Invek Surveys Ltd

Green End Development

03 December 2019

WinCan Europe Ltd, 10 Woking Business park, Albertdrive, Woking, GU21 5JY
Telephone 01483762222 Facsimile 01483 762226
www.wincaneurope.com

GRADE 3,4 & 5 Summary

STRUCTURAL DEFECTS

Structural defects			
Section	PLR	Grade	Fault description
Acceptable Structural Condition			

Grade 3; Best practice suggests consideration be given to repair in the medium term
Grade 4; Best practice suggests consideration be given to a repair to avoid potential collapse
Grade 5; Best practice suggests this pipe is at risk of collapse at any time; urgent consideration should be given to a repair to avoid collapse

SERVICE / OPERATIONAL DEFECTS

Service defects			
Section	PLR	Grade	Fault description
4	S10 X	3	Multiple defects at 1.3m
5	S11 X	3	Settled deposits, fine, 10% cross-sectional area loss, End
9	C1 X	3	Attached deposits, encrustation at joint, from 1 to 5 o'clock, 10% c
10	S8 X	3	Multiple defects at 2.3m
11	S01 X	3	Settled deposits, fine, 15% cross-sectional area loss, End
12	S06 X	3	Settled deposits, fine, 10% cross-sectional area loss, End
13	Tank X	3	Multiple defects at 1.9m
15	S02 X	3	Attached deposits, encrustation, from 8 to 9 o'clock, 10% cross-se
16	RE X	3	Multiple defects at 13.2m
18	S02 X	3	Multiple defects at 0.3m

Grade 3; Best practice suggests consideration be given to maintenance activities in the medium term
Grade 4; Best practice suggests consideration be given to maintenance activity to avoid potential blockage
Grade 5; Best practice suggests this pipe is at immediate risk of backing up / causing flooding

Abandoned Surveys

Camera no access		
Section	PLR	Fault description
12	S06 X	Point repair, hole repaired, from 10 to 2 o'clock, End
18	S02 X	Connection other than junction, at 11 o'clock, diameter 150mm
19	S06 X	Connection other than junction, at 6 o'clock, diameter 100mm

Information

These summaries are based on the SRM grading from the WRC

Place :

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

/ Main sections

Project name :	Project number :	Contact :	Date :
Green End Development			**21/11/2019**

Nr.	US MH	DS MH	Date	Road	Tape No.	Material	m	(m)
8	S14	S13	21/11/2019	Mauldeth Rd		Polyvinyl chloride	7.20	7.20
16	RE	S02	03/12/2019	Mauldeth Rd		Polyvinyl chloride	18.60	18.60

Pipe size: CIRCULAR 100 = 25.8 m (25.8 m)

Nr.	US MH	DS MH	Date	Road	Tape No.	Material	m	(m)
1	Tank	S02	21/11/2019	Mauldeth Rd		Polyvinyl chloride	11.80	11.80
2	S04	S10	21/11/2019	Mauldeth Rd		Polyvinyl chloride	19.60	19.60
3	S15	S04	21/11/2019	Mauldeth Rd		Polyvinyl chloride	11.40	11.40
4	S10	Junction	21/11/2019	Mauldeth Rd		Polyvinyl chloride	14.50	14.50
5	S11	S10	21/11/2019	Mauldeth Rd		Polyvinyl chloride	6.99	6.99
6	S12	S11	21/11/2019	Mauldeth Rd		Polyvinyl chloride	7.60	7.60
7	S13	Junction	21/11/2019	Mauldeth Rd		Polyvinyl chloride	8.30	8.30
9	C1	Public	21/11/2019	Mauldeth Rd		Vitrified clay	8.50	8.50
10	S8	C1	21/11/2019	Mauldeth Rd		Vitrified clay	4.80	4.80
11	S01	S05	21/11/2019	Mauldeth Rd		Vitrified clay	14.30	14.30
12	S06	S07	21/11/2019	Mauldeth Rd		Polyvinyl chloride	38.00	38.00
14	S01	S05	03/12/2019	Mauldeth Rd		Polyvinyl chloride	14.70	14.70
15	S02	S05	03/12/2019	Mauldeth Rd		Polyvinyl chloride	25.10	25.10
17	S05	S07	03/12/2019	Mauldeth Rd		Polyvinyl chloride	16.00	16.00
18	S02	S05	03/12/2019	Mauldeth Rd		Polyvinyl chloride	1.67	1.67
19	S06	S07	03/12/2019	Mauldeth Rd		Polyvinyl chloride	42.80	42.80

Pipe size: CIRCULAR 150 = 246.06 m (246.06 m)

Nr.	US MH	DS MH	Date	Road	Tape No.	Material	m	(m)
13	Tank	S08	21/11/2019	Mauldeth Rd		Vitrified clay	1.90	1.90
20	S07	S08	03/12/2019	Mauldeth Rd		Polyvinyl chloride	30.90	30.90

Pipe size: CIRCULAR 225 = 32.8 m (32.8 m)

All sections = 304.66 m (304.66 m)

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Service / Operational Defects (SRM 4)

Project name :	Project Number :	Contact :	Date :
Green End Development			**03/12/2019**

No.	PLR	Dir.	Use	Shape / Size	Date	Mat.	Total Length	Insp. Length	Peak HWG	Peak Score	Grade	Mean Score	Total Score
1	TankX	U	S	C 150	21/11/2019	PVC	11.80	11.80	-	0	1	0	0
2	S04X	D	S	C 150	21/11/2019	PVC	19.60	19.60	-	0	1	0	0
3	S15X	U	S	C 150	21/11/2019	PVC	11.40	11.40	-	0	1	0	0
4	S10X	D	S	C 150	21/11/2019	PVC	14.50	14.50	3	2	3	0.18	2.6
5	S11X	U	S	C 150	21/11/2019	PVC	6.99	6.99	3	2	3	0.49	3.4
6	S12X	U	S	C 150	21/11/2019	PVC	7.60	7.60	-	0	1	0	0
7	S13X	D	S	C 150	21/11/2019	PVC	8.30	8.30	-	0	1	0	0
8	S14X	U	S	C 100	21/11/2019	PVC	7.20	7.20	-	0	1	0	0
9	C1X	D	C	C 150	21/11/2019	VC	8.50	8.50	2	2	3	0.71	6
10	S8X	U	S	C 150	21/11/2019	VC	4.80	4.80	3	2	3	0.79	3.8
11	S01X	D	S	C 150	21/11/2019	VC	14.30	14.30	3	2	3	2	28.6
12	S06X	D	S	C 150	21/11/2019	PVC	38.00	38.00	3	2	3	0.14	5.4
13	TankX	U	S	C 225	21/11/2019	VC	1.90	1.90	3	2	3	2	3.8
14	S01X	D	S	C 150	03/12/2019	PVC	14.70	14.70	-	0	1	0	0
15	S02X	D	S	C 150	03/12/2019	PVC	25.10	25.10	2	2	3	0.08	2
16	REX	U	S	C 100	03/12/2019	PVC	18.60	18.60	3	2	3	0.11	2
17	S05X	D	S	C 150	03/12/2019	PVC	16.00	16.00	-	0	1	0	0
18	S02X	U	S	C 150	03/12/2019	PVC	1.67	1.67	2	2	3	2	2
19	S06X	D	S	C 150	03/12/2019	PVC	42.80	42.80	-	0	1	0	0
20	S07X	D	S	C 225	03/12/2019	PVC	30.90	30.90	-	0	1	0	0

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Structural Defects (SRM 4)

Project name :	Project Number :	Contact :	Date :
Green End Development			**03/12/2019**

No.	PLR	Dir.	Use	Shape / Size	Date	Mat.	Total Length	Insp. Length	Peak HWG	Peak Score	Grade	Mean Score	Total Score
1	TankX	U	S	C 150	21/11/2019	PVC	11.80	11.80	-	0	1	0	0
2	S04X	D	S	C 150	21/11/2019	PVC	19.60	19.60	-	0	1	0	0
3	S15X	U	S	C 150	21/11/2019	PVC	11.40	11.40	-	0	1	0	0
4	S10X	D	S	C 150	21/11/2019	PVC	14.50	14.50	-	0	1	0	0
5	S11X	U	S	C 150	21/11/2019	PVC	6.99	6.99	-	0	1	0	0
6	S12X	U	S	C 150	21/11/2019	PVC	7.60	7.60	-	0	1	0	0
7	S13X	D	S	C 150	21/11/2019	PVC	8.30	8.30	1	1	1	0.12	1
8	S14X	U	S	C 100	21/11/2019	PVC	7.20	7.20	-	0	1	0	0
9	C1X	D	C	C 150	21/11/2019	VC	8.50	8.50	2	2	1	0.35	3
10	S8X	U	S	C 150	21/11/2019	VC	4.80	4.80	-	0	1	0	0
11	S01X	D	S	C 150	21/11/2019	VC	14.30	14.30	-	0	1	0	0
12	S06X	D	S	C 150	21/11/2019	PVC	38.00	38.00	1	1	1	0.03	1
13	TankX	U	S	C 225	21/11/2019	VC	1.90	1.90	-	0	1	0	0
14	S01X	D	S	C 150	03/12/2019	PVC	14.70	14.70	1	1	1	0.14	2
15	S02X	D	S	C 150	03/12/2019	PVC	25.10	25.10	-	0	1	0	0
16	REX	U	S	C 100	03/12/2019	PVC	18.60	18.60	-	0	1	0	0
17	S05X	D	S	C 150	03/12/2019	PVC	16.00	16.00	-	0	1	0	0
18	S02X	U	S	C 150	03/12/2019	PVC	1.67	1.67	-	0	1	0	0
19	S06X	D	S	C 150	03/12/2019	PVC	42.80	42.80	2	2	1	0.09	4
20	S07X	D	S	C 225	03/12/2019	PVC	30.90	30.90	-	0	1	0	0

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Project-information

Project name :	Project Number :	Contact :	Date :
Green End Development			**21/11/2019**

Client:	**Towerhouse Systems Ltd**
Contact Name:	**Nick Maskrey**
Department:	
Road:	
Town:	
County:	
Telephone:	**07798618345**
Fax:	
Mobile:	**07798618345**
E-mail:	

Site:	**Green End Development**
Contact Name:	**Nick Maskrey**
Department:	
Road:	**Mauldeth Rd**
Town:	**Manchester**
County:	
Telephone:	**07798618345**
Fax:	
Mobile:	
E-mail:	

Contractor	**Invek Surveys Ltd**
Contact Name:	**Kevin Nash**
Department:	
Road:	**Long Lane**
Town:	**Warrington**
County:	**Cheshire**
Telephone:	**01925 244376**
Fax:	**01925241517**
Mobile:	**07831643283**
E-mail:	**kevin@invek.com**

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
kevin@invek.com

Defect Grade Description

Project Name :	Project number :	Contact :	Date :
Green End Development			**21/11/2019**

1:

Brick: No Structural Defects
Pipe: No Structural Defects

Acceptable Structural Condition

2:

Brick: Minor cracking, Surface mortar loss, Spalling slight, wear slight
Pipe: Circumfrential crack, Moderate joint defects, Spalling slight, Wear slight

Minor collapse risk in short term but potential for further deterioration

3:

Brick: Total mortorloss without other defects, single brick displaced, Deformation up to 5%, Spalling medium, Wear medium
Pipe: Fractures with deformation up tp 5%, Longitudinal cracking or mulitlpe cracking, Minor loss of level, More severe joint

! Collapse unlikely in near future but future deterioration likely !

4:

Brick: Total mortorloss with deformation greater than 10%, Deformation up to 10% and fractured, Displaced/hanging brickwork, Small number of missing bricks
Pipe: Broken, Deformation up to 10% and broken,, Fractured with deformation 5 - 10%, Multipl

!! Collapse likely in foreseeable future !!

5:

Brick: Already Collapsed, Missing invert, Deformation over 10% and fractured, Displaced/hanging brickwork and deformation over 10%, Extensive missing bricks
Pipe: Already collapsed, Deformation over 10% and broken, Extensive areas of fabric missin

!!! Collapsed or collapse imminent !!!

