

RedZone
ROBOTICS

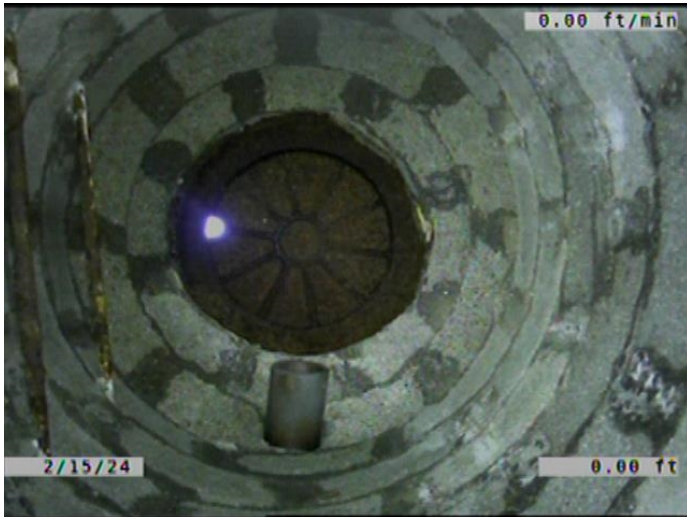
Street:	N DELAWARE ST		Flow Control:	Not Controlled	
City:	Hobart, IN		Year Renewed:		
Location:	Alley		Tape/Media #:		
Purpose:	Routine Assessment		Dia/Height:	10"	
Use:	Sanitary Sewage Pipe		Material:	VCP	
Drain Area:			Lining:	None	
Category:	NA				
Comment:					
Location Details:			Direction of Survey:	Downstream	
US MH:	M-504-013	DS MH:	M-504-015	Total Length Surveyed (ft):	158.7

Position	Code	Observation	Video (sec)	Grade
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Friday, April 26, 2024

50.2	CM	Crack Multiple	917	S 3
52.5	TFD	Tap Factory Defective	960	M 3
58.6	MWLS(F04)	Miscellaneous Water Level Sag	1007	S 2
59.9	JAM	Joint Angular Medium	1054	S 3
60.2	MWLS(S05)	Miscellaneous Water Level Sag	1071	S 2
65.7	CH3	Crack Longitudinal Hinge, 3	1113	S 3
67.3	MWLS(F05)	Miscellaneous Water Level Sag	1122	S 2
76.5	MWLS(S06)	Miscellaneous Water Level Sag	1167	S 2
83.6	MWLS(F06)	Miscellaneous Water Level Sag	1210	S 2
85.5	MWLS(S07)	Miscellaneous Water Level Sag	1228	S 2
91.0	RFJ	Roots Fine Joint	1297	M 1
92.0	TFD	Tap Factory Defective	1355	M 3
94.1	TFC	Tap Factory Capped	1428	NA
98.5	MWLS(F07)	Miscellaneous Water Level Sag	1472	S 2
99.3	HSV	Hole Soil Visible	1544	S 5
99.3	RPPD	Point Repair Patch Patch Defective	1558	S 4
99.4	TBD	Tap Break-in/Hammer Defective	1578	M 3
101.6	B	Broken	1633	S 4
101.6	RFJ	Roots Fine Joint	1640	M 1
105.3	MWLS(S08)	Miscellaneous Water Level Sag	1673	S 4
105.8	FM	Fracture Multiple	1688	S 4
105.8	RFJ	Roots Fine Joint	1720	M 1
129.7	TFD	Tap Factory Defective	1927	M 3
131.8	TFD	Tap Factory Defective	1993	M 3
149.4	MCU(S09)	Miscellaneous Camera Underwater	2275	M 4
155.0	MCU(F09)	Miscellaneous Camera Underwater	2380	M 4
155.6	FM	Fracture Multiple	2406	S 4
155.6	HSV	Hole Soil Visible	2428	S 5
155.6	JAL	Joint Angular Large	2460	S 4
158.0	MWLS(F08)	Miscellaneous Water Level Sag	2530	S 4
158.0	DSF(F02)	Deposits Settled Fine	2544	M 2
158.3	MGO	Miscellaneous General Observation	2700	NA
158.7	AMH	Manhole	2681	NA

M-504-015



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-504-013**



Code: **MWL**
Description: **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: **MWLS**
Description: **Miscellaneous Water Level Sag**

Distance (ft): **1.7**
Structural Grade: **2**
O&M Grade: **0**
Clock Start/From:
Clock To:
1st Value:
2nd Value:
Value Percent: **15.000**
Continuous Index: **S01**
Within 8" of Joint: **NO**
Remarks:



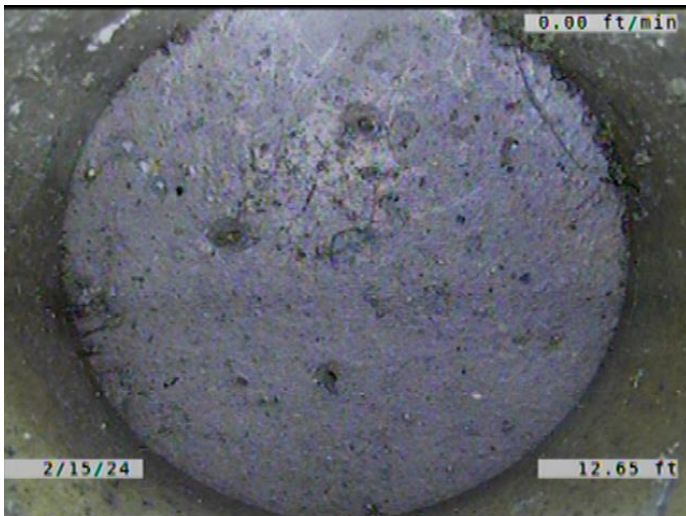
Code: **DSF**
Description: **Deposits Settled Fine**

Distance (ft): **1.7**
Structural Grade: **0**
O&M Grade: **2**
Clock Start/From: **5**
Clock To: **7**
1st Value:
2nd Value:
Value Percent: **5.000**
Continuous Index: **S02**
Within 8" of Joint: **YES**
Remarks:



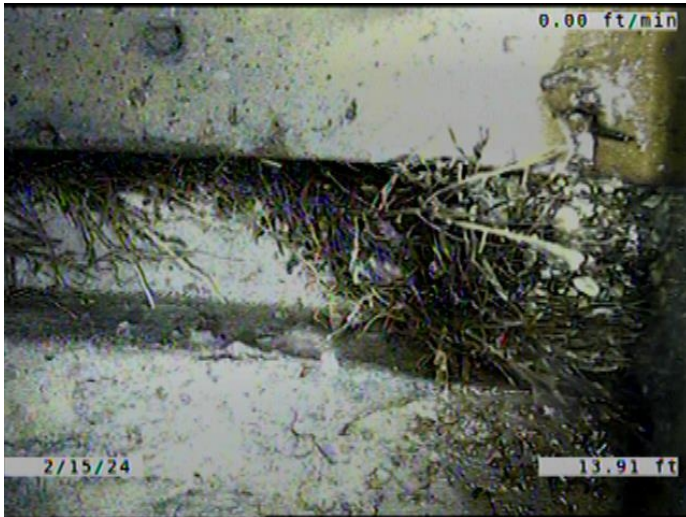
Code: **RFJ**
Description: **Roots Fine Joint**

Distance (ft): **9.7**
Structural Grade: **0**
O&M Grade: **1**
Clock Start/From: **7**
Clock To: **9**
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **YES**
Remarks:



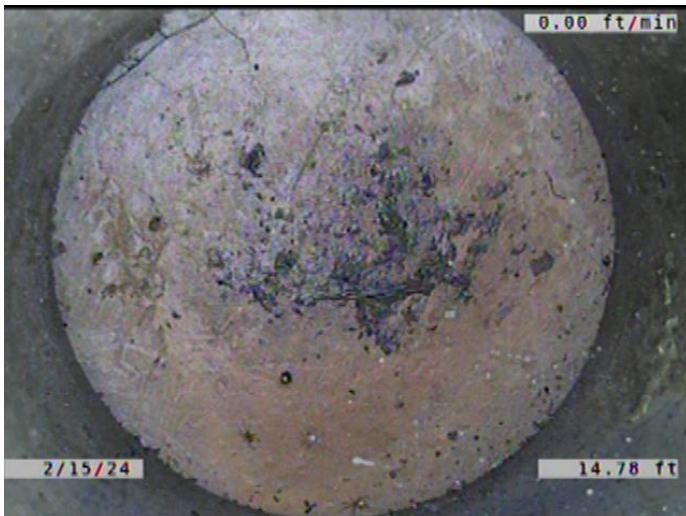
Code: **TFC**
Description: **Tap Factory Capped**

Distance (ft): **12.6**
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:



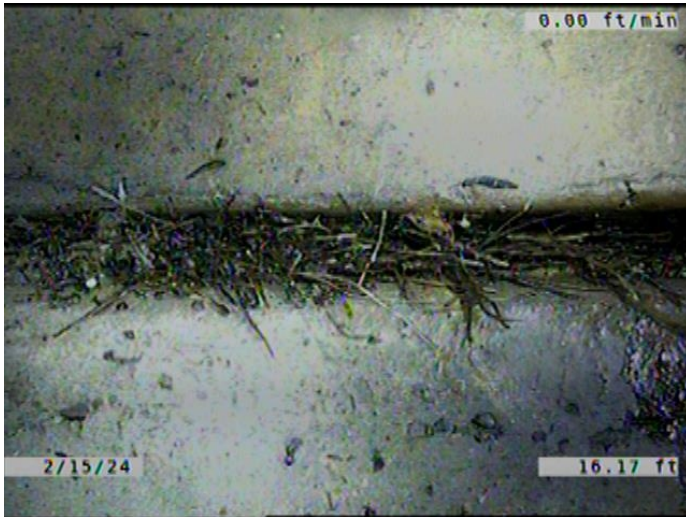
Code: **RFJ**
Description: **Roots Fine Joint**

Distance (ft): **13.9**
Structural Grade: **0**
O&M Grade: **1**
Clock Start/From: **2**
Clock To: **4**
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **YES**
Remarks:



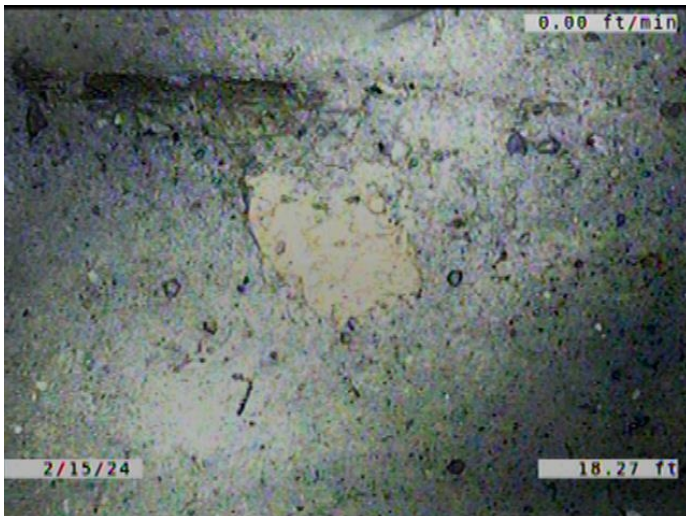
Code: **TFD**
Description: **Tap Factory Defective**

Distance (ft): **14.8**
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. TAP CRACKED.**



Code: **RFJ**
Description: **Roots Fine Joint**

Distance (ft): **16.2**
Structural Grade: **0**
O&M Grade: **1**
Clock Start/From: **1**
Clock To: **4**
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **YES**
Remarks:



Code: **SSC**
Description: **Surface Spalling of Damage Coating**

Distance (ft): **18.3**
Structural Grade: **1**
O&M Grade: **0**
Clock Start/From: **9**
Clock To:
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **YES**
Remarks:



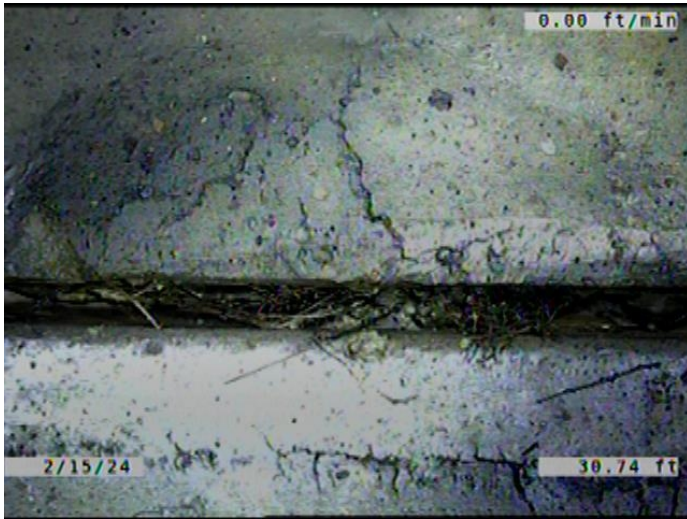
Code: **FM**
Description: **Fracture Multiple**

Distance (ft): **24.3**
Structural Grade: **4**
O&M Grade: **0**
Clock Start/From: **7**
Clock To: **5**
1st Value:
2nd Value:
Value Percent:
Continuous Index: **S03**
Within 8" of Joint: **YES**
Remarks:



Code: **MWLS**
Description: **Miscellaneous Water Level Sag**

Distance (ft): **26.4**
Structural Grade: **2**
O&M Grade: **0**
Clock Start/From:
Clock To:
1st Value:
2nd Value:
Value Percent: **15.000**
Continuous Index: **F01**
Within 8" of Joint: **NO**
Remarks:



Code: **RFJ**
Description: **Roots Fine Joint**

Distance (ft): **30.7**
Structural Grade: **0**
O&M Grade: **1**
Clock Start/From: **9**
Clock To: **3**
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **YES**
Remarks:



Code: **MWLS**
Description: **Miscellaneous Water Level Sag**

Distance (ft): **40.4**
Structural Grade: **2**
O&M Grade: **0**
Clock Start/From:
Clock To:
1st Value:
2nd Value:
Value Percent: **15.000**
Continuous Index: **S04**
Within 8" of Joint: **NO**
Remarks:



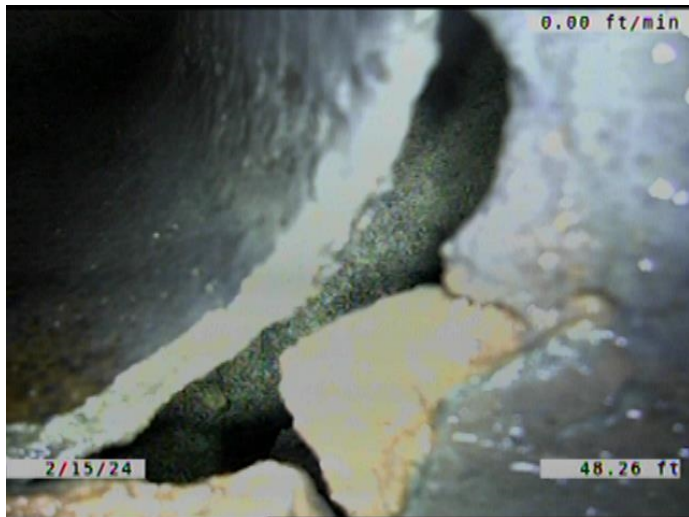
Code: **FM**
Description: **Fracture Multiple**

Distance (ft): **40.4**
Structural Grade: **4**
O&M Grade: **0**
Clock Start/From: **7**
Clock To: **5**
1st Value:
2nd Value:
Value Percent:
Continuous Index: **F03**
Within 8" of Joint: **YES**
Remarks:



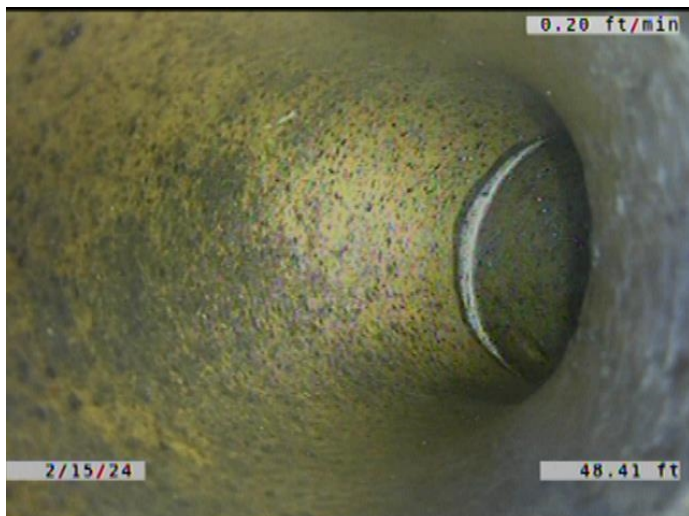
Code: **DR**
Description: **Deformed Rigid**

Distance (ft): **47.9**
Structural Grade: **4**
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:



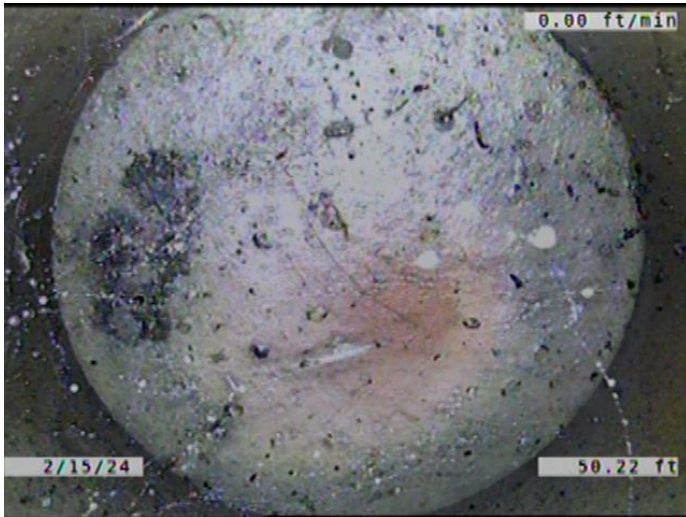
Code: **BVV**
Description: **Broken Void Visible**

Distance (ft): **48.3**
Structural Grade: **5**
O&M Grade: **0**
Clock Start/From: **11**
Clock To: **1**
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **YES**
Remarks: **SOIL VISIBLE ALSO.**



Code: **TBD**
Description: **Tap Break-in/Hammer Defective**

Distance (ft): **48.4**
Structural Grade: **0**
O&M Grade: **3**
Clock Start/From: **12**
Clock To:
1st Value: **6.000**
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **YES**
Remarks: **COMES FROM THE RIGHT (WEST).
ACTIVITY.**



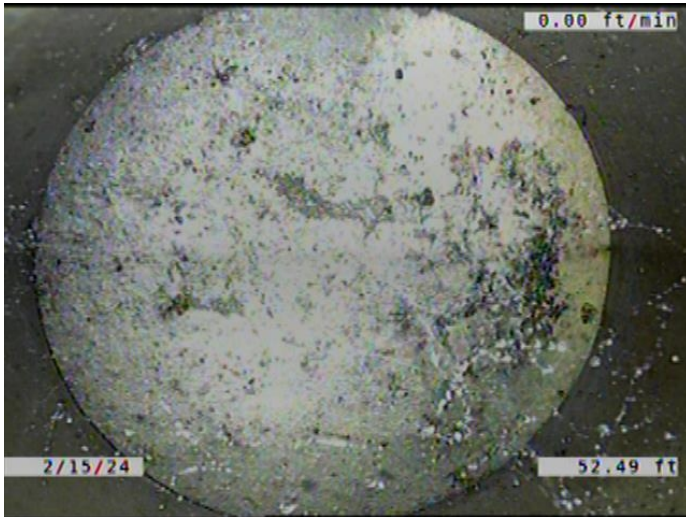
Code: **TFD**
Description: **Tap Factory Defective**

Distance (ft): **50.2**
Structural Grade: **0**
O&M Grade: **3**
Clock Start/From: **2**
Clock To:
1st Value: **6.000**
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **YES**
Remarks: **CAPPED. TAP BROKEN.**



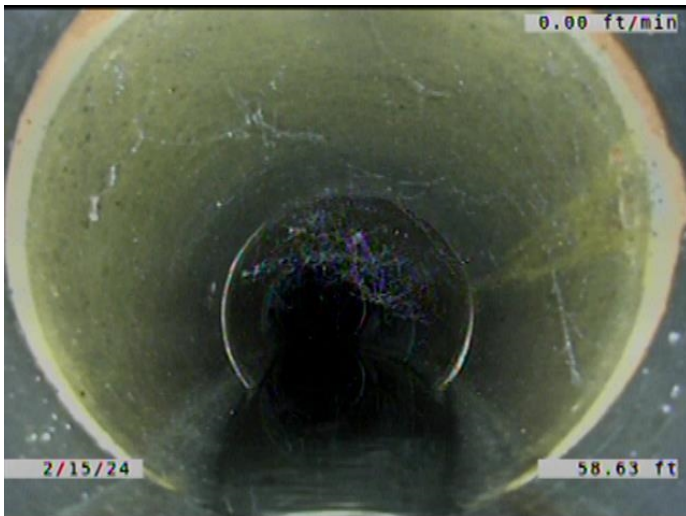
Code: **CM**
Description: **Crack Multiple**

Distance (ft): **50.2**
Structural Grade: **3**
O&M Grade: **0**
Clock Start/From: **10**
Clock To: **2**
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **YES**
Remarks:



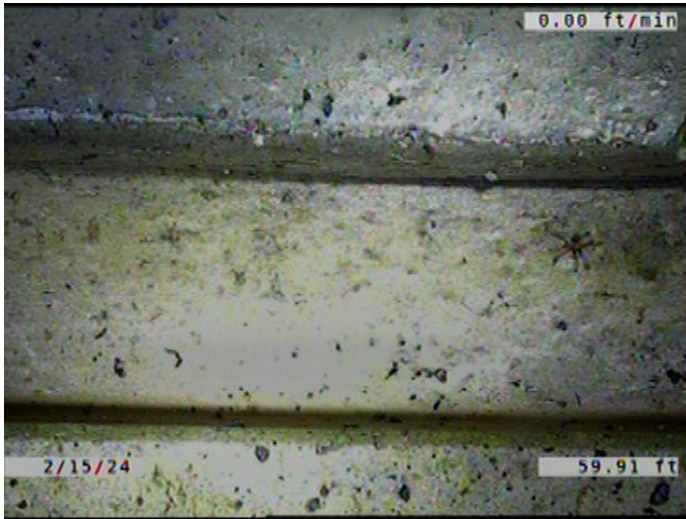
Code: **TFD**
Description: **Tap Factory Defective**

Distance (ft): **52.5**
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. TAP BROKEN.**



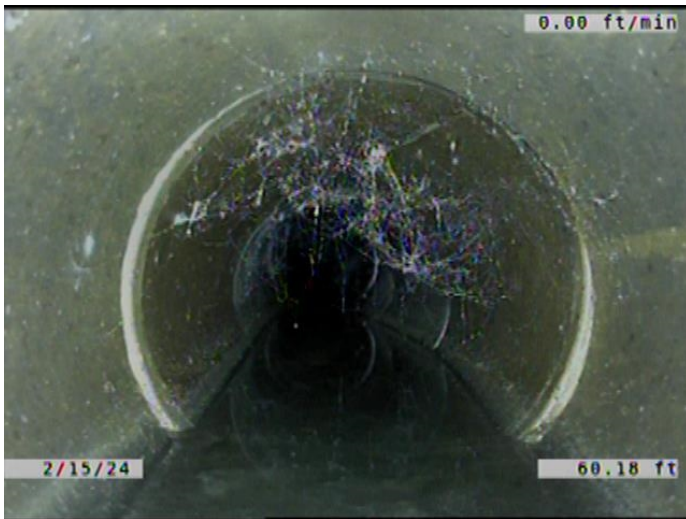
Code: **MWLS**
Description: **Miscellaneous Water Level Sag**

Distance (ft): **58.6**
Structural Grade: **2**
O&M Grade: **0**
Clock Start/From:
Clock To:
1st Value:
2nd Value:
Value Percent: **15.000**
Continuous Index: **F04**
Within 8" of Joint: **NO**
Remarks:



Code: **JAM**
Description: **Joint Angular Medium**

Distance (ft): **59.9**
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: **MWLS**
Description: **Miscellaneous Water Level Sag**

Distance (ft): **60.2**
Structural Grade: **2**
O&M Grade: **0**
Clock Start/From:
Clock To:
1st Value:
2nd Value:
Value Percent: **10.000**
Continuous Index: **S05**
Within 8" of Joint: **NO**
Remarks:



Code: **CH3**
Description: **Crack Longitudinal Hinge, 3**

Distance (ft): **65.7**
Structural Grade: **3**
O&M Grade: **0**
Clock Start/From: **9**
Clock To: **3**
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **YES**
Remarks:



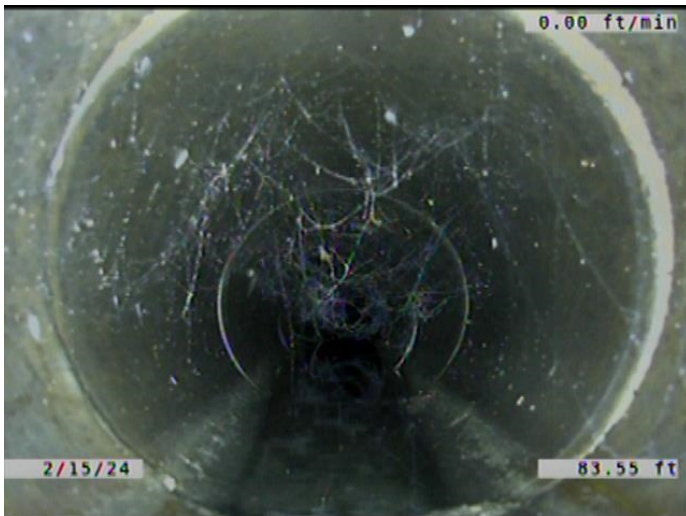
Code: **MWLS**
Description: **Miscellaneous Water Level Sag**

Distance (ft): **67.3**
Structural Grade: **2**
O&M Grade: **0**
Clock Start/From:
Clock To:
1st Value:
2nd Value:
Value Percent: **10.000**
Continuous Index: **F05**
Within 8" of Joint: **NO**
Remarks:



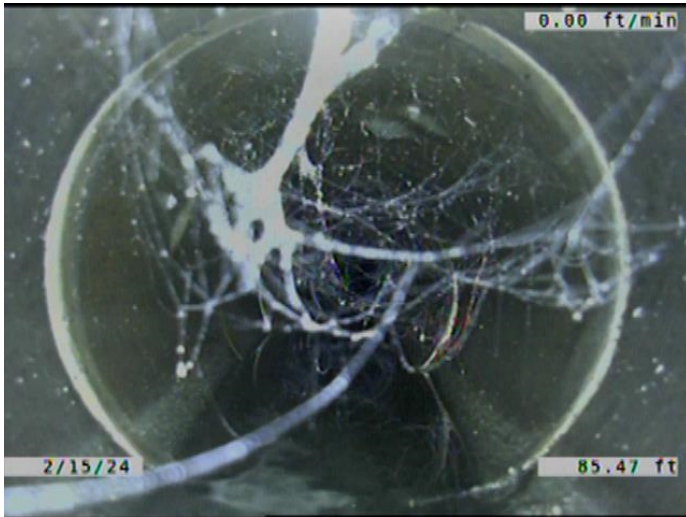
Code: **MWLS**
Description: **Miscellaneous Water Level Sag**

Distance (ft): **76.5**
Structural Grade: **2**
O&M Grade: **0**
Clock Start/From:
Clock To:
1st Value:
2nd Value:
Value Percent: **5.000**
Continuous Index: **S06**
Within 8" of Joint: **NO**
Remarks:



Code: **MWLS**
Description: **Miscellaneous Water Level Sag**

Distance (ft): **83.6**
Structural Grade: **2**
O&M Grade: **0**
Clock Start/From:
Clock To:
1st Value:
2nd Value:
Value Percent: **5.000**
Continuous Index: **F06**
Within 8" of Joint: **NO**
Remarks:



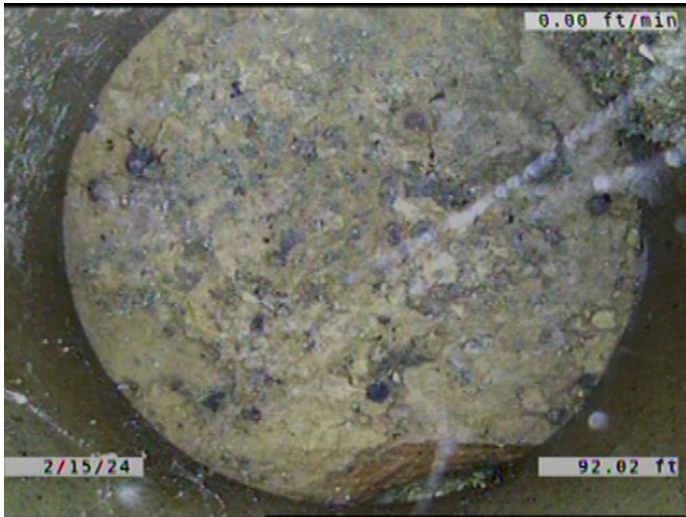
Code: **MWLS**
 Description: **Miscellaneous Water Level Sag**

Distance (ft): **85.5**
 Structural Grade: **2**
 O&M Grade: **0**
 Clock Start/From:
 Clock To:
 1st Value:
 2nd Value:
 Value Percent: **10.000**
 Continuous Index: **S07**
 Within 8" of Joint: **NO**
 Remarks:



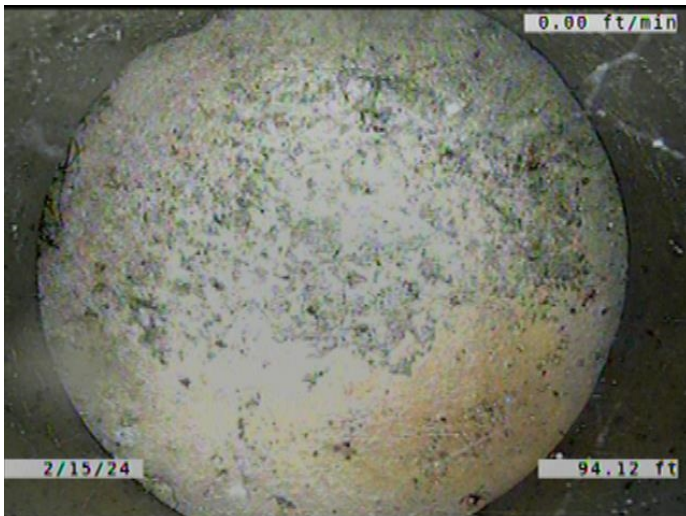
Code: **RFJ**
 Description: **Roots Fine Joint**

Distance (ft): **91.0**
 Structural Grade: **0**
 O&M Grade: **1**
 Clock Start/From: **3**
 Clock To:
 1st Value:
 2nd Value:
 Value Percent:
 Continuous Index:
 Within 8" of Joint: **YES**
 Remarks:



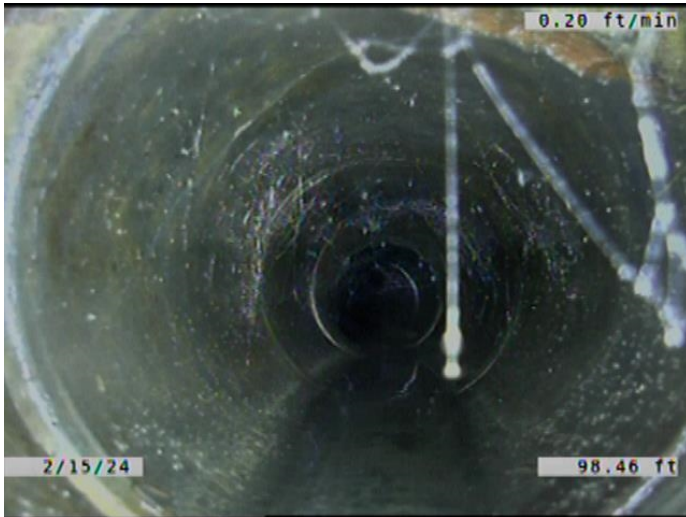
Code: **TFD**
Description: **Tap Factory Defective**

Distance (ft): **92.0**
Structural Grade: **0**
O&M Grade: **3**
Clock Start/From: **1**
Clock To:
1st Value: **6.000**
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **YES**
Remarks: **CAPPED. CAP BROKEN. SOIL VISIBLE.**



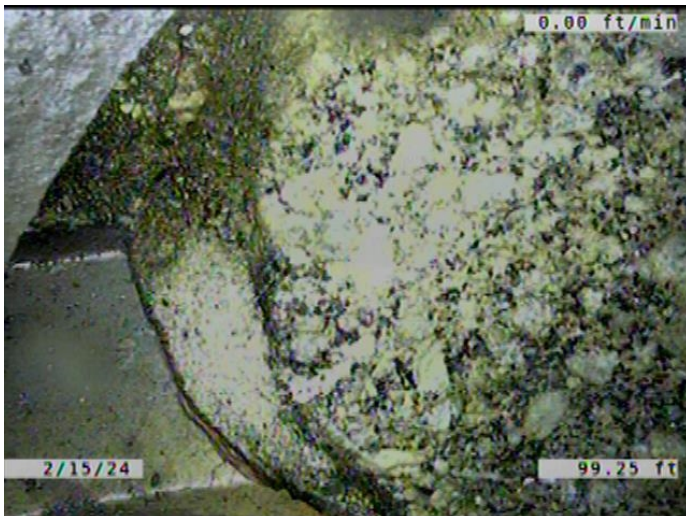
Code: **TFC**
Description: **Tap Factory Capped**

Distance (ft): **94.1**
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:



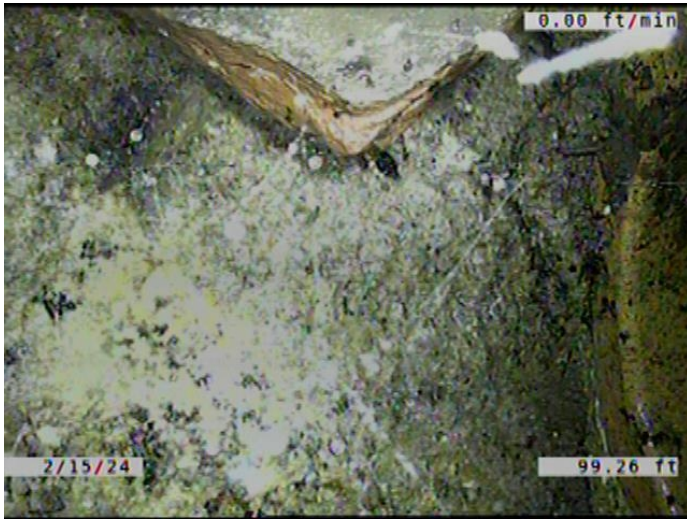
Code: **MWLS**
 Description: **Miscellaneous Water Level Sag**

Distance (ft): **98.5**
 Structural Grade: **2**
 O&M Grade: **0**
 Clock Start/From:
 Clock To:
 1st Value:
 2nd Value:
 Value Percent: **10.000**
 Continuous Index: **F07**
 Within 8" of Joint: **NO**
 Remarks:



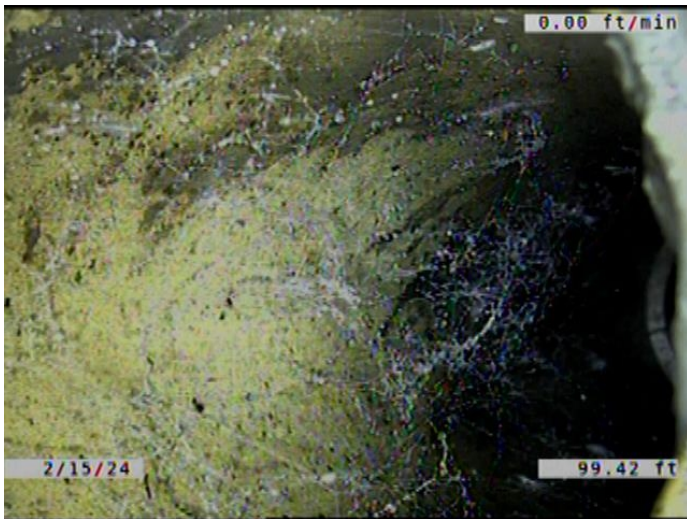
Code: **HSV**
 Description: **Hole Soil Visible**

Distance (ft): **99.3**
 Structural Grade: **5**
 O&M Grade: **0**
 Clock Start/From: **10**
 Clock To: **3**
 1st Value:
 2nd Value:
 Value Percent:
 Continuous Index:
 Within 8" of Joint: **YES**
 Remarks:



Code: **RPPD**
 Description: **Point Repair Patch Patch Defective**

Distance (ft): **99.3**
 Structural Grade: **4**
 O&M Grade: **0**
 Clock Start/From: **10**
 Clock To: **3**
 1st Value:
 2nd Value:
 Value Percent:
 Continuous Index:
 Within 8" of Joint: **YES**
 Remarks: **LOOKS TO BE MORTAR ON TOP OF THE MISSING PIPE SECTION AND AR**



Code: **TBD**
 Description: **Tap Break-in/Hammer Defective**

Distance (ft): **99.4**
 Structural Grade: **0**
 O&M Grade: **3**
 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: **B**
Description: **Broken**

Distance (ft): **101.6**
Structural Grade: **4**
O&M Grade: **0**
Clock Start/From: **7**
Clock To: **5**
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **YES**
Remarks:



Code: **RFJ**
Description: **Roots Fine Joint**

Distance (ft): **101.6**
Structural Grade: **0**
O&M Grade: **1**
Clock Start/From: **7**
Clock To: **5**
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **YES**
Remarks:



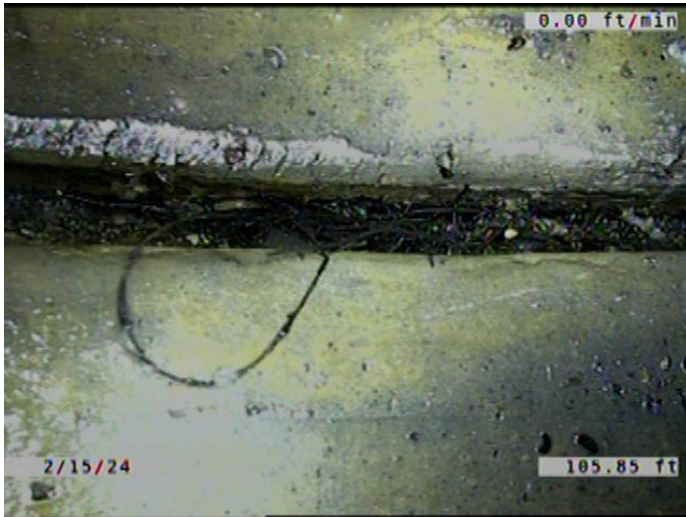
Code: **MWLS**
Description: **Miscellaneous Water Level Sag**

Distance (ft): **105.3**
Structural Grade: **4**
O&M Grade: **0**
Clock Start/From:
Clock To:
1st Value:
2nd Value:
Value Percent: **55.000**
Continuous Index: **S08**
Within 8" of Joint: **NO**
Remarks:



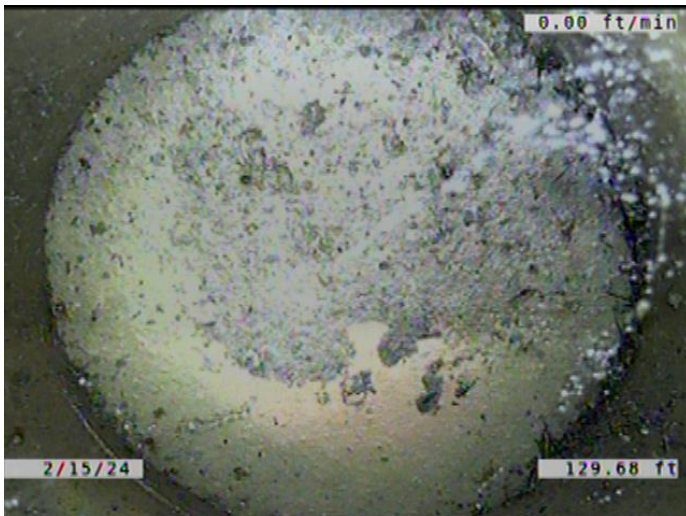
Code: **FM**
Description: **Fracture Multiple**

Distance (ft): **105.8**
Structural Grade: **4**
O&M Grade: **0**
Clock Start/From: **7**
Clock To: **5**
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **YES**
Remarks:



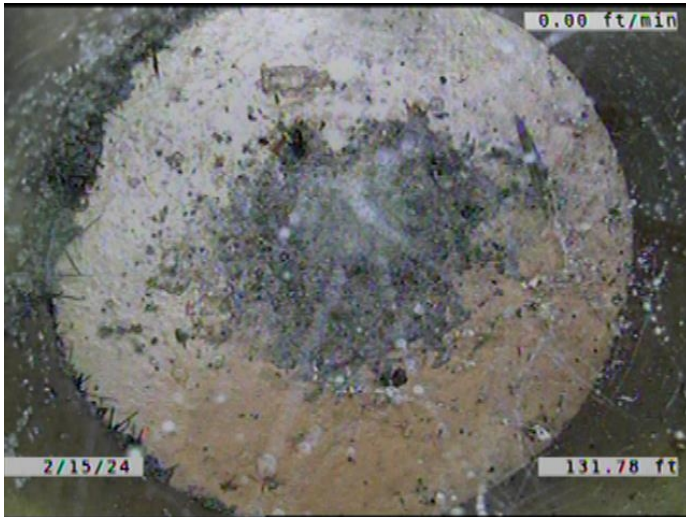
Code: **RFJ**
Description: **Roots Fine Joint**

Distance (ft): **105.8**
Structural Grade: **0**
O&M Grade: **1**
Clock Start/From: **7**
Clock To: **5**
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **YES**
Remarks:

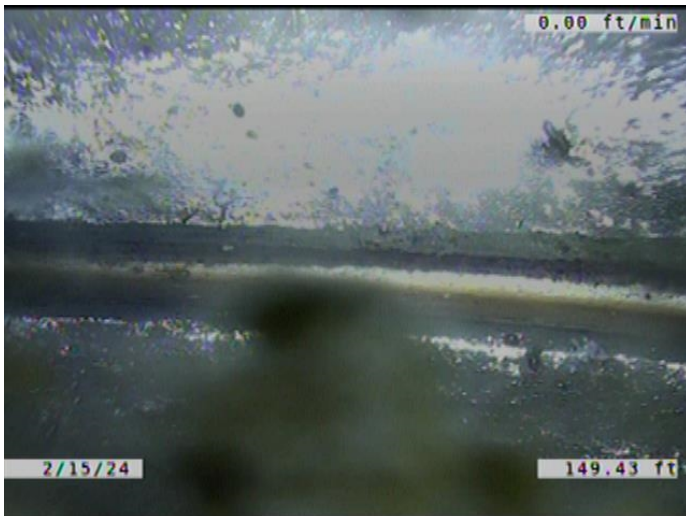


Code: **TFD**
Description: **Tap Factory Defective**

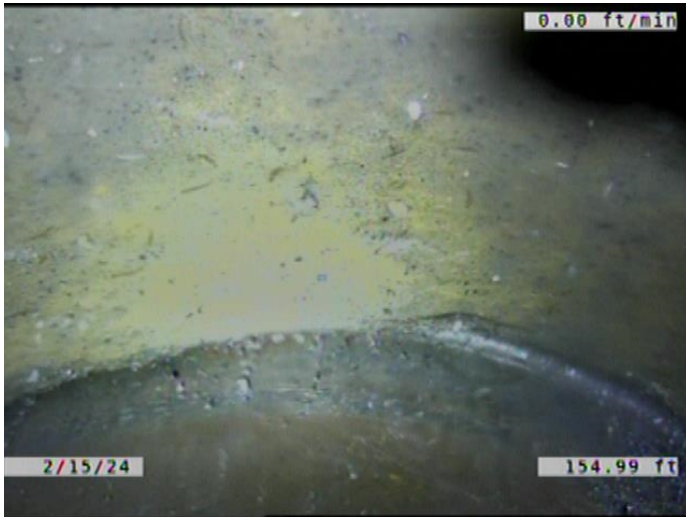
Distance (ft): **129.7**
Structural Grade: **0**
O&M Grade: **3**
Clock Start/From: **1**
Clock To:
1st Value: **6.000**
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **YES**
Remarks: **CAPPED. ROOTS GROWING AROUND THE CAP.**



Code:	TFD
Description:	Tap Factory Defective
Distance (ft):	131.8
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. ROOTS GROWING AROUND THE CAP.



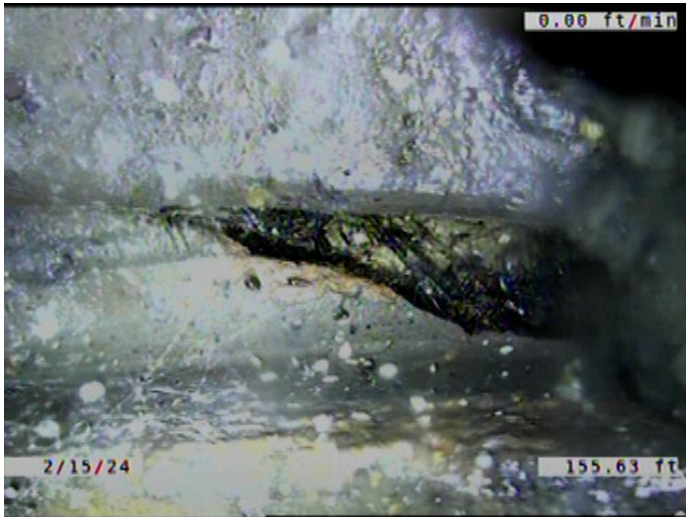
Code:	MCU
Description:	Miscellaneous Camera Underwater
Distance (ft):	149.4
Structural Grade:	0
O&M Grade:	4
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	S09
Within 8" of Joint:	NO
Remarks:	



Code:	MCU
Description:	Miscellaneous Camera Underwater
Distance (ft):	155.0
Structural Grade:	0
O&M Grade:	4
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	F09
Within 8" of Joint:	NO
Remarks:	

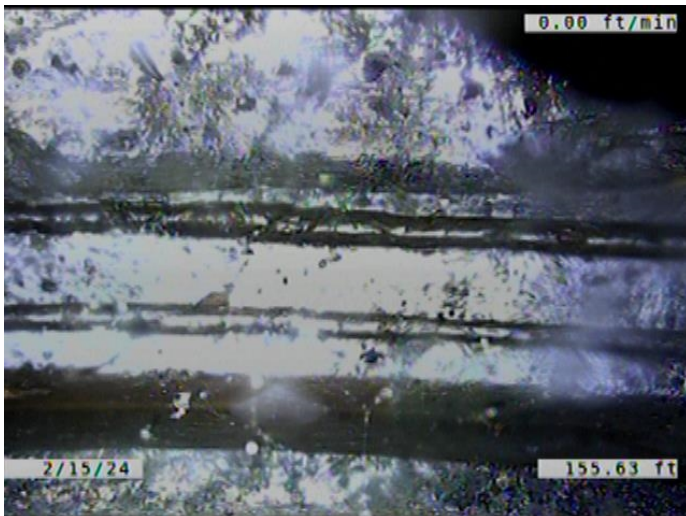


Code:	FM
Description:	Fracture Multiple
Distance (ft):	155.6
Structural Grade:	4
O&M Grade:	0
Clock Start/From:	10
Clock To:	11
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code: HSV
Description: Hole Soil Visible

Distance (ft): 155.6
Structural Grade: 5
O&M Grade: 0
Clock Start/From: 3
Clock To: 4
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: YES
Remarks: THE BELL/ OUTSIDE OF THE JOINT.



Code: JAL
Description: Joint Angular Large

Distance (ft): 155.6
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:



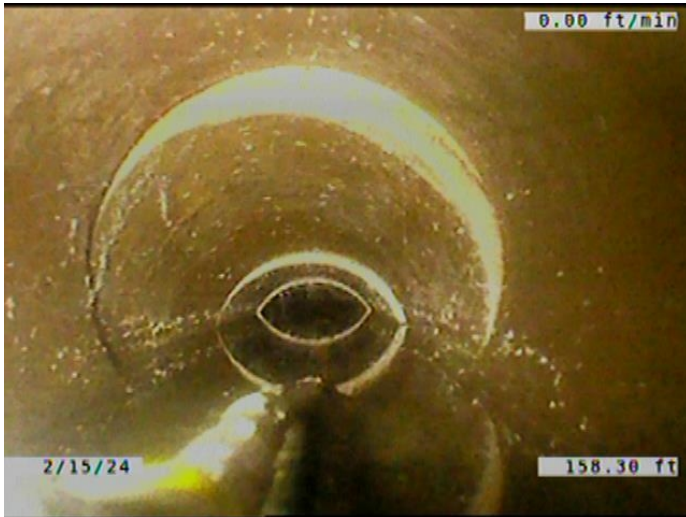
Code: **MWLS**
Description: **Miscellaneous Water Level Sag**

Distance (ft): **158.0**
Structural Grade: **4**
O&M Grade: **0**
Clock Start/From:
Clock To:
1st Value:
2nd Value:
Value Percent: **55.000**
Continuous Index: **F08**
Within 8" of Joint: **NO**
Remarks:



Code: **DSF**
Description: **Deposits Settled Fine**

Distance (ft): **158.0**
Structural Grade: **0**
O&M Grade: **2**
Clock Start/From: **5**
Clock To: **7**
1st Value:
2nd Value:
Value Percent: **5.000**
Continuous Index: **F02**
Within 8" of Joint: **YES**
Remarks:



Code:	MGO
Description:	Miscellaneous General Observation
Distance (ft):	158.3
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:	A VIEW OF THE SAG FROM THE BACK UP CAMERA.



Code:	AMH
Description:	Manhole
Distance (ft):	158.7
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:	M-504-015