

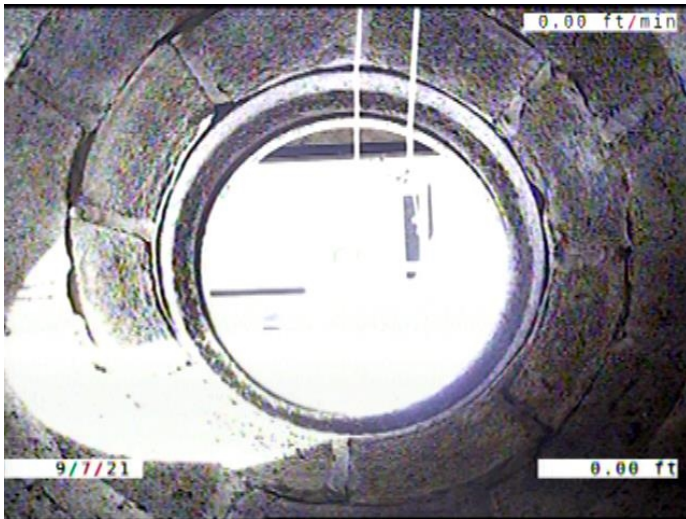
RedZone
ROBOTICS

Street:	41st Avenue	Flow Control:	Not Controlled
City:	Hobart, IN	Year Renewed:	
Location:	Alley	Tape/Media #:	
Purpose:	Routine Assessment	Dia/Height:	10"
Use:	Sanitary Sewage Pipe	Material:	CP
Drain Area:		Lining:	None
Category:	NA		
Comment:			
Location Details:		Direction of Survey:	Upstream
US MH:	M-503-032	DS MH:	M-504-112
		Total Length Surveyed (ft):	160.2

Position	Code	Observation	Video (sec)	Grade
M-504-112				
.0	AMH	Manhole	2	NA
.0	MWL	Miscellaneous Water Level	58	NA
19.5	DSF(S01)	Deposits Settled Fine	158	M 2
30.8	DAE	Deposits Attached Encrustation	226	M 2
33.8	DAE	Deposits Attached Encrustation	266	M 2
36.9	MMC	Miscellaneous Material Change	323	NA
38.1	TF	Tap Factory	347	NA
39.0	MMC	Miscellaneous Material Change	387	NA
55.3	ISB	Infiltration Stain Barrel	533	M 1
63.4	JAM	Joint Angular Medium	617	S 3
69.7	FS	Fracture Spiral	690	S 3
69.7	ISB	Infiltration Stain Barrel	707	M 1
72.8	FM	Fracture Multiple	755	S 4
72.8	ISB	Infiltration Stain Barrel	772	M 1
81.1	CS	Crack Spiral	873	S 2
81.1	ISB	Infiltration Stain Barrel	895	M 1
81.9	CM	Crack Multiple	954	S 3
81.9	ISB	Infiltration Stain Barrel	980	M 1
90.6	MMC	Miscellaneous Material Change	1047	NA

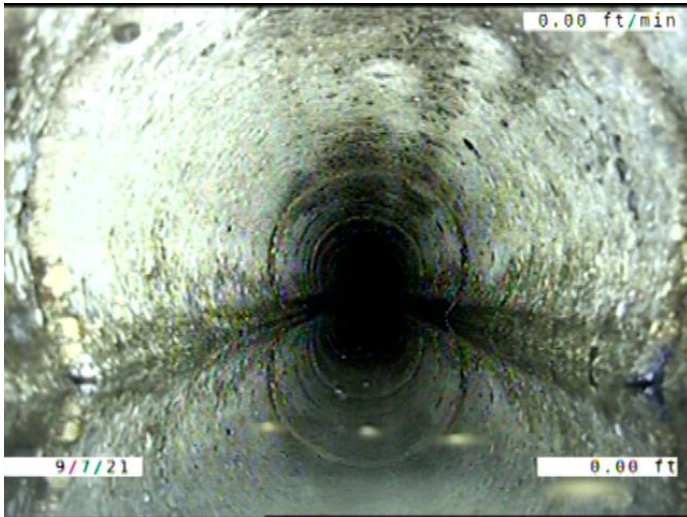
91.9	TF	Tap Factory	1078	NA
93.2	FM	Fracture Multiple	1142	S 4
93.7	TFD	Tap Factory Defective	1160	M 3
94.6	MMC	Miscellaneous Material Change	1207	NA
95.9	FM	Fracture Multiple	1285	S 4
99.2	MWLS(S02)	Miscellaneous Water Level Sag	1314	S 2
104.0	FM	Fracture Multiple	1396	S 4
104.0	B	Broken	1420	S 4
106.6	MWLS(F02)	Miscellaneous Water Level Sag	1450	S 2
118.5	FM(S04)	Fracture Multiple	1554	S 4
122.7	MWLS	Miscellaneous Water Level Sag	1592	S 2
141.2	ISB	Infiltration Stain Barrel	1699	M 1
142.0	ISB	Infiltration Stain Barrel	1740	M 1
146.8	DAE	Deposits Attached Encrustation	1792	M 2
152.0	DAE	Deposits Attached Encrustation	1844	M 2
154.9	DAE	Deposits Attached Encrustation	1884	M 2
158.2	JAM	Joint Angular Medium	1936	S 3
158.2	FM(F04)	Fracture Multiple	1952	S 4
158.2	DSF(F01)	Deposits Settled Fine	1960	M 2
160.2	AMH	Manhole	2050	NA

M-503-032



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-504-112**



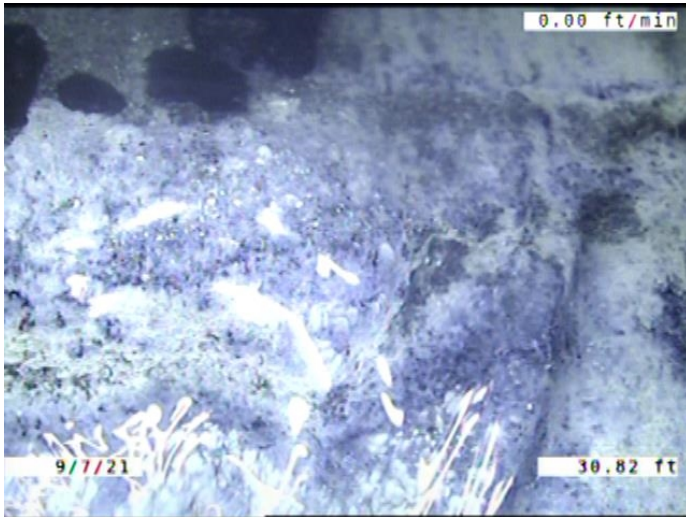
Code: **MWL**
 Description: **Miscellaneous Water Level**

