## **Profile/Photo Observation Report**

_		-			ROBOTICS
Date:	09/05/2021	Weather:		Coding:	PACP 7.0
Pipe Length (ft)	201.0	Owner:	City of Hobart	Pre Clean:	Heavy Cleaning
P.O.#:	YES502259	Surveyor:	S. Bucklin	PSR:	P-504-119-118
Customer:	City of Hobart	Clean Date:	09/03/2021	Shape:	с
Street:	41st Avenue		Flow Control:	Not Controlled	
City:	Hobart, IN		Year Renewed:		
Location:	Alley		Tape/Media #:		
Purpose:	Routine Assessme	nt	Dia/Height:	12"	
Use:	Sanitary Sewage P	ipe	Material:	VCP	
Drain Area:			Lining:	None	
Category:	NA				
Comment:					
Location Details	:		Direction of Survey:	Downstream	
US MH:	M-504-118	DS MH: N	1-504-119	Total Length Surveyed (ft):	201.0
&M Index:	2.51	O&M Quick:	ЗК2Н	O&M Rating:	291.00
ructural Index:	3.38	Structural Quic	k: 4B33	Structural Rating:	88.00
verall Index:	2.67	Overall Quick:	4B3L	Overall Rating:	379.00

	Position	Code	Observation	Video (sec)	Grade
504-)1	18				
$\leq$	0.	AMH	Manhole	1	NA
	.0	MWL	Miscellaneous Water Level	54	NA
	.0	DSF(S02)	Deposits Settled Fine	67	M 2
	\\\_4.3	FM(S03)	Fracture Multiple	136	S 4
	7.3	FM(F03)	Fracture Multiple	199	S 4
	\	СМ	Crack Multiple	241	S 3
	20.0	OBN	Obstruction Construction Debris	264	M 2
	23.5	FM	Fracture Multiple	298	S 4
ш.	23.5	RFB	Roots Fine Barrel	301	M 2
	30.0	RFJ	Roots Fine Joint	402	M 1
	40.9	SSS	Surface Damage Surface Spalling	478	S 2
	41.6	TFC	Tap Factory Capped	495	NA
$\models$	41.7	TBI	Tap Break-in Intruding	513	M 2
	43.7	TFC	Tap Factory Capped	544	NA
	48.8	RMJ	Roots Medium Joint	601	M 3
	49.3	В	Broken	659	S 4
	49.3	RML	Roots Medium Lateral	672	M 3
	49.9	TBD	Tap Break-in/Hammer Defective	698	M 3
	51.0	RFJ	Roots Fine Joint	749	M 1

