Profile/Photo Observation Report

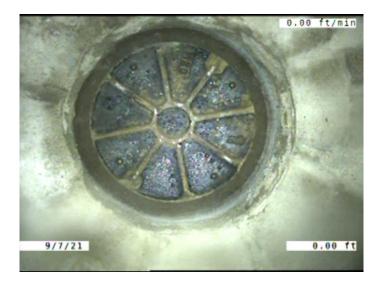
		•			ROBOTICS
Date:	09/07/2021	Weather:		Coding:	PACP 7.0
Pipe Length (ft)	: 199.6	Owner:	City of Hobart	Pre Clean:	Light Cleaning
P.O.#:	YES502259	Surveyor:	S. Bucklin	PSR:	M-504-110_M-504-110.1
Customer:	City of Hobart	Clean Date:	08/26/2021	Shape:	с
Street:	41st Avenue		Flow Control:	Not Controlled	
City:	Hobart, IN		Year Renewed:		
Location:	Alley		Tape/Media #:		
Purpose:	Routine Assessme	nt	Dia/Height:	10"	
Use:	Sanitary Sewage P	ipe	Material:	СР	
Drain Area:			Lining:	None	
Category:	NA				
Comment:					
Location Details	s:		Direction of Survey:	Upstream	
US MH:	M-504-110	DS MH: N	И-504-110.1	Total Length Surveyed (ft):	199.6
O&M Index:	1.94	O&M Quick:	4134	O&M Rating:	122.00
Structural Index:	2.69	Structural Quid	ck: 4333	Structural Rating:	35.00
Overall Index:	2.07	Overall Quick:	4437	Overall Rating:	157.00

	Position	Code	Observation	Video (sec)	Grade
и- <u></u> 504-	110.1				
	.0	AMH	Manhole	1	NA
	.0	MWL	Miscellaneous Water Level	62	NA
- 11	2.0	CM	Crack Multiple	121	S 3
	-1	DAE	Deposits Attached Encrustation	144	M 2
- 14	2.9	FM	Fracture Multiple	212	S 4
	3.3	ТВ	Tap Break-in/Hammer	230	NA
	8.0	DSF(S01)	Deposits Settled Fine	262	M 2
- 14	12.5	MWLS(S02)	Miscellaneous Water Level Sag	291	S 2
- 11	17.1	MMC	Miscellaneous Material Change	346	NA
5	18.3	TFD	Tap Factory Defective	375	M 3
Direction	\ <u> </u> 19.3	MMC	Miscellaneous Material Change	421	NA
	25.3	DAE	Deposits Attached Encrustation	471	M 2
Camera	28.4	DAE	Deposits Attached Encrustation	511	M 2
Ca	37.6	MWLS(F02)	Miscellaneous Water Level Sag	562	S 2
I H	43.4	DAR	Deposits Attached Ragging	598	M 2
	46.8	MMC	Miscellaneous Material Change	654	NA
† 📗	48.0	TF	Tap Factory	681	NA
	48.9	MMC	Miscellaneous Material Change	722	NA
	52.6	СМ	Crack Multiple	829	S 3

