Project Information

Project Name:	Project Number:	Date:
	'	



Contractor	Hartigan Company
Responsible:	Michael Melanson
Department:	
Street:	31 Welch Park Dr.
City:	Middlesex
Telephone:	800-696-0761
Fax:	hartigancompany.com
Mobile:	802-585-9916
EMail:	hartigancompany.com

Notes:			



Defect Listing Plot Left

Pipe Segm	ent Refere	С	ity	Street	Mate	Material		Pipe Use
		VILLAGE OF	WATERBUR	ELM ST	POLYVINYL	CHLORIDE	EASEMENT/R	SANITARY S.
Upstre	eam MH	Total	Length	Year Constructed	Shape		Location	n Details
	55				CIRC	ULAR		
Downst	tream MH	Length s	surveyed	Year Renewed	Height	Width	Pipe Joint	
(54	2:	30		15	15		
SPR	2	MPR	8	PO Number		Customer		
SPRI	2	MPRI	2					
O				Work Order Numb	er		Purpose	
QSR	2100	QMR	2400			RO	UTINE ASSESS	MENT
C	PR	Surve	yed By	Direction	Da	ate	Med	ia label
	10	E	EM	UPSTREAM	2017	0517		
0	PRI	Certificat	e Number	Pre-Cleaning	Time		Weather	
	2	U-1016-0	07005746	LIGHT CLEANING	08:11		DRY - NO P	
		Date C	Cleaned		End	Time	Additi	onal Info
					08:	:30		

	54						
(!! /		Code:	Continuous:	Pos:	Val 1 / 2 :	%:	Gallons:
	0.0 ft.	Access Point Manhole 54					
	0.0 ft.	Miscellaneous Water Level				5	
	1.5 ft.	Miscellaneous Material Change PVC TO VCP					
ΙĖ	2.0 ft.	Tap Break-In Intruding		10	3/1		
41	26.0 ft.	Tap Break-In Intruding		2	3/1		
1 -	52.6 ft.	Tap Factory Made CAPPED		10	3		
-	54.1 ft.	Tap Factory Made		2	3		
	91.5 ft.	Crack Longitudinal		1			
1 -	103.4 ft.	Tap Factory Made		12	3		
1 -	114.6 ft.	Tap Factory Made		12	3		
1 -	119.9 ft.	Tap Break-In Intruding		12	3/1		
1	137.2 ft.	Tap Factory Made		12	3		
ΙĿ	155.3 ft.	Tap Break-In Intruding		12	3/1		
	159.8 ft.	Tap Factory Made		12	3		

Hartigan Company



Defect Listing Plot Left

Pipe Segment Refere	City	Street	Material		Location C	Pipe Use
	VILLAGE OF WATERBUR	ELM ST	POLYVINYL CHLORIDE		EASEMENT/R	SANITARY S
Upstream MH	Total Length	Year Constructed	Shape		Location	Details
55			CIRC	ULAR		
Downstream MH	Length surveyed	Year Renewed	Height Width		Pipe Joint	
54	230		15	15]

		Code:	Continuous:	Pos:	Val 1 / 2 :	%:	Gallons:
162.1 ft.	Tap Factory Made		12	3			
$\Box \Box$:	230.0 ft.	Access Point Manhole					
		55	'		'		
711							





Pipe Segment Refere	City	Street	Material		Location C	Pipe Use	
	VILLAGE OF WATERBUR	ELM ST	POLYVINYL CHLORIDE		EASEMENT/R	SANITARY S	
Upstream MH	Total Length	Year Constructed	Shape		Shape Location De		n Details
55			CIRC	ULAR			
Downstream MH	Length surveyed	Year Renewed	Height	Width	Pipe Joint		
54	230		15	15			



Distance: 0.0 ft. Grade: 0

Condition: Access Point Manhole

Remarks: 54



Distance: 0.0 ft. Grade: 0

Condition: Miscellaneous Water Level

Remarks: N/A



Distance: 1.5 ft. Grade: 0
Condition: Miscellaneous Material Change

Remarks: PVC TO VCP



Distance: 2.0 ft. Grade: 2

Condition: Tap Break-In Intruding





Pipe Segment Refere	City	Street	Material		Location C	Pipe Use
	VILLAGE OF WATERBUR	ELM ST	POLYVINYL CHLORIDE		EASEMENT/R	SANITARY S
Upstream MH	Total Length	Year Constructed	Shape		Location	Details
55			CIRC	ULAR		
Downstream MH	Length surveyed	Year Renewed	Height	Width	Pipe Joint	
54	230		15	15		,



Distance: 26.0 ft. Grade: 2

Condition: Tap Break-In Intruding

Remarks: N/A



Distance: 26.0 ft. Grade: 2

Condition: Tap Break-In Intruding

Remarks: N/A



Distance: 52.6 ft. Grade: 0

Condition: Tap Factory Made

Remarks: CAPPED



Distance: 52.6 ft. Grade: 0

Condition: Tap Factory Made

Remarks: CAPPED





Pipe Segment Refere	City	Street	Material		Location C	Pipe Use
	VILLAGE OF WATERBUR	ELM ST	POLYVINYL CHLORIDE		EASEMENT/R	SANITARY S
Upstream MH	Total Length	Year Constructed	Shape		Shape Location De	
55			CIRC	ULAR		
Downstream MH	Length surveyed	Year Renewed	Height	Width	Pipe Joint	
54	230		15	15		



Distance: 54.1 ft. Grade: 0

Condition: Tap Factory Made

Remarks: N/A



Distance: 91.5 ft. Grade: 2

Condition: Crack Longitudinal

Remarks: N/A



Distance: 103.4 ft. Grade: 0

Condition: Tap Factory Made

Remarks: N/A



Distance: 114.6 ft. Grade: 0

Condition: Tap Factory Made





Pipe Segment Refere	City	Street	Material		Location C	Pipe Use
	VILLAGE OF WATERBUR	ELM ST	POLYVINYL CHLORIDE		EASEMENT/R	SANITARY S
Upstream MH	Total Length	Year Constructed	Shape		Location	Details
55			CIRC	ULAR		
Downstream MH	Length surveyed	Year Renewed	Height	Width	Pipe Joint	
54	230		15	15		,



Distance: 119.9 ft. Grade: 2

Condition: Tap Break-In Intruding

Remarks: N/A



Distance: 137.2 ft. Grade: (

Condition: Tap Factory Made

Remarks: N/A



Distance: 155.3 ft. Grade: 2

Tap Break-In Intruding

Remarks: N/A

Condition:



Distance: 159.8 ft. Grade: 0

Condition: Tap Factory Made

Hartigan Company 31 Welch Park Dr. Middlesex VT 05602 800-696-0761



Image Report 4/Page

Pipe Segment Refere	City	Street	Material		Location C	Pipe Use	
	VILLAGE OF WATERBUR	ELM ST	POLYVINYL CHLORIDE		EASEMENT/R	SANITARY S	
Upstream MH	Total Length	Year Constructed	Shape		Shape Location D		Details
55			CIRC	ULAR			
Downstream MH	Length surveyed	Year Renewed	Height	Width	Pipe Joint		
54	230		15	15		<i> </i>	



Distance: 162.1 ft. Grade: 0

Condition: Tap Factory Made

Remarks: N/A



Distance: 230.0 ft. Grade:

Condition: Access Point Manhole

Remarks: 55

Project Information

Project Name:	Project Number:	Date:



Contractor	Hartigan Company
Responsible:	Michael Melanson
Department:	
Street:	31 Welch Park Dr.
City:	Middlesex
Telephone:	800-696-0761
Fax:	hartigancompany.com
Mobile:	802-585-9916
EMail:	hartigancompany.com
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(Notes:)
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Defect Listing Plot Left

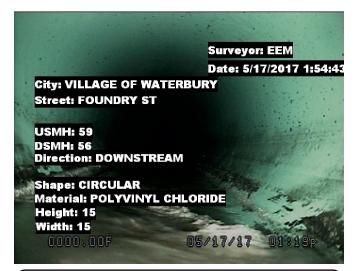
Pipe Segm	nent Refere	С	ity	Street	Mat	erial	Location C	Pipe Use	
		VILLAGE OF	WATERBUR	FOUNDRY ST	POLYVINYL	CHLORIDE	ECONDARY	.SANITARY S.	
Upstream MH		Total I	_ength	Year Constructed	Sh	ape	Locati	on Details	
	59				CIRC	ULAR			
Downs	tream MH	Length s	surveyed	Year Renewed	Height	Width	Pipe Joint		
	56	19	7.4		15	15			
SPR	0	MPR	0	PO Number			Customer		
SPRI	0	MPRI	0						
01111		WII TO		Work Order Numb	er		Purpose		
QSR	0000	QMR	0000			ROI	OUTINE ASSESSMENT		
C)PR	Surve	yed By	Direction Date		ate	Media label		
	0 EEM		DOWNSTREAM 2017		'0517	517			
С	PRI	Certificat	e Number	Pre-Cleaning	Time		Weather		
	0	U-1016-0	7005746	LIGHT CLEANING	14	:02	DRY - NO P.		
		Date C	leaned		End	Time	Addit	ional Info	
					14	:17		_	

	Code:	Continuous:	Pos:	Val 1 / 2 :	%:	Gallons
0.0 ft.	Access Point Manhole					
	59					
0.0 ft.	Miscellaneous Water Level				5	
82.2 ft.	Tap Factory Made		2	3		
115.2 ft.	Tap Factory Made		2	3		
136.1 ft.	Tap Factory Made		2	3		
	Access Point Manhole					





Pipe Segment Refere	City	Street	Mat	erial	Location C	Pipe Use
	VILLAGE OF WATERBUR	FOUNDRY ST	POLYVINYL	. CHLORIDE	ECONDARY .	SANITARY S
Upstream MH	Total Length	Year Constructed	Shape		Location Details	
59			CIRCULAR			
Downstream MH	Length surveyed	Year Renewed	Height	Width	Pipe Joint	
56	197.4		15	15		



Distance: 0.0 ft. Grade: 0

Condition: Access Point Manhole

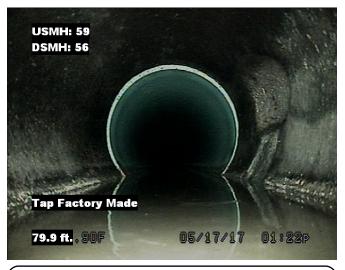
Remarks: 59



Distance: 0.0 ft. Grade: 0

Condition: Miscellaneous Water Level

Remarks: N/A



Distance: 82.2 ft. Grade: 0

Condition: Tap Factory Made

Remarks: N/A



Distance: 82.2 ft. Grade: 0

Condition: Tap Factory Made





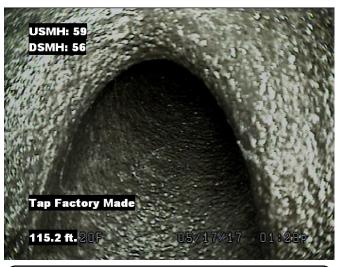
Pipe Segment Refere	City	Street	Mat	erial	Location C	Pipe Use
	VILLAGE OF WATERBUR	FOUNDRY ST	POLYVINYL	CHLORIDE	ECONDARY.	SANITARY S
Upstream MH	Total Length	Year Constructed	Shape		Location Details	
59			CIRCULAR			
Downstream MH	Length surveyed	Year Renewed	Height	Width	Pipe Joint	
56	197.4		15	15		



Distance: 115,2 ft. Grade: 0

Condition: Tap Factory Made

Remarks: N/A



Distance: 115.2 ft. Grade: 0

Condition: Tap Factory Made

Remarks: N/A



Distance: 136.1 ft. Grade: 0

Condition: Tap Factory Made

Remarks: N/A



Distance: 136.1 ft. Grade: 0

Condition: Tap Factory Made

Hartigan Company 31 Welch Park Dr. Middlesex VT 05602 800-696-0761



Image Report 4/Page

Pipe Segment Refere	City	Street	Mat	erial	Location C	Pipe Use
	VILLAGE OF WATERBUR	FOUNDRY ST	POLYVINYL	CHLORIDE	ECONDARY.	SANITARY S
Upstream MH	Total Length	Year Constructed	Shape		Location Details	
59			CIRCULAR			
Downstream MH	Length surveyed	Year Renewed	Height	Width	Pipe Joint	
56	197.4		15	15		l 丿



Distance: 197.4 ft. Grade: 0

Condition: Access Point Manhole

Remarks: 56

Project Information

Project Name:	Project Number:	Date:



Contractor	Hartigan Company
Responsible:	Michael Melanson
Department:	
Street:	31 Welch Park Dr.
City:	Middlesex
Telephone:	800-696-0761
Fax:	hartigancompany.com
Mobile:	802-585-9916
EMail:	hartigancompany.com
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(Notes:)
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Defect Listing Plot Left