Wednesday, October 13, 2021

**RedZone**<sup>®</sup>

1.0	RFJ	Roots Fine Joint	767	M 1
57.4	RFJ	Roots Fine Joint	826	M 1
59.3	RMJ	Roots Medium Joint	865	M 3
61.5	RMJ	Roots Medium Joint	907	M 3
63.9	RMJ(S05)	Roots Medium Joint	955	M 3
63.9	RMJ(S04)	Roots Medium Joint	975	M 3
76.2	FM	Fracture Multiple	0	S 4
87.4	RMJ	Roots Medium Joint	0	M 3
91.2	SSS	Surface Damage Surface Spalling	0	S 2
91.2	TFD	Tap Factory Defective	33	M 3
92.2	ТВІ	Tap Break-in Intruding	43	M 2
93.1	TFC	Tap Factory Capped	107	NA
96.7	FM	Fracture Multiple	180	S 4
<u>]</u> 97.1	ТВІ	Tap Break-in Intruding	203	M 2
97.1	RML	Roots Medium Lateral	240	M 3
- \\\107.2	FC	Fracture Circumferential	350	S 2
107.2	FM	Fracture Multiple	388	S 4
115.6	FM	Fracture Multiple	489	S 4
124.0	СМ	Crack Multiple	564	S 3
130.0	FH4(S06)	Fracture Longitudinal Hinge, 4	693	S 4
136.5	MWLS	Miscellaneous Water Level Sag	736	S 2
141.3	TFC	Tap Factory Capped	781	NA
143.6	TFC	Tap Factory Capped	812	NA
	SSC	Surface Spalling of Damage Coating	873	S 1
/ 148.2	TBI	Tap Break-in Intruding	893	M 2
148.2	FH4(F06)	Fracture Longitudinal Hinge, 4	907	S 4
148.2	FM(S07)	Fracture Multiple	914	S 4
155.9	В	Broken	966	S 4
156.1	ТВІ	Tap Break-in Intruding	996	M 2
169.6	FM(F07)	Fracture Multiple	1073	S 4
/174.4	CM	Crack Multiple	1124	S 3
//184.9	FM	Fracture Multiple	1247	S 4
/ 185.8	ТВІ	Tap Break-in Intruding	1269	M 2
/ / 192.3	TFC	Tap Factory Capped	1321	NA
193.8	TFD	Tap Factory Defective	1369	M 3
196.0	SSS	Surface Damage Surface Spalling	1453	S 2
	TBI	Tap Break-in Intruding	1473	M 2
/// 199.3	RMJ(F05)	Roots Medium Joint	1507	M 3
/// 199.3	RMJ(F04)	Roots Medium Joint	1515	M 3
// 200.7	DSF(F02)	Deposits Settled Fine	1538	M 2
201.0	AMH	Manhole	1605	NA





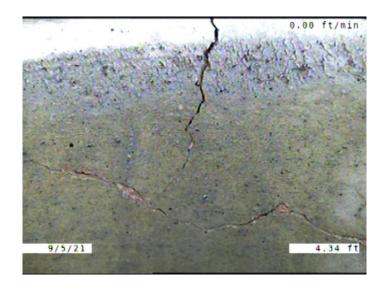
Code:	AMH
Description:	Manhole
Distance (ft):	.0
Structural Grade:	0
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	M-504-118



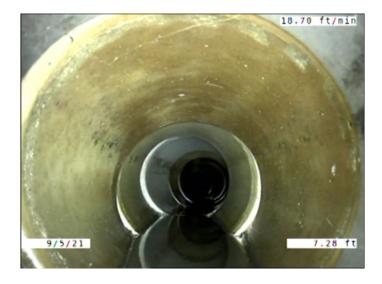
Code: Description:	MWL Miscellaneous Water Level
Distance (ft):	.0
Structural Grade:	0
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



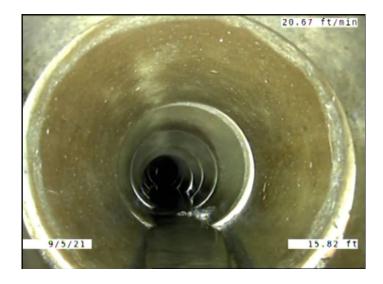
Code: Description:	DSF Deposits Settled Fine
Distance (ft):	.0
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	5
Clock To:	7
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	S02
Within 8" of Joint:	YES
Remarks:	



Code:	FM
Description:	Fracture Multiple
Distance (ft):	4.3
Structural Grade:	4
O&M Grade:	0
Clock Start/From:	8
Clock To:	4
1st Value: 2nd Value:	
Value Percent:	602
Continuous Index: Within 8" of Joint: Remarks:	SO3 YES



Code:	FM
Description:	Fracture Multiple
Distance (ft):	7.3
Structural Grade:	4
O&M Grade:	0
Clock Start/From:	8
Clock To:	4
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	F03
Within 8" of Joint:	YES
Remarks:	

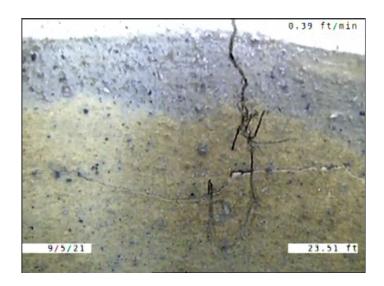


Code: Description:	CM Crack Multiple
Distance (ft):	15.8
Structural Grade:	3
O&M Grade:	0
Clock Start/From:	8
Clock To:	4
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	

