0	0]°]°]°]°]°	0	0] 0] =	, ,	١	0	0	0	0	0	0	0	0	۰	٠ ١	ا د	0	0	
		0	0	<u>°</u>	0	0	<u> °</u>	0	0	10	0	9	<u>.]-</u>	-]	0	0	0	0	0	0] =	- -	9	٠	٦,	0	0	
t Gage		٥	-	<u> </u>	0	<u> </u>	0	0	0	0	0	0	٥		د	0	٥	0	0	0	0	-	٦	۰	٠ [٠	0	0	
Tight (Tot	FT DropExc	٥	_	0	<u> </u>	<u> º</u>	0	0	0	0	0	0] =		9	0	0	0	0	0	0	10		,	5/6	9	0	
age 2 CI	۵	의	<u> </u>	0	<u> </u> º	0	0	0	<u> </u>	0	0]_	<u> -</u>	·] ·	7	0	0	0	0	0	0	0	=		3	ᅴ.	0	
Wide Gage Tight Gage Tot Exc 2 Cl Tot Exc		ျ	°	0	0	0	0	0	0	0	0	4	2	2 2	۶ ا	0	0	0	0	0	0	0	-		> «	٥].	0	
Tot ≰	Exc	0	0	0	0	0	0	0	0	0	0]=	<u> </u>	-]	0	0 1	0	0	0	0	0	=	٥		5		
	日	-	66	66	8	8	22	8	8	8	87	12	8	8		-	66	0	0	0	0	0	0	-		٠ ا		
	핑	2	80	70	09	99	-09	50	40	30	30	30	12	=	<u>.</u>	5	0	0	0	0	-0	-	-	-	, -	<u>.</u>	-	
	'-				·	 _	·	-	-	لـــا		J	J	J_	_]_		لـــ		l			J	J_	L				

Page 6 of 14 2016-02-16 Run ID: 2016021601

		ابد	_	_	1-	1-	7	ı —		,	ı	ı	-	¬ -	٦-	_			,	,	, —	-						
	-	Ĭ	_	_	_	<u> </u> _		1	_	_	_		<u>] </u>	<u>. [</u>	<u>. [</u>	_].	_	-	_	-	-	-	· -	- -	-].	-[-]	_
		ဦ	4	4	4	4	4	4	4	4	4	4	4	. -	٠/٠	4	4	4	4	4	4	4]-	, J ,	,] .	┩.	4	4
	Lim	ဗီ	4	4	4	4	4	4	4	4	4	4	4	7	7,	4	4	4	4	4	4	4	1-	;;	; ;	- -	4	4
Lmt		EXC	0	0	0	0	0	0	0	0	0	0	0	-	, -	5		0	0	0	0	0	-	┪-	┨-	- -		0
	2 CI	2 0	0	0	0	0	0	9		0	0	0	-	1-		, ,			0	0	0	-	-	1-	1-	-	-	_
Twist-31	Exc	٦١٦		0								0	0	-	-	4-	-		0	0	0	0	-	-	- -	- -	┥.	
Ž	j j			히	ᅴ	히	히	7		ᅴ	ᅴ	0	0	-	1-	<u>-</u>	┥.	\exists	\dashv	_	-	_	_	-	 	4-	4.	\dashv
		ᆈ-	ᅴ.		ᅴ	ᅴ		{·			{	{		{ —	{-	- -		ျ		긔	긔	0	0	<u> </u>	<u> </u> _]_	<u>기</u> .	의
۵		1	┥.		-			۲	۲.	긔.	긔	긔	<u> </u>	0	-	<u> </u>	기.	잌.	의	긔	긔	0	0	0] =	ع إد	<u> </u>	의
Warp		1_]	깈.	ျှ	<u> </u>	의.		<u>ါ</u>	ျှ	의.		0	0	0	٥	> (۱-	0	ا ۰	0	0	0	0	0	-	, •	0
	Tot Fy		ال	일.	일.	<u>이</u>	وا		기.	<u></u>		0	0	0	0	٥		٦	0	0	0	0	0	0	0	-	, ,	5
5	2 C.		ا ا				٥	٥	٠	0		0	0	0	0	٥	,	5	0	0	0	0	0	0	0	0	, <	
- 3	Exc	1	وا	٠	اد	ما	٥	٥	٥	٠] ١	٥	٥	0	0	0	6		٠	3			0	0	0	0	-	-	7
	Tot Exc	٥	واد	<u> </u>		ا_	0	> 0	> 0	۰]۰	ء] و	٦	0	0	0	0	-	7	5];	٦.	ᅴ		0	0	0	-	-	7
•	, 2CI Drog	٥	۰	اد	٥	٥	2	-			ء]،	- ع	0	0	0	0	-	- ا	٦ ، ا	٦ ، ارد	- - -		0	0	0	-	_ -	,
Profile	X F	-	7	7	5	3		7	, -	,	5	J;	ᅴ	히	-	0	-	, -	,	-	-	7		0	0	-	-	+
	Tot Exc	-	, -	٥١٥		٦,	-	_ ا د) 	ا د	- -	٦ ، اد	7		0	0	 -	,	-	- - -	<u>ا</u> ۔	┥.		0	_	0		4
į	2 C. Drop	0	-	7				, -	, -	7-	7-	7	<u></u>		0	0	-	-	1-						-		 	\dashv
Rockoff	Exc 2Cl	-	1-	, -	, -	-	, -	-	-	-	-	1-	-		-	0	{-	-	- -	- -	-	- -	\dashv	\dashv	<u></u>	0	-	1
Roc	Exc L	-	-	-	┨-	┨-	- -	4-	-	- -	-	- -	- -				0	┨	- -	- -	- -	- -	<u>]</u>		<u> </u>	0	0	1
ξ	בַּ בַ	-	 	- لـ ه ا ه	_ L . l .	_لـ ہ ا ہ	۔ ا ہ ا	-	 - -	ــــــــــــــــــــــــــــــــــــــ	ᆛ_	- -	- -	긕.	{	<u> </u>	0	٦	ļ_	- -	- -	- -	ᆛ.	긔	긔	0	_]
	FT D	-	-	-						-		-{-	- -	┥.		<u>-</u>	0	-	- -	- -	-	- -	- -	긔	긱		0	
Ç 5	Exc FT	0]_ 0	<u>ا</u> ـــ	-	-	-	- -	-	-ļ	- -	- -	- -	긕.		0	0	°	-	- -	ᆛ_	- -	ᆛ.	깈.	긔	ڀ	0	
7		0	 -	┨—	- -		┦_	-1	0	- -	-	-	- -			0	0	0	- -	-1	- -		-¦-	익.	의	의	0]
Alignment	FT D		-	 	╢-	┨-	 -	 	0	<u>-</u>	10	1-	<u> </u>	기.	깈.	٥	0	<u> </u>	°	1-	<u> </u> _	1	<u> </u>	긔.	잌	의	0	
Align		° —	<u> </u>	<u> </u> _	<u> </u> °	<u> °</u>	<u> °</u>	<u> °</u>	<u> </u> °	<u> </u> °	ļ°] <u> </u>	١	<u>]</u>	<u></u>	္	0	0	0	0] =	٥	<u></u>	ا د	-	0	0	
£-		0	0	0	<u> °</u>	<u> </u> 0	<u> °</u>	0	0	0	0	=		واد		0	0	0	0	0	-	9	ء [د	3	9	9	0	İ
Gage		0	0	0	0	0	0	0	0	0	0	0		> <	>	0	0	0	0	0	10]-	, ,	ء ا	<u> </u>		0	
Tight (FT DropExc	0	0	0	0	0	0	0	0	0	0	1-	7-	٠,	5		0	0	0	0	1=	-	, -	,	<u>-</u>	7	0	
ge . 2 Cl	020	0	0	0	0	0	0	0	0	0	0	0	-	7	٦ ا		0	0	0	0	10	-	, -	-ا- ه ا د	٦ ا د	ᅴ.		
Wide Gage Tight Gage of Exc 2 Cl Tot Exc		0	0	0	0	0	0	0	0	0	0	0	-	, -	, ,	- -	0	0	0	0	0	1-	-	, -	, , ,	<u>.</u>	-	
Wide Gage Yot Exc 2 Cl	Exc	0	0	0	0	0	0	0	0	0	0	0	-	, -	7	키	0	0	0	0	0	=	1=	- -	- -	-∤.		
	듄	0	0	0	0	0	0	0	0	0	0	0	-	, -	, ,	3		0	0	-	0	-		, -	٦- ا	<u>-</u> -		
	뜅		0	0	-	-	0	0	0	0	0	0	-	-	-	.		0	0	-	0	 _	4_	4_	┨_	٦.	_	
	٦١.				!	J	اـــا	لــا	لــــا	لـــا	_	<u> _</u>]_	_ل	1	٦.	لــّ	لــــا				<u> </u>] =	٢١٥	<u>֓</u> ֡֞֜֞֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֓֓֡֡	<u></u>		

Page 7 of 14 2016-02-16 Run ID: 2016021601

		i F	<u> </u>	רב	\neg					ı —	1-	7-	٦-	٦-	٦.		_		1	٦	٦	٦-	٦-	-			,		, —
		Pstd	- 1 -	-]	\exists	_	-	_	_	-	<u> </u> -	: -	1	4.	\exists	_	_	<u> </u> _	<u> </u> _	<u> </u> _]_	<u> </u> -	<u>- -</u>	<u>]</u>]		_	
			1-	<u> </u>	₹].	4	1 4	4	4	4	4	4	<u> </u>	<u>'</u>	⊅].	4	4	4	4	4	4	4		<u>- -</u>	<u>. [</u>	4	4	4	4
		iii S	-	1	₹].	4	4	4	4	4	4	4	14	<u> </u>	<u> </u>	4	4	4	4	4	4	4	-	-	•	4	4	4	4
Lmt	•	Tot			٠]		၀		٥	0	0	0]_	ء ا	واد		0	0	0	0	0	0	٥	ء ء	7	3	0	0	0
•		2 CI	-		<u>ا</u> د]	0	٥	٥	0	0	0	0	٥		2	0	0	0	0	0	0	-		,	٠,	اره		0
	~	XX F	0	۰	} •	>	ا ۰	0	0	0	0	0	0]-	,]	٠]٠	9	0	0	0	0	0	0	-	-	,	- -		
f		i S S S	0] =]]	0	0	0	0	0	0	0	-	,	7	ᅴ.		0	0	0	0	0	1-	-	,	5		히
	5	Drop Drop	0	ء	واد	ا	<u></u>	9	9	0	0	0	0	6	, -	٦	٦.		0	0	0	0	0	-	-	,	5 ,	٦ ا	
17/11		X	0	0	, •	٠ ١	ا -	0	0	0	0	0	0	0]-	, «	3	0	0	0	0	0	0	0	-			٦	
_		Exc Exc	0]-	,	٠,	<u>ا</u>	0	٠ ا	히	0	0	0	-	-		٦ ا				ᅴ	0	0	0	-	-	- - -	╣.	
	ָּהָ כ	2 C	0	6	, -	٠ ٥	ء	0	0	0	<u>-</u> ا	0	0	0	-	, .	- ا پار]	ᅴ	ᅴ	ᅴ	اه	0	-	-	-	- ا ه ا ه	اد	
Run Off	3	F.	0	-	-	, -	J.	-d	٥ .	5		0	0	0	-	-	 	 					-0	-	-	-	-	-∤-	
2	1		0	0	-	,	<u>, </u>	- - - -	- - - -	ᅴ.		0	- 0	0	-	-	<u>ا</u> ـ	٦. دا					_	0	-	-	- -	┦-	
	ב	_	0	-	-	, ,	- م ر	ـــا ا ،	٦ ا د	기· 기·	اه	0	0	0	-	_ [_ _ 	╣.	ᅱ.	닊	ᅱ.		-	0	0	_ ا ہ ا	-	- -	
Profile	Fyr		0	0	1-	-		 	-	,	7		0	0	-	-		, -	1	╣.			0	0	0	-	-∤	- -	1
Δ.	Tot		0	0	-	-	- -	- - -] ,	- -	1	ᅴ	-	-0	-	-	, -	,	. .	<u> </u>	<u>ا</u> .		0	0	0		-	- -	
		م	0	0	0	-		5		 				0	0	-	-	,			-1-	┥	0	0	0		-	╢-	
Rockoff	Exc 2 Cl	듄	0	0	-	- -	, -	, -	,	- -	- - -	ᅴ		0	0	-	-	, -	-	٦-	-	┧.		0	0	-	-	┨-	-
Z Š	[ot	Exc	0	0	-	-	, -	- -	,	- - -	- - -	1	ᅴ	0	0	_	_ -	-	<u> </u>	<u>ا</u> ۔	- -	- -		ا	0	0		┨_	4
	C 12	Drop Exc	اه	0	0	 - 	ـــــــــــــــــــــــــــــــــــــ	_ _ 	_ _ 	_لـ ه ا ه	بر مار	ᅴ	ᅴ	0	0	 -	<u> </u> _	┥_	-	-	- -	-			_ 0	0	<u> </u> _	┦-	-
Crosslevel	3xc 2	F	-	- 0	0	-	-	- -	- -	┥-		ᅱ.		-	0	0	-	┨-	- -			┥.			0	0	0	┤-	-
S	Fot	Drop Exc FT	ᅴ	_ 0	_ 0	- -	_ لـ ہ ا	_ا_ ءاء	_ _ -	. _ -	ـــــــــــــــــــــــــــــــــــــ	-∤.	니	_ -	-0	0	-	- -	- -	- -	- -	- -				_		ء - ا	-
<u></u>	[]	ob	ب اه	0	-	0	-	ᆛᅳ	- -	- -				ل اہ	_	0		-1							0 0	0 0	0		-{
Alignment	Exc 2Cl	臣		0	0	-	- -	 	- -	_ 	- - > «	- - - -	ا ا	_	0	-	-	_ 	- -	┥-	-	- -		۰	-	_	-		-
Alig		Exc	ᅴ	0	0	-	-	- -	. _ - -	, -	, ,	_ . -	<u>.</u>	ᅴ	0	0	-	-	니_		- -	- -				_	0		-
iage		ا ے		-	0	0	-		-		, , ,	<u>ا</u> ۔ ، ا	- - -		0	0	-	 -	- -	- -	- -	-	┥.	닠.	٦	_ 0	0		╣
ight G				0	0	0	-	1=	-	-	-	,	-		0	0	-	-	4-	- -	- -	-∤	4.	-4		_	0	-	4
že T	U	FT DropExc		0	0	0	-	-	-	-	- -	٦ ا د	- - - -		0	0	0	-	┥–	- -	┥-	- -	┥.	니.		0	0	-	4
Wide Gage Tight Gage			٠ ا	0	0	0	-	0	0	-	, -	, ,	- - - -		0	0	0	-	- -	, -	, -	- -	┥.	┥.	-	0	0	0	-
Wid	Tot	EXC.			0	0	-	-	-	-	, -	7	5	7	0	0	0	-	-	, , ,	, -	,	. .	-4.		0	-0	0	4
		_	0		0	0	0	-	0	-		, ,	J,	5	0	0	0	-		, -	, -	, -	J.	- - - -	7	0	0	0	1
		핑	하	0	0	0	0	-	-	-	-	-	-	-		0	-0	-	-	, -	-	, -	, -	,			0	0	4
		l	. لــــ			_	·	J	ل	ــــ لــــــ	_	-		_J.		لـــ	_	ــــــ ا	ــــــــــــــــــــــــــــــــــــــ		ــــــــــــــــــــــــــــــــــــــ	_ـــ		┛.	. لـــ	ك			7

Page 8 of 14 2016-02-16 Run ID: 2016021601

		¥ -	7		٦.	_	_	_		ı —	7-	- -	٦-	٦.		_	ı —	٦-	٦-	٦-	٦-	_,-	-			. —	ı —	-, —
		ທ ້]-].]	긤	긔	1	_	-	<u> </u> _	-	<u> </u>	긔.		_	-	<u> </u> -	1-	<u> </u> _	1	<u>:</u> -	긔.	긔	_	_	<u> -</u>	<u> -</u>
	_	1-			4	4	4	4	4	4	4	1-	1	₹ .	4	4	4		<u> </u>	14	<u> </u>	<u>'</u>	4	4	4	4	4	4
 .		- 1	1	4	4	4	4	4	4	4	4	1-	1	‡	4	4	4	4	14	14	<u> </u>		₽].	4	4	4	4	4
Lmt Spd	,	,	<u>ا</u> (]	<u>]</u>	잌.		의	0	0	0	0	٠]٥]	의	0	0	0				وا	وا		0	0	0	0
=	2 CI			> °		일.	의.			0	0	0		<u> </u>		0	0	0	0	0	٥	۰		2	0	0	0	0
Twist-3	Exc	1].			٥	0	0	0	٥	, ,	ا د	0	0	0	0	0	0	6	,	٠]	-	0	0	0
ξ-	5 5			<u> </u>	<u> </u>	2	일.	၀		0	0	0	c		3	၀	0	0	0	0] =] =	7	٦,	ᅴ	0	0	0
	2 CI	- -	<u> </u>	<u> </u>		기.	의.	일.	의	0	0	0] c	وإد	기.	ୁ	0	0	0	0	9] =	وا]]	0	0	0
Warp	Exc.	0	٥	9		> °	٠ ١	-	ا ۰	٥	0	0	-	۰	-	0	0	0	0	0	0	0	6	, ,	٥	0	0	0
	F Z		٥			٥	5	٦		0	0	0	-		5	이	0	0	0	0	0	-	-	, ,	<u>.</u>	0	ᅴ	
	2 CI Drop	0	-	٥			٥	3	0	0	0	0	0		>	0	0	0	0	0	0	0	- -	, ,	٦ -		히	기
Run Off	Exc	0	-	0		٥	٦	3	0		0	0	0	-	,	5	0	0	0	0	0	0	1-	, - , -	- - -			ᅴ
Ž	Tot Exc	0] =)			3	0		0	0	0	-	, ,	5	0	0	0	0	0	0	-	, -	- -			히
4 \	2CI Drop	0	0	0				ء ه	ء	0	0	0	0	6	, ,	<u>-ا</u>		0	0	0	0	0	-	, -	- - -	<u>ا</u>		
Profile	Exc	0	0	10	-	٥	٥		3	=	=	0	0	-	-	5	ᅴ	0	0	0	0	0	-	-	, -	,	計	
	Tot Exc	0	0	-	-	۰		7	5		히	0	0	0	, -	- -		0	0	0	0	0	-	-	, -	,		7
	2Cl Drop	0	0	0	-	-		7	3]	9	0	0	0	-	7			0	9	0	0	0	-	, -	5	1	
Rockoff	Tot Exc 2 Cl Exc FT Dro	0	0	0	0	-		, -		٦.	7	0	0	0	-	, ,	=	히	0	ᅴ	0	0	0	-	-	<u>,</u>	-	7
¥	Cl Tot rop Exc	0	0	0	0	6	· -	,		ء]		0	0	0	-	7	<u></u>	히	ᅴ	ᅴ	히	0	0	-	-	<u>ا</u> ر		1
	2 CI Drop	0	0	0	0	=		,		- -	-ر دا	0	0	0	-	ء [ہ	٦ ا	이	이	히	0	0	0	-	-	- ا د ا	ᇹ	- -
		0	0	0	0	0	0	-		- ·		0	0	0	-	, ,	3	0			0	0	0	0	-	, ,	- ا د	- -
ប្	Tot Exc Exc FT	0	0	0	0	-		-		٠,	ما. ا		0	0	-	ـ رـ ه ه	٦ -	이		ᅴ	ᅴ	0	0	-	_ -	, ,	_ _ -	<u> </u>
int Sint	EXC 2Ci 1ot FT Drop Exc	0	0	0	0	0	-	- C	9	٥	키	0	0	0	-	ء [ہ	- -	0			ᅴ	0	0	0	-	, ,	- ا د	5
		0	0	0	0	0	0	-	, -	٥	٦	0	0	0	0		>	0			0	0	0	0	-	,	- - -	5
Ę	Exc	១	0	0	0	0	0	0	,	7	<u>ار</u>		0	0	-		3					0	0	0	-	, -	5	2
Gage	X	0	0	0	0	0	0	0		, -	٠]،	٥	0	0	0	٦	,	٥]		0	0	0	0	0	-	-	, -	,
Tight Gage	DropExc	9	0	0	0	0	0] =	9	3	<u></u>]	0	0	0	9	9	5	리			히	0	0	0	7	7	7
age	7 g	의	٥	0	0	0	0	0		واد	واد	<u> </u>	၀	0	0	ء	وا	<u></u>	0	0	<u> </u>	0	0	0	0	3	9	>
Wide Gage Tight	FF		೨	0	0	0	0	0	0	٥	ه [د	٠	<u></u>	0	0] c	ه [د	٠	0	ه د	٥	0	0	0	0	-	ء ہ	,
≥ 5	Exc	의	٥	0	0	0	0	0] =	3	واد	<u> </u>		0	0] =	2		<u></u>	<u> </u>	<u></u>	의	9	0	0] =	ءَاء	·]
	F	0	0	0	0	0	0	0	0	۰	9	٠ ١	0	0	0	-	۰ ه	٠,	٠.	۰ د	اد	0	0	0	0	0		,
	품	0	히	0	0	0	0	0	=	7=	,	5	-	0	0	-	, -	,] ;	5	-	5		0	0	-	, -	,
	•							-		L					_										'	ــ ا		

Page 9 of 14 2016-02-16 Run ID: 2016021601

Wide Case Tight Gage Alignment Crosslevel Rocker From Facel Case Series (Section Control of the Case Section	_	۱۰	7	\neg	_	-	ı —	1—	ı —	,	٦-	r	⊸.				,		-	,									
Mythe Gage Tight Gage Alignment Crosslevei. Rockeff Report				긔.	긔		1	<u> </u>	<u> -</u>	_]_]_	<u>:]:</u>		긥.	_	_	_]-	-	-	-	-	- -	-	-	-		-
Mide Cage Tight Gage Alignment Considered Rockoff Rockof			- 1-	4	4	4	4	4	4	4	4			•]	4	4	4	4	4	4	4	4] 4	- -	₹]	4	4	4	4
Mide Gage Tight Gage Alignment Crosslevel Rockoff Exp Col Total Ex		:5	<u>: 5</u>	4	4	4	4	4	4	4	4	4	<u>. [ˈ</u>	<u>.</u>	4	4	4	4	4	4	4	4	4	-]-	٠Į.	4	4	4	4
Mide Gage Tight Gage Alignment Crosslevel Rockoff To Face 2 CT Tot Exc 2 CT T	Lmt		,	اد	0	0	0	0	0	0	0	6		}	٥	0	0	0	0	0	0	0	-	, -	,		0	0	0
Mide Gage Tight Gage Alignment Crosslevel Rockoff To Face 2 CT Tot Exc 2 CT T		2 CI		٠]٠	٥	0	0	0	0	0	0	0	-	, -		9		0	0	-	0	0		-	, †	_ -	0	0	1 1
Wide Cage Tight Gage Alignment Crosslevel Rockoff Frontile Frontile Rec 2CI Tot Exc 2CI </td <td>vist-31</td> <td>Exc</td> <td>1</td> <td>3</td> <td>3</td> <td>0</td> <td>0</td> <td>9</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>-</td> <td>-</td> <td></td> <td>5</td> <td></td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>-</td> <td>, -</td> <td>7</td> <td></td> <td>0</td> <td>0</td>	vist-31	Exc	1	3	3	0	0	9	0	0	0	0	-	-		5		0	0	0	0	0	0	-	, -	7		0	0
Wide Cage Tight Cage Alignment Crosslevel Rockoff Frofile	2	E G		7	5		0	0	0	0	0	0	-		,	<u></u>		0	0	0	0	0	0	1-	, -	,			
Wide Cage Tight Cage Alignment Crosslevel Rockoff Frofile Frofile Run Off Frofile		2 CI				<u>ା</u>		<u></u>	<u></u>	0	0	0	0	٥		5	0	0	0	0	0	0	0	-	, -	7			ᅴ
Holoroge Trick English Cage Trick Indicession Crosslevel Rockoff Froffile Froffile Run Off Exp. 2 Cl. Trick Exc. 2 Cl.	Narp	Exc.	: c	, <	٠ د	0	0	0	0	٥	0	0	0	٥	, •	٠]	0	0	0	0	0	0	0	0] =	, ,	٥	0	
Wide Gage Tight Gage Alignment Crosslevel Rockoff Fortie Franchise F			-	,		9		0			0	0	0	-		- -			0	0		0	-0	0	-	,†.			
Wide Gage Tight Gage Alignment Crosslevel Rockoff Fortie Franchise F		2 CI Drop	-	, -	٥	٥]	\circ			0	0	0	0	-	, -	٦,	ار ا		0			<u>ا</u>	_ 0	0	- -	٦,	٦ ا		
Nide Gage Tight Gage Alignment Crosslevel Rockoff Fac 2 Ci Tot Exc	n Off		-	-		5	₽ -					<u> </u>	0	-	-	, -	<u>-</u>						_	0	-	-	_ .	٦.	\exists
Wide Cage Tight Gage Alignment Crosslevel Rockoff Frop Exc 2 CI Tot Exc 2 CI <	Ru	Exc Exc		-		5	키		ᅴ		- -	0	0	-	-	, -	- . -		_ -	ᅴ			0	0	 -	- -		- .	4
Wide Gage Tight Gage Alignment Crosslevel Rockoff Rockoff Frop Exc 2 CI Tot Exc 2 CI To		_	0	ء [, <	ء] ہ	ا	٦ ا	٦ ا	<u>ا</u>	اه	0	0	-	_ - -	, ,	- -	ب اه	ᅴ		ᅴ.		0	0	-	-		ᅰ.	
Wide Gage Tight Gage Alignment Crosslevel Rockoff Tot Exc 2 CI Ex	rofile		1-	-	-	-	,			5		0	0	0	-	-	,]		ᅴ	.				 -	- -	-	- -	-
H FT Exc 2 CI Tot Exc			0	-	-	٦-	<u>ار</u>			5		0	0	0	-	- ار	<u>ا</u> ر	<u>ا</u>		 	ᅴ.		0	0	-]_ -	٦.		4
Wide Gage Tight Gage Alignment Crosslevel Rockoff Tot Exc 2CI Tot Exc 2CI </td <td></td> <td>۵</td> <td>0</td> <td> -</td> <td>-</td> <td>,</td> <td>٦,</td> <td>J.</td> <td>٦ ا</td> <td>J.</td> <td></td> <td></td> <td>0</td> <td>0</td> <td>0</td> <td>-</td> <td>,</td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0</td> <td> </td> <td>┨~</td> <td>┧╌</td> <td></td> <td>\dashv</td>		۵	0	-	-	,	٦,	J.	٦ ا	J.			0	0	0	-	,	-						0		┨~	┧╌		\dashv
Wide Gage Tight Gage Alignment Crosslevel FX Tot Exc. 2 Cl. Tot	ckoff	Exc 2	0	0	-	, -			- - -	J ,	⇒ -		0	0	-	-	, -	J.	 			,	7	0	0	-	, -	-	
Wide Cage Tight Gage Alignment Crosslevel Tot Exc 2 Cl Tot Exc 2 Cl Tot Exc 2 Cl	Ro		0	0	-	۰		5	ء ا	٦ ء آ	키		-	-	0	-	, -	- - -	히	1	٦ ا ،	 	ᅴ		0	- -	-	-	1
Wide Gage Tight Gage Alignment Crosslev Tot Exc 2CI Tot Exc Tot Exc Tot Exc FT Exc FT Drop Exc FT Exc Exc FT Exc	_ ;	ದ ಕ್ಷ	0	0	-	- اد ه د	_ر د	 	-L- > °	۔ م ہ	-J.	ᅴ	이	0	0	-	_ ا_ ه ه	- ا ا ر	_ . -	۔ اہ	니- 이 (بر ءاء	ᅴ	ᅴ	0	 -	ـــــــــــــــــــــــــــــــــــــ	ـــــــــــــــــــــــــــــــــــــ	7
Wide Gage Tight Gage Alignment Tot Exc 2 CI To	sslev		0	0	0	-	, -		7	, ,	5	히		-	0	 -	-	- - -	ار ء ا	- - -	- ا د	- - - -	_		0	-	-	┨-	
Wide Gage Tight Gage Alignme Tot Exc 2 CI Tot Exc 2 CI Tot Exc 2 CI <	ِي ت	Fxc	0	0	0	- -	ءٳ؞	ماء		7-	٦ • [•	-	ᅴ	0	0	-	, -	- - -	- - - -		ــاـ ءاء	٦ ا د	ᅴ	ᅴ	_ 0	_ 0	_ل_ ء ا ء	ـــــــــــــــــــــــــــــــــــــ	7
Wide Gage Tight Gage Aliabit Gage	ä	2 CI Drop	0	0	0	-			2	ماء	ء] ہ	-	이	0	0	-		- -	-ا داد		ـــاـــ ء ا د	٦ ا	ار دا	ᅴ	0	0	- L	_ ا د	<u>ا</u> ا
Wide Gage Tight Gage Tot Exc 2 CT Tot Exc 2 CT Tot Exc 2 CT Tot Exc 2 CT Tot Exc 2 CT TotopExc FT Exc T TotopExc FT Exc T TotopExc FT Exc T TotopExc FT Exc T TotopExc FT Exc T TotopExc FT TotopExc FT Exc T Exc T TotopExc FT Exc T TotopExc FT Exc T TotopExc FT Exc FT DropExc FT Exc T TotopExc FT Exc FT DropExc FT Exc FT TotopExc FT Exc FT DropExc FT DropExc FT TotopExc FT Exc FT DropExc FT DropExc FT TotopExc FT Exc FT DropExc FT DropExc FT <tr< td=""><td>ignme</td><td>FT</td><td>0</td><td>0</td><td>0</td><td>0</td><td>٥</td><td>ء ح</td><td>, </td><td>, </td><td>٥</td><td>٦</td><td>0</td><td>0</td><td>0</td><td>0</td><td> -</td><td>, </td><td>ء ا</td><td>5 6</td><td></td><td>,</td><td><u>-</u></td><td>0</td><td>0</td><td>0</td><td> -</td><td>, -</td><td>,</td></tr<>	ignme	FT	0	0	0	0	٥	ء ح	,	,	٥	٦	0	0	0	0	-	,	ء ا	5 6		,	<u>-</u>	0	0	0	-	, -	,
Wide Gage Tot Exc 2CI H FT Exc FT Dr 0 0 0 0 0	f	, , ,	0	0	0	0	, -			7	7]	9	0	0	0	-	٦	7	5	7	7	<u>-</u>	ᅴ	0	0	-	, -	,
Wide Gage Tot Exc 2CI H FT Exc FT Dr 0 0 0 0 0	Gage		0	0	0	0	٦	ء ہ	, -	, -	۰	٠]	0	0	0	0	-	, -	- ·	5	- -	,	٦	ᅴ	0	0	-		,
Wide Gage Tot Exc 2CI H FT Exc FT Dr 0 0 0 0 0	Tight	pExc	0	0	0	9	٥		3	3	٥	<u>J</u> .	0	0	0	0	6	,		5			7		0	0	6	-	,
	age	2 2	٥	0	0	0	9		ء [د	ه اد	وا	وا	ျ	0	0	0	6	,]	9	وا	2 6		2	0	0	0	0		,
	ide G	F	೨	0	0	0] 0	0	-	ءاد	٠	٠]	٥	0	0	0	0	٥	}	> c	, -	, -	,] .	٦	0	0	0	0	-
	≯	EXE	의	0	0	0	<u>-</u>		ء ا	c	واد		의.	္	0	0	0			2	2		3]].	១	0	0] =	
800000000000000000000000000000000000000		F		0	0	0	0	0	6	٥	۰۱۰	٠ ٠	د	0	0	0	0	٥				, -	, •	a	٥	0	0	0	
		동	0	0	0	0	0]=]=		<u>J</u>	3	9	0	0	0] =	,	7	,] =	1=	<u>.</u>	3		-	0	-	1