Invek Surveys Ltd
Long Lane
Street : Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

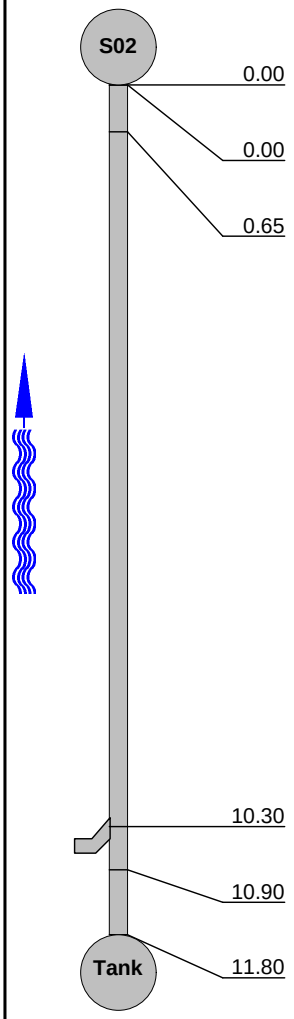
Inspection report

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
21/11/2019		**no rain or snow**	**Invek**	**1**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow				**no**	**Invek**

Place :	**Manchester**	Location details:		U/S MH :	**Tank**
Road :	**Mauldeth Rd**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :		D/S MH :	**S02**
Inspection Direction	**S02 (U/S) Tank**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150 mm**
Purpose :	**Sample survey to determine asset condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**11.80 m**	Lining :	

Comment :



1:105 Position	Code	Observation	MPEG	Photo	Grade
0.00	MH	Start node type, manhole, reference number : S02			0
0.00	WLC	Clear water level, 10% of the vertical dimension		3_2A	0
0.65	WLC	Clear water level, 5% of the vertical dimension	00:00:16	3_3A	0
10.30	CN	Connection other than junction, at 3 o'clock, diameter 150mm	00:00:45	3_4A	0
10.90	LR	Line deviates right	00:00:48	3_5A	0
11.80	OCF	Finish node type, other special chamber reference number: Tank Remarks: Tank	00:00:52	3_6A	0

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**21/11/2019**	**1**	**X**

Photo: 3_2A
0m, Clear water level, 10% of the vertical dimension

Photo: 3_3A
0.65m, Clear water level, 5% of the vertical dimension

Photo: 3_4A
10.3m, Connection other than junction, at 3 o'clock, diameter 150mm

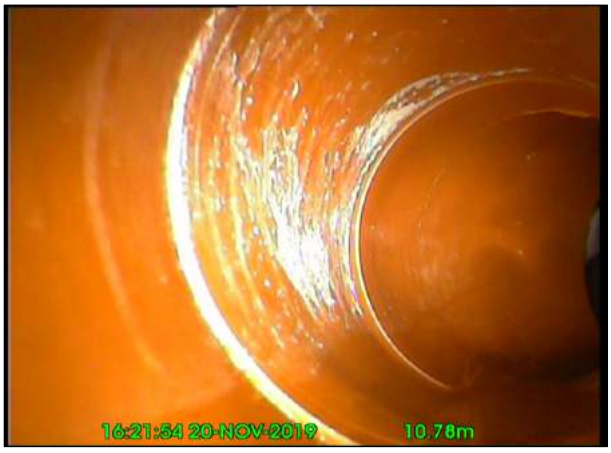


Photo: 3_5A
10.9m, Line deviates right

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**21/11/2019**	**1**	**X**

Photo: 3_6A
11.8m, Finish node type, other special chamber reference number: Tank Remarks: Tank

Invek Surveys Ltd
Long Lane
Street : Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

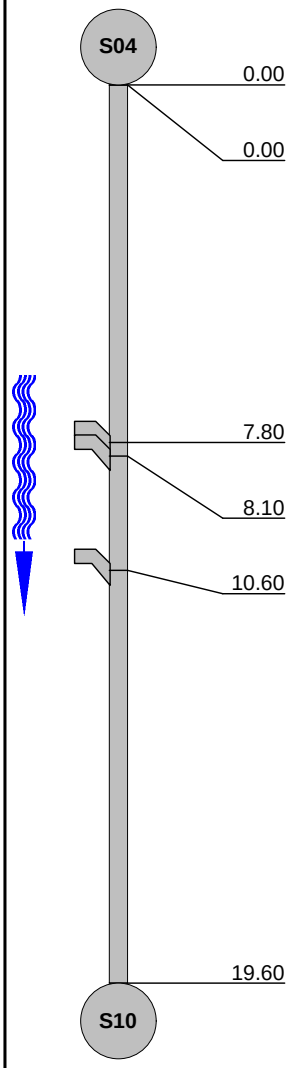
Inspection report

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
21/11/2019		**no rain or snow**	**Invek**	**2**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow				**no**	**Invek**

Place :	**Manchester**	Location details:		U/S MH :	**S04**
Road :	**Mauldeth Rd**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :		D/S MH :	**S10**
Inspection Direction	**S04 (D/S) S10**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150 mm**
Purpose :	**Sample survey to determine asset condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**19.60 m**	Lining :	

Comment :



1:165 Position	Code	Observation	MPEG	Photo	Grade
0.00	MH	Start node type, manhole, reference number : S04	00:00:03		0
0.00	WLC	Clear water level, 5% of the vertical dimension	00:00:03	4_2A	0
7.80	CN	Connection other than junction, at 2 o'clock, diameter 100mm	00:00:29	4_3A	0
8.10	CN	Connection other than junction, at 1 o'clock, diameter 100mm	00:00:32	4_4A	0
10.60	CN	Connection other than junction, at 2 o'clock, diameter 100mm	00:00:40	4_5A	0
19.60	MHF	Finish node type, manhole reference number: S10	00:01:05	4_6A	0

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**21/11/2019**	**2**	**X**

Photo: 4_2A
0m, Clear water level, 5% of the vertical dimension

Photo: 4_3A
7.8m, Connection other than junction, at 2 o'clock, diameter 100mm

Photo: 4_4A
8.1m, Connection other than junction, at 1 o'clock, diameter 100mm

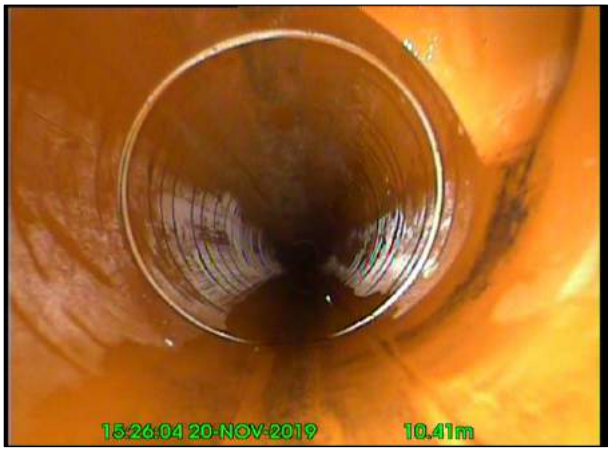


Photo: 4_5A
10.6m, Connection other than junction, at 2 o'clock, diameter 100mm

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**21/11/2019**	**2**	**X**

Photo: 4_6A
19.6m, Finish node type, manhole reference number: S10

Invek Surveys Ltd
Long Lane
Street : Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

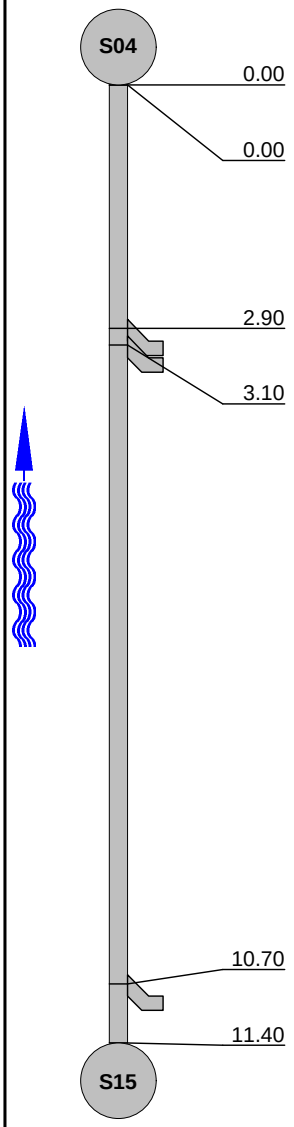
Inspection report

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
21/11/2019		**no rain or snow**	**Invek**	**3**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow				**no**	**Invek**

Place :	**Manchester**	Location details:		U/S MH :	**S15**
Road :	**Mauldeth Rd**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :		D/S MH :	**S04**
Inspection Direction	**S04 (U/S) S15**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150 mm**
Purpose :	**Sample survey to determine asset condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**11.40 m**	Lining :	

Comment :



1:90	Position	Code	Observation	MPEG	Photo	Grade
	0.00	MH	Start node type, manhole, reference number : S04	00:00:01		0
	0.00	WL	Water level, 5% of the vertical dimension	00:00:01	5_2A	0
	2.90	CN	Connection other than junction, at 10 o'clock, diameter 150mm	00:00:22	5_3A	0
	3.10	CN	Connection other than junction, at 9 o'clock, diameter 150mm	00:00:30	5_4A	0
	10.70	CN	Connection other than junction, at 10 o'clock, diameter 150mm	00:01:05	5_5A	0
	11.40	MHF	Finish node type, manhole reference number: S15	00:01:09	5_6A	0

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**21/11/2019**	**3**	**X**

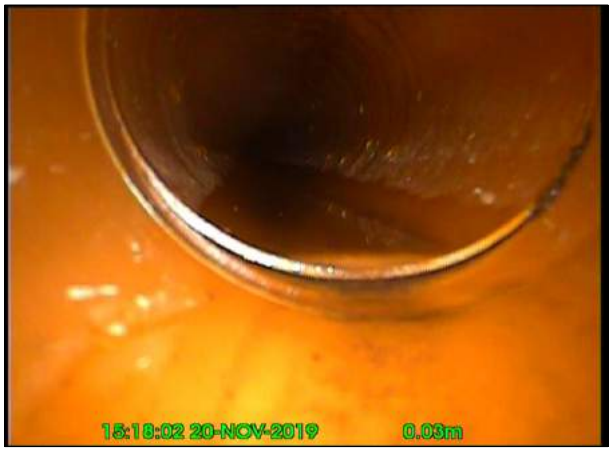


Photo: 5_2A
0m, Water level, 5% of the vertical dimension

Photo: 5_3A
2.9m, Connection other than junction, at 10 o'clock, diameter 150mm

Photo: 5_4A
3.1m, Connection other than junction, at 9 o'clock, diameter 150mm

Photo: 5_5A
10.7m, Connection other than junction, at 10 o'clock, diameter 150mm

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**21/11/2019**	**3**	**X**

Photo: 5_6A
11.4m, Finish node type, manhole reference number: S15

Invek Surveys Ltd
Long Lane
Street : Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

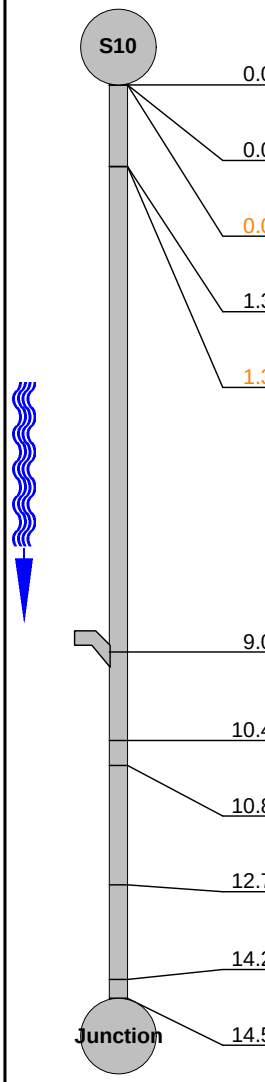
Inspection report

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
21/11/2019		**no rain or snow**	**Invek**	**4**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow				**no**	**Invek**

Place :	**Manchester**	Location details:		U/S MH :	**S10**
Road :	**Mauldeth Rd**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :		D/S MH :	**Junction**
Inspection Direction	**S10 (D/S) Junction**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150 mm**
Purpose :	**Sample survey to determine asset condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**14.50 m**	Lining :	

Comment :



1:120	Position		Code	Observation	MPEG	Photo	Grade
	0.00		MH	Start node type, manhole, reference number : S10	00:00:01		0
	0.00		WLT	Turbid water level, 10% of the vertical dimension	00:00:01	6_2A	0
	0.00	**S01**	DES	Settled deposits, fine, 15% cross-sectional area loss, Start	00:00:09	6_3A	3
	1.30		WLC	Clear water level, 5% of the vertical dimension	00:00:14	6_4A	0
	1.30	**F01**	DES	Settled deposits, fine, 15% cross-sectional area loss, End	00:00:16		3
	9.00		CN	Connection other than junction, at 2 o'clock, diameter 100mm	00:00:34	6_6A	0
	10.40	**S02**	RPH	Point repair, hole repaired, from 11 to 1 o'clock, Start	00:00:49	6_7A	
	10.80	**F02**	RPH	Point repair, hole repaired, from 11 to 1 o'clock, End	00:00:56		0
	12.70		LD	Line deviates down	00:01:01	6_9A	0
	14.20		LR	Line deviates right	00:01:12	6_10A	0
	14.50		BRF	Finish node type, major connection without manhole reference number: Junction	00:01:13	6_11A	0

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**1**	**2**	**0.18**	**2.6**	**3**

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**21/11/2019**	**4**	**X**

Photo: 6_2A
0m, Turbid water level, 10% of the vertical dimension

Photo: 6_3A
0m, Settled deposits, fine, 15% cross-sectional area loss, Start

Photo: 6_4A
1.3m, Clear water level, 5% of the vertical dimension

Photo: 6_6A
9m, Connection other than junction, at 2 o'clock, diameter 100mm

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**21/11/2019**	**4**	**X**

Photo: 6_7A
10.4m, Point repair, hole repaired, from 11 to 1 o'clock, Start

Photo: 6_9A
12.7m, Line deviates down

Photo: 6_10A
14.2m, Line deviates right

Photo: 6_11A
14.5m, Finish node type, major connection without manhole reference number: Junction