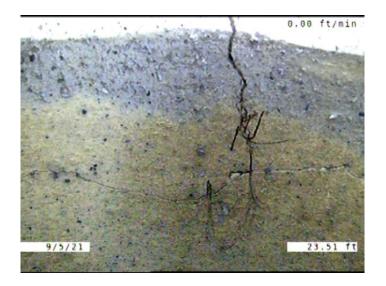


Code: Description:	OBN Obstruction Construction Debris
Distance (ft):	20.0
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	5
Clock To:	6
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	
Within 8" of Joint:	NO

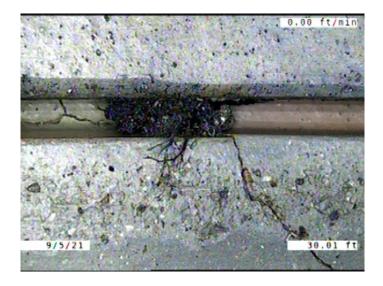
Remarks:



FM Fracture Multiple
23.5
4
0
11
1
YES



Code: Description:	RFB Roots Fine Barrel
Distance (ft):	23.5
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	12
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



RFJ Roots Fine Joint
30.0
0
1
10
YES



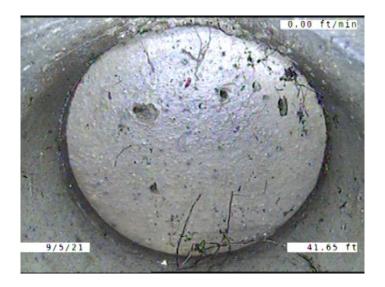
Code: Description:	SSS Surface Damage Surface Spalling
Distance (ft):	40.9
Structural Grade:	2
	-
O&M Grade:	0
Clock Start/From:	9
Clock To:	11
1st Value:	
2nd Value:	
Value Percent:	

NO

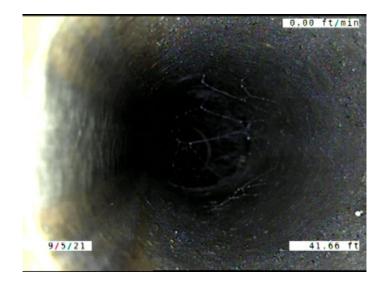
Continuous Index:

Within 8" of Joint:

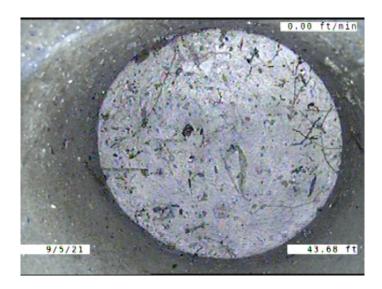
Remarks:



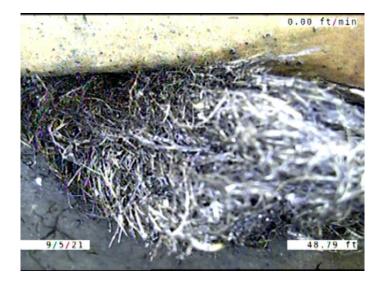
Code: Description:	TFC Tap Factory Capped
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index:	41.6 0 0 12 6.000
Within 8" of Joint: Remarks:	YES



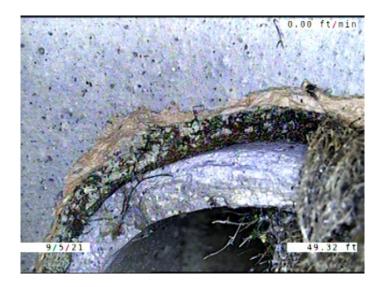
Code: Description:	TBI Tap Break-in Intruding
Distance (ft):	41.7
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	10
Clock To:	
1st Value:	6.000
2nd Value:	1.000
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code: Description:	TFC Tap Factory Capped
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint:	43.7 0 0 1 6.000 YES
Remarks:	