Pipe Segment Refere		С	ity	Street	Mat	erial	Location C	Pipe Use
		VILLAGE OF	WATERBUR	ELM ST	POLYVINYL	CHLORIDE	ASEMENT/R.	SANITARY S
Upstream MH		Total I	_ength	Year Constructed	Sh	ape	Locatio	n Details
5	4				CIRC	ULAR		
Downstr	eam MH	Length s	surveyed	Year Renewed	Height	Width	Pipe Joint	
4	7	15	57		15	15		
SPR	0	MPR	6	PO Number	•		Customer	
SPRI	0	MPRI	2					
0.14		IVII TXI		Work Order Numb	er		Purpose	
QSR	0000	QMR	2300			ROI	JTINE ASSESSMENT	
OF	PR	Surve	yed By	Direction	D	ate	Medi	a label
6	6	E	EM	DOWNSTREAM	2017	'0517		
OF	PRI	Certificat	e Number	Pre-Cleaning	Time 07:53		Weather	
2	2	U-1016-0	7005746	LIGHT CLEANING			DRY - NO P	
Dat		Date C	leaned		End	Time	Additio	nal Info
					08	:03		

	Code:	Continuous:	Pos:	Val 1 / 2 :	%:	Gallons
0.0	ft. Access Point Manhole					
	54		•			
0.0	ft. Miscellaneous Water Level				5	
		'				-
33.	Ift. Tap Break-In Intruding		10	3/1		
		<u> </u>				
76.2	2 ft. Tap Break-In Intruding		2	3/1		
		<u> </u>				
144	.1 ft. Tap Break-In Intruding		2	3/1		
157	.0 ft. Access Point Manhole					
	47					





Pipe Segment Refere	City	Street	Mat	erial	Location C	Pipe Use
	VILLAGE OF WATERBUR	ELM ST	POLYVINYL	CHLORIDE	ASEMENT/R	SANITARY S
Upstream MH	Total Length	Year Constructed	Sha	ape	Location	Details
54			CIRC	ULAR		
Downstream MH	Length surveyed	Year Renewed	Height	Width	Pipe Joint	
47	157		15	15		



Distance: 0.0 ft. Grade: 0

Condition: Access Point Manhole

Remarks: 54



Distance: 0.0 ft. Grade: (

Condition: Miscellaneous Water Level

Remarks: N/A

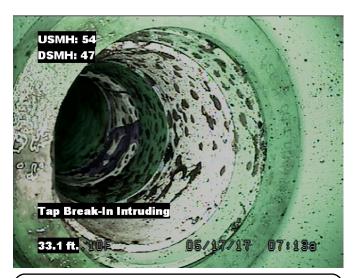


Distance: 33.1 ft. Grade: 2

Tap Break-In Intruding

Remarks: N/A

Condition:



Distance: 33.1 ft. Grade: 2

Condition: Tap Break-In Intruding





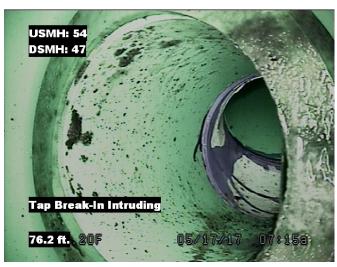
Pipe Segment Refere	City	Street	Mat	erial	Location C	Pipe Use
	VILLAGE OF WATERBUR	ELM ST	POLYVINYL	CHLORIDE	ASEMENT/R	SANITARY S
Upstream MH	Total Length	Year Constructed	Sha	ape	Location	Details
54			CIRC	ULAR		
Downstream MH	Length surveyed	Year Renewed	Height	Width	Pipe Joint	
47	157		15	15		



Distance: 76.2 ft. Grade: 2

Condition: Tap Break-In Intruding

Remarks: N/A



Distance: 76.2 ft. Grade: 2

Condition: Tap Break-In Intruding

Remarks: N/A



Distance: 144.1 ft. Grade: 2

Condition: Tap Break-In Intruding

Remarks: N/A



Distance: 157.0 ft. Grade: 0

Condition: Access Point Manhole

Remarks: 47

Gallons:



Defect Listing Plot Left

Pipe Segn	nent Refere		City WATERBUR	Street PARK ST		terial L CHLORIDE	Location C	Pipe Use
. (eam MH 69		Length	Year Constructed	Sh	ape ULAR		on Details
	ream MH 8A	1	surveyed 14.2	Year Renewed	Height 8	Width 8	Pipe Joint	
SPR	0	MPR	0	PO Number			Customer	
SPRI	0	MPRI	0					
QSR	0000	QMR	0000	Work Order Numbe	Work Order Number		Purpose DUTINE ASSESSMENT	
	PR 0	 I also traffice to the property. 	eyed By EM	Direction UPSTREAM		ate '0517		a label
	PRI O	 September 1 States of the state of 	te Number 07005746	Pre-Cleaning NO PRE-CLEANING		me :03	Weather DRY - NO P	
		Date (Cleaned			Time :14		onal Info

	68A			
\$\$		Code:	Continuous:	Pos: Val 1 / 2
	0.0 ft.	Access Point Manhole 68A		
	0.0 ft.	Miscellaneous Water Level	and the second s	
	68.6 ft.	Tap Factory Made	er en	10 3
	144.2 ft.	Access Point Manhole	f	
\$\$ •••••••••••••••••••••••••••••••••••				
	69			



Hartigan Company 147 Main St. Stowe, VT 05672 Tel: 802-253-0376, Fax: 802-253-0387

Inspection report

Date: 20090126	P.O.#: 9	Weather:	Surveyed By: MLM	section number:	PSR:
Total Pipe Length:	Survey Customer: Waterbury, VT.	System Owner: Waterbury,VT.	Clean Date:	Pre-Cleaned: N No Pre-Cleaning	Map Grid #:

Street:	Batchelder St.	Flow Control:		Start MH:	82
City:	Waterbury, VT.	Year Renewed		End MH:	84
Location Code	: D Easement/Right of Way	Tape/Media #:	1	pipe length:	117 ft

Reason for inspection:

Use of Sewer:

SS Sanitary

Dia/Height: Material:

Category:

Lining Method:

C Circular 8/8

VCP Vitrified Clay Pipe Pipe Length:

Drain. Area:

Remark::

Had to use 6" Transporter to T.V. line.

1:300 grade position code observation

0.00 Downstream Manhole, Survey Begins 82 0.00 MWL Water Level, 5 % of cross sectional area 9.70

Tap Break-In Active, at 12 o'clock, 4", within 8 inch: YES

Tap Break-In Active, at 11 o'clock, 4", within 8 inch: YES 32.30

Tap Break-In Active, at 12 o'clock, 6", within 8 inch: YES

Upstream Manhole, Survey End

9.7 FT // 00:02:59

9.7 FT // 00:02:59



32.3 FT // 00:05:20



54 FT // 00:13:33

Intersection of Batchelder St. and S. Main St.

117.00

						34 1 1/ 00	, 10,00
QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	2100	0	2	2	. 0	2	2



Hartigan Company 147 Main St. Stowe, VT 05672 Tel: 802-253-0376, Fax: 802-253-0387

INSPECTION REPORT

DATE: 05/21/2004	WORK ORDER:	WEATHER: SUNNY, DRY	OPERATOR: Jesse	SECTION NR:	SECTION NAME:
PRESENT:	VEHICLE:	CAMERA:	PRESET:	CLEANED: HEAVY	RATE: 2480

Section 1	STREET: south main	MAP #1:	MH: 40
	CITY: Waterbury	MAP #2:	MH: 41
	LOCALE:	TAPE #:	TV'D LGTH: 286.5 ft

INSPECT REASON: CUSTOMER COMPLAINT PIPE SIZE: 6 in VCP JT LGTH:

SECTION TYPE: MATERIAL:

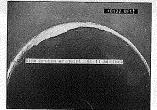
LINING: AREA: RSRVD:

REMARK:

1:759 DIST **OBSERVATION** 8.00 inspection begins at downstream manhole 94.40 service connection at 12 o'clock 115.50 offset joint, medium 122.00 pipe broken at joint at 11 o'clock 132.30 service connection capped at 12 o'clock 134.40 service connection with roots light at 12 o'clock 140.30 sag in line 160.30 service connection with roots light at 12 o'clock 169.10 Multiple Fractures from 06 to 12 o'clock 172.40 offset joint, medium 180.20 service connection at 12 o'clock severe offset. 182.00 sag in line. 198.10 Longitudinal Crack at joint at 01 o'clock 218.20 service connection at 12 o'clock 220.20 sag in line <u>228.50</u> service connection at 12 o'clock, severe offset. 246.40 offset joint, medium 275.40 service connection at 12 o'clock, grease present. <u> 286.30</u> service connection at 12 o'clock 286.50 capped service, busted or service busted.



115.5 FT // 00:03:39



122 FT // 00:04:00



132.3 FT // 00:04:29



134.4 FT // 00:05:01



140.3 FT // 00:05:30



Hartigan Company
31 Welch Park Drive
Middlesex, VT. 05602
Tel: 802-223-3452, Fax: 802-223-6116

Inspection report

Date: 20090701	P.O.#:	Weather: 1 Dry	Surveyed By: MLM	section number:	PSR:
Total Pipe Length:	Survey Customer: Waterbury, VT.	System Owner: Waterbury,VT.	Clean Date:	Pre-Cleaned: N No Pre-Cleaning	Map Grid #:

7	services and the services are services and the services and the services are services are services and the services are services are services and the services are services and the services are serv				
	Street: Main St.	Flow Control:	Start MH:	87 (2004) (300 - 300)	
ı	City: Waterbury, VT.	Year Renewed	End MH:	84	
l	Location Code: B Main Highway - Suburban/Rural	Tape/Media #: 1	pipe length:	338 ft	
I	Location Code. B Main righway - Suburban/Kurai	Tape/Ivieuta #.	pipe iongen		

Reason for inspection:

1:693

Use of Sewer: Drain. Area:

SS Sanitary

code observation

position

Dia/Height: Material:

C Circular 8/8

VCP Vitrified Clay Pipe Pipe Length: 3ft

photo

grade

MPEG

Lining Method:

Category:

Remark::

