

CCTV Drainage Inspection Report.

WRc MSCC Fifth Edition

Produced on behalf of - McCarthy and Stone

Site location - Huyton Liverpool

Survey reference – **108648**

Date – **31/01/23**



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Executive Summary.

Further to our recent commission to carry out an investigative survey and provide a condition report of the underground drainage system at

This report should be viewed in conjunction with the individual MP4 Files included in the report.

Each Folder contains the MP4 files for the individual pipes associated with the Coded Manhole. E.g., MH01, MH101 etc.

Issues Encountered on Site:

General Considerations

The drainage system consists of mostly (CO) Concrete. The drains surveyed are in good condition.

Recommendations

Centara are not able to make recommendations for remedial works or indeed whether this is feasible. However, in its current state the drainage is flowing, reparative measures will most likely be needed in the long term.

Survey Drawing

Each manhole is referenced in the report using a unique code e.g., MH01 etc. This report should be read in conjunction with the AutoCAD drawing provided as an appendix to this report.

CCTV Drainage Survey Code List.

B	BROKEN PIPE AT..... (OR FROM... TO...) O'CLOCK
BR	BRANCH MAJOR
CC	CRACK CIRCUMFERENTIAL FROM ... TO ... O'CLOCK
CL	CRACK LONGITUDINAL AT ... O'CLOCK
CM	CRACK'S MULTIPLE FROM ... TO ... O'CLOCK
CN	CONNECTIONS AT ... O'CLOCK, DIAMETER ... MM
CNI	CONNECTION AT ... O'CLOCK, DIAMETER ...MM, INTRUSION ... MM
CU	CAMERA UNDER WATER
CX	CONNECTION DEFECTIVE AT ... O'CLOCK, DIAMETER ... MM
CXI	CONNECTION DEFECTIVE AT ... O'CLOCK, DIAMETER ... MM, INTRUSION
D	DEFORMED SEWER ... %
DB	DISPLACED BRICKS AT ... (OR FROM ... TO ...) O'CLOCK
DC	DIMENSION OF SEWER CHANGES, NEW DIMENSION ... MM
DE	DEBRIS ...% CROSS-SECTIONAL AREA LOSS
DEG	DEBRIS GREASE ...% CROSS-SECTIONAL AREA LOSS
DES	DEBRIS SILT ...% CROSS-SECTIONAL AREA LOSS
DI	DROPPED INVERT, GAP ...MM
EH	ENCRUSTATION HEAVY FROM ... TO ... O'CLOCK ...% CROSS-SECTIONAL AREA LOSS
EHJ	ENCRUSTATION HEAVY FROM ... TO ... O'CLOCK ...% CROSS-SECTIONAL AREA LOSS AT JOINT
EN	ENCRUSTATION LIGHT FROM ... TO ... O'CLOCK
ELJ	ENCRUSTATION LIGHT FROM ... TO ... O'CLOCK AT JOINT
EM	ENCRUSTATION MEDIUM FROM ... TO ... O'CLOCK ...% CROSS-SECTIONAL AREA LOSS
EMJ	ENCRUSTATION MEDIUM FROM ... TO ... O'CLOCK ...% CROSS-SECTIONAL AREA LOSS
ESH	SCALE HEAVY FROM ... TO ... O'CLOCK ...%
ESL	SCALE LIGHT ...% CROSS-SECTIONAL AREA LOSS FROM ... TO ... O'CLOCK
ESM	SCALE MEDIUM ...% CROSS-SECTIONAL AREA LOSS FROM ... TO ... O'CLOCK
FC	FRACTURE CIRCUMFERENTIAL FROM ... TO ... O'CLOCK
FH	FINISH SURVEY
FL	FRACTURE LONGITUDINAL AT ... O'CLOCK
FM	FRACTURES MULTIPLE FROM ... TO ... O'CLOCK
GO	GENERAL OBSERVATION AT THIS POINT
GP	GENERAL PHOTOGRAPH NUMBER ... TAKEN AT THIS POINT
H	HOLE IN SEWER AT ... (OR FROM ... TO ...) O'CLOCK
ID	INFILTRATION DRIPPER AT ... (OR FROM ... TO ...) O'CLOCK
IDJ	INFILTRATION DRIPPER AT ... (OR FROM ... TO ...) O'CLOCK AT JOINT
IG	INFILTRATION GUSHER AT ... (OR FROM ... TO ...) O'CLOCK
IGJ	INFILTRATION GUSHER AT ... (OR FROM ... TO ...) O'CLOCK AT JOINT
IR	INFILTRATION RUNNER AT ... (OR FROM ... TO ...) O'CLOCK



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IRJ	INFILTRATION RUNNER AT ... (OR FROM ... TO ...) O'CLOCK AT JOINT
IS	INFILTRATION SEEPER AT ... (OR FROM ... TO ...) O'CLOCK
ISJ	INFILTRATION SEEPER AT ... (OR FROM ... TO ...) O'CLOCK AT JOINT
JDL	JOINT DISPLACED LARGE
JDM	JOINT DISPLACED MEDIUM
JN	JUNCTION AT ... O'CLOCK, DIAMETER ...MM
JX	JUNCTION DEFECTIVE AT ... O'CLOCK, DIAMETER ...MM
LC	LINING OF SEWER CHANGES/START/FINISHES AT THIS POINT
LD	LINE OF SEWER DEVIATES DOWN
LL	LINE OF SEWER DEVIATES LEFT
LN	LINING DEFECT AT ... (OR FROM ... TO ...) O'CLOCK
LR	LINE OF SEWER DEVIATES RIGHT
LU	LINE OF SEWER DEVIATES UP
MB	MISSING BRICKS AT ... (OR FROM ... TO ...) O'CLOCK
MC	MATERIAL OF SEWER CHANGES AT THIS POINT
MH	MANHOLE/NODE
MM	MORTAR MISSING MEDIUM AT ... (OR FROM ... TO ...) O'CLOCK
MS	MORTAR MISSING SURFACE AT ... (OR FROM ... TO ...) O'CLOCK
MT	MORTAR MISSING TOTAL AT ... (OR FROM ... TO ...) O'CLOCK
OB	OBSTRUCTION ...% HEIGHT/DIAMETER LOSS
OJL	OPEN JOINT LARGE
OJM	OPEN JOINT MEDIUM
PC	LENGTH OF PIPE FORMING SEWER CHANGES AT THIS POINT, NEW LENGTH ...MM
RF	ROOTS FINE
RFJ	ROOTS MASS ...% CROSS-SECTIONAL AREA LOSS
RMJ	ROOTS MASS ...% CROSS-SECTIONAL AREA LOSS AT JOINT
RT	ROOTS TAP
RTJ	ROOTS TAP AT JOINT
SA	SURVEY ABANDONED
SC	SHAPE OF SEWER CHANGES AT THIS POINT
SSL	SURFACE DAMAGE, SPALLING LARGE AT ... (OR FROM ... TO ...) O'CLOCK
SSM	SURFACE DAMAGE, SPALLING MEDIUM AT ... (OR FROM ... TO ...) O'CLOCK
SSS	SURFACE DAMAGE, SPALLING SLIGHT AT ... (OR FROM ... TO ...) O'CLOCK
ST	START OF SURVEY
SWL	SURFACE DAMAGE, WEAR LARGE AT ... (OR FROM ... TO ...) O'CLOCK
SWM	SURFACE DAMAGE, WEAR MEDIUM AT ... (OR FROM ... TO ...) O'CLOCK
SWS	SURFACE DAMAGE, WEAR SLIGHT AT ... (OR FROM ... TO ...) O'CLOCK
V	VERMIN (RATS AND MICE)
WL	WATER LEVEL ...% HEIGHT/DIAMETER
X	SEWER COLLAPSED ...% CROSS-SECTIONAL AREA LOSS

MANHOLE NODE:

MH 01

PHOTOGRAPHIC PLAN (COMBINED)

EXTERNAL PHOTOGRAPH:



INTERNAL PHOTOGRAPH:

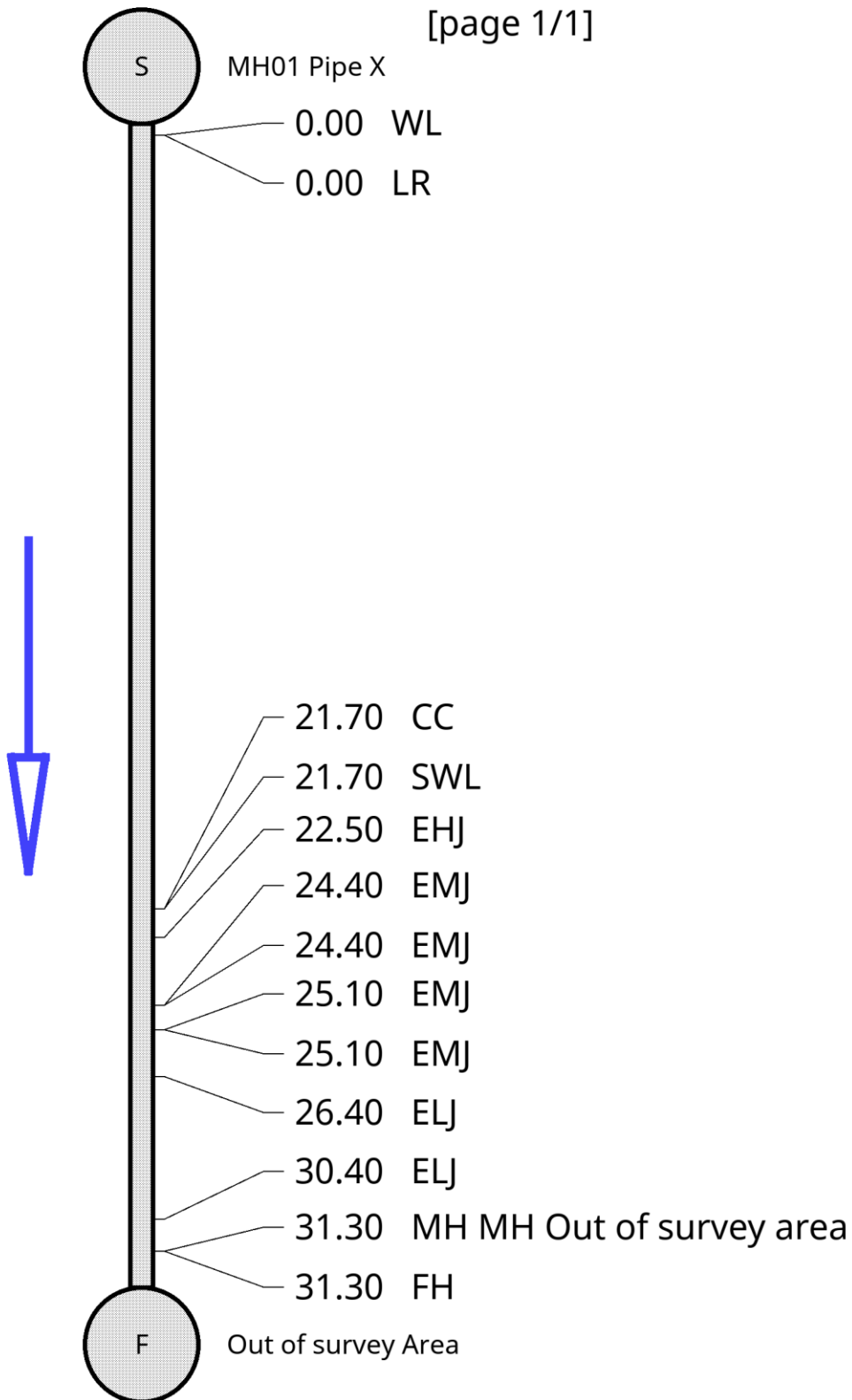


1 MH 01 PIPE X Drain / Sewer Survey

1.1 Survey Header

1.1.1	Surveyed by (Operator)	Curtis Hobson-Clarke
1.1.2	Contract no.	N/A
1.1.3	Job no.	108648
1.1.4	Catchment (Drainage area)	N/A
1.1.5	Division	N/A
1.1.6	District	N/A
1.1.7	Pipeline length ref	Unknown
1.1.8	Date	310123
1.1.9	Time	13:49
1.1.10	Location	Huyton Lane
1.1.11	Start manhole no.	MH01 Pipe X
1.1.12	Start depth	2.27m
1.1.13	Start cover level	N/A
1.1.14	Start invert level	N/A
1.1.15	Finish manhole no.	Out of survey Area
1.1.16	Finish depth	Unknown
1.1.17	Finish cover level	N/A
1.1.18	Finish invert level	N/A
1.1.19	Use of Drain	(C) Combined
1.1.20	Direction	(D) Survey downstream (camera pointing with flow)
1.1.21	Size 1 (diameter/height)	150mm
1.1.22	Size 2 (width)	150mm
1.1.23	Shape	(C) Circular
1.1.24	Material	(VC) Vitrified clay (i.e. all clayware)
1.1.25	Lining	
1.1.26	Pipe length	N/Am
1.1.27	Total length	N/Am
1.1.28	Year laid	N/A
1.1.29	Video cassette number	N/A
1.1.30	Comments: General	N/A
1.1.31	Purpose	(F) Sample survey to determine asset condition
1.1.32	Sewer category	(Z) Not Known
1.1.33	Pre-cleaning	(N) No
1.1.34	Weather	(1) Dry
1.1.35	Location code	(D) Footpath or verge (within the highway boundary)
1.1.36	Further location details	

1.2 Diagram



1.3 Observations

Distance	Condition code and attributes	Photo Ref
Cont. Defect		
Clock (At - To)		
Junta	Remarks	Video Ref
0.0	(WL) Water level ...% height/diameter Percentage: 5%	./MH00001-Pipe-X/MH00001-Pipe-X_2023_01_31-13_53_25_464.jpg 
		0:00:02
0.0	(LR) Line of sewer deviates right	./MH00001-Pipe-X/MH00001-Pipe-X_2023_01_31-13_53_42_995.jpg 
		0:00:16
21.7	(CC) Crack circumferential from ... to ... o'clock Clock At/From: 01 Clock To: 09	./MH00001-Pipe-X/MH00001-Pipe-X_2023_01_31-13_58_01_207.jpg 
01 - 09		0:03:59
21.7	(SWL) Surface damage, wear large at ... (OR from ... to ...) o'clock Clock At/From: 01 Clock To: 04	./MH00001-Pipe-X/MH00001-Pipe-X_2023_01_31-13_58_24_426.jpg 
01 - 04		0:04:00
22.5	(EHJ) Encrustation heavy from ... to ... o'clock ...% cross-sectional area loss at joint Clock At/From: 01 Clock To: 04 Percentage: 20%	./MH00001-Pipe-X/MH00001-Pipe-X_2023_01_31-14_00_13_063.jpg 
01 - 04		0:04:55
24.4	(EMJ) Encrustation medium from ... to ... o'clock ...% cross-sectional area loss at joint Clock At/From: 01 Clock To: 04 Percentage: 10%	./MH00001-Pipe-X/MH00001-Pipe-X_2023_01_31-14_01_03_425.jpg 
01 - 04		0:05:20

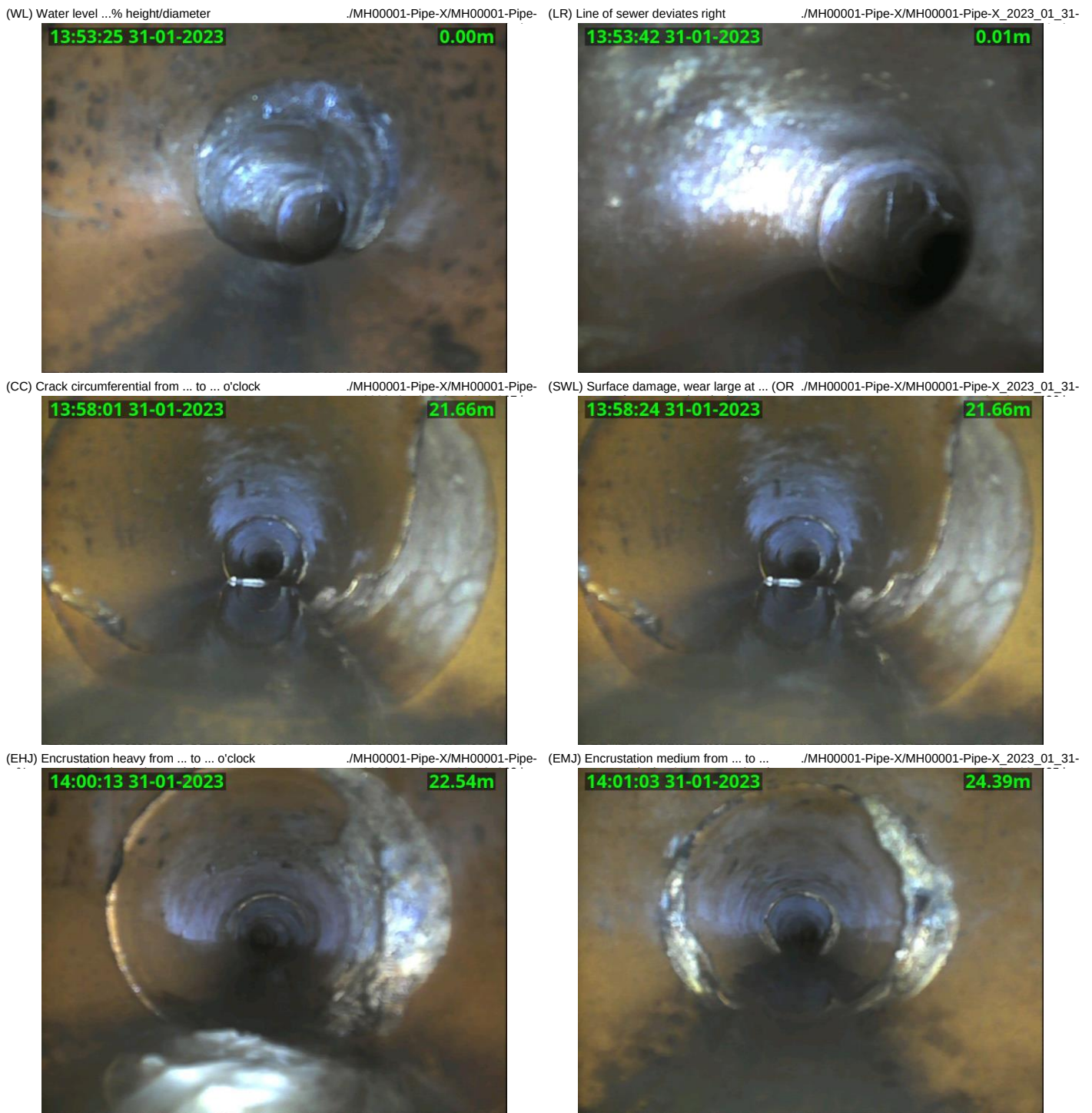
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Distance	Condition code and attributes	Photo Ref
Cont. Defect		
Clock (At - To)		
Junta	Remarks	Video Ref
24.4	(EMJ) Encrustation medium from ... to ... o'clock ...% cross-sectional area loss at joint	./MH00001-Pipe-X/MH00001-Pipe-X_2023_01_31-14_01_22_751.jpg
	Clock At/From: 08	
	Clock To: 10	
	Percentage: 5%	
08 - 10		
		0:05:21
25.1	(EMJ) Encrustation medium from ... to ... o'clock ...% cross-sectional area loss at joint	./MH00001-Pipe-X/MH00001-Pipe-X_2023_01_31-14_01_51_737.jpg
	Clock At/From: 12	
	Clock To: 05	
	Percentage: 10%	
12 - 05		
		0:05:32
25.1	(EMJ) Encrustation medium from ... to ... o'clock ...% cross-sectional area loss at joint	./MH00001-Pipe-X/MH00001-Pipe-X_2023_01_31-14_02_18_602.jpg
	Clock At/From: 08	
	Clock To: 10	
	Percentage: 10%	
08 - 10		
		0:05:33
26.4	(ELJ) Encrustation light from ... to ... o'clock at joint	./MH00001-Pipe-X/MH00001-Pipe-X_2023_01_31-14_02_54_414.jpg
	Clock At/From: 08	
	Clock To: 10	
08 - 10		
		0:05:48
30.4	(ELJ) Encrustation light from ... to ... o'clock at joint	./MH00001-Pipe-X/MH00001-Pipe-X_2023_01_31-14_03_52_946.jpg
	Clock At/From: 08	
	Clock To: 12	
08 - 12		
		0:06:30
31.3	(MH) Manhole/node	./MH00001-Pipe-X/MH00001-Pipe-X_2023_01_31-14_04_21_024.jpg
		
	MH Out of survey area	0:06:43

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Distance	Condition code and attributes	Photo Ref
Cont. Defect		
Clock (At – To)		
Junta	Remarks	Video Ref
31.3	(FH) Finish survey	./MH00001-Pipe-X/MH00001-Pipe-X_2023_01_31-14_04_34_466.jpg
		
		0:06:44

1.4 Photographs



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(EMJ) Encrustation medium from ... to ... /MH00001-Pipe-X/MH00001-Pipe- (EMJ) Encrustation medium from ... to ... /MH00001-Pipe-X/MH00001-Pipe-X_2023_01_31-



(EMJ) Encrustation medium from ... to ... /MH00001-Pipe-X/MH00001-Pipe- (ELJ) Encrustation light from ... to ... o'clock at /MH00001-Pipe-X/MH00001-Pipe-X_2023_01_31-



(ELJ) Encrustation light from ... to ... o'clock at /MH00001-Pipe-X/MH00001-Pipe- (MH) Manhole/node /MH00001-Pipe-X/MH00001-Pipe-X_2023_01_31-



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(FH) Finish survey

./MH00001-Pipe-X/MH00001-Pipe-



End of report.