

DRAINTech

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Drainage Survey Report

Job Number : 12519

Project Number: 1

Project Name: Briton Ferry

Company: Tulip Engineering Consultancy

Site Date: 27-04-2021

Draintech Surveys Ltd| Atlantic House| Chamwood Park| Bridgend| CF31 3PL| 01656 767001| www.draintech.co.uk



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12519 BRITON FERRY SURVEY	12519 - 01	27/04/2021

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Project Information

Project Name
12519 BRITON FERRY SURVEY**Project Number**
12519 - 01**Project Date**
27/04/2021

Client

Company: Tulip Engineering Consultancy
Contact: Graeme Tulip

Site

Company: Draintech Surveys Ltd
Contact: Mark Allen

Contractor

Company: Draintech Surveys Ltd
Contact: Marc Baker
Department: Client Manager
Street: Atlantic House, Charnwood Park
County: Bridgend
Post Code: CF31 3PL
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Section Inspection - 27/04/2021 - SS73948403X

Section 1	Inspection 1	Date 27/04/21	Time 8:40	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR SS73948403X
Operator DRAINTECH		Vehicle CN13 BYA		Camera Mini Cam	Preset Length Not Specified	Criticality Grade Category C	Alternative ID Not Specified

Town or Village:	Bury Port	Inspection Direction:	Upstream	Upstream Node:	SS73948403
Road:	Back Of Victoria Street	Inspected Length:	45.51 m	Upstream Pipe Depth:	3.000 m
Location:	Other walkway	Total Length:	45.51 m	Downstream Node:	SS73948404
Surface Type:	Unknown	Joint Length:	0.00 m	Downstream Pipe Depth:	2.510 m
Use:	Combined		Pipe Shape:	Egg shaped	
Type of Pipe:	Gravity drain/sewer		Dia/Height:	1,500 mm	Width: 1,200 mm
Year Constructed:			Material:	Brick	
Flow Control:	No flow control		Lining Type:	No Lining	
Inspection Purpose:	Routine inspection		Lining Material:	No Lining	
Comments:	450 VC CHANNEL				
Recommendations:	None specified				

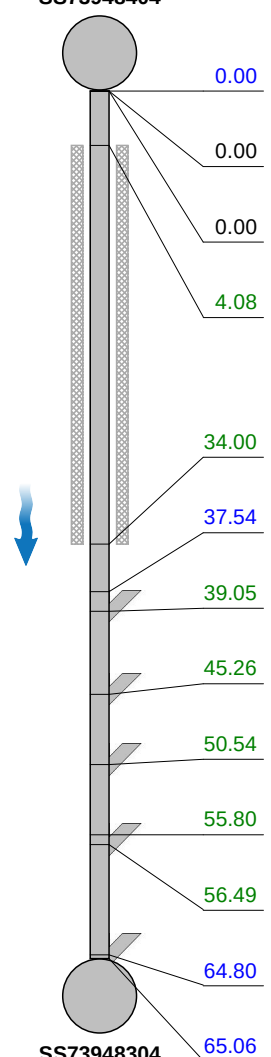
Scale:	1:396	Position [m]		Code	Observation	Photo	Grade
Depth: 2.51 m SS73948404							
	MH				Start node type, manhole, reference number : SS73948404		
	REM				General remark: THERE IS A SMALL CHANNEL RUNNING THROUGH THIS LINE WITH CONCRETE BENCHING		
	WL				Water level, 5% of the vertical dimension		
	DEE				Attached deposits, encrustation, from 7 to 8 o'clock, 5% cross-sectional area loss: VERY LIGHT		3
	S01			LR	Line deviates right, Start: SLIGHT		
	F01			LR	Line deviates right, End: SLIGHT		
	MHF				Finish node type, manhole reference number: SS73948403		
SS73948403 Depth: 3.00 m							

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
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	0.0	0.0	1.0	1	2.0	0.0	2.0	3.0

Section Inspection - 27/04/2021 - SS73948404X

Section 2	Inspection 1	Date 27/04/21	Time 9:11	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR SS73948404X
Operator DRAINTECH		Vehicle CN13 BYA		Camera Mini Cam	Preset Length Not Specified	Criticality Grade Category C	Alternative ID Not Specified

Town or Village:	Bury Port	Inspection Direction:	Downstream	Upstream Node:	SS73948404	
Road:	Back Of Victoria Street	Inspected Length:	65.06 m	Upstream Pipe Depth:	2.510 m	
Location:	Other walkway	Total Length:	65.06 m	Downstream Node:	SS73948304	
Surface Type:	Unknown	Joint Length:	0.00 m	Downstream Pipe Depth:	1.650 m	
Use:	Combined		Pipe Shape:	Egg shaped		
Type of Pipe:	Gravity drain/sewer		Dia/Height:	1,500 mm	Width:	1,200 mm
Year Constructed:			Material:	Brick		
Flow Control:	No flow control		Lining Type:	No Lining		
Inspection Purpose:	Routine inspection		Lining Material:	No Lining		
Comments:	450 VC CHANNEL					
Recommendations:	None specified					

Scale: 1:566	Position [m]	Code	Observation	Photo	Grade
Depth: 2.51 m SS73948404					
					
	0.00	MH	Start node type, manhole, reference number : SS73948404		
	0.00	REM	General remark: THERE IS A SMALL CHANNEL RUNNING THROUGH THIS LINE WITH CONCRETE BENCHING		
	0.00	WL	Water level, 05% of the vertical dimension		
	4.08	S01	DES	Settled deposits, fine, 5% cross-sectional area loss, Start	
	34.00	F01	DES	Settled deposits, fine, 5% cross-sectional area loss, End	3
	37.54	SC	Dimension changes, 1400mm high, 1500mm wide		
	39.05	CXI	Connection intruding, at 8 o'clock, diameter 150mm, intrusion 5%		5
	45.26	CXI	Connection intruding, at 8 o'clock, diameter 150mm, intrusion 5%		5
	50.54	CXI	Connection intruding, at 8 o'clock, diameter 150mm, intrusion 5%		5
	55.80	RF	Roots, fine		2
	56.49	CXI	Connection intruding, at 8 o'clock, diameter 150mm, intrusion 5%		5
	64.80	CN	Connection other than junction, at 7 o'clock, diameter 300mm		
	65.06	MHF	Finish node type, manhole reference number: SS73948304		
SS73948304 Depth: 1.65 m					

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
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	0.0	0.0	1.0	6	10.0	1.6	101.0	5.0

Section Inspection - 27/04/2021 - SS73948401X

Section 3	Inspection 1	Date 27/04/21	Time 9:43	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR SS73948401X
Operator DRAINTECH		Vehicle CN13 BYA		Camera Mini Cam	Preset Length Not Specified	Criticality Grade Category C	Alternative ID Not Specified

Town or Village:	Bury Port	Inspection Direction:	Downstream	Upstream Node:	SS73948401
Road:	Back Of Victoria Street	Inspected Length:	23.45 m	Upstream Pipe Depth:	1.020 m
Location:	Other walkway	Total Length:	23.45 m	Downstream Node:	SS73948404
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	2.510 m
Use:	Combined		Pipe Shape:	Circular	
Type of Pipe:	Gravity drain/sewer		Dia/Height:	150 mm	
Year Constructed:			Material:	Vitrified clay	
Flow Control:	No flow control		Lining Type:	No Lining	
Inspection Purpose:	Routine inspection		Lining Material:	No Lining	
Comments:					
Recommendations:	None specified				

Scale: 1:112	Position [m]	Code	Observation	Photo	Grade
Depth: 1.02 m SS73948401					
	0.00	MH	Start node type, manhole, reference number : SS73948401		
	0.00	WL	Water level, 05% of the vertical dimension		
	0.38	LL	Line deviates left		
	0.69	MC	Material changes, pitch fibre		
	0.69	S01	DEG	Attached deposits, grease, from 7 to 5 o'clock, 5% cross-sectional area loss, Start	
	2.27	S02	D	Deformed sewer/drain, 5%, Start	
	2.28	WL	Water level, 10% of the vertical dimension		
	2.92	WL	Water level, 20% of the vertical dimension		
	3.71	S03	DES	Settled deposits, fine, 10% cross-sectional area loss, Start	
	4.71	WL	Water level, 05% of the vertical dimension		
	4.71	F03	DES	Settled deposits, fine, 10% cross-sectional area loss, End	3
	8.78	D	Deformed sewer/drain, 10%		4 / 3
	9.30	D	Deformed sewer/drain, 25%		5 / 4
	11.02	D	Deformed sewer/drain, 25%		5 / 4
	12.60	WL	Water level, 30% of the vertical dimension		

Section Inspection - 27/04/2021 - SS73948401X

Section 3	Inspection 1	Date 27/04/21	Time 9:43	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR SS73948401X
Operator DRAINTECH		Vehicle CN13 BYA		Camera Mini Cam	Preset Length Not Specified	Criticality Grade Category C	Alternative ID Not Specified

Scale: 1:112 Position [m] 13.08 13.76 13.76 13.76 14.50 14.77 15.74 15.74 19.91 19.91 19.91 21.14 22.16 23.45 23.45 23.45 SS73948404 Depth: 2.51 m						
	D	Deformed sewer/drain, 35%				5 / 4
	WL	Water level, 10% of the vertical dimension				
	S04	D	Deformed sewer/drain, 15%, Start			
	F02	D	Deformed sewer/drain, 5%, End			2 / 2
		D	Deformed sewer/drain, 50%			5 / 4
		D	Deformed sewer/drain, 50%			5 / 4
	WL	Water level, 05% of the vertical dimension				
		D	Deformed sewer/drain, 40%			5 / 4
		D	Deformed sewer/drain, 05%			2 / 2
	S05	D	Deformed sewer/drain, 5%, Start			
	F04	D	Deformed sewer/drain, 15%, End			5 / 3
		WL	Water level, 10% of the vertical dimension			
		D	Deformed sewer/drain, 30%			5 / 4
	F01	DEG	Attached deposits, grease, from 7 to 5 o'clock, 5% cross-sectional area loss, End			3
	F05	D	Deformed sewer/drain, 5%, End			2 / 2
	MHF	Finish node type, manhole reference number: SS73948404				

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
12	330.0	116.4	2730.0	5.0	14	14.0	7.2	168.0	5.0

Section Inspection - 27/04/2021 - SS73948451X

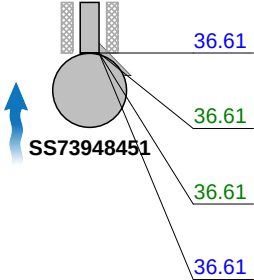
Section 4	Inspection 1	Date 27/04/21	Time 10:42	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR SS73948451X
Operator DRAINTECH		Vehicle CN13 BYA		Camera Mini Cam	Preset Length Not Specified	Criticality Grade Category C	Alternative ID Not Specified

Town or Village:	Bury Port	Inspection Direction:	Upstream	Upstream Node:	SS73948451
Road:	Back Of Victoria Street	Inspected Length:	36.61 m	Upstream Pipe Depth:	
Location:	Other walkway	Total Length:	36.61 m	Downstream Node:	SS73948450
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	1.170 m
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	225 mm		
Year Constructed:		Material:	Vitrified clay		
Flow Control:	No flow control	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		
Comments:					
Recommendations: None specified					

Scale: 1:301	Position [m]	Code	Observation	Photo	Grade
Depth: 1.17 m SS73948450					
	0.00	MH	Start node type, manhole, reference number : SS73948450		
	0.00	WL	Water level, 05% of the vertical dimension		
	0.00	S01	Attached deposits, grease, from 7 to 5 o'clock, 5% cross-sectional area loss, Start		
	1.60	JN	Junction, at 10 o'clock, diameter 150mm		
	5.46	DEEJ	Attached deposits, encrustation at joint, from 3 to 5 o'clock, 05% cross-sectional area loss		3
	6.64	JN	Junction, at 10 o'clock, diameter 150mm		
	11.23	DEEJ	Attached deposits, encrustation at joint, from 2 to 5 o'clock, 05% cross-sectional area loss		3
	11.23	DEEJ	Attached deposits, encrustation at joint, from 7 to 8 o'clock, 05% cross-sectional area loss		3
	11.83	JN	Junction, at 10 o'clock, diameter 150mm		
	12.04	DEEJ	Attached deposits, encrustation at joint, from 6 to 9 o'clock, 05% cross-sectional area loss		3
	17.11	JN	Junction, at 10 o'clock, diameter 150mm		
	22.43	JN	Junction, at 10 o'clock, diameter 150mm		
	23.48	DEEJ	Attached deposits, encrustation at joint, from 2 to 4 o'clock, 05% cross-sectional area loss		3
	27.74	JN	Junction, at 10 o'clock, diameter 150mm		
	32.57	DES	Settled deposits, fine, 05% cross-sectional area loss		3

Section Inspection - 27/04/2021 - SS73948451X

Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
4	1	27/04/21	10:42	1	No Rain Or Snow	No	SS73948451X
Operator		Vehicle		Camera	Preset Length	Criticality Grade	Alternative ID
DRAINTECH		CN13 BYA		Mini Cam	Not Specified	Category C	Not Specified

Scale:	1:301	Position [m]	Code	Observation	Photo	Grade			
		36.61	CN	Connection other than junction, at 10 o'clock, diameter 150mm					
		36.61	DER	Settled deposits, coarse, 95% cross-sectional area loss		5			
		36.61	F01 DEG	Attached deposits, grease, from 7 to 5 o'clock, 5% cross-sectional area loss, End		3			
		36.61	MHF	Finish node type, manhole reference number: SS73948451: START OF RUN					
Depth: m									
Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
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	0.0	0.0	1.0	8	14.0	4.6	170.0	5.0

Section Inspection - 27/04/2021 - SS73948450X

Section 5	Inspection 1	Date 27/04/21	Time 11:00	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR SS73948450X
Operator DRAINTECH		Vehicle CN13 BYA		Camera Mini Cam	Preset Length Not Specified	Criticality Grade Category C	Alternative ID Not Specified

Town or Village:	Bury Port	Inspection Direction:	Downstream	Upstream Node:	SS73948450
Road:	Back Of Victoria Street	Inspected Length:	38.35 m	Upstream Pipe Depth:	1.170 m
Location:	Other walkway	Total Length:	38.35 m	Downstream Node:	SS73948301
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	1.300 m
Use:	Combined		Pipe Shape:	Circular	
Type of Pipe:	Gravity drain/sewer		Dia/Height:	225 mm	
Year Constructed:			Material:	Vitrified clay	
Flow Control:	No flow control		Lining Type:	No Lining	
Inspection Purpose:	Routine inspection		Lining Material:	No Lining	
Comments:					
Recommendations:	None specified				

Scale: 1:147	Position [m]	Code	Observation	Photo	Grade
Depth: 1.17 m SS73948450					
	0.00	MH	Start node type, manhole, reference number : SS73948450		
	0.00	WL	Water level, 10% of the vertical dimension		
	0.00	S01	DEG Attached deposits, grease, from 7 to 5 o'clock, 5% cross-sectional area loss, Start: PATCHY		
	1.66	JN	Junction, at 2 o'clock, diameter 150mm		
	2.61	DER	Settled deposits, coarse, 10% cross-sectional area loss		3
	3.14	WL	Water level, 05% of the vertical dimension		
	3.53	DEEJ	Attached deposits, encrustation at joint, from 6 to 8 o'clock, 05% cross-sectional area loss		3
	5.16	DEEJ	Attached deposits, encrustation at joint, from 2 to 6 o'clock, 5% cross-sectional area loss		3
	5.16	DEEJ	Attached deposits, encrustation at joint, from 7 to 8 o'clock, 05% cross-sectional area loss		3
	5.88	DEEJ	Attached deposits, encrustation at joint, from 2 to 6 o'clock, 05% cross-sectional area loss		3
	5.88	DEEJ	Attached deposits, encrustation at joint, from 7 to 8 o'clock, 05% cross-sectional area loss		3
	6.72	DEEJ	Attached deposits, encrustation at joint, from 7 to 5 o'clock, 5% cross-sectional area loss: PATCHY		3
	6.88	JN	Junction, at 2 o'clock, diameter 150mm		
	8.29	S02	DEEJ Attached deposits, encrustation at joint, from 7 to 5 o'clock, 5% cross-sectional area loss, Start: PATCHY		
	9.58	WL	Water level, 10% of the vertical dimension		

Section Inspection - 27/04/2021 - SS73948450X

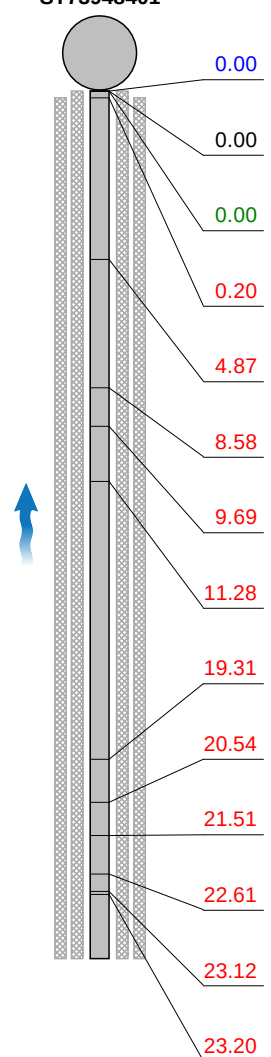
Section 5	Inspection 1	Date 27/04/21	Time 11:00	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR SS73948450X
Operator DRAINTECH		Vehicle CN13 BYA		Camera Mini Cam	Preset Length Not Specified	Criticality Grade Category C	Alternative ID Not Specified

Scale:	1:147	Position [m]	Code	Observation	Photo	Grade
		10.16	WL	Water level, 25% of the vertical dimension		
		11.19	WL	Water level, 30% of the vertical dimension		
		11.36	JDM	Joint displaced, medium		1 / 3
		11.98	DER	Settled deposits, coarse, 20% cross-sectional area loss		4
		12.29	JN	Junction, at 2 o'clock, diameter 150mm		
		12.57	WL	Water level, 10% of the vertical dimension		
		14.32	DER	Settled deposits, coarse, 05% cross-sectional area loss		3
		15.17	WL	Water level, 25% of the vertical dimension		
		15.62	WL	Water level, 30% of the vertical dimension		
		17.38	JN	Junction, at 2 o'clock, diameter 150mm		
		21.48	WL	Water level, 35% of the vertical dimension		
		22.76	JN	Junction, at 2 o'clock, diameter 150mm		
		24.24	WL	Water level, 40% of the vertical dimension		
		28.02	JN	Junction, at 2 o'clock, diameter 150mm		
		28.58	S03	Attached deposits, grease, from 7 to 5 o'clock, 10% cross-sectional area loss, Start: PATCHY		
		28.58	F01	Attached deposits, grease, from 7 to 5 o'clock, 5% cross-sectional area loss, End: PATCHY		3
		31.30	WL	Water level, 60% of the vertical dimension		
		32.54	WL	Water level, 70% of the vertical dimension		
		35.33	OJM	Open joint, medium		1
		35.93	OJM	Open joint, medium		1

Section Inspection - 06/05/2021 - UNKNOWNX

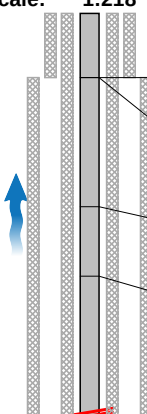
Section 6	Inspection 1	Date 06/05/21	Time 13:41	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR UNKNOWNX
Operator DRAINTECH MA		Vehicle CN13 BYA		Camera Mini Cam	Preset Length Not Specified	Criticality Grade Category C	Alternative ID Not Specified

Town or Village:	Briton Ferry	Inspection Direction:	Upstream	Upstream Node:	UNKNOWN
Road:	Just Off Victoria Street	Inspected Length:	36.69 m	Upstream Pipe Depth:	
Location:	Other walkway	Total Length:	36.69 m	Downstream Node:	ST73948401
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	1.020 m
Use:	Foul		Pipe Shape:	Circular	
Type of Pipe:	Gravity drain/sewer		Dia/Height:	150 mm	
Year Constructed:			Material:	Pitch fibre	
Flow Control:	No flow control		Lining Type:	No Lining	
Inspection Purpose:	Routine inspection		Lining Material:	No Lining	
Comments:					
Recommendations:	None specified				

Scale: 1:218	Position [m]	Code	Observation	Photo	Grade
Depth: 1.02 m ST73948401					
					
0.00	MH	Start node type, manhole, reference number : ST73948401			
0.00	WL	Water level, 05% of the vertical dimension			
0.00	S01	DEG	Attached deposits, grease, from 7 to 5 o'clock, 5% cross-sectional area loss, Start		
0.20	S02	D	Deformed sewer/drain, 5%, Start		
4.87	D	Deformed sewer/drain, 20%			3 / 4
8.58	D	Deformed sewer/drain, 15%			3 / 3
9.69	D	Deformed sewer/drain, 10%			2 / 3
11.28	D	Deformed sewer/drain, 25%			4 / 4
19.31	D	Deformed sewer/drain, 10%			2 / 3
20.54	D	Deformed sewer/drain, 20%			3 / 4
21.51	D	Deformed sewer/drain, 20%			3 / 4
22.61	D	Deformed sewer/drain, 25%			4 / 4
23.12	D	Deformed sewer/drain, 40%			5 / 4
23.20	D	Deformed sewer/drain, 25%			4 / 4

Section Inspection - 06/05/2021 - UNKNOWNX

Section 6	Inspection 1	Date 06/05/21	Time 13:41	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR UNKNOWNX
Operator DRAINTECH MA		Vehicle CN13 BYA		Camera Mini Cam	Preset Length Not Specified	Criticality Grade Category C	Alternative ID Not Specified

Scale:	1:218	Position [m]	Code	Observation	Photo	Grade			
	26.93	S03	D	Deformed sewer/drain, 10%, Start					
	26.93	F02	D	Deformed sewer/drain, 5%, End		1 / 2			
	30.66		D	Deformed sewer/drain, 25%		4 / 4			
	32.67		H	Hole in drain/sewer, from 11 to 12 o'clock		4			
	36.69	F03	D	Deformed sewer/drain, 10%, End		2 / 3			
	36.69	F01	DEG	Attached deposits, grease, from 7 to 5 o'clock, 5% cross-sectional area loss, End		3			
	36.69		SA	Survey abandoned: UNABLE TO PUSH FURTHER					
Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
14	165.0	26.3	965.0	5.0	14	11.0	6.6	241.0	5.0