	•	131 N. MAIN ST. CONDO H TO FAMILY Unstream Manhole, Survey Begins			
e de la companya de l		CONDET			
87 0.00	AMH	Upstream Manhole, Survey Begins	00:00:00		
0.00	MWL	Water Level, 10 % of cross sectional area Concept Tap Saddle Active at 10 o'clock 4" within 8 inch: YES			M 2
4.00	TSA	Tap Saddle Active, at 10 o'clock, 4", within 8 inch: YES	00:01:08	75a, b	
7.00	TFD	Tap Factory Made Defective, at 12 o'clock, 4°, within 8 inch: YES, Active Remark: Full of roots.	00:02:36	76a, b	M 2
27.40	TFD	Tap Factory Made Defective, at 12 o'clock, 4", within 8 inch: YES, Remark:Active Roots in service	00:05:04	77a, b	M 2
31.20	CL	Crack Longitudinal, at 12 o'clock, within 8 inch: YES	00:05:59	78a	S 2
50.50	TFD	Tap Factory Made Defective, at 12 o'clock, 4", within 8 inch: YES, Remark: Capped with broken cap	00:08:14	79a, b	M 2
50.50	BVV	Broken Void Visible, at 12 o'clock, within 8 inch: YES, Remark: At lateral large void.	00:08:17	80a, b	S 5
61.40	TFA	Tap Factory Made Active, at 12 o'clock, 4", within 8 inch: YES	00:09:56	81a, b	
108.50	TFA	Tap Factory Made Active, at 12 o'clock, 4", within 8 inch: YES	00:11:54	82a, b	
388					
119.50	TFA	Tap Factory Made Active, at 12 o'clock, 4", within 8 inch: YES, Remark: with light grease at connection	00:13:17	83a, b	
138.20	TFA CM	Tap Factory Made Active, at 12 o'clock, 4", within 8 inch: YES, Remark: with light grease at connection Crack Multiple, from 10 to 02 o'clock, within 8 inch: YES	00:13:17 00:14:21	83a, b 84a, b	\$3
		with light grease at connection		•	\$ 3 \$ 3
138.20	СМ	with light grease at connection Crack Multiple, from 10 to 02 o'clock, within 8 inch: YES	00:14:21	84a, b	
138.20 141.00	CM CM	with light grease at connection Crack Multiple, from 10 to 02 o'clock, within 8 inch: YES Crack Multiple, from 10 to 03 o'clock, within 8 inch: YES Tap Factory Made Defective, at 12 o'clock, 4", within 8 inch: YES, Remark:	00:14:21	84a, b 85a	S 3
138.20 141.00 157,60	CM CM TFD	with light grease at connection Crack Multiple, from 10 to 02 o'clock, within 8 inch: YES Crack Multiple, from 10 to 03 o'clock, within 8 inch: YES Tap Factory Made Defective, at 12 o'clock, 4", within 8 inch: YES, Remark: Active with offset joint at connection	00:14:21 00:14:51 00:16:13	84a, b 85a 86a, b	S 3
138.20 141.00 157.60 169.00	CM CM TFD SSS	with light grease at connection Crack Multiple, from 10 to 02 o'clock, within 8 inch: YES Crack Multiple, from 10 to 03 o'clock, within 8 inch: YES Tap Factory Made Defective, at 12 o'clock, 4", within 8 inch: YES, Remark: Active with offset joint at connection Surface Spalling, from 01 to 04 o'clock, within 8 inch: YES Tap Factory Made Defective, at 12 o'clock, 4", within 8 inch: YES,	00:14:21 00:14:51 00:16:13 00:17:41	84a, b 85a 86a, b 87a, b	S 3
138.20 141.00 157.60 169.00 177.40	CM CM TFD SSS TFD	with light grease at connection Crack Multiple, from 10 to 02 o'clock, within 8 inch: YES Crack Multiple, from 10 to 03 o'clock, within 8 inch: YES Tap Factory Made Defective, at 12 o'clock, 4", within 8 inch: YES, Remark: Active with offset joint at connection Surface Spalling, from 01 to 04 o'clock, within 8 inch: YES Tap Factory Made Defective, at 12 o'clock, 4", within 8 inch: YES, Remark: Active with Roots in service Tap Factory Made Defective, at 12 o'clock, 4", within 8 inch: YES, Remark:	00:14:21 00:14:51 00:16:13 00:17:41 00:18:49	84a, b 85a 86a, b 87a, b	S 3 M 2 M 2
138.20 141.00 157.60 169.00 177.40 203.30	CM CM TFD SSS TFD TFD	with light grease at connection Crack Multiple, from 10 to 02 o'clock, within 8 inch: YES Crack Multiple, from 10 to 03 o'clock, within 8 inch: YES Tap Factory Made Defective, at 12 o'clock, 4", within 8 inch: YES, Remark: Active with offset joint at connection Surface Spalling, from 01 to 04 o'clock, within 8 inch: YES Tap Factory Made Defective, at 12 o'clock, 4", within 8 inch: YES, Remark: Active with Roots in service Tap Factory Made Defective, at 12 o'clock, 4", within 8 inch: YES, Remark: Active with Gots in service Tap Factory Made Defective, at 12 o'clock, 4", within 8 inch: YES, Remark: Active with offset joint up lateral.	00:14:21 00:14:51 00:16:13 00:17:41 00:18:49 00:21:10	84a, b 85a 86a, b 87a, b 88a, b	S 3 M 2 M 2
138.20 141.00 157.60 169.00 177.40 203.30 205.40	CM CM TFD SSS TFD TFD TFC	with light grease at connection Crack Multiple, from 10 to 02 o'clock, within 8 inch: YES Crack Multiple, from 10 to 03 o'clock, within 8 inch: YES Tap Factory Made Defective, at 12 o'clock, 4", within 8 inch: YES, Remark: Active with offset joint at connection Surface Spalling, from 01 to 04 o'clock, within 8 inch: YES Tap Factory Made Defective, at 12 o'clock, 4", within 8 inch: YES, Remark: Active with Roots in service Tap Factory Made Defective, at 12 o'clock, 4", within 8 inch: YES, Remark: Active with offset joint up lateral. Tap Factory Made Capped, at 12 o'clock, 4", within 8 inch: YES	00:14:21 00:14:51 00:16:13 00:17:41 00:18:49 00:21:10 00:21:26	84a, b 85a 86a, b 87a, b 88a, b 89a, b	S 3 M 2 M 2 M 2
138.20 141.00 157.60 169.00 177.40 203.30 205.40 218.00 243.70	CM CM TFD SSS TFD TFD TFC CL	with light grease at connection Crack Multiple, from 10 to 02 o'clock, within 8 inch: YES Crack Multiple, from 10 to 03 o'clock, within 8 inch: YES Tap Factory Made Defective, at 12 o'clock, 4", within 8 inch: YES, Remark: Active with offset joint at connection Surface Spalling, from 01 to 04 o'clock, within 8 inch: YES Tap Factory Made Defective, at 12 o'clock, 4", within 8 inch: YES, Remark: Active with Roots in service Tap Factory Made Defective, at 12 o'clock, 4", within 8 inch: YES, Remark: Active with offset joint up lateral. Tap Factory Made Capped, at 12 o'clock, 4", within 8 inch: YES Crack Longitudinal, at 10 o'clock, within 8 inch: YES	00:14:21 00:14:51 00:16:13 00:17:41 00:18:49 00:21:10 00:21:26 00:22:42	84a, b 85a 86a, b 87a, b 88a, b 89a, b 90a, b	S 3 M 2 M 2 M 2



Hartigan Company
31 Welch Park Drive
Middlesex, VT. 05602
Tel: 802-223-3452, Fax: 802-223-6116

Inspection report

i .					
Date: 20090701	P.O.#:	Weather: 1 Dry	Surveyed By: MLM	section number: 5	PSR: 8
Total Pipe Length:	Survey Customer: Waterbury, VT.	System Owner: Waterbury,VT.	Clean Date:	Pre-Cleaned: N No Pre-Cleaning	Map Grid #:

	1:693	position	code	observation	MPEG	photo	grade
נענ		289.80	TFC	Tap Factory Made Capped, at 12 o'clock, 4", within 8 inch: YES	00:27:06	94a, b	
 	0	293.40	CL	Crack Longitudinal, at 02 o'clock, within 8 inch: YES	00:27:35	95a	S 2
		303.80	TFC	Tap Factory Made Capped, at 12 o'clock, 4", within 8 inch: YES	00:28:57	96a, b	
		309.80	CM	Crack Multiple, from 10 to 11 o'clock, within 8 inch: YES	00;29:36	97a, b	S 3
	84	323.60	CM	Crack Multiple, from 12 to 01 o'clock, within 8 inch: YES	00:30:43	98a, b	S 3
		329.20	CM	Crack Multiple, from 11 to 12 o'clock, within 8 inch: YES	00:31:20	99a, b	S 3
'	`	331.30	CM	Crack Multiple, from 10 to 01 o'clock, within 8 inch: YES	00:31:49	100a	S 3
		334.30	CM	Crack Multiple, from 01 to 04 o'clock, within 8 inch: YES	00:32:08	101a	S 3



Hartigan Company
31 Welch Park Drive
Middlesex, VT 05602
Tel: (802)223-3452, Fax: (802)223-6116

Inspection report

0	Date: 5/15/2013	P.O.#:	Weather: 1 Dry	Surveyed By: MLM	section number:	PSR:
Total	Pipe Length:	Survey Customer: Waterbury, VT	System Owner: Waterbury, VT	Clean Date: 05/14/13	Pre-Cleaned: J Jetting	Map Grid #:

Street:	Randall St.	Flow Control:				Start MH:	49
City:	Waterbury, VT	Year Renewed				End MH:	48
Location Cod	e: B Main Highway - Suburban/Rural	Tape/Media #:	1			Total length:	265.5 ft
Purpose:	F Routine Assessment	,		Dia/Height:	C Circul	ar 8"/8"	
Use:	SS Sanitary			Material:		yvinyl Chloride	

Category:

Drain. Area:

Comment: Location details:								
1:650	position	code	observation			MPEG	photo	grade
49		AMH MWL S1 MWLS F1 MWLS	, Upstream Manhole, Survey Water Level, 5 of cross section Water Level, Sag in pipe, 5 Water Level, Sag in pipe, 5	onal area % of cross sectional are		00:00:00 00:01:03 00:03:31	85a	M 2
	24.80	TFA	Tap Factory Made Active, at			00:03:53	87a, b	101 2
	34.10	TFA	Tap Factory Made Active, at			00:04:29	88a, b	
	41.00	S2 MWLS	Water Level, Sag in pipe, 5	% of cross sectional are	ea, start	00:06:03		M 2
	87.10	TFA	Tap Factory Made Active, at	02 o'clock, 6", within 8	inch: YES	00:06:57	90a, b	
	96.10	TFA	Tap Factory Made Active, at			00:88:00	91a, b	
	\mathcal{N}	F2 MWLS	Water Level, Sag in pipe, 5			00:08:21		M 2
)		S3 MWLS F3 MWLS	Water Level, Sag in pipe, 5			00:08:53	93a	M 2
			Water Level, Sag in pipe, 5	70 OI CIOSS SECTIONAL ALE	a, enu	00:12:25	94a	M 2
HE	172.10	TFA	Tap Factory Made Active, at	10 o'clock, 6", within 8	inch: YES	00:14:14	95a, b	
K	173.60	S3 DAZ	Deposits Attached Other, 5 o'clock, within 8 inch: NO, F		ea, from 05 to 07	00:16:26	96a	M 2
	184.00	S3 MWLS	Water Level, Sag in pipe, 5		ea, start	00:14:53	97a	M 2
	205.80	TFA	Tap Factory Made Active, at	02 o'clock, 6", within 8	inch: YES	00:15:57	98a, b	
		F3 MWLS	Water Level, Sag in pipe, 5	% of cross sectional are	ea, end	00:16:21		M 2
	206.40	DAZ	Deposits Attached Other, 5 o'clock, within 8 inch: NO			00:16:23		M 2
	245.40	MWLS	Water Level, Sag in pipe, 5	% of cross sectional are	ea	00:18:21	101a	M 2
. (48)	265.50	АМН	Downstream Manhole, Surve	y Ends		00:20:44	102a	
QSR	QMR		SPR MPR	OPR	SPRI	MPRI		DPRI
0000	2E00		0 56	56	0	2		2

Project Information

Project Name:	Project Number:	Date:



Contractor	Hartigan Company
Responsible:	Michael Melanson
Department:	
Street:	31 Welch Park Dr.
City:	Middlesex
Telephone:	800-696-0761
Fax:	hartigancompany.com
Mobile:	802-585-9916
EMail:	hartigancompany.com
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(Notes:)
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Defect Listing Plot Left

Pipe Segm	ent Refere	Ci	ity	Street Materi		erial	Location C	Pipe Use
		VILLAGE OF	WATERBUR	ELM ST POLYVINYL CHLORIDE		ASEMENT/R	SANITARY S.	
Upstre	Upstream MH		_ength	Year Constructed	Sh	ape	Location	on Details
	55				CIRC	ULAR		
Downst	ream MH	Length s	surveyed	Year Renewed	Height	Width	Pipe Joint	
(54	23	30		15	15		
SPR	2	MPR	8	PO Number	Number Customer		Customer	
SPRI	2	MPRI	2					
0.14		WII TO		Work Order Numb	Work Order Number		Purpose	
QSR	2100	QMR	2400			ROU	JTINE ASSESS	MENT
0	PR	Surve	yed By	Direction	Direction Da		Med	ia label
	10	EE	EM	UPSTREAM	2017	0517		
0	PRI	Certificate	e Number	Pre-Cleaning	Time		Weather	
	2	U-1016-0	7005746	LIGHT CLEANING	08:11 DRY - NO P			
		Date C	leaned		End	Time	Additi	onal Info
					08	:30		

	54						
111		Code:	Continuous:	Pos:	Val 1 / 2 :	%:	Gallons:
	0.0 ft.	Access Point Manhole 54					
	0.0 ft.	Miscellaneous Water Level				5	
	1.5 ft.	Miscellaneous Material Change PVC TO VCP					
1	2.0 ft.	Tap Break-In Intruding		10	3/1		
_	26.0 ft.	Tap Break-In Intruding		2	3/1		
ΙĻ	52.6 ft.	Tap Factory Made CAPPED		10	3		
-	54.1 ft.	Tap Factory Made		2	3		
	91.5 ft.	Crack Longitudinal		1			
1 📙	103.4 ft.	Tap Factory Made		12	3		
1 L	114.6 ft.	Tap Factory Made		12	3		
1 L	119.9 ft.	Tap Break-In Intruding		12	3/1		
	137.2 ft.	Tap Factory Made		12	3		
	155.3 ft.	Tap Break-In Intruding		12	3/1		
	159.8 ft.	Tap Factory Made		12	3		

Hartigan Company



Defect Listing Plot Left

Pipe Segment Refere	City	Street	Material		Material		Material		Location C	Pipe Use
	VILLAGE OF WATERBUR	ELM ST	POLYVINYL CHLORIDE		POLYVINYL CHLORIDE		ASEMENT/R	SANITARY S		
Upstream MH	Total Length	Year Constructed	Shape		Location	Details				
55			CIRC	ULAR						
Downstream MH	Length surveyed	Year Renewed	Height	Width	Pipe Joint					
54	230		15	15						

		Code:	Continuous:	Pos:	Val 1 / 2 :	%:	Gallons:
	162.1 ft.	Tap Factory Made		12	3		
	230.0 ft.	Access Point Manhole					
11		55					
711							





Pipe Segment Refere	City	Street	Material		Material		Location C	Pipe Use
	VILLAGE OF WATERBUR	ELM ST	POLYVINYL	. CHLORIDE	ASEMENT/R	SANITARY S		
Upstream MH	Total Length	Year Constructed	Shape		ape Location D			
55			CIRC	ULAR				
Downstream MH	Length surveyed	Year Renewed	Height	Width	Pipe Joint			
54	230		15	15				