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



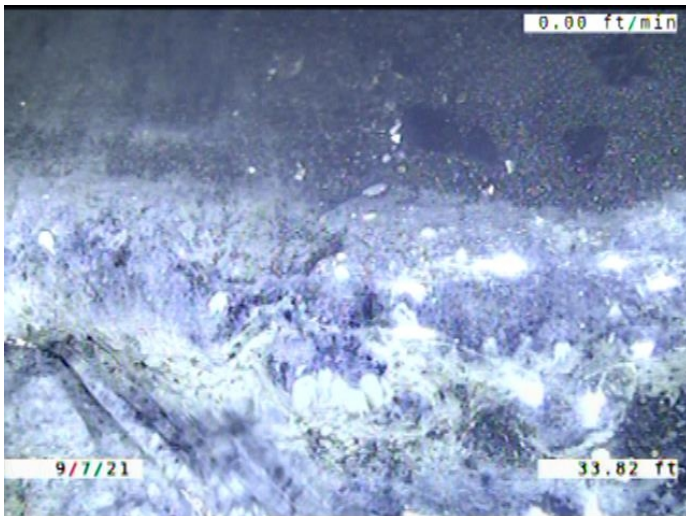
Code: **DSF**
 Description: **Deposits Settled Fine**

Distance (ft): **19.5**
 Structural Grade: **0**
 O&M Grade: **2**
 Clock Start/From: **5**
 Clock To: **7**
 1st Value:
 2nd Value:
 Value Percent: **5.000**
 Continuous Index: **S01**
 Within 8" of Joint: **YES**
 Remarks:



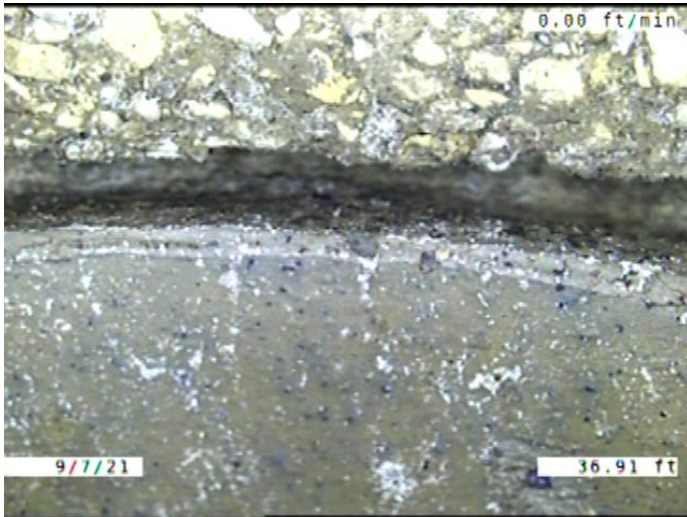
Code: **DAE**
 Description: **Deposits Attached Encrustation**

Distance (ft): **30.8**
 Structural Grade: **0**
 O&M Grade: **2**
 Clock Start/From: **5**
 Clock To: **7**
 1st Value:
 2nd Value:
 Value Percent: **5.000**
 Continuous Index:
 Within 8" of Joint: **YES**
 Remarks:



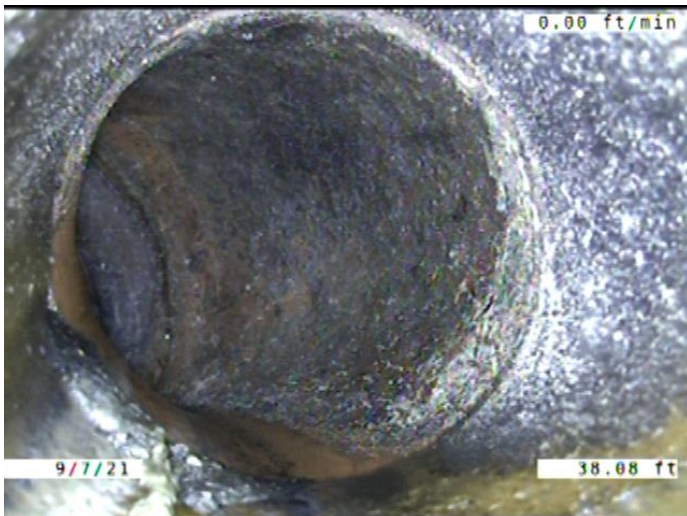
Code: **DAE**
 Description: **Deposits Attached Encrustation**

Distance (ft): **33.8**
 Structural Grade: **0**
 O&M Grade: **2**
 Clock Start/From: **5**
 Clock To: **7**
 1st Value:
 2nd Value:
 Value Percent: **5.000**
 Continuous Index:
 Within 8" of Joint: **YES**
 Remarks:



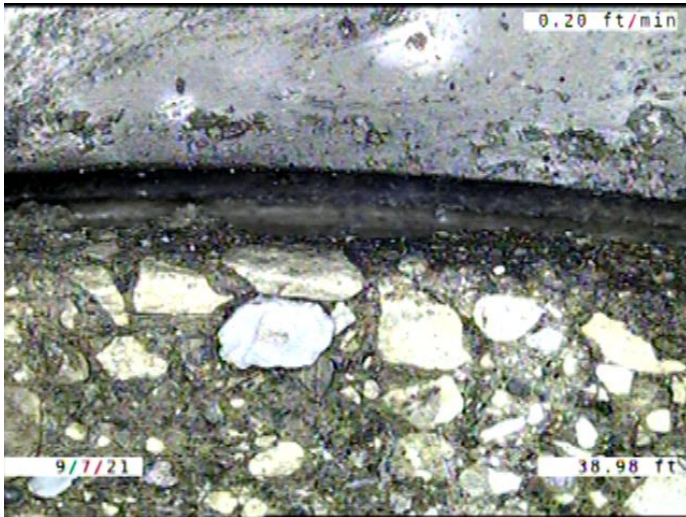
Code: **MMC**
 Description: **Miscellaneous Material Change**

Distance (ft): **36.9**
 Structural Grade: **0**
 O&M Grade: **0**
 Clock Start/From:
 Clock To:
 1st Value:
 2nd Value:
 Value Percent:
 Continuous Index:
 Within 8" of Joint: **NO**
 Remarks: **CONCRETE TO VCP**