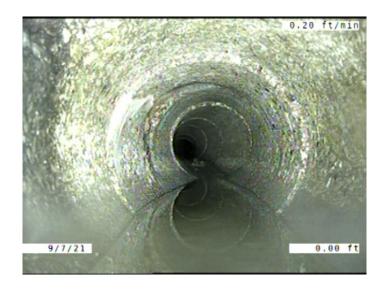
Tuesday, April 25, 2023

RedZone

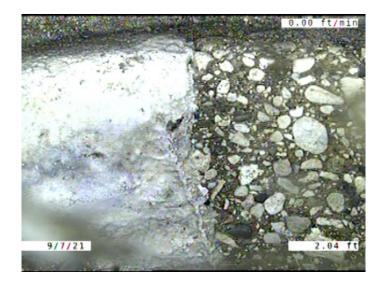
53	8.0	ТВІ	Tap Break-in Intruding	854	M 2
<u> 56</u>	5.5	TBD	Tap Break-in/Hammer Defective	960	M 3
	8.9	DAE	Deposits Attached Encrustation	1023	M 2
<u> 68</u>	3.8	DAE	Deposits Attached Encrustation	1079	M 2
10.00).0	DAE	Deposits Attached Encrustation	1184	M 2
82	2.9	DAR	Deposits Attached Ragging	1219	M 2
10)1.2	MMC	Miscellaneous Material Change	1331	NA
10)2.3	TF	Tap Factory	1359	NA
10)3.2	В	Broken	1424	S 4
- 10)3.2	MMC	Miscellaneous Material Change	1492	NA
10)6.3	MMC	Miscellaneous Material Change	1546	NA
10)8.5	TF	Tap Factory	1585	NA
10	9.2	MMC	Miscellaneous Material Change	1628	NA
<u>\\\10</u>	9.2	RMJ	Roots Medium Joint	1680	M 3
$\left \right \left \frac{11}{11} \right $.2.5	RFJ(SO3)	Roots Fine Joint	1733	M 1
	.3.5	MWLS(S04)	Miscellaneous Water Level Sag	1758	S 2
	.3.0	MWLS(F04)	Miscellaneous Water Level Sag	1806	S 2
14	2.4	MMC	Miscellaneous Material Change	1918	NA
14	2.4	DAE	Deposits Attached Encrustation	1975	M 4
14	5.7	DAE	Deposits Attached Encrustation	2049	M 2
14	8.0	RFJ(F03)	Roots Fine Joint	2083	M 1
	51.7	RFJ	Roots Fine Joint	2118	M 1
15	51.7	СМ	Crack Multiple	2143	S 3
	54.1	TF	Tap Factory	2173	NA
15	54.8	MMC	Miscellaneous Material Change	2221	NA
15	57.7	MMC	Miscellaneous Material Change	2278	NA
16	50.1	TFD	Tap Factory Defective	2313	M 3
16	50.8	В	Broken	2374	S 4
16	50.9	MMC	Miscellaneous Material Change	2409	NA
	53.9	RFJ(S05)	Roots Fine Joint	2462	M 1
	59.7	RFJ(F05)	Roots Fine Joint	2509	M 1
	9.2	RFJ	Roots Fine Joint	2562	M 1
19	98.5	DSF(F01)	Deposits Settled Fine	2650	M 2
19	9.6	AMH	Manhole	2718	NA
504-110					



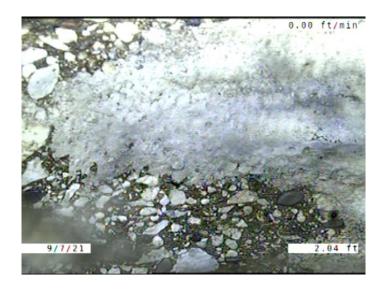
АМН
Manhole
.0
.0
0
0
NO
M-504-110.1



Code: Description:	MWL Miscellaneous Water Level
Distance (ft):	.0
Structural Grade:	0
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



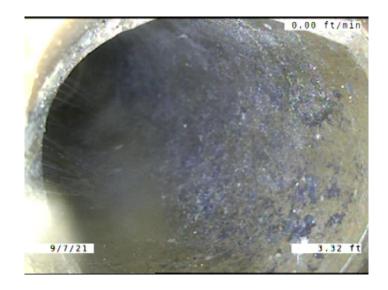
Code:	СМ
Description:	Crack Multiple
Distance (ft):	2.0
Structural Grade:	3
O&M Grade:	0
Clock Start/From:	10
Clock To:	12
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code: Description:	DAE Deposits Attached Encrustation
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value:	2.0 0 2 9 11
Value Percent: Continuous Index: Within 8" of Joint: Remarks:	5.000 YES



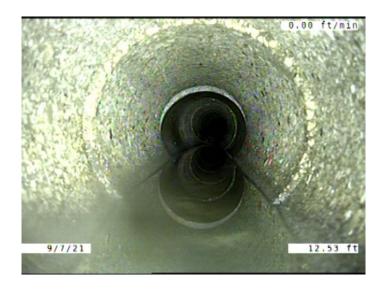
Code: Description:	FM Fracture Multiple
Distance (ft):	2.9
Structural Grade:	4
O&M Grade:	0
Clock Start/From:	12
Clock To:	12
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



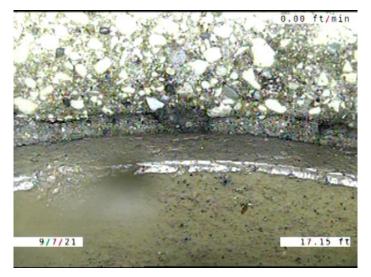
Code: Description:	TB Tap Break-in/Hammer
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: Remarks:	3.3 0 0 11 4.000 NO