Page 10 of 14 2016-02-16 Run ID: 2016021601

	-	-اع	7-	٦-	٦-	7-	٦-	7-	٦-	7-	٦-	7~	٦-	٦-	٦.	_		ı —	,	1	-	٦-	٦-	٦-	٦-	- -	_
		¥ -	7-	7-	<u> </u>]-]_]_	1]_	בוְב	<u> </u> _	၂:		긔.	듸	_	<u> _</u>	<u> </u> _	<u> </u> _]_	<u>']-</u>	<u>၂</u> -	<u>-]-</u>	<u>- -</u>	<u>-J:</u>	_
		- -	<u>" </u>	<u> </u>	<u>" </u>	<u> </u>	<u>* </u>	<u>֚֚֚֚֚֚֚֚֚֚֚֚֚֚֚֚֡֝֡֡֡֡֡֡֡֡</u>	<u> </u>	<u> </u>		<u> </u>	<u>' `</u>	<u>4</u>	7	4	4	4	4	4	4		-	۶ ۶	1 -	٠ ٠	4
	Lim	<u> </u>	<u> </u>	<u>* `</u>	<u>1</u> 2	<u> </u>	<u> </u>		1	1		<u>. [ˈ</u>	<u>. [</u>	4 J	4	4	4	4	4	4	4		-]-	-]-	• -		4
Lmt	Tot						ء اد	, c		٥	ء ا	ء ا			اد	0	0	0	0	0	0	-	, -	,	9		>
	2 CI	3	٥			9	0		0	0	0	0	ء ء			0	0	0	0	0	0	-	-		, -	, -	-
Twist-31	Exc	1	, c	,]	, -	,] =		0	-	0]。	-	-	,	7	٥]	0	0	0	0	0	0	-	-		-	,
۴	F G) =	,] =	,] =	,		0	0	10	10	-		, -	7	3		0	0	0	0	0	1-	-	1=	7-	,
	2 CI		ء [د	·] e	·] e] =	9	0	0] 0]。] =	9	,		5	0	0	0	0	0	0	0	0	1-		, ,
Warp		•	-	0	-	. -	0	0	0	0	0	0	0	-	,	- ∏•	0	0	0	0	0	0	0	0	-	-	,
	Tot Exc		-				-	0	0	-	0	0	-			5	ᅴ	히	히	0	0	0	0	-	-	-	,
	2 CI Drop	0	0	0	0	0	0	0	0	0	0	0	-	-		٥	٥	0	0	0	0	0	0	0	0	-	<u>ا</u> ,
Run Off	Exc	0	0	0	-	-	-	0	0	0	-	0	0	-	, -	7	5	ᅴ			0	0	0	-	-	-	1
Ą	Tot Exc	0	0	0	0	-	0	0	0	0	0	0	0	-	, -	7-	J		0	히	0	0	0	0	0	-	1
	2 CI 7	0	0	0	0	0	0	0	0	0	0	0	0	0		, ,	٦ ا		0	0	0	0	0	0	0	0	
Profile	Exc	0	0	0	0	0	0	0	0	0	0	0	0	-	-	, -	>				0	0	0	0	0	-	1
-	Tot Exc	0	0	0	0	0	0	0	0	0	0	0	0	0	-	, -	5	0			0	0	0	0	0	0	1
	2CI Drop	0	0	0	0	0	0	0	0	0	0	0	0	0	-	,	7]			0	0	0	0	0	0	1
Rockoff	Tot Exc 2 Cl Exc FT Dro	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	,	5	9		0	0	0	0	0	0	1
ጿ	Cl Tot rop Exc	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	,	3			리	0	0	0	0	0	
	2 CI Drop	0	0	0	0	0	0	0	0	0	0	0	0	0	0		7	ء] ۔	0	_ر ا	이	0	0	0	0	0	ĺ
Crosslevel	Tot Exc Exc FT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	, •	٥	- آ -	ا-	0	0	0	0	0	0	
Ċ	2 Cl Tot Drop Exc	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	, , 	5] 0	- - -	이	이	이	0	0	0	0	
ent	Exc 2 CI FT Drop	0	0	0	0	0	0	<u></u>	<u></u>	<u> </u>	<u></u>	<u></u>	0	0	0	G	2	٥	۰]	9	0	0	0	0	9	0	İ
Alignment	Exc FT	0	0	0	0	0	0	0	0	0	0	٥	0	0	0	0	۰		ء [د	ء	0	0	٥	0	0	0	ĺ
1	Tot	0	0	0	0	0	0	9	0	9	9	9	0	0	0	0	,		5	ء		히	ᅴ	히	리	0	
Gage	Exc FT	0	0	0	0	0	0	0	-		-	ا -	0	0	0	0	٦	ء ہ	- ·	٦,		0	0	ᅴ	٥	0	
Wide Gage Tight Gage	Cl Tot DropExc	0	0	0	0	0	0	0	0	9	0	0	0	0	0	-	٦	7	5	7	9			히	히	히	
age .	2 C	0	0	0	0	0	٥	의	의	<u></u>	의	0	<u> </u>	0	0	0		2		<u></u>	<u> </u>	9	0	0	0	0	1
ide G	FT	0	0	0	0	0	٥	0	0	۰	0	0	0	0	0	0	٥	۰		- -	>	0	0	0	0	0	
≱ :	Exc	=	0	의	0	0	의	9	9	9	9	0	<u></u>	0	0	0] =	3	3	<u> </u>	<u>리</u>	<u></u>	0	0	의	9	
	Ŧ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	٥	٥	s ه	ء ہ	ا د	0	0	0	0	0	
	픙	0	<u></u>	<u></u>	0	0	9	0		0	0	0	0	0	0	0	-	,	3		5	히			히		
	•						_																		—.		

Page 11 of 14 2016-02-16 Run ID: 2016021601

		. 1-																										
		췯.	ᅴ.	ᅴ.		ᅴ		1	_	-	-]-	-]-	7	-	\exists	_]_]-]=]_]-	.]-	7.	-7:	7.	_]	
		ည်	4	4	4	4	4	4	4	4	4	-	$\cdot \cdot$	4	4	4	4	4	4	4	4	4	-	, ,	, ,	, ,	4	4
	Lim	5	4	4	4	4	4	4	4	4	4	4	- -	,	4	4	4	4	4	4	4	14	1-	; ;	; ;	;;	4	4
1	Spd Tot	EXC				0	0	0	0	0	0	-	, -		5		0	0	0	0	0		-	, -		╢-	- -	0
				مار مار	5	0	ᅴ	0	0	0	0	-		, ,]	٦	0	0	0	0	0	-	-	-	, -	-	<u></u>	_
	Twist-31		5	ار داد	5			0	0	0	0	-	-	, -	- - -			<u> </u>	0	0	-	-	-	-	┨-	-	- -	
	Tot	2 -		- -	5	 			0	0	0	0	-	,	,	 		0	0	0	0	-	-	-	-	- -	- -	
	2 CI				٥	0		0	0	0	0	0	-	, -	٦ • [5	히	0	0	0	0	0	0	-	┦	┦-	- -	
	Warp Exc	- 1	> c			ء ا	٠]	-	0	0	0	0	0	-	,	٦.	0	0	0	0	0	0	0	-	-	-	, , ,	5
	Tot v				- -	7	ə -	히		0	0	0	-	-	, ,]	ᅴ.			ᅴ	0	0	0	0	-	-	٦-,	-
	2 CI					ء ه	ء	0	0	- 	0	0	-	-	۰ ۰	م]،	ار ار	ر اه	0		اه	0	0	0	-	 - 	<u>ا</u> ـ	ار ا
	Run Off t Exc		, -	, -	,	, -	3	5			0	0	0	-	-	,	-			ᅴ			0	-	-	-	-	7
	Ru Tot Exc	-	, -	,			ء ا	- -	0		0	0	0	-	, -	- - -			ᅴ	ᅴ	ᅴ		0	0	0	-	-	
	2 Cl Tot Drop Exc	6	- } c	, c	, -		ء] ہ	ارد	اہ	0	리	0	0	-	-	, ,	اد	٦	ᅴ			<u>ا</u>	0	0	-	0	_ - -	۱ ا
	Profile Exc FT	-			-	,	7	3			히	0	0	0	1=	, -	- -	5			-		0	0	0	-	-	,
	Tot Exc	0	0	- -	, -			- -	9		히	0	0	0	-	, -	- -	٦ ا		- -			0	0	0	0	 -	,
	2 CI Drop	0		0	-	٥		3	0		9	0	0	0	-	, -		₽	7					0	0	0	-	,
	Rockoff t Exc 2 Cl c FT Dro	0	0	0	0		,] -	٠	٥]	9	0	0	0	0	-	-	, -	٦.	0					0	0	0	0	,
	ğ ğ	0	0	0] 0	·] =	وا	و [د]	9	0	0	0	0	=	-	, •	2			<u>ી</u>	<u> </u>	0	0	0	0	0	,
	vel 2 Ci Drog	0	0	0	0	ء [د	ه د	وا	وا	0	0	0	0	0	0	٥		2	0		- -	- -	9	<u>-</u> ا	0	0	0	,
	Crosslevel of Exc 2 xc FT L	0	0	0	0	9	وا	<u>, </u>	٠]	٥		0	0	0	0	٥	ء ا	2	٥	<u>-</u> ر	ء	0	0	0	0	0	0	1
	るほう	0	0	0	<u> </u> •	<u> </u>	ء [د	ه [د	<u> </u>	<u></u>	ပါ	၀	٥	0	9	9	٥	2]		<u></u>	<u> </u>	<u>ට</u>	0		<u></u>	0	0	
5	nent c 2 Cl	0	0	0	0	0	ء إ	<u> </u>		기.	잌.		0	0	0	c		<u>]</u>			<u> 기</u>	일.	의	의	၅	0	0	Ī
)	Alignment Tot Exc 2 Cl Exc FT Dro	°	0	0	<u>°</u>	0	°		<u> </u>	<u></u>	<u> </u>			<u> </u>	0	0] c		<u> </u>	واد	ا [<u> </u>	وا	의	٥	ا	0	
		<u>°</u>	<u>°</u>	0	0	<u>°</u>	┨	-		<u>기</u> .	익.	잌.	의	0	0	-	<u> </u> -		<u></u>			기.	잌.	의	의	의	0	
	ht Gage ot Exc kc FT	0	-	-	°	°	°	┨-	- -	- -		-	긔	0	0	0	°		-	- c			깈.	의			0	
	Tig TopE	0 0	0	0	0	0	0	┧-	- -			{-	긔	_	0	0	<u>-</u>	- -		- -	- -		긕.	익		의	0	
	Wide Gage Tight Gage of Exc 2 Cl Tot Exc xc FT DropExc FT	0	0	0	0				- -	-	┥-	닉.	의	0	0 0	0		┥-	- -	- -	- -		┥	잌.	의	의	<u>-</u>	}
	Wide Gage Tight Tot Exc 2 Cl Tot Exc FT DropExc	0	0	0	0	-	0	4-	- -	- -	- -	- -			0	0	-	┨-	- -	- -	- -	- -	-	- -			0 0	ł
	T FT E	0	0	0	0	0	-	-	┪-	┪-	┪╴	┪			-0	0	-	1-	1-	┥-	-	┥-	┥	┥	-		0 0	1
	СН	0	0	0	0	-	-	-	4_	4_	- -	_ _		_		_	 _	4_	- -	4_	J_	4_	┨-	╣.	Ц.	4	_	
	٥١	لـــ		لـــا	_	<u> _</u>	ا			_ٰلـ	<u>֓</u> ֡֝֝֡֡֡֡֡֡֝	`لــُ	٢.	ച	<u> </u>	0	<u> </u>	_ [2	٦٥	ا ح	2] 2	ا_ٰ	일.	일.	의.	೨	

Page 12 of 14 2016-02-16 Run ID: 2016021601

			.1-	-			, —	. —	. —		-																		
].			<u> -</u>	<u> -</u>	_	_	_	-	-]-	-]-	ᆌ.	\neg	_]=]-]_]_	7-	7-	7-	7	\Box	-	
		Pstd	<u>[</u>	4	4	4	4	4	4	4	4	4	4	-		, -	4	4	4	4	4	4	4	4	;[,	, , ,	4	4	4
		<u> </u>	3	4	4	4	4	4	4	4	4	4	4	4	- -	,	4	4	4	4	4	4	4	4	- - -	- - - 1.	4	4	4
Lmt	Spd	101		اد	0	0	0	0	0	0	0	0	-	-		٠,		0	0	0	0	0	-	- -	╣-		┥.		<u>`</u>
	, ,	ָ ק ק	ء	٠ [د	٥	0	0	0	0	0	0	0	0		-	, ,	٦ ا		0	0	0	-	-	-	-	-	<u>ا</u> .	1	_
	Twist-31	X F		7	5		ᅴ		0		0	0	0	-	1-	-	- -		0	0	0	0	-	-	-	-	- -		0
	Ţ.	Exc	-		늵		ᅴ	ᅴ	ᅴ	ᅴ		0	0	-	-	-	-		0		-			_	<u> </u>	4-	- -]	<u>-</u>
		_			- -		ᅴ	ᅴ	ᅴ	ᅴ	ᅴ		0	0	0	-	-	اد					0 0	0	0		- -	- -	의
	Warp Exc 2		0	, ,	, ,]			ᅴ			_ 	-	0	-		┪-	┥	┥	ᅱ	ᅱ	┥	0	0	<u> </u>	 	-	┪-	긱
	Tot W.		-	-	٠,	_ -]		1	.	-	4	_			-	4-	- -	ျှ			ျ	_	0	°	<u> </u>	و ا	<u>]</u>	깈
		_		- -	ᆛ-	-{-	닊.	ᅱ.	닊.	긕.	깈.	긔	긔	0	0	<u> </u>	٢	٦.	깈.	긔	긔	의	긔	٦٥	0	<u> </u> •	ء [د	<u> </u>	기
	Off ic 2Cl		0	┨	-] -	<u> </u>	<u> </u>	ျှ.	ျှ.	긔.	깈.		0	0	°]	잌.	의.	의.	의	0	٥	0	0	9		>
	Run Off t Exc	1	0	°	┦-	<u>]</u>	기.	<u></u>		<u>기</u>		잌.	<u></u>	٥	0	0] c	۰	<u> </u>	일.	<u>]</u>		0	٥	0	0	0	,]	7
	J ₀	p Exc	0	0	<u> </u>	<u> </u>	<u> 기</u>	기.	익.	<u>니</u>	일.	일.	일.	의	٥	0	٥	2] 6	وا	<u></u>		9	<u> </u>	0	0	0	0	٦	7
	le 2CI	Drop	0	0	0		2	و [د	<u> </u>	ه اد	ه (د	٠	0	0	0	0	c	, •	٠ ٠	ء ،	٠ ٥	۰	0	0	0	0	0	٦	,
,	ਕੁ∵	FT	0	0] c		٥		9 6	> <	3	7	٦	0	0	0	0	7	3	5	5];	5	9		히	0	0	-	,
		Exc	0	0	0		وا	واد	وا	3	3	3	٦,	0	0	0	0		مار د	٦ ا د	5 6	٦ ا	- -		_	0	-	-	,
	2 CI	Drop	0	0	0	ء د	۰		7] =	3			5	이	0	0	-	> -	J-	, -	J-	J.	<u></u>		0	0	-	+
,	Exc 2 Cl	티	0	0	0	-		, -	٠ -	, -	,	,	,	╗.	0	0	0	-	, -	- -	, -	-	 	- - -	7		0	-	$\left\{ \right.$
Ė	Tot R	Exc	0	0	0	-	, -	, -	- -	, -	, -	, -	, , ,	<u>ا</u>		0	0	-	ا .	- ا	, -		<u>ا</u> ۔	<u>ا</u> ۔	<u>ا</u> .		0	-	4
7	ប	Drop Exc	이	0	0	-	-	, -	, 	, - -	مار ء ا د	ـــــــــــــــــــــــــــــــــــــ	_ _ 	_ . } .	니. 이	_ 	0	- 0	_لـ ءاء	- -	니_	- -	- -	ᆛ-	닊.	긕	_	<u> </u> _]
Crosslaval		- I	<u>ا</u>	0	0	0	-	-		-	-	<u>ا</u> ـ	, , ,	۔ ، ا ہ	٦ ا	_	_	_ 0	-		-	- -	- -	╣	┥.		0	_]
Č	Tot Exc	χi).	ᅴ	_ -	0	0	-	- L	 - -	-1-	-[- -	 	_ ء ،	ـ لـ ه ا ه	ᆛ.	ᅴ	0	0	ļ_	-ļ	- -	┦-	- -	- -	ᆛ-		긔	0]
+	1	<u>e</u>	ᅴ	ᅴ	0	0	-	-	-1	┤—	-	┤—	- -	-1-	ᅱ.		0	0			┦—	┦	- -	-{-	- -	잌.	긔	0	
Alionment	Tot Exc 2 Cl		-J	اه	0	-	-	-		1-	-	-	- -	┪-	┥-	ㅓ	0	0	 	 	 	┧~	╢╌	┦-	┥-	ᅱ.	븨	<u> </u>	
Alis	Tot	- 1	<u>.</u>		0	0	-	-	-		-			┦_	┥-	-∤.	니	_	l°	<u>^</u>	°	<u> </u>	- -	- -	<u>`</u>].	<u></u>	° —	
age	-	-	┥.		0	0	0	0	0	-	-		╢-	┧-	-	┥.	ျ	<u> </u>	<u> </u>	-	_	<u> </u> _	\ <u> </u>	-	기 ⁻	익.	잌.	0	
Wide Gage Tight Gage	Tot E	-	- -	4	0	0	0	-	0	-	-	0	0	-∤	- -	-∤-		<u> </u>	-	<u> </u>	<u>-</u>	<u>^</u>	°	4-	- -	٠ - -	잌.	0	
e Ti	CI Tot DropExc	-	┥-	┥.	0	0	0	-	0	0	0	0	0	┨—	- -			0	0	0	<u>°</u>	<u> °</u>	<u> </u>	-	- -	-	잌.	의	
S Gag	3xc 2 FT 1	- 1 -	<u>ا</u> .	┥.	1	0	0	0	0	0	0	0	-	 	┥╌	╣-		0	0	<u> </u>	-	<u> </u>	<u> </u> _	 -		<u> </u>	익.	긱	
Wide	Tot Exc 2 CI Exc FT Dro		4-	- -	1	0	0	0	0 0	0 0	0 0	0 0	0	0	- -	- -	4	0	0 (0	0	<u>-</u>	°	-	┦_	- -	-		
	FI	-	┪-	┥	7		0	0	0	0	0	_		1-	┪-	-	┥.		0	0	0	0	-	-	1-	┨-	<u> </u>		
		_	┦_	╣.	4	_	_		4	\Box	_	0	0	-	┦_	┨_].		0	0	0	0	0	0	0	٥	> °	ا^	
	CH	<u>-</u>	<u>'</u>	<u> </u>	일.	ി	೨	ി	೨		೨	0	0	0] <u>-</u>	وا		0	٥	0	0	0	0	0	0	9	3]	
																										_	_	_	

Page 13 of 14 2016-02-16 Run ID: 2016021601

		u.		7—	-	٦	ı —	ı —			,	, —																
	771	Trk	1	_	<u> -</u>	<u> </u>	<u> -</u>	-	-	-	-	-	-	- -	-	-1			-	-]-]-	7-	-7-	-]-	7	_]	_
	Pstd	Cls	4	4	4	4	4	4	4	4	4	4	4	.].	4	4	4	4	4	4	4	4	4	- -	- - - -	4	4	4
	Lim	င္ပ	4	4	4	4	4	4	4	4	4	4	4	.],	٠Į	4	4	4	4	4	4	4	4	- -	, ,	- - - -	4	4
Lmt	Spd Tot	Exc	0	0	0	0	0	0	0	0	0	0	0	-	7		0	0	0	0	0	0	-		, -	- -		0
	2 Cl	Drop	0	0	0	0	0	0	0	0	0	0	0	-	, , ,		0	0	0	0	0	0	-	-	, -	٦-	J.	0
J		티	0	0	0	0	0	히	히		0	0	0	1-	, ,	<u>ا</u>	1		0	0	0	0	-	-	- -	-	- -	
Ę	Tot	EXC	0	0	0	0		히			0	- 0	-	-	-	<u>.</u>					0	0	0	∤ _		- -	- -	4
		d C	0	0	0	0	7		ᅴ			0	0	-	┦-	┦-		ا				-0	0	0		- -	- -	0
Warn		=	0	0	0	7			<u>ا</u>	<u>ا</u>	٥	-	0	-	۱-	- - -	-					0	0	0		1-	╣-	ᅱ
3		၂ .				ᅴ		 	ا.]			0	0	-	- -	-{-	-			4	_		ļ_	 -	°	┨-	4
	2 Cl 7		-	ᅴ	٦		၂.		ᆌ.	┦.	ᅱ	긕			- 	- -	닊.	긔	긔	긔	긱	ျ	<u> </u>	0	<u> </u>] <u>-</u>	1	긱
Off.	Exc 2	- 1 -			\dashv						<u></u>	\dashv	0	0	-	-	٦.	4	<u></u>	긔.		9	0	0	0	0		
RunOff	Tot E	- 1.		4		-	┩.		- -		- -	4	_	0] c	` °	١.	٦.	깈.	긔.	잌.	긔	0	0	0	0] 9	إ
		- -	{	긔	긔	긔.	익.	<u> 기</u>	기.	<u>기</u> .	익.	긔.		0] <u>_</u>	ا ا	<u> </u>].	잌.	잌.	잌.	의	의	0	0	<u> </u>	٥	2
ie	2 CI	- 1 -	깈.	<u></u>	의.	의.			> °].	의.	ျ	<u> </u>	0) °	ا ا	وا			0	0	0	0	0	-	,
Profile	Exc FT	•].	일.	일.	၂	<u>]</u>	و [د	وا	ه [د	٠]	<u>]</u>	0	0	0	0		۰ ۰	ء [د	۰] ٔ	ء] آ	0	0	0	0	0	=	•
	Tot		기.	잌.	의.	<u>의</u>		2	1		وا		0	0	0	c	وا	3	٥	9	٦,		이	0	0	0	-	,1
5 —	Exc 2 CI FT Dron		<u> </u>		<u>ી</u>		واد	ء اد	٥			ا [د	0	0	0	6	,	7	9	5	3	٥	0	0	0	0	0	.]
Rockoff		٥	واد	۰	٠] ١	>	> <	9	ء ء	,] -		ء] ،	9	•	0	0	-	٥	3	3	7	<u>-</u>		0	0	0	0	1
	2 CI Tot Drop Exc	9	ه [د	٥	0	ə	2		· -	,		٥	키	9	0	0	-	,	- - -	٦		- - - -	ار ا	٦	0	0	0	1
_	2 CI Drop	٦	9	-] ·	ء [د	> <	0 0		- -	, <	2	مار	-ا ا	0	0	0		, 0	_ ا د	 م ه	_ا_ م ه	 _].	니. 이	ᅵ	ᅴ	0	0	
Crossleve	Exc	-	۰	- ·	5 6	-		, -	-	-	, -	7	<u>.</u>		0	0	-	-	, -	, -	, -	-ا ، ا	<u>, </u>		<u>ا</u>	-	0	1
ζ	Tot Exc Exc FT	-	<u>ا</u> -	<u>ا</u> د	7	5		,		- - -	, -	, ,	- - - -	ᅴ	-	0	- -	-	_ ا د	<u>ا</u> -	_ _ >	ـ اـ ه ا د	با. داد		ᅴ	ᅴ	0]
ij	2 Cl Tot Drop Exc	-	,	- - -		ء]ء	- -	, -	-	-	, -	, ,	٦ ا د	بر اه	0	0	-	-	-1	- -	- -	-{-	닉-	{·	<u>ا</u>	اه	0]
Alignment	Tot Exc 2 Cl Exc FT Dro	0		,	,	, -	, c		-	-	-	, -	، ا	<u>-</u>	0	0		-	-	1-	-	┪-	- -	┥	۲	0	_ 0	ĺ
Ali	Tot Exc	0	 	- - -	- - -	, -	, -	-	-	-	-	,	- - -	 	0	0	_	-	- -	- -		- -	- -		긕.		_	
		0	 	, -	, -	, -		1-	-	-	{-	╣-		┥.	0	0	0	-	┪—	┧–		┨-	┨-	┥.	┥.	{	0	
Tight Gage	Tot Exc	0	-	, -	, -	, -	-	┥—	-	-	4—	┥–	- -	-		-0	0		┦—	-∤	┥—	- -	- -		-		0	
`⊒ 3,e		-	-	, -	, -	, -	1-	1-	-	-	-	┥–	┥-	┥.		0	0			-		┥–			┦.	잌.	0	
Wide Gage	xc z FT	0	-	 -	, -	-	1-	-	-	-	-	- 	┥-		-	0	0	0					┥-	╢-	┥.	┥.	0	
Wid	Exc FT Dro	0	-		,	-	┦—	-	-	0	0	-	- -	-4-	-	0	0	0	-	-	-	-	┨-	-1-	-4-	ㅢ.	0	
-	FT	0		-	1-				0	0	-	- -	┨-	┪-		0	0	0	-		1-	1-	┧-	-	-	-	ㅓ	
	СН	-0	-	<u> </u>	 _	 _	_	_		_	l_	 _	↓ _	_ _	_ .	_		_	_	ļ_	0	-	-	4-	4-	4.	ျ	
	O	_]_] _]_	<u> °</u>	<u> </u>	0	0	0	0]_			일.	ا	<u> </u>	_	0	0	0	0	ا ا	و ا	<u>ا</u>		<u> </u>	

Page 14 of 14 2016-02-16 Run ID: 2016021601

C1 629+00 to C1 00+00

		J	۱-	_	7 -	_	1
		ž	-	_	<u> </u> -	_	
	Pstd			4	<u> `</u>	4	
	Lim		<u> </u>	4	<u> </u>	4	
Cmt	, ii		۲	>	٥	>	19
	2 CI	do d	<	>	٦	,	0
Twice 21	Exc 2 Cl	LI	-	>	-	,	0
į	Tot		-	,	- 0	$\frac{1}{2}$	0
	2 CI .	2	-	,	-	,	0
Ē	Exc 2	; -	_		-0		_
Ä	Tot E		_	_	_	1	
		- 1	_		_		0
₩	2 CI		_	4	о —	1	7
Run Off	Exc		<u> </u>]	0		62
	ĒÄ		0].	0		<u>ر</u>
ၿ	2 CI Drop	I.	0		0		t.
Profile	Exc		0	I	0		23
	Tot Exc		0		0		4
	2CI Drop		0]	0	١.	0
cckoff	Exc ;	-	0	٦	0	١,	>
8	Tot	-	<u> </u>	,	٥		5
	2 <u>5</u>	٦,	0	-	- -		4
ssleve	Exc 2	-	0	-	5	2	424
=	Sxc	-	 _	-	_ -	•	, ,
;	2 Cl 7 Drop I	-	_ -	_	ᆡ		• >
Alignment	Exc 2 FT I	-	_	_	_	_	_
Alig	Exc	_	_ _ _	_	_	Y	,
age	FTE	_		_		140	
ght G	i X	_	_	_	}		
Ğ.	DropExc	_	۰ ا	_	,	7 13	
e Gag	FT	_	,	_	,	843 77	· !
Wide Gage Tight Gage	Exc	_	, 	_	,	83	
-	님	_	,	_	,	-	
	뚱	_		_	-		
	<u>ا</u>	_	⅃.		_		

Total CH: 632.1 Exceptions per 100 CH:

27.84



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

all (b) (b)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	201602171	MA/NAATA AANI	MATA-AAN-2		
inspection Date	2016	02	17	Report Number	20160217-	VVIVIATA-AAIN	-2		
Rail Agency Name	Washington Authority	Metropolitan .	Area Transit	Rail Agency Department	Track and Structures	Sub- Departn	epartment Track Insp		
Rail Agency Department		Name		Email	Office P	hone	Mobile Phone		
Contact Information									
Inspection Location	Track Geome	etry Vehicle – A	A&B Lines – Tra	icks 1 & 2 from Shady Gr	ove to Glenmont				

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-TGV-RC	TRK-TGV-PI	TRK-TGV-PI			
Inspection Units	1	1	1			
Inspection Subunits	4	2	1			
Defects (Number)	0	12	1			
Recommended Finding	No	No	No			
Remedial Action Required	No	Yes	Yes			
Recommended Reinspection	No	Yes	Yes			

Activity Summaries

Inspection Activity #	1	Inspe	ction Sub	ject	Rules	Complia	nce			Activity Co	ode	TRK	TGV	RC
Job Briefing Employee Name/Title			RWIC Le	vel 4		1	ompanied pector?	Yes	Out Brief Conducted	Yes	Time	2130- 0230		Yes
Related Reports						Rel	ated CAPS /	Findings						
	Ref		_		Rule o	SOP		Standard		Other / 1	Title		Checklist Ref	erence
Related Rules, SOPs, Standards, or Other	MSRI	PH				3.122, 3 3 – 23.5.	•							
	Ma Tra		Yard	Sta	tion	осс	RTA Facility	FTA Office		At-grad	е т	unnel	Elevated	N/A
Inspection Location	×		×						Track Type	\boxtimes		\boxtimes		\boxtimes
The state of the s					Τ					From			То	
Line(s)	A&B	–Lines	Track Number	er	1&2		Chain Ma and/or St		Shady Grove	Station		Glenmo	ont Yard	
Vehicles	He	ad Car	Number		Numbe	r of Cars	Equip	ment						
	FWS	O team	monitore	d the	Track G	eometry	Vehicle crev	v and their o	ompliance with	Number	of Defec	ts		0
		PH rule								Recomm	ended Fi	nding?		No
Description			•			•	entering tun		.l	Remedia	al Action	Required?	•	No
	direc	tion of	traffic				·	ted against i nt 10-feet in	approach of an	Recomm	nended R	einspectio	on?	No

Inspector in Charge - Signature alexander.nep	oa@dot.gov	Digitally signed by alexander.nepa@dot.gov DN: cn=alexander.nepa@dot.gov Date: 2016.02.18 16:27:10 -05'00'	Date 02-17-16
Inspector in Charge – Name Alex Nepa	Inspection Team Alex Nepa, Medenia Dashiell,		





	interlock SOP #23		•	•		_		s through sta	tions.	,					
	No defici interlock				GV sound	ling of	the hor	n or approacl	n to						
Remedial Action															
Inspection Activity #	2 In	spection	Subject	Tra	ck Geom	netry \	ehicle T	esting		Activity Co	ode	TRK		TGV	PI
Job Briefing		эроонон	,]				1			
Employee Name/Title	See abov	re			,	nspec	panied tor?	Yes	Out Brief Conducted	Yes	Time	2130 0230	I	outside Shift	Yes
Related Reports					R	Relate	d CAPS /	Findings					,		
Related Rules, SOPs,	Ref			Rule	or SOP			Standard		Other / 1	itle		Check	dist Refe	erence
Standards, or Other	TRST 100	00								+					
	Main Track	Yard	l St	ation	осс		RTA Facility	FTA Office		At-grad	е т	unnel	Eleva	ated	N/A
Inspection Location		\boxtimes							Track Type]	×
										From				То	
Line(s)	A&B -Lin	OC	ack	1,	& 2		hain Ma								
	7100 2	No.	ımber		~ -	а	nd/or St	ation(s)					-		
	11	Sa \$1 la			h f C-		1.		l .						
Vehicles	неаа	Car Numb	er	Num	ber of Ca	ars	Equip	ment							
			•		•				testing on the	Number	of Defec	ts			12
	A&B-line defects o		•	ve to G	ilenmont	Yard.	The TG\	/ team discov	ered 12	Recomm	ended Fi	nding?			No
	The local	_								Remedia	l Action	Required	?		Yes
	A1 CM94	19+15 – V	Vide Gag	e (Blac	k) – 57.4	9"									
	A1 CM94		-												
	A1 CM94 A1 CM78		_		-										
	A1 CM56														
	A1 CM36		_		-									Vac	- FWSO
Description	B2 CM49		_		-									1	to inspect
	B2 CM10)9+47 – V	Vide Gag	e (Red)	7.19					Recomm	nended R	einspectio	on?	the	ese areas
	A2 CM36 A2 CM44		_	•	•							·			g the week bruary 22,
	A2 CM94														2016.
		CC institu						ut of service of the	condition and were						
	from D9	9 (New C	arroliton	Yard) a	and the c	other v	was from	the TGV. One A99 (Shady							
Pomodial Action	I TOST have	d chaca c	raw affar	ting re	naire - n	andin	$\sigma EWSO$	veritication							





Inspection Activity #	3	Inspe	ection Sub	ect	Track Ge	ometry	Ride On I	nspection		Activity Co	ode	TRK	TGV	PI
Job Briefing Employee Name/Title	See a	bove				Accon	npanied ctor?	Yes	Out Brief Conducted	No	Time	2130 - 0230	Outside Shift	Yes
Related Reports	Dece	mber 2	2, 2015 Ins	pectio	n Report	Relate	ed CAPS /	Findings						-
Related Rules, SOPs, Standards, or Other	Ref				Rule or S0	OP		Standard		Other / 1	itle		Checklist Refe	erence
	Ma Tra		Yard	Stat	ion O	сс	RTA Facility	FTA Office	Track Type	At-grad	e Ti	unnel	Elevated	N/A
Inspection Location]			ם (mack Type					\boxtimes
			T							From			То	
Line(s)	A-Lir	e	Track Number	er	2	- 1	Chain Ma and/or St		A2 CM440+0	0		A2 CM3	99+00	
	He	ad Car	Number		Number o	f Cars	T							
Vehicles							Equip	ment						
	FWS	O team	visually no	_ oted t	hat the cov	ver boar	ds have n	ot been insta	lled between	Number	of Defect	s		1
	the C	hain M	1arkers not	ed ab	ove on the	Decem	ber 2, 201	5 inspection	report.	Recomm	ended Fi	nding?		No
Description	Ì									Remedia	l Action F	Required?		Yes
										Recomm	ended Re	inspection	1?	Yes
Remedial Action									ards have not be tivity has occurr		led. Reco	mmend a	visual re-inspe	ction of



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

are (b) (b)

Agency/ Department inionination	Agency	/Department	Information
---------------------------------	--------	-------------	-------------

In an action Date	YYYY	MM	DD	Report Number	20160217	20160217-WMATA-TW-1					
Inspection Date	2016	02 -	17	Report Number	20100217 VIVIATA TV 1						
Rail Agency Name	Washington I Authority	Metropolitan <i>i</i>	Area Transit	Rail Agency Department	Car Maintenance (CMNT)	ent					
Rail Agency Department	ı	Name		Email	Office P	hone	Mobile Phone				
Contact Information	4		4								
Inspection Location	Greenbelt Ra	Greenbelt Rail Yard 5801 Sunnyside Ave. College Park, MD 20740									

Inspection Summary

1	2	3	4	5	6
VM-QAM-RR					
1					
0					
0					
No					
No					
No					
	1 0 0 No No	1 0 0 0 No No	1 0 0 0 No No	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Activity Summaries

Inspection Activity #	1	Ins	pection S	ubject	Effec	ctiven	ess ve	rificatio	n of SOP #15		Activity C	Activity Code VM			QAM	RR
Job Briefing Employee Name/Title			ndent Of		nt Gener Car	al	Accor Inspe	mpanied	No No	Out Brief Conducted	Yes	Time	083 12		Outside Shift	No
Related Reports	4		nventory ent and P		ation		Relat	ed CAPS	S / Findings	R-4-33 Inv	entory "Stock	y "Stockouts" Impact on Maintenance Operation				
	Ref				Rule or	le or SOP Standard Other / Title Checklist R								klist Refe	ence	
Related Rules, SOPs, Standards, or Other	САР	R-4-3	3-A		SOP# 1	15, SO	P# 1.1	8								
	Ma Tra		Yard	St	ation	00	cc	RTA Facility	FTA y Office	Track Type	At-gr	ade	Tunnel	E	levated	N/A
Inspection Location]					3	Х		таск туре						X
	T -				. 1					ang.	From				То	
Line(s)	N/A			Track Numb		N/A		Chain N and/or	Marker Station(s)	N/A						
	He	ad Ca	r Numbe	r	Numb	oer of	Cars			11/4						
Vehicles		N	N/A			N/A		Equ	uipment	N/A						
	FWS	iO Tea	am met w							and a host of	Numbe	r of Defe	cts			0
	Gree	enbelt	t leadersh	ip fron	n Supply	Chair	n Enter	rprise Se	ervices, Major	Repair & mplementation	Recom	mended	Finding?			No
Description	and	rnaui effect	and Quai tiveness v	rerificat	tion of S	X VV a1 SOP #1	1611ly 15 - Inv	entory	Level Manage	ment. NTSB	Remed	ial Action	n Requir	ed?		No
			or, Mike								Recom	mended	Reinspe	ction?	•	Yes
Inspector in Charge - S	Signatu	re 7	ΓERF	REL	LA	W	/ILI	LΙΑΙ	MS DN: c=1	v signed by TERRELL IS, o=U.S. Governme RELL A WILLIAMS 016.02.19 13:30:00 -0	nt, ou=DOT Headqua	arters, ou=FT	AHQ,	Da ² /1	te 17/2016	

Form FTA-IR-1 Version date: 1/19/16

Inspector in Charge – Name

Terrell Williams

Inspection Team

Terrell Williams,





- SOP 15 formalized existing parts acquisition process into an SOP.
 Parts are procured through 2 processes, Purchase Orders made by Car
 - Maintenance (CMNT) or Supply Chain Enterprises Services (SCES) personnel or Auto Reorder points, managed and automatically generated through Maximo.
 - WMATA runs a weekly report to track open Purchase Requests (PRs) to determine any delays.
 - At the time of the review WMATA had roughly 2000 open PRs, 652 of which were specific to CMNT.
- WMATA is in the process of entering parts into Windchill system, a database of all parts and their specification that will integrate with Maximo.
 - Currently this system does not mark safety critical items (albeit Maximo does).
- WMATA has begun decommissioning 1K cars and is salvaging parts from those vehicles.
 - o Parts are being returned to stock rooms after inspection and testing.
 - o Parts from these vehicles are not noted in Maximo as being salvaged and could have usable life less than a new part.
- WMATA is in process of changing to orders for one year's worth of parts to increase volume and reduce lead time.
 - Parts are still delivered at same interval, but total quantity has increased.
- WMATA creates a danger zone report for any part that has less than 60 days of stock left, which is also the reorder point.

Director of Supply Chain Enterprise Services noted that this should be a 30 day danger zone report rather than

- o FTA noted that the reorder point should not be the "danger zone" as a reorder point is the system design. Minimum and maximum quantities should be set and when the system reaches minimum or below that should be the "danger zone". FTA was informed that the Maximo system in its current configuration does not provide for Min/Max management.
- WMATA does not have minimums and maximums established (see above), rather reorder points and EOQs
 - o Reorder at 60 days supply, supply of 120 days.
- WMATA holds weekly parts meeting with leadership to discuss material availability and stockouts as per the SOP.

On March 16, 2015 WMATA had 28 cars in its system out of service for parts. On February 18, 2016 WMATA had 72 cars out of service for parts. In WMATA memorandum Deliverable 1 for CAP R-4-33-A, WMATA had a stated goal of 100% availability for safety sensitive item availability. A report provided to FTA for Week 1 and Week 2 of January 2016 had showed "Critical Stockout Rate System Wide for 2.87% and 2.54%.

Remedial Action

Revisit WMATA in next 3 to 6 months and ensure the efficacy of SOP #15 is producing the Supply Chain Enterprises Service Metrics for proper availability.



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

all (b)(b)

Agency/Department Information

Increation Date	YYYY	MM	DD	Donout Number	20160217	NA/NAATA AANI 1	
Inspection Date	2016	02	17	Report Number	20160217-	WMATA-AAN-1	
Rail Agency Name	Washington I Authority	Metropolitan <i>i</i>	Area Transit	Rail Agency Department	Track and Structures	Sub- Departmen	t Track Inspection
Rail Agency Department	l l	Name		Email	Office P	hone	Mobile Phone
Contact Information							
Inspection Location	Alexandria Ya	ard – TRST HQ					

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-GEN-RR					
Inspection Units	1					
Inspection Subunits	4					
Defects (Number)	1					
Recommended Finding	No					
Remedial Action Required	Yes					
Recommended Reinspection	No					

Activity Summaries

Inspection Activity #	1 1	nspection Su	oject	Record	s Reviev	v			Activity C	ode	TRK	GEN	RR
Job Briefing Employee Name/Title					1	ompanied ector?		Out Brief Conducted	Yes	Time	0930- 0100	Outside Shift	No
Related Reports			_		Rela	ted CAPS /	Findings						
	Ref			Rule or S	OP		Standard	-	Other /	Γitle		Checklist Ref	erence
Related Rules, SOPs, Standards, or Other	TRST 10	00		Rev. 6 –	Section	1.4							
Increation I protion	Main Track	Yard	Stat	ion	occ	RTA Facility	FTA Office	Track Type	At-grad	le T	unnel	Elevated	N/A
nspection Location				ם				Hack Type					
									From			То	
Line(s)	B, C, D 8	k E Numi		1 & 2	i	Chain Ma and/or St							
Vehicles	Head	Car Number		Number	of Cars	Equip	ment				1		
	FWSO t	eam met with			and	the Inspect	ors within th	e TRST	Number	of Defec	ts		1
	, ,	s group to fo	low-up	on recer	nt incide	nts involvin	ig track mair	ntenance and	Recomm	nended Fi	nding?		No
Description	repairs.	m received d	.cum or	atation or	tha fal	lawing laca	tions:		Remedia	al Action I	Required?		Yes
	ine tea					iowing ioca	CIONS.		Recomm	n?	Yes		

Inspector in Charge - Signature alexander.net	oa@dot.gov	Digitally signed by alexander.nepa@dot.gov DN: cn=alexander.nepa@dot.gov Date: 2016.02.18 15:52:44 - 05'00'	Date 02-17-16
Inspector in Charge – Name Alex Nepa	Inspection Team Alex Nepa, Medenia Dashiell,		





	2. E09 Rail Break on 2/14/16
	3. C-Line Wide Gage Repairs from 2/16/16
	4. B06-08 Switch inspection information
	5. B07-08 Switch Inspection
	6. D-Line Track and Switch Inspection Reports
	7. C-Line Track and Switch inspection reports
	During discussions with the TRST group the FWSO team was informed that "Yellow" conditions are routinely reported without speed restrictions. The TRST 1000 manual notes that a speed restriction is required for Yellow conditions. FWSO team will be following up with TRST management to clarify the discrepancy.
Remedial Action	FWSO team will schedule a follow-up meeting with TRST management to clarify the discrepancy. The FWSO team will perform walking inspections of the areas identified above to verify repairs and assess conditions.



TRACK MAINTENANCE & INSPECTION PROCEDURES

TRST 1000

MAINTENANCE & INSPECTION MANUAL

January 1, 2015 Revision 6

1.2 Emergency Stop

Emergency Stop - When an emergency condition exists, 3rd rail (contact rail) power should be removed as directed in MSRPH. SOP #2, EMERGENCY REMOVAL AND RESTORATION OF THIRD RAIL POWER MAINLINE.

1.3 Operation of an Emergency Trip Station Switch

Any employee discovering a condition requiring emergency removal of 3rd rail power shall proceed to the nearest emergency trip station and operate it in accordance with the procedure posted on the door:

1.4 Speed Restriction

- 1.4.1 When a condition exists which require a speed reduction then a speed restriction shall be imposed as directed in SOP #30, ESTABLISHMENT AND REMOVAL OF SPEED RESTRICTION FOR THE MAINLINE.
- 1.4.2 Speed Restrictions will be of a length to ensure that trains are at the restricted speed no less than 600' approaching the affected area and do not accelerate until the rear of the train is no less than 600' past the affected area.
- 1.4.3 The person imposing the speed restriction must verify compliance of the restriction after speed couplers are in place and trains are running in Automatic Train Operation (ATO).

Table 1-1, Speed Restrictions*

	A. 1	
Level	Speed Type	Speeds
	Normal Speeds	41 to 70 MPH
YELLOW	Medium Speeds	16 to 40 MPH
	Slow Speeds	15 MPH or Less
BLACK	Out of Service	Out of Service

^{*} Speed restrictions are to be applied only when the components are defective from a safety point of view (i.e. when the safety of the track may be compromised). For components, which are defective from a maintenance point of view, speed and/or other restrictions are imposed at the discretion of the track supervisor.

15 Contact Rail (3rd Rail) Power Removal and Restoration

When a condition(s) exists which requires the contact rail (3rd rail) power to be removed, the power shall be removed as directed in SOP #28, PROTECTION FOR ROADWAY WORKERS AND ESTABLISHMENT OF THIRD RAIL POWER OUTAGES AND WORK AREAS ON THE ROADWAY and PERMANENT ORDER T-14-01, WORKING ON THIRD RAIL WITHOUT RED TAG.

General: Rev. 6 1-2 1/1/2015

Figure 1 - TRST 1000 excerpt

Form FTA-IR-1

Version date: 12/11/15 3

Inspection Form

Form FTA-IR-1

ale (b) (b)

Agency/Department Information

Insulation Date	YYYY	MM	DD	Report Number	20160217	A/N/ATA_IN/C_	1			
Inspection Date	2016	02	17	Report Number	20160217-WMATA-JMC-1					
Rail Agency Name	Washington Authority	Metropolitan	Area Transit	Rail Agency Department	Rail Transportation	Sub-Department	Rail Operations Control Center			
	N	lame		Email	Office Ph	one	Mobile Phone			
Contact Information										
Inspection Location	Carmen Tur	ner Facility – R	ail Operations	Control Center – 3500 P	ennsy Drive, Hyatts	villes, MD 20785				

Inspection Summary

Inspection Activity#	1	2	3	4	5	6	7	8
Activity Code	ROCC- GEN-MTG	ROCC-RPB- OBS	ROCC-ST-PI					
Inspection Units	1	1	1					
Inspection Subunits	2	2	1					
Defects (Number)	0	1	2					
Recommended Finding	No	No	No					
Action Required	No	No	Yes			1		
Recommend Reinspection	No	No	Yes				<u></u>	

Individual Inspection Activity

Inspection Activity #	1	Insp	ection S	ubject	Gen	erali	Meeti	ng						Activi Code	ty	RO	occ	GEN	OBS
Job Briefing Employee Name/Title	N/A							ompanie ector?	d	N/A	Out Brief Conducted		Yes	Time	1	00 – 430		itside hift	No
Related Reports							Rela	ted CAP	s/I	Findings									
D. I	Ref				Rule o	SOF)		St	andard		Oth	her/Ti	tle		Ch	ecklist	Refere	nce
Related Rules, SOPs, Standards, or Other																-			
	Ma Tra		Yard	St	ation	00	СС	RTA Facilit	у	FTA Office	Track Type		At-gr	ade	Tunne	el	Eleva	ted	N/A
Inspection Location					-		-	Х			i i ack type]					X
												Fro	om				Ţ	· ·	
Line(s)				Track				Chain N	/lari	ker									
Lilie(3)				Numb	er														
<u> </u>																			
Vehicles	Hea	ad Ca	r Numbe	er	Numb	er of	Cars	— _{Еач}	ipr	nent									
													···						
	FWS	O Tea	m met w	/ith		nd	مانانانانا	D -C	n it	arad the PO	The	٠ [er of De					0
B 1.41	com	n aisci munic	ussea the cations. e	er roies emerger	and res	agem	ibilitie ient pi	ersonnel,	, and	ored the RO d train move	ements. We			nmende		ng?			No
Description	mon	itored	d train m	ove mer	nt, radio	comi	munic	ations an	dth	ne ROCC Op	erators (radio	٠	Actio	n Requi	ea!				No
	and l Metr	butto orail	n) on the Safety Ru	Red Li ules and	ne.The (I Proced	pera ures	ators p <u>Handi</u>	oerforme book. Pro	d th ope	neir duties a r transfers v	s per SOP's, vere given by		Recor	mmend	Reinsp	ection	1?		No ———

Inspector in Charge - Signature	James Cassatt, Jr Digitally signed by James Cassatt, Jr DN: cn=James Cassatt, Jr, o=FRA, ou=DOT, email=james.cassattedotogov, c=US pate: 2016.02.18 13:40-04-05'00'	Date February 17, 2016
Inspector in Charge – Name James M. Cassatt	Inspection Team Jim Cassatt, Winslow Powell, Steve Slaughte	





		1.	,		1.	-			_				·				т	
	the re	elievi	ng butto	n and	radio ope	erator	·s.											
Defect Code		N/	A															
Required Action	N/A							•			•							
Inspection Activity #	2	Insp	ection S	Subjec	t Rep	eat E	3acks							Activi Code	ty	ROCC	RPB	OBS
Job Briefing Employee	N/A							ompanie	d	N/A	Out Brie		Yes	Time	100		Outside	No
Name/Title	.,,						Insp	ector?		, ,	Conduct	ed			143	30	Shift	
Related Reports							Rela	ted CAP	s/i	Findings								
	Ref				Rule	r SOF	•		St	tandard		0	ther/Tit	:le		Checkli	st Refere	nce
Related Rules, SOPs,	MSRF	PH			1.79													
Standards, or Other																		
	Mai	in		Τ,			- T	RTA		FTA								N1/A
	Trac		Yard	5	tation	00	cc	Facilit	У	Office			At-gr	ade	Tunnel	Liev	ated	N/A
Inspection Location						_	_				Track Ty _l	pe				1	_	.,
							-	Х						' i		']	×
												F	rom	•			То	
		_		Traci	,													
Line(s)	Redl	ine		Num	ber			Chain N	narı	Ker								
							-						_		1			
	Hea	ad Ca	r Numbe	er [Numb	erof	Cars											
Vehicles				\dashv				Equ	ipn	nent								
	EMIS) To 2	m obser	ved R	nd Line Co	ontrol	llers co	moliance	wi	ith rule 1.79.	Theteam	-	Numb	er of De	facts			1
								•		ol Operator h					ed Findin	-2	ļ	+ No
	Oper	ators	and Ma	intena	nce of W	ay an	d ATC		to	repeat and a	cknowled	ge		n Requi		Ri		es
Description										ailed to id mits. The Op			Action	i nequii	ieu:		 '	
										. FWSO will		0	Recor	nmend	Reinspec	tion?	Y	'es
					ent visits.				0	<u> </u>								
Defect Code																		
Required Action	No																	
		,												T				
Inspection Activity#	3	Ins	pection	Subje	s t Shi	ft Tra	nsfers							Activ Code	ity	ROCC	ST	PI
Job Briefing Employee	N/A							ompanie	d	N/A	Out Brie		Yes	Time	100 14		Outside Shift	No
Name/Title	′						insp	ector?			Conduct	leu			14.	30	31111	
Related Reports			2 – date – WMAT		//15,12/8 :-1	3/15,	Rela	ated CAP	s/	Findings								
	Ref			••••	Rule	or SOI	P		S	tandard			ther/Ti	tle		Checkl	ist Refere	nce
Related Rules, SOPs,									Г			\top				.,		
Standards, or Other					+				┢									
	Ma	in	ļ	\top				RTA	Ц	FTA	,		Ι	. 1		-		21/2
	Tra		Yard		Station	0	cc	Facilit	у	Office			At-gr	ade	Tunnel	Fiev	ated	N/A
Inspection Location			<u> </u>								Track Ty	pe		, 1			, T	Χ
]				\bigsqcup^{1}		Х										^
												F	rom				То	***
				Trac	k		ľ	Chain N	.a.	eleo e								
Line(s)	Red			Nun	ber			Chain i	vidl	KCI								
	1					l	1											
	He	ad Ca	r Numb	er	Num	ber o	f Cars											
Vehicles				-				Eq.	uipı	ment	1							





		da physical inspection of the Activity Log Books located at the	Number of Defects	2
	1	nsole. All but two entries were complete and signatures were ed box for the month of February. The exceptions taken were	Recommended Finding?	No
Description	1 .	ing Button Operator on 2/14/16 and the Second Shift relieving	Action Required?	Yes
		6/16 failed to sign the transfer will who failed to sign the transfer as per CAP FTA-Rail-1-9-A	Recommend Reinspection?	Yes
Defect Code	N/A	(b)(b)		
Required Action	N/A			



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

are (b) (b)

Agency/Department Information

Increation Date	YYYY	MM	DD	Report Number	20160218	\A/NAATA T	\ <i>\\</i> 1			
Inspection Date	2016	02	18	Report Number	20160218-WMATA-TW-1					
Rail Agency Name	Washington Authority	Metropolitan /	Area Transit	Rail Agency Department	Maintenance Sup-Department					
Rail Agency Department Contact Information		Name		Email	Office P	hone	Mobile Phone			
)				
Inspection Location	Shady Grove	Yard 15903 S	omerville Driv	e Rockville, MD 20855						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	VM-QAM-RR					
Inspection Units	1					
Inspection Subunits	0					
Defects (Number)	0				,	
Recommended Finding	No					
Remedial Action Required	No					
Recommended Reinspection	No					

Activity Summaries

Inspection Activity #	1	Insp	ection S	ubject	Effecti	venes	s verificatio	n of SOP	#1.18		Activity C	ode	VIV	1 Q	MA	RR
lob Briefing Employee Name/Title			کپ		Allena way		Accompanie nspector?	d	lo	Out Brief Conducted	Yes	Time	083 113	-	side lift	No
Related Reports	SOP #		Rail Veh	icle Part	S	R	telated CAP	S / Findir	ngs	R-4-33 Inve	ntory "Stock	outs" lmp	pact on M	laintenanc	e Oper	rations
	Ref				Rule or S	OP		Standa	rd		Other / Title	·		Checklist	Refere	nce
telated Rules, SOPs, tandards, or Other	CAP R	R-4-33	3-A		SOP# 15,	SOP#	‡ 1.18									
	Mai Trac		Yard	Sta	tion	осс	RTA Facilit	1 '	TA fice	Track Type	At-gr	ade	Tunnel	Elevate	ed	N/A
nspection Location				[х			Track type]				X
											From				Го	
				Track		I/A	Chain	Marker		N/A						
ine(s)	N/A			Numbe	er '	1/ A	and/o	r Station(s)							
	Hea	ad Ca	r Numbe	r	Number	of Ca										
/ehicles		N	!/A		N,	'A	Fd	uipment		N/A						
	FWS0	O Tea	ım met w	ith 📥	1	AGS	Office of Ca	ar Mainte	nance	and	Numbe	r of Defe	cts			0
				Off	ice of Car	Mair	ntenance to	conduct	an on:	site	Recom	mended	Finding?			No
Description			tation an ation.	id effect	iveness v	eritica	ation of SOI	7 #1.18 - I	kan ve	micie Parts	Remed	ial Action	n Require	d?		No
	Carill	nvanz	ation.								Recom	mended	Reinspec	tion?		Yes
Inspector in Charge - S	ignatur	e 7	ΓER	REL	LΑ	W	ILLIA	MS	DN: c=US	signed by TERRELL A V , o=U.S. Government, MS 6.02.19 13:38:17 -05'0	ou=DOT Headquart	ers, ou=FTAH	Q, cn=TERRELL	Date 2/18/20	16	

Form FTA-IR-1 Version date: 1/19/16

Inspector in Charge - Name

Terrell Williams

Inspection Team

Terrell Williams,





	 reasons to place on another car in need of that specific part/assembly. FTA was told that there were no cannibalized cars currently out of service at Shady Grove to review. 		
	 FTA requested to see two married pair of cars at Shady Gove that were in storage pending parts currently out of stock (these cars were not cannibalized) to assess if parts/assemblies had been removed inconsistent with SOP #1.18. WMATA resisted showing FTA the cars noting that FTA had not asked in advance to see non-cannibalized cars. FTA conceded to WMATA's resistance. 		
	 WMATA stated, and SOP # 1.18 confirms, that WMATA does not use a visual identification on the vehicle that it has been cannibalized such as a tag or sign on board the vehicle. 		
	WMATA is complying with SOP 1.18 Section 6.3.1 regarding noting the cannibalized car in Maximo, but not with 6.3.2 which requires that a Maximo record be created for where the part is installed. WMATA stated they would address 6.3.2 in their yearly review of the procedure scheduled to take place near anniversary date (March 26).		
	WMATA produced records of all cannibalized vehicles, (Problem Code 1295 in Maximo) when requested.		
Remedial Action	Revisit WMATA in 3 to 6 months and ensure location has cannibalized cars to adequate	tely assess SOP.	L



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

all (b) (b)

Agency/Department Information

Incorporation Data	YYYY	MM	DD	Report Number	20160217	WMATA-RN	NW-1		
Inspection Date	2016	02	18	Report Number	20160217	VV IVIA I A-RIV	^^-T		
Rail Agency Name	Authority		Area Transit	Rail Agency Department	Rail Transportation	Sub-Departmen	Rail Operations Control Center		
Rail Agency Department	١	Name		Email	Office Ph	one	Mobile Phone		
Contact Information									
Inspection Location	Carmen Tur	ner Facility – F	ail Operations	Control Center – 3500 P	ennsy Drive, Hyatts	willes, MD 20785			

Inspection Summary

Inspection Activity#	1	2	3	4	5	6
Activity Code	ROCC-RAD-OBS	ROCC-GEN-PI	ROCC-ST-PI			
Inspection Units	1	1	1			
Inspection Subunits	2	2	1			
Defects (Number)	6	0	12			
Recommended Finding	No	No	No			
Remedial Action Required	No	No	Yes			
Recommended Reinspection	Yes	Yes	Yes			

Activity Summaries

Inspection Activity#	1	Insp	ection S	Subject	Ra	dio Co	mmu	nications						Activi Code	ty	RO	сс	RAD	OBS
Job Briefing Employee Name/Title	N/A						ı	ompanie ector?	d	N/A	Out Brief Conducted	1	Yes	Time	062 08			tside hift	No
Related Reports							Rela	ated CAP	s/I	Findings	SMI Finding R-1-6-B), R-						1-4-C), R-6 (F	R-1-6-A,
	Ref				Rule	or SOF	P		St	tandard		Ot	her/Tit	tle		Che	cklist	Refere	nce
Related Rules, SOPs, Standards, or Other	MSRI	PH			1.69-	1.84													
Standards, or Other																<u> </u>			
	Main Track Yard Station				0	СС	RTA Facilit	RTA FTA Facility Office Track Type			-		ade	Tunne	I E	levat	ed	N/A	
Inspection Location	Irack					X				таск туре			1					Х	
												Fro	om				T	0	
Line(s)	Yello Gree	ow an en	d	Track Numl				Chain N	∕lar	ker									
	He	ad Ca	r Numb	er	Num	ber of	f Cars												
Vehicles	Tiedd car riams.							Equ	nbi	ment									
	FWSO Team observed Green and Yellow Lin						wLine	e Controll	ers	compliance	with MSRPH		Numb	er of De	fects				6
	rules 1.69-1.84 via radio transmission moni both radio and button controllers demonst							oring. Dur	ing	the observa	ation period,		Recor	nmende	ed Findi	ng?			No
Description	both	n radii muni	oandbu cationw	πon co ith the	ntroller field an	s aem d thei	r fello	w ROCCe	nted clear, concise, and professional w ROCC employees. FWSO also followed			ed	Actio	n Requi	red?				No
	up on key issues observed during the Safety Ma subsequent ROCC observations in December 20							Managen	nen	nent Inspection (SMI) and in Reco			Recor	nmend	nd Reinspection?			Yes	

Inspector in Charge - Signature	James Cassatt, Jr	Digitally signed by James Cassatt, Jr DN: cn=James Cassatt, Jr, o=FRA, ou=DOT, email=james.cassatt@dot.gov, c=US Date: 2016.02.18 20:25:54 -05'00'	Date February 18, 2016
Inspector in Charge – Name James M. Cassatt	Inspection Team Jim Cassatt,		





Required Action	FWSO will continue to monitor during subsequent visits.	<u> </u>	<u> </u>
	the observation period to resolve an issue with the screen "freezing".		
	The Team also noted that one RTC needed to restart their AIMS display twice during		
	transmissions were barely audible to the Team.		
	6) Twenty-four transmissions reached the ROCC at a volume significantly lower than the other transmissions for that channel. These 24		
	5) Train Operators failed to appropriately identify their unit, train, and location 21 times.		
	 The Team observed 33 instances of no response from Train Operators or other field personnel. 		
	 The Team observed eight instances of message overlap. 		
	movement or roadway workers 12 times, and failed to fully repeat back messages 13 times. RTCs requested repeat backs twice.		
÷	times. 2) Train operators failed to repeat back messages regarding unusual train		
	RTCs asked for a repeat of those obliterated messages a total of three		
	interference; over the observation period, the Team noted 39 instances of interference, 19 of which significantly distorted the incoming message.		
	As noted during the SMI, the ROCC experiences radio electronic		

Inspection Activity #	2	Insp	ection :	Subjec	t G	General								Activ Code	-	R	осс	GEN	PI
Job Briefing Employee Name/Title	N/A	L						ompanie ector?	d	N/A	Out Brief Conducte	- 1	Yes	Time		20 – 845	1	itside hift	No
Related Reports							Rela	ted CAP	S/I	Findings	SMI Findi	ngs (C	CAPs): R	-1-7 (R-	1-7-a an				
	Ref				Rul	le or SOF			St	andard		Ot	her/Ti	tle		Ch	ecklis	Refere	nce
Related Rules, SOPs, Standards, or Other					-							-				-			
Lucro sticu I costicu	Ma Tra		Yard	S	tation	n O	сс	RTA Facilit	у	FTA Office	Track Typ	e	At-gr	ade	Tunne	1	Eleva	ted	N/A
Inspection Location					,	×												Х	
												Fr	om				1	о	
Line(s)	Yellow and Green Track Number						Chain N	/lar	ker										
	He	ad Ca	r Numb	er	Nu	umber of	Cars												
Vehicles								Equ	ıipr	ment									
	The	desk	hada co	py of t	he MS	SRPH, dat	ted Fe	bruary 20	015,	, a copy of th	ne Office of		Numi	oer of D	efects				0
	The desk had a copy of the MSRPH, dated February 2015, a copy of the Office of Emergency Management's CB-EMIS Guidebook, dated March 2015, a copy of the Transfer of the Trans							copy of the	the Recommended Finding?					No					
Description	ROCC Procedures Manual, dated 9/21/2015, version 2.0, two copies of the Trac Power Substation Reconfiguration Playbook, no date, and a copy of the TRST							he TRST	011	Actio	n Requ	ired?				No			
Description	Specialized Equipment guide, no date. FWSO will continue to monitor during subsections.											Reco	mmend	l Reinspo	ectio	n?		Yes	
Defect Code	1		/A	1				<u> </u>											
Required Action	N/A																		





Inspection Activity #	Accompanied N/A Ou												Activ	-	R	осс	ST	PI
Job Briefing Employee Name/Title	N/A							•	d	N/A	Out Brief Conducted	Yes	Time		20 - 345		tside hift	No
Related Reports							Rela	ted CAP	s/I	Findings	SMI Finding	(CAP): R-1	-9 (R-1-	9-a)				
	Ref				Rule	or SOP			St	tandard		Other/Ti	tle		Ch	ecklist	Refere	nce
Related Rules, SOPs,																		
Standards, or Other									_									
	Ma Tra		Yard	St	ation	occ	=	RTA Facility	y	FTA Office		At-gr	ade	ade Tunne		Eleva	ed	N/A
Inspection Location						х					Track Type							х
							_					From				Т	<u>_</u> _	
	Yello	w an	d	Track			- {											
Line(s)	Gree	n		Numb	er		1	Chain N	/lar	ker								
	Head Car Number Number of Cars																	
Vehicles	Equipment																	Í
		Equipment																\
	The	FWSO	perforr	ned a p	hysical i	nspecti	on of	the ROC	CA	Activity Log B	ook for the	Numb	er of D	efects			:	12
							datin	g from 2/	/1/2	2016 through	n the time of	Recor	nmend		1	No		
	thei	nspec	ction and	i notea	the follo	owing:						Actio	n Requ		Y	/es		
		•						on RTC si	-									
1		•						o RTC sig		ture d into one blo	ack					1		
	l	•									mated here b	y				- 1		
			the pre	ceding	and foll	owing d	lates	in the lo	g)									
		•	2/8/20	16 1330	D-2100 s Ifaliawi	shift: no	date s in tl	listed (d	ate	e estimated h	iere by the me estimated	,						
Description											no button RT							
			signati							.1.5		Reco	mmend	Reinspe	ection	1?	Υ	res .
		•						iifts are c tton RTC		nbined into o mature	періоск					}		
	l	•								ne estimated	here by the	l				į		
	1				followi					ahinadinta a	na hlask							ı
	1	•								nbined into o (ti me esti ma	ted here by t	he						
	}				l followi				•	`	•							
	FWS	ilw O	continu	ue to m	onitor d	uring fu	iture	visits.										
	FWS	O has	consist	ently fo	cused a	ttention	non t	his issue	, ar	nd while FWS	SO has seens TA to ensure t	ome impro	vement	, these b	riefin enver	gs con	tinue to	be ff by
Remedial Action	Sun	ervisc	rv perso	nnel w	ithin the	ROCC.	FWS(Oexpect	s W	VMATA to ini	tiate this revi	ew and sign	ኍoff pro	ocess wi	thin t	he nex	t 5 caler	ndar
1	dav	s. The	Supervi	sory sig	nature l	ormaliz	es th	e review	pro	ocess that W	'MATA imple	mented by I	Memor	andum o	n Dec	cembe	r 8, 201	5



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

all (6)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160219	WMATA-JMC-:	1
inspection Date	2016	02	18	Report Number	20160218-	VV IVIA I A—JIVIC—.	L
Rail Agency Name	Washington Authority	Metropolitar	AreaTransit	Rail Agency Department	Rail Transportation	Sub- Department	Rail Operations Control Center
Rail Agency Department	1	Name		Email	Office Ph	ione	Mobile Phone
Contact Information							
Inspection Location	Carmen Tur	ner Facility – F	tail Operations	Control Center – 3500 P	ennsy Drive, Hyatts	svilles, MD 20785	

Inspection Summary

Inspection Activity#	1	2	3	4	5	6	7	8
Activity Code	ROCC- GEN-MTG	ROCC-RPB- OBS	ROCC-ST-PI					
Inspection Units	1	1	1					
Inspection Subunits	2	4	1					
Defects (Number)	0	2	2					
Recommended Finding	No	No	No					
Remedial Action Required?	No	No	Yes					
Recommend Reinspection	No	Yes	Yes					

Individual Inspection Activity

Inspection Activity #	1	Ins	pection S	Subject	Gene	eralN	Meet	ing				,		Activit Code	ty	RO	сс	GEN	OBS
Job Briefing Employee Name/Title	N/A							ompanie ector?	d	N/A	Out Brief Conducted	t	Yes	Time		00- 100		tside hift	Yes
Related Reports							Rela	ated CAP	S/I	Findings									
Dalata d Bada a CODa	Ref				Rule or	SOP			St	tandard		Oth	er/Tit	:le		Che	cklist	Refere	nce
Related Rules, SOPs, Standards, or Other	MSRI	PH			1.69-1.	84													
	ROC	C Mar	nual																
	Main Track Yard Station				ition	oc				FTA Office	Tunak Tuna		At-gr	ade	Tunnel		Elevated		N/A
Inspection Location							x				Track Type								Х
							Fro					Fro	m				Т	0	
Line(s)			ļ	Track			Chain Marker												
Line(s)				Numbe	er			Cildiii	··u	KC1			_						
	<u> </u>																		
Vehicles	He	ad Ca	r Numbe	er	Numbe	er of	Cars		.in=	nent									
venicies								Equ	uhi	Hell									
	FWSO Team met with							0		n discuss ed		Numb	er of De	fects				0	
	their roles and responsibilities and monitore management personnel, maintenance of wa										ncy [Recon	nmende	d Findi	ng?		1	No	
Description	movements. We monitored train movement											: [Action	n Require	ed?				No
	Operators (radio and button) on the Yellow/Gr The Operators performed their duties as per Sc							Gre en a n	d Bl	ue/Orange a	Orange and Silver Lines. Recomm			nmend F	l Reinspection?		P	No	

Inspector in Charge - Signature	James Cassatt, Jr	Digitally signed by James Cassatt, Jr DN: cn=James Cassatt, Jr, o=FRA, ou=DOT, email=james.cassatt@dot.gov, c=US Date: 2016.02.18 20:2652 -05'00'	Date February 18, 2016
Inspector in Charge – Name Jim Cassatt	Inspection Team Jim Cassatt, Winslow Powell, Sean Thom	pson	





	Procedures Handbook and train movements. Proper transfers were given by the relieving button and radio operators on the Green/Yellow Line. We moved to the Blue/Orange and Silver lines after observing the transfer on the Green/Yellow Line.	
Remedial Action	N/A	

		_																
Inspection Activity#	2	Insp	pection	Subject	Rep	eat B	acks						Activi Code	ty	RO	сс	RPB	OBS
Job Briefing Employee Name/Title	N/A							ompanie ector?	d	N/A	Out Brief Conducted	Yes	Time		00- 00		tside hift	YES
Related Reports						Related CAPS / Findings												
	Ref	<u> </u>				r SOP			St	tandard		Other/Title Che				cklist	Refere	nce
Related Rules, SOPs, Standards, or Other	MSRI	PH			1.73													
Standards, or Other																		
	Ma Tra		Yard	S	ation	oc	cc	RTA Facilit	y	FTA Office	Track Type	At-g	rade	Tunne	I E	leva	ted	N/A
Inspection Location								Х			таск туре							Х
												From				T	0	
	Blue	•	٠.	Track			Chain Marker			kar				\perp				
Line(s)	Silve Yello			Num	oer		Chain Warker											
	''	, •• , GI																
	He	ad Ca	r Numb	er	Numb	er of	Cars											
Vehicles								Equ	uipr	ment								
	FWS	O Tea	m obse	rved Ye	llow/Gre	enan	d Blue	e/Orange	/Sil	verLine Con	trollers	Num	per of De	efects				2
	com	plian	ce with r	adioru	les. The t	eamr	monit	ored radi	io ti	ransmissions	s. The Operators to	Reco	mmend	ed Findi	ng?		- 1	No
Description	Blue	/Orai	nge/Silve er radio e	er Line i Commu	kadio Col nication a	ntroi C after s	opera severa	tor nad t al Operat	ors.	transmitted	Operators to unnecessary	Remo	dial Act	ion Req	uired?	?		No
	and	proper radio communication after several Operators transmitted unnecessary irrelevant communications. FWSO will continue to monitor during subsequent S. Recommend Reinspection? Yes								/es								
Remedial Action	N/A																	
	1								_									

Inspection Activity#	3	Insp	ection S	Subject	Sh	Shift Transfers						Activit Code	· 1 R1		c	ST	PI		
Job Briefing Employee Náme/Title	N/A		7 15 10 17 15 10 17 15				Accompanied N/A Inspector?			N/A	Out Brief Conducted	1	Yes	Time				ide ft	YES
Related Reports	2016	CC 1 & 2 – dated 12/7/15,12/8/15, 160120–WMATA–JMC–1, 150217-WMATA-JMC-1					Rela	Related CAPS / Findings											
Related Rules, SOPs,	Ref				Rule	or SO			St	tandard		Othe	er/Tit	tle		Chec	klist f	efere	nce
Standards, or Other									_										
	Main Track		Yard	St	ation	occ		RTA Facility	у	FTA Office	Track Type		At-gr	ade	Tunne	I EI	evate	d	N/A
Inspection Location								Х			liack type								X
						†-				<u> </u>		Fron	m				То		
11	Blue	/Orar	nge/Sil	Track		1		Chain N	/ar	ker					4				
Line(s)	ver a	and ow/Gr	een	Numb	er														
	He	ad Ca	r Numb	er	Nun	nber o	f Cars												
Vehicles								Equ	ıipr	ment									





	FWSO team performed a physical inspection of the Activity Log Books located at	Number of Defects	2
	Blue/Orange Silver Line Controller console. All but two entries were complete and signatures were present in each required box for the month of February on both	Recommended Finding?	No
	desks. There were two exceptions on the Blue/Orange/Silver desk. The Second Shift	Remedial Action Required?	Yes
Description	relieving Button and Radio Operator on 2/10/16 failed to sign the transfer and the Third Shift Operators failed to fill out and sign the transfer on 2/12/16. Asst. Supt. Cohen will reinstruct employees who failed to sign and fill out the transfer as per CAP FTA-Rail-1-9-A. Based on findings from other log books, FWSO is issuing a remedial action on this issue.	Recommend Reinspection?	Yes
Remedial Action	See Inspection Report 20160218-WMATA-RNW-1.		



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

all (b)(b)

Agency/Department Information

Increation Date	YYYY	MM	DD	Donard Mumbar	20160222-WMATA-AAN-1					
Inspection Date	2016	02	22	Report Number						
Rail Agency Name	cy Name Washington Metropolitan Area Tra Authority		Area Transit	Rail Agency Department	Rail Transportation	Sub- Department	Rail Operations			
Rail Agency Department	ı	Name		Email	Office Phon	Mobile Phone				
Contact Information										
Inspection Location	Alexandria Ya	ard – Yard Ope	rations, Yard a	nd Yard Tower						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	RTRA-RC-OBS	RTRA-RAD-OBS				
Inspection Units	1	1				
Inspection Subunits	16	16				
Defects (Number)	0	0				
Recommended Finding	No	No	****			
Remedial Action Required	No	No				
Recommended Reinspection	No	No				

Activity Summaries

Inspection Activity #	1	Inch	ection Subj	inst	Pulos C	ompliar	nco – Onora	tor Pre-trip	Inspections	Activity Co	nde	RTRA	RC	OBS
Job Briefing Employee	1	шър	ection subj	ject	Rules C	Acce	ompanied ector?	tor Fre-trip	Out Brief Conducted	No No	Time	1330 – 1800	Outside Shift	No
Name/Title Related Reports						Rela	ted CAPS /	Findings				1		
Melatea Reports	Ref				Rule or S			Standard		Other / 1	Γitle		Checklist Ref	erence
Related Rules, SOPs, Standards, or Other	MSR	РН			3.13, 3.1 3.45	.27, 3.4	1.3.42,							
	Ma Tra		Yard	Stati	on	осс	RTA Facility	FTA Office	Tue ob Tue o	At-grad	e T	unnel	Elevated	N/A
Inspection Location									Track Type					×
										From			То	
Line(s)	C99		Track Numbe	er	Yard T	racks	Chain Ma and/or St							
Vehicles	Не	ad Car	Number	ı	Number	of Cars	Equip	ment						
	The	FWSO 1	team nerfo	rmed :	an unani	nounced	l safety blitz	inspection	at WMATA	Number	of Defec	ts		0
	Alex	andria	Yards of tra	ain pre	paration	and pro	e-trip inspec	ctions for the	e morning put-	Recomm	nended F	inding?		No
Description								arrived at t eft the yard	heir trains on at their	Remedia	al Action	Required?		No
ocacipion .	sche exte	duled t	times. FWS d interior ir	SO obs nspecti	erved th ions at a	at most normal	train opera walking pag	tors conducted and did not be conducted and di	ted their ot visibly bend r shunt straps,	their visibly bend Recommended Reinspection?				No

alexander.nep	oa@dot.gov	Digitally signed by alexander.nepa@dot.gov DN: cn=alexander.nepa@dot.gov Date: 2016.02.28.08:40:18-05'00'	Date 02-22-2016
Inspector in Charge – Name Alex Nepa	Inspection Team Alex Nepa, Medenia Dashiell		





	or to ensure that rotary and air control valves were in the proper location at open ends at the belly of the consist and that brake line switches were in the proper position. Operators did not use notepads or checklists to document pre-trip inspections, and no signed forms were provided back to Depot Clerks or Interlocking Operators.	
Remedial Action	N/A	

Inspection Activity #	2	Insp	ection Sub	ject	1	•	ice – Opera n to Yard In	tor Proper terlocking O	perator	Activity Co	Activity Code RTR		R/	D.	OBS
Job Briefing Employee Name/Title						Inspector? Condu			Out Brief Conducted	Time		1330 1630			No
Related Reports						Rela	ted CAPS /	Findings							
	Ref				Rule or	SOP		Standard		Other / T	itle		Checklis	Refe	rence
Related Rules, SOPs, Standards, or Other	MSR	PH			3.14					+					
	Ma Tra		Yard	Sta	tion	occ.	RTA Facility	FTA Office	Track Type	At-grade	e Tu	ınnel	Elevate	d	N/A
Inspection Location				[-				Паск туре						\boxtimes
					1					From		·	T		
Line(s)	C99		Track Numb	er	Yard 1	racks	Chain Ma and/or St								
Vehicles	Не	ad Car	Number		Number	of Cars	Fauin	ment				L			
									<u> </u>						
	1	FWSO to		no ex	ception to	the 16	trains that	were observ	ed during this	Number					0
Description	Perio	JG								Recomm Remedia		<u>_</u>	,		No No
	1									Recomm					No
Remedial Action	N/A														



Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Donart Number	201602	22 M/N (A T A T)	A/ 1		
inspection bate	2016	02	22	Report Number	20160222-WMATA-TW-1				
Rail Agency Name	Washington I Authority	Metropolitan <i>i</i>	Area Transit	Rail Agency Department	RTRA	Sub- Departr	nent		
Rail Agency Department	1	Name		Email	Off	ice Phone	N	lobile Phone	
Contact Information)	Palitane						
Inspection Location	Greenbelt Ra	il Yard 5801 S	unnyside Ave.	College Park, MD 20740					

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	RTRA-RC-OBS	RTRA-RAD-OBS				
Inspection Units	13	18				
Inspection Subunits	13	18				
Defects (Number)	0	13				
Recommended Finding	No	No				
Remedial Action Required	No	No				
Recommended Reinspection	No	No				

Activity Summaries

Inspection Activity #	1	Inspe	ection S	ubject	Observ			eparation and	Pre-Trip		Activity Co	ode	RT	RA	RC	OBS
Job Briefing Employee Name/Title	None					- 1	Accompanied nspector?	No	Out Brief Conducted		No	Time		00- 930	Outside Shift	Yes
Related Reports						F	Related CAPS	/ Findings	FTA-Rail 1-	14-	A, FTA-Rail	1-14-B				
	Ref				Rule or S	OP		Standard		Ot	ther / Title			Che	cklist Refe	rence
Related Rules, SOPs, Standards, or Other	Prepa Service	_	rains fo	r	3.13, 3.14 3.42, 3.45		.27, 3.41,									
	Mai Trac		Yard	St	ation	осс	RTA Facility	FTA Office			At-gra	de	Tunne	I E	levated	N/A
Inspection Location			Х						Track Type	•	х					
										-	From				То	
Line(s)	N/A			Track Numb	er	/A	Chain N and/or	larker Station(s)	N/A				N/A			
Vehicles	Hea	id Car N/	Numbe 'A	r	Number N/			ipment	N/A							
<u> , </u>	FWSC	Blitz	Team #2	2 obser	ved Train	repa	aration and F	re-Trip Inspec	tions at the		Number	of Defe	cts		T	
	1							e Operations			Recomm	ended I	inding?			
Description	1	_	_					bserved just o am, observed			Remedia	l Action	Require	ed?		
	Opera	ators c	conduct	Train P	rep and Pr	e-trip	p Inspections	and observe	d Interlocking a cursory pre-		Recomm	ended I	Reinspe	ction?		

Inspector in Charge - Signature	TERRELL A WILLIAMS	Digitally signed by TERRELL A WILLIAMS DN: c=US, 0=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=TERRELL A WILLIAMS Date: 2016.02.23 13:40:31 -05'00'	Date 2/22/2016
Inspector in Charge — Name Terrell Williams	Inspection Team Terrell Williams, Stephen Slaughter	Timothy Braxton	





	arour annoi Yard I	nds, co uncen Dispat tes wi	onduct r nents. E tch Time	olling te Each Rail e. The a	est and I Opera verage	rolling tor ari Train	g brake rived a Prep a	e test an approxin and Pre-	d publi nately 3 Trip Ins	c addres 30 mins pections	l interior wall ss prior to Train s took 15 nortest took 9	1							
Remedial Action																			
Inspection Activity #	2	Insp	ection S	ubject	Obs	ervati	on of	Hand He	ld Radi	o Comm	nunications	_	Activity Co	de	RT	RA	RAD		OBS
Job Briefing Employee Name/Title	None							mpanied	t	No	Out Brief Conducted		No	Time	1	00- 930	Outsid Shift	- 1	Yes
Related Reports							Relat	ted CAPS	/ Find	ings	FTA-Rail 1-	14-	A, FTA-Rail :	1-14-B					
	Ref				Rule o	r SOP			Stand	ard		0	ther / Title			Ch	necklist Ref	erenc	e
Related Rules, SOPs, Standards, or Other	MSRP	γн			General 1.79	al Rule	e 1.78	and											
											,————					<u></u>			
Inspection Location	Mai Trac)	Yard	Sta	ation	00	c	RTA Facility	, (FTA Office	Track Type		At-gra	de	Tunne	1	Elevated		N/A
			Х]				uen rype		х						
			}										From				То		
Line(s)	N/A		l	Track		N/A		Chain N		, ,	N/A				N/A				
	, ' 		}	Numb	er	•		and/or	Station	1(S)									
	Han	d Can	Numbe		Nivende														
Vehicles	пеа		Numbe	-	Numb		Cars	Equ	ipmen	t	N/A								
	EMISC	N/		2 obsor		N/A	narati	on and E	ro Trin	Inchast	ions at the		T						
							•			•	s. The train		Number		<u> </u>			1	
-					king To	wer O	perato	or have o	reated	a work-	around to		Recomm					N	
	addre	ess the	ese dead	i-spots.									Keilleula	Action	Require	eu:			
Description	Emer track Train The o transi 3 time	gency assigr ID #30 perato missio es.	Trip Stanment a 09, #310 or of transon and re	ntion (ET nd perm), #517, nin ID #3 equeste	rS) locations in the second se	ted or to mo t356, t unab ower t	n the p ve: #306, a ble to d to repe	latform #357, #3 copy the	in the y 58, #50 Interlo dio trai	yard to r 09, #359 ocking To nsmissio	es or from the eceive their , #513, #360 ower's radio n an addition		Recomm	ended 1	Reinspe	ctior	n?	N	o
	Interl	ocking									and MSRPH								
Remedial Action	None																		



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

all (6) (6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Damant Number	20160222	WAATA 1846	
mispection bate	2016	02	23	Report Number	20160223-	WMATA-JMC-	-1
Rail Agency Name	Washington Authority	Metropolitar	n Area Transit	Rail Agency Department	Rail Transportation	Sub- Department	Rail Operations Control Center
Rail Agency Department		lame		Email	, Office Ph	one	Mobile Phone
Contact Information							
Inspection Location	Carmen Turi	ner Facility – F	Rail Operations	Control Center – 3500 P	ennsy Drive, Hyatts	ville, MD 20785	

Inspection Summary

Inspection Activity#	1	2	3	4	5	6
Activity Code	ROCC-RAD-OBS	ROCC-RAD-OBS	ROCC-ST-OBS	ROCC-RC-MTG		ļ
Inspection Units	1	1	1	1		
Inspection Subunits	2	3	2	1		
Defects (Number)	6	0	0	0		
Recommended Finding	No	No	No	No		
Remedial Action Required	No	No	No	No		
Recommended Reinspection	Yes	No	No	No		

Activity Summaries

Inspection Activity#	1	Inspect	tion Su	bject	Radio	o Con	nmunication	15	_			Activit Code	ty	ROCC	RAD	OBS
Job Briefing Employee Name/Title	N/A						Accompan Inspector?	ied	N/A	Out Brief Conducted	Yes	Time		00 -	Outside Shift	Yes
Related Reports							Related CA	PS/	Findings	SMI Finding R-1-6-B), R-					I-C), R-6 (R-1-6-A,
Related Rules, SOPs,	Ref				Rule or	SOP		5	Standard		Other/Ti	tle		Check	ist Refen	ence
Standards, or Other	MSRP	H			1.69-1.	84		\perp								
								<u> </u>								
Inspection Location	Maii Trac		/ard	Sta	tion	occ	RTA Facil		FTA Office	TrackType	At-gr	ade	Tunne	l Ele	/ated	N/A
inspection Location	:			ľ		Х				irack type						Х
											From				То	
Line(s)	Yellov and R	v/Green	- 6	rack Numbe			Chain	Maı	rker							
	, and it	c u	'	1411100			- 1						+			
Vehicles	Head	d Car Nu	mber		Numbe	r of C		uip	ment				<u> </u>			
	FINCO	-		1 1 11	10					<u> </u>						
					•				affic Controll oring. During	ers compliand	· · · · ·	er of Def			1	6
Description										ed with MSRPF	1 <u> </u>	nmende		g?	<u> </u>	No
Description	Rules.	Repeat	backs i	improv	ed durin	gthe	radiotrans	miss	ion monitori	ng.	Action	n Require	d?			No
	The fo	llowing	except	ions w	ere note	d:					Recon	nmend R	einspec	tion?		Yes

Inspector in Charge - Signature	James Cassatt, Jr	Digitally signed by James Cassatt, Jr DN: cn=James Cassatt, Jr, o=FRA, ou=DOT, mail=james.cassatt@dot.gov, c=US Date: 2016.02.25 17:07:57-05'00'	Date February 23, 2016
Inspector in Charge – Name	Inspection Team		
James M. Cassatt	James Cassatt		





Federal Transit Ac	dmini	istrat	ion																		
		2.	difficult radio co FWSO n	t for Tra ommur oted c	ain Op nicatio ne in	perators : ons.	and R	ail Traffic	Cor	ng transmiss ntrollers to u outside of th						 ,					
	FWS	O will	continu	e to m	onitor	r during s	ubsec	quent visit	s.												
Required Action	No																				
Inspection Activity #	2	Insp	ection	Subjec	t I	PERMISS	IVE BL	-OCK						Activi Code	tγ	RC	сс	RAD	OBS		
Job Briefing Employee Name/Title	N/A							ompanie ector?	d	N/A	Out Brief Conducted	, ,	Yes	Time		00- .00	,	tside hift	YES		
Related Reports							Rela	ated CAPS	s / F	Findings											
Related Rules, SOPs,	Ref				\leftarrow	le or SOF P 15	-		St	andard		Othe	er/Tit	le		Che	cklist	Refere	ence		
Standards, or Other																					
		ain ack	Yard	s	tatio	n O	сс	RTA Facility	y	FTA Office	Track Type		At-gra	ide	Tunne	1	Eleva	ted	N/A		
Inspection Location						,	×				mack type								Х		
												Fror	rom				Т	0			
Line(s)				Track				Chain N	/lari	ker											
Line(3)	Yell	ow/G	reen	Num	ber										-						
	 		n Nicona la		NI.	umber of	Carr	l													
Vehicles	He	edu Ca	r Numb	er		inper or	Cars	_	iipn	nent											
	Obs	erved	Rail Tra	ffic Cor	trolle	ers a ppro	priate	ly instruct	ted	Train Opera	tors who ask	ed 1	Numb	er of De	efects				0		
	fora	a pern Train	nissive b Operato	lock wi	hile in vdet	i a pocket their car :	ttrack and re	k. The Rail	Tra	iffic Controll propriately w	ers instructe vhen asked fo	or Ľ			ed Findi	ng?			No		
Description			ive bloc		yacı	tricii car	ununc	sportaca	~ P F	<i>5.</i> op 1. a.c., 1.		Ľ		Requi					No		
	<u>L.</u>												Recon	nmend	Reinspe	ction	?		No		
Defect Code	<u> </u>	N/	/A																		
Required Action	N/A																				
Inspection Activity#	3	Ins	pection	Subjec	:t .	Shift Tra	nsfer	s			_			Activ Code	-	RO	occ	ST	OBS		
Job Briefing Employee Name/Title	N/A	\						companie	N/A Conducted Yes IIII					Time	2:	00-		utside Shift	Yes		
Related Reports								ated CAP	÷		SMI Findir				9-a)	T					
Related Rules, SOPs,	Ref				Ru	ıle or SO	P		Si	tandard		Oth	er/Tit	le		Ch	ecklis	t Refen	ence		
Standards, or Other					1				_							₩					
		lain	Yard	<u>. T</u>	Statio	on O	cc	RTA		FTA		\top	At-gr	ade	Tunne	<u> </u>	Eleva	ted	N/A		
Inspection Location	Tr	ack	-	_				Facilit	Ly	Office	Track Type	• -				\dashv					

Chain Marker

From

Form FTA-IR-1 Version date: 1/19/16

Line(s)

Yellow/Green and Red Track Number То





Line(s)

United States Department of Transportation Federal Transit Administration

	Hea	d Car Numb	er	Num	nber of	Cars										_		
Vehicles							Equ	ipm	ent									
Description		O observed v c Controller						prop	oriate lines	I from Rail		Recon	er of De nmende	d Findin	ng?		0 No	
													nmend I		ction?	1_	No	_
Inspection Activity#	4	Inspection	Subje	e t Bu	ulletins								Activi Code	ty	ROCO	RC	N	MTG
Job Briefing Employee Name/Title	N/A						ompanie ector?	d	N/A	Out Brief Conducted		Yes	Time	170 21		Outside Shift	1,	Yes
Related Reports						Rela	ted CAP	S/F	indings									
Related Rules, SOPs,	Ref			Rule	or SOP			Sta	andard		Oth	ner/Ti	tle		Check	list Refe	ence	
Standards, or Other				+														
Inconcetion Location	Mai Trad	∵ I Var		Station	00	cc	RTA Facility	y	FTA Office	Track Type		At-gr	ade	Tunne	l Ele	vated	N/	Ά
Inspection Location					×	· [irack type							X	(
			Т		\top					i	Fro	nm.				To		

Chain Marker

Pescription

FWSO discussed the voluntary "Boot Camp" rules review with Rail Traffic Controllers prior to their shift with the on duty Assistant Superintendent. Items discussed included SOP #15: Absolute Block/Permissive Block (pages 1 and 9), and Permanent Order T-16-01 of MSRPH SOP 4.5.3 and 15.5.4.2. FWSO suggested that WMATA ROCC management may benefit from visiting other transit control centers to exchange Safety and Operations best practices.

Number of Cars

Track

Head Car Number

Number

Number of Defects	0
Recommended Finding?	No
Action Required?	No
Recommend Reinspection?	No



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

all (b) (b)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160223-WN	ΛΛΤΛ-ΔΑ	ΔN ₋ 1	
Inspection Date	2016	02	23	Report Rumber	20100223-001	VIA I A-A/		
Rail Agency Name	Washington Authority	Metropolitan /	Area Transit	Rail Agency Department	Track & Structures	Sub- Dep	artment	Track Production
Rail Agency Department		Name		Email	Office Phon	e i		Mobile Phone
Contact Information								
Inspection Location	D04 (Federal	Center) – CO2	(McPherson S	quare) – Track 1				

Inspection Summary

mspection summary						
Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-RC-OBS	TRK-RAD-OBS	TRK-RWP-PI	TRK-GEN-OBS		
Inspection Units	1	1	1	1		
Inspection Subunits	10	2	7	7		
Defects (Number)	1	1	0	4		
Recommended Finding	No	No	No	No		
Remedial Action Required	No	No	No	Yes		
Recommended Reinspection	No	No	Yes	Yes		

Activity Summaries

Activity Summaries													TDV	DC.	OBS
Inspection Activity #	1	Inspe	ection Subj	ect	Rule	es Comp	liance –	Observ	rations		Activity Co	ode	TRK	RC	083
Job Briefing Employee Name/Title		(T	rack Unit #			Accompanied inspector?			No	Out Brief Conducted	No	Time	2200 – 0130	Outsid Shift	Vac
Related Reports						F	Related	CAPS/	Findings						
	Ref				Rule	or SOP			Standard		Other / T	itle		Checklist R	eference
Related Rules, SOPs, Standards, or Other	MSR	RPH				0, 3.154 3.106,	, 3.88, 3 3.113	.89,							
	MSF	RPH			SOP :	#15, #2	8, #35								· ·
	1	ain ack	Yard	Sta	tion	осс		RTA icility	FTA Office	Track Type	At-grad	е т	unnel	Elevated	N/A
Inspection Location		×			\boxtimes					паск туре			\boxtimes		
	+										From			То	
Line(s)	C-Line	ne, D-	Track Numb	er	Yaı	rd Track	/c	ain Mai d/or St	rker ation(s)	Federal Cent	er		McPher	son Square	
Vehicles	Н	ead Car	Number	F	Numi	ber of C	ars	Equip	ment						
	The	FWSO	team obse	 rved t	the arr	ival of P	Prime M	over 35	, 56 and 65 a	along with their	Number	of Defec	ts		1
	asso	ociated	flats, equip	men	t and v	vorkers.	. The tea	am perf	ormed a safe	ety check of the	Recomn	nended F	inding?		No
	fire	extingu	uishers, firs	t aid l	kits, lig	hting a	nd mate	rial sto	rage, acetyle	ne tank on	D	al Action	Required?	,	No
Description	PM Mo	65 used	d his flashli rformed th	ght fo eir re	or stop quired	and pro	ecede si stops as	gnai to they p	the operato ulled into the	perator. All Prime into the station for the e as required by rule. Remedial Action Required? Recommended Reinspection?					

Inspector in Charge - Signature	na@dot.gov	Digitally signed by alexander.nepa@dot.gov DN: cn=alexander.nepa@dot.gov	Date 02/23/2016
Inspector in Charge – Name Alex Nepa	Inspection Team Alex Nepa	Date: 2016.02.27 18:27:11 -05'00'	





T cdcrar Transit A	umm	isiia													
	FWS0 yellov Addit interd	O team w beac ionally com th	n will follow con as well y, the flagn	v up winds as the nen we chased	th the WM use of a b re not obs by WMA	MATA TRS ack up al erved us	T team of arm for ing the h	nile PM35 dic on the requir reverse opera neadset comr ior. The FWS	ements for the ation.						
Remedial Action	N/A														
Inspection Activity #	2	2 Inspection Subject Rules Compliance – Operator Proper Communication to Rail Operations Controller									Activity Code			RAD	OBS
Job Briefing Employee Name/Title	_	/ k	Track Unit	66)		Accom Inspec	panied tor?	No	Out Brief Conducted	No	Time	2200 0130	1 -	Outside Shift	Yes
Related Reports		_				Relate	d CAPS /	Findings							
	Ref				Rule or SC)P		Standard		Other / Title			Chec	klist Refe	rence
Related Rules, SOPs, Standards, or Other	MSRF	PH			1.78, 1.79										
Standards, or other															
	Mai Trac		Yard	Statio	on O	сс	RTA Facility	FTA Office	Track Type	At-grade	e Ti	unnel	Elev	ated	N/A
Inspection Location	×								Hack Type]	×
										From				То	
Lino/s)	D-Lin	e, C-	Track		1		hain Ma		Federal Cente	r		McPhei	rson Sc	juare	
Line(s)	Line		Numb	er	1	a	nd/or St	ation(s)				ļ			
					<u></u>							<u> </u>			
Vehicles	Hea	ad Car	Number	1	Number of	Cars	Fauin	ment							
venicies		PM	56		2 flats	5	-4							,	
									ang Leader, the	Number	of Defect	s		-	
								roller. The te	eam did not	Recomm	ended Fi	nding?			No
Description	note any defects with compliance to rules 1.78 and 1.79.									Remedia	l Action I	Required	?	ļ	No
!								s work group etimes over-l	s, and trains to apping.	Recomm	ended Re	einspectio	on?		No
Remedial Action	N/A														
					D 1 - 0		D-a-1		Drotostion						1
Inchection Activity #	1 2	Insn	ection Sub	iect	Rules Co	mpiiance	- Koadi	way Worker	Protection	Activity Co	ode	TRK	- (RWP	PI

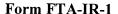
Inspection Activity #	3	Inspec	tion Sub	ject	Rules Compliance – Roadwa Field Set Up – Physical Inspe			- Roadway Worker Protection iical Inspection			Activity Code		RWP	PI
Job Briefing Employee Name/Title	~	- Track Unit 66			companied pector?	No	Out Brief Conducted	No	Time	2200 0130		Yes		
Related Reports						Re	lated CAPS /	Findings						
	Ref				Rule o	r SOP		Standard		Other /	Title		Checklist Ref	erence
Related Rules, SOPs, Standards, or Other	RWP	RWPM 1.1, 1.8 1.53, 1.			3, 1.9, 1.16, 1.52, 4									
	Ma Tra	i	Yard	Stat	ion	осс	RTA Facility	FTA Office	Track Tune	At-grad	ie T	unnel	Elevated	N/A
Inspection Location	Σ	3			3				Track Type			\boxtimes		\boxtimes
			T		Τ ,					From			То	
	ine(s) D-Line, C- Line Track Number 1			Chain Ma	rker	Federal Cent	er		McPherson Square					
Line(s)			er	1		and/or St								





14-1-1	Head Car Number	Number of Cars				
Vehicles			Equipment			
		nd participated in the Jo			Number of Defects	0
	the platform at L'Enfant included:	Plaza by the RWIC. The	briefing was thorough	and	Recommended Finding?	No
	Hazards		(570)		Remedial Action Required?	No
Description	Noise ETS Use Thermite We Cell Phone U you will be re PPE and ID's The FWSO team signed the CO2 (McPherson Sq D02-04 was at red. The clamps to the switches. and hot-sticked the thir Area" mat 500 feet from During the application of passed the work crews. horns; these trains were The FWSO team did not The team recommends	of the clamps two revenu The operators dimmed t	ed phone OK – personaty) anied the crew on PM: While en-route to CO2 I the ROCC and then approceeded to McPhersonand then placed the "Exercise trains, Lead cars 305 Cheir lights and sounder iant activities related the FWSO team as well as	56 to set up 2 the signal at pplied the on Square End of Work 63 and 3260 ed their to the RWPM.	Recommended Reinspection?	Yes
Remedial Action	N/A	a QA on the NWF Job sit	e act-up and compliant	ce.		1
	1					

Inspection Activity #	4 ins	pection Sub	ject	Track Ge	neral C	Observation	ıs		Activity Co	ode	TRK	GE	N	OBS
Job Briefing Employee Name/Title	-	Track Unit	66 (a)		1	mpanied ector?	No	Out Brief Conducted	No	Time	2200 0130			Yes
Related Reports					Relat	ted CAPS /	Findings				·			
	Ref		F	Rule or SC	OP		Standard		Other / 1	itle		Checklist	Refer	ence
Related Rules, SOPs, Standards, or Other						·								
Incompation I problem	Main Track	Yard	Statio	on O	сс	RTA Facility	FTA Office	Two ok Tumo	At-grad	e Ti	unnel	Elevated		N/A
Inspection Location	×				3			Track Type						×
									From			To		
Line(s)	C-Line, D- Line	Track Numb	er	1		Chain Marker Federal Center and/or Station(s)		er		McPhe	rson Squar	e		
Vehicles	Head Ca	ar Number	N	lumber of	Cars	Equip	ment							
	General C	bservations	- Follov	w-up with	WMA	.TA:		L	Number	of Defect	:s			4
	1.	•					Enfant Plaza		Recomm	ended Fi	nding?			No
								s did not tap e required to	Remedia	l Action F	Required	?		/es
Description	2.	and use of back-up alarms during reverse movement on prime movers. PM 65 appeared to have one installed but it was not in use. Recommended Reinspection? No										No		



4



United States Department of Transportation Federal Transit Administration

	how to improve the efficiency of work zone set-up. 4. The FWSO team noted that adjacent track protection was not discussed during the job safety briefing. The work area did involve separate tunnel tubes however the area where the interlocking's are may require this discussion. The team requests a follow-up with WMATA on adding this to their briefing form. 5. The FWSO team noted that many of the safety walks (catwalks) were obstructed by junction boxes, cables, ETS boxes and other appurtenances. In addition to limiting the actual walking space on the cat walks it also create a hazard to the individuals who may inadvertently walk into them potentially causing personal injury. The team would like to follow-up with WMATA SAFE on the requirements established in WMATA's Design Criteria and in the NFPA requirements.
Remedial Action	FWSO team to follow-up with WMATA on these issues during upcoming meetings.

Notes:

Job Safety Briefing Rules of the Day:

3.113 - When giving signals from a leading flat car that is being pushed, the vehicle flag person must use a white lamp or flag, or give verbal instructions using a radio.

RWPM 1.1 – The RWIC shall not engage in any work activities that distract them from their primary duties.

Cited Rules:

- 3.110 When a flatcar is being used, it is the Operators responsibility to ensure that:
 - a. The bed of the car is properly prepared to alleviate slippery conditions;
 - b. The weight of the load is evenly distributed on the car;
 - c. Material loaded on the car does not obstruct the operator's or vehicle flag person's view of the roadway;
 - d. All materials are properly secured to prevent shifting;
 - e. Loaded materials have clearance in the subway;
 - f. Employees do not ride on top of loaded material; and,
 - g. Materials are clear of brake valves and handbrakes.
- . 3.154 Flagging lamps and flags shall be located as follows:
 - a. Lamps and flags shall be placed on the track structure (right side where possible), in a position which will be clearly visible to the Train Operator.
 - b. Lamps and flags must not be placed in conflict with a fixed signal.
 - c. Refer to Track Protection Illustrations (Fig. 1-9).

Form FTA-IR-1 Version date: 12/11/15

rsion date: 12/11/15

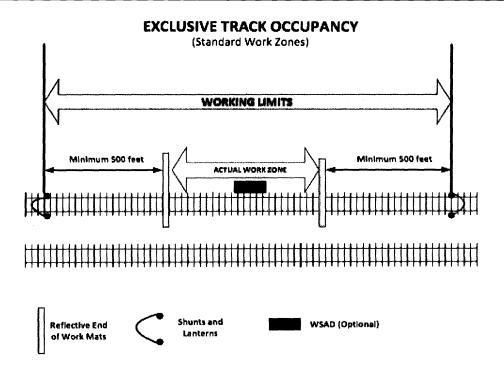
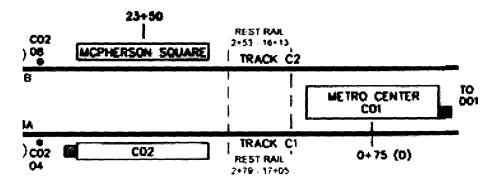


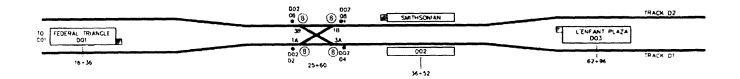
Figure 4

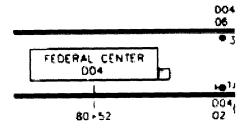
- 3.88 Safety stops shall be made as prescribed in Rule 3.89 when approaching another rail vehicle, bumping post, or obstruction.
- 3.89 Safety stops, when required, must be made three (3) car lengths, then two (2) car lengths, then fifty (50) feet, then ten (10) feet and then proceed at a speed not to exceed 3 mph until final stop is made. Speeds into shop are not to exceed 5 mph. (Refer to rule 3.131). (Related Rule 3.88).
- 3.96 Whenever a Class I or Class II rail vehicle is operated from other than the lead car/end or from either end of a flat car (whether pushing or pulling), a qualified employee shall be assigned as a flag person. Positive communications shall be established between the operator and the vehicle flag person. The Operator shall confirm that the flag person clearly understands each authorized move before proceeding. If communication is lost, the operator shall bring the vehicle to a stop.
- . 3.106 Operators shall secure Class II vehicles while they are stopped within the work area. When the vehicle is left unattended, the vehicle shall be secured with handbrakes. When stopped on a low grade, sufficient handbrakes shall be applied at the low end of the grade to be certain the vehicle is secured.
- 3.113 When giving signals from a leading flat car that is being pushed, the vehicle flag person must use a white lamp or flag, or give verbal instructions using a radio.



Work Area: (Track 1)







Photos:

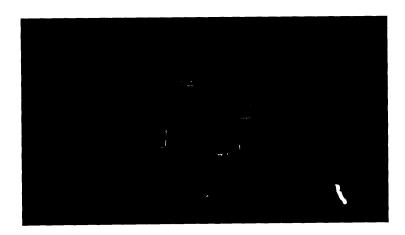


Figure 1 - Foster F20 Plate Being Installed in Work Area



7



United States Department of Transportation Federal Transit Administration



Figure 2 - Shunt Strap Set-up at CO2 - note: Red Strobes

Form FTA-IR-1

Version date: 12/11/15



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	2016020	201602023-WMATA-TB-1					
mapection Date	2016	02	23	Report Number	201002023-WIVIATA-1B-1						
Rail Agency Name	Washington Authority	Metropolitan <i>i</i>	Area Transit	Rail Agency Department	RTRA	Sub- Depar	tment				
Rail Agency Department		Name		Email	Office Phone		Mobile Phone				
Contact Information											
Inspection Location	Red and Gree	en Lines									

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	RTRA-RI-OBS					
Inspection Units	8					
Inspection Subunits	8					
Defects (Number)	2					
Recommended Finding	No					
Remedial Action Required	No					
Recommended Reinspection	No					

Activity Summaries

Inspection Activity #	1	Inspection Subje	ct	Observa	tion of	Pre-Trip Ins	spections		Activity Co	ode	RTR	A RI	OBS
Job Briefing Employee Name/Title	N/A				Acco	mpanied ector?	No	Out Brief Conducted	No Time		0800 1030		. No
Related Reports	N/A				Relat	ed CAPS / F	indings	N/A					
	Ref		F	Rule or So	OP		Standard		Other / 1	itle		Checklist Re	ference
Related Rules, SOPs, Standards, or Other	N/A				7, 1.18, 1, 1.69- afety R 5R 4.38 0peration 3, 3.84, 120, 3.3 3.79.1, 168; OPs #4 #16, #	1.19, 1.84; ules 4.32, , SR 4.54, ng Rules 3.87, 121, 3.141,	N/A		N/A			N/A	
	Ma Tra	l Yard i	Statio	on C	сс	RTA Facility	FTA Office	Tuesda Tuesda	At-gra	ide	Tunnel	Elevated	N/A
Inspection Location	х							Track Type	X		Х	x	
Line(s)	Red a	and Track		N/A		Chain Ma			From			То	
	Gree	n Numbe	r	.,,,,		and/or St	ation(s)	N/A	N/A				

Inspector in Charge - Signature	Timothy Braxton	Digitally signed by Timothy Braxton DN: cn=Timothy Braxton, o=Federal Transit Administration (FTA), ou=U5 Department of Transportation, email=timothy.braxton@dol.gov, c=U5 Date: 2016.02.26 18:01:11 -05'00'	Dațe 2/23/2016
Inspector in Charge – Name Timothy Braxton	Inspection Team Timothy Braxton		





				N/A		N/A	
	Head Car Number	Number of Cars					
/ehicles	See Description	N/A	Equipment	uipment N/A			
	FWSO performed 8 ridi	ng inspections from 08			Number of Defe	cts	2
	Glenmont, Glenmont to Gallery Place. FWSO did		Recommended F	No			
	workers on the right of	•	Remedial Action	Required?	No		
Description	3151: FWSO observed of from Gallery Place to N sounding horn when exprior to opening doors. 2001: FWSO observed of from NOMA-Galludet to sounding horn when exprior to opening doors. 3223: FWSO observed of from Silver Spring to Gl sounding horn when exprior to opening doors. 4084: FWSO observed from Glenmont and Silver Spring, static doors. 3141: FWSO observed from Takoma to NOMA sounding horn when exiting turn and Silver Spring, static doors. 3141: FWSO observed from Takoma to NOMA sounding horn when exprior to opening doors. 3082: FWSO observed from NOMA-Galludet to sounding horn when exprior to opening doors could not be understoodly as the second pause prior to to Second pause prior to OMATA cars have aut	5 car train with lead ca OMA-Galludet. Operatively a station and a station a station and a station a stat	r 3151 from 0818 to 0 for complied with all annoucements, and 5 so ar 2001 from 0828 to 0 formplied with most rul annoucements, and 5 so ar 3223 from 0852 to 0 formplied with all rules, it ication with interlocking ments, and 5 second ar 4084 from 0916 to 0 formplied with all rules, incluication with interlocking control of 5 second pause prior ar 3141 from 0939 to complied with all rules ar 3082 from 0952 to omplied with all rules ar 3082 from 0952 to omplied with all rules, and 5 second pause prior ar 3141 from 0939 to complied with all rules, and 5 second pause prior ar 3082 from 1098 to omplied with all rules, and 5 second pause prior ar 3082 from 10952 to omplied with all rules, ar 3065 from 1008 to complied with all rules, ation annoucement.	rules, including recond pause 0840 operating es, including second pause second pause is were triggered 0901 operating including ing controllers at pause prior to 0933 operating ding sounding ing sounding sounding sounding including second pause 1001 operating including second pause 1001 operating rules, including second pause icle was poor and 1016 operating including the 5	Recommended	Reinspection?	No



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

all (b) (b)

Agency/Department Information

Increation Date	YYYY	MM	DD	Papart Number	20160224-WMATA-EFN-1					
Inspection Date	on Date 2016 02 23 Report Number 20160224-WM/		24-VV IVIA I A-EI	IA-ELIN-T						
Rail Agency Name	Washington I Authority	Metropolitan A	Area Transit	Rail Agency Department	SMNT	Sub- Departi	Sub- Department ATC			
Rail Agency Department	1	Name		Email	il Office Phone		Mobile Phone			
Contact Information										
Inspection Location Tyson's Corner Station Train Control Room (NO2) (Silver Line)										

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	ATC-PI-OBS					
Inspection Units	1					
Inspection Subunits	2					
Defects (Number)	0					
Recommended Finding	No					
Remedial Action Required	No					
Recommended Reinspection	No					

Activity Summaries

Activity Summaries								_			1			1	T -		
Inspection Activity #	1	Inspe	ection Su	bject	Tysc	n's Corr	ner TCR -	Gro	ound Fault Ins	pection	Activity Code			ATC	PI		OBS
Job Briefing Employee Name/Title	3		7				ccompai		Yes	Out Brief Conducted	Yes	Ti	me	23:00	Outs Shir		Yes
Related Reports						R	elated C	APS	/ Findings								
	Ref Rule				Rule o	ule or SOP			Standard		Other / T	itle			Checklist Reference		
Related Rules, SOPs, Standards, or Other	ATC-1000 Test 1011A TCR Ground Fault Inspection Test Procedure						Same					1	ATC Checklist - Test: ATC 1000 Test 1011A - TCR Ground Fault Inspection and Test		A - TCR		
								-									
Inspection Location	Ma Tra	- 1	Yard	S	tation	осс		ΓA ility	FTA Office	Tunal, Tuna	į.	At-grade Tu		Tunnel	Eleva	ted	N/A
		1			х]		Track Type				X			
					•	T				From			То				
Line(s)	Silve	r Line		Track Num		1 and 2)	Chain Marker and/or Station(s)									
	Head Car Number Nur				Numb	Number of Cars											
Vehicles	N/A						Equipment										
	FWSO Inspection team accompanied WMATA ATC personnel to observe the								Number of Defects			ts	0		0		
Description	mon	thly Te	esting of	Grour	nd Fault I	Detector	's in the	Tyso	n's Corner sta	tion. The	Reco	Recommended Finding?			No		No
,	Grou	ınd Fat	ult Detec	tors v	vere toui	nd to be	operatir	ig pr	operly in the	rrain Control	Rem	Remedial Action Required?			1?		No

Inspector in Charge - Signature	TERRELL A WILLIAMS	Digitally signed by TERRELL A WILLIAMS DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=TERRELL A WILLIAMS Date: 2016.0226 02:52:27-05:00'	Date 2/24/2016
Inspector in Charge – Name	Inspection Team Terrell Williams,	·	





	Room. FWSO observed and verified that they detect and report (alarm) grounds that occur at the TCR per the procedures.	Recommended Reinspection?	No
Remedial Action			



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

all (b) (6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160224-WMATA-AAN-1				
inspection Date	2016	02	24	Report Number					
Rail Agency Name	Washington Authority	Metropolitan /	Area Transit	Rail Agency Department	Track & Structures	Sub- Department Track Inspec		Track Inspection	
Rail Agency Department		Name		Email	Office Phone		Mobile Phone		
Contact Information									
Inspection Location	A-Line – Med	lical Center to	Friendship Hei	ghts – Track 2					

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-RC-OBS	TRK-RWP-OBS	TRK-GEN-OBS			
Inspection Units	1	1	5			
Inspection Subunits	7	1	5			
Defects (Number)	2	1	12			
Recommended Finding	No	No	No			
Remedial Action Required	Yes	Yes	Yes			
Recommended Reinspection	No	No	Yes			

Activity Summaries

OBS	RC	TRK	e	Activity Cod		ation	– Observ	mplian	Rules Co	ject	ection Sub	Insp	1	Inspection Activity #	
No	Outside Shift	1000 – 1430	No Time		Out Brief Conducted	Yes	panied or?	Acco		RWIC	687	ployee¶ ck Unit (ob Briefing Employee Name/Title	
						indings	CAPS /	Rela						Related Reports	
erence	hecklist Refe	CI	le	Other / Tit		Standard		OP	Rule or So	Ţ		•	Ref		
											TRST 1000		Related Rules, SOPs, Standards, or Other		
								Rules	General F		MSRPH			tandards, or Other	
N/A	Elevated	nnel E			Track Type	FTA Office	RTA acility	СС	ion C	Stat	Yard	1ain rack	1		
×		×			mack Type	Ġ			3	Σ		\boxtimes	٥	nspection Location	
	То			rom											
	+15	A2 CM304			A2 CM444+30		hain Mar nd/or Sta		2		Track Numb	ine.	A-Lir	Line(s)	
			1			nent	Equip	of Cars	Number o	<u></u>	r Number	lead Car	He	Vehicles .	
			f Defects	Number o	ack between			منالديد م	2.4.2E mil	dustad		- F)A(CO			
No.				Recomme	ade to re-	quest was r	2. The re	s on Tra	a 4.23 mi hip Height	riends	enter and F	e rvvso edical Ce	Med		
Yes				<u> </u>	ı, specifically	lier inspection	in an ear	identifi	previously	ncern p	area of cor	pect an	insp		
Remedial Action Required? Yes Recommended Reinspection? No					d the ROCC peat-back of ation.	ed the inforr	betweer rrected the r correct	unication RWIC contro	dio commi ed that the roller. The	the rac be note ne cont	monitored . It should b imber by th	e team r ntroller. unit nui	The Con	Description	
=		nspection?	nded Re		peat-back of ation.	e incorrect ed the inforr s of rule 1.78	rrected the r correct uirement	RWIC contro	ed that the roller. The	be note ne cont	. It should b Imber by th	ntroller. unit nui mmunic	Con his u Com	Inspector in Charge - S	

Ins	pector in Charge	- Signature	
a	lexand	ler.nepa@	@dot.gov

Digitally signed by alexander.nepa@dot.gov DN: cn=alexander.nepa@dot.gov Date: 2016.02.28 09:34:22 -05'00'

02/24/2016

Inspector in Charge – Name Alex Nepa Inspection Team Alex Nepa





Remedial Action	passing tr group. Ho roadway committe operation passing R focused ir roadway accurately and an ex The FWSC As per rul Metrorail directed t attached	b and c. From what could be reasonably determined, it appeared the majority of passing trains did sound their horn and slow down when approaching the work group. However, the exact speed could not be determined when trains passed roadway workers in close clearance areas (less than four feet). WMATA - RWP committee should immediately consider performing an analysis of the impact on operations and safety if trains were slowed to an acceptable safe speed while passing Roadway Workers. In addition, FWSO team should consider performing a focused inspection of the actual speed st hat trains operate when they pass roadway workers in areas of concern, distance less than four feet. It is difficult to accurately assess the actual speed of the trains while in the tunnel environment and an extensive follow-up is recommended. The FWSO team noted that the door to Tie Breaker A-8 was not properly secured. As per rule 4.183.1 "Elevators, gates, doors or wayside access points used to access Metrorail Facilities after hours shall not be left unsecured for any reason unless directed to do so by ROCC." The team reported the issue to SMNT via email, and attached WAMTA immediate remedial action taken. 1. FWSO team emailed SMNT to have the door repaired. 2. FWSO team will plan a focused inspection of train speed past roadway workers 2. Inspection Subject Rules Compliance – Roadway Worker Protection Activity Code TRK RWP OBS								OBS				
Inspection Activity # Job Briefing						Totection	Activity Co	ae	IRK	RVVP	OB2			
Employee Name/Title	Employee RWIC Track Unit 687			رح		mpanied ector?	Yes	Out Brief Conducted	No	Time	1000 – 1430	Outside Shift	No	
Related Reports					Relat	ted CAPS /	Findings							
Related Rules, SOPs,	Ref		R	ule or SO)P		Standard		Other / T	itle		Checklist Re	ference	
Standards, or Other	RWPM								·					
									ļ					
	Main Track	Yard	Statio	n 00	cc	RTA Facility	FTA Office		At-grad	e Tu	innel	Elevated	N/A	
Inspection Location					3			Track Type			\boxtimes		×	
		<u>' </u>					<u> </u>		From			То	То	
1:ma/a\	A 4:na	Track	ļ	1		Chain Mai	rker	A2 CM444+30))4+15			
Line(s)	A-Line	Numb	er	2		and/or Sta	ation(s)							
Vehicles	Head Ca	ar Number	No	umber of	Cars	Equip	ment							
	The FWS0) team recei	ved a bri	iefing fro	m Emp	loyee #007	379. The bri	efing was	Number	of Defect	5		1	
•							-	access to the	Recomm	ended Fir	iding?		No	
	,	-	_			_	view of the a the FWSO tea	access guide am during the	Remedia	l Action R	equired?		Yes	
	walk that	there were	a numbe	er of curve	es that	impeded t	he ability to	visually detect						
Description								de adequate sests that when						
	this occur	s, the work	group sh	ould be g	gathere	ed to a poir	nt of safety a	nd a new job-		ended Re	inspection	1?	No	
							ne RWP Com d possibly co	mittee review						
	1	fowl time in				s Guide an	a possibly co	msidei						
Remedial Action	J	O team recor warning tim		that WIV	1ATA's	RWP Comr	nittee revisit	the Access Gui	de for this a	rea to re-e	evaluate th	e curve imp	act on	
											T		T	
Inspection Activity #	3 Ins	pection Sub	ject	General (Observ	ations	,		Activity Co	ode	TRK	GEN	OBS	
Job Briefing Employee	Employee		RWIC	. ,		mpanied	Yes	Out Brief	No	Time	1000 -	Outside	No	
Name/Title	Track Uni	t 687 (🗜	7 C	(ص	Inspe	ector?		Conducted			1430	Shift		
Related Reports					Relat	ted CAPS /	Findings							
Related Rules, SOPs.	Ref	Rule or SOP Standard							Other / T	itle		Checklist Re	ference	





Standards, or Other													
Inspection Location	Main Track	Yard	Statio	on OCC	F	RTA acility	FTA Office	Track Type	At-grade	Tı	unnel	Elevated	N/A
rispection Location								Track Type					×
								F	rom			То	
lima/a\	A-Line	Track		2	CI	hain Mai	ker	A2 CM444+30			A2 CM3	304+15	
Line(s)	A-Lille	Numbe	er	2	aı	nd/or Sta	ation(s)						
		1	ł										
	Head Car	Number	N	lumber of Ca	rs								
Vehicles						Equip	ment						
	General Ol	servations:				<u> </u>			Number of I	efect	:s		12
	1.	Please see	the det	tails below on	the a	bsence o	of third rail c	over boards in	Recommend	led Fi	nding?		No
	l .			dition should				lators Thosa	Remedial Ad	tion F	,	Yes	
								ulators. These nt or cleaning.					
		During the	walk it	was noted th	at 2-3	3 joint ba	rs had at lea	st one loose				1	
					_	•		perform a quick					
				of joint bar bo II. Please note									
Description	1			nem during th				,					
	4.							s identified are	Recommend	ied Re	einspectio	on?	Yes
		•		ick deficiencie I to train mov			d not appear	to create an			•		
	5.			rous areas wi			and standing	water were				1	
		identified o	lue to b	olocked drain	s and	sedimen	t. These area	as included, but					
								mponents and					
				or corrosion c erform maint				ecommended i.					
Remedial Action	The FWSO							ed the maintenan	ce activities.				

General Observations:

Third Rail Cover Boards Missing:

Chain Marker Start	Chain Marker End	Comments
A2 CM 436+50	A2 CM 399+00	Third Rail cover boards are not installed.
A2 CM 397+00	A2 CM 396+00	Third Rail cover boards are not installed
A2 CM 384+60	A2 CM 363+30	Third Rail cover boards are not installed

Insulators Damaged/Sparkling/Missing

Location	Comment
A2 CM 433+00 – A2 CM 432+00	Three Damaged or Missing Insulators
A2 CM 422+50	Insulator is damaged and not supporting third rail
A2 CM 375+10	Insulator is missing
A2 CM 342+00	Damaged Insulators
A2 CM 340+00	Missing Insulators

Form FTA-IR-1 Version date: 12/11/15

te: 12/11/15



A2 CM 341+00	Sparkling Insulator – increased as train moved through
	the area
A2 CM 323+50	Sparkling Insulator – did not observe during train movement. Sparkle was consistent in 3-5 second
	movement. Sparkle was consistent in 5-5 second
	intervals

Loose Bolt/s in Joint Bar

Location	Comment
A2 CM 385+00	One of the four bolts was loose. Track Supervisor called
	the ERT team to come out and tighten the bolt.
A2 CM 376+00	One of the four bolts was loose. Track Supervisor called
	the ERT team to come out and tighten the bolt.

Photos:

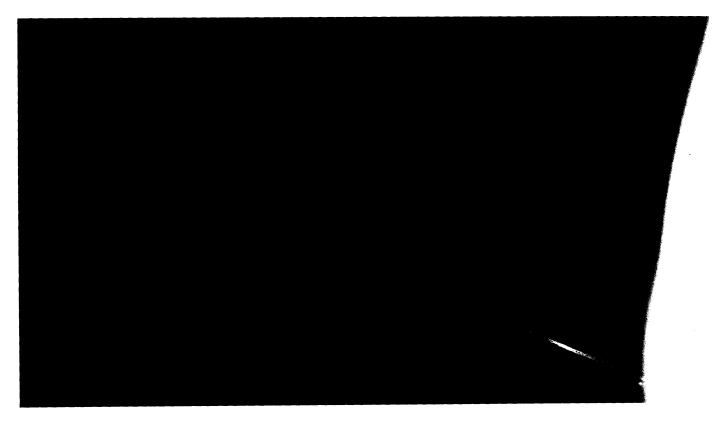


Figure 1 - A2 CM436+50 - start of where the cover boards have not been installed

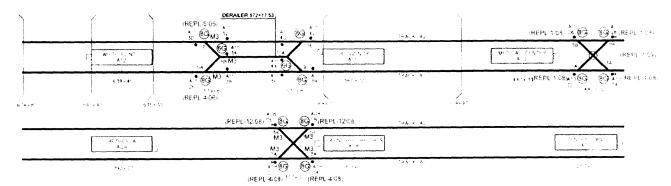




Figure 2 - FWSO Team member on safety walk with train passing



Inspection Map:



Email to SMNT for Repair:

Blog Cates Group, Inc Mail - Tie Breaker A-8 door unsecured

Tie Breaker A-8 door unsecured
2 messages

Thu, Feb 25, 2016 at 8 22 AM

During our walk yesterday we noted that the door to Tie Breaker A-8 is not properly secured A metal
bracket on the fixed door is hanging that obstructs the door from closing
I will be noting this on the inspection report I am not sure if you get this or TASS but I figured I would go to you

Thanks.

Thu, Feb 25, 2016 at 8 36 AM

To In Cc

Please have a Locksmith respond to Friendship Hgts. Tie Breaker station, to repair an issue with the door brace that is impeding the closing of the substation door. Handle this as an emergency request, please

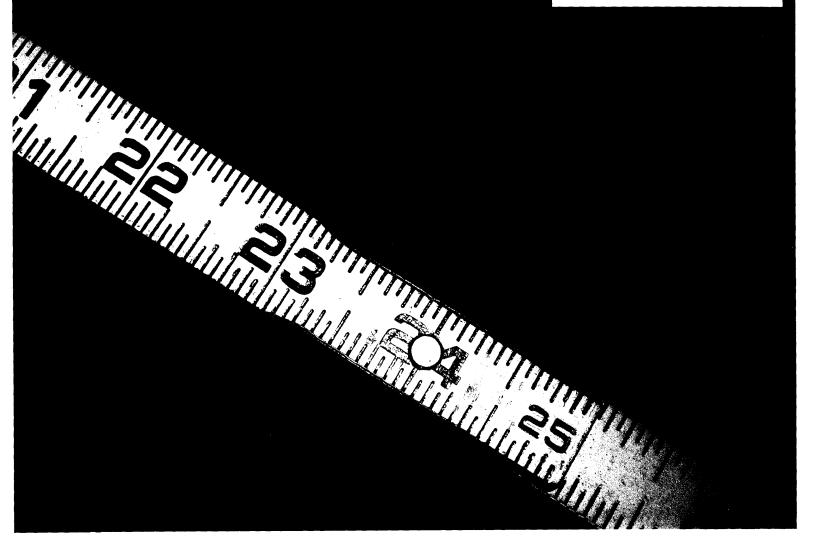
Let me know when it's resolved.

2/25/16, & 49 AM

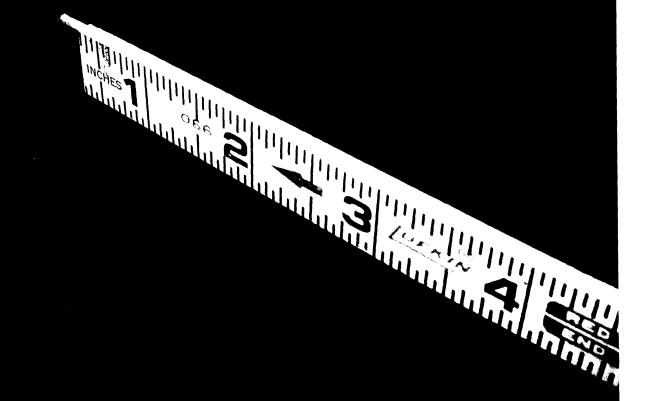
1 of 1

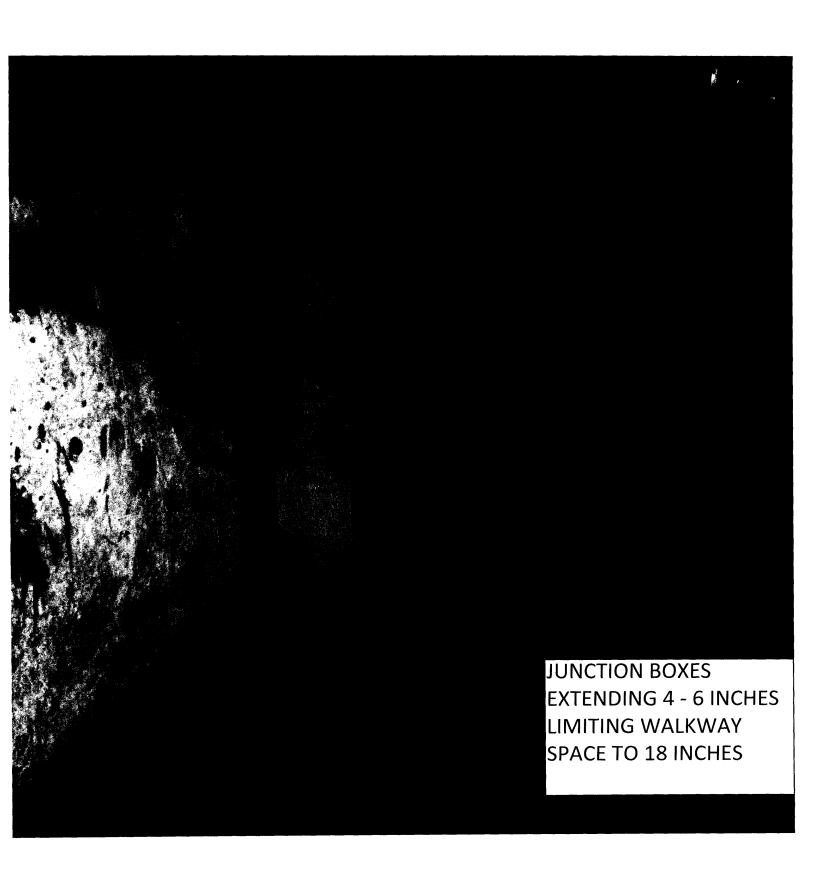
OVERALL VIEW OF THE WALKWAY

TOTAL WITH OF WALKWAY



CONDUIT MEASUREMENT







Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

all (b) (b)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Danast Number	20160224 MANAATA INAC 1					
	2016	02	24	Report Number	20160224-WMATA-JMC-1					
Rail Agency Name	Washington Authority	Metropolita	n Area Transit	Rail Agency Department	Rail Transportation	Sub- Department	Rail Operations Control Center			
Rail Agency Department	1	Name		Email	Office Ph	one	Mobile Phone			
Contact Information			علمان الم							
Inspection Location	Carmen Tur	ner Facility – I	Rail Operations	Control Center – 3500 F	Pennsy Drive, Hyatts	ville, MD 20785	Name of			

Inspection Summary

Inspection Activity#	1	. 2	3	4	5	6	7	8
Activity Code	ROCC- GEN-MTG	ROCC-RAD- OBS	ROCC-ST-OBS					
Inspection Units	1	1	1					
Inspection Subunits	3	4	1					
Defects (Number)	0	2	0					
Recommended Finding	No	No	No	····				
Remedial Action Required?	No	No	No					
Recommend Reinspection	No	Yes	No	·····				

Individual Inspection Activity

Inspection Activity #	1	Inspe	ction S	ubject	Gener	al Me	eting					Activi Code	-	ROCC	GEN	МТ
Job Briefing Employee Name/Title	N/A						ccompanie spector?	d N	i/A	Out Brief Conducted	Yes	Time	1	00- .00	Outside Shift	Yes
Related Reports						Re	lated CAPS	5 / Findi	ngs			<u> </u>				
	Ref			ı	Rule or S	OP		Stand	ard		Other/Ti	tle		Check	ist Refere	nce
Related Rules, SOPs, Standards, or Other	N/A															
Inspection Location	Maii Trac	1	Yard	Stat	ion	осс	RTA Facility		-TA ffice	Track Type	At-gr	ade	Tunne	l Ele	vated	N/A
mspection Location						X				i ilack type				ļ		Х
											From				То	
Line(s)				Track			Chain M	larkar								
rine(s)				Numbei			Chamit	iainei								
Vehicles	Hea	d Car I	Numbe	r l	Number	of Car		ipment								
	FWSO	met v	with Me	tro Polic	e Officer		Director	Office	f Emer	gency	Numb	er of De	efects			0
	Mana	gemer	nte		and Fire/	Life Sa	fety Officer			Discussions	Recor	nmende	ed Findir	ng?		No
Description										initial event revealed that	Actio	n Requi	red?		 	No
				_			en markers		_	ireveared that		nmend	Reinspe	ction?		No
Remedial Action	N/A															
Inspector in Charge - S	ignatur	-	Jan	nes	Cas	ssa	tt, Jr	Dr c=	v: cn=Jame US	ed by James Cassatt, J es Cassatt, Jr, o=FRA, o 2.25 17:10:11 -05'00'		imes.cassatt(@dot.gov,	Date Februa	ry 24, 20	16
Inspector in Charge – Jim Cassatt	Name		Inspect Jim Cas	ion Tear satt	n											





Inspection Activity#	2	Ins	ection :	Subject	Rad	lio Pro	otocol	in Emerg	genc	су				Activ Code			ROCC	RAD	OBS
Job Briefing Employee Name/Title	N/A							ompanie ector?	d	N/A	Out Brief Conducted	ı Y	es	Time		.800- 2200		itside Shift	YES
Related Reports							Rela	ted CAP	S/F	Findings									
	Ref				Rule	r SOP			St	andard		Othe	r/Tit	le		С	hecklis	t Refere	nce
Related Rules, SOPs, Standards, or Other	MSR	PH			1.69-1	1.84													
Standards, or other	MSR	PH			3.6														
	Ma		Yard	Tsı	ation	OC		RTA		FTA			At-gra	ıde	Tuni	nel	Eleva	ted	N/A
Inspection Location	Tra	ck						Facilit	У	Office	Track Type	- 1							
				1		х	: [- [[İ			ĺ	ĺ	X
									1			From			\neg		<u> </u>	 .o	
				*l.			-						<u> </u>						
Line(s)	Red	Line		Track Numl			- 1	Chain N	/lark	ker	ļ			_	+	_			
							- }								+				
	Но	ad Ca	r Numb	er	Numb	er of	Cars	т-							J				
Vehicles	116	au ca	1 INGITIO	-	- Turne			Equ	iipn	nent									
	EVAC	0-6-	d D	ad Lina	Doil Trof	fio Co.	ntrolle	are during	7.25	omorgona	fire situation		b.		efects				2
	at Te	enlevi	town. Th	ea Line e RTCs	made pr	oper r	adio a	announce	eme	nts betweer	n 6:20-7:20 p.	m ├─			led Fin				No
	rega	rding	theeme	ergency	situation	n and i	instru	cted Trai	n Op	perators to l	keep radio	<u> </u>			tion R	_ <u> </u>			
Description									a in (Operator di	d transmit	K	emed	iiai Ac	tion K	quire	ear	-	No
	unne	ecess	ary com	nunicai	10115 a t a	irouria	10.55	p.111.						mane	l Reins	nacti	nn?		Yes
								thesda a	sins	structed by t	the RTC. The	"	econ	menc	i ive ii is	pecui	J111:		163
	_	was	stopped	at Frie	ndship H	leights	i												
Remedial Action	N/A									_									
Inspection Activity#	3	Ins	pection	Subjec	t Shi	ft Trar	nsfers							Acti	•		ROCC	ST	OBS
Job Briefing	-	Ь									T	T			T				<u> </u>
Employee	N/A							ompanie ector?	d	N/A	Out Brief Conducted	, Y	'es	Time	•	1800 2200	1	utside Shift	YES
Name/Title									_1		-				_1_				<u> </u>
Related Reports						l		ted CAP	<u> </u>	Findings	l					Т,	N 1.11	4 D - f	
Related Rules, SOPs,	Ref				Rule	or SOP	· 		St	tandard		Othe	r/Tit	ie		+	hecklis	кетет	ence
Standards, or Other	ļ				<u> </u>				-			<u></u>				╁			
	├		τ		<u> </u>				L		1	$oldsymbol{oldsymbol{eta}}$					т—		
1	Ma Tra		Yard	ı s	tation	oc	cc	RTA Facilit	V	FTA Office		- 1	At-gr	ade	Tun	nel	Eleva	ted	N/A
Inspection Location				_		\vdash	\neg		<u>, </u>		Track Type	'							
				- }		'	×												X
				Γ								Fron	n					То	
1				Track	ζ.			Chain I	Mar	kar									
Line(s)	Red	Line		Num	ber]	}	Cildiii	viai	Kei									
				l .															
				1															
	He	ad Ca	ar Numb	er	Num	ber of	Cars				1								
Vehicles	He	ad Ca	ar Numb	er	Num	ber of	Cars		uipr	ment									
Vehicles	He	ad Ca	ar Numb	er	Num	ber of	Cars		uipr	ment									
Vehicles								Eq	-		ontrollerson	the I	Numh	er of l)efect			T	0
Vehicles	FWS Red	50 ob Line	served t . The ver	he tran	sfer of ti	ne sea	ondto	Eq thirdsh	ift R	Rail Traffic C	ontrollers on rmation				Defect		 ?		0 No
Vehicles Description	FWS Red	50 ob Line	served t	he tran	sfer of ti	ne sea	ondto	Eq thirdsh	ift R		ontrollers on mation	<u> </u>	Recor	nmen	Defect ded Fir	nding			





Remedial Action



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

ale (b)(6)

Agency/Department Information

Increation Date	YYYY	MM	DD	Donort Number	20160224	NA/RAATA AD 1	
Inspection Date	2016	02	24	Report Number	20160224-	WMATA-AD-1	
Rail Agency Name	Washington Authority	Metropolitan	Area Transit	Rail Agency Department	Rail Operations	Sub- Department	
tail Acong. Donortmont	· P	Name		Email	Office Ph	one	Mobile Phone
Rail Agency Department Contact Information					(11)		3
Inspection Location	Green Line, T	rain ID 205, V	Vest Hyattsville	e, Track 2			

Inspection Summary

Inspection Activity #	1	2	3	4	5	6	7	8
Activity Code	ROCC- ACCESS- REF							
Inspection Units	1							
Inspection Subunits	1							
Defects (Number)	1							
Recommended Finding	No							
Remedial Action Required?	Yes							
Recommend Reinspection	No							

Individual Inspection Activity

Inspection Activity #	1	Insp	ection S	ubject	Re	efusal o	f Acce	ss					Activity Code	'	RTTO	ACCESS	REF
Job Briefing Employee Name/Title	N/A				•			mpanied ector?	į	No	Out Brief Conducte d	No	Time		1425	Outside Shift	No
Related Reports	N/A						Rela	ted CAPS	s / Fi	indings	N/A						
	Ref				Rule	or SOP			Sta	andard		Other / T	itle		Che	ecklist Refere	nce
Related Rules, SOPs, Standards, or Other	Safety	/ Dire	ctive 16-	1													
otaniaaras, or other	49 U.S	S.C. 5	329														
	Mai Trac		Yard	St	tation	00	cc	RTA Facility	,	FTA Office	Track	At-gr	ade	Tunn	el	Elevated	N/A
Inspection Location	х										Туре	×					
Line(s)	Green	1		Track Numb		N/A		Chain N	/lark	er		From	•			То	
No. I. Calabara	Hea	d Car	r Numbe	r	Nun	nber of	Cars	Ear	ipm	ont		***					
Vehicles		30	74			6		Equ	ıı pını	ient							
	On Fe	brua	ry 24, 20	16 at a	pproxir	mately	2:25 P	M, a Gre	en li	ine train bo	und to	Numbe	r of Defe	cts		-	
Description	Branc	h Ave	enue ent	ered W	est Hya	attsville train or	e statio	on. The le	ead o	car #3074, : roximately	stopped	Recomi	mended F	inding	?	N	0
	beyor	iu the	e & Car	шагке	i. ine t	ıı airi Oļ	rerato	waited	appi	UNITIALETY) seculius	Remed	ial Action	Requir	ed?	Y	es

Inspector in Charge - Signature AMBU	RIDALEY Digitally signed by AMBUR I DALEY DN: c=US, Government, ou=DOT Headquarters, ou=FMCSAHQ, cn=AMBUR I DALEY Date: 2016.02.25 17:11:112-0500*	Date February 24, 2016
Inspector in Charge – Name Ambur Daley	Inspection Team Ambur Daley,	





au (6) (6)

	before opening the train doors. At this time, the FWSO Inspector presented her official FTA Inspector Badge and credentials to the train operator and informed the operator that she would like to ride in the cab of the train. The train operator indicated that this was not possible, and the FWSO inspector asked the train operator to seek permission with the ROCC. The train operator proceded with the scheduled route.		
	At Fort Totten, the Train Operator opened the cab door and permitted access. Upon entering the cab, FWSO noted a beverage stored on the control panel.		
	At or around arrival at Georgia Avenue/Petworth, the FWSO inspector was informed by the operator that she was to call the ROCC. The FWSO inspector thanked the train operator and left the train at the U-Street Station.		
	The FWSO inspector called the ROCC from the U-Street platform and spoke to who asked "who the FWSO inspector was" and "what they were doing on the train." The FWSO inspector identified herself and told the that she and her contractor were onboard conducting cab ride inspections. The informed the FWSO inspector that her presence was an interference at Fort Totten Station, at which location there had been a smoke incident. The FWSO inspector informed the that she had not been made aware of an emergency situation, and that she had boarded the train and entered the cab after displaying her credentials, that she had noted some deficiencies, and that she was not made aware of any emergency situation.	Recommend Reinspection?	No
	Additionally, the FWSO inspector informed the had entered the cab at or after Fort Totten. The FWSO inspector told the had entered the cab at or after Fort Totten. The FWSO Director and that one of them would respond back to the ROCC. The FWSO inspector relayed the situation to the FWSO Director, who responded back to the		
Remedial Action	WMATA must issue (or re-issue) a system-wide bulletin regarding the inspection personnel with "free and uninterrupted access to transit official duties as specified in U.S.C Title 49, by direction of the Secre receiving this report. Further, the employee denying such access to also within 24 hours, and evidence of such re-instruction must be p	agency properties in the p stary of Transportation" wit an FWSO Inspector must b	erformance of thin 24 hours of e re-instructed,



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

Agency/Department	Informa	ation														
		YYYY	ı	MM	DI		Dan aut No		201	<u> </u>	224.14	B 4 A T /	N A I / E	` 1		
Inspection Date		2016		02	24	1	Report Nu	mper	201	604	224-W	IVIA I A	A-IVIKL)-T		
Rail Agency Name	1	Washingto Authority	n Metro	ppolitan	Area Tran		Rail Agency Department		Track Struct			Sub- De	partmer	nt	Track In	spection
Rail Agency Departmer	it		Name	!			Email			0	ffice Pho	ne		Мо	bile Pho	ne
Contact Information								•			حب					
Inspection Location		Alexandria	Yard -	TRST HC)	æ	(b)	(b))							
Inspection Summary																
Inspection Activity #			1		2		3				4		5			6
Activity Code		TRK-0	SEN-RR		TRK-GE	N-RR										
Inspection Units			1		1											
Inspection Subunits		ļ	9		1											
Defects (Number)			0	_ -	0											
Recommended Finding		 	No		No					_		-				
Remedial Action Requi		 	No		No							+				
Recommended Reinspo	ection		No		No		L									
Activity Summaries																
Inspection Activity #	1	Inspection	Subject	Rec	ords Revie	ew					Activity Co	ode	TF	RK	GEN	RF
Job Briefing Employee Name/Title						companionector?	ed		ut Brief Inducted		Yes	Time	100 12	30 C	Outside Shift	N
Related Reports					Re	lated CAI	PS / Findings	+								
	Ref			Rule o	or SOP		Standard			Otł	ner / Title			Checklis	t Refere	ence
Related Rules, SOPs,	TRST 1	000		Rev.6	– Sections	11.3,5										
Standards, or Other																
Increasion Location	Main Track	l Varo	I Si	tation	осс	RTA Facili	l l	2	ack Type		At-gra	ade	Tunne	l Eleva	eted	N/A
Inspection Location						х										
					}					F	rom				То	
Line(s)	D		Track		1		Marker	00	39+52				021	1+46		
Line(3)			Num	ber	-	and/o	r Station(s)									
			L			1										
Vehicles _	Head	l Car Numb	er	Numl	ber of Car		quipment									
	FWSO	conducted	a record	ds inspe	ction of th	e D Line	in preparatio	n for a	「GV car		Numbe	r of Defe	cts			0
	observ	ation ride t	o be he	ld at 003	30 on 02/2	25/2016.	The TGV will er with the to	be ope	ration on		Recomm	mended	Finding?)		No
	from F	. from Wes ederal Tria	t Falls Ci ngle –D(nurch Ya 01 to Fe	deral Cent	erai Ceiii :er – D04	er with the ti . This testing	is bein	micential 3	Eu	Remedi	al Action	n Requir	ed?	<u> </u>	No
Description	condu	cted as a fo	llow-up area this	to track past we	k maintena eekend. T	nce wor	k that was pe Track Walker	rforme	d within t	he ed	Recomr	mended	Reinspe	ction?		No
Inspector in Charge - S	ignature	NAF	DF	ΝΙΙΔ	N DA	SHI	Dig DN:	c=US, o=L		A DAS ent, ou	HIELL u=DOT Heado	quarters, ou	=FRAHQ,	Date		
		1711	1/1	INIC	ヽレハ	பப	L cn=	MEDENIA I	JASHIELL					1 .	/2016	

Form FTA-IR-1 Version date: 1/19/16

Medenia K. Dashiell





Remedial Action	Cont	inue p	periodic i	nspect	ions as v	warra	nted.											
Inspection Activity #	2	Insp	pection S	ubject	Rec	ords f	Review	,				Activity Co	ode	TI	RK	GEN	R	RR
Job Briefing Employee Name/Title							1	mpanie ector?	:d		Out Brief Conducted	Yes	Time	- 1	00- 30	Outside Shift	e N	No
Related Reports							Reia	ted CAP	s/	Findings								
	Ref				Rule o	r SOP			S	tandard		Other / Title			Chec	klist Refe	rence	
Related Rules, SOPs, Standards, or Other	TRST	1000)		Rev.6	– Sec	tions 1	1.3,5										
Standards, or other																		
	Ma Tra	1	Yard	S	tation	00	cc	RTA Facilit		FTA Office	Track Type	At-gra	de	Tunne	i Ei	levated	N/A	4
Inspection Location		1				[3	x			mack Type							
												From				То		
Line(s)	D			Track		1	1	Chain I			33+52			83+5	52			
rine(s)				Numi	ber	1	1	and/o	r Sta	ation(s)								
Maktalaa	He	ad Ca	r Numbe	r	Numl	ber of	Cars		i.	ment								
Vehicles	l								uipi	iiieiii								
										eparation fo		Number	of Defe	ts			0	
								•			operation on g concentrate	NELUIIII	nended F	inding?			No	
										is testing is b		Remedia	al Action	Requir	ed?		No	
Description	cond	lucted ement	as a foll	ow-up ea this	to track past we	main	itenan	ce work	tha	at was perform IST Defect Re	med within th	Recomm	nended F	te-inspe	ection?	,	No	
											<u>·</u>		·					
Remedial Action	Cont	inue r	periodic i	inspect	ions as	warra	nted.											



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

all (b)(id)

Agency/Department Information

Increation Date	YYYY	MM	DD	Report Number	2016023	24-WMATA-EFI	N 2	
Inspection Date	2016	02	24	Report Number	2010022	24-44 IVIA I A-LFI	N-Z	
Rail Agency Name	Washington I Authority	Metropolitan ,	Area Transit	Rail Agency Department	SMNT	Sub- Departm	ent	ATC
Rail Agency Department	1	Name		Email	Offi	ce Phone		Mobile Phone
Contact Information								
Inspection Location	Tyson's Corne	er Station Trai	n Control Roor	n (NO2) (Silver Line)				

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	ATC-PI-OBS					
Inspection Units	1					
Inspection Subunits	1					
Defects (Number)	0					
Recommended Finding	No					
Remedial Action Required	No					
Recommended Reinspection	No					

Inspection Activity #	Ins	pection Subj	act '	n's Corne over Test		ATC Open Doo	r Command	Activity (Code	ATC	PI	OBS
Job Briefing Employee Name/Title		5	Area		companie spector?	d Yes	Out Brief Conducted	Yes	Time	01:30 - 02:40	Outside	Yes
Related Reports				Re	lated CAP	S / Findings						
	Ref		Rule o	SOP		Standard		Other / Title	<u> </u>		Checklist Refe	ence
Related Rules, SOPs, Standards, or Other	-Alstom/	or Command Fest	4			Same				-	ATC Checklist Test 1012B-4 - AFTC Open Do Command Spil	-Alstom/GRS or
	Main Track	Yard	Station	осс	RTA Facilit	FTA y Office	Track Type	At-g	rade	Tunnel	Elevated	N/A
Inspection Location	Х		х				Track Type		ם ב		×	
								From			То	
Line(s)	Silver Line		ack umber	2	Chain I	Marker Station(s)						
	Head C	ar Number	Numb	er of Car		•					•	
Vehicles		N/A			Eq	uipment						
	FWSO Ins	spection tear	n accompan	ied WMA	ATA ATC pe	ersonnel to ob	serve testing th	at Numb	er of Defe	ects		0
Description	verifies t	nat the static	n track circu	iit will all	ow proper	cab signal str	ength when a		mended	Finding?		No

Inspector in Charge - Signature	TERRELL A WILLIAMS	Digitally signed by TERRELL A WILLIAMS DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ cn=TERRELL A WILLIAMS Date: 2016.02.26 07:50:51 -05'00'	Date 2/24/2016
Inspector in Charge – Name	Inspection Team Terrell Williams		





	train is properly berthed within the limits of the platform by simulating both a	Remedial Action Required?	No
	station overrun and station underrun (short stop) and testing to ensure that the cab signal strength is insufficient to give a door open command.	Recommended Reinspection?	No
Remedial Action	N/A		



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

Agency/Department Information

In an action Date	YYYY	MM	DD	Report Number	201602024-WMATA-SAS-1					
Inspection Date	2016	02	24	Report Number	201002024-WWATA-3A3-1					
Rail Agency Name	Washington I Authority	Metropolitan A	Area Transit	Rail Agency Department	RTRA	Sub- Depa	rtment			
Rail Agency Department	1	Name		Email	Offic	ce Phone		Mobile Phone		
Contact Information										
Inspection Location	Blue, Orange	and Silver Line	es			_				

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	RTRA-RI-OBS	RTRA-RI-OBS				
Inspection Units	10	76				
Inspection Subunits	10	76				
Defects (Number)	3	15				
Recommended Finding	No	No				
Remedial Action Required	No	No				
Recommended Reinspection	No	No	,			

Activity Summaries

Inspection Activity #	1	Inspe	ection Subj	ject	Obser	rvation o	f Pre-Trip Ins	spections		Activity C	ode	RTR	Α	RI	OBS			
Job Briefing Employee Name/Title	N/A						ompanied ector?	No	Out Brief Conducted	No	Time	1400 183		tside hift	No			
Related Reports	N/A					Related CAPS / Findings N/A												
	Ref				Rule o	r SOP		Standard		Other /	Γitle		Checkl	st Refe	rence			
Related Rules, SOPs, Standards, or Other	N/A				1.14, 1 1.46-1 MSRPH SR 4.3 SR 4.2 MSRPH 3.29, 3 3.119, 3.121. 3.167, MSRPH #12, #	3, SR 4.3: 27; H Operat 3.83, 3.84 3.120, 3 1, 3.79.1 3.168; H SOPs #	3, 1.19, -1.84; Rules 4.32, 8, SR 4.54, ing Rules 1, 3.87, .121, , 3.141,	N/A		N/A			N/A					
	Ma Tra	1	Yard	Sta	tion	осс	RTA Facility	FTA Office	Tunali Tuna	At-gr	ade	Tunnel	Elevat	ed	N/A			
Inspection Location	,	(Track Type	×		х	x					
Line(s)	Orange,			Chain Marker			From			То								
	Blue	and	Track Numb		N/A		and/or St		N/A			N/A						
Inspector in Charge - S	Signatu	re											Date					

STEPHEN A SLAUGHTER

Discuss, Government, un-DOT Headquarters, ou-OSTHQ, cn-STEPHEN A SLAUGHTER

Discuss, Government, un-DOT Headquarters, ou-OSTHQ, cn-STEPHEN A SLAUGHTER

Discuss, Government, ou-DOT Headquarters, ou-OSTHQ, cn-STEPHEN A SLAUGHTER

Discussion, Government, ou-DOT Headquarters, ou-OSTHQ, cn-STEPHEN A SLAUGHTER

Discussion, Government, ou-DOT Headquarters, ou-OSTHQ, cn-STEPHEN A SLAUGHTER

Discussion, Government, ou-DOT Headquarters, ou-OSTHQ, cn-STEPHEN A SLAUGHTER

Discussion, Government, ou-DOT Headquarters, ou-OSTHQ, cn-STEPHEN A SLAUGHTER

Discussion, Government, Gover

2/24/2016

Inspector in Charge - Name Stephen Slaughter

Inspection Team Stephen Slaughter, Tim Braxton,





Vakiela.	Head Car Number	Number of Cars	Equipment	N/A		
Vehicles	See Description	N/A	Equipment	N/A		
	1	ain Ride Observations. T			Number of Defects	3
		· -			Recommended Finding?	No No
		to ride with her in the ca	•	-	Remedial Action Required?	No
Description	FWSO conducted 10 Tri took place from 1410 to ride included providing receiving authorization for duty, PPE, complian adherance, and radio p monitor ride quality, us announcements. FWSO any workers on the right Lead Car 3123: FWSO of operating from L'Enfan with MSRPH and applice entering tunnel portals opening doors in statio flashlight and RWP Leve distracting items in the Lead Car 6075: FWSO of operating from Foggy E with MSRPH and applice entering tunnel portals opening doors in statio possession of reliable w material or other poter Lead Car 2007: FWSO of operating from Court H MSRPH and applicable tunnel portals, station in stations with head of watch, flashlight and R potentially distracting if Lead Car 3038: FWSO of operating from Ballston prior to opening doors possession of reliable w and no visible reading if Lead Car 5181: FWSO of operating from East Facomplied with MSRPH pause prior to opening was in possession of re phone stowed and no rin the cab. Lead Car 4083: FWSO of operating from Vienna complied with MSRPH pause prior to opening was in possession of re phone stowed and no rin the cab.	sin Ride Observations. The part of the property of the propert	ne, Blue Line and Sil Deprator and reques by to assess Train Compolicy, train speed mber as rode behing thing and door open spassing through inspections are belower as a possession of relia eading material or open and 5 second pause a possession of relia eading material or open and 5 second pause open and 5 second	ver Lines. One sting and operator fitness, signal defeator fitness, signal defeator, and a work zone or ow. It to 1430 defeally complied diting and exprior to ble watch, other potentially to 1440 defailing and exprior to or was in sible reading doors was in sible reading doors so or other defeator was in complied with and entering opening doors so or other door was in current sticker, as in the cab. It o 1505 defeator was in current sticker, as in the cab. It o 1545 defeator was in current sticker, as in the cab. It o 1545 defeator was in current sticker, and 5 second defeator	Recommended Finding?	No
	reading material or oth Lead Car 2072: FWSO operating from Virgon complied with MSRPH pause prior to opening was in possession of re	eliable watch, flashlight a ner potentially distracting observed train with lead oa Square-GMU to Court and applicable SOPs, sta doors in stations with he eliable watch, flashlight a ner potentially distracting observed train with lead	g items in the cab. car 2072 from 1620 House. Operator g tion annoucements ead out the window nd RWP Level 2 car g items in the cab. car 2019 from 1630	o to 1622 generally g, and 5 second w. Train Operator d, and no visible		



		. — — — — — — — — — — — — — — — — — — —	
	complied with MSRPH and applicable SOPs, station annoucements, and 5 second pause prior to opening doors in stations with head out the window. Train Operator was in possession of reliable watch, flashlight and RWP Level 2 card, and no visible reading material or other potentially distracting items in the cab.		
	Lead Car 3239: FSWO observed train with lead car 3239 from McPhearson Equare to Stadium-Amory. The train operator over ran the "8 car" marker, and twice opened the train doors prior to the 5 second delay.		
	care 6081: FSWO observed train with lead care 6081 from 1505 to 1528 operating from New Carrollton to Capitol South. FSWO Inspector presented his official FTA Inspector Badge and credentials to the train operator and informed the operator that he would like to ride in the cab of the train. The FSWO Inspector then entered the train and stood near the cab door. The train operator informed the FSWO Inspector that she would contact "Central" to get permission for the Inspector to ride in the cab. Informed the operator that the FSWO Inspector could only enter the cab if he was escorted by a supervisor. At the Landover Inspector that she would contact the to get the request approved. The land advised the FSWO Inspector could only enter the cab if she escorted him. The land this provides the land the standard of the cab at one time would create a safety hazard. The language of the cab door.	Oce (b)(6)	
Remedial Action	N/A		

Inspection Activity #	2	Inspe	ction Sub	ject	Door	Operatio	ns/ Stat	tion S	Servicing Pro	cedures	Activity Co	Activity Code RTRA				OBS
Job Briefing Employee Name/Title	N/A					1	mpanie ector?	ed	No	Out Brief Conducted	No	Time	1415 1830	- 1	Outside Shift	No
Related Reports	N/A					Rela	Related CAPS / Findings N/A									
	Ref				Rule	or SOP	OP Standard			Other / Title				Checklist Reference		
Related Rules, SOPs, Standards, or Other	N/A	N/A			MSRPH N/A				N/A			N/	N/A			
Inspection Location	Mai Trac		Yard	Sta	tion	осс	RT/ Facil	-	FTA Office	Track Type	At-gra	ide	Tunnel	Ele	evated	N/A
Inspection Location	x									,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	x		X		х	
Line(s)			T1		T		Chair		rkor		From				То	
	Orange Track N/A Number N/A			\	Chain Marker and/or Station(s) N/A					N/A						
Vehicles	He	ad Car I	Number			er of Cars		quip	ment	N/A						
	FWS	O cond	ucted 76	Door (Operat	ions/ Stat	ion Ser	vicing	g Procedures	 }	Number	of Defe	cts			15
	The f	followir	ng 19 trai	ns we	re obse	rved at C	apitol S	outh	station, tra	ck # 2, with no	Recomm	nended I	inding?			No
	discr	epancie	es observ	ed: Le	ead car	6032, @	1532, d	estin	ation Wiehl	e-Reston;	Remedia	al Action	Required	1?	_	No
Description	Lead Lead Lead Lead Lead Lead Lead Lead	Lead car 3112 @ 1535, destination Franconia-Springfield; Lead car 7082 @ 1537, destination Vienna; Lead car 3060 @ 1541, destination Franconia-Springfield; Lead car 4046 @ 1543, destination Vienna; Lead car 6139 @1545, destination Wiehle-Reston; Lead car 3182 @1549, destination Vienna; Lesd car 2010 @1552, destination Wiehle-Reston;										No				



Lead car 6145 @1608, destination Wiehle-Reston; Lead car 3055 @1611, destination Vienna; Lead car 2028 @ 1612, destination Wiehle-Reston; Lead car 5158 @ 1539, destination Wiehle-Reston over shot the "8 Car" marker by approximately 18 inches. The following 17 trains were observed at Federal Center SW, track #2, with no discrepancies observed: Lead car 2045 @1727; Lead car 5181 @1729, destination Vienna; Lead car 3285 @1731, Franconia-Springfield; Lead car 3033 @1733, destination Vienna; Lead car 5015 @ 1736, destination Wiehle-Reston; Lead car 3006 @1738, destination Vienna; Lead car 6081 @1740, destination Vienna; Lead car 5074 @1742, Wiehle-Reston; Lead car 3198 @1746, destination Franconia-Springfield; Lead car 5094 @1753, destination Vienna; Lead car 3132 @1755, destination Wiehle-Reston; Lead car 7082 @1757, destination Vienna Lead car 3266 @1800, destination Wiehle-Reston; Lead car 4046 @1802, destination Vienna Lead car 6110 @1805, Franconia-Springfield; Lead car 3001 @1807, destination Wiehle-Reston; Lead car 3182 @1810, destination Vienna; The following 14 trains were observed at Federal Center SW, track #1, with no discrepancies observed: Lead car 3138, destination Lead car 3219, destination, Silver line to Largo; Lead car 5010, destination, New Carrollton; Lead car 3234, destination, Blue line to Largo; Lead car 3094, destination, Silver line to Largo; Lead car 3287, destination, New Carrollton; Lead car 3155, destination, Silver line to Largo; Lead car 3157, destination, New Carrollton; Lead car 3153, destination, Blue line to Largo; Lead car 6006, destination, Silver line to Largo; Lead car 5099, destination, New Carrollton; Lead car 5173, destination, New Carrollton; Lead car 3272, destination, Blue line to Largo; Lead car 2070, destination, New Carrolton The following 7 trains were observed at Farragut West, track 2 with no discrepancies observed: Lead car 6075, destination Wiehle-Reston; Lead car 2007, destination Vienna; Lead car 3038, destination Wiehle-Reston; Lead car 6020, destination Vienna; Lead car 5146, Franconia-Springfield; Lead car 3096, destination Wiehle-Reston; Lead car 3198 The following 4 trains were observed at Farragut West, track 2 and failed to comply to the 5 second dwell time in the station before opening the train doors: Lead car 6168, destination, Franconia-Springfield; Lead car 2053, destination, Franconia-Springfield; Lead car 3572, destination destination Vienna; Lead car 3285, destination destination Wiehle-Reston; The following 4 trains were observed at Farragut West, track 1, with no discrepancies observed: Lead car 6058, destination Lead car 6162, destination, Silver line to Largo; Lead car 3279, destination, Silver line to Largo; Lead car 6035, destination, New Carrollton; The following 11 trains were observed at Farragut West, track 1 and failed to comply to the 5 second dwell time in the station before opening the train doors: Lead car 5173. New Carrollton: Lead car 5037, destination, Silver line to Largo; Lead car 3212, Blue line to Largo; Lead car 2070, destination, New Carrollton; Lead car 3135, destination, Silver line to Largo; Lead car 6119, Blue line to Largo; Lead car 4004, destination, New Carrollton;





	Lead car 5043, destination, Silver line to Largo; Lead car 6183, destination, New Carrollton; Lead car 6073, Blue line to Largo; Lead car 3239, destination, New Carrollton;	
Remedial Action	N/A	·



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

all (b) (b)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	201602	20160225-WMATA-TW-1					
inspection Date	2016	02	25	Keport Number	20100223-VVIVIATA-1VV-1						
Rail Agency Name	Washington I Authority	Metropolitan <i>i</i>	Area Transit	Rail Agency Department	RTRA	Sub- Departn	nent				
Rail Agency Department	1	Name		Email	Off	fice Phone	Mobile Phone				
Contact Information	الوادين ا										
Inspection Location	Greenbelt Ra	il Yard 5801 S	unnyside Ave.	College Park, MD 20740							

Inspection Summary

,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
Inspection Activity #	1	2	3	4	5	6
Activity Code	RTRA-RC-OBS	RTRA-RAD-OBS				
Inspection Units	9	11				
Inspection Subunits	9	11				
Defects (Number)	0	3				
Recommended Finding	No	No				
Remedial Action Required	No	No				
Recommended Reinspection	No	No			1	

Activity Summaries

Inspection Activity #	1	Insp	ection S	ubject	Obsei Inspe		of Train Pre	eparation and	Pre-Trip	Activity	Code	RT	RA	RC	OBS
Job Briefing Employee Name/Title	None	!				- 1	ccompanie	d No	Out Brief Conducted	No	Time	133		Outside Shift	No
Related Reports						R	elated CAP	S / Findings	FTA-Rail 1-1	.4-A, FTA-Ra	il 1-14-B				
	Ref				Rule or	SOP		Standard		Other / Tit	le		Checkl	ist Refer	ence
Related Rules, SOPs, Standards, or Other	Prepa Servio	_	Trains for		3.13, 3.3 3.42, 3.4		27, 3.41,								
	Mai Trac		Yard	St	ation	осс	RTA Facilit	FTA y Office	Total Total	At-g	grade	Tunne	l Elev	/ated	N/A
Inspection Location			Х						Track Type		x			-	
		1		_1						From				То	
Line(s)	N/A			Track Numl	Į.	N/A	Chain I	Marker Station(s)	N/A			N/A			
	Hea	ad Ca	r Numbei		Numbe	r of Ca		uipment	N/A						
Vehicles		N	I/A	Ì	N	/A	Edi	apment	N/A						
								rip Inspection	s at the	Numb	er of Def	ects			0
	Gree	nbelt	Rail Yard	for af	ternoon r from the	ush ho Operat	ur pull outs	Station Interlo	ocking Tower ar	Recon	nmended	Finding?) 		0
Description	the Y	ard P	latform.	Team	#2 observ	ed Rai	l Operators	check in and	sign out radios,	Reme	dial Actio	n Requir	ed?		No
	obse	rved!	9 Rail Ope	erators	conduct	Train F	Prep and Pre	e-trip Inspecti verall, all Rail	ons and	ì	nmended	Reinspe	ction?		No

Inspector in Charge - Signature	TERRELL A WILLIAMS	Digitally signed by TERRELL A WILLIAMS DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=TERRELA WILLIAMS Date: 2016.02.26 08:48:22 -05'00'	Date 2/25/2016
Inspector in Charge – Name Terrell Williams	Inspection Team Terrell Williams, Stephen Slaughter	Timothy Braxton	





	2024	luctos	l a curca:		rin incor	otic	. Faa	h operat	0	vas observa	d to conduct								
	exter publi Rail (inspe	rior ar ic add Opera ection	nd interio Iress ann ator on tr	or walk- ouncen ack 10 other Ra	arounds nents. reported all Opera	s, con d a ce tor o	nduct i enter c en trac	rolling te loor light k 14 repo	st ar	nd rolling br t during the	d to conduct ake test and exterior as unaware o								
Remedial Action	None	e																	
Inspection Activity #	2	ins	pection S	Subject	Obs	ervat	ion of	Hand He	eld F	Radio Comm	unications		Activity Co	de	RT	RA	RAD		OBS
Job Briefing Employee Name/Title	None	e						ompanie ector?	d	No	Out Brief Conducted	ı	No	Time)	30- '00	Outside Shift	2	No
Related Reports							Rela	ted CAP	S/I	Findings	FTA-Rail 1-	14-/	A, FTA-Rail :	1-14-B					
	Ref				Rule o	SOP			St	andard		01	ther / Title			Ch	ecklist Refe	rence	2
Related Rules, SOPs, Standards, or Other	MSR	PH			Genera 1.79	al Rul	le 1.78	3 and	-			_		 					
·					<u></u>				L_		<u> </u>	L				L_			
	Ma Tra		Yard	St	ation	00	сс	RTA Facilit		FTA Office			At-gra	de	Tunne	1	Elevated		N/A
Inspection Location				\dashv							Track Type	:				\top			_
]	X				ן						X						
													From				To		
				Track		41/4		Chain F	Mar	ker	N/A				N/A				
Line(s)	N/A			Numl	ber	N/A	`	and/or	Sta	ition(s)									
	He	ead Ca	r Numbe	er	Numb	er of	Cars		•		N1/A								
Vehicles		N	N/A			N/A		Eq	uipr	ment	N/A								
	FWS	O Tea	am #2 ob	served	Train Pr	epara	ation a	and Pre-T	Ггір	Inspections	at the		Number	of Defe	ts			3	3
	Gree	enbelt	t Rail Yar	d. The	Greenbe	elt Ya	rd has	several	radi	io dead-spot ated a work-	s. The train		Recomm	ended F	inding?			N	0
	addı	ress th	hese dea	d-spots	i.								Remedia	Action	Requir	ed?		N	0
	Radi	io ope	erations v	were fo	und to b	e imp	prove	d when c	om	pared to ear	ly morning								
	puii-	-outs. Imuni	cating wi	ispecto ith the I	rs only o Interlock	ing T	veu s 'ower	during th	rs us ris p	se cell phone period.	es wille								
San and a stand	Failu	ure of	WMATA	s radio	operati	ons f	orces	the Trair	Op	perators and	l the		1						
Description			ng Towe Iule 1.79		tor to vi	olate	the N	ASRPH G	ene	ral Rule 1.78	and MSRPH								
	Gen	erarn	ule 1.79										Recomm	nended F	teinspe	ctior	n?	N	0
}	1																		
													<u> </u>						
Remedial Action	Non	ne																	



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

ale (b)(b)

Agency/Department Information

Increation Date	YYYY	MM	DD	Report Number	20160225-WMATA-MKD-1						
Inspection Date	2016	02	25	Keport Number	20100223						
Rail Agency Name	Washington I Authority	Metropolitan	Area Transit	Rail Agency Department	Track & Structures	Sub- Department Track in					
Rail Agency Department	1	Name		Email	Office I	Phone		Mobile Phone			
Contact Information											
Inspection Location	Track Geome	etry Vehicle – I	D Line – Track #	1 from Federal Triangle (D-01) to Federal C	enter (D-04).					

Inspection Summary

,						
Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-TGV-RC	TRK-TGV-PI	TRK-TGV-PI			
Inspection Units	1	1	1			
Inspection Subunits	4	1	1			
Defects (Number)	0	6	1			
Recommended Finding	No	No	No			
Remedial Action Required	No	Yes	Yes			
Recommended Reinspection	No	Yes	Yes			

Activity Summaries

Activity Summaries															
Inspection Activity #	1	Inspecti	on Subje	t Ru	les Coi	mplianc	e			Activity Co	ode	TF	RK	TGV	RC
Job Briefing Employee Name/Title	4		RWIC Le	vel 4		Accon	npanied	Yes	Out Brief Conducted	Yes	Time	000	0 to 30	Outside Shift	Yes
Related Reports						Relate	ed CAPS	/ Findings							
	Ref			Rule	or SOP)		Standard		Other / Title			Che	cklist Refer	ence
Related Rules, SOPs, Standards, or Other	MSRI	PH		3.87.	1,3.12	2, 3.67,									
Standards, or Other				SOP #	‡23.5. <u>5</u>	5.3									
	Ma Tra	··· Y	ard	Station	0	сс	RTA Facility	FTA Office	Tue als True	At-gra	ide	Tunne	I E	Elevated	N/A
Inspection Location	Х		х		[-			Track Type	X	į	x			x
										From				То	
Line(s)	D Lin	e	Trac Nur	k nber	1		Chain N and/or	larker Station(s)	D1 CM33+0	10		D1 C	M 84	+00	
Vehicles	Hea	ad Car Nu	mber	Num	ber of	f Cars	Equ	ipment							
	E\A/S	O team	monito	red th	e Tra	rk Ger	metr	/ Vehicle cre	w and thei	r Number	of Defe	cts			0
	1	pliance						,		Recomn	nended F	inding?			No
Description							ing or	entering tu	nnels	Remedia	al Action	Require	ed?		No
		22 – sou normal	_			n short	blast	s when oper	ated again	Recomn	nended I	Reinspe	ction?		No

Inspector in Charge - Signature	MEDENIA DASHIELL	Digitally signed by MEDENIA DASHIELL DN: C=US, o=U.S. Government, ou=DOT Headquarters, ou=FRAHQ, cn=MEDENIA DASHIELL Date: 2016.02.26 14:35:27 -05'00'	Date 02/25/2016
Inspector in Charge – Name	Inspection Team		
Medenia K. Dashiell			





																- $ -$		
	SOP #23 stations.	ing sigi - 23.5.	nal or	lamp (displ	laying erator	a red s shal	sig	nal ound horn	n approach is through ing signals								
Remedial Action	N/A																	
Inspection Activity #	2 Ins	pection S	ubject	Trac	k Ged	ometry	Vehicle	Tes	sting		Α	ctivity Co	de	TR	K	TGV		PΙ
Job Briefing Employee Name/Title	Please Se	e Above				Accor Inspe	npanie ctor?	d	Yes	Out Brief Conducted	ı	Yes	Time	0000		Outsid Shift	е	Yes
Related Reports						Relat	ed CAP	S/F	indings		_							
	Ref	-		Rule o	r SOP	'		St	andard		Oth	er / Title			Chec	klist Refe	rence	
Related Rules, SOPs, Standards, or Other	TRST 1000)																
Inspection Location	Main Track	Yard	St	ation	00	сс	RTA Facilit	у	FTA Office	Track Type	,	At-gra	de	Tunnel	E	levated	-	N/A
mspection zocation						-												х
												om		- D1.0		To		
Line(s)	D Line		Track Numl		1		Chain f and/or			D1 CM33+0				DIC	M 84-			
						1												
Vehicles	Head Ca	r Numbe	er	Numi	ber of	Cars	Eq	uipn	nent									
	FWSO acc	companie	ed the T	GV insp	ectio	n team	during	geo	metry testir	ng on the	T	Number	of Defe	cts			6	
	D-line fro	m Federa	l Trian	gle Stati	on to	Federa	I Cente	r SW	V. The TGV	team		Recomm	nended I	Finding?)		No)
	discovere were:	d five wi	de and	one nar	row g	gage co	ndition	s du	ring the run	. The location	IIIS -	Remedia	al Action	Require	ed?		YE	S
Description	D1 CM 46 D1 CM 49 D1 CM 50 D1 CM 50 D1 CM 50 D1 CM 67 It should car during to the t R trailing the	0+62 – wi 0+58 – wi 2+27 – wi 8+9 – wid 7+12- nar be noted g this tes OCC for ne test ve commender te TGV or ased on i uld be as	de gage de gage e gage row ga I that the trip there repairs, whicle for ds that in each the findings is igned.	e (Red) - e (Red) - e (Red) - e (Red) - ge (RED nere was efore, no . In addi or imme a TRST r test to p s derived to the T	- in a - in a - in a in a c) s not a c call i ition, diate maint rovide d fron	curve curve curve urve a TRST in for th there v repairs enance imme n the TG exped	ne servi vas not i. e manag ediate re GV. In a lite imm	ce ce a TF ger s eme addin nedia	onditions for mainter whould accordial and/or tion, a TRST atternediates	mpany, on protective chase repair	de	Recomm	nended	Re-inspe	ection	?	YE	: S
Remedial Action	TRST sho	uld follo	w up or	n repair	condi	tions fo	ound by	TG\	V testing.									





Inspection Activity #	3	Inspection	Subject	Rule	s Con	npliance				Activity C	ode	TF	RK	TGV	PI
Job Briefing Employee Name/Title	Please	See Above	-			Accom	•	Yes	Out Brief Conducted	Yes	Time	1	0000 to 0430		Yes
Related Reports						Related	CAPS	/ Findings							
	Ref			Rule o	r SOP			Standard		Other / Title			Chec	klist Refere	ence
Related Rules, SOPs, Standards, or Other															
	Mair Trac	Vard	St	ation	00	cc ,	RTA acility	FTA Office	Tue els Toma	At-gra	ade	Tunne	E	levated	N/A
Inspection Location	x				С	1			Track Type	×					x
										From				То	
Line(s)	D Line		Track Numb		2	-		larker Station(s)	Balston			Wes	t Falls	Church	
<u> </u>	Hea	d Car Numb	er	Numb	er of	Cars	Τ					J			
Vehicles	1100			.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			Equ	ipment							
								geometry testin		Number	of Defe	cts			0
	D-line	from Feder	al Triang	gle Statio	on to	Federal (Center	SW. Upon ret rs at sporadic l	urn to West	Recomn	nended	Finding?			No
Description	E .	nurch Yards on to West F				R#2 Lai	cove	s at sporadic i	ocations mom	Remedi	al Action	Require	ed?		YES
	- 3.130									Recomn	nended	Re-inspe	ction	?	YES
Remedial Action	TRST :	should follow	v up to	repair co	nditi	ons sited	from	the TGV testin	g.						



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

all	(b)	(6)
-----	-----	-----

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160225-WMATA-AAN-1						
inspection date	2016	02	25	Report Number	20160223-0010	MATA-AAIN-I					
Rail Agency Name	Washington Authority	Metropolitan .	Area Transit	Rail Agency Department	Rail Transportation	Sub- Department	Rail Operations				
Rail Agency Department	1	Name		Email	Office Phon	Mobile Phone					
Contact Information											
Inspection Location	Alexandria Ya	ard – Yard Ope	erations, Yard a	and Yard Tower							

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	RTRA-RC-OBS	RTRA-RAD-OBS	RTRA-TNG-OBS			
Inspection Units	1	1	1			
Inspection Subunits	9	9	2			
Defects (Number)	0	0	0			
Recommended Finding	No	No	No			
Remedial Action Required	No	No	No			
Recommended Reinspection	No	No	No			

Activity Summaries

Inspection Activity #	1	Inspe	ection Subj	ect	Rules	Compl	iance – Ope	rator Pre-trip	Inspections	Activity Co	ode	RTRA	RC	OBS
Job Briefing Employee Name/Title		<u> </u>					ccompanie spector?	1	Out Brief Conducted	No	Time	1330 – 1800	Outside Shift	No
Related Reports						Re	elated CAP	/ Findings						
	Ref				Rule o	r SOP		Standard		Other / 1	itle		Checklist Ref	erence
Related Rules, SOPs, Standards, or Other	MSR	PH			3.13, 3 3.45	3.127, 3	.41. 3.42,							
	Ma Tra		Yard	Stat	tion	осс	RTA Facility	FTA Office		At-grad	е т	unnel	Elevated	N/A
Inspection Location	ection Location								Track Type					⊠
Line(s)	C99		Track Numbe	er	Yard	Tracks	Chain N	farker Station(s)		From			То	
Vehicles	He	ad Car	Number		Numbe	er of Ca		ipment						
	The	FWSO:	team perfo	rmed	an una	nnounc	ed safety b	itz inspection	at WMATA	Number	of Defec	ts		0
	Alex	andria	Yards of tra	in pr	eparatio	on and I	pre-trip ins	ections for th	e afternoon	Recomm	nended Fi	nding?		No
Description									rrived at their	Remedia	al Action	Required?		No
trains on time, and performed their scheduled times. FWSO exterior and interior inspection down or slow to examine curr						rved the	at most trainal walking	n operators co pace and did n	onducted their ot visibly bend	Recommended Reinspection			n?	No

Inspector in Charge - Signature alexander.nep	oa@dot.gov	Digitally signed by alexander.nepa@dot.gov DN: cn=alexander.nepa@dot.gov Date: 2016.02.27 18:30:40 -05'00'	Date 02/25/2016
Inspector in Charge – Name Alex Nepa	Inspection Team Alex Nepa, Medenia Dashiell,		





	or to ensure that rotary and air control valves were in the proper location at open ends at the belly of the consist and that brake line switches were in the proper position. Operators did not use notepads or checklists to document pre-trip inspections, and no signed forms were provided back to Depot Clerks or Interlocking Operators. FWSO Inspectors walked with operators conducting interior inspections of their trains, and found that they generally focused on their consoles	
	and indicators, bulkhead doors, cab windows, fire alarms, intercom and interior/exterior lights, conducting the radio check and PA announcement, horn test, and rolling and rolling brake tests.	
Remedial Action	N/A	

Inspection Activity #	2	Inspec	ction Sub	ject		•	•	ator Proper nterlocking O	perator	Activity Co	de	RTRA	\	RAD	OBS
Job Briefing Employee Name/Title						1	ompanied ector?		Out Brief Conducted		Time	1330 1630		utside Shift	No
Related Reports						Rela	ted CAPS	/ Findings							
	Ref				Rule or S	ОР		Standard		Other / T	itle		Check	dist Refe	rence
Related Rules, SOPs, Standards, or Other	MSRF	РΗ			3.14										
Standards, or Other															
	Mai Trac		Yard	Stat	ion (осс	RTA Facility	FTA Office	Track Type	At-grad	e Ti	unnel	Eleva	ated	N/A
Inspection Location			\boxtimes	٥					Track Type						×
	-		T '							From				То	
	600		Track		Yard T	en also	Chain M	arker							
Line(s)	C99		Numb	er	Yardı	acks	and/or S	tation(s)							
	Hea	ad Car N	Number		Number	of Cars									
Vehicles							Equ	pment							
	The F	WSO te	eam took	no ex	ception to	the nir	ne (9) trair	s that were o	bserved during	Number	of Defect	ts			0
		eriod o								Recomm	ended Fi	nding?			No
Description										Remedia	l Action l	Required	?		No
										Recomm	ended Ro	einspecti	on?		No
Remedial Action	N/A														

Inspection Activity #	3	Inspec	tion Sub	ject	Trainin	g Obser	vation – Pre	-Certificatio	n Test	Activity Co	ode	RTRA	TNG	OBS
Job Briefing Employee Name/Title	Traini	ing Instr	uctor #3	81582			ompanied sector?	Yes	Out Brief Conducted	Yes	Time	1330 1630	· ·	No
Related Reports						Rela	ated CAPS /	Findings						
	Ref				Rule or	SOP		Standard		Other / 1	itle		Checklist Ref	erence
Related Rules, SOPs, Standards, or Other	1	or/Exter								-				
	Mai Trac		Yard	Stat	ion	осс	RTA Facility	FTA Office	Track Type	At-grad	e Ti	unnel	Elevated	N/A
Inspection Location				Σ	3				паск туре					\boxtimes
	+				T					From			То	
Line(s)	C99		Track Numb	er	Yard 7 #20	1		Chain Marker and/or Station(s)						





	Head Car Number	Number of Cars				
Vehicles			Equipment			
	The FWSO team observ	ed a pre-certification te	st for a transportation	supervisor	Number of Defects	0
		ed for his certification to	•		Recommended Finding?	No
	The instructor had the sexterior of a six-car train	student wait inside as he			Remedial Action Required?	No
	interior of the train. The	normal certification te troubles are introduced	sting is performed on			
Description			he items that were ples to ask for help. The	aced into the	Recommended Reinspection?	No
		nd professional manner.	The student was que aken and corrections on to detail and provid	stioned made.	all (6)(6)	
Remedial Action	N/A					



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

all (b) (b)

Agency/Department Information

Laurantina Data	YYYY	MM	DD	Report Number	20160225-	ΜΜΔΤΔ-	·IMC–1	
Inspection Date	2016	02	25	Report Number	20100223			·
Rail Agency Name	Washingtor Authority	n Metropolitar	Area Transit	Rail Agency Department	Rail Transportation	Sub- Depart	tment	Rail Operations Control Center
Rail Agency Department		Name		Email	Office Ph		Mobile Phone	
Contact Information								
Inspection Location	Carmen Tu	ner Facility – I	Rail Operation	Control Center – 3500 F	Pennsy Drive , Hyatts	villes, MD 207	'85	

Inspection Summary

Inspection Activity#	1	2	3	4	5	6	7	8
Activity Code	ROCC- GEN-MTG	ROCC-RPB- OBS	ROCC-ST-PI					
Inspection Units	1	1	1		<u> </u>	<u> </u>		<u> </u>
Inspection Subunits	1	1	1		<u> </u>			
Defects (Number)	0	4	0		<u> </u>	<u> </u>		
Recommended Finding	No	No	No					
Remedial Action Required?	No	No	Yes		<u> </u>			
Recommend Reinspection	No	Yes	Yes					<u> </u>

Individual Inspection Activity

Track Yard Station OCC Facility Office X From To From To Chain Marker Vehicles Head Car Number Number of Cars Equipment FWSO met with discussed the potential benefits of having new hire operators observe ROCC Rail training, to help them understand the important of communication, and whyit is imperative to respond and read back the instructions given by the ROCC and Track Type From To Number of Defects Recommended Finding? Action Required? No. Recommend Reinspection? No. Recommend Reinspection?	Inspection Activity #	1	insp	ection S	ubject	Gene	ral M	eeting					Activit Code	у	RO	CC G	N	OBS
Related Rules, SOPs, Standards, or Other Related Rules, SOPs, Standards, or Other MSRPH 1.69-1.79	Employee	N/A						•	d	N/A		Yes	Time	_	-			No
Related Rules, SOPs, Standards, or Other MSRPH 1.69-1.79	Related Reports							Related CAP	s/	Findings	L							
Standards, or Other ROCC Manual Main Track Yard Station OCC RTA Facility Office Inspection Location Line(s) Head Car Number Number ROCC Manual Track Number Chain Marker From To From To Chain Marker From To From To During the meeting, both parties discussed the potential benefits of having new hire operators observe ROCCRail Traffic Controllers and Interlocking Operators for several hours, as part of their training, to help them understand the important of communication, and whyit is imperative to respond and read back the instructions given by the ROCC and Recommend Reinspection? Number of Defects Recommended Finding? Number of Recommended Finding? Number of Recommend Reinspection?		Ref				Rule or	SOP		St	tandard		Other/Ti	tle		Che	cklist Re	erenc	<u>e</u>
Number of Description Number of Cars FWSO met with Giscussed the potential benefits of having new hire operators observe ROCC Rail Traffic Controllers and Interlocking Operators for several hours, as part of their training, to help them understand the important of communication, and whylit is imperative to respond and read back the instructions given by the ROCC and Recommend Reinspection? Number of Recommend		MSR	PH			1.69-1.	79		_						ļ			
Inspection Location Track Number Track Number Chain Marker From From To Chain Marker From To From To Chain Marker From To During the meeting, both parties discussed the potential benefits of having new hire operators observe ROCCRail training, to help them understand the important of communication, and whyit is imperative to respond and read back the instructions given by the ROCC and Recommend Reinspection? Number of Defects Recommended Finding? Action Required? Recommend Reinspection? No	Standards, or other	ROCO	C Mar	nual											ــــــــــــــــــــــــــــــــــــــ			
Line(s) Track Number Chain Marker From To To Chain Marker Head Car Number Number of Cars Equipment FWSO met with discussed the potential benefits of having new hire operators observe ROCC Rail Traffic Controllers and Interlocking Operators for several hours, as part of their training, to help them understand the important of communication, and whyit is imperative to respond and read back the instructions given by the ROCC and Recommend Reinspection? Note that the important of communication and whyit is imperative to respond and read back the instructions given by the ROCC and Recommend Reinspection?				Yard	St	ation	occ		y_	1	Track Type	At-g	ade	Tunne	! E	levated	1	N/A
Track Number Chain Marker Head Car Number Number of Cars Equipment FWSO met with discussed the potential benefits of having new hire operators observe ROCC Rail Traffic Controllers and Interlocking Operators for several hours, as part of their training, to help them understand the important of communication, and whyit is imperative to respond and read back the instructions given by the ROCC and Recommend Reinspection? Note that the important of communication, and whyit is imperative to respond and read back the instructions given by the ROCC and Recommend Reinspection?	Inspection Location							Х			l lack type							Х
Vehicles Head Car Number Number of Cars Equipment FWSO met with discussed the potential benefits of having new hire operators observe ROCC Rail Traffic Controllers and Interlocking Operators for several hours, as part of their training, to help them understand the important of communication, and whyit is imperative to respond and read back the instructions given by the ROCC and Recommend Reinspection? Note that the important of communication, and whyit is imperative to respond and read back the instructions given by the ROCC and Recommend Reinspection?										.1		From				То		
Vehicles Head Car Number Number of Cars Equipment FWSO met with discussed the potential benefits of having new hire operators observe ROCC Rail Traffic Controllers and Interlocking Operators for several hours, as part of their training, to help them understand the important of communication, and why it is imperative to respond and read back the instructions given by the ROCC and Recommend Reinspection? Note that the important of communication, and why it is imperative to respond and read back the instructions given by the ROCC and Recommend Reinspection?					Track	.		Chain Marker										
PWSO met with discussed the potential benefits of having new hire operators observe ROCC Rail Traffic Controllers and Interlocking Operators for several hours, as part of their training, to help them understand the important of communication, and why it is imperative to respond and read back the instructions given by the ROCC and Recommend Reinspection? Number of Defects Our part of their training, to help them understand the important of communication, and why it is imperative to respond and read back the instructions given by the ROCC and Recommend Reinspection?	Line(s)				Num	ber								-				
FWSO met with discussed the potential benefits of having new hire operators observe ROCCRail Traffic Controllers and Interlocking Operators for several hours, as part of their training, to help them understand the important of communication, and why it is imperative to respond and read back the instructions given by the ROCC and Recommend Reinspection? Number of Defects Recommended Finding? Action Required? Number of Defects Recommended Finding? No.	·	He	ad Ca	ar Numb	er	Numbe	r of C		_									
PWSO met with discussed the potential benefits of having new hire operators observe ROCCRail discussed the potential benefits of having new hire operators observe ROCCRail Traffic Controllers and Interlocking Operators for several hours, as part of their training, to help them understand the important of communication, and why it is imperative to respond and read back the instructions given by the ROCC and Recommend Reinspection?	Vehicles	ļ						Eq	uip	ment	i							
discussed the potential benefits of having new hire operators observe ROCC Rail Traffic Controllers and Interlocking Operators for several hours, as part of their training, to help them understand the important of communication, and why it is imperative to respond and read back the instructions given by the ROCC and Recommend Reinspection? No		EINIS	Ome	t with				Di	urin	g the meeti	ng, both partie	es Num	ber of De	fects			0	
Traffic Controllers and Interlocking Operators for several hours, as part of their training, to help them understand the important of communication, and whylit is imperative to respond and read back the instructions given by the ROCC and Recommend Reinspection? No.		disc	115560	the pote	ential b	enefits of	havin	g new hire o	pera	ators observ	e ROCC Rail		mmende	ed Findi	ng?		No)
imperative to respond and read back the instructions given by the ROCC and Recommend Reinspection?	Description	Traf	fic Co	ntrollers	and In	terlocking	Oper	ators for sev	eral	hours, as pa	art of their	Actio	n Requi	red?			No)
Interlocking Operator. FWSO monitored train movement, radio communications and		imperative to respond and read back the instructions given by the ROCC and								nd Reco	Recommend Reinspection?			?	No	5		

Inspector in Charge - Signature	James Cassatt, Jr	Digitally signed by James Cassatt, Jr DN:cn=James Cassatt, Jr, o=FRA, ou=DOT, email=james.cassatt@dot.gov, c=US Date: 2016.02.25 21:28:33 - 05'00'	Date February 25, 2016
Inspector in Charge – Name Jim Cassatt	Inspection Team Jim Cassatt		





	the ROCC Operators (radio and button) on the Blue/Orange and Silver Lines. The Operators performed their duties as per SOP's, Metrorail Safety Rules and Procedures Handbook and train movements.	
Remedial Action	N/A	

Inspection Activity#	2	Ins	ection	Subject	t	Repeati	Backs	· · · · · · · · · · · · · · · · · · ·					Activ Code	•	R	ROCC	RPB	OBS
Job Briefing Employee Name/Title	N/A						l .	ompanie ector?	d	N/A	Out Brief Conducted	Yes	Time		1 1 -		utside Shift	No
Related Reports							Rela	ated CAP	s/I	Findings								
	Ref				Ru	ile or SO	P		St	andard		Other/T	itle		Cł	necklis	t Refere	nce
Related Rules, SOPs, Standards, or Other	MSRI	PH			1.7	73												
Standards, or other																		
Inspection Location	Ma Tra		Yard	S	tatio	on O	сс	RTA Facilit	у	FTA Office	Track Type	At-g	rade	Tunne	el	Eleva	ted	N/A
inspection Location								х										Х
												From					<u>-</u> o	
Line(s)		Blue/Orange/ Silver Track Number						Chain N	/lar	ker								
Vehicles	Hea	ad Ca	r Numb	er	Nt	umber o	f Cars	Equ	.ipr	ment								- -
	FWS	O ob	served E	Blue/Or	range	e/Silver L	ine Co	ntrollers	com	pliance with	n radio rules	Num	ber of D	efects				4
										er Line Radi	o Control oper read bac	Reco	mmend	led Find	ing?			No
			ng instru	ctions:		_						Rem	edial Ac	tion Re	quire	d?		No
Description		 Train 606 failed to repeat back to the controller that they were clear of Ballston. Gang Supervisor 1151 failed to give a proper read back when the gang cleared Deanwood. Train 910 failed to give proper read back for permissive block. Train 603 failed to respond to the ROCC regarding leaving Ballston 																
Remedial Action	N/A																	

Inspection Activity #	3	Insp	ection S	Subject	Shift	Shift Transfers								R	occ	ST	PI
Job Briefing Employee Name/Title	N/A						Accompanie Inspector?	d	N/A	Out Brief Conducted	Ye	Time	e 1	100- 600 Outsid Shift			No
Related Reports	2016	0120	2 – date –WMATA -WMATA	4-JMC-			Related CAP	s/	Findings								
	Ref				Rule or	SOP		St	tandard		Other	/Title	_	Ch	necklist	Refer	ence
Related Rules, SOPs, Standards, or Other	<u> </u>			1									-	<u></u>			
	Ma Tra		Yard	Sta	ation	occ	RTA Facili		FTA Office	Track Type	- 1	-grade	Tunn	el	Eleva	ted	N/A
Inspection Location							Х			i i dek i ype							Х
	†		7	<u> </u>							From				Т	0	
Line(s)	Blue ver	/Orar	Orange/Sil Track Number		Chain I	Chain Marker											





	Head Car Number	Number of Cars			
Vehicles			Equipment		
	FWSO performed a phy	•	, -	Number of Defects	0
	Blue/Orange Silver Line the transfer with the As		Recommended Finding?	No	
Description	well detailed explaining		Remedial Action Required?	No	
	checked by track perso current trains on the te involved.	•	Recommend Reinspection?	No	
Remedial Action	N/A				



Form FTA-IR-1

United States Department of Transportation Federal Transit Administration

Agency/Department Information

Incorporation Data	YYYY	MM	DD	Report Number	20160220	20160229-WMATA-SAS-1					
Inspection Date	2016	02	29	Report Number	20100225-VVIVIATA-3A3-1						
Rail Agency Name	Washington Authority	Metropolitan	Area Transit	Rail Agency Department	Rail Operations	Sub- Department					
Rail Agency Department	1	Name		Email	Office Ph	none	Mobile Phone				
Contact Information											
Inspection Location	Carmen Turn	er Facility – R	ail Operations	Control Center – 3500 Pe	ennsy Drive, Hyatts	villes, MD 20785					

Inspection Summary

Inspection Activity #	1	2	3	4	5	6	7	8
Activity Code	ROCC-RPB- OBS	ROCC- RPB- OBS	ROCC-ST-OBS					
Inspection Units	1	1	3					
Inspection Subunits	1	1	3					
Defects (Number)	0	0	0					
Recommended Finding	No	No	No					
Remedial Action Required?	No	No	No					
Recommend Reinspection	No	No	NO					

Individual Inspection Activity

Inspection Activity #	1	Inspection	Subject	; Rad	io Comm	unications/	Repe	at Backs			Activity Code	RO	CC	RPB	OBS		
Job Briefing Employee Name/Title	N/A					ccompanied spector?	d l	No	Out Brief Conducted	No	Time		00- 145	Outside Shift	No		
Related Reports	N/A				Related CAPS / Findings N/A												
	Ref			Rule o	r SOP		Sta	ndard		Other	/ Title		Che	cklist Refere	nce		
Related Rules, SOPs, Standards, or Other	MSRF	PΗ		1.78, 1 1.72, 1	PH Gene 79, 1.69 l.73, 1.74 l.77, 1.80), 1.71, I, 1.75,											
	Ma Tra	l Yai	d :	Station	осс	RTA Facility	y	FTA Office	Track Tuno		it-grade	Tunne	1	Elevated	N/A		
Inspection Location					х				Track Type						x		
Line(s)	N/A		Trac		N/A	Chain N	Marke	er		From				То			
	He	ad Car Num	ber	Num	ber of Ca												
Vehicles		N/A				Equ	uipm	ent									

Inspector in Charge - Signature	STEPHEN A SLAUGHTER Discuss, sound by STEPHEN A SLAUGHTER Discuss, out of Stephen A SLAUGHTER DIscuss, out of Stephen A SLAUGHTER DIscuss,	Date February 29, 2016
Inspector in Charge – Name Stephen Slaughter	Inspection Team Stephen Slaughter	





	FWSO Team Member was in the ROCC conducting general observations. During the	Number of Defects	0
	observation period, two incidents occurred which allowed the FWSO Team Member to monitor train movement, listen to radio communications and watch the	Recommended Finding?	No
	Controllers and the Assistant Superintendent take control of the situations. The first	Action Required?	No
Description	incident occurred at approximately 9:42 AM, when train #919 loss power and became disabled between Roslyn-Court House Stations on track #2 at marker 194 + 00. The train was subsequently moved to Court House Station where the passengers were off-loaded. FWSO Team Member was able to observe and listen to radio transmission between the train operators and Controller at the ROCC. Most radio transmission were clear, short and concise and received by the train operators. There was one exception when a train operator was unable to understand the radio transmission from the controller. The train operator asked the controller to repeat the radio transmission at least 2 times.	Recommend Reinspection?	No
Remedial Action	N/A		

Inspection Activity #	2 in	spection S	ubject	Una	authori	zed per	rson on	the trac	:k			Activity Code	RO	OCC RPB		OBS
Job Briefing Employee Name/Title	N/A				- 1	Accompanied No Inspector?			Out Brief Conducted	No.		100	1		No	
Related Reports	N/A					Related CAPS / Findings N/A										
Related Rules, SOPs, Standards, or Other	Ref Rule or SOP SOP #2, and 2! MSRPH Gene 1.78, 1.79, 1.6 1.72, 1.73, 1.7 1.76, 1.77, 1.8 1.82,			neral Ri .69, 1.7 .74, 1.7	.5, eral Rules 59, 1.71, 74, 1.75,			Other /	Title		Checklist R	eferer	nce			
Inspection Location	Main Track	Yard	S	tation	ation OCC		RTA Facility	RTA I Facility O		Track Type	A	t-grade	Tunnel	Elevate	d	N/A X
Line(s)	N/A		Track Numl		N/A	Chain Marker		larker			From			То		
Vehicles		Car Numbe	er	Num	ber of (Cars	Equi	ipment								
		nd inciden									Nu	mber of D	efects		0	
·		,								the roadway, Assistant	Re	commend	ed Findin	g?	No	
	Superint	endent too	ok cont	rol of th	e situat	tion. T	he Cont	roller us	ed the	appropriate	Ac	tion Requi	red?		No)
Description	checklists and documented her actions. The radio transmissions were short and concise. The Controller ensured train Operators made announcements informing passengers of the delay. Power to the 3 rd rail was cut. After the i was removed from the tracks a walk-around was conducted of the track wit negative results. After receiving confirmation from the On-Scene Command the track was clear, the 3 rd rail power was restored.								ments r the individua ick with		commend inspection	?	No)	
Remedial Action	N/A															

Inspection Activity #	3	Inspection Subject	Shift Cha	ngeover				Activity Code	ROCC	ST	OBS
Job Briefing Employee Name/Title	N/A			Accompanied Inspector?	No	Out Brief Conducted	No	Time	1000- 1545	Outside Shift	No
Related Reports	N/A			Related CAPS / F	indings	N/A					





	Ref			Rule	or SOP		Sta	andard		Other	/ Title		Chec	cklist Refer	ence
Related Rules, SOPs, Standards, or Other				SOP 1	A										
Inquestion Location	Main Yard		Yard S		осс	RTA Facility		FTA Office	Track Type	A	t-grade	Tunne	Elevated		N/A
Inspection Location					x				паск туре						x
										From	rom		То		
Line(s)	N/A Track Numb		N/A		Chain Marker										
	Head Ca	ır Numbe	r	Num	ber of Cars	· 1									
Vehicles	N	I/A				Equ	ıipm	nent							
									the Day shift	· Nu	ımber of D	efects			0
		•			_	-		off-going (controllers e on-coming	Re	commend	ed Findin	g?	ſ	No
Description	1	, .				-			him/her. The	e Ac	tion Requ	ired?		r	No
•	Assistance understoo	Superint d the info	t ensure on he/sh	d the On-co ne just recei both initia	Re	Recommend Reinspection?			ı	No					
Remedial Action	N/A											-			