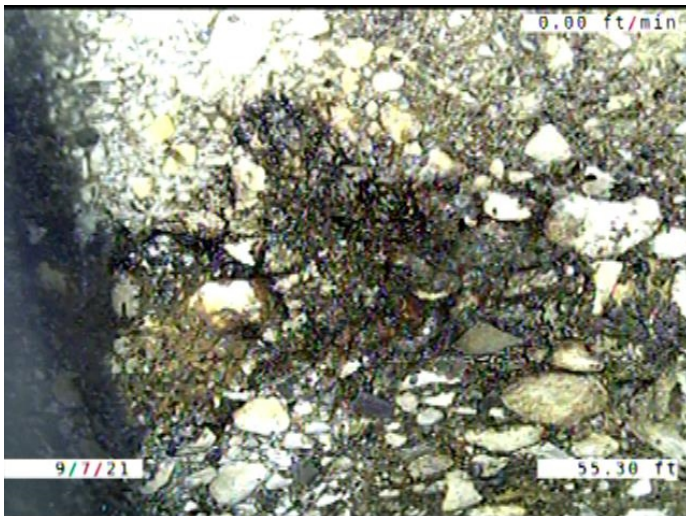
Code: **TF**
 Description: **Tap Factory**

Distance (ft): **38.1**
 Structural Grade: **0**
 O&M Grade: **0**
 Clock Start/From: **11**
 Clock To:
 1st Value: **4.000**
 2nd Value:
 Value Percent:
 Continuous Index:
 Within 8" of Joint: **YES**
 Remarks:



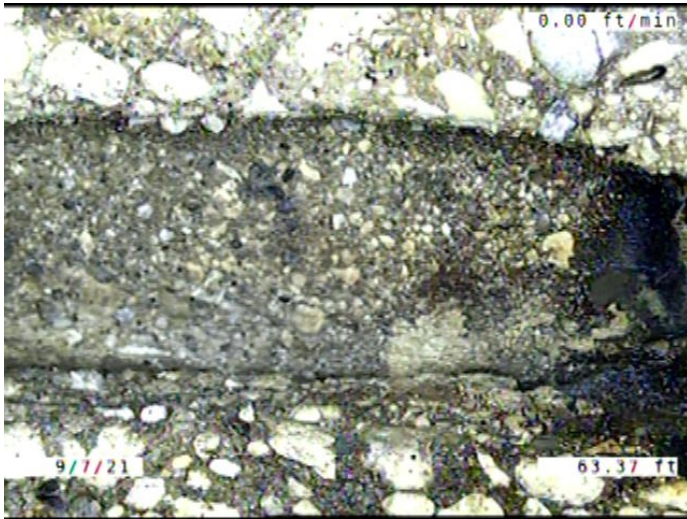
Code: **MMC**
Description: **Miscellaneous Material Change**

Distance (ft): **39.0**
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**



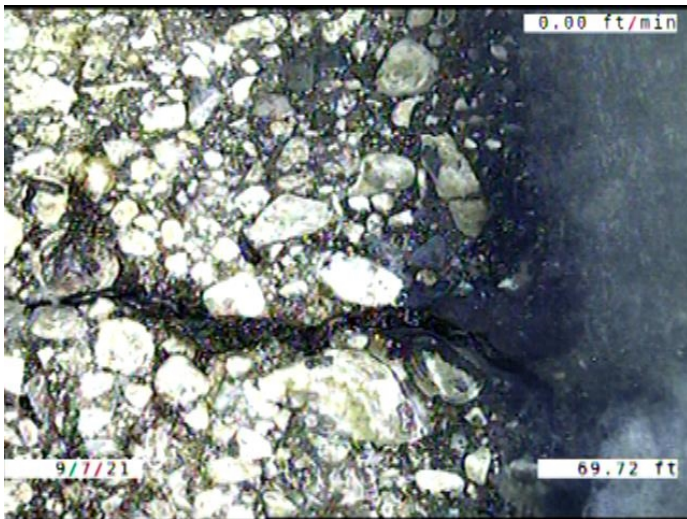
Code: **ISB**
Description: **Infiltration Stain Barrel**

Distance (ft): **55.3**
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: **NO**
Remarks:



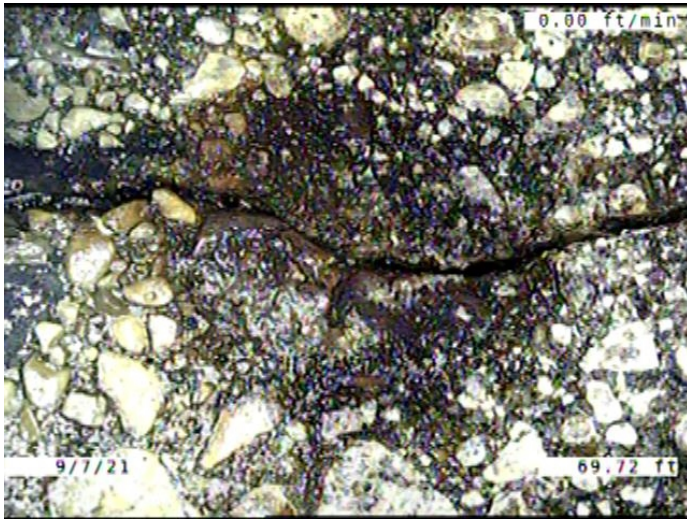
Code: **JAM**
 Description: **Joint Angular Medium**

Distance (ft): **63.4**
 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:



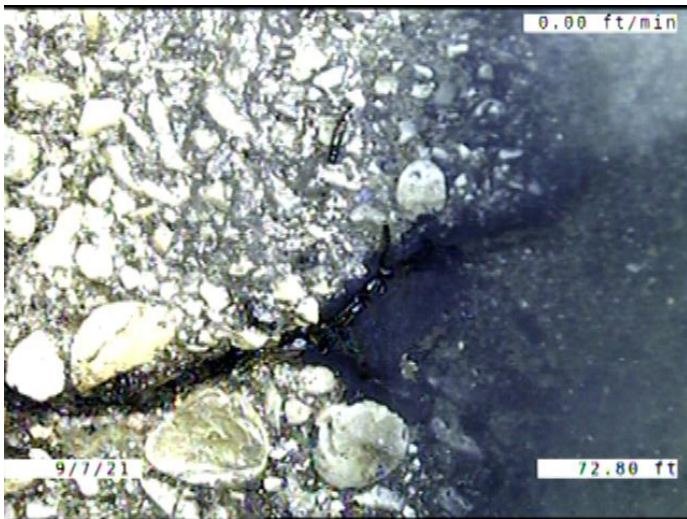
Code: **FS**
 Description: **Fracture Spiral**

Distance (ft): **69.7**
 Structural Grade: **3**
 O&M Grade: **0**
 Clock Start/From: **2**
 Clock To: **10**
 1st Value:
 2nd Value:
 Value Percent:
 Continuous Index:
 Within 8" of Joint: **YES**
 Remarks:



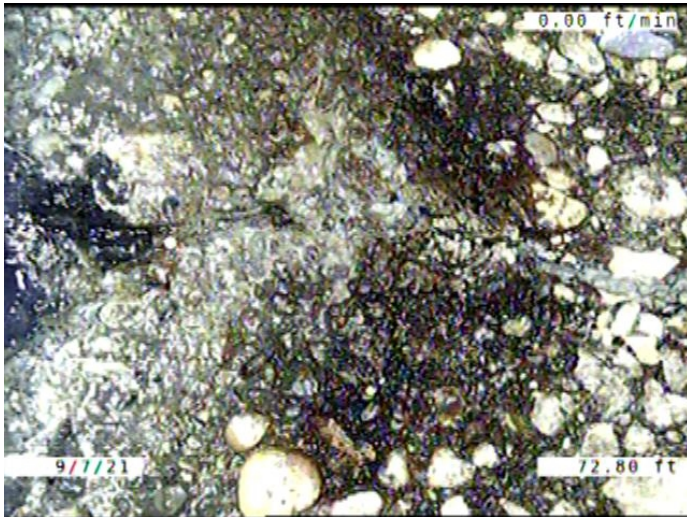
Code: **ISB**
 Description: **Infiltration Stain Barrel**

Distance (ft): **69.7**
 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:



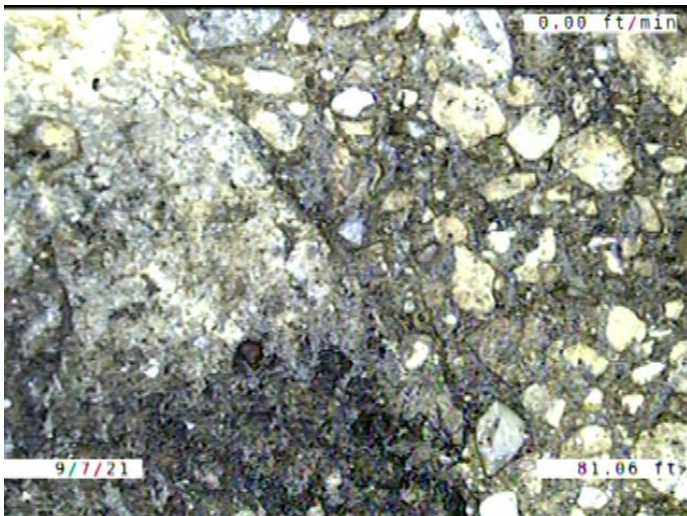
Code: **FM**
 Description: **Fracture Multiple**

Distance (ft): **72.8**
 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:



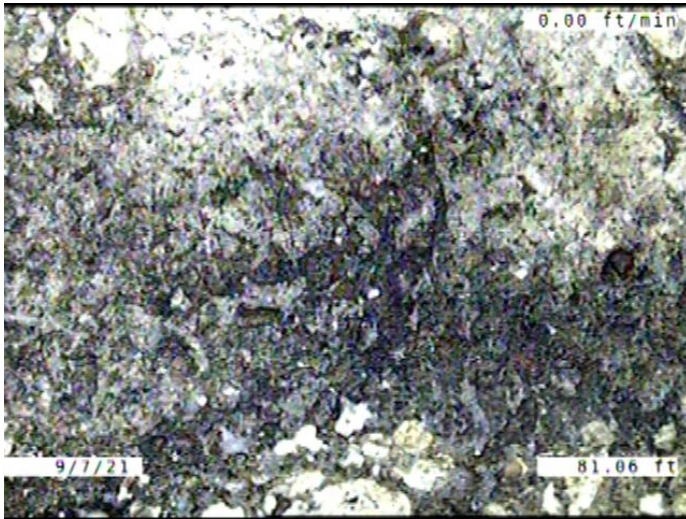
Code: **ISB**
 Description: **Infiltration Stain Barrel**

Distance (ft): **72.8**
 Structural Grade: **0**
 O&M Grade: **1**
 Clock Start/From: **4**
 Clock To:
 1st Value:
 2nd Value:
 Value Percent:
 Continuous Index:
 Within 8" of Joint: **YES**
 Remarks:



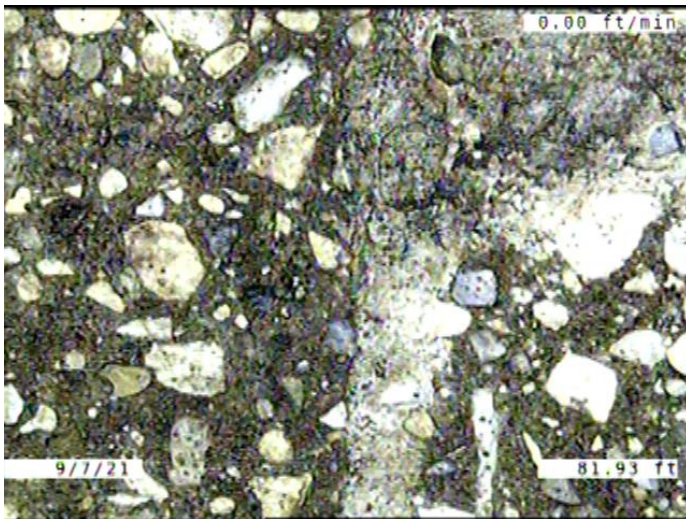
Code: **CS**
 Description: **Crack Spiral**

Distance (ft): **81.1**
 Structural Grade: **2**
 O&M Grade: **0**
 Clock Start/From: **9**
 Clock To: **11**
 1st Value:
 2nd Value:
 Value Percent:
 Continuous Index:
 Within 8" of Joint: **YES**
 Remarks:



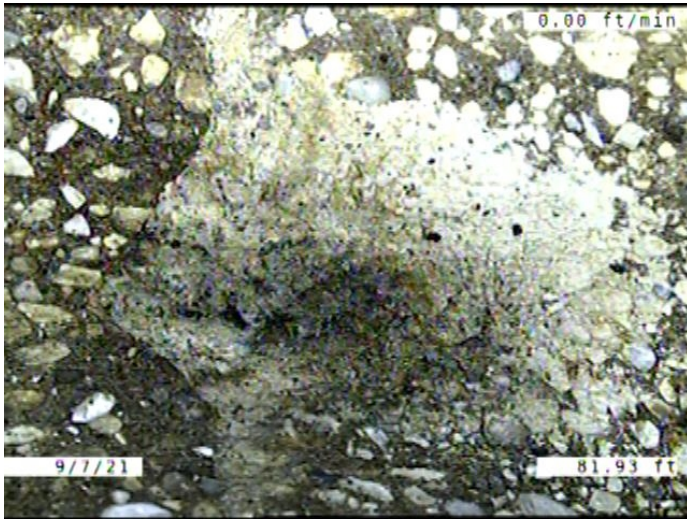
Code: **ISB**
 Description: **Infiltration Stain Barrel**

Distance (ft): **81.1**
 Structural Grade: **0**
 O&M Grade: **1**
 Clock Start/From: **8**
 Clock To: **10**
 1st Value:
 2nd Value:
 Value Percent:
 Continuous Index:
 Within 8" of Joint: **YES**
 Remarks:



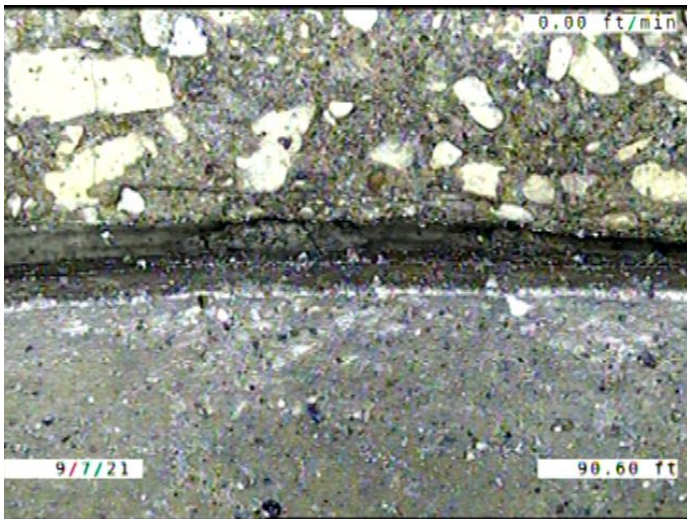
Code: **CM**
 Description: **Crack Multiple**

Distance (ft): **81.9**
 Structural Grade: **3**
 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: **ISB**
 Description: **Infiltration Stain Barrel**

Distance (ft): **81.9**
 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:



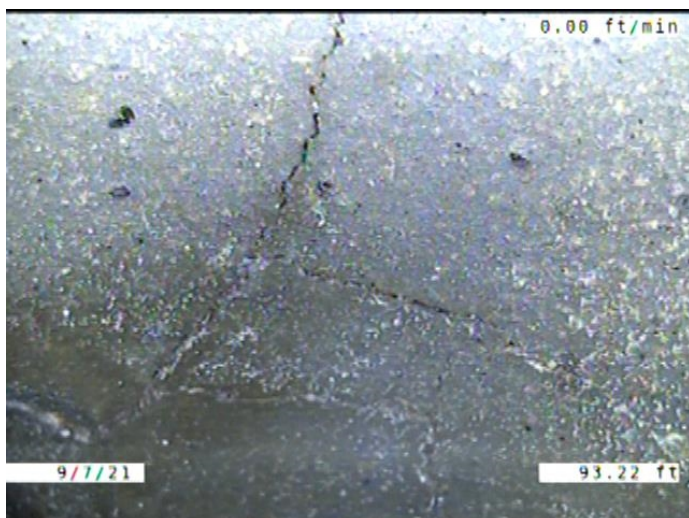
Code: **MMC**
 Description: **Miscellaneous Material Change**

Distance (ft): **90.6**
 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**



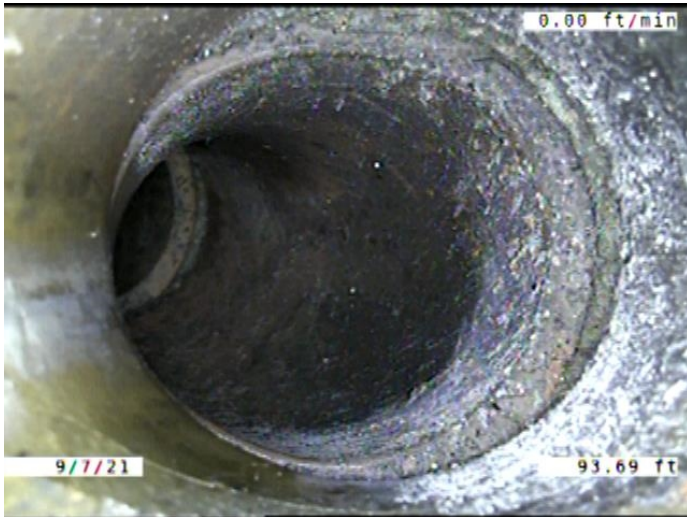
Code: **TF**
 Description: **Tap Factory**

Distance (ft): **91.9**
 Structural Grade: **0**
 O&M Grade: **0**
 Clock Start/From: **2**
 Clock To:
 1st Value: **4.000**
 2nd Value:
 Value Percent:
 Continuous Index:
 Within 8" of Joint: **YES**
 Remarks:



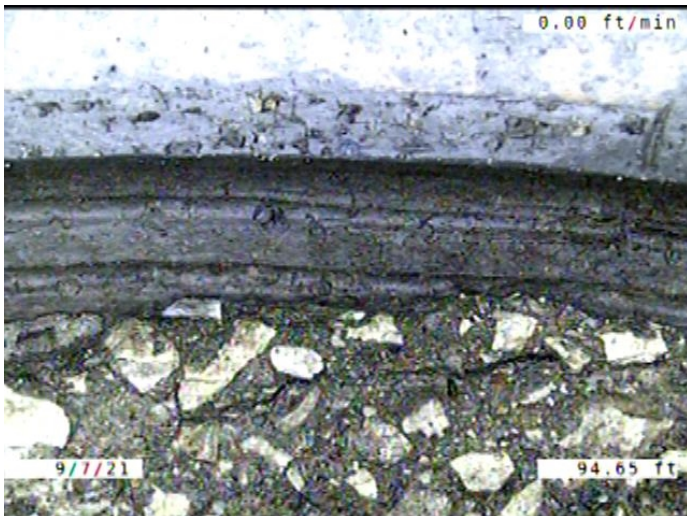
Code: **FM**
 Description: **Fracture Multiple**

Distance (ft): **93.2**
 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:



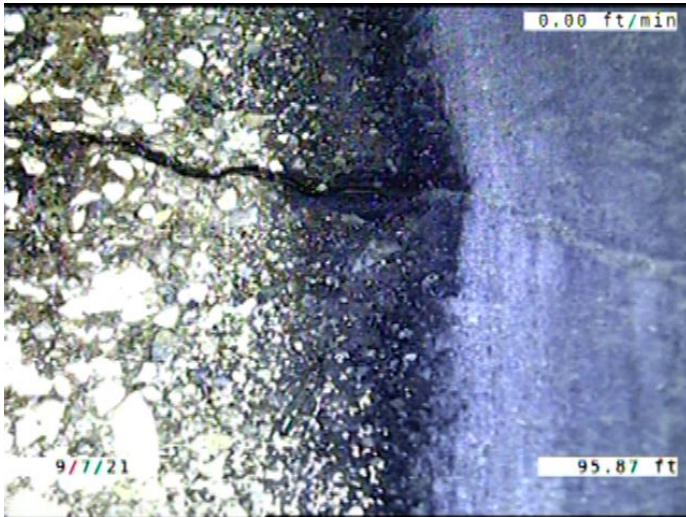
Code: **TFD**
 Description: **Tap Factory Defective**

Distance (ft): **93.7**
 Structural Grade: **0**
 O&M Grade: **3**
 Clock Start/From: **10**
 Clock To:
 1st Value: **4.000**
 2nd Value:
 Value Percent:
 Continuous Index:
 Within 8" of Joint: **YES**
 Remarks: **Defective**



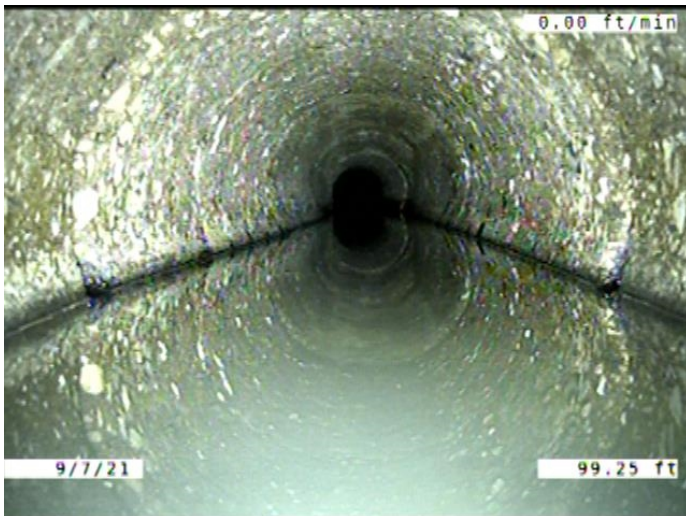
Code: **MMC**
 Description: **Miscellaneous Material Change**

Distance (ft): **94.6**
 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**



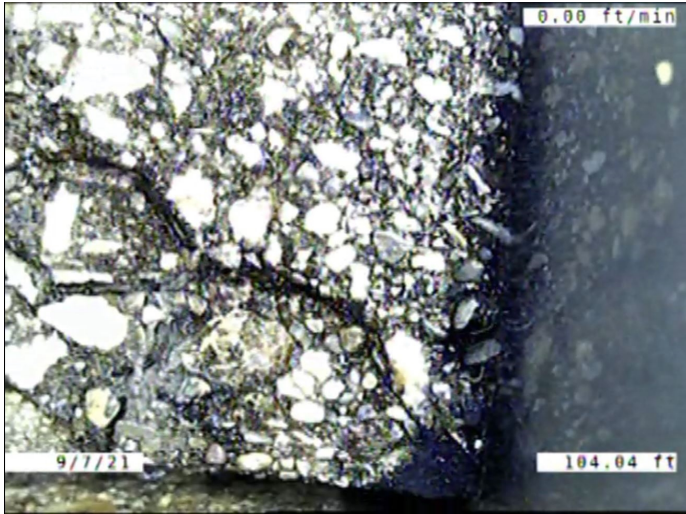
Code: **FM**
 Description: **Fracture Multiple**

Distance (ft): **95.9**
 Structural Grade: **4**
 O&M Grade: **0**
 Clock Start/From: **12**
 Clock To: **12**
 1st Value:
 2nd Value:
 Value Percent:
 Continuous Index:
 Within 8" of Joint: **NO**
 Remarks:



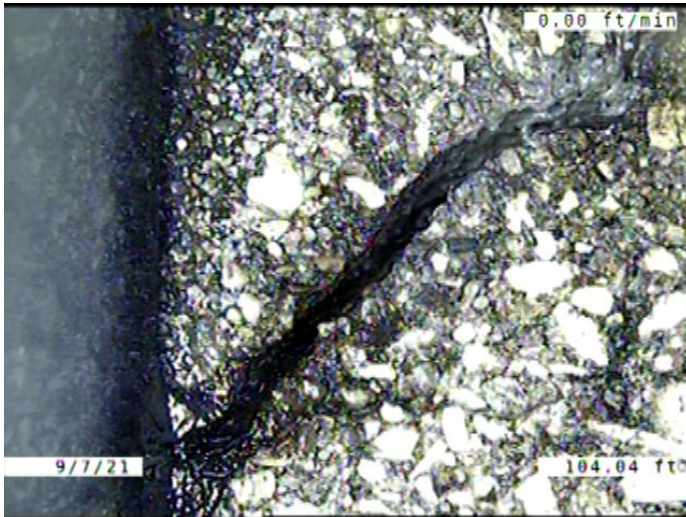
Code: **MWLS**
 Description: **Miscellaneous Water Level Sag**

Distance (ft): **99.2**
 Structural Grade: **2**
 O&M Grade: **0**
 Clock Start/From:
 Clock To:
 1st Value:
 2nd Value:
 Value Percent: **15.000**
 Continuous Index: **S02**
 Within 8" of Joint: **NO**
 Remarks:



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

Distance (ft): **104.0**
 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:



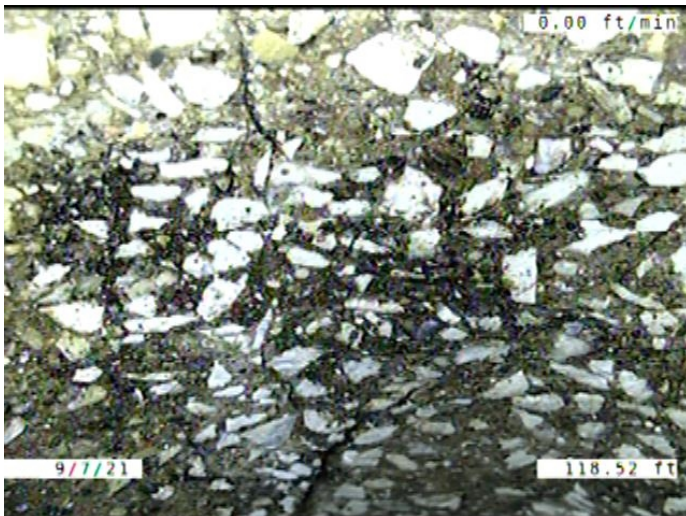
Code: **B**
 Description: **Broken**

Distance (ft): **104.0**
 Structural Grade: **4**
 O&M Grade: **0**
 Clock Start/From: **3**
 Clock To: **12**
 1st Value:
 2nd Value:
 Value Percent:
 Continuous Index:
 Within 8" of Joint: **YES**
 Remarks:



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

Distance (ft): **106.6**
 Structural Grade: **2**
 O&M Grade: **0**
 Clock Start/From:
 Clock To:
 1st Value:
 2nd Value:
 Value Percent: **15.000**
 Continuous Index: **F02**
 Within 8" of Joint: **NO**
 Remarks:



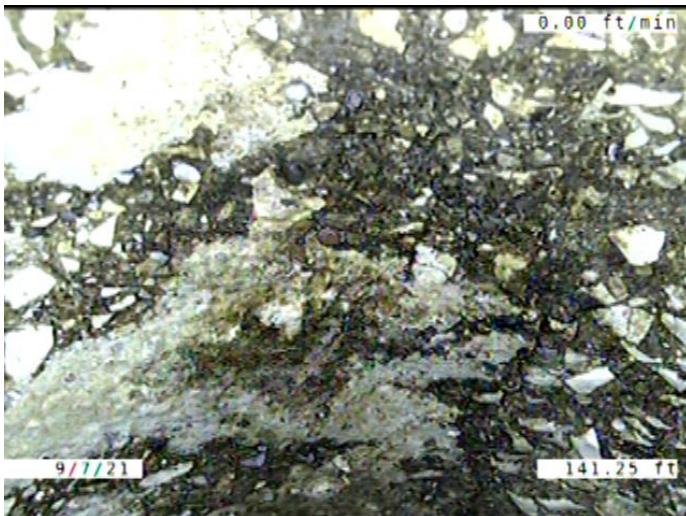
Code: **FM**
 Description: **Fracture Multiple**

Distance (ft): **118.5**
 Structural Grade: **4**
 O&M Grade: **0**
 Clock Start/From: **8**
 Clock To: **4**
 1st Value:
 2nd Value:
 Value Percent:
 Continuous Index: **S04**
 Within 8" of Joint: **YES**
 Remarks:



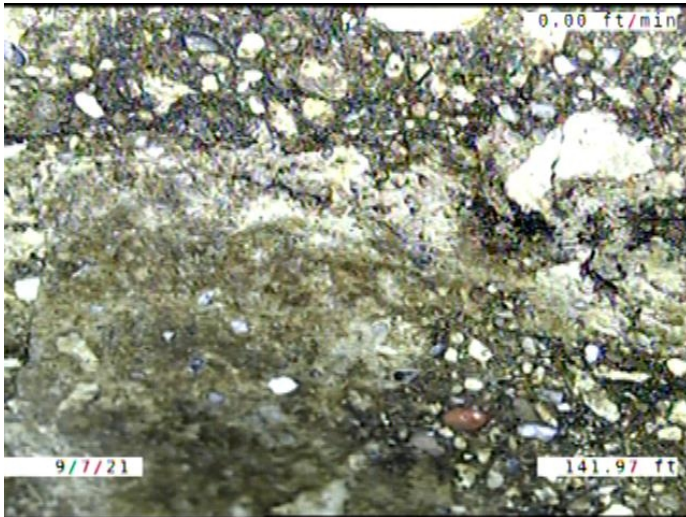
Code: **MWLS**
 Description: **Miscellaneous Water Level Sag**

Distance (ft): **122.7**
 Structural Grade: **2**
 O&M Grade: **0**
 Clock Start/From:
 Clock To:
 1st Value:
 2nd Value:
 Value Percent: **15.000**
 Continuous Index:
 Within 8" of Joint: **NO**
 Remarks:



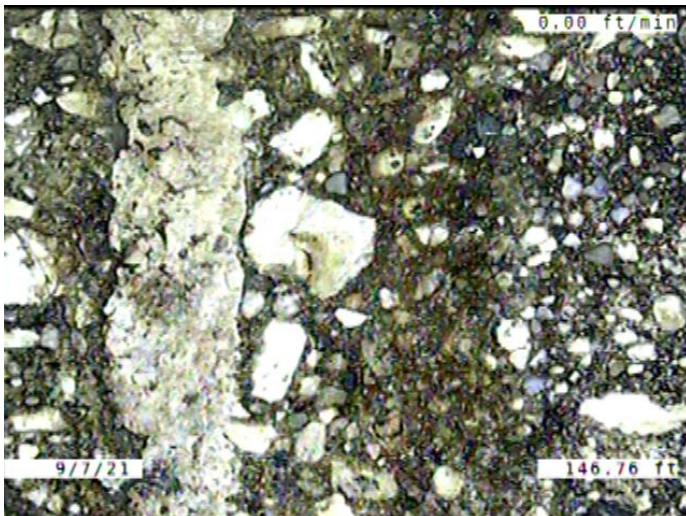
Code: **ISB**
 Description: **Infiltration Stain Barrel**

Distance (ft): **141.2**
 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:



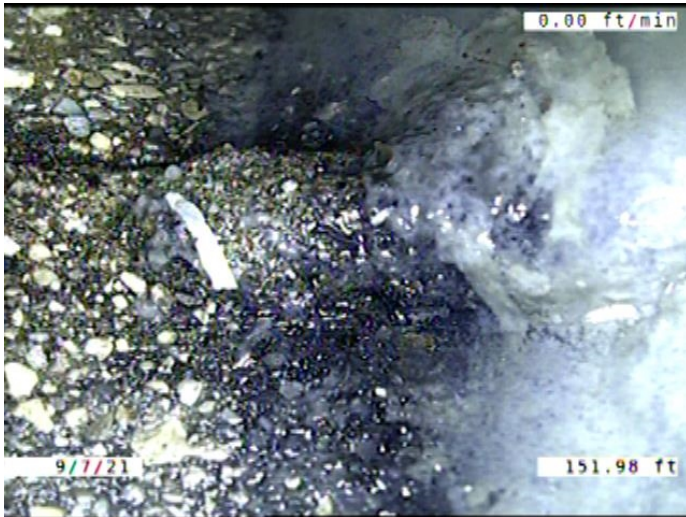
Code: **ISB**
 Description: **Infiltration Stain Barrel**

Distance (ft): **142.0**
 Structural Grade: **0**
 O&M Grade: **1**
 Clock Start/From: **2**
 Clock To: **5**
 1st Value:
 2nd Value:
 Value Percent:
 Continuous Index:
 Within 8" of Joint: **YES**
 Remarks:



Code: **DAE**
 Description: **Deposits Attached Encrustation**

Distance (ft): **146.8**
 Structural Grade: **0**
 O&M Grade: **2**
 Clock Start/From: **7**
 Clock To: **9**
 1st Value:
 2nd Value:
 Value Percent: **5.000**
 Continuous Index:
 Within 8" of Joint: **YES**
 Remarks:



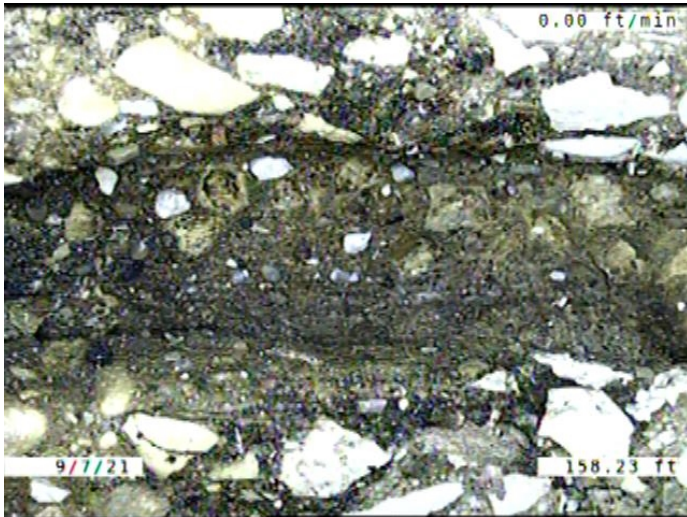
Code: **DAE**
 Description: **Deposits Attached Encrustation**

Distance (ft): **152.0**
 Structural Grade: **0**
 O&M Grade: **2**
 Clock Start/From: **4**
 Clock To: **8**
 1st Value:
 2nd Value:
 Value Percent: **5.000**
 Continuous Index:
 Within 8" of Joint: **YES**
 Remarks:



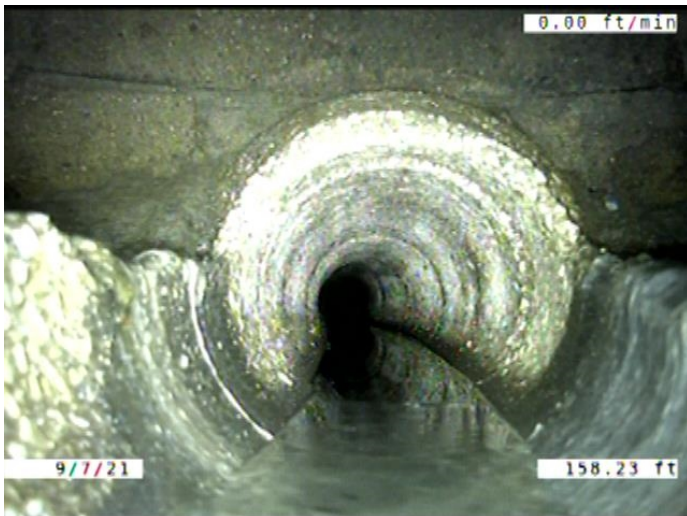
Code: **DAE**
 Description: **Deposits Attached Encrustation**

Distance (ft): **154.9**
 Structural Grade: **0**
 O&M Grade: **2**
 Clock Start/From: **5**
 Clock To: **8**
 1st Value:
 2nd Value:
 Value Percent: **5.000**
 Continuous Index:
 Within 8" of Joint: **YES**
 Remarks:



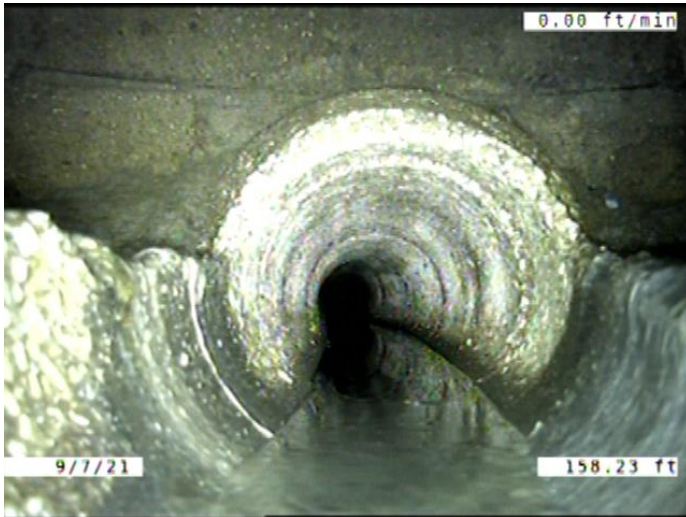
Code: **JAM**
 Description: **Joint Angular Medium**

Distance (ft): **158.2**
 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:



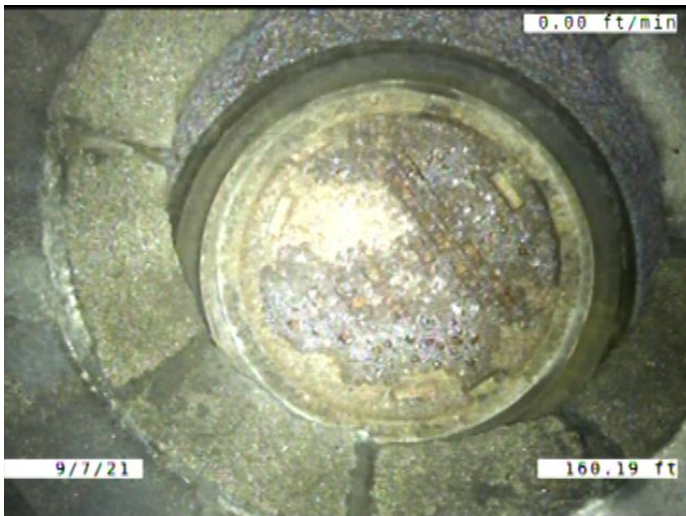
Code: **FM**
 Description: **Fracture Multiple**

Distance (ft): **158.2**
 Structural Grade: **4**
 O&M Grade: **0**
 Clock Start/From: **8**
 Clock To: **4**
 1st Value:
 2nd Value:
 Value Percent:
 Continuous Index: **F04**
 Within 8" of Joint: **YES**
 Remarks:



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

Distance (ft): **158.2**
 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: **AMH**
 Description: **Manhole**

Distance (ft): **160.2**
 Structural Grade: **0**
 O&M Grade: **0**
 Clock Start/From:
 Clock To:
 1st Value:
 2nd Value:
 Value Percent:
 Continuous Index:
 Within 8" of Joint: **NO**
 Remarks: **M-503-032**