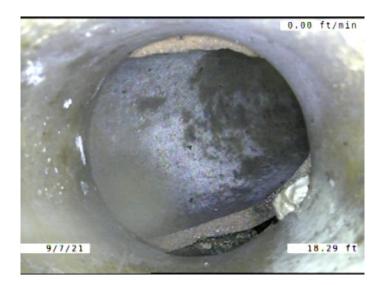
DSF
Deposits Settled Fine
8.0
-
0
2
5
7
5.000
S01
YES



Code: Description:	MWLS Miscellaneous Water Level Sag
Distance (ft):	12.5
Structural Grade:	2
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	S02
Within 8" of Joint:	NO
Remarks:	



Code: Description:	MMC Miscellaneous Material Change
Distance (ft):	17.1
Structural Grade:	0
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	CONCRETE TO VCP



Code: Description:	TFD Tap Factory Defective
Distance (ft): Structural Grade: O&M Grade:	18.3 0 3
Clock Start/From: Clock To: 1st Value:	1 4.000
2nd Value: Value Percent:	
Continuous Index: Within 8" of Joint: Remarks:	YES Defective



Code: Description:	MMC Miscellaneous Material Change
Distance (ft):	19.3
Structural Grade:	0
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	VCP TO CONCRETE



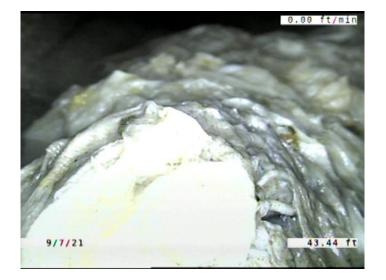
Code: Description:	DAE Deposits Attached Encrustation
Distance (ft): Structural Grade:	25.3 0
O&M Grade:	2
Clock Start/From:	4
Clock To:	7
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



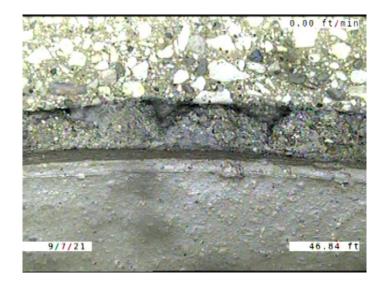
Code: Description:	DAE Deposits Attached Encrustation
Distance (ft):	28.4
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	4
Clock To:	7
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code: Description:	MWLS Miscellaneous Water Level Sag
Distance (ft):	37.6
Structural Grade:	2
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	F02
Within 8" of Joint:	NO
Remarks:	



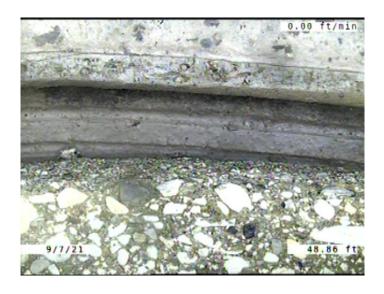
Code: Description:	DAR Deposits Attached Ragging
Distance (ft):	43.4
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	5
Clock To:	7
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	TP AND RAGS



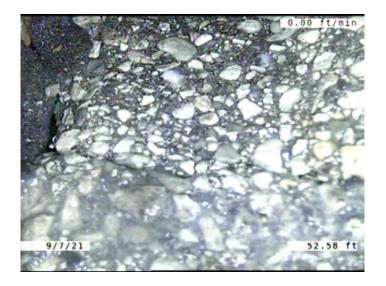
Code: Description:	MMC Miscellaneous Material Change
Distance (ft):	46.8
Structural Grade:	0
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	CONCRETE TO VCP



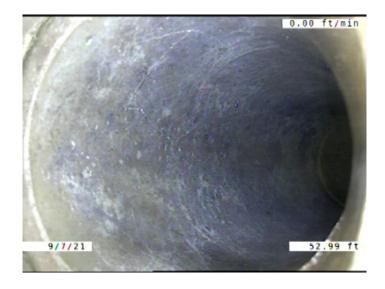
Code:	TF
Description:	Tap Factory
Distance (ft):	48.0
Structural Grade:	0
O&M Grade:	0
Clock Start/From:	11
Clock To:	
1st Value:	4.000
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



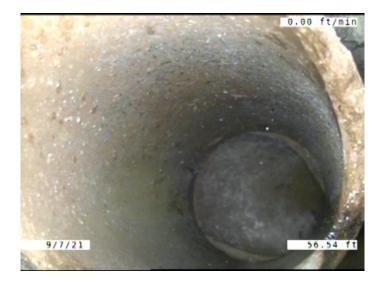
Code: Description:	MMC Miscellaneous Material Change
Distance (ft):	48.9
Structural Grade:	0
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	VCP TO CONCRETE



Code: Description:	CM Crack Multiple
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index:	52.6 3 0 3 9
Within 8" of Joint: Remarks:	NO



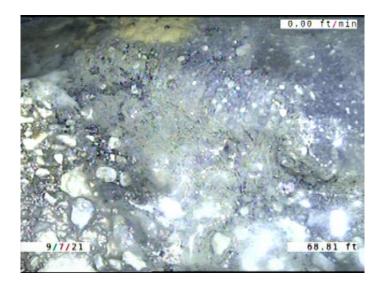
Code:	TBI
Description:	Tap Break-in Intruding
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: Remarks:	53.0 0 2 10 4.000 2.000



Code:	TBD
Description:	Tap Break-in/Hammer Defective
Distance (ft):	56.5
Structural Grade:	0
O&M Grade:	3
Clock Start/From:	12
Clock To:	
1st Value:	4.000
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	Defective



Code: Description:	DAE Deposits Attached Encrustation
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value:	63.9 0 2 4 8
2nd Value: Value Percent: Continuous Index: Within 8" of Joint: Remarks:	5.000 YES



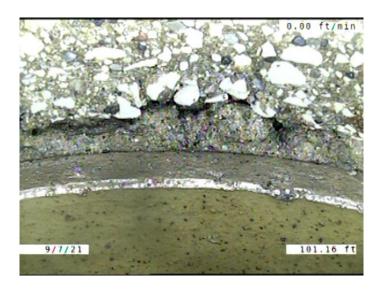
Code: Description:	DAE Deposits Attached Encrustation
Distance (ft):	68.8
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	5
Clock To:	7
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code: Description:	DAE Deposits Attached Encrustation
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index:	80.0 0 2 4 8 5.000
Within 8" of Joint: Remarks:	YES



Code:	DAR
Description:	Deposits Attached Ragging
Distance (ft):	82.9
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	6
Clock To:	7
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	TP AND RAGS



Code: Description:	MMC Miscellaneous Material Change
Distance (ft):	101.2
Structural Grade:	0
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	CONCRETE TO VCP



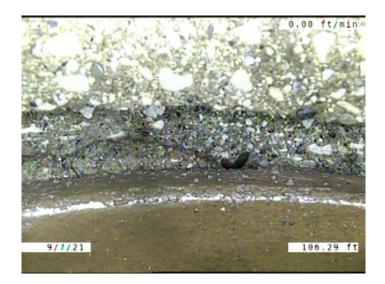
Code: Description:	TF Tap Factory
Distance (ft):	102.3
Structural Grade:	0
O&M Grade:	0
Clock Start/From:	11
Clock To:	
1st Value:	4.000
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code: Description:	B Broken
Distance (ft):	103.2
Structural Grade:	4
O&M Grade:	0
Clock Start/From:	9
Clock To:	2
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



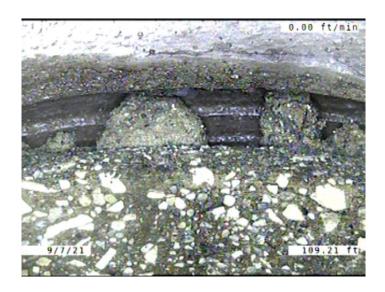
Code: MMC Description: **Miscellaneous Material Change** Distance (ft): 103.2 Structural Grade: 0 O&M Grade: 0 Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: NO Remarks: **VCP TO CONCRETE**



Code: Description:	MMC Miscellaneous Material Change
Distance (ft):	106.3
Structural Grade:	0
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	CONCRETE TO VCP



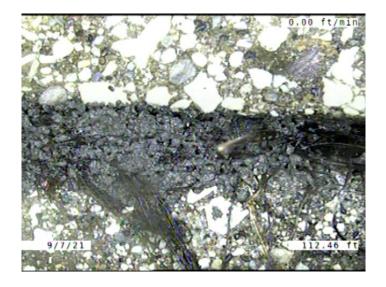
Code:	TF
Description:	Tap Factory
Distance (ft):	108.5
Structural Grade:	0
O&M Grade:	0
Clock Start/From:	12
Clock To:	
1st Value:	4.000
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



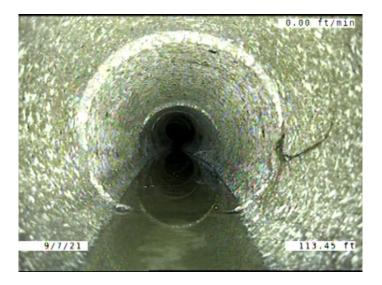
Code: Description:	MMC Miscellaneous Material Change
Distance (ft):	109.2
Structural Grade:	0
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	VCP TO CONCRETE



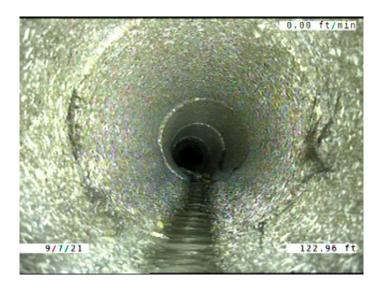
Code: Description:	RMJ Roots Medium Joint
Distance (ft):	109.2
Structural Grade:	0
O&M Grade:	3
Clock Start/From:	7
Clock To:	4
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



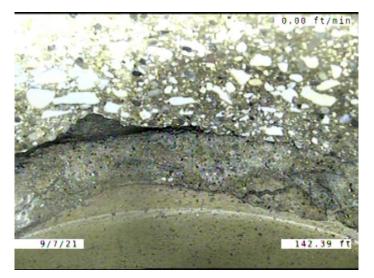
Code: Description:	RFJ Roots Fine Joint
Distance (ft):	112.5
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	2
Clock To:	9
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	S03
Within 8" of Joint:	YES
Remarks:	



Code: Description:	MWLS Miscellaneous Water Level Sag
Distance (ft):	113.5
Structural Grade:	2
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	S04
Within 8" of Joint:	NO
Remarks:	



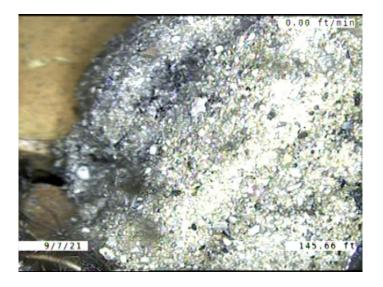
Code: Description:	MWLS Miscellaneous Water Level Sag
Distance (ft):	123.0
Structural Grade:	2
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	F04
Within 8" of Joint:	NO
Remarks:	



Code: MMC Description: **Miscellaneous Material Change** Distance (ft): 142.4 Structural Grade: 0 O&M Grade: 0 Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: NO Remarks: CONCRETE TO VCP



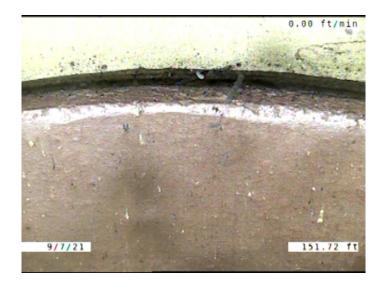
Code: Description:	DAE Deposits Attached Encrustation
Distance (ft):	142.4
Structural Grade:	0
O&M Grade:	4
Clock Start/From:	4
Clock To:	9
1st Value:	
2nd Value:	
Value Percent:	25.000
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



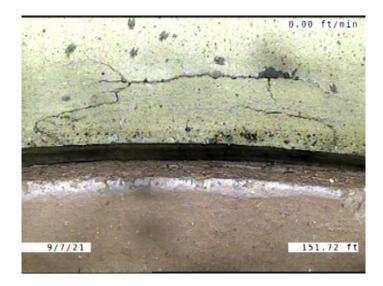
Code: Description:	DAE Deposits Attached Encrustation
Distance (ft):	145.7
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	6
Clock To:	8
1st Value:	
2nd Value:	
Value Percent:	10.000
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code: Description:	RFJ Roots Fine Joint
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: Remarks:	148.0 0 1 2 9 F03 YES



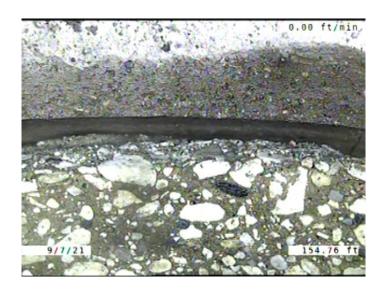
Code: Description:	RFJ Roots Fine Joint
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint:	151.7 0 1 11 YES
Remarks:	



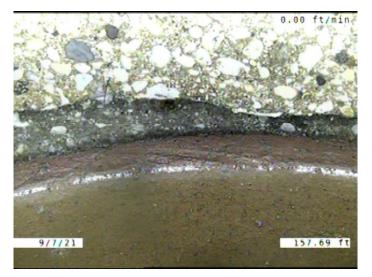
Code: Description:	CM Crack Multiple
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint:	151.7 3 0 11 1 YES
Remarks:	



Code:	TF
Description:	Tap Factory
	4544
Distance (ft):	154.1
Structural Grade:	0
O&M Grade:	0
Clock Start/From:	11
Clock To:	
1st Value:	4.000
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



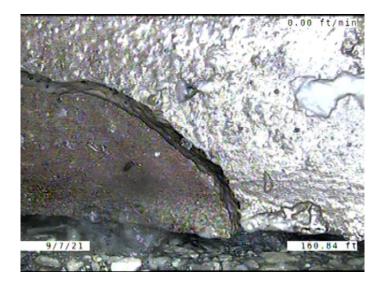
Code: Description:	MMC Miscellaneous Material Change
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To:	154.8 0 0
1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: Remarks:	NO VCP TO CONCRETE



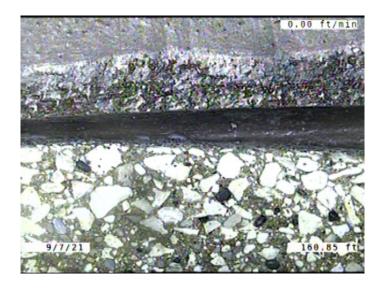
Code: Description:	MMC Miscellaneous Material Change
Distance (ft):	157.7
Structural Grade:	0
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	CONCRETE TO VCP



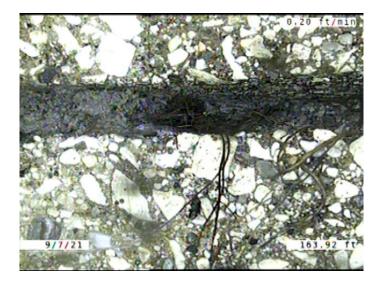
Code:	TFD
Description:	Tap Factory Defective
Distance (ft):	160.1
Structural Grade:	0
O&M Grade:	3
Clock Start/From:	1
Clock To:	
1st Value:	4.000
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	Defective



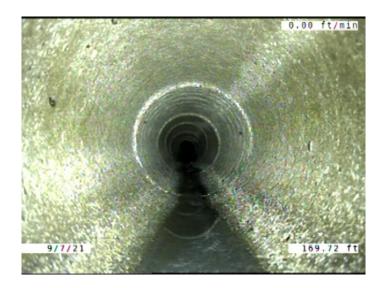
Code:	В
Description:	Broken
Distance (ft):	160.8
Structural Grade:	4
O&M Grade:	0
Clock Start/From:	2
Clock To:	4
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



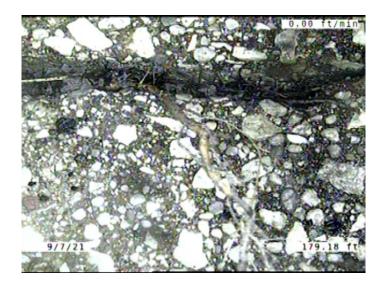
Code: Description:	MMC Miscellaneous Material Change
Distance (ft):	160.9
Structural Grade:	0
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	VCP TO CONCRETE



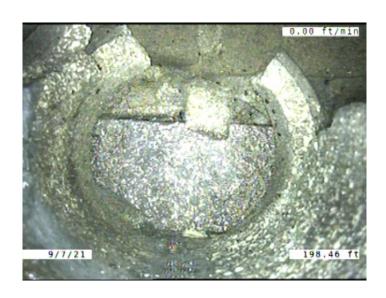
Code:	RFJ
Description:	Roots Fine Joint
Distance (ft).	162.0
Distance (ft):	163.9
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	3
Clock To:	9
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	S05
Within 8" of Joint:	YES
Remarks:	



Code: Description:	RFJ Roots Fine Joint
Distance (ft):	169.7
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	3
Clock To:	9
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	F05
Within 8" of Joint:	YES
Remarks:	



Code:	RFJ
Description:	Roots Fine Joint
	470.2
Distance (ft):	179.2
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	8
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Distance (ft):198.5Structural Grade:0O&M Grade:2Clock Start/From:5Clock To:71st Value:72nd Value:5.000Value Percent:5.000Continuous Index:F01Within 8" of Joint:YESRemarks:5.000	



Code:	AMH Manhole
Description:	Wannole
Distance (ft):	199.6
Structural Grade:	0
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	M-504-110