Distance: 0.0 ft, Grade: 0

Condition: Access Point Manhole

Remarks: 54



Distance: 0.0 ft. Grade: 0

Condition: Miscellaneous Water Level

Remarks: N/A



Distance: 1.5 ft. Grade: 0

Condition: Miscellaneous Material Change

Remarks: PVC TO VCP



Distance: 2.0 ft. Grade: 2

Condition: Tap Break-In Intruding





Pipe Se	gment Refere	City	Street	Material		Location C	Pipe Use
		VILLAGE OF WATERBUR	ELM ST	POLYVINYL	. CHLORIDE	ASEMENT/R	SANITARY S
Up	stream MH	Total Length	Year Constructed	Shape		Shape Location De	
	55			CIRC	ULAR		
Dow	nstream MH	Length surveyed	Year Renewed	Height	Width	Pipe Joint	
	54	230		15	15		



Distance: 26.0 ft. Grade: 2

Condition: Tap Break-In Intruding

Remarks: N/A



Distance: 26.0 ft. Grade: 2

Condition: Tap Break-In Intruding

Remarks: N/A



Distance: 52.6 ft. Grade: 0

Condition: Tap Factory Made

Remarks: CAPPED



Distance: 52.6 ft. Grade: 0

Condition: Tap Factory Made

Remarks: CAPPED





Pipe Segment Refere	City	Street	Material		Location C	Pipe Use
	VILLAGE OF WATERBUR	ELM ST	POLYVINYL	CHLORIDE	ASEMENT/R	SANITARY S
Upstream MH	Total Length	Year Constructed	Shape		Shape Location	
55			CIRC	ULAR		
Downstream MH	Length surveyed	Year Renewed	Height	Width	Pipe Joint	
54	230		15	15		



Distance: 54.1 ft. Grade: 0

Condition: Tap Factory Made

Remarks: N/A



Distance: 91.5 ft. Grade: 2

Condition: Crack Longitudinal

Remarks: N/A



Distance: 103.4 ft. Grade: 0

Condition: Tap Factory Made

Remarks: N/A



Distance: 114.6 ft. Grade: 0

Condition: Tap Factory Made





Pipe Se	gment Refere	City	Street	Material		Location C	Pipe Use
		VILLAGE OF WATERBUR	ELM ST	POLYVINYL	. CHLORIDE	ASEMENT/R	SANITARY S
Up	stream MH	Total Length	Year Constructed	Shape		Shape Location De	
	55			CIRC	ULAR		
Dow	nstream MH	Length surveyed	Year Renewed	Height	Width	Pipe Joint	
	54	230		15	15		



Distance: 119.9 ft. Grade: 2

Condition: Tap Break-In Intruding

Remarks: N/A



Distance: 137.2 ft. Grade: (

Condition: Tap Factory Made

Remarks: N/A



Distance: 155.3 ft. Grade: 2

Condition: Tap Break-In Intruding

Remarks: N/A



Distance: 159.8 ft. Grade: 0

Condition: Tap Factory Made

Hartigan Company 31 Welch Park Dr. Middlesex VT 05602 800-696-0761



Image Report 4/Page

Pipe Segment Refere	City	Street	Material		Material		Location C	Pipe Use
	VILLAGE OF WATERBUR	ELM ST	POLYVINYL	CHLORIDE	ASEMENT/R	SANITARY S		
Upstream MH	Total Length	Year Constructed	Shape		Location Detai			
55			CIRC	ULAR				
Downstream MH	Length surveyed	Year Renewed	Height	Width	Pipe Joint			
54	230		15	15				



Distance: 162.1 ft. Grade: 0

Condition: Tap Factory Made

Remarks: N/A



Distance: 230.0 ft. Grade: 0

Condition: Access Point Manhole

Remarks: 55



Hartigan Company
31 Welch Park Drive
Middlesex, VT 05602
Tel: (802)223-3452, Fax: (802)223-6116

Inspection report

		· · · ·			
Date: 05/16/2013	P.O.#: 289	Weather:	Surveyed By: MLM	section number:	PSR: :15
Total Pipe Length:	Survey Customer: Waterbury, VT	System Owner: Waterbury, VT	Clean Date: 05/14/13	Pre-Cleaned: H Heavy Cleaning	Map Grid #:

	Water	bury, VT	Waterbury, VT	05/14/13	H Heavy Cl	eaning		
Street: Elr	n St.		Flow Control:		Start MH:	54	-	
City: Wa	terbury, VT		Year Renewed		End MH:	47		
Location Code: B I	Main Highway - Sut	ourban/Rural	Tape/Media #: 1		Total length:	161 ft		
Purpose:	F Routine	Asseessment			Circular 15"/15"			
Use:	SS Sanita	у ј.		Material: P\ Lining:	/C Polyvinyl Chloride	Pipe length:	13ft	
Drain. Area:				Category:				
Comment:	112846							
Location details:								
1:400	position	code obser	vation			MPEG	photo	grade
	0.00	AMH Upstre	eam Manhole, Survey Beg			00:00:00		
54			146an - John Ville			00.00.00		
Ĭ	0.00	MWL Water	Level, 10 % of cross sec	tional area				
	34.00				unione productivity in the following of the first control of the following of the first control of the first contr	la de la composición	·	Albert .
	34.80	TSI Tap Sa PVC	addle Intruding, at 10 o'clo	ock, 4", 1", 5 %, withi	n 8 inch: NO, Remark:	00:03:14	122a, b	M 2
	69.90 S1	MWLS Water	Level, Sag in pipe, 10 %	of cross sectional are	ea, start	00:05:16	123a	M 2
	78.70		addle Intruding, at 03 o'ck	ock, 4", 1", 10 %, with	nin 8 inch: NO,	00:07:01	124a, b	M 2
		Remai	rk. PVC					
	107.20 S3	MWLS Water	Level, Sag in pipe, 10 %	of cross sectional are	ea, Remark: start	00:22:58	132a	M 2
	114.00 F3	MWIS Water	Level, Sag in pipe, 10 %	of cross sectional are	ea end			M 2
	114.20 F1		Level, Sag in pipe, 10 of			00:08:50		M 2
			Bertholis II					
	114.20 S2	MWLS Water	Level, Sag in pipe, 15 %	of cross sectional are	a, start	00:08:52	126a	M 2
	134.00	MWL Water	Level, 30 of cross section	al area		00:09:41	127a	
74-	146.80		addle Intruding, at 02 o´ck rk: PVC	ock, 4", 2", 15 %, with	nin 8 inch: NO,	00:11:16	128a, b	М 3
	155.90 F2		Level, Sag in pipe, 15 %	of cross sectional are	ea, end	00:12:44		M 2
47	161.00	AMH Downs	stream Manhole, Survey E	inds		00:27:06	131a, b	
QSR	QMR	SPR	MPR	OPR	SPRI	MPRI		PRI
0000	312C	0	45	45	0	2.05		2.05



Hartigan Company
31 Welch Park Drive
Middlesex, VT 05602
Tel: (802)223-3452, Fax: (802)223-6116

Inspection report

0	Date: 5/15/2013	P.O.#:	Weather: 1 Dry	Surveyed By: MLM	section number:	PSR:
Total	Pipe Length:	Survey Customer: Waterbury, VT	System Owner: Waterbury, VT	Clean Date: 05/14/13	Pre-Cleaned: J Jetting	Map Grid #:

Street:	Randall St.	Flow Control:				Start MH:	49
City: Waterbury, VT		Year Renewed				End MH:	48
Location Cod	e: B Main Highway - Suburban/Rural	Tape/Media #:	1			Total length:	265.5 ft
Purpose:	Purpose: F Routine Asseessment			Dia/Height:	C Circul	ar 8"/8"	
Use: SS Sanitary				Material:		yvinyl Chloride	

Category:

Drain. Area:

Comment: Location details:								
1:650	position	code	observation			MPEG	photo	grade
49		AMH MWL S1 MWLS F1 MWLS	, Upstream Manhole, Survey Water Level, 5 of cross section Water Level, Sag in pipe, 5 Water Level, Sag in pipe, 5	onal area % of cross sectional are		00:00:00 00:01:03 00:03:31	85a	M 2
	24.80	TFA	Tap Factory Made Active, at			00:03:53	87a, b	101 2
	34.10	TFA	Tap Factory Made Active, at			00:04:29	88a, b	
	41.00	S2 MWLS	Water Level, Sag in pipe, 5	% of cross sectional are	ea, start	00:06:03		M 2
	87.10	TFA	Tap Factory Made Active, at	02 o'clock, 6", within 8	inch: YES	00:06:57	90a, b	
	96.10	TFA	Tap Factory Made Active, at			00:88:00	91a, b	
	\mathcal{N}	F2 MWLS	Water Level, Sag in pipe, 5			00:08:21		M 2
)		S3 MWLS F3 MWLS	Water Level, Sag in pipe, 5			00:08:53	93a	M 2
			Water Level, Sag in pipe, 5	70 OI CIOSS SECTIONAL ALE	a, enu	00:12:25	94a	M 2
HE	172.10	TFA	Tap Factory Made Active, at	10 o'clock, 6", within 8	inch: YES	00:14:14	95a, b	
K	173.60	S3 DAZ	Deposits Attached Other, 5 o'clock, within 8 inch: NO, F		ea, from 05 to 07	00:16:26	96a	M 2
	184.00	S3 MWLS	Water Level, Sag in pipe, 5		ea, start	00:14:53	97a	M 2
	205.80	TFA	Tap Factory Made Active, at	02 o'clock, 6", within 8	inch: YES	00:15:57	98a, b	
		F3 MWLS	Water Level, Sag in pipe, 5	% of cross sectional are	ea, end	00:16:21		M 2
	206.40	DAZ	Deposits Attached Other, 5 o'clock, within 8 inch: NO			00:16:23		M 2
	245.40	MWLS	Water Level, Sag in pipe, 5	% of cross sectional are	ea	00:18:21	101a	M 2
. (48)	265.50	АМН	Downstream Manhole, Surve	y Ends		00:20:44	102a	
QSR	QMR		SPR MPR	OPR	SPRI	MPRI		DPRI
0000	2E00		0 56	56	0	2		2



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Hartigan Company 31 Welch Park Drive Middlesex, VT 05602 Tel: (802) 223-3452, Fax: (802) 223-6116

Inspection report

Secretary Control		anggatarana.	리 일은 중인리 토토 및 1986년 대		
Date: 20110908	P.O.#:	Weather: 1 Dry	Surveyed By: DEH	section number:	PSR:
Total Pipe Length: 133.1	Survey Customer: Waterbury, VT	System Owner: Waterbury, VT	Clean Date:	Pre-Cleaned: N No Pre-Cleaning	Map Grid #:

Total Pipe Length: 133.1	Survey Customer: Waterbury, VT		ystem Owner: Vaterbury, VT	Clean Date:	Pre-Cle N No Pre-C		Map Gr	id #:
Street: No.Main	St.	Flow	Control:	······································	Start MH:	114		
ity: Waterbu	ry,VT	Year	Renewed		End MH:	113		
ocation Code: B Main H	lighway - Suburban/Ru	ural Tape	Media #: 1		Total length:	133.1 ft		
urpose: se:	SS Sanitary	Same ya		Material: AC Lining:	ircular 8"/8" Asbestos Cement	Pipe length:	13ft	Serve St
rain. Area:				Category:				
comment: ocation details:								
1:325 p	osition code	observatio				MPEG	photo	grade
(114)	<u>0.00</u> AMH	Upstream N	lanhole, Survey Beç	jins		00:00:00		
> \\	<u>0.00</u> MWL	Water Leve	, 5 % of cross sect	ional area		00:00:00		
stanos pou	2.10 TFA	Tap Factory	Made Active, at 09	o'clock, 4", within 8 inc	h: YES	00:00:36	7a, b	
6								
				\$				
196								
	44.00		14 d. A.C	and the state of the	L. 1/50	20.20.40	0 - 1-	
	44.00 TFA			o'clock, 4", within 8 inc		00:03:43	8a, b	
		Roots Fine	Joint, from 02 to 10	o'clock, within 8 inch: Y	ŒS	00:04:17	9a	M 1
(oid)	86.40 MMC	Material Ch	ange, PVC Polyviny	l Chloride		00:06:15	10a	
THE AND	88.20 TFA	Tap Factory	Made Active At 03	oʻcloc)k, 6", within 8 inc	:h: YES	00:06:51	11a, b	
	89.50 MMC		ange, AC Asbestos			00:07:27	12a	
	US.OC	Material On	ange, AO Asbesios	Oement.		00.07.27		
,								
3/2			•					
113	133.10 AMH	Upstream N	lanhole, Survey End	ds		00:10:00	13a, b	
QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	- т	OPRI
QSR onon	QIVIR	OI-1\	IVIFT\	OPA -	orki .	WIFTX		4

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Hartigan Company 31 Welch Park Drive Middlesex, VT 05602 Tel: (802)223-3452, Fax: (802)223-6116

Inspection report

1			<u> </u>	<u> Latini kale kanggala</u> ngangatan katawa sa tabuh.		land of against a land with the first state of the filler
	Date:	P.O.#:	Weather:	Surveyed By:	section number:	PSR:
	01/14/2013	La La La Caración de Caración	1 Dry	MLM	3	
1	Total Pipe Length:	Survey Customer:	System Owner:	Clean Date:	Pre-Cleaned:	Map Grid #:
1	135'	Waterbury, VT	Waterbury, VT		N No Pre-Cleaning	นะให้เรียกของ คราม เลยได้เลี้ยวได้

Street: North Main St. City: Waterbury, VT	Flow Control: Year Renewed	Start MH: 102 End MH: 101
Location Code: B Main Highway - Suburban/Rural	Tape/Media #: Flash Drive	Total length: 324.5 ft
Purpose: F Routine Asseessmen		ar 8"/8" estos Cement Pipe length: 13ft

Drain. Area: Comment:

Location details:

1:800	position code observation	MPEG	photo grade

Lining:

Category:

Buried at time on inspection.