Invek Surveys Ltd
Long Lane
Street : Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

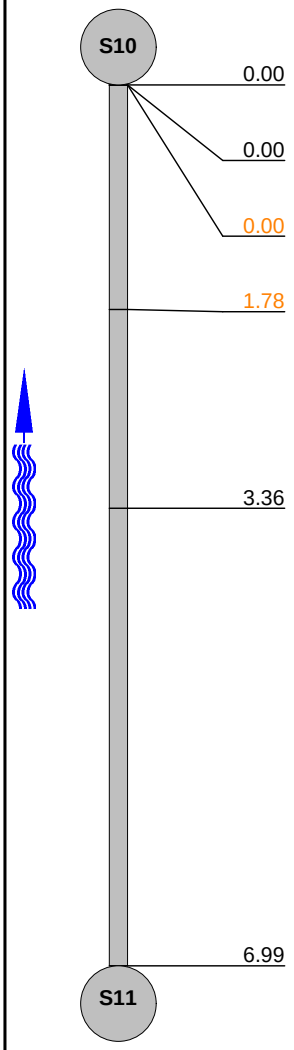
Inspection report

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
21/11/2019		**no rain or snow**	**Invek**	**5**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow				**no**	**Invek**

Place :	**Manchester**	Location details:		U/S MH :	**S11**
Road :	**Mauldeth Rd**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :		D/S MH :	**S10**
Inspection Direction	**S10 (U/S) S11**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150 mm**
Purpose :	**Sample survey to determine asset condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**6.99 m**	Lining :	

Comment :



1:60	Position		Code	Observation	MPEG	Photo	Grade
	0.00		MH	Start node type, manhole, reference number : S10	00:00:01		0
	0.00		WLT	Turbid water level, 5% of the vertical dimension	00:00:01	7_2A	0
	0.00	**S01**	DES	Settled deposits, fine, 10% cross-sectional area loss, Start	00:00:10	7_3A	3
	1.78	**F01**	DES	Settled deposits, fine, 10% cross-sectional area loss, End	00:00:18		3
	3.36		WL	Water level, 0% of the vertical dimension	00:00:21	7_5A	0
	6.99		MHF	Finish node type, manhole reference number: S11	00:00:32	7_6A	0

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**1**	**2**	**0.49**	**3.4**	**3**

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**21/11/2019**	**5**	**X**

Photo: 7_2A
0m, Turbid water level, 5% of the vertical dimension

Photo: 7_3A
0m, Settled deposits, fine, 10% cross-sectional area loss, Start

Photo: 7_5A
3.36m, Water level, 0% of the vertical dimension

Photo: 7_6A
6.99m, Finish node type, manhole reference number: S11

Invek Surveys Ltd
Long Lane
Street : Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

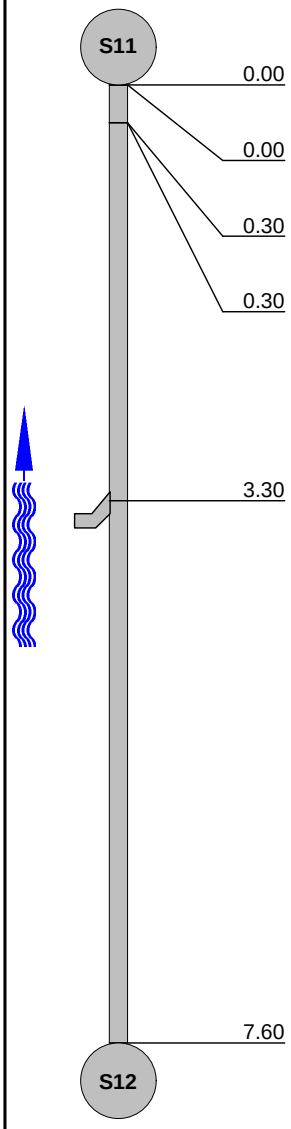
Inspection report

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
21/11/2019		**no rain or snow**	**Invek**	**6**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow				**no**	**Invek**

Place :	**Manchester**	Location details:		U/S MH :	**S12**
Road :	**Mauldeth Rd**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :		D/S MH :	**S11**
Inspection Direction	**S11 (U/S) S12**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150 mm**
Purpose :	**Sample survey to determine asset condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**7.60 m**	Lining :	

Comment :



1:60 Position	Code	Observation	MPEG	Photo	Grade
0.00	MH	Start node type, manhole, reference number : S11	00:00:00		0
0.00	WLC	Clear water level, 5% of the vertical dimension	00:00:00	8_2A	0
0.30	SCC	Shape changes to circular, 100mm high	00:00:10	8_3A	0
0.30	LR	Line deviates right	00:00:10	8_4A	0
3.30	CN	Connection other than junction, at 1 o'clock, diameter 100mm	00:00:23	8_5A	0
7.60	MHF	Finish node type, manhole reference number: S12	00:00:38	8_6A	0

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**21/11/2019**	**6**	**X**

Photo: 8_2A
0m, Clear water level, 5% of the vertical dimension

Photo: 8_3A
0.3m, Shape changes to circular, 100mm high

Photo: 8_4A
0.3m, Line deviates right

Photo: 8_5A
3.3m, Connection other than junction, at 1 o'clock, diameter 100mm

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**21/11/2019**	**6**	**X**

Photo: 8_6A
7.6m, Finish node type, manhole reference number: S12

Invek Surveys Ltd
Long Lane
Street : Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

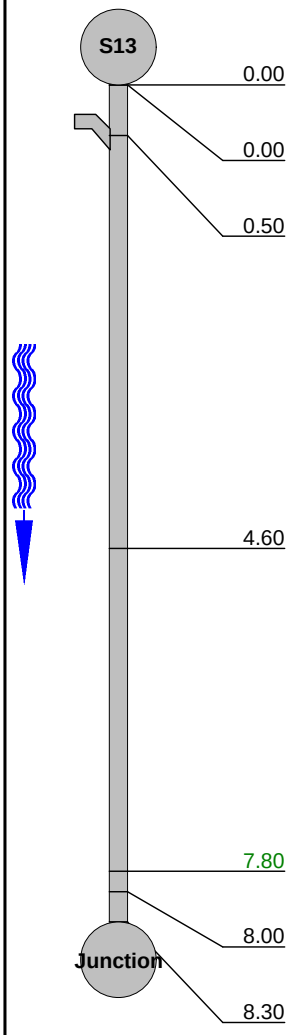
Inspection report

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
21/11/2019		**no rain or snow**	**Invek**	**7**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow				**no**	**Invek**

Place :	**Manchester**	Location details:		U/S MH :	**S13**
Road :	**Mauldeth Rd**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :		D/S MH :	**Junction**
Inspection Direction	**S13 (D/S) Junction**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150 mm**
Purpose :	**Sample survey to determine asset condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**8.30 m**	Lining :	

Comment :



1:75 Position	Code	Observation	MPEG	Photo	Grade
0.00	MH	Start node type, manhole, reference number : S13	00:00:01		0
0.00	WLC	Clear water level, 5% of the vertical dimension	00:00:01	9_2A	0
0.50	CN	Connection other than junction, at 3 o'clock, diameter 100mm	00:00:16	9_3A	0
4.60	LR	Line deviates right	00:00:29	9_4A	0
7.80	JDM	Joint displaced, medium	00:00:39	9_5A	1
8.00	LR	Line deviates right	00:00:39	9_6A	0
8.30	BRF	Finish node type, major connection without manhole reference number: Junction	00:00:42	9_7A	0

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
1	**1**	**0.12**	**1**	**1**	**0**	**0**	**0**	**0**	**1**

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**21/11/2019**	**7**	**X**

Photo: 9_2A
0m, Clear water level, 5% of the vertical dimension

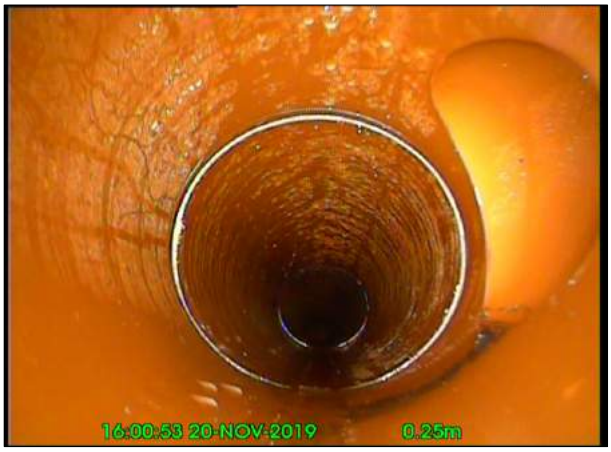


Photo: 9_3A
0.5m, Connection other than junction, at 3 o'clock, diameter 100mm

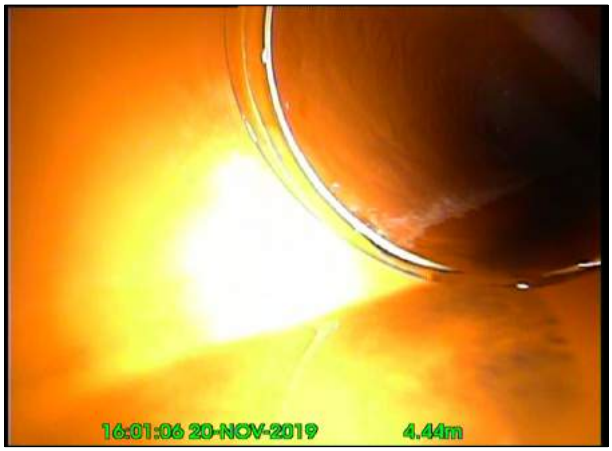


Photo: 9_4A
4.6m, Line deviates right

Photo: 9_5A
7.8m, Joint displaced, medium

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**21/11/2019**	**7**	**X**

Photo: 9_6A
8m, Line deviates right

Photo: 9_7A
8.3m, Finish node type, major connection without manhole reference number: Junction

Invek Surveys Ltd
Long Lane
Street : Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

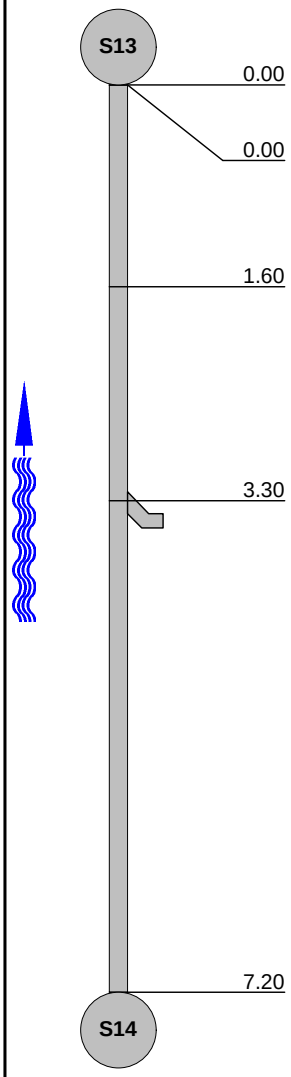
Inspection report

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
21/11/2019		**no rain or snow**	**Invek**	**8**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow				**no**	**Invek**

Place :	**Manchester**	Location details:		U/S MH :	**S14**
Road :	**Mauldeth Rd**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :		D/S MH :	**S13**
Inspection Direction	**S13 (U/S) S14**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**100 mm**
Purpose :	**Sample survey to determine asset condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**7.20 m**	Lining :	

Comment :



1:60 Position	Code	Observation	MPEG	Photo	Grade
0.00	MH	Start node type, manhole, reference number : S13	00:00:01		0
0.00	WLC	Clear water level, 5% of the vertical dimension	00:00:01	10_2A	0
1.60	LR	Line deviates right	00:00:18	10_3A	0
3.30	CN	Connection other than junction, at 11 o'clock, diameter 100mm	00:00:22	10_4A	0
7.20	MHF	Finish node type, manhole reference number: S14	00:00:36	10_5A	0

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**21/11/2019**	**8**	**X**

Photo: 10_2A
0m, Clear water level, 5% of the vertical dimension

Photo: 10_3A
1.6m, Line deviates right

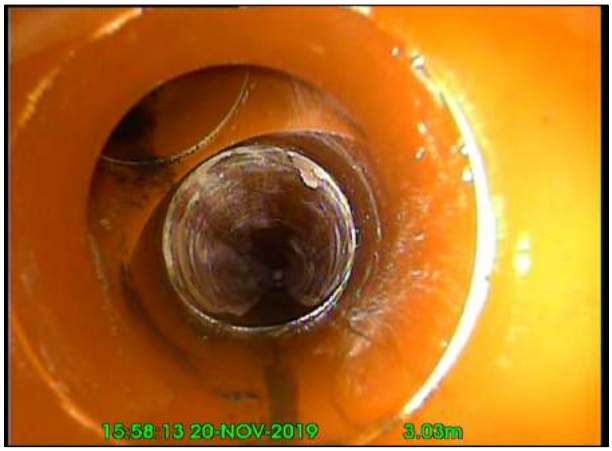


Photo: 10_4A
3.3m, Connection other than junction, at 11 o'clock, diameter 100mm

Photo: 10_5A
7.2m, Finish node type, manhole reference number: S14

Invek Surveys Ltd
Long Lane
Street : Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

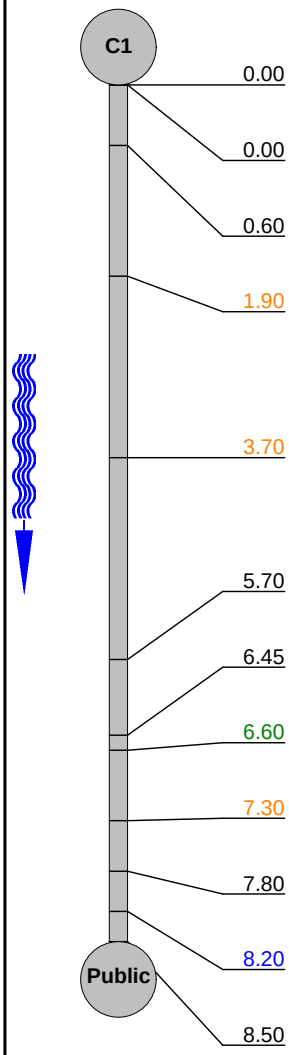
Inspection report

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
21/11/2019		**no rain or snow**	**Invek**	**9**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow				**no**	**Invek**

Place :	**Manchester**	Location details:		U/S MH :	**C1**
Road :	**Mauldeth Rd**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :		D/S MH :	**Public**
Inspection Direction	**C1 (D/S) Public**	Pipe Length		D/S Depth :	

Use:	**Combined**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150 mm**
Purpose :	**Sample survey to determine asset condition**	Pipe material :	**Vitrified clay**
Total length :	**8.50 m**	Lining :	

Comment :



1:75 Position	Code	Observation	MPEG	Photo	Grade
0.00	MH	Start node type, manhole, reference number : C1	00:00:02		0
0.00	WLT	Turbid water level, 15% of the vertical dimension	00:00:02	11_2A	0
0.60	WLC	Clear water level, 10% of the vertical dimension	00:00:18	11_3A	0
1.90	DEEJ	Attached deposits, encrustation at joint, from 1 to 5 o'clock, 10% cross-sectional area loss	00:00:23	11_3A	3
3.70	DEEJ	Attached deposits, encrustation at joint, from 6 to 10 o'clock, 15% cross-sectional area loss	00:00:33	11_5A	3
5.70	WLC	Clear water level, 15% of the vertical dimension	00:00:45	11_6A	0
6.45	WLC	Clear water level, 20% of the vertical dimension	00:00:48	11_7A	0
6.60	JDM	Joint displaced, medium	00:00:48	11_8A	1
7.30	DEEJ	Attached deposits, encrustation at joint, from 6 to 9 o'clock, 15% cross-sectional area loss	00:00:52	11_9A	3
7.80	LL	Line deviates left	00:00:55	11_9A	0
8.20	JDL	Joint displaced, large	00:00:57	11_10A	2
8.50	BRF	Finish node type, major connection without manhole reference number: Public	00:01:08	11_11A	0

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
2	**2**	**0.35**	**3**	**1**	**3**	**2**	**0.71**	**6**	**3**

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**21/11/2019**	**9**	**X**

Photo: 11_2A
0m, Turbid water level, 15% of the vertical dimension

Photo: 11_3A
0.6m, Clear water level, 10% of the vertical dimension

Photo: 11_3A
1.9m, Attached deposits, encrustation at joint, from 1 to 5 o'clock, 10% cross-sectional area loss

Photo: 11_5A
3.7m, Attached deposits, encrustation at joint, from 6 to 10 o'clock, 15% cross-sectional area loss

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**21/11/2019**	**9**	**X**

Photo: 11_6A
5.7m, Clear water level, 15% of the vertical dimension

Photo: 11_7A
6.45m, Clear water level, 20% of the vertical dimension

Photo: 11_8A
6.6m, Joint displaced, medium

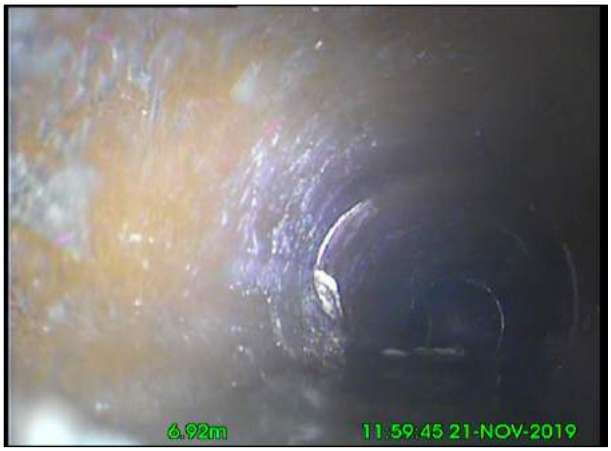


Photo: 11_9A
7.3m, Attached deposits, encrustation at joint, from 6 to 9 o'clock, 15% cross-sectional area loss

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**21/11/2019**	**9**	**X**

Photo: 11_9A
7.8m, Line deviates left

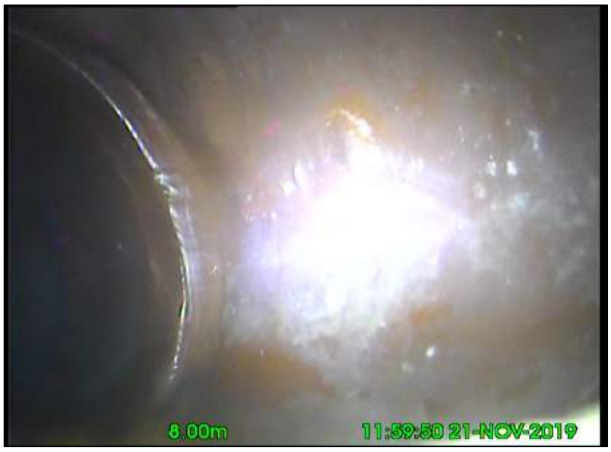


Photo: 11_10A
8.2m, Joint displaced, large

Photo: 11_11A
8.5m, Finish node type, major connection without manhole
reference number: Public

Invek Surveys Ltd
Long Lane
Street : Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

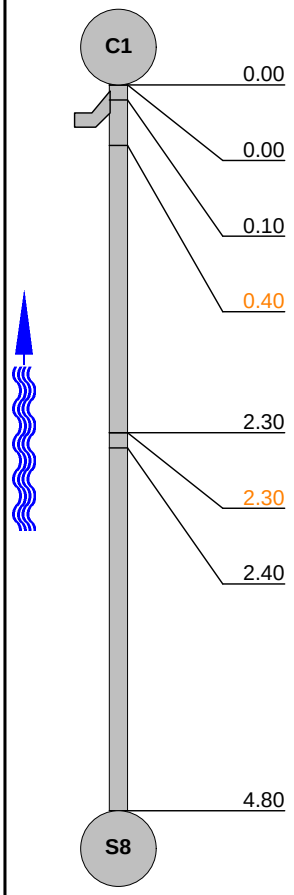
Inspection report

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
21/11/2019		**no rain or snow**	**Invek**	**10**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow				**no**	**Invek**

Place :	**Manchester**	Location details:		U/S MH :	**S8**
Road :	**Mauldeth Rd**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :		D/S MH :	**C1**
Inspection Direction	**C1 (U/S) S8**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150 mm**
Purpose :	**Sample survey to determine asset condition**	Pipe material :	**Vitrified clay**
Total length :	**4.80 m**	Lining :	

Comment :



1:50	Position		Code	Observation	MPEG	Photo	Grade
	0.00		MH	Start node type, manhole, reference number : C1	00:00:01		0
	0.00		WLC	Clear water level, 15% of the vertical dimension	00:00:01	12_2A	0
	0.10		CN	Connection other than junction, at 3 o'clock, diameter 150mm	00:00:12	12_3A	0
	0.40	**S01**	DES	Settled deposits, fine, 15% cross-sectional area loss, Start	00:00:16	12_4A	3
	2.30		LR	Line deviates right	00:00:24	12_5A	0
	2.30	**F01**	DES	Settled deposits, fine, 15% cross-sectional area loss, End	00:00:25		3
	2.40		WLT	Turbid water level, 20% of the vertical dimension	00:00:24	12_7A	0
	4.80		MHF	Finish node type, manhole reference number: S8	00:00:31	12_8A	0

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**1**	**2**	**0.79**	**3.8**	**3**

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**21/11/2019**	**10**	**X**

Photo: 12_2A
0m, Clear water level, 15% of the vertical dimension

Photo: 12_3A
0.1m, Connection other than junction, at 3 o'clock, diameter 150mm

Photo: 12_4A
0.4m, Settled deposits, fine, 15% cross-sectional area loss, Start

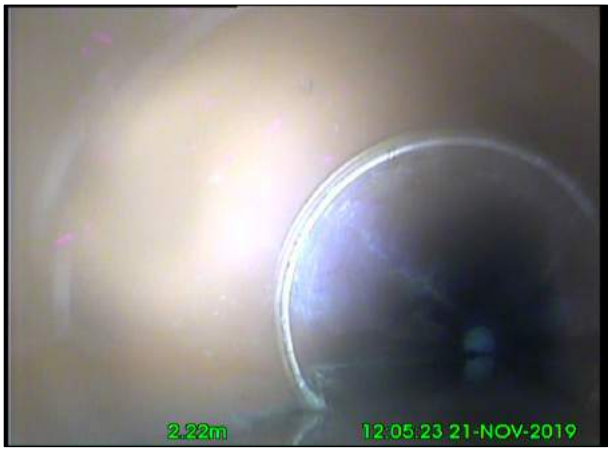


Photo: 12_5A
2.3m, Line deviates right

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**21/11/2019**	**10**	**X**

Photo: 12_7A
2.4m, Turbid water level, 20% of the vertical dimension

Photo: 12_8A
4.8m, Finish node type, manhole reference number: S8

Invek Surveys Ltd
Long Lane
Street : Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

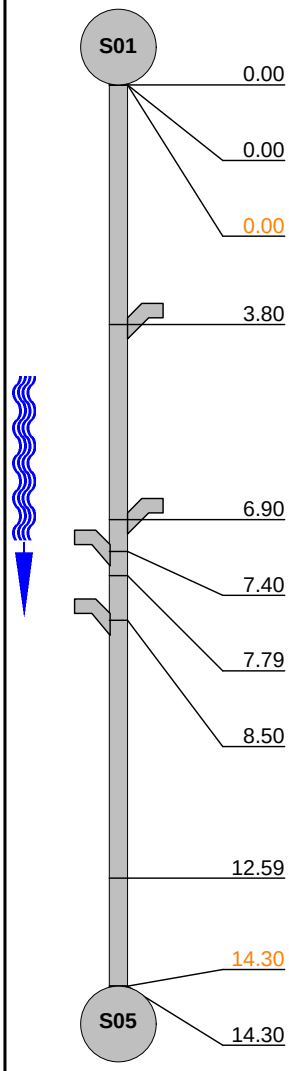
Inspection report

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
21/11/2019		**no rain or snow**	**Invek**	**11**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow				**no**	**Invek**

Place :	**Manchester**	Location details:		U/S MH :	**S01**
Road :	**Mauldeth Rd**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :		D/S MH :	**S05**
Inspection Direction	**S01 (D/S) S05**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150 mm**
Purpose :	**Sample survey to determine asset condition**	Pipe material :	**Vitrified clay**
Total length :	**14.30 m**	Lining :	

Comment :



1:120	Position		Code	Observation	MPEG	Photo	Grade
	0.00		MH	Start node type, manhole, reference number : S01	00:00:02		0
	0.00		WLT	Turbid water level, 5% of the vertical dimension	00:00:03	13_2A	0
	0.00	**S01**	DES	Settled deposits, fine, 15% cross-sectional area loss, Start	00:00:03	13_3A	3
	3.80		CN	Connection other than junction, at 11 o'clock, diameter 100mm	00:00:26	13_4A	0
	6.90		CN	Connection other than junction, at 11 o'clock, diameter 100mm	00:00:43	13_5A	0
	7.40		CN	Connection other than junction, at 1 o'clock, diameter 100mm	00:00:44	13_6A	0
	7.79	**S02**	CUD	Loss of vision, silt, Start	00:00:46	13_7A	
	8.50		CN	Connection other than junction, at 1 o'clock, diameter 100mm	00:01:53	13_8A	0
	12.59	**F02**	CUD	Loss of vision, silt, End	00:01:13		0
	14.30	**F01**	DES	Settled deposits, fine, 15% cross-sectional area loss, End	00:01:13		3
	14.30		MHF	Finish node type, manhole reference number: S05	00:01:13		0

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**1**	**2**	**2**	**28.6**	**3**

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**21/11/2019**	**11**	**X**

Photo: 13_2A
0m, Turbid water level, 5% of the vertical dimension

Photo: 13_3A
0m, Settled deposits, fine, 15% cross-sectional area loss, Start

Photo: 13_4A
3.8m, Connection other than junction, at 11 o'clock, diameter 100mm

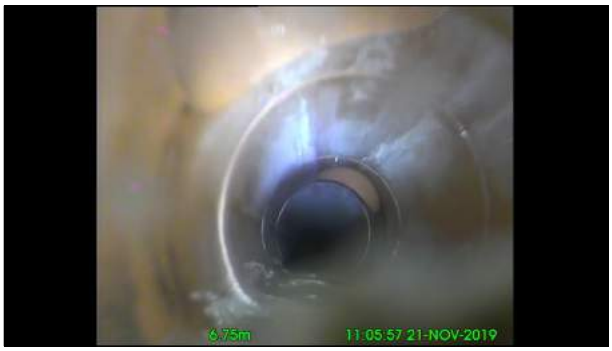


Photo: 13_5A
6.9m, Connection other than junction, at 11 o'clock, diameter 100mm

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**21/11/2019**	**11**	**X**

Photo: 13_6A
7.4m, Connection other than junction, at 1 o'clock, diameter 100mm

Photo: 13_7A
7.79m, Loss of vision, silt, Start

Photo: 13_8A
8.5m, Connection other than junction, at 1 o'clock, diameter 100mm

Invek Surveys Ltd
Long Lane
Street : Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

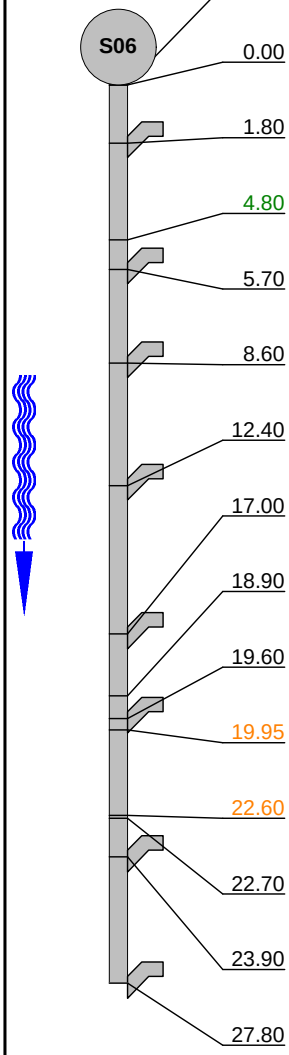
Inspection report

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
21/11/2019		**no rain or snow**	**Invek**	**12**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow				**no**	**Invek**

Place :	**Manchester**	Location details:		U/S MH :	**S06**
Road :	**Mauldeth Rd**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :		D/S MH :	**S07**
Inspection Direction	**S06 (D/S) S07**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150 mm**
Purpose :	**Sample survey to determine asset condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**38.00 m**	Lining :	

Comment :

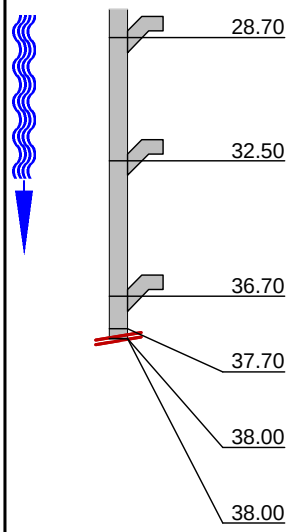


1:234	Position		Code	Observation	MPEG	Photo	Grade
	0.00		MH	Start node type, manhole, reference number : S06	00:00:01		0
	0.00		WLC	Clear water level, 5% of the vertical dimension	00:00:01		0
	1.80		CN	Connection other than junction, at 9 o'clock, diameter 100mm	00:00:17	15_3A	0
	4.80		JDM	Joint displaced, medium	00:00:27	15_4A	1
	5.70		CN	Connection other than junction, at 9 o'clock, diameter 100mm	00:00:29	15_5A	0
	8.60		CN	Connection other than junction, at 9 o'clock, diameter 100mm	00:00:36	15_6A	0
	12.40		CN	Connection other than junction, at 9 o'clock, diameter 100mm	00:00:44	15_7A	0
	17.00		CN	Connection other than junction, at 9 o'clock, diameter 100mm	00:00:53	15_8A	0
	18.90		WLT	Turbid water level, 10% of the vertical dimension	00:00:59	15_9A	0
	19.60		CN	Connection other than junction, at 9 o'clock, diameter 100mm	00:01:01	15_10A	0
	19.95	**S01**	DES	Settled deposits, fine, 10% cross-sectional area loss, Start	00:01:04	15_11A	3
	22.60	**F01**	DES	Settled deposits, fine, 10% cross-sectional area loss, End	00:01:09		3
	22.70		WLC	Clear water level, 5% of the vertical dimension	00:01:09	15_13A	0
	23.90		CN	Connection other than junction, at 9 o'clock, diameter 100mm	00:01:12	15_14A	0
	27.80		CN	Connection other than junction, at 10 o'clock, diameter 100mm	00:01:21	15_15A	0

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection Report

Date :	Job number :	Weather :	Operator :	Section number :	PLR :
21/11/2019		**no rain or snow**	**Invek**	**12**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Grade:
no rain or snow				**no**	



1:234 Position		Code	Observation	MPEG	Photo	Grade
28.70		CN	Connection other than junction, at 10 o'clock, diameter 100mm	00:01:25	15_16A	0
32.50		CN	Connection other than junction, at 10 o'clock, diameter 100mm	00:01:33	15_17A	0
36.70		CN	Connection other than junction, at 10 o'clock, diameter 100mm	00:01:46	15_18A	0
37.70	**S02**	RPH	Point repair, hole repaired, from 10 to 2 o'clock, Start	00:01:53	15_19A	
38.00	**F02**	RPH	Point repair, hole repaired, from 10 to 2 o'clock, End	00:02:05		0
38.00		SA	Survey abandoned Remarks: Survey stopped here	00:02:04	15_21A	0

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
1	**1**	**0.03**	**1**	**1**	**1**	**2**	**0.14**	**5.4**	**3**

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**21/11/2019**	**12**	**X**

Photo: 15_3A
1.8m, Connection other than junction, at 9 o'clock, diameter 100mm

Photo: 15_4A
4.8m, Joint displaced, medium

Photo: 15_5A
5.7m, Connection other than junction, at 9 o'clock, diameter 100mm

Photo: 15_6A
8.6m, Connection other than junction, at 9 o'clock, diameter 100mm

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**21/11/2019**	**12**	**X**

Photo: 15_7A
12.4m, Connection other than junction, at 9 o'clock, diameter 100mm

Photo: 15_8A
17m, Connection other than junction, at 9 o'clock, diameter 100mm

Photo: 15_9A
18.9m, Turbid water level, 10% of the vertical dimension

Photo: 15_10A
19.6m, Connection other than junction, at 9 o'clock, diameter 100mm

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**21/11/2019**	**12**	**X**

Photo: 15_11A
19.95m, Settled deposits, fine, 10% cross-sectional area loss, Start

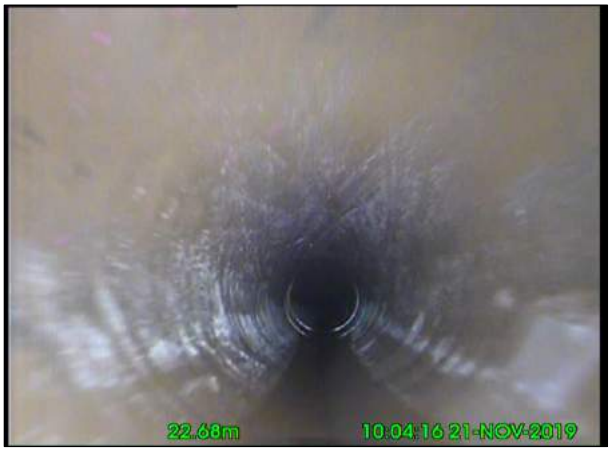


Photo: 15_13A
22.7m, Clear water level, 5% of the vertical dimension

Photo: 15_14A
23.9m, Connection other than junction, at 9 o'clock, diameter 100mm

Photo: 15_15A
27.8m, Connection other than junction, at 10 o'clock, diameter 100mm

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**21/11/2019**	**12**	**X**

Photo: 15_16A
28.7m, Connection other than junction, at 10 o'clock, diameter 100mm

Photo: 15_17A
32.5m, Connection other than junction, at 10 o'clock, diameter 100mm

Photo: 15_18A
36.7m, Connection other than junction, at 10 o'clock, diameter 100mm

Photo: 15_19A
37.7m, Point repair, hole repaired, from 10 to 2 o'clock, Start

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**21/11/2019**	**12**	**X**

Photo: 15_21A
38m, Survey abandoned Remarks: Survey stopped here

Invek Surveys Ltd
Long Lane
Street : Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

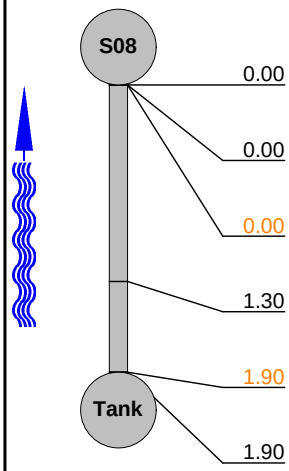
Inspection report

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
21/11/2019		**no rain or snow**	**Invek**	**13**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow				**no**	**Invek**

Place :	**Manchester**	Location details:		U/S MH :	**Tank**
Road :	**Mauldeth Rd**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :		D/S MH :	**S08**
Inspection Direction	**S08 (U/S) Tank**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**225 mm**
Purpose :	**Sample survey to determine asset condition**	Pipe material :	**Vitrified clay**
Total length :	**1.90 m**	Lining :	

Comment :



1:50	Position		Code	Observation	MPEG	Photo	Grade
	0.00		MH	Start node type, manhole, reference number : S08	00:00:01		0
	0.00		WLC	Clear water level, 10% of the vertical dimension	00:00:01	18_2A	0
	0.00	**S01**	DES	Settled deposits, fine, 10% cross-sectional area loss, Start	00:00:11	18_3A	3
	1.30		LR	Line deviates right	00:00:33	18_4A	0
	1.90	**F01**	DES	Settled deposits, fine, 10% cross-sectional area loss, End	00:00:39		3
	1.90		OCF	Finish node type, other special chamber reference number: Tank Remarks: Tank	00:00:39	18_6A	0

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**1**	**2**	**2**	**3.8**	**3**

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**21/11/2019**	**13**	**X**

Photo: 18_2A
0m, Clear water level, 10% of the vertical dimension

Photo: 18_3A
0m, Settled deposits, fine, 10% cross-sectional area loss, Start

Photo: 18_4A
1.3m, Line deviates right

Photo: 18_6A
1.9m, Finish node type, other special chamber reference number: Tank Remarks: Tank

Invek Surveys Ltd
Long Lane
Street : Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

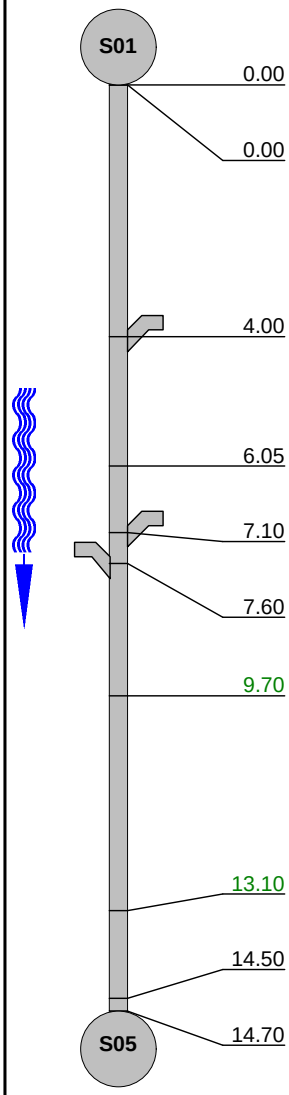
Inspection report

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
03/12/2019		**no rain or snow**	**Invek**	**14**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow				**yes**	**Invek**

Place :	**Manchester**	Location details:		U/S MH :	**S01**
Road :	**Mauldeth Rd**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :		D/S MH :	**S05**
Inspection Direction	**S01 (D/S) S05**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150 mm**
Purpose :	**Sample survey to determine asset condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**14.70 m**	Lining :	

Comment :



1:120 Position	Code	Observation	MPEG	Photo	Grade
0.00	MH	Start node type, manhole, reference number : S01	00:00:01		0
0.00	WLC	Clear water level, 5% of the vertical dimension	00:00:01	19_2A	0
4.00	CN	Connection other than junction, at 11 o'clock, diameter 150mm	00:00:23	19_3A	0
6.05	WLC	Clear water level, 10% of the vertical dimension	00:00:32	19_4A	0
7.10	CN	Connection other than junction, at 11 o'clock, diameter 100mm	00:00:35	19_5A	0
7.60	CN	Connection other than junction, at 1 o'clock, diameter 100mm	00:00:41	19_6A	0
9.70	JDM	Joint displaced, medium	00:00:51	19_7A	1
13.10	JDM	Joint displaced, medium	00:01:04	19_8A	1
14.50	LL	Line deviates left	00:01:09	19_9A	0
14.70	MHF	Finish node type, manhole reference number: S05	00:01:11	19_10A	0

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
2	**1**	**0.14**	**2**	**1**	**0**	**0**	**0**	**0**	**1**

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**03/12/2019**	**14**	**X**

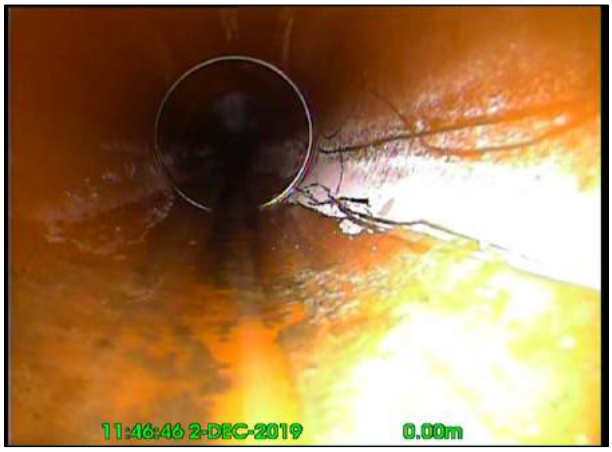


Photo: 19_2A
0m, Clear water level, 5% of the vertical dimension

Photo: 19_3A
4m, Connection other than junction, at 11 o'clock, diameter 150mm

Photo: 19_4A
6.05m, Clear water level, 10% of the vertical dimension

Photo: 19_5A
7.1m, Connection other than junction, at 11 o'clock, diameter 100mm

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**03/12/2019**	**14**	**X**

Photo: 19_6A
7.6m, Connection other than junction, at 1 o'clock, diameter 100mm

Photo: 19_7A
9.7m, Joint displaced, medium

Photo: 19_8A
13.1m, Joint displaced, medium

Photo: 19_9A
14.5m, Line deviates left

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**03/12/2019**	**14**	**X**

Photo: 19_10A
14.7m, Finish node type, manhole reference number: S05

Invek Surveys Ltd
Long Lane
Street : Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

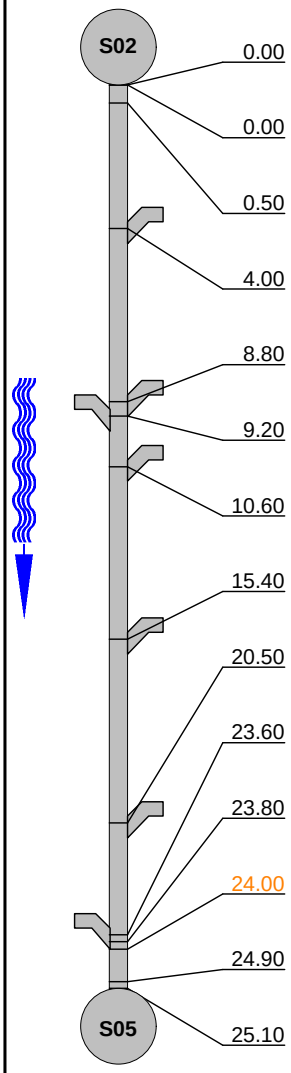
Inspection report

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
03/12/2019		**no rain or snow**	**Invek**	**15**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow				**yes**	**Invek**

Place :	**Manchester**	Location details:		U/S MH :	**S02**
Road :	**Mauldeth Rd**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :		D/S MH :	**S05**
Inspection Direction	**S02 (D/S) S05**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150 mm**
Purpose :	**Sample survey to determine asset condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**25.10 m**	Lining :	

Comment :



1:210 Position	Code	Observation	MPEG	Photo	Grade
0.00	MH	Start node type, manhole, reference number : S02	00:00:00		0
0.00	WLC	Clear water level, 5% of the vertical dimension	00:00:00	20_2A	0
0.50	LL	Line deviates left	00:00:17	20_3A	0
4.00	CN	Connection other than junction, at 11 o'clock, diameter 100mm	00:00:29	20_4A	0
8.80	CN	Connection other than junction, at 11 o'clock, diameter 100mm	00:00:43	20_5A	0
9.20	CN	Connection other than junction, at 1 o'clock, diameter 150mm	00:00:44	20_6A	0
10.60	CN	Connection other than junction, at 11 o'clock, diameter 100mm	00:00:48	20_7A	0
15.40	CN	Connection other than junction, at 10 o'clock, diameter 100mm	00:01:01	20_8A	0
20.50	CN	Connection other than junction, at 10 o'clock, diameter 100mm	00:01:17	20_9A	0
23.60	CN	Connection other than junction, at 1 o'clock, diameter 150mm	00:01:26	20_10A	0
23.80	LL	Line deviates left	00:01:27	20_11A	0
24.00	DEE	Attached deposits, encrustation, from 8 to 9 o'clock, 10% cross-sectional area loss	00:01:28	20_12A	3
24.90	LL	Line deviates left	00:01:30	20_13A	0
25.10	MHF	Finish node type, manhole reference number: S05	00:01:32	20_14A	0

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**1**	**2**	**0.08**	**2**	**3**

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**03/12/2019**	**15**	**X**

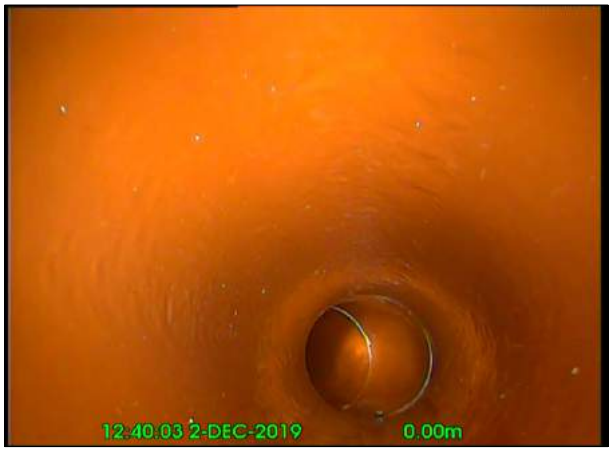


Photo: 20_2A
0m, Clear water level, 5% of the vertical dimension

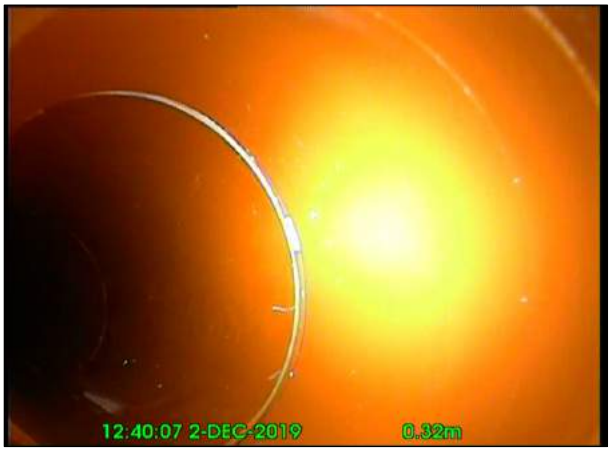


Photo: 20_3A
0.5m, Line deviates left

Photo: 20_4A
4m, Connection other than junction, at 11 o'clock, diameter 100mm

Photo: 20_5A
8.8m, Connection other than junction, at 11 o'clock, diameter 100mm

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**03/12/2019**	**15**	**X**

Photo: 20_6A
9.2m, Connection other than junction, at 1 o'clock, diameter 150mm

Photo: 20_7A
10.6m, Connection other than junction, at 11 o'clock, diameter 100mm

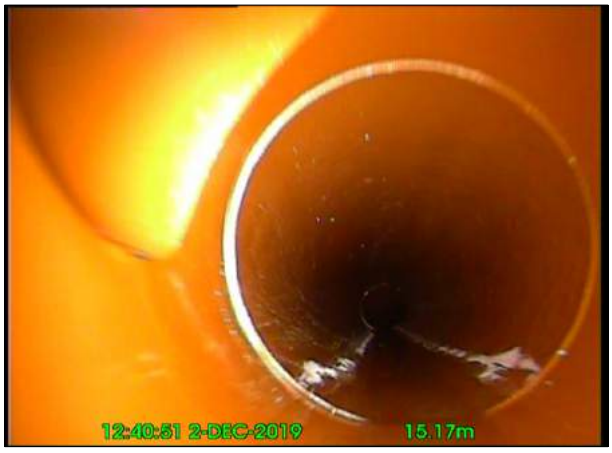


Photo: 20_8A
15.4m, Connection other than junction, at 10 o'clock, diameter 100mm

Photo: 20_9A
20.5m, Connection other than junction, at 10 o'clock, diameter 100mm

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**03/12/2019**	**15**	**X**

Photo: 20_10A
23.6m, Connection other than junction, at 1 o'clock, diameter 150mm

Photo: 20_11A
23.8m, Line deviates left

Photo: 20_12A
24m, Attached deposits, encrustation, from 8 to 9 o'clock, 10% cross-sectional area loss

Photo: 20_13A
24.9m, Line deviates left

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**03/12/2019**	**15**	**X**

Photo: 20_14A
25.1m, Finish node type, manhole reference number: S05

Invek Surveys Ltd
Long Lane
Street : Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

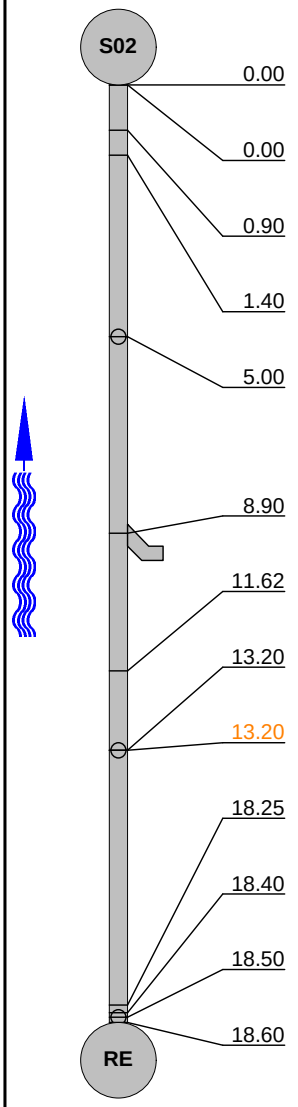
Inspection report

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
03/12/2019		**no rain or snow**	**Invek**	**16**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow				**yes**	**Invek**

Place :	**Manchester**	Location details:		U/S MH :	**RE**
Road :	**Mauldeth Rd**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :		D/S MH :	**S02**
Inspection Direction	**S02 (U/S) RE**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**100 mm**
Purpose :	**Sample survey to determine asset condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**18.60 m**	Lining :	

Comment :



1:150	Position		Code	Observation	MPEG	Photo	Grade
	0.00		MH	Start node type, manhole, reference number : S02	00:00:02		0
	0.00		WLC	Clear water level, 5% of the vertical dimension	00:00:02	21_2A	0
	0.90		LD	Line deviates down	00:00:16	21_3A	0
	1.40		LL	Line deviates left	00:00:21	21_4A	0
	5.00		CN	Connection other than junction, at 12 o'clock, diameter 100mm	00:00:34	21_5A	0
	8.90		CN	Connection other than junction, at 11 o'clock, diameter 100mm	00:00:53	21_6A	0
	11.62		WLT	Turbid water level, 10% of the vertical dimension	00:01:06	21_7A	0
	13.20		CN	Connection other than junction, at 12 o'clock, diameter 100mm	00:01:10	21_7A	0
	13.20		DES	Settled deposits, fine, 10% cross-sectional area loss	00:01:11	21_8A	3
	18.25	**S01**	CUD	Loss of vision, silt, Start	00:01:25		
	18.40	**F01**	CUD	Loss of vision, silt, End	00:01:17		0
	18.50		CN	Connection other than junction, at 12 o'clock, diameter 100mm	00:01:36	21_11A	0
	18.60		REF	Finish node type, rodding eye reference number: RE	00:01:17		0

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**1**	**2**	**0.11**	**2**	**3**

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**03/12/2019**	**16**	**X**

Photo: 21_2A
0m, Clear water level, 5% of the vertical dimension

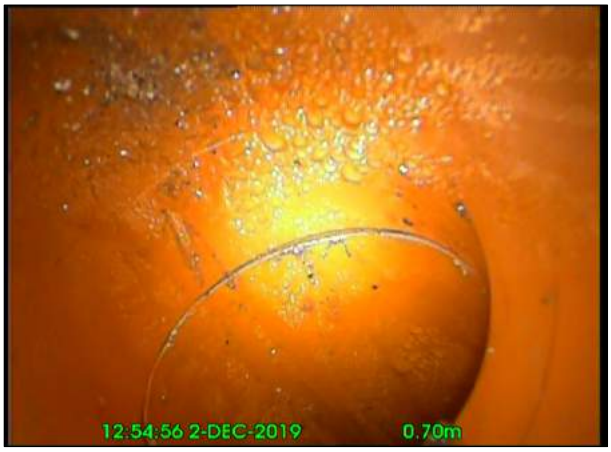


Photo: 21_3A
0.9m, Line deviates down

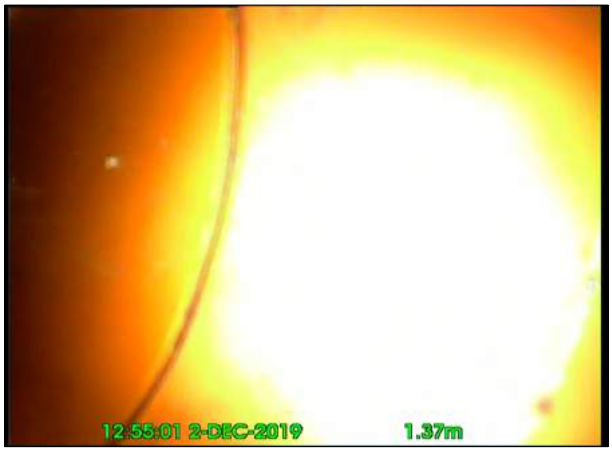


Photo: 21_4A
1.4m, Line deviates left

Photo: 21_5A
5m, Connection other than junction, at 12 o'clock, diameter 100mm

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**03/12/2019**	**16**	**X**

Photo: 21_6A
8.9m, Connection other than junction, at 11 o'clock, diameter 100mm

Photo: 21_7A
11.62m, Turbid water level, 10% of the vertical dimension

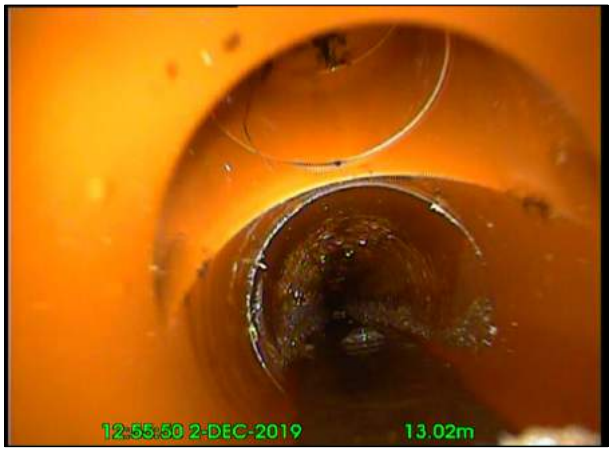


Photo: 21_7A
13.2m, Connection other than junction, at 12 o'clock, diameter 100mm

Photo: 21_8A
13.2m, Settled deposits, fine, 10% cross-sectional area loss

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**03/12/2019**	**16**	**X**

Photo: 21_11A
18.5m, Connection other than junction, at 12 o'clock, diameter 100mm

Invek Surveys Ltd
Long Lane
Street : Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

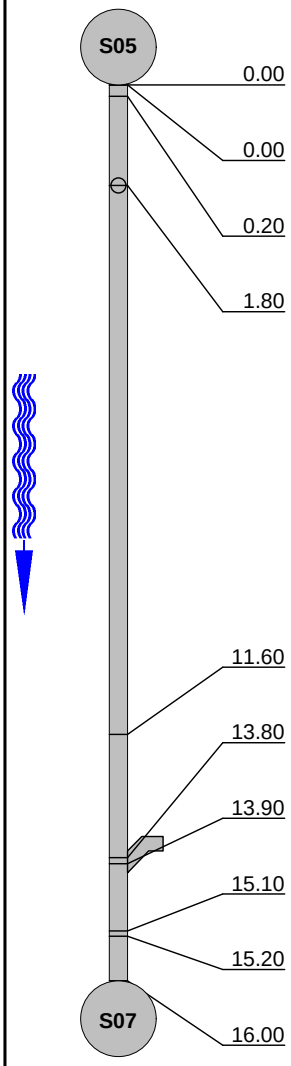
Inspection report

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
03/12/2019		**no rain or snow**	**Invek**	**17**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow				**yes**	**Invek**

Place :	**Manchester**	Location details:		U/S MH :	**S05**
Road :	**Mauldeth Rd**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :		D/S MH :	**S07**
Inspection Direction	**S05 (D/S) S07**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150 mm**
Purpose :	**Sample survey to determine asset condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**16.00 m**	Lining :	

Comment :



1:135 Position	Code	Observation	MPEG	Photo	Grade
0.00	MH	Start node type, manhole, reference number : S05			0
0.00	WLC	Clear water level, 5% of the vertical dimension	00:00:17	22_2A	0
0.20	LL	Line deviates left	00:00:17	22_3A	0
1.80	CN	Connection other than junction, at 12 o'clock, diameter 100mm	00:00:28	22_4A	0
11.60	WLC	Clear water level, 10% of the vertical dimension	00:01:24	22_5A	0
13.80	CN	Connection other than junction, at 11 o'clock, diameter 150mm	00:01:34	22_6A	0
13.90	LR	Line deviates right	00:01:38	22_7A	0
15.10	LL	Line deviates left	00:01:45	22_8A	0
15.20	SCC	Shape changes to circular, 225mm high	00:01:47	22_9A	0
16.00	MHF	Finish node type, manhole reference number: S07	00:01:56	22_10A	0

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**03/12/2019**	**17**	**X**

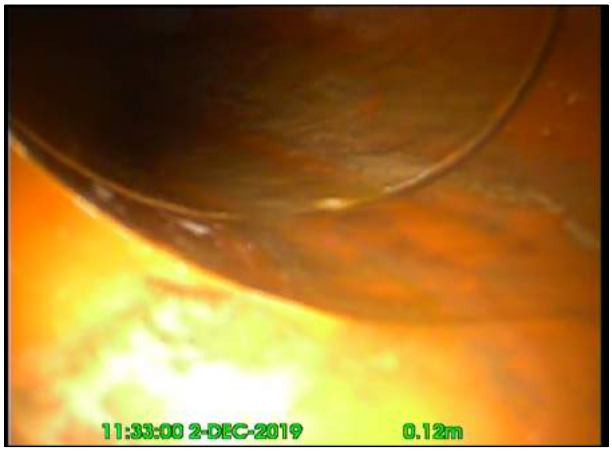


Photo: 22_2A
0m, Clear water level, 5% of the vertical dimension

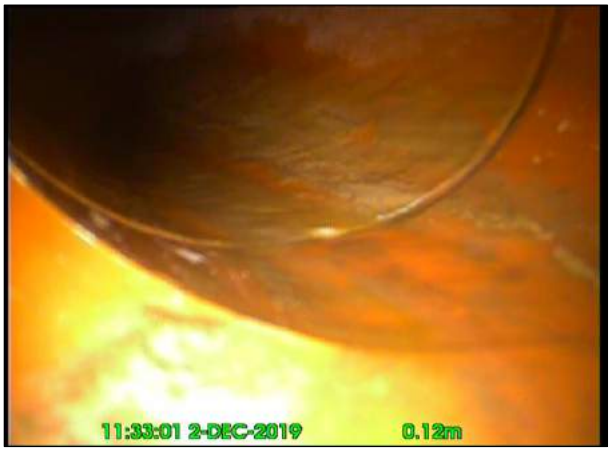


Photo: 22_3A
0.2m, Line deviates left

Photo: 22_4A
1.8m, Connection other than junction, at 12 o'clock, diameter 100mm

Photo: 22_5A
11.6m, Clear water level, 10% of the vertical dimension

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**03/12/2019**	**17**	**X**

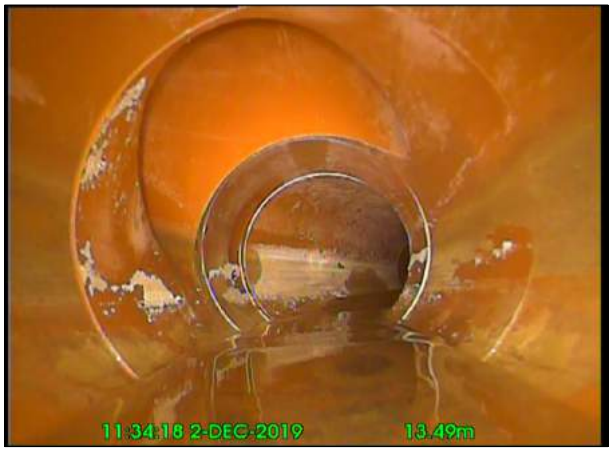


Photo: 22_6A
13.8m, Connection other than junction, at 11 o'clock, diameter 150mm

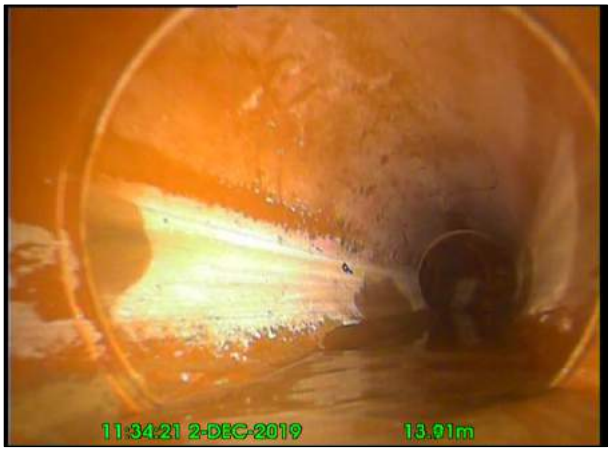


Photo: 22_7A
13.9m, Line deviates right

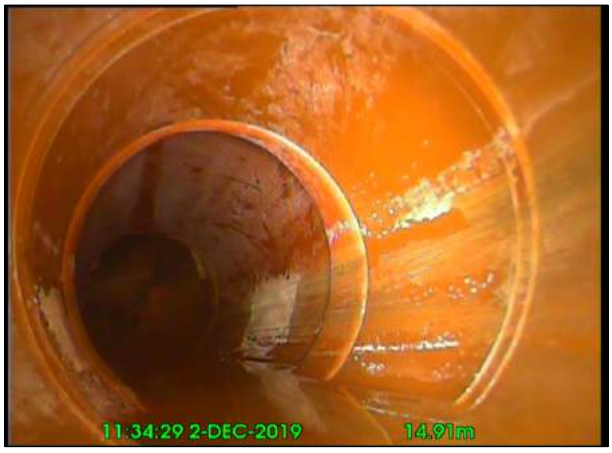


Photo: 22_8A
15.1m, Line deviates left

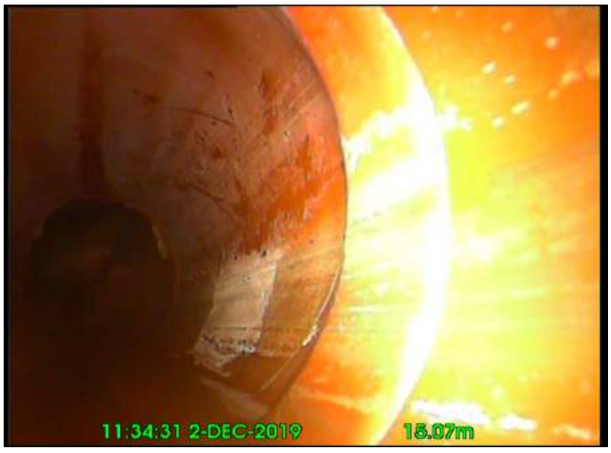


Photo: 22_9A
15.2m, Shape changes to circular, 225mm high

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**03/12/2019**	**17**	**X**

Photo: 22_10A
16m, Finish node type, manhole reference number: S07

Invek Surveys Ltd
Long Lane
Street : Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

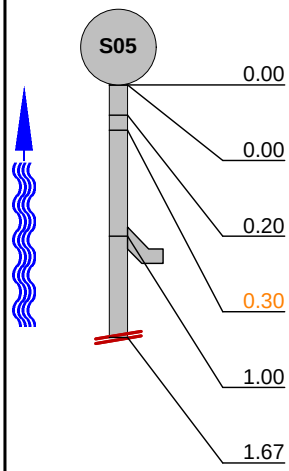
Inspection report

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
03/12/2019		**no rain or snow**	**Invek**	**18**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow				**yes**	**Invek**

Place :	**Manchester**	Location details:		U/S MH :	**S02**
Road :	**Mauldeth Rd**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :		D/S MH :	**S05**
Inspection Direction	**S05 (U/S) S02**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150 mm**
Purpose :	**Sample survey to determine asset condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**1.67 m**	Lining :	

Comment :



1:50 Position	Code	Observation	MPEG	Photo	Grade
0.00	MH	Start node type, manhole, reference number : S05	00:00:01		0
0.00	WLC	Clear water level, 5% of the vertical dimension	00:00:01	23_2A	0
0.20	LR	Line deviates right	00:00:11	23_3A	0
0.30	DEE	Attached deposits, encrustation, from 3 to 4 o'clock, 10% cross-sectional area loss	00:00:16	23_4A	3
1.00	CN	Connection other than junction, at 11 o'clock, diameter 150mm	00:00:19	23_5A	0
1.67	SA	Survey abandoned Remarks: Survey stopped here	00:00:33		0

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**1**	**2**	**2**	**2**	**3**

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**03/12/2019**	**18**	**X**

Photo: 23_2A
0m, Clear water level, 5% of the vertical dimension

Photo: 23_3A
0.2m, Line deviates right

Photo: 23_4A
0.3m, Attached deposits, encrustation, from 3 to 4 o'clock, 10% cross-sectional area loss

Photo: 23_5A
1m, Connection other than junction, at 11 o'clock, diameter 150mm

Invek Surveys Ltd
Long Lane
Street : Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

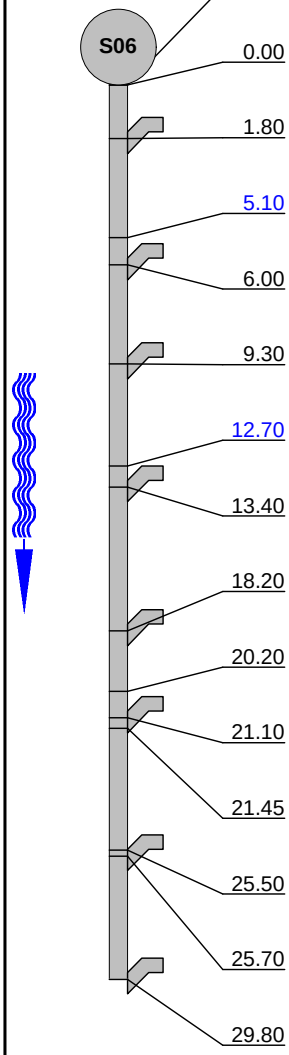
Inspection report

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
03/12/2019		**no rain or snow**	**Invek**	**19**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow				**yes**	**Invek**

Place :	**Manchester**	Location details:		U/S MH :	**S06**
Road :	**Mauldeth Rd**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :		D/S MH :	**S07**
Inspection Direction	**S06 (D/S) S07**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150 mm**
Purpose :	**Sample survey to determine asset condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**42.80 m**	Lining :	

Comment :

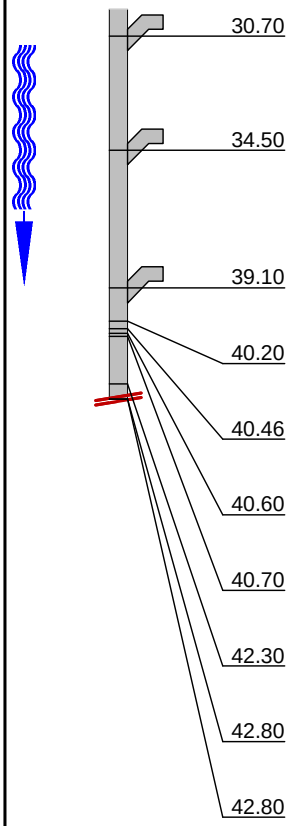


1:252 Position	Code	Observation	MPEG	Photo	Grade
0.00	MH	Start node type, manhole, reference number : S06	00:00:06		0
0.00	WLC	Clear water level, 5% of the vertical dimension	00:00:06	24_2A	0
1.80	CN	Connection other than junction, at 9 o'clock, diameter 100mm	00:00:18	24_3A	0
5.10	JDL	Joint displaced, large	00:00:31	24_4A	2
6.00	CN	Connection other than junction, at 9 o'clock, diameter 100mm	00:00:36	24_5A	0
9.30	CN	Connection other than junction, at 9 o'clock, diameter 100mm	00:00:47	24_6A	0
12.70	JDL	Joint displaced, large	00:00:57	24_7A	2
13.40	CN	Connection other than junction, at 9 o'clock, diameter 100mm	00:01:00	24_8A	0
18.20	CN	Connection other than junction, at 9 o'clock, diameter 100mm	00:01:15	24_9A	0
20.20	WLC	Clear water level, 10% of the vertical dimension	00:01:24	24_10A	0
21.10	CN	Connection other than junction, at 9 o'clock, diameter 100mm	00:01:26	24_11A	0
21.45	WLC	Clear water level, 20% of the vertical dimension	00:01:28	24_12A	0
25.50	WLC	Clear water level, 5% of the vertical dimension	00:01:40	24_13A	0
25.70	CN	Connection other than junction, at 9 o'clock, diameter 100mm	00:01:40	24_14A	0
29.80	CN	Connection other than junction, at 10 o'clock, diameter 100mm	00:01:53	24_15A	0

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection Report

Date :	Job number :	Weather :	Operator :	Section number :	PLR :
03/12/2019		**no rain or snow**	**Invek**	**19**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Grade:
no rain or snow				**yes**	



1:252 Position		Code	Observation	MPEG	Photo	Grade
30.70		CN	Connection other than junction, at 10 o'clock, diameter 100mm	00:01:58	24_16A	0
34.50		CN	Connection other than junction, at 10 o'clock, diameter 100mm	00:02:11	24_17A	0
39.10		CN	Connection other than junction, at 10 o'clock, diameter 100mm	00:02:24	24_18A	0
40.20	**S01**	RPH	Point repair, hole repaired, from 10 to 2 o'clock, Start	00:02:28	24_19A	
40.46	**F01**	RPH	Point repair, hole repaired, from 10 to 2 o'clock, End	00:02:36	24_20A	0
40.60		LR	Line deviates right	00:02:36	24_21A	0
40.70		SCC	Shape changes to circular, 100mm high	00:02:37	24_22A	0
42.30		WLC	Clear water level, 10% of the vertical dimension	00:02:42	24_23A	0
42.80		CN	Connection other than junction, at 6 o'clock, diameter 100mm	00:02:57	24_24A	0
42.80		SA	Survey abandoned Remarks: Unable to pass drop shaft	00:02:57	24_25A	0

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
2	**2**	**0.09**	**4**	**1**	**0**	**0**	**0**	**0**	**1**

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**03/12/2019**	**19**	**X**

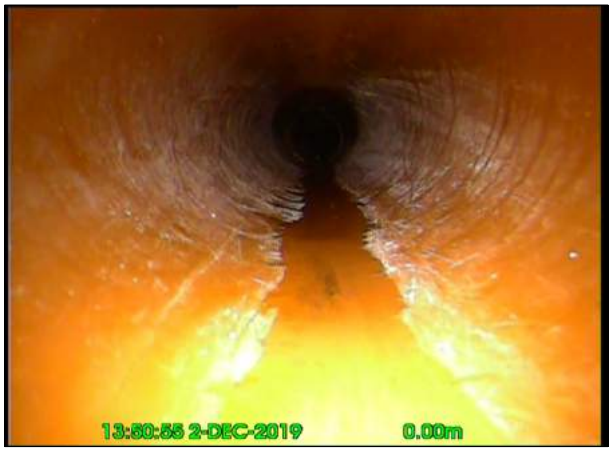


Photo: 24_2A
0m, Clear water level, 5% of the vertical dimension

Photo: 24_3A
1.8m, Connection other than junction, at 9 o'clock, diameter 100mm

Photo: 24_4A
5.1m, Joint displaced, large

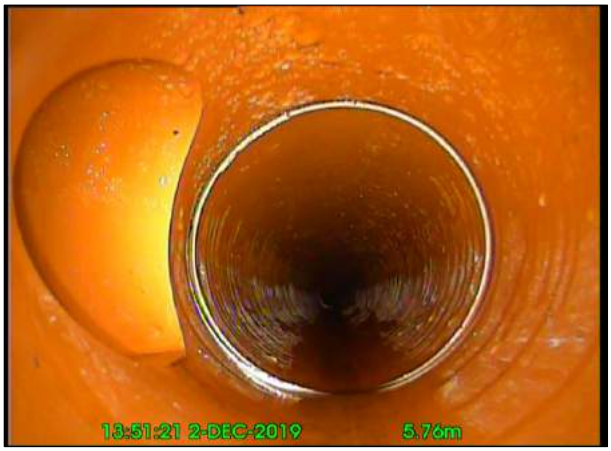


Photo: 24_5A
6m, Connection other than junction, at 9 o'clock, diameter 100mm

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**03/12/2019**	**19**	**X**

Photo: 24_6A
9.3m, Connection other than junction, at 9 o'clock, diameter 100mm

Photo: 24_7A
12.7m, Joint displaced, large

Photo: 24_8A
13.4m, Connection other than junction, at 9 o'clock, diameter 100mm

Photo: 24_9A
18.2m, Connection other than junction, at 9 o'clock, diameter 100mm

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**03/12/2019**	**19**	**X**

Photo: 24_10A
20.2m, Clear water level, 10% of the vertical dimension

Photo: 24_11A
21.1m, Connection other than junction, at 9 o'clock, diameter 100mm

Photo: 24_12A
21.45m, Clear water level, 20% of the vertical dimension

Photo: 24_13A
25.5m, Clear water level, 5% of the vertical dimension

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**03/12/2019**	**19**	**X**

Photo: 24_14A
25.7m, Connection other than junction, at 9 o'clock, diameter 100mm

Photo: 24_15A
29.8m, Connection other than junction, at 10 o'clock, diameter 100mm

Photo: 24_16A
30.7m, Connection other than junction, at 10 o'clock, diameter 100mm

Photo: 24_17A
34.5m, Connection other than junction, at 10 o'clock, diameter 100mm

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**03/12/2019**	**19**	**X**

Photo: 24_18A
39.1m, Connection other than junction, at 10 o'clock, diameter 100mm

Photo: 24_19A
40.2m, Point repair, hole repaired, from 10 to 2 o'clock, Start

Photo: 24_20A
40.46m, Point repair, hole repaired, from 10 to 2 o'clock, End

Photo: 24_21A
40.6m, Line deviates right

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**03/12/2019**	**19**	**X**

Photo: 24_22A
40.7m, Shape changes to circular, 100mm high

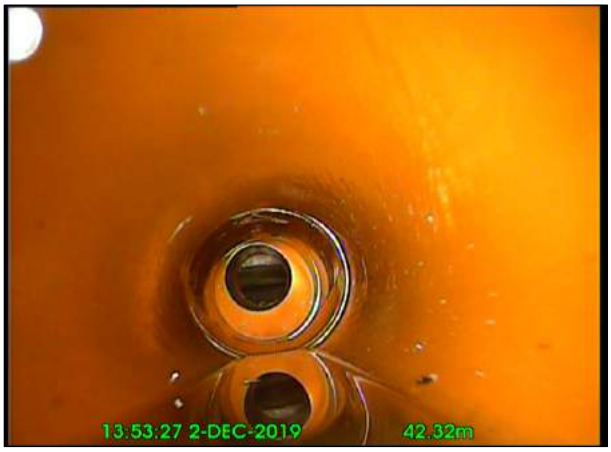


Photo: 24_23A
42.3m, Clear water level, 10% of the vertical dimension

Photo: 24_24A
42.8m, Connection other than junction, at 6 o'clock, diameter 100mm

Photo: 24_25A
42.8m, Survey abandoned Remarks: Unable to pass drop shaft

Invek Surveys Ltd
Long Lane
Street : Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

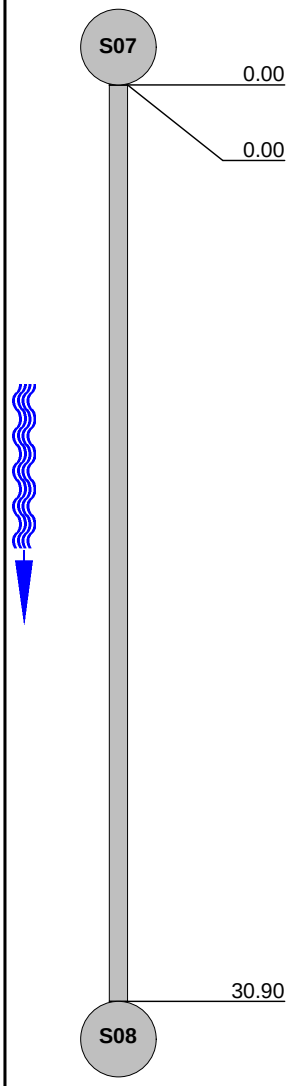
Inspection report

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
03/12/2019		**no rain or snow**	**Invek**	**20**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow				**yes**	**Invek**

Place :	**Manchester**	Location details:		U/S MH :	**S07**
Road :	**Mauldeth Rd**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :		D/S MH :	**S08**
Inspection Direction	**S07 (D/S) S08**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**225 mm**
Purpose :	**Sample survey to determine asset condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**30.90 m**	Lining :	

Comment :



1:255	Position	Code	Observation	MPEG	Photo	Grade
	0.00	MH	Start node type, manhole, reference number : S07	00:00:05		0
	0.00	WLC	Clear water level, 5% of the vertical dimension	00:00:05	25_2A	0
	30.90	MHF	Finish node type, manhole reference number: S08	00:02:06	25_3A	0

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**

Invek Surveys Ltd
Long Lane
Warrington
Tel: 01925 244376
Fax: 01925241517
Email: kevin@invek.com

Inspection pictures

Place :	Road :	Date :	Section number :	PLR Suffix :
Manchester	**Mauldeth Rd**	**03/12/2019**	**20**	**X**

Photo: 25_2A
0m, Clear water level, 5% of the vertical dimension

Photo: 25_3A
30.9m, Finish node type, manhole reference number: S08

Report Information

This page can be edited to contain any information you feel is necessary.

A disclaimer.

Any terms and conditions