## **Profile/Photo Observation Report**

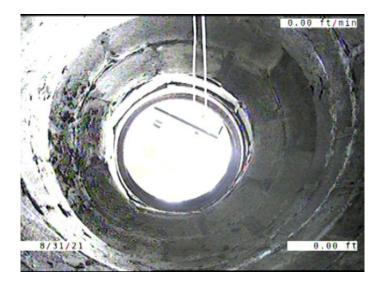
		-			ROBOTICS
Date:	08/31/2021	Weather:		Coding:	PACP 7.0
Pipe Length (ft	): <b>217.0</b>	Owner:	City of Hobart	Pre Clean:	Heavy Cleaning
P.O.#:	YES502259	Surveyor:	S. Bucklin	PSR:	P-504-108-106
Customer:	City of Hobart	Clean Date:	08/28/2021	Shape:	с
Street:	North Virginia Stre	et	Flow Control:	Not Controlled	
City:	Hobart, IN	•	Year Renewed:		
Location:	Alley	-	Tape/Media #:		
Purpose:	Routine Assessme	nt	Dia/Height:	12"	
Use:	Sanitary Sewage P	ipe	Material:	СР	
Drain Area:		I	Lining:		
Category:	NA				
Comment:					
Location Detail	S:	I	Direction of Survey:	Upstream	
US MH:	M-504-106	DS MH: M	-504-108	Total Length Surveyed (ft):	202.7
O&M Index:	2.07	O&M Quick:	4139	O&M Rating:	126.00
Structural Index:	2.24	Structural Quick	. 4135	Structural Rating:	65.00
	2.12		423A		191.00
Overall Index:	2.12	Overall Quick:	423A	Overall Rating:	191.00

	Position	Code	Observation	Video (sec)	Grade
M-504	-108				
	.0	AMH	Manhole	2	NA
- 11	.0	MWL	Miscellaneous Water Level	58	NA
- 84	.0	DSF(S01)	Deposits Settled Fine	71	M 2
- 11	1.2	FS	Fracture Spiral	131	S 3
- 11	1.2	ISJ	Infiltration Stain Joint	151	M 1
	1.2	IWB	Infiltration Weeper Barrel	166	M 2
- 83	11.0	MWLS(S02)	Miscellaneous Water Level Sag	217	S 2
5	21.3	JOM	Joint Offset Medium	388	S 3
	21.8	MCU	Miscellaneous Camera Underwater	418	M 4
	24.2	JAL	Joint Angular Large	501	S 4
Direction	24.2	MMC	Miscellaneous Material Change	531	NA
	26.4	TFD	Tap Factory Defective	569	M 3
amera	28.0	MMC	Miscellaneous Material Change	625	NA
Car	74.7	MWLS(F02)	Miscellaneous Water Level Sag	847	S 2
	85.8	JAM	Joint Angular Medium	934	S 3
	86.0	TBD	Tap Break-in/Hammer Defective	1006	M 3
	86.0	MWLS(S03)	Miscellaneous Water Level Sag	1030	S 2
	/ // 101.1	СМ	Crack Multiple	1165	S 3
	101.1	ISB	Infiltration Stain Barrel	1243	M 1

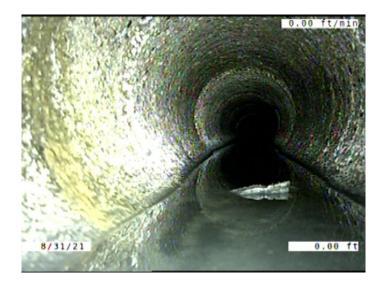
Wednesday, October 13, 2021

**RedZone**<sup>®</sup>

105.2	TBD	Tap Break-in/Hammer Defective	1310	MB
105.2	MWLS(F03)	Miscellaneous Water Level Sag	1336	S 2
// 115.8	DSC	Deposits Settled Hard/Compacted	1419	M
115.8	RFJ	Roots Fine Joint	1431	M
123.4	MWLS(S04)	Miscellaneous Water Level Sag	1472	S 2
126.2	MMC	Miscellaneous Material Change	1528	NA
127.9	TFC	Tap Factory Capped	1583	NA
///129.6	MMC	Miscellaneous Material Change	1642	NA
/// 132.6	MMC	Miscellaneous Material Change	1698	NA
// 134.5	TBI	Tap Break-in Intruding	1752	M 2
// 136.1	MMC	Miscellaneous Material Change	1808	NA
142.3	MWLS(F04)	Miscellaneous Water Level Sag	1858	S 2
/ 161.1	MWLS(S05)	Miscellaneous Water Level Sag	2008	S 2
168.6	MWLS(F05)	Miscellaneous Water Level Sag	2051	S 2
181.2	RMJ	Roots Medium Joint	2160	MB
181.2	RFJ	Roots Fine Joint	2184	M 1
184.3	RFJ	Roots Fine Joint	2260	M 1
188.1	FL	Fracture Longitudinal	2313	S 3
188.2	RFJ	Roots Fine Joint	2355	M
188.2	RMJ	Roots Medium Joint	2378	M 3
189.3	RMJ	Roots Medium Joint	2576	MB
/ 192.3	RMJ	Roots Medium Joint	2739	M
//195.7	RMJ	Roots Medium Joint	2774	M
// 198.7	RFJ	Roots Fine Joint	2809	M 1
///201.9	RMJ	Roots Medium Joint	2865	M
///202.7	DSF(F01)	Deposits Settled Fine	3135	M
202.7	MSA	Miscellaneous Survey Abandoned	3143	NA



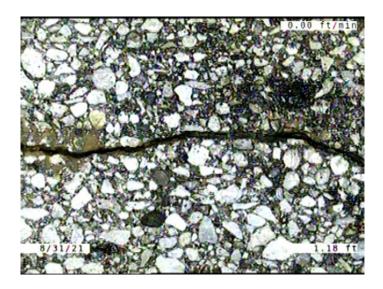
Code:	АМН
Description:	Manhole
Distance (ft):	.0
Structural Grade:	0
Structural Grade.	0
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	M-504-108



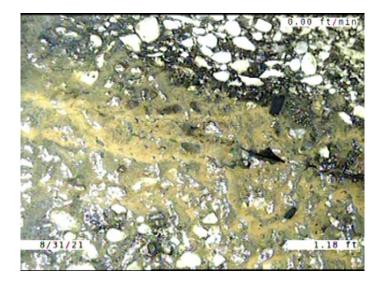
MWL Miscellaneous Water Level
.0 0
0
5.000
ΝΟ



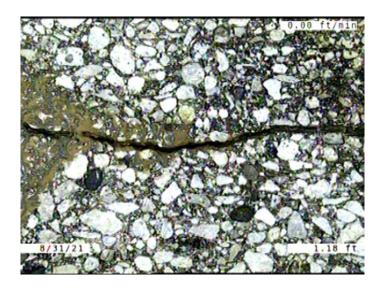
Code: Description:	DSF Deposits Settled Fine
Distance (ft):	.0
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	5
Clock To:	7
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	S01
Within 8" of Joint:	YES
Remarks:	



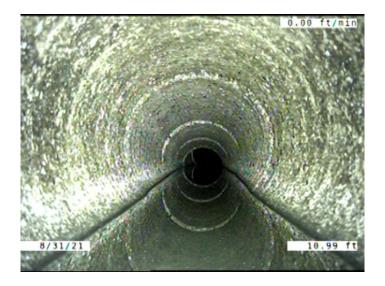
Code: Description:	FS Fracture Spiral
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value:	1.2 3 0 8 4
Value Percent: Continuous Index: Within 8" of Joint: Remarks:	NO



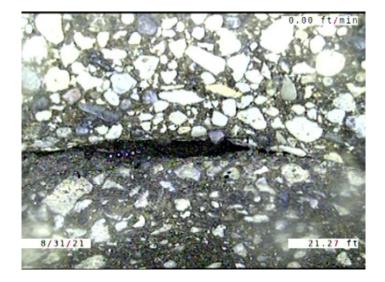
Code: Description:	ISJ Infiltration Stain Joint
Distance (ft):	1.2
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	8
Clock To:	11
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code: Description:	IWB Infiltration Weeper Barrel
Distance (ft):	1.2
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	11
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



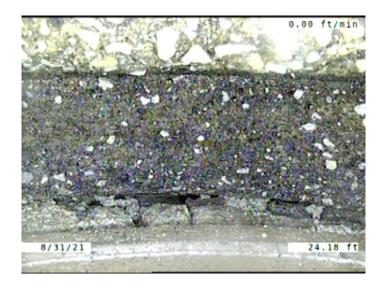
Code: Description:	MWLS Miscellaneous Water Level Sag
Distance (ft):	11.0
Structural Grade:	2
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	10.000
Continuous Index:	S02
Within 8" of Joint:	NO
Remarks:	



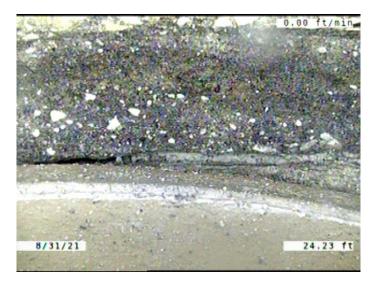
Code: Description:	JOM Joint Offset Medium
Distance (ft):	21.3
Structural Grade:	3
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



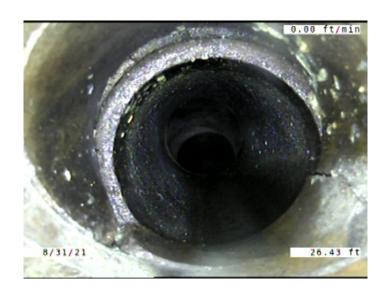
Code: Description:	MCU Miscellaneous Camera Underwater
Distance (ft):	21.8
Structural Grade:	0
O&M Grade:	4
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	Out at 22.4



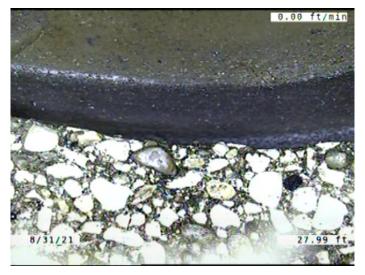
Code: Description:	JAL Joint Angular Large
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: Remarks:	24.2 4 0 NO SOIL VISIBLE



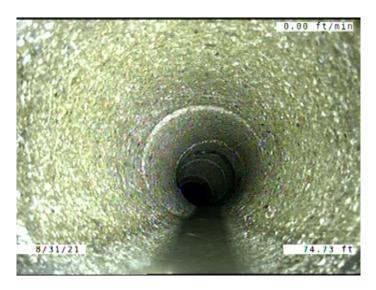
MMC Miscellaneous Material Change
24.2
0
0
NO
CONCRETE TO VCP



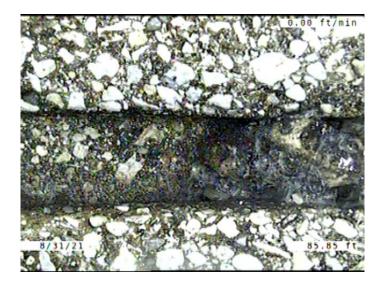
Code: Description:	TFD Tap Factory Defective
Distance (ft): Structural Grade: O&M Grade:	26.4 0 3
Clock Start/From: Clock To: 1st Value:	1 4.000
2nd Value: Value Percent:	4.000
Continuous Index: Within 8" of Joint: Remarks:	YES Debris



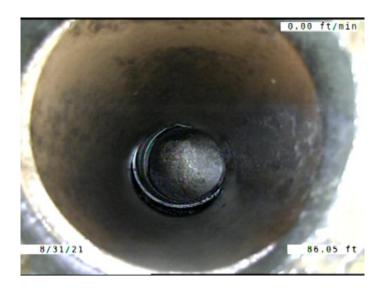
Code: Description:	MMC Miscellaneous Material Change
Distance (ft):	28.0
Structural Grade:	0
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	VCP TO CONCRETE



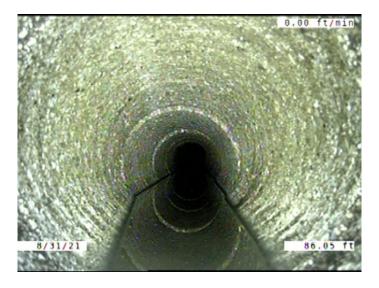
Code: Description:	MWLS Miscellaneous Water Level Sag
Distance (ft):	74.7
Structural Grade:	2
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	10.000
Continuous Index:	F02
Within 8" of Joint:	NO
Remarks:	



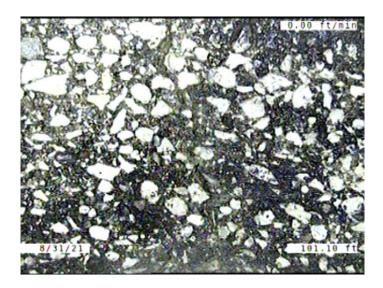
Code: Description:	JAM Joint Angular Medium
Distance (ft):	85.8
Structural Grade:	3
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



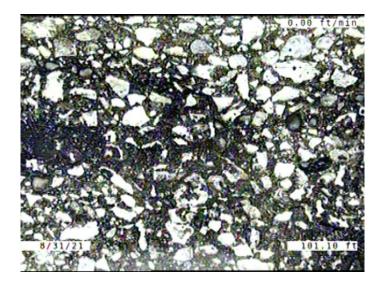
Code: Description:	TBD Tap Break-in/Hammer Defective
Distance (ft):	86.0
Structural Grade:	0
O&M Grade:	3
Clock Start/From:	12
Clock To:	
1st Value:	4.000
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	Debris



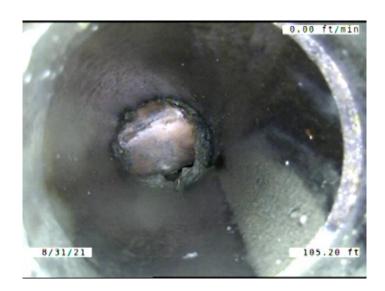
Code: Description:	MWLS Miscellaneous Water Level Sag
Distance (ft):	86.0
Structural Grade:	2
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	S03
Within 8" of Joint:	NO
Remarks:	



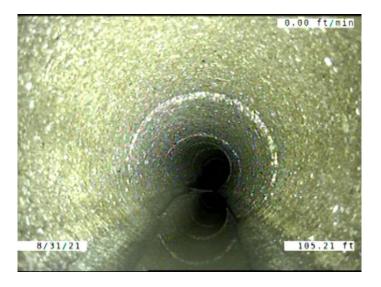
Code: Description:	CM Crack Multiple
Distance (ft):	101.1
Structural Grade:	3
O&M Grade:	0
Clock Start/From:	11
Clock To:	12
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code: Description:	ISB Infiltration Stain Barrel
Distance (ft):	101.1
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:	



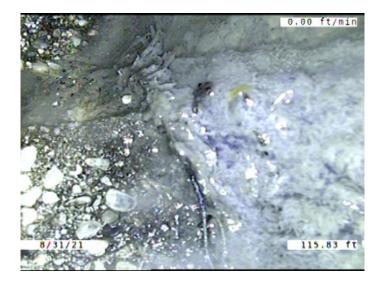
Code: Description:	TBD Tap Break-in/Hammer Defective
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value:	105.2 0 3 12 4.000
Value Percent: Continuous Index: Within 8" of Joint: Remarks:	NO Debris



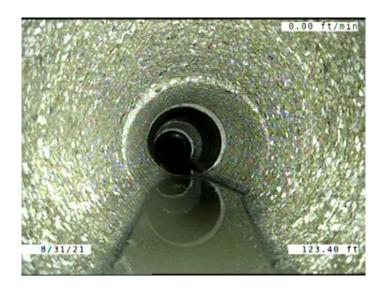
Code:	MWLS
Description:	Miscellaneous Water Level Sag
	105.0
Distance (ft):	105.2
Structural Grade:	2
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	F03
Within 8" of Joint:	NO
Remarks:	



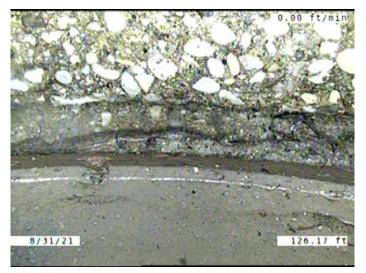
DSC Deposits Settled Hard/Compacted
115.8 0 2 5 7
5.000 YES



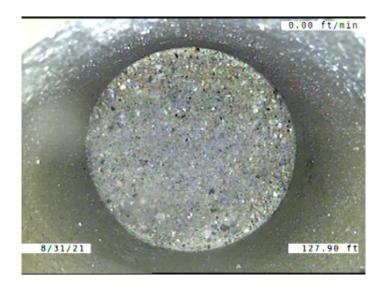
RFJ
<b>Roots Fine Joint</b>
115.8
0
1
7
YES



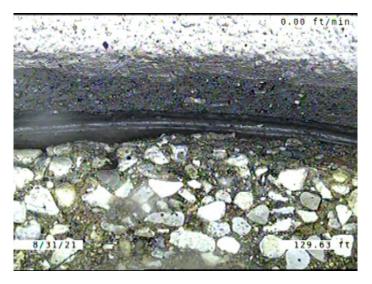
Code: Description:	MWLS Miscellaneous Water Level Sag
Distance (ft):	123.4
Structural Grade:	2
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	S04
Within 8" of Joint:	NO
Remarks:	



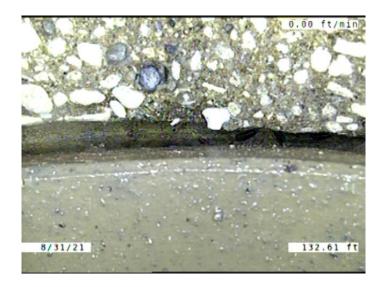
Code: MMC Description: **Miscellaneous Material Change** Distance (ft): 126.2 Structural Grade: 0 0 O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: NO Remarks: CONCRETE TO VCP



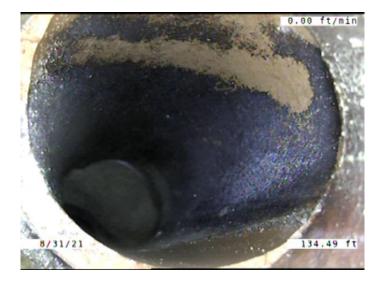
Code: Description:	TFC Tap Factory Capped
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: Remarks:	127.9 0 0 11 4.000 YES



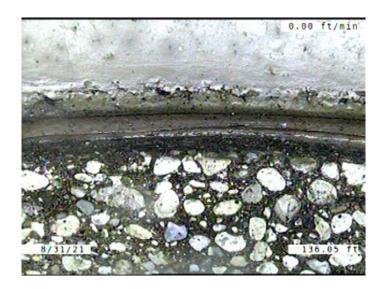
Code: MMC Description: **Miscellaneous Material Change** Distance (ft): 129.6 Structural Grade: 0 O&M Grade: 0 Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: NO Remarks: **VCP TO CONCRETE** 



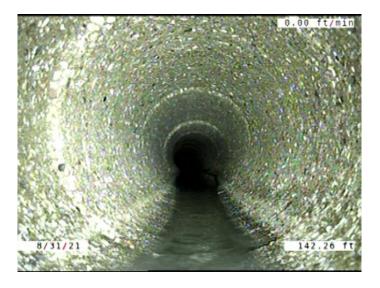
Code: Description:	MMC Miscellaneous Material Change
Distance (ft):	132.6
Structural Grade:	0
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	CONCRETE TO VCP



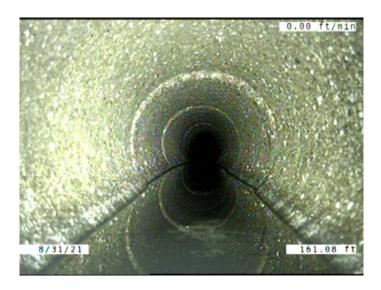
Code:	TBI
Description:	Tap Break-in Intruding
Distance (ft):	134.5
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	1
Clock To: 1st Value: 2nd Value:	4.000 1.000
Value Percent: Continuous Index: Within 8" of Joint: Remarks:	YES



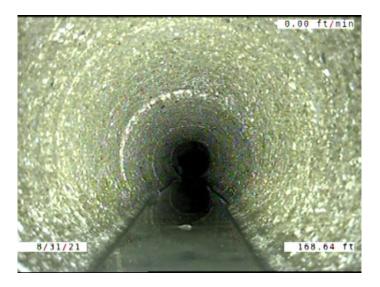
Code: Description:	MMC Miscellaneous Material Change
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint:	136.1 0 0
Remarks:	VCP TO CONCRETE



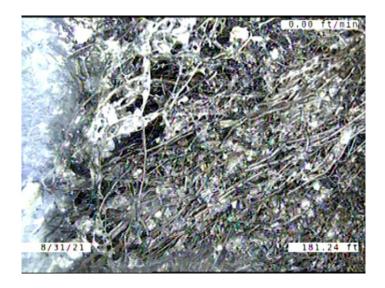
Code: Description:	MWLS Miscellaneous Water Level Sag
Distance (ft):	142.3
Structural Grade:	2
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	F04
Within 8" of Joint:	NO
Remarks:	



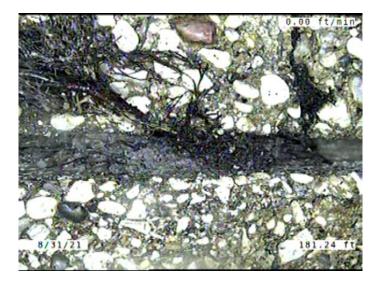
	Code: Description:	MWLS Miscellaneous Water Level Sag
	Distance (ft):	161.1
	Structural Grade:	2
	O&M Grade:	0
	Clock Start/From:	
	Clock To:	
	1st Value:	
	2nd Value:	
,	Value Percent:	5.000
	Continuous Index:	S05
	Within 8" of Joint:	NO
	Remarks:	



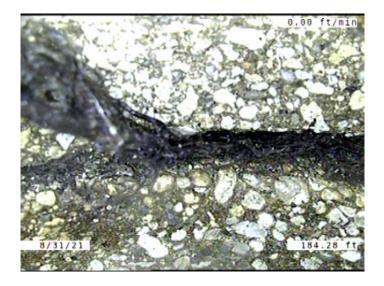
Code: Description:	MWLS Miscellaneous Water Level Sag
Distance (ft):	168.6
Structural Grade:	2
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	F05
Within 8" of Joint:	NO
Remarks:	



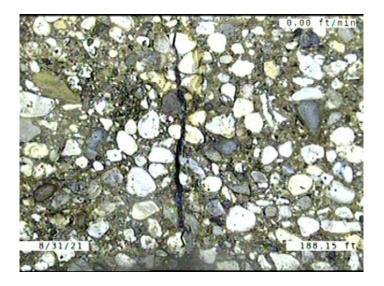
Code: Description:	RMJ Roots Medium Joint
Distance (ft):	181.2
Structural Grade:	0
O&M Grade:	3
Clock Start/From:	3
Clock To:	4
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



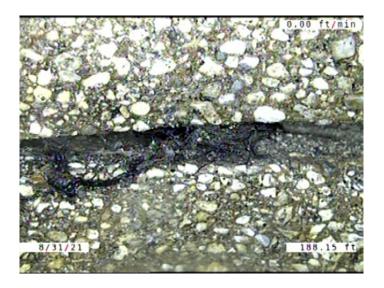
Code:	RFJ
Description:	<b>Roots Fine Joint</b>
Distance (ft):	181.2
ζ, γ	
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	8
Clock To:	9
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



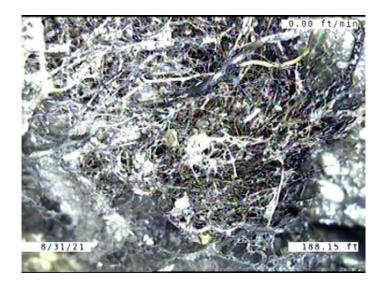
RFJ Roots Fine Joint
184.3
0
1
9
3
YES



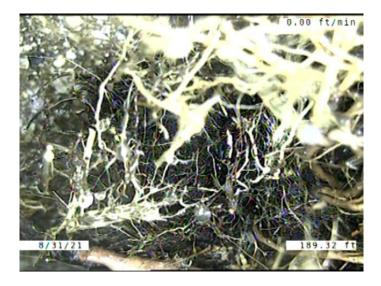
Code:	FL
Description:	Fracture Longitudinal
Distance (ft):	188.1
Structural Grade:	3
O&M Grade:	0
Clock Start/From:	2
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



RFJ Roots Fine Joint
188.2
0
1
8
9
YES



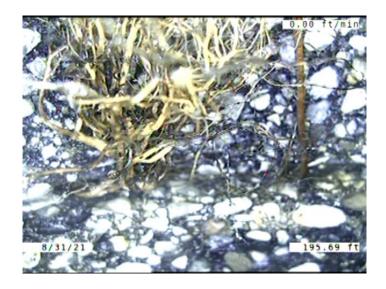
Code: Description:	RMJ Roots Medium Joint
Distance (ft):	188.2
Structural Grade:	0
O&M Grade:	3
Clock Start/From:	2
Clock To:	5
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



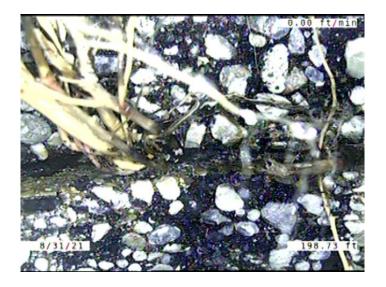
Code: Description:	RMJ Roots Medium Joint
Distance (ft):	189.3
Structural Grade:	0
O&M Grade:	3
Clock Start/From:	7
Clock To:	5
1st Value:	
2nd Value:	
Value Percent:	40.000
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



RMJ Roots Medium Joint
192.3
0
3
2
10
20.000
YES



RMJ Roots Medium Joint
195.7
0
3
9
5.000
YES



Code:	RFJ
Description:	<b>Roots Fine Joint</b>
Distance (ft):	198.7
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	9
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code: Description:	RMJ Roots Medium Joint
Distance (ft):	201.9
Structural Grade:	0
O&M Grade:	3
Clock Start/From:	7
Clock To:	3
1st Value:	
2nd Value:	
Value Percent:	40.000
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code:	DSF
Description:	<b>Deposits Settled Fine</b>
Distance (ft):	202.7
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	5
Clock To:	7
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	F01
Within 8" of Joint:	YES
Remarks:	



Code: Description:	MSA Miscellaneous Survey Abandoned
Distance (ft):	202.7
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:	CAMERA CANT MAKE IT PAST ROOTS