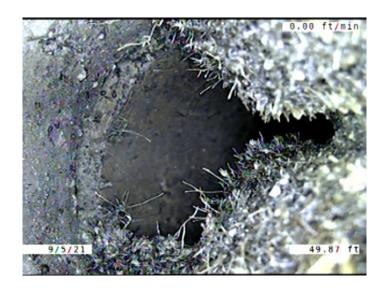
RMJ
Roots Medium Joint
48.8
0
3
3
5
5.000
YES



Code: Description:	B Broken
Distance (ft):	49.3
Structural Grade:	4
O&M Grade:	0
Clock Start/From:	1
Clock To:	3
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



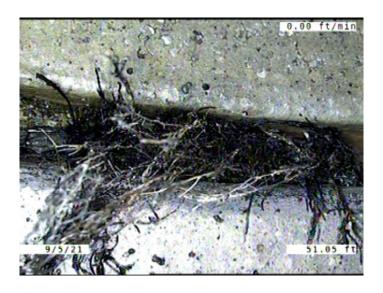
Code: Description:	RML Roots Medium Lateral
Distance (ft):	49.3
Structural Grade:	0
O&M Grade:	3
Clock Start/From:	1
Clock To:	3
1st Value:	
2nd Value:	
Value Percent:	10.000
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



Code:	TBD
Description:	Tap Break-in/Hammer Defective
Distance (ft):	49.9
Structural Grade:	0
O&M Grade:	3
Clock Start/From:	2
Clock To: 1st Value: 2nd Value: Value Percent:	6.000
Continuous Index: Within 8" of Joint: Remarks:	YES Defective



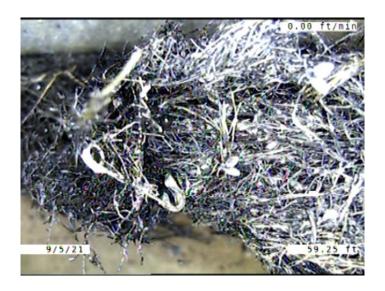
Code:	RFJ
Description:	<b>Roots Fine Joint</b>
Distance (ft):	51.0
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	9
Clock To:	10
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code: Description:	RFJ Roots Fine Joint
Distance (ft):	51.0
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	4
Clock To:	5
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



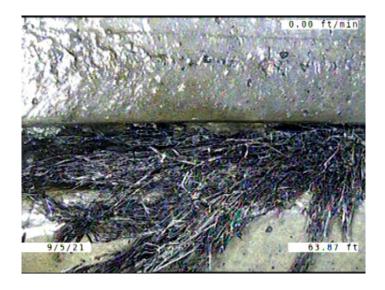
Code:	RFJ
Description:	<b>Roots Fine Joint</b>
Distance (ft):	57.4
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	8
Clock To:	9
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



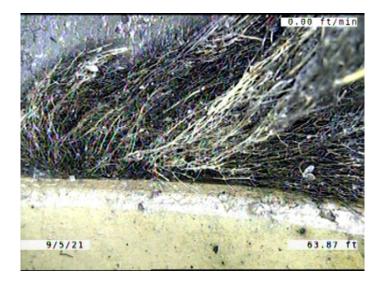
Code: Description:	RMJ Roots Medium Joint
Distance (ft):	59.3
Structural Grade:	0
O&M Grade:	3
Clock Start/From:	2
Clock To:	5
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



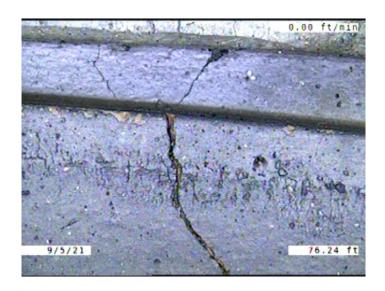
Code: Description:	RMJ Roots Medium Joint
Distance (ft):	61.5
Structural Grade:	0
O&M Grade:	3
Clock Start/From:	9
Clock To:	10
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



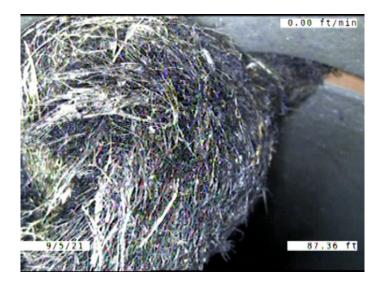
Code: Description:	RMJ Roots Medium Joint
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint:	63.9 0 3 3 5 5.000 \$05 YES
Remarks:	



Code:	RMJ
Description:	<b>Roots Medium Joint</b>
Distance (ft):	63.9
Structural Grade:	0
O&M Grade:	3
Clock Start/From:	8
Clock To:	10
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	S04
Within 8" of Joint:	YES
Remarks:	



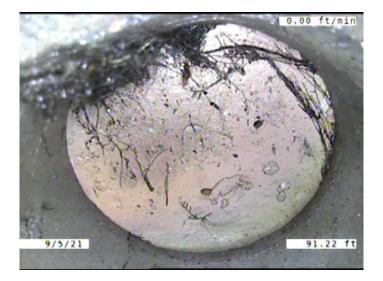
Code: Description:	FM Fracture Multiple
Distance (ft):	76.2
Structural Grade:	4
O&M Grade:	0
Clock Start/From:	12
Clock To:	3
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



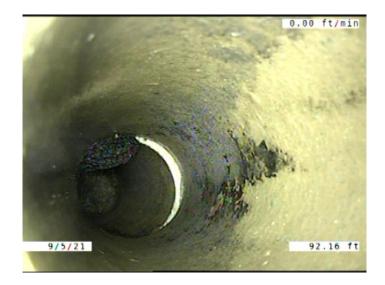
Code: Description:	RMJ Roots Medium Joint
Distance (ft):	87.4
Structural Grade: O&M Grade:	0 3
Clock Start/From:	7
Clock To:	11
1st Value:	
2nd Value:	
Value Percent:	20.000
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



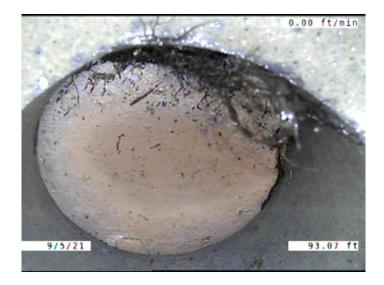
Code: Description:	SSS Surface Damage Surface Spalling
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: Remarks:	91.2 2 0 8 10 YES



Code: Description:	TFD Tap Factory Defective
Distance (ft):	91.2
Structural Grade:	0
O&M Grade:	3
Clock Start/From:	11
Clock To:	
1st Value:	6.000
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	CAPPED



Code: Description:	TBI Tap Break-in Intruding
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To:	92.2 0 2 10
1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: Remarks:	6.000 2.000 YES



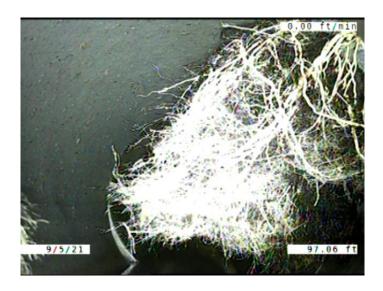
Code:	TFC
Description:	Tap Factory Capped
Distance (ft):	93.1
Structural Grade:	0
O&M Grade:	0
Clock Start/From:	1
Clock To:	
1st Value:	6.000
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	ROOTS GROWING AROUND THE CAP



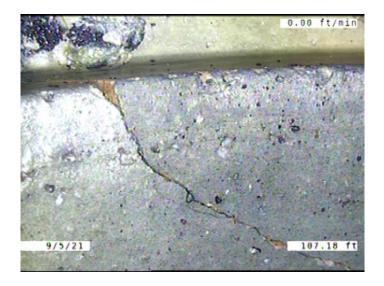
Code: Description:	FM Fracture Multiple
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint:	96.7 4 0 9 3 YES
Remarks:	



ТВІ
Tap Break-in Intruding
97.1
0
2
2
6.000
1.000
YES
LOOKS TO BE 100% PLUGGED WITH ROOTS



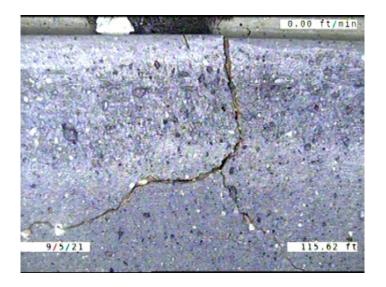
Code:	RML
Description:	Roots Medium Lateral
Distance (ft):	97.1
Structural Grade:	0
O&M Grade:	3
Clock Start/From:	1
Clock To:	5
1st Value: 2nd Value:	
Value Percent: Continuous Index:	40.000
Within 8" of Joint: Remarks:	NO



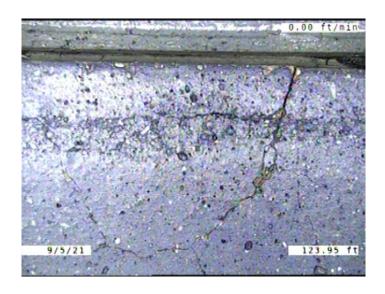
Code: Description:	FC Fracture Circumferential
Distance (ft):	107.2
Structural Grade:	2
O&M Grade:	0
Clock Start/From:	8
Clock To:	11
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



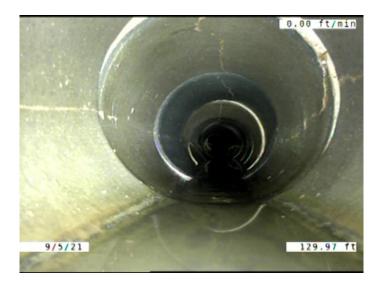
Code: Description:	FM Fracture Multiple
Distance (ft):	107.2
Structural Grade:	4
O&M Grade:	0
Clock Start/From:	1
Clock To:	4
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



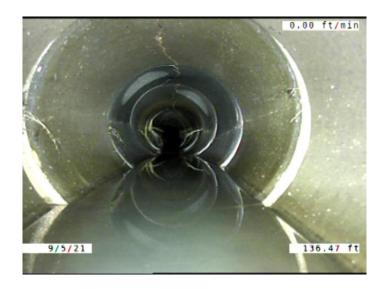
FM Fracture Multiple
115.6
4
0
9
3
YES



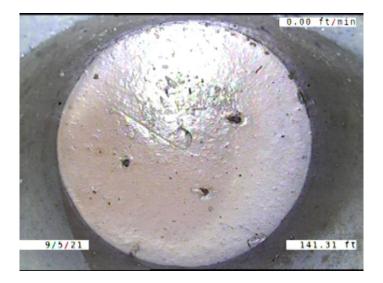
Code: Description:	CM Crack Multiple
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint:	124.0 3 0 10 12 YES
Remarks:	



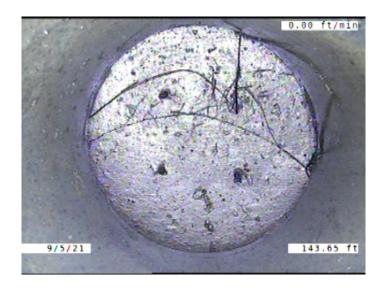
Code: Description:	FH4 Fracture Longitudinal Hinge, 4
Distance (ft):	130.0
Structural Grade:	4
O&M Grade:	0
Clock Start/From:	12
Clock To:	12
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	S06
Within 8" of Joint:	YES
Remarks:	