2699988666 \	0.00	ANALI	Description Markets Company	00.00.00		
102	0.00	AMH	Downstream Manhole, Survey Begins	00:00:00		
式 〉	0.00	MWL	Water Level, 5 % of cross sectional area			
THE STATE OF THE S	17:60	TFA	Tap Factory Made Active, at 02 o'clock, 4", within 8 inch: YES, Remark: Elbows to right just outside mainline.	00:01:36	21a, b	
	19.80	JSL	Joint Separated Large, Remark: with gasket exposed no visible infiltration.	00:01:58	22a, b	S
	25.70	TFA	Tap Factory Made Active, at 10 o'clock, 4", within 8 inch: YES, Remark: Elbows to left just outside mainline.	00:03:05	23a, b	
	25.90 S1	MWLS	Water Level, Sag in pipe, 5 % of cross sectional area, start	00:03:24	24a	N
	50.40 F1	MWLS	Water Level, Sag in pipe, 5 % of cross sectional area, end	00:06:03		N
	53.20	TFA	Tap Factory Made Active, at 10 o'clock, 4", within 8 inch: YES, Remark: Elbows to Left just outside mainline. In Use.	00:06:50	26a, b	
H//	105.40 S2	MWLS	Water Level, Sag in pipe, 10 % of cross sectional area, start	00:10:07	27a, b	٨
M//	106.50	TFA	Tap Factory Made Active, at 09 o'clock, 4", within 8 inch: YES, Remark: Elbows to right just outside mainline.	00:10:43	28a, b	
	111.20 F2	MWLS	Water Level, Sag in pipe, 10 % of cross sectional area, end	00:11:31		٨
	111.20 S3	MWLS	Water Level, Sag in pipe, 15 % of cross sectional area, start	00:11:34	30a	V
	120.00 F3	MWLS	Water Level, Sag in pipe, 15 % of cross sectional area, end	00:12:06		1
	120.00 S4	MWLS	Water Level, Sag in pipe, 5 % of cross sectional area, start	00:12:14	32a	٨
\	134.60	TFA	Tap Factory Made Active, <u>at 10 o'clock,</u> 4", within 8 inch: YES, Remark: Elbows to Right just outside Mainline.	00:13:35	33a, b	
\mathbb{H}	145.00 F4	MWLS	Water Level, Sag in pipe, 5 % of cross sectional area, end	00:15:03		
	234.10	СМ	Crack Multiple, from 08 to 11 o'clock, within 8 inch: YES, Remark: Spider web cracking or fungus growing on walls.	00:20:02	35a, b	
	243.30	TSD	Tap Saddle Defective, at 02 o'clock, 4", within 8 inch: YES, Remark: with mineral deposits at connection. ACP	00:22:01	36a, b	ı
L `	250.50	TSA	Tap Saddle Active, at 02 o'clock, 4", within 8 inch: YES, Remark: ACP	00:23:56	.37a, b	
102)	297.00	АМН	Manhole Buried at time of inspection under pavement. Labeled as MH 102A	00:29:29	38a	
720	324.50	AMH	Upstream Manhole, Survey Ends	00:35:32	39a, b	

At intersection of North Main St. and Stowe St.

and the same and t			Same and the second of the second	Attack to the second	and the second second		and the second second
QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
3121	2B00	5	30	35	2.5	2	2.06

Project Information

Project Name:	Project Number:	Date:



Contractor	Hartigan Company
Responsible:	Michael Melanson
Department:	
Street:	31 Welch Park Dr.
City:	Middlesex
Telephone:	800-696-0761
Fax:	hartigancompany.com
Mobile:	802-585-9916
EMail:	hartigancompany.com

(Notes:)
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Pipe Segme	ent Refere	С	ity	Street	Mat	erial	Location C	Pipe Use		
		TOWN OF W	/ATERBURY	MAIN ST	VITRIFIED	CLAY PIPE		SANITARY S		
Upstre	Upstream MH		Length	Year Constructed	Sha	ape	Location Details			
10	01				CIRCULAR					
Downstr	eam MH	Length s	surveyed	Year Renewed	Height Width		Pipe Joint			
10)4	23	4.5		6 6					
SPR	11	MPR	3	PO Number	PO Number					
SPRI	3.7	MPRI	1.5							
				Work Order Number	er		Purpose			
QSR	5141	QMR	2111			ROL	UTINE ASSESSMENT			
O	PR	Surve	yed By	Direction	Da	ate	Media label			
1	4	E	ΞM	UPSTREAM	2017	0703				
OF	PRI	Certificat	e Number	Pre-Cleaning	Time		Weather			
2	2.8		07005746	LIGHT CLEANING	12:18		DRY - NO P			
	Date Cleaned			End Time		Additional Info				
					12	:52				

	104						
(11)		Code:	Continuous:	Pos:	Val 1 / 2 :	%:	Gallons:
	0.0 ft.	Access Point Manhole 104					
	0.0 ft.	Miscellaneous Water Level				5	
	6.0 ft.	Broken Pipe Soil Visible		12			
	6.0 ft.	Fracture Multiple		8 - 5			
1 L	13.0 ft.	Tap Factory Made		12	3		
	48.2 ft.	Tap Factory Made		12	3		
П	63.4 ft.	Roots Fine Joint		9			
1 L	71.4 ft.	Tap Factory Made		12	3		
<u></u>	109.8 ft.	Tap Break-In Intruding		1	3/1		
11	109.8 ft.	Crack Longitudinal		3			
1 L	115.8 ft.	Tap Factory Made		12	3		
	136.2 ft.	Tap Factory Made		12	3		
	150.5 ft.	Tap Factory Made		12	3		
ΙĒ	170.6 ft.	Tap Factory Made		12	3		



Pipe Segment Refere	City	Street	Material		Location C	Pipe Use	
	TOWN OF WATERBURY	MAIN ST	VITRIFIED CLAY PIPE			SANITARY S	
Upstream MH	Total Length	Year Constructed	Shape		Locatio	n Details	
101			CIRC	ULAR			
Downstream MH	Length surveyed	Year Renewed	Height Width		Pipe Joint		
104	234.5		6	6			

	Code:	Continuous:	Pos:	Val 1 / 2 :	%:	Gallons:
200.5 ft.	Tap Break-in/Hammer		12	3		
227.6 ft.	Tap Break-in/Hammer		12	3		
229.5 ft.	Tap Factory Made		12	3		
234.5 ft.	Miscellaneous Survey Abandoned PIPE CAPPED					





Pipe Segment Refere	City	Street	Material		Location C	Pipe Use
	TOWN OF WATERBURY	MAIN ST	VITRIFIED	CLAY PIPE		SANITARY S
Upstream MH	Total Length	Year Constructed	Shape		Location	n Details
101			CIRCULAR			
Downstream MH	Length surveyed	Year Renewed	Height Width		Pipe Joint	
104	234.5		6	6		



Distance: 0.0 ft. Grade:

Access Point Manhole Condition:

Remarks: 104



Distance: 0.0 ft. Grade: 0

Condition: Miscellaneous Water Level

Remarks: N/A



Distance: 6.0 ft. Grade: Condition:

Broken Pipe Soil Visible

Remarks: N/A



Distance: 6.0 ft. Grade: 4

Condition: Fracture Multiple





Pipe Segment Refere	City	Street	Material		Location C	Pipe Use
	TOWN OF WATERBURY	MAIN ST	VITRIFIED	CLAY PIPE		SANITARY S
Upstream MH	Total Length	Year Constructed	Shape		Location	n Details
101			CIRCULAR			
Downstream MH	Length surveyed	Year Renewed	Height Width		Pipe Joint	
104	234.5		6	6		



Distance: 13.0 ft. Grade: 0

Condition: Tap Factory Made

Remarks: N/A



Distance: 13.0 ft. Grade: (

Condition: Tap Factory Made

Remarks: N/A



Distance: 48.2 ft. Grade: 0

Condition: Tap Factory Made

Remarks: N/A



Distance: 48.2 ft. Grade: 0

Condition: Tap Factory Made





Pipe Segment Refere	City	Street	Material		Location C	Pipe Use
	TOWN OF WATERBURY	MAIN ST	VITRIFIED	CLAY PIPE		SANITARY S
Upstream MH	Total Length	Year Constructed	Shape		Location	n Details
101			CIRCULAR			
Downstream MH	Length surveyed	Year Renewed	Height Width		Pipe Joint	
104	234.5		6	6		



Distance: 63.4 ft. Grade:

Condition: Roots Fine Joint

Remarks: N/A



Distance: 71.4 ft. Grade: 0

Condition: Tap Factory Made

Remarks: N/A



Distance: 71.4 ft. Grade: 0

Condition: Tap Factory Made

Remarks: N/A



Distance: 109.8 ft. Grade: 2

Condition: Tap Break-In Intruding





Pipe Segment Refere	City	Street	Material		Location C	Pipe Use
	TOWN OF WATERBURY	MAIN ST	VITRIFIED	CLAY PIPE		SANITARY S
Upstream MH	Total Length	Year Constructed	Shape		Location	n Details
101			CIRCULAR			
Downstream MH	Length surveyed	Year Renewed	Height Width		Pipe Joint	
104	234.5		6	6		



Distance: 109.8 ft. Grade: 2

Condition: Tap Break-In Intruding

Remarks: N/A



Distance: 109.8 ft. Grade: 2

Condition: Crack Longitudinal

Remarks: N/A



Distance: 115.8 ft. Grade: 0

Condition: Tap Factory Made

Remarks: N/A



Distance: 115.8 ft. Grade: 0

Condition: Tap Factory Made





Pipe Segment Refere	City	Street	Material		Location C	Pipe Use
	TOWN OF WATERBURY	MAIN ST	VITRIFIED	CLAY PIPE		SANITARY S
Upstream MH	Total Length	Year Constructed	Shape		Location	n Details
101			CIRCULAR			
Downstream MH	Length surveyed	Year Renewed	Height Width		Pipe Joint	
104	234.5		6	6		/



Distance: 136,2 ft. Grade: 0

Condition: Tap Factory Made

Remarks: N/A



Distance: 136,2 ft. Grade: 0

Condition: Tap Factory Made

Remarks: N/A



Distance: 150.5 ft. Grade: 0

Condition: Tap Factory Made

Remarks: N/A



Distance: 150.5 ft. Grade: 0

Condition: Tap Factory Made





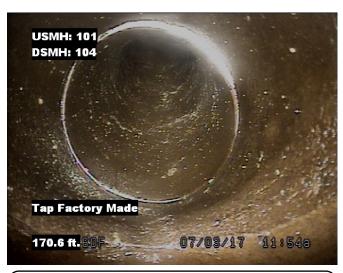
Pipe Segment Refere	City	Street	Material		Location C	Pipe Use
	TOWN OF WATERBURY	MAIN ST	VITRIFIED	CLAY PIPE		SANITARY S
Upstream MH	Total Length	Year Constructed	Shape		Location	n Details
101			CIRCULAR			
Downstream MH	Length surveyed	Year Renewed	Height Width		Pipe Joint	
104	234.5		6	6		



Distance: 170.6 ft. Grade: 0

Condition: Tap Factory Made

Remarks: N/A



Distance: 170.6 ft. Grade: 0

Condition: Tap Factory Made

Remarks: N/A



Distance: 200.5 ft. Grade: 0

Condition: Tap Break-in/Hammer

Remarks: N/A



Distance: 200.5 ft. Grade: 0

Condition: Tap Break-in/Hammer





Pipe Segment Refere	City	Street	Material		Location C	Pipe Use
	TOWN OF WATERBURY	MAIN ST	VITRIFIED CLAY PIPE			SANITARY S
Upstream MH	Total Length	Year Constructed	Shape		Locatio	n Details
101			CIRCULAR			
Downstream MH	Length surveyed	Year Renewed	Height Width		Pipe Joint	
104	234.5		6	6		



Distance: 227.6 ft. Grade: 0

Condition: Tap Break-in/Hammer

Remarks: N/A



Distance: 227.6 ft. Grade: 0

Condition: Tap Break-in/Hammer

Remarks: N/A



Distance: 229.5 ft. Grade: 0

Condition: Tap Factory Made

Remarks: N/A



Distance: 234.5 ft. Grade: 0

Condition: Miscellaneous Survey Abandoned

Remarks: PIPE CAPPED

SHEET NO.: 2 PROJECT: TV/ PHASE #2 PROJECT NO: 706 DATE: 3/4/92 CLIENT: VILLAGE OF WATERBURY, VT. INSPECTOR: BK PROJECT NO: 70604.62

SECTION ON: MAIN ST.
FROM MANHOLE #: 20A /03
FIPE SIZE:8 PIPE TYPE: AC

TO MANHOLE #: 20B /0Z

PIPE LENGTH: 13

TYPE OF JOINTS: B/S

DIRECTION OF FLOW FROM MH#: <<<< DIRECTION OF MEASUREMENT FROM MH#: >>>>

r:F	<u> </u>	******************	***************************************	***************************************	INF	IL	TRATION		tumanyan annan minimin minimin Minimin minimin	
NO FOOTAGE		OBSERVATI	ONS		°, · - (INFLOW GPM		VIDEO NO
			***************************************	internation continues to a succession of the continues of	***************************************					
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2 : 0+18	11	97C			Ħ	2:00	#		#	
3 : 0+34		S/C			#	9:00	#		#1 15	
4 : 0+71	it fi	S/T			11 11	10:00	#	RUNNING	ij	
5 : 0+76	n ti	@ MH# 20B			n #		n #		ti.	1519
6-6-6-	11				# #		#		::	
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8 - 1 - 1	11				#		#		#	
9	11				#		#		:: ::	
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SPECIAL NOTES:



Inspection report

Date: 01/14/2013	P.O.#:	Weather: 1 Dry	Surveyed By:	section number:	PSR:
Total Pipe Length: 135'	Survey Customer: Waterbury, VT	System Owner: Waterbury, VT	Clean Date:	Pre-Cleaned: N No Pre-Cleaning	Map Grid #:

Street: North Ma	ain St.	Flow Control:			Start MH: 103	
City: Waterbu		Year Renewed			End MH: 102	
Location Code: B Main F	lighway - Suburban/Rural	Tape/Media #:	Flash Drive		Total length: 76.8 ft	
Purpose: Use:	F Routine Asseessment		Dia/Height: Material:	C Circula	ar 8"/8" estos Cement Pipe length: 13ft	
Drain Area:			Lining:			

Comment:

Location details:

1:200 position code observation MPEG photo grade

In front of House# 13 N. Main St.

103 0.00 AMH Downstream Manhole, Survey Begins 00:00:00

MWL Water Level, 5 % of cross sectional area

17.90 TFC Tap Factory Made Capped, at 02 o'clock, 4", within 8 inch: YES 00:02:32 15a

33.20 TFC Tap Factory Made Capped, at 10 o'clock, 4", within 8 inch: YES 00:04:19 16a, b

70.80 TSA Tap Saddle Active, at 10 o'clock, 4", within 8 inch: NO, Remark: PVC 00:06:51 17a, b

102 76.80 AMH Upstream Manhole, Survey Ends 00:09:46 18a, b

South of Driveway for House# 13 N. Main St.

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	0000	0	0	0	0	0	0

SHEET NO.: 3 FROJECT: TV/ PHASE #2 PROJECT NO: 706 DATE: 3/4/92 CLIENT: VILLAGE OF WATERBURY,VT.INSPECTOR: BK PROJECT NO: 70604.62

INFILTRATION

SECTION ON: MAIN ST.

FROM MANHOLE #: 200 /04

TO MANHOLE #: 20 /04 DIRECTION OF FLOW FROM MH#: >>>> DIRECTION OF MEASUREMENT FROM MH#: >>>>

NO	FOOTAGE	OBSERVATIONS	CLOC	K REF INFLOW	GPM	VIDEO NO
		maintinininininininininininininininininin				
1	: 0400 :	@ MH# 20A /03 @ MH# 20 /04 ///	#	ii ii	#	1519
2	a Otil a	@ MH# 20 /09 ///	/-/. #	tt #	12 13	1655
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33.00						
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25	# #		ii ii	n n	22	
			######################################		******	

SPECIAL NOTES:



Inspection report

	Ministration Additional Control of the Control of t		oposus	J JPJ		
100	Date: 20110908	P.O.#:	Weather: 1 Dry	Surveyed By: DEH	section number:	⇔PSR: ∴ 8
	Total Pipe Length: 16.3	Survey Customer: Waterbury, VT	System Owner: Waterbury, VT	Clean Date:	Pre-Cleaned: N No Pre-Cleaning	Map Grid #:

 Street:
 Main St.
 Flow Control:
 Start MH:
 103

 City:
 Waterbury,VT
 Year Renewed
 End MH:
 104

 Location Code:
 B Main Highway - Suburban/Rural
 Tape/Media #:
 1
 Total length:
 16.3 ft

Purpose:
Use: SS Sanitary

Dia/Height: Material: C Circular 8"/8"

AC Asbestos Cement Pipe length: 13ft

____Lini

Lining: Category:

Drain. Area: Comment:

Location details:

1:50 position code observation

MPEG

photo grade

0.00

AMH Downstream Manhole, Survey Begins

00:00:00

MWL Water Level, 5 % of cross sectional area

00:00:00

13.60

TFA Tap Factory Made Active, at 10 o'clock, 4", within 8 inch: YES

00:02:06

3a, b

104

AMH Downstream Manhole, Survey Ends

00:04:22

4a, b

COVENED

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	0000	0	7,0 A11 A	e a 200 a	0	0	0

105 TO 104 HEADING SOUTH

SHEET NO.: 4 PROJECT: TV /PHASE #2 PROJECT NO: 70604.62 DATE: 3/4/92 CLIENT: VILLAGE OF WATERBURY, VT. INSPECTOR: BK

SECTION ON: MAIN ST.
FROM MANHOLE #:18(INT.OF WINDOSKITO MANHOLE #: 40

PIPE SIZE: 6 PIPE TYPE: VC PIPE LENGTH: 3 TYPE OF JOINTS: 8/S

DIRECTION OF FLOW FROM MH#: <<<< DIRECTION OF MEASUREMENT FROM MH#: >>>>

REF	Paggaran and Sala			INFIL	TRATION		
NO	FOOTAGE	OBSERVATIONS		CLOCK REF	INFLOW	GPM	VIDEO NO

1.	# 0+00 :	: @ MH# 18 <i>10</i> 5	n n	#			: 1655
2	: 0+10 :	: SET FOOTAGE	# #	# B			
	: O+10	LINE SAG 2"-1" TO	#	n n			
4	: 0+22 :	r_C/B	#	;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;			
5	1(0+46)	- 3/C	12	12:00 :			
<u>6</u>	# 0 16 2	: SLIGHT C/B	n n	11-2:00 :			
7	:(0+67) I	: 8/ 0	11 27	12:00 :			
8	: (0+99)	r 5 /C	- ts	12:00 :			
9		: COULD NOT SEE PULLED TO	#	# #			
10	or Ç∰ariyan i	MH#20 AND PLUGGED	t: 17	n 2			
11		INCOMING LINE.	11 11				
		The state of the s					
12	: 2+81	: @ MH# 20 104	# #				
13	: 2+79	BADLY BROKEN PIECES MISSI	MG:	n		- : : : : : : : : : : : : : : : : : : :	
1.4	# 2+77	: BREAKENDS	ir ir	f #			
15	: 2+60 ·	r S/C	n n	12:00 :	SL/FLOV	Ų	#
1.6	: 2+58	: LINE SAG 1" TO 254'	n	n st			
1.7	# 2+52	BADLY BROKEN AND O.O.R. T	~O :				
18	: 2+43	: S/C	#	12:00 :			
19	: 2+30	: TO PVC	n n	:: ::			
20	; 2+28	r	# #	2:00 :			
21	1 2+2A	TO VC	#	"			
22	3/2+23	# S/C	# #	12:00 :			# 1
23	:(1+79)	: S/C	tt H	12:00 :	*		#
24	1+34	: S/C	# #	12:00 :	SL/FLOV	N.	
25	<u> 1</u> 1+17 /	: S/C	#	12:00 :			# !!
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1,	1-14	: LINE SAG	#				
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5		: S/C	:: ::	12:00 :			
6		: C/B	- Pinner II	10:00			H H H
de Linearia	* O+QQ	: @ MH# 18		#			2524
1	요리 (남희)는 하 위기를 하는데 네네.				and the second		



Inspection report

		THE PARK OF PROPERTY OF A			
Date:	P.O.#:	Weather:	Surveyed By:	section number:	PSR:
20110908	180 AVAS	1 Dry	DEH	4	6
Total Pipe Length:	Survey Customer:	System Owner:	Clean Date:	Pre-Cleaned:	Map Grid #:
271.5	Waterbury, VT	Waterbury, VT		N No Pre-Cleaning	,

I	Street:	No.Main St.	Flow Control:	Start MH:	112
	City:	Waterbury,VT	Year Renewed	End MH:	105
ı	Location Code	: B Main Highway - Suburban/Rural	Tape/Media #: 1	Total length:	271.5 ft

Purpose:

Use: SS Sanitary

Dia/Height: C Circular 6"/6"

Material: VCP Vitrified Clay Pipe Pipe length:

Drain. Area: Lining: Category:

Comment:

Location details:

QSR

0000

QMR

4131

SPR

0

1:675	position	code	observation	MPEG	photo	gra
112 _	0.00	АМН	Upstream Manhole, Survey Begins	00:00:00		
	0.00	MWL	Water Level, 5 % of cross sectional area	00:00:00		
	38.20	OBJ	Obstacles In Joint, 15 % of cross sectional area, at 03 o'clock, Remark: Stick or chop stick in joint	00:04:34	19a	M
1	55.30	TFC	Tap Factory Made Capped, at 03 o´clock, 6", within 8 inch: YES	00:07:02	20a, b	
4	69.40	TFC	Tap Factory Made Capped, at 12 o´clock, 6", within 8 inch: YES	00:08:21	21a, b	
	99.10	TFA	Tap Factory Made Active, at 12 o'clock, 6", within 8 inch: YES	00:11:56	22a, b	
	116.40	TFA	Tap Factory Made Active, at 12 o´clock, 6", within 8 inch: YES, Remark: Reduces to 4" just outside mainline	00:14:42	23a, b	
1/	122.50	RFJ	Roots Fine Joint, from 10 to 02 o'clock, within 8 inch: YES	00:15:42	24a	M
	137.40	RBJ	Roots Ball Joint, from 08 to 04 o'clock, 40 %, within 8 inch: YES	00:17:00	25a	М
	144.30	OBJ	Obstacles In Joint, 10 % of cross sectional area, from 04 to 08 o'clock, Remark: Possable rock or clay pieces	00:18:50	26a	M
	145.50	TFC	Tap Factory Made Capped, at 12 o'clock, 6", within 8 inch: YES	00:19:32	27a, b	
	148.50	RFJ	Roots Fine Joint, from 09 to 02 o'clock, within 8 inch: YES	00:20:10	28a	M
	151.50	RFJ	Roots Fine Joint, from 09 to 03 o'clock, within 8 inch: YES	00:20:35	29a	M
	174.20	RFJ	Roots Fine Joint, from 08 to 03 o'clock, within 8 inch: YES	00:22:56	30a	M
	175.70 S1	RFJ	Roots Fine Joint, from 12 to 12 o'clock, within 8 inch: YES, start	00:23:25	31a	М
$\mathbb{I} \setminus$	197.10	TFA	Tap Factory Made Active, at 12 o'clock, 6", within 8 inch: YES	00:25:13	32a, b	
\mathbb{T}	202.60	TFC	Tap Factory Made Capped, at 12 o'clock, 6", within 8 inch: YES	00:26:16	33a, b	
	216.90 F1	RFJ	Roots Fine Joint, from 12 to 12 o'clock, within 8 inch: YES, end	00:27:44		M
	269.80	TFD	Tap Factory Made Defective, at 12 o'clock, 6", within 8 inch: YES, Remark: Service connection is broke were 6" switchs to 4"	00:32:46	35a, b	M
105	269.80	TFD	Tap Factory Made Defective, at 12 o'clock, 6", within 8 inch: YES, Remark: Cracks at connection	00:32:53	36a, b	M
	271.50	AMH	Upstream Manhole, Survey Ends	00:35:07	37a, b	

OPR

MPR

SPRI

0

MPRI

1.47

OPRI

1.47



Inspection report

L			•	•		
	Date: 20110908	P.O.#:	Weather: 1 Dry	Surveyed By: DEH	section number: 3	PSR: 8
ſ	Total Pipe Length: 20.2	Survey Customer: Waterbury, VT	System Owner: Waterbury, VT	Clean Date:	Pre-Cleaned: N No Pre-Cleaning	Map Grid #:

Street:

No.Main St.

Flow Control:

Start MH:

City:

Waterbury,VT

Year Renewed

End MH:

113 112

Location Code: B Main Highway - Suburban/Rural

Tape/Media #:

Total length:

20.2 ft

Purpose:

Use:

SS Sanitary

Dia/Height: Material:

C Circular 8"/8"

AC Asbestos Cement Pipe length: 13ft

Drain. Area:

Lining:

Category:

Comment:

Location details:

1:50

position

code observation

MPEG

photo

grade

0.00 113 0.00

Upstream Manhole, Survey Begins MWL Water Level, 5 % of cross sectional area 00:00:00

00:00:00

20.20 112

Upstream Manhole, Survey Ends

00:02:09

16a, b

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	0000	0	0	0	0	0	0

SHEET NO.: 7 PROJECT: TV/PHASE # 2 PROJECT NO: 70604.62 DATE: 3/4/92 CLIENT: VILLAGE OF WATEBURY,VT. INSPECTOR: BK

SECTION ON: MAIN ST. //2 TO MANHOLE #: 14 (NEXT TO SIDEWALK //4/ FROM MANHOLE #: 15 //2 TO MANHOLE #: 14 (NEXT TO SIDEWALK //4/ PIPE SIZE:8 PIPE TYPE: AC PIPE LENGTH: 13 TYPE OF JOINTS: COLLAR DIRECTION OF FLOW FROM MH#: >>>> DIRECTION OF MEASUREMENT FROM MH#: >>>>

INFILTRATION NO . FOOTAGE OBSERVATIONS CLOCK REF INFLOW GPM VIDEO NO 1 : 0+00 : @ MH# 15 2 : 0+22 : @ MH# 15A 3942 : 1+09 : 1+09 : S/C : 1+50 : S/C : 2:00 : : 2:00 : MODERATE GREASE : 1+51 : 1+52 : END OF PIPE : 1+54 : @ MH# 14 4217 .) 10 # 1.1. : 12 : 13 : 14 : 15 : 16 : 17 : 18 : 19 : 20 : 21 : 23 : 24 #

SPECIAL NOTES:



MH 55-56 4-27-20/6 Defect Listing Plot Left

Hartigan Company 31 Welch Park Dr. Middlesex VT 05602 800-696-0761

Cust	omer	С	ity	Street	Da	ate	Surveyed B	Sewer Use	
		WATE	RBURY	ROUTE 2	2016	0427	MLM	Sanitary	
Upstre	am MH	DS M	anhole	Material	Shape		Length surveyed		
MH	56	MH 55		VITRIFIED CLAY PIPE	CIRCULAR		395		
Pre-Cl	eaning	Date Cleaned		Direction	Height	Width	Pipe Joint		
JET	ΓING			UPSTREAM	15	15	3		
SPR 12		MPR	4	PO Number					
SPRI	2	MPRI	2	Work Order					
QSR	3124	QMR	2200	VVOIX Order		Purpose ROUTINE ASSESSMENT			
OF	PR			Media	ia label				
. 1	6								
OF	PRI	Certificat	e Number	Pipe Segment Refere		Weather			
2	2	U-110	6-3842			DRY			
***************************************		Location	n Details			Addit	ional Info	· · · · · · · · · · · · · · · · · · ·	

(3)	MH 55						
		Code:	Continuous:	Pos:	Val 1 / 2 :	%:	Gallons:
	0.0 ft.	Access Point Manhole MH 55					
	0.0 ft.	Water Level				5	
	11.8 ft.	Tap Factory Made		12	4		
	19.1 ft.	Tap Break-In	2. 3	2	6		
	35.0 ft.	Tap Factory Made		12	4		
	36.9 ft.	Tap Factory Made		12			
3	48.2 ft.	Crack Multiple		7-1			
1	69.6 ft.	Crack Circumferential		1-2		an) manahat ataung d	ang pangkanasan asar Pangkanasan
2	78.5 ft.	Deposits Attached Grease		12 - 7		5	
	81.4 ft.	Tap Factory Made — P10 - P16	egin manga sangan sangan sa sanga	12	4 		ere proposition of agreement
	92.6 ft.	Tap Factory Made		12	4		
2	106.8 ft.	Crack Longitudinal	Start S01	1			
2	110.4 ft.	Crack Longitudinal	End F01	1			
	115.8 ft.	Tap Factory Made		12	4		



Cı	stomer	l l	City RBURY	Street ROUTE 2		Date 20160427		Surveyed B MLM	Sewer Use Sanitary
	ream MH		anhole	Material		Shape			surveyed
	IH 56		H 55	VITRIFIED CLAY PIPE		IRCULAR			95
	Cleaning TTING	Date C	Cleaned	Direction UPSTREAM	Height	1	<i>N</i> idth 15	Pipe Joint 3	
SPR	12	MPR	4	PO Number			10	<u> </u>	
SPRI	2	MPRI	2	Work Ord				Dumana	
QSR	3124	QMR	2200	Work Ord	er		ROUT	Purpose INE ASSESS	MENT
	OPR			N	fedia label				
	16 OPRI	Certificat	e Number	Pipe Segment Refere		· · · · · · · · · · · · · · · · · · ·	eather	***************************************	T
`	2		6-3842	ripe deginent (Vereie			DRY		
			n Details				Addition	nal Info	· · · · · · · · · · · · · · · · · · ·
7	147.8 ft.	Tap Factory Mad	4e			12	4		
	1-47.0 IL.	iap i actory mac	16			12	7		
	164.7 ft.	Tap Factory Mad				12	4		
	701.716.	CAPPED		A Company of the Comp		• • • • • • • • • • • • • • • • •	···· ·		
	185.0 ft.	Tap Factory Mad	de Capped	ر و در دو در		12	4	s de la parente facilità. La	
			•••						
W	209.0 ft.	Tap Factory Mad	de	FIRE STATI	10N	12	4		
	_/	STEADY CLEA	AR FLOW						
	211.0 ft.	Tap Saddle				2	4/	D	
				Company of the control of the contro					
	213.7 ft.	Tap Factory Mad	de			12	4		
				and the second of the second o	344-000				
2	225.9 ft.	Crack Longitudir	nal		Start S02	10			
	224 2 #	Ton Footon, Mos				11	4		
	231.2 ft.	Tap Factory Mad	1 e				4		
	240.7 ft.	Crack Longitudir	าลไ		End F02	10			
2	Zarresar, F. 18.	oracic Longitudii	1641						
	257.4 ft.	Tap Factory Mad	<u></u>			12	4		
	274.4 ft.	Tap Factory Mad	de ACCI	loss street		12	4		
رسا						tun mæst til			
2	294.5 ft	Tap Break-In Int		NNE IMPOFF	TelepH	ove 2	41	1	
~ `		CLEAR FLOW			,-0				
	294.5 ft.	Tap Factory Mad	de			12	4		
)		LEANC : canil					
	338.4 ft.	Tap Factory Mad	ie /4//	SENTS WATELOVRY SE	NVIE OND	<u>12</u>	4		
	240 5 5	Ton Eastern Mar-				40			
	340.5 ft.	Tap Factory Mad	JE			12	4		
	372.5 ft.	Tap Factory Mad		and the many the many the		12	1		
+	312.0 IL	Tap Tactory Mac	<u>ت د</u>			14	4		



Cust	omer	С	ity	Street	Da	ate	Surveyed B	Sewer Use
		WATE	RBURY	ROUTE 2	2016	0427	MLM	Sanitary
Upstre	am MH	DS Manhole		Material	Shape		Length surveyed	
MH 56 Pre-Cleaning JETTING SPR 12		MH 55 Date Cleaned		VITRIFIED CLAY PIPE	CIRCULAR		395	
				Direction	Height	Width	Pipe Joint	
				UPSTREAM	15	15	3	
		MPR	4	PO Number				
SPRI	SPRI 2		2	Work Order		Purpose		
QSR	3124	QMR	2200	VVOIR OIGE		RO	UTINE ASSESSMENT	
O	PR .			Media	label	I		
. 1	6							
OF	PRI	Certificat	e Number	Pipe Segment Refere		Weather		
	2	U-110	6-3842			DRY		
		Location	n Details			Addit	ional Info	······

380.0 ft. Material Change VCP TO PVC
391.3 ft. General Observation DROP SERVICE FROM MH 67395.0 ft. Access Point Manhole MH 56

MH 56



QSR

3122

QMR

2100

SPR

Hartigan Company
31 Welch Park Drive
Middlesex, VT 05602
Tel: (802) 223-3452, Fax: (802) 223-6116

Inspection report

Date: 06/04/2012	P.O.#:	Weather: 3 Light rain	Surveyed By: MLM	section number:	PSR:					
Total Pipe Length:	Survey Customer: Waterbury, VT	System Owner: Waterbury, VT	Clean Date:	Pre-Cleaned: N No Pre-Cleaning	Map Grid #:					

Street:	Main St.	Flow Control:		Start MH:	56
City:	Waterbury,VT	Year Renewed		End MH:	57
Location Code: D Easement/Right of Way		Tape/Media #:	1	Total length:	352 ft

Purpose: F Routine Asseessment Dia/Height: C Circular 6"/6"

Use: SS Sanitary Material: PVC Polyvinyl Chloride Pipe length: 13ft

Drain. Area: Lining: Category:

Comment: PVC and VCP 3' lengths

Location details:

1:875 position code observation MPEG photo grade

공항 사람들이 하는 사람들이 가장 하는 것이다.					
0.00	AMH	Downstream Manhole, Survey Begins	00:00:00		
56 0.00	MWL	Water Level, 5 % of cross sectional area			
4.00	TF	Tap Factory Made, at 06 o'clock, 6", within 8 inch: YES, Remark: Outside	00:00:29	17a, b	
5.00	TFA	Drop Connection Tap Factory Made Active, at 02 o´clock, 6", within 8 inch: YES, Remark: Reduces to 4" just outside mainline	00:01:34	18a, b	
8.50	MMC	Material Change, VCP Vitrified Clay Pipe	00:04:56		
8.50	MJL	Joint Length Change, 3'	00:05:54		
27.70	TFC	Tap Factory Made Capped, at 12 o'clock, 4", within 8 inch: YES	00:08:19	21a, b	
69.20	TFC	Tap Factory Made Capped, at 10 o'clock, 6", within 8 inch: YES	00:11:34	22a	
92.40	TFA	Tap Factory Made Active, at 02 o´clock, 6", within 8 inch: YES	00:14:43	23a, b	
123.20	cc	Crack Circumferential, from 07 to 09 o'clock, within 8 inch: YES	00:20:52	24a, b	s:
134.00	TFA	Tap Factory Made Active, at 10 o'clock, 6", within 8 inch: YES	00:23:21	25a, b	
136.10	CL	Crack Longitudinal, at 12 o'clock, within 8 inch: YES	00:23:47	26a	S
150.80	TFC	Tap Factory Made Capped, at 02 o'clock, 6", within 8 inch: YES	00:25:41	27a, b	
185.80	TFC	Tap Factory Made Capped, at 02 o'clock, 6", within 8 inch: YES	00:28:15	28a, b	
187.80	TFC	Tap Factory Made Capped, at 10 o'clock, 6", within 8 inch: YES	00:29:18	29a, b	
214.20	TFA	Tap Factory Made Active, at 02 o'clock, 6", within 8 inch: YES	00:31:51	30a, b	
216.00	TFD	Tap Factory Made Defective, at 10 o'clock, 6", within 8 inch: YES, Remark: fractured 4" up lateral	00:32:39	31a, b	M.
260.80	TFC	Tap Factory Made Capped, at 10 o´clock, 6", within 8 inch: YES	00:35:44	32a, b	
261.10	cs	Crack Spiral, from 09 to 12 o'clock, within 8 inch: YES	00:36:13	33a	s
269.40	TFA	Tap Factory Made Active, at 02 o´clock, 6", within 8 inch: YES	00:37:33	34a, b	
316.70	CM	Crack Multiple, from 08 to 04 o'clock, within 8 inch: YES, Remark: spider web cracking	00:42:20	35a, b	ទ
324.80	TFA	Tap Factory Made Active, at 10 o'clock, 6", within 8 inch: YES	00:44:14	36a, b	
352.00	AMH	Upstream Manhole, Survey Ends Buried at time of inspection	00:49:19	37a	

SPRI

MPRI

OPRI

OPR

MPR



MPEG

photo

grade

Inspection report

ા	and the second second	and the second s	<u> </u>		and the control of th	
	Date:	P.O.#:	Weather:	Surveyed By:	section number:	PSR:
	06/04/2012		3 Light rain	MLM	4	6
ı	Total Pipe Length:	Survey Customer:	System Owner:	Clean Date:	Pre-Cleaned:	Map Grid #:
١		Waterbury, VT	Waterbury, VT	1 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	N No Pre-Cleaning	

Street: Main St.	Flow Control:	Start MH: 57	
City: Waterbury,VT	Year Renewed	End MH: 58	
Location Code: D Easement/Right of Way	Tape/Media #: 1	Total length: 264 ft	

Purpose: F Routine Asseessment Dia/Height: C Circular 6"/6"

observation

Use: SS Sanitary Material: VCP Vitrified Clay Pipe Pipe length: 3ft

Drain. Area: Lining: Category:

Comment:

Location details:

1:650

position

	In front of I	louse # 61								
	57	0.00	АМН	Downstrea	m Manhole, Survey B	egins		00:00:00		
		0.00	MWL	Water Leve	el, 5 % of cross secti	onal area				
		8.80	TFA	Tap Factor	y Made Active, at 02	o'clock, 6", within 8 ir	nch: YES	00:05:47	40a, b	
		22.70	TFA	Tap Factor	y Made Active, at 10	o'clock, 6", within 8 in	nch: YES	00:08:22	41a, b	
		39.60	TFC	Tap Factor	y Made Capped, at 0	2 oʻclock, 6", within 8	inch: YES	00:10:55	43a, b	
		90.00	TFD	with light ro	oots		8 inch: YES, Remark:	00:16:24	44a, b	M 2
4		90.50	RFJ	Roots Fine	Joint, from 02 to 05 (o'clock, within 8 inch:	YES	00:16:38	45a .	M 1
\$		99.50	RFJ	Roots Fine	Joint, from 09 to 03 o	o'clock, within 8 inch:	YES	00:18:32	46a	M 1
	1/2	101.10	TFD	Tap Factor Heavy root		10 o'clock, 6", within	8 inch: YES, Remark:	00:19:32	47a, b	M 2
		112.50	TFD	difference of the sub-disease contact	y Made Defective, at	02 o'clock, 6", within	8 inch: YES, Remark:	00:21:23	48a, b	M 2
(((117.40	TFC		y Made Capped, at 1	0 o'clock, 6", within 8	inch: YES	00:22:44	49a, b	
		170.10	TFC	Tap Factor	y Made Capped, at 0	2 o'clock, 6", within 8	inch: YES	00:27:15	50a, b	
		174.30	CL	Crack Long	gitudinal, at 12 o´clocl	k, within 8 inch: YES		00:31:28	51a	S 2
		174.30	TFA		y Made Active, at 10		nch: YES, Remark:	00:32:12	52a, b	
		190.90	TFC	AND STATE OF THE S	have been full pipe a y Made Capped, at 0	and the second of the second o	inch: YES	00:35:17	53a, b	
		210.20	TFA	Tap Factor	y Made Active, at 02	o'clock, 6", within 8 in	nch: YES	00:41:33	54a, b	
		234.90	TFC	Tap Factor	y Made Capped, at 0	2 o'clock, 6", within 8	inch: YES	00:55:42	55a, b	
									i ili madare	
	,	264.00	MSA	Survey Aba	andoned, Remark: Er	nd of Video at 264'				
	7° (58) _	- 286								
	QSR	QMR		SPR	MPR	OPR	SPRI	MPRI		OPRI
	2100	2312		2	8	10	2	1.6		1.67



MPEG

grade

photo

Inspection report

Date: 20090701	P.O.#:	Weather: 1 Dry	Surveyed By: MLM	section number:	PSR: 6				
Total Pipe Length:	Survey Customer: Waterbury, VT.	System Owner: Waterbury,VT.	Clean Date:	Pre-Cleaned: N No Pre-Cleaning	Map Grid #:				

	Street:	Main St.	Flow Control:				Start MH:	69	
	City:	Waterbury, VT.	Year Renewed				End MH:	70	
-	Location Code	B Main Highway - Suburban/Rural	Tape/Media #:	1			pipe length:	268.3 ft	
	Reason for ins	pection:			Dia/Height:	C Circula	ır 6/6		

Dia/Height: Reason for inspection:

VCP Vitrified Clay Pipe Pipe Length: Material: Use of Sewer: SS Sanitary

Lining Method: Drain. Area: Category:

code observation

Remark::

1:528

position

		роскази				•	_
		*					
	69	0.00	АМН	Downstream Manhole, Survey Begins	00:00:00		
		0.00	MWL	Water Level, 5 % of cross sectional area			M 2
		28.60	В	Broken, from 11 to 01 o'clock, within 8 inch: YES, Remark: Chip in pipe at joint.	00:05:09	4a, b	S 4
		35.50	RFJ	Roots Fine Joint, at 08 o'clock, within 8 inch: YES	00:06:50	5a	
		40.00	MWLS	Water Level, Sag in pipe, 5 % of cross sectional area, Remark: starts	00:08:17	7 a	M 2
		42.00	TFC	Tap Factory Made Capped, at 10 o'clock, 4", within 8 inch: YES	00:08:02	6a, b	
		44.00	TFC	Tap Factory Made Capped, at 02 o'clock, 4", within 8 inch: YES	00:08:50	8a, b	
		44.40	СМ	Crack Multiple, from 12 to 12 o'clock, within 8 inch: YES	00:09:32	9a	S 3
	4	47.20	RFJ	Roots Fine Joint, at 02 o'clock, within 8 inch: YES	00:09:54	10a	
)		50.40	RFJ	Roots Fine Joint, from 11 to 01 o'clock, within 8 inch: YES	00:10:16	11a	
))		91.50	TFA	Tap Factory Made Active, at 02 o'clock, 4", within 8 inch: YES	00:15:40	12a, b	
	4	121.20	TFD	Tap Factory Made Defective, at 10 o'clock, 4", within 8 inch: YES, Remark: broken at connection	00:19:30	13a, b	M 2
À		129.00	TFD	Tap Factory Made Defective, at 02 o'clock, 4", within 8 inch: YES, Remark: Roots in service	00:21:37	14a, b	M 2
		137.90	RFJ	Roots Fine Joint, from 02 to 04 o'clock, within 8 inch: YES	00:22:37	15a	
		188.20	TFD	Tap Factory Made Defective, at 10 o'clock, 4", within 8 inch: Capped YES,	00:25:12	16a, b	M 2
		190.00	RMJ	Remark: Roots in service Roots Medium Joint, from 08 to 09 o'clock, 5 %, within 8 inch: YES	00:25:28	17a	
		191.30	RMJ	Roots Medium Joint, from 04 to 08 o'clock, 10 %, within 8 inch: YES	00:26:07	18a	
		197.10	RMJ	Roots Medium Joint, from 07 to 09 o'clock, 5 %, within 8 inch: YES	00:26:47	19a	
		200.30	RFJ	Roots Fine Joint, from 04 to 08 o'clock, within 8 inch: YES	00:27:17	20a, b	
		209.90	cc	Crack Circumferential, from 10 to 02 o'clock, within 8 inch: YES	00:28:39	21a	S 1
	HOR	• •					



Inspection report

Date:	P.O.#:	Weather:	Surveyed By:	section number:	PSR:
20090701		1 Dry	MLM	1	6
Total Pipe Length:	Survey Customer: Waterbury, VT.	System Owner: Waterbury,VT.	Clean Date:	Pre-Cleaned: N No Pre-Cleaning	Map Grid #:

	1:528	position	code	observation	MPEG	photo	grade
١.	Alexander	220,60	CM	Crack Multiple, from 01 to 05 o'clock, within 8 inch: YES	00:30:44	22a	S 3
		220.80	TFC	Tap Factory Made Capped, at 02 o'clock, 4", within 8 inch: YES	00:31:06	23a, b	
		221.00	RFJ	Roots Fine Joint, from 04 to 08 o'clock, within 8 inch: YES, Remark: starts	00:31:19	24a	
		222.80	TFD	Tap Factory Made Defective, at 10 o'clock, 4", within 8 inch:Active YES, Remark: Roots in service	00:31:53	25a, b	M 2
 		232.50	DSZ	Deposits Settled Other, 10 % of cross sectional area, from 05 to 07 o clock, within 8 inch: YES, Remark: septic	00:32:43	26a	M 2
	#\	242.90	TFC	Tap Factory Made Capped, at 10 o'clock, 4", within 8 inch: YES	00:38:10	27a, b	
m		244.70	TFD	Tap Factory Made Defective, at 02 o'clock, 4", within 8 inch: YES, Remark: Offset joint at connection with roots in service	00:39:30	28a, b	M 2
		262.70	CC	Crack Circumferential, from 10 to 02 o'clock, within 8 inch: YES	00:52:20	31a	S 1
	`	268.30	OBB	Obstacles Brick, 90 % of cross sectional area, from 12 to 12 o'clock	00:51:05	29a, b	M 5
		268.30	MSA	Survey Abandoned, Remark: Due to bricks in pipe. Line may end here, with no manhole.	00:53:14		



1							
QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
4132	5128	12	21	33	2.4	2.33	2.36



13ft

MPRI

OPRI

3.25

Inspection report

Date: 20090701	P.O.#:	Weather: 1 Dry	Surveyed By: MLM	section number:	PSR: 8
Total Pipe Length:	Survey Customer: Waterbury, VT.	System Owner: Waterbury,VT.	Clean Date:	Pre-Cleaned: N No Pre-Cleaning	Map Grid #:

Start MH: 84 Street: Main St. Flow Control: End MH: 85 Year Renewed City: Waterbury, VT. pipe length: 138 ft Tape/Media #: Location Code: B Main Highway - Suburban/Rural

Reason for inspection:

Use of Sewer: Drain. Area:

QSR

5141

QMR

2100

SPR

11

SS Sanitary

C Circular 8/8 Dia/Height: AC Asbestos Cement Pipe Length:

Material:

Lining Method:

Category:

Remark::

1:350	position	code	observation	MPEG	photo	grade
	0.00	АМН	Upstream Manhole, Survey Begins	00:00:00		
84	0.00	MWL	Water Level, 5 % of cross sectional area			M 2
	11.70	CL	Crack Longitudinal, at 12 o'clock, within 8 inch: NO	00:02:54	34a, b	S 2
	12.60	BVV		00:03:19	35a, b	S 5
	39.50	В	Broken, at 11 o'clock, within 8 inch: NO, Remark: slight puncture	00:05:00	36a	S 4
	55.80	TFC	Tap Factory Made Capped, at 02 o'clock, 4", within 8 inch: YES	00:05:54	37a, b	
85	138,00	AMH	Upstream Manhole, Survey End	00:10:52	38a	

OPR

SPRI 3.67

MPR



Inspection report

Date: 20090701	P.O.#:	Weather:	Surveyed By: MLM	section number:	PSR: 8
Total Pipe Length:	Survey Customer: Waterbury, VT.	System Owner: Waterbury,VT.	Clean Date:	Pre-Cleaned: N No Pre-Cleaning	Map Grid #:

L		
Street:	Main St.	Flow Control: Start MH: 85
City:	Waterbury, VT.	Year Renewed End MH: 86
Location Co	de: B Main Highway - Suburban/Rural	Tape/Media #: 1 pipe length: 256 ft

Reason for inspection:

Use of Sewer:

SS Sanitary

C Circular 8/8 Dia/Height:

Material:

AC Asbestos Cement Pipe Length:

13ft

Lining Method: Category:

Drain. Area: Remark::

1:625	position	code	observatio	n			MPEG	photo	grade
	*						00:00:00		
(85)	0.00	AMH		m Manhole, Survey			00.00.00		M 2
	0.00	MWL		el, 0 % of cross sec			00.00.55	41a, b	101 2
	4.30	TFC	Tap Factor	y Made Capped, at	02 o'clock, 4", within 8	inch: YES	00:00:55	41a, D	
					el di Synam, i S				
	70.80	TFC	Tap Factor	ry Made Capped, at	02 o´clock, 4", within 8	3 inch: YES	00:02:59	42a, b	
	85.60	TFA	Tap Factor	ry Made Active, at 1	o'clock, 4", within 8 i	nch: YES	00:03:58	43a, b	
	100,30	TFC	Tap Factor	ry Made Capped, at	02 o'clock, 4", within t	3 inch: YES	00:05:02	44a, b	
	400.00	TFC	Ton Earlo	ny Made Canned at	10 o'clock, 4", within	8 inch: YES	00:06:58	45a, b	
B	128.00		rap racio	ry wade Capped, at			uelta Esperage	•	
							00.07.50	46a, b	
	155.60	TFC	Tap Facto	ry Made Capped, at	02 o'clock, 4", within	8 Incn: YES	00:07:58	40a, D	
	170.60	TFC	Tap Facto	ry Made Capped, at	10 o'clock, 4", within	8 inch: YES	00:08:48	47a, b	
	199.50	TSA	Tap Sadd	le Active, at 09 o'clo	ck, 4", within 8 inch: Y	ES .	00:10:22	48a, b	
	*** ***								
	235.20	TSA	Tap Sadd	lle Active, at 09 o'clo	ock, 4", within 8 inch: N	10	00:13:01	49a, b	
	236.70	TFC	Tap Facto	ory Made Capped, at	02 o'clock, 4", within	8 inch: YES	00:13:50	50a, b	
86	256.00	АМН	Upstream	Manhole, Survey E	nd 🤲 :		00:15:58	51a, b	
QSR	QMR		SPR	MPR	OPR	SPRI	MPRI		OPRI

2100

0000

0



Hartigan Company 147 Main St. Stowe, VT 05672 Tel: 802-253-0376, Fax: 802-253-0387

INSPECTION REPORT

DATE: 05/21/2004	WORK ORDER:	WEATHER: SUNNY, DRY	OPERATOR: Jesse	SECTION NR:	SECTION NAME:
PRESENT.	VEHICLE:	CAMERA:	PRESET:	CