## **Profile/Photo Observation Report**

-		•			ROBOTICS
Date:	09/03/2021	Weather:		Coding:	PACP 7.0
Pipe Length (ft):	191.0	Owner:	City of Hobart	Pre Clean:	Light Cleaning
P.O.#:	YES502259	Surveyor:	S. Bucklin	PSR:	P-404-022-023
Customer:	City of Hobart	Clean Date:	08/30/2021	Shape:	С
Street:	41st Avenue		Flow Control:	Not Controlled	
City:	Hobart, IN		Year Renewed:		
Location:	Alley		Tape/Media #:		
Purpose:	Routine Assessmer	nt	Dia/Height:	10"	
Use:	Sanitary Sewage Pi	ре	Material:	VCP	
Drain Area:			Lining:		
Category:	NA				
Comment:					
Location Details:	:		Direction of Surve	ey: Upstream	
US MH:	VI-404-022	DS MH:	M-404-023	Total Length Surveyed (ft)	: 175.5
0&M Index:	1.93	O&M Quick:	4239	O&M Rating:	129.00
tructural Index:	3.00	Structural Qu	ick: 5248		66.00
)verall Index:	2.19	Overall Quick			195.00

	Position	Code	Observation	Video (sec)	Grade
M(404-	023				
$\leq$	0.	AMH	Manhole	1	NA
	.0	MWL	Miscellaneous Water Level	87	NA
- 11	6	TF	Tap Factory	115	NA
- 11	1.8	OBN	Obstruction Construction Debris	140	M 2
	2.4	MMC	Miscellaneous Material Change	201	NA
- 11	2.4	В	Broken	220	S 4
	2.4	HVV	Hole Void Visible	236	S 5
- 11	2.4	JAL	Joint Angular Large	249	S 4
	2.4	IRJ	Infiltration Runner Joint	267	M 4
5	2.4	RFJ	Roots Fine Joint	296	M 1
Ę	2.4	LR	Line Right	318	M 1
Camera Direction	6.8	DSF(S01)	Deposits Settled Fine	350	M 2
nera	12.2	RFJ	Roots Fine Joint	409	M 1
E I	13.1	В	Broken	489	S 4
	13.1	RMB	Roots Medium Barrel	517	M 4
	14.4	TBD	Tap Break-in/Hammer Defective	572	M 3
L	18.1	LL	Line Left	608	M 1
	18.3	RFJ	Roots Fine Joint	662	M 1
	24.0	RFJ	Roots Fine Joint	734	M 1

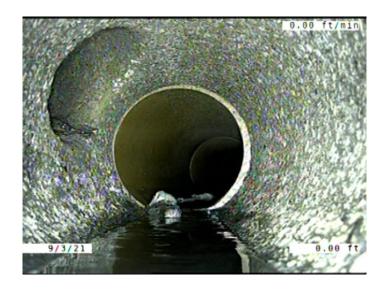
Wednesday, October 13, 2021

**RedZone**<sup>®</sup>

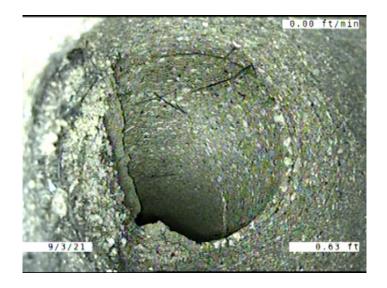
	27.1	RFJ	Roots Fine Joint	802	M 1
	31.4	TF	Tap Factory	844	NA
	34.0	MWLS(S02)	Miscellaneous Water Level Sag	870	S 2
	44.2	FM	Fracture Multiple	931	S 4
	47.4	RFJ	Roots Fine Joint	964	M 1
	51.7	RML	Roots Medium Lateral	1041	M 3
	52.1	TBI	Tap Break-in Intruding	1056	M 2
	53.4	RFJ	Roots Fine Joint	1102	M 1
	55.3	MWLS(F02)	Miscellaneous Water Level Sag	1127	S 2
	56.5	RMJ	Roots Medium Joint	1153	M 3
	59.7	RMJ	Roots Medium Joint	1191	M 3
	65.9	RFJ	Roots Fine Joint	1255	M 1
	69.0	RFJ	Roots Fine Joint	1313	M 1
	72.1	RMJ	Roots Medium Joint	1367	M 3
	75.2	RMJ	Roots Medium Joint	1405	M 3
	77.3	В	Broken	1500	S 4
	78.2	RFJ	Roots Fine Joint	1539	M 1
	79.4	RML	Roots Medium Lateral	1586	M 3
	79.5	TFD	Tap Factory Defective	1610	M 3
	80.3	RFJ	Roots Fine Joint	1680	M 1
	83.3	RFJ	Roots Fine Joint	1785	M 1
	86.5	RFJ	Roots Fine Joint	1824	M 1
	92.6	RFJ	Roots Fine Joint	1890	M 1
	94.4	MWLS(S03)	Miscellaneous Water Level Sag	1917	S 2
	117.4	CS	Crack Spiral	2061	S 2
	119.3	RML	Roots Medium Lateral	2119	M 3
	119.7	TBI	Tap Break-in Intruding	2145	M 2
	126.7	FM(S04)	Fracture Multiple	2221	S 4
	128.1	TF	Tap Factory	2249	NA
	128.5	BVV	Broken Void Visible	2313	S 5
	131.6	MWLS(F03)	Miscellaneous Water Level Sag	2347	S 2
	131.6	FM(F04)	Fracture Multiple	2357	S 4
	153.6	В	Broken	2463	S 4
	156.6	LL	Line Left	2525	M 1
$\Box$	159.8	LR	Line Right	2565	M 1
	172.2	FM	Fracture Multiple	2653	S 4
	/175.5	ТВІ	Tap Break-in Intruding	2740	M 2
	175.5	DSF(F01)	Deposits Settled Fine	2763	M 2
	175.5	MSA	Miscellaneous Survey Abandoned	2772	NA
404-02	22				



Code: Description:	AMH 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-404-023



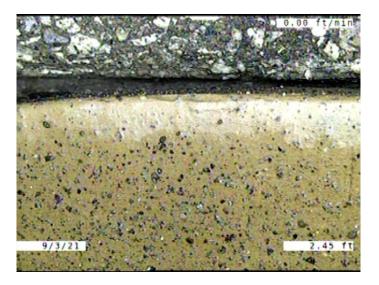
Code: Description:	MWL Miscellaneous Water Level
Distance (ft):	.0
Structural Grade:	0
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



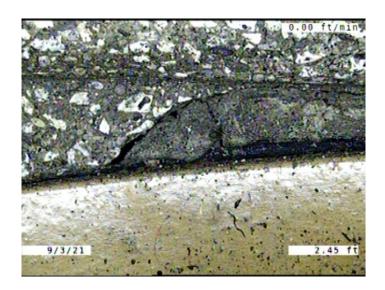
Code: Description:	TF Tap Factory
Distance (ft):	.6
Structural Grade:	0
O&M Grade:	0
Clock Start/From:	10
Clock To:	
1st Value:	6.000
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



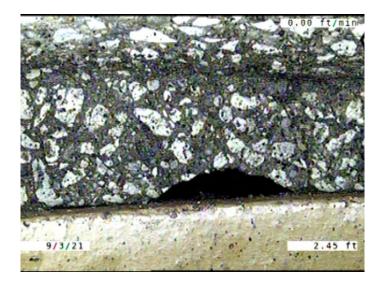
Code:OBNDescription:Obstruction Construction Debris	
Distance (ft): <b>1.8</b>	
Structural Grade: <b>0</b>	
O&M Grade: <b>2</b>	
Clock Start/From: 6	
Clock To:	
1st Value:	
2nd Value:	
Value Percent: 5.000	
Continuous Index:	
Within 8" of Joint: YES	
Remarks: METAL PIPE WITH TP	



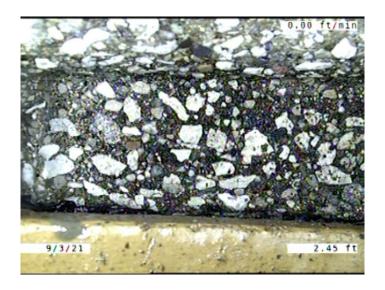
Code: MMC Description: **Miscellaneous Material Change** 2.4 Distance (ft): Structural Grade: 0 O&M Grade: 0 Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: NO Remarks: CONCRETE TO VCP



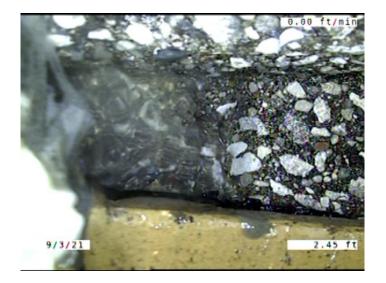
Code: Description:	B Broken
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint:	2.4 4 0 11 1 YES
Remarks:	OUTSIDE OF THE JOINT



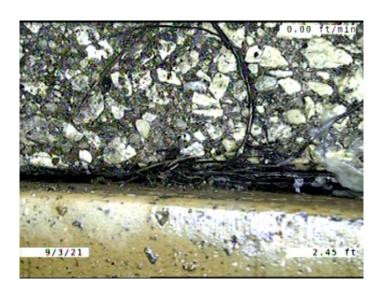
Code: Description:	HVV Hole Void Visible
Distance (ft):	2.4
Structural Grade:	5
O&M Grade:	0
Clock Start/From:	10
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



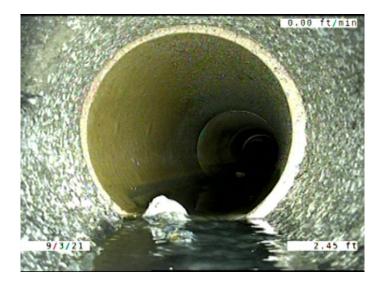
Code: Description:	JAL Joint Angular Large
Distance (ft):	2.4
Structural Grade:	4
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



Code: Description:	IRJ Infiltration Runner Joint
Distance (ft):	2.4
Structural Grade:	0
O&M Grade:	4
Clock Start/From:	8
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



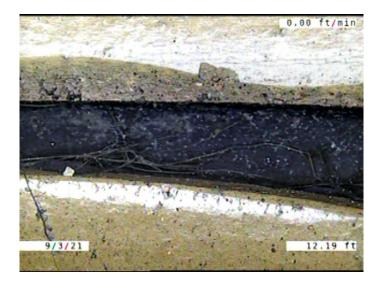
Code: Description:	RFJ Roots Fine Joint
Distance (ft):	2.4
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	3
Clock To:	4
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code:	LR
Description:	Line Right
Distance (ft):	2.4
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	10.000
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



Code:	DSF
Description:	Deposits Settled Fine
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:	6.8 0 2 5 7 5.000 \$01 YES



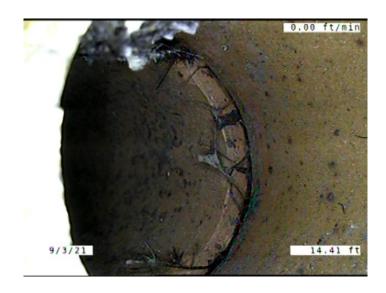
Code:	RFJ
Description:	<b>Roots Fine Joint</b>
Distance (ft):	12.2
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	8
Clock To:	4
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



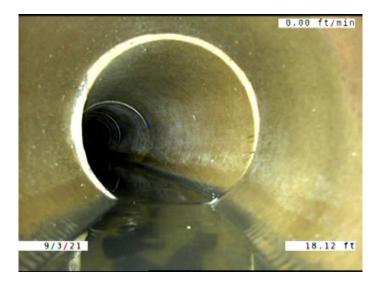
Code: Description:	B Broken
Distance (ft):	13.1
Structural Grade:	4
O&M Grade:	0
Clock Start/From:	10
Clock To:	5
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code: Description:	RMB Roots Medium Barrel
Distance (ft):	13.1
Structural Grade:	0
O&M Grade:	4
Clock Start/From:	9
Clock To:	4
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



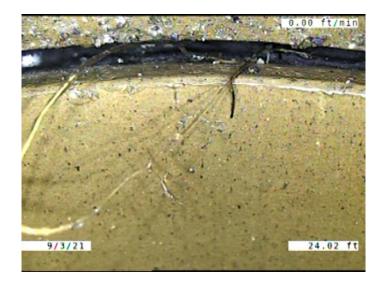
Code:	TBD
Description:	Tap Break-in/Hammer Defective
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To:	14.4 0 3 10
1st Value: 2nd Value: Value Percent: Continuous Index:	6.000
Within 8" of Joint:	YES
Remarks:	Debris



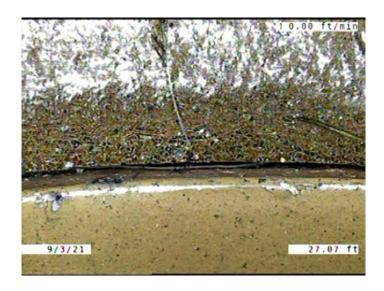
Code:	LL
Description:	Line Left
Distance (ft):	18.1
Distance (ft):	10.1
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	10.000
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



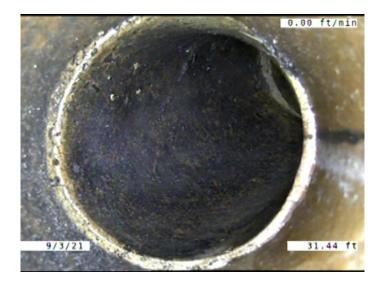
Code: Description:	RFJ Roots Fine Joint
Distance (ft):	18.3
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	8
Clock To:	4
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



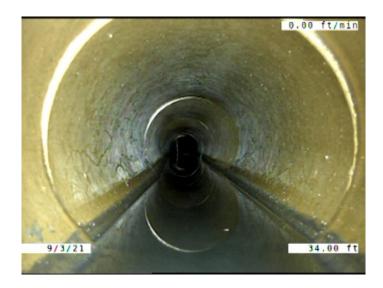
RFJ Roots Fine Joint
Roots Fine Joint
24.0
0
1
10
4
YES



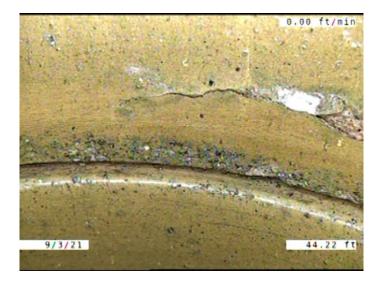
Code:	RFJ
Description:	Roots Fine Joint
Distance (ft):	27.1
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	10
Clock To:	12
1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: Remarks:	YES



Code:	TF
Description:	Tap Factory
Distance (ft):	31.4
Structural Grade:	0
O&M Grade:	0
Clock Start/From:	2
Clock To:	
1st Value:	6.000
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	CONSTANTLY RUNNING WATER



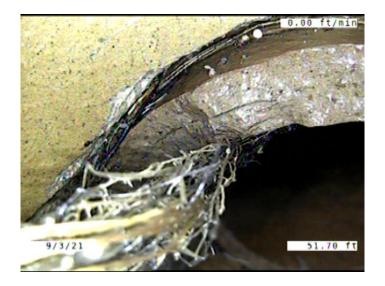
Code: Description:	MWLS Miscellaneous Water Level Sag
Distance (ft):	34.0
Structural Grade:	2
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	S02
Within 8" of Joint:	NO
Remarks:	



Code:	FM
Description:	Fracture Multiple
Distance (ft):	44.2
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:	



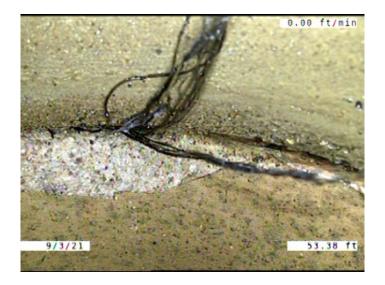
Code: Description:	RFJ Roots Fine Joint
Distance (ft):	47.4
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	9
Clock To:	10
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



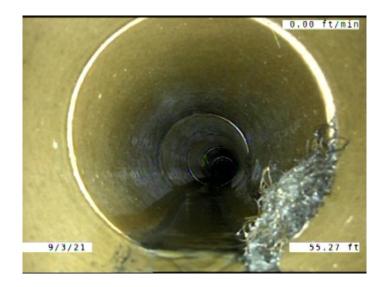
Code: Description:	RML Roots Medium Lateral
Distance (ft):	51.7
Structural Grade:	0
O&M Grade:	3
Clock Start/From:	10
Clock To:	1
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



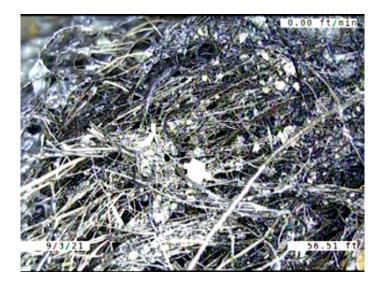
Code: Description:	TBI Tap Break-in Intruding
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: Remarks:	52.1 0 2 11 6.000 1.000



Code:	RFJ
Description:	<b>Roots Fine Joint</b>
Distance (ft):	53.4
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	10
Clock To:	3
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



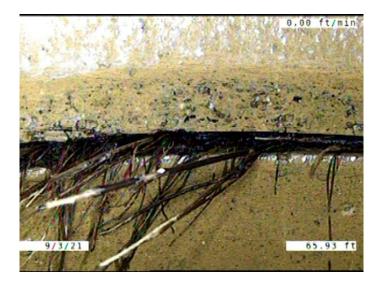
Code: Description:	MWLS Miscellaneous Water Level Sag
Distance (ft):	55.3
Structural Grade:	2
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	F02
Within 8" of Joint:	NO
Remarks:	



RMJ Roots Medium Joint
56.5
0
3
2
5
10.000
YES



RMJ Roots Medium Joint
59.7
0
3
3
5.000
YES



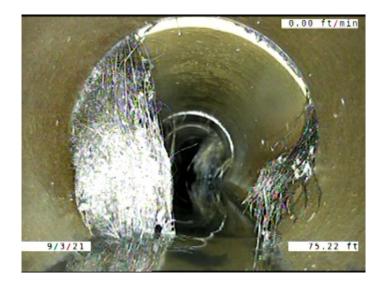
Description:Roots Fine JointDistance (ft):65.9Structural Grade:0O&M Grade:1Clock Start/From:8Clock To:41st Value:-2nd Value:-Value Percent:-Continuous Index:YESRemarks:-	Code:	RFJ
Structural Grade:0O&M Grade:1Clock Start/From:8Clock To:41st Value:42nd Value:4Value Percent:5Continuous Index:YES	Description:	<b>Roots Fine Joint</b>
Structural Grade:0O&M Grade:1Clock Start/From:8Clock To:41st Value:42nd Value:4Value Percent:5Continuous Index:YES		
Structural Grade:0O&M Grade:1Clock Start/From:8Clock To:41st Value:42nd Value:4Value Percent:5Continuous Index:YES	Distance (ft):	65.0
O&M Grade:1Clock Start/From:8Clock To:41st Value:	Distance (It):	05.9
Clock Start/From: 8 Clock To: 4 1st Value: 2nd Value: Value Percent: Continuous Index: YES	Structural Grade:	0
Clock To: 4 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: YES	O&M Grade:	1
1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: YES	Clock Start/From:	8
2nd Value: Value Percent: Continuous Index: Within 8" of Joint: YES	Clock To:	4
Value Percent: Continuous Index: Within 8" of Joint: YES	1st Value:	
Continuous Index: Within 8" of Joint: YES	2nd Value:	
Within 8" of Joint: YES	Value Percent:	
	Continuous Index:	
Remarks:	Within 8" of Joint:	YES
	Remarks:	



Code: Description:	RFJ Roots Fine Joint
Distance (ft):	69.0
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	7
Clock To:	1
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code:	RMJ
Description:	Roots Medium Joint
Distance (ft):	72.1
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:	



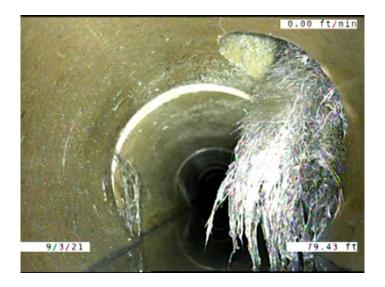
Code: Description:	RMJ Roots Medium Joint
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint:	75.2 0 3 7 5 30.000 YES
Remarks:	



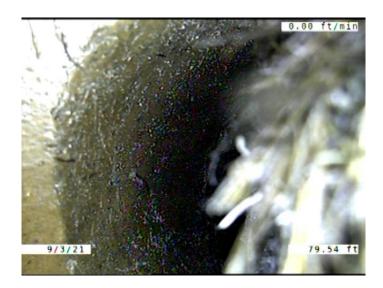
Code:	В
Description:	Broken
Distance (ft):	77.3
Structural Grade:	4
O&M Grade:	0
Clock Start/From:	5
Clock To:	12
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



Code: Description:	RFJ Roots Fine Joint
Distance (ft):	78.2
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	7
Clock To:	4
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



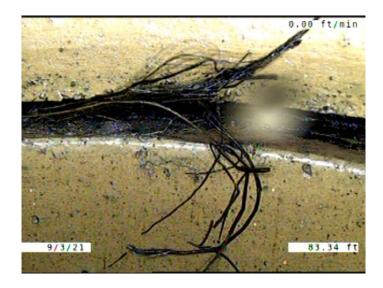
Code: Description:	RML Roots Medium Lateral
Distance (ft):	79.4
Structural Grade:	0
O&M Grade:	3
Clock Start/From:	1
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	20.000
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



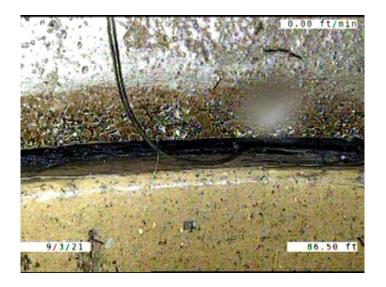
Code:	TFD
Description:	Tap Factory Defective
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To:	79.5 0 3 1
1st Value: 2nd Value: Value Percent: Continuous Index:	6.000
Within 8" of Joint:	YES
Remarks:	Debris



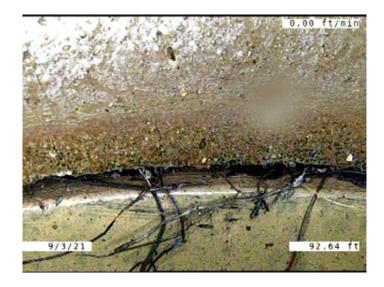
RFJ
<b>Roots Fine Joint</b>
80.3
0
1
9
4
YES



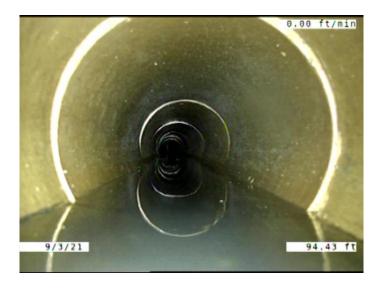
Code: Description:	RFJ Roots Fine Joint
Distance (ft):	83.3
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	8
Clock To:	3
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code:	RFJ
Description:	<b>Roots Fine Joint</b>
Distance (ft):	86.5
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:	

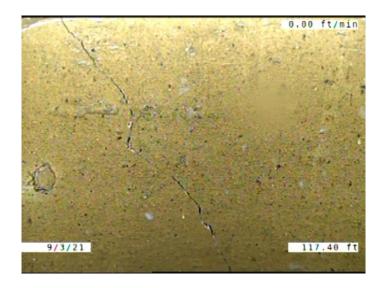


Code: Description:	RFJ Roots Fine Joint
Distance (ft):	92.6
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	8
Clock To:	11
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	

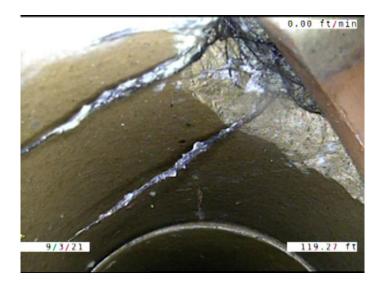


Code: Description:	MWLS Miscellaneous Water Level Sag
Distance (ft):	94.4
Structural Grade:	2
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	S03
Within 8" of Joint:	NO

Remarks:

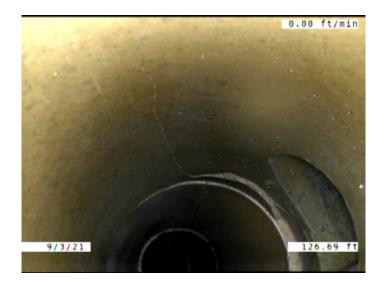


Code: Description:	CS Crack Spiral
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index:	117.4 2 0 11 12
Within 8" of Joint: Remarks:	YES

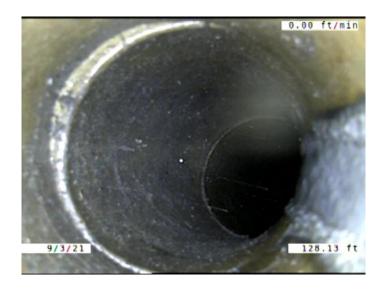




Code: Description:	TBI Tap Break-in Intruding
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: Remarks:	119.7 0 2 12 6.000 1.000 YES



Code:	FM
Description:	Fracture Multiple
	426 7
Distance (ft):	126.7
Structural Grade:	4
O&M Grade:	0
Clock Start/From:	12
Clock To:	12
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	S04
Within 8" of Joint:	YES
Remarks:	



Code: Description:	TF Tap Factory
Distance (ft): Structural Grade:	128.1 0
O&M Grade:	0
Clock Start/From:	2
Clock To: 1st Value: 2nd Value:	6.000
Value Percent:	
Continuous Index:	
Within 8" of Joint: Remarks:	YES



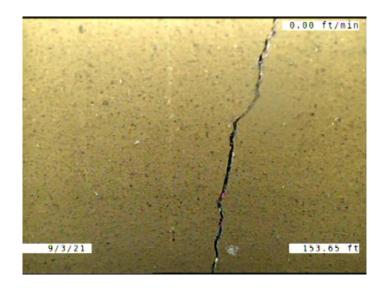
Code: Description:	BVV Broken Void Visible
Distance (ft):	128.5
Structural Grade:	5
O&M Grade:	0
Clock Start/From:	2
Clock To:	7
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



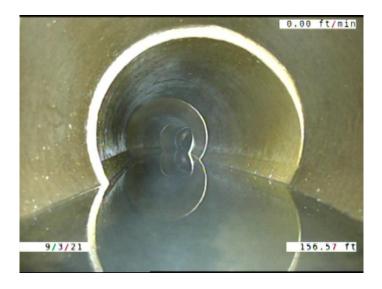
Code: Description:	MWLS Miscellaneous Water Level Sag
Distance (ft):	131.6
Structural Grade:	2
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	F03
Within 8" of Joint:	NO
Remarks:	



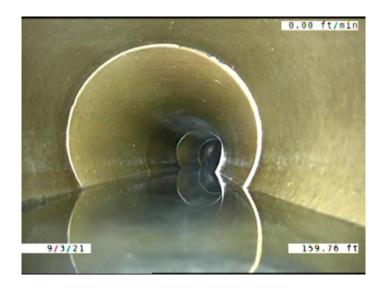
Code: Description:	FM Fracture Multiple
Distance (ft): Structural Grade:	131.6 4
O&M Grade: Clock Start/From:	0
Clock To: 1st Value:	12
2nd Value:	
Value Percent: Continuous Index:	F04
Within 8" of Joint: Remarks:	YES



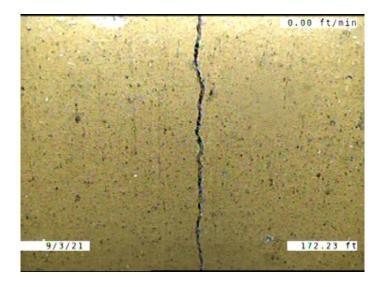
Code: Description:	B Broken
Distance (ft):	153.6
Structural Grade:	4
O&M Grade:	0
Clock Start/From:	12
Clock To:	12
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



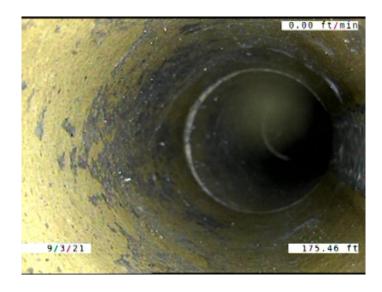
Code:	LL
Description:	Line Left
Distance (ft):	156.6
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



LR Line Right
159.8
0
1
5.000
NO



Code: Description:	FM Fracture Multiple
Distance (ft):	172.2
Structural Grade:	4
O&M Grade:	0
Clock Start/From:	12
Clock To:	8
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Distance (ft):175.5Structural Grade:0O&M Grade:2Clock Start/From:2Clock To:	Code: Description:	TBI Tap Break-in Intruding
1st Value:6.0002nd Value:4.000Value Percent:Continuous Index:Within 8" of Joint:NORemarks:	Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint:	0 2 2 6.000 4.000



Code:	DSF
Description:	<b>Deposits Settled Fine</b>
Distance (ft):	175.5
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	5
Clock To:	7
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	F01
Within 8" of Joint:	YES
Remarks:	



Code: Description:	MSA Miscellaneous Survey Abandoned
Distance (ft):	175.5
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:	CAMERA CANT MAKE IT PAST PROTRUDING TAP