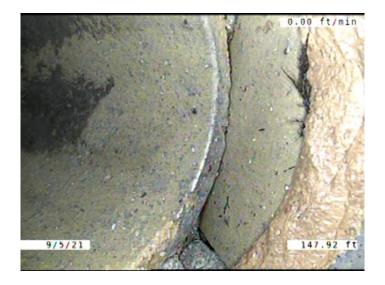
Code: Description:	MWLS Miscellaneous Water Level Sag
Distance (ft):	136.5
Structural Grade:	2
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	10.000
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



TFC
Tap Factory Capped
141.3
0
0
11
6.000
YES

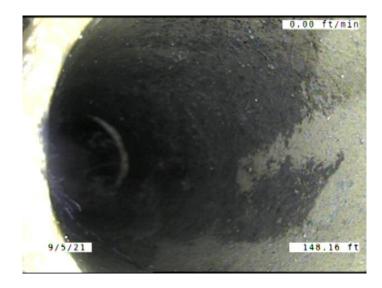


Code: Description:	TFC Tap Factory Capped
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: Remarks:	143.6 0 0 1 6.000 YES



Code:SSCDescription:Surface Spalling of Damage Coating

Distance (ft):	147.9
Structural Grade:	1
O&M Grade:	0
Clock Start/From:	9
Clock To:	11
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



Code: Description:	TBI Tap Break-in Intruding
Distance (ft):	148.2
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	10
Clock To:	
1st Value:	6.000
2nd Value:	1.000
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



## Code:FH4Description:Fracture Longitudinal Hinge, 4Distance (ft):148.2Structural Grade:4O&M Grade:0Clock Start/From:12Clock To:121st Value:12

F06

YES

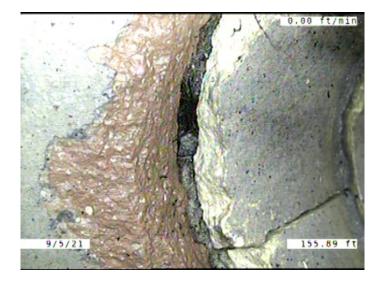
2nd Value: Value Percent: Continuous Index:

Remarks:

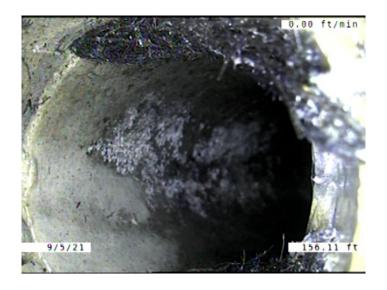
Within 8" of Joint:



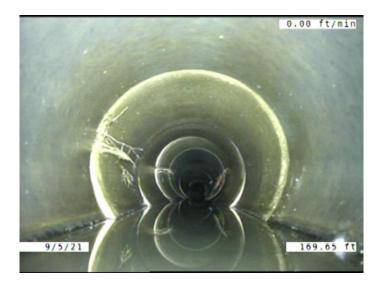
Code: Description:	FM Fracture Multiple
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: Remarks:	148.2 4 0 12 12 507 YES



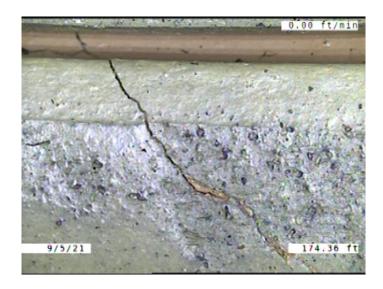
Code:	В
Description:	Broken
Distance (ft):	155.9
Structural Grade:	4
O&M Grade:	0
Clock Start/From:	1
Clock To:	2
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



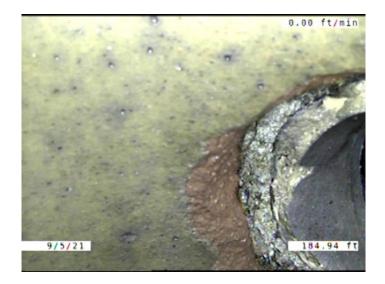
Code: Description:	TBI Tap Break-in Intruding
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: Remarks:	156.1 0 2 2 6.000 1.000 YES



Code: Description:	FM Fracture Multiple
Distance (ft):	169.6
Structural Grade:	4
O&M Grade:	0
Clock Start/From:	12
Clock To:	12
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	F07
Within 8" of Joint:	YES
Remarks:	



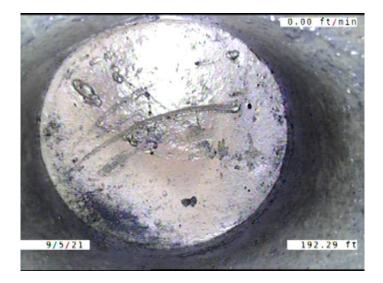
Code: Description:	CM Crack Multiple
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index:	174.4 3 0 12 2
Within 8" of Joint: Remarks:	YES



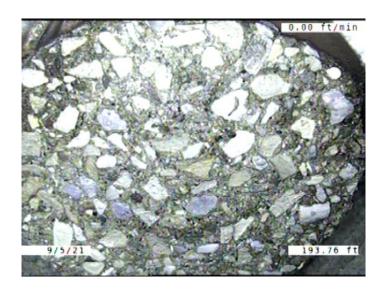
Code:	FM
Description:	Fracture Multiple
Distance (ft):	184.9
Structural Grade:	4
O&M Grade:	0
Clock Start/From:	11
Clock To:	4
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



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:	185.8 0 2 2 6.000 1.000 YES



Code: Description:	TFC Tap Factory Capped
Distance (ft):	192.3
Structural Grade:	0
O&M Grade:	0
Clock Start/From:	11
Clock To:	
1st Value:	6.000
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	

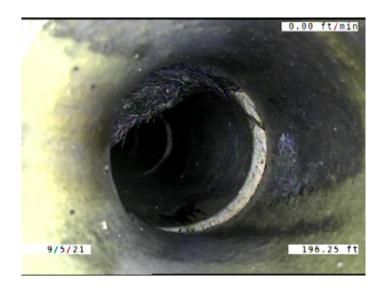


Code:	TFD
Description:	Tap Factory Defective
Distance (ft):	193.8
Structural Grade:	0
O&M Grade:	3
Clock Start/From:	1
Clock To: 1st Value: 2nd Value:	6.000
Value Percent: Continuous Index: Within 8" of Joint: Remarks:	YES LOOKS LIKE SOMEONE TRIED TO PLUG IT/ CAP IT.



SSS Surface Damage Surface Spalling
196.0
2
0
9
11
NO

Remarks:



	TBI Tap Break-in Intruding
Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index:	196.2 0 2 10 6.000 1.000



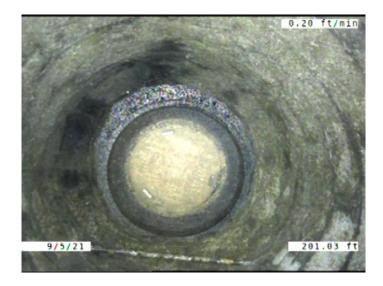
Code:	RMJ
Description:	<b>Roots Medium Joint</b>
Distance (ft):	199.3
Structural Grade:	0
O&M Grade:	3
Clock Start/From:	3
Clock To:	5
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	F05
Within 8" of Joint:	YES
Remarks:	



Code: Description:	RMJ Roots Medium 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:	199.3 0 3 8 10 5.000 F04 YES
Remarks:	-



Code:	DSF
Description:	<b>Deposits Settled Fine</b>
Distance (ft):	200.7
( )	
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	5
Clock To:	7
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	F02
Within 8" of Joint:	YES
Remarks:	



AMH Manhole
201.0
0
0
NO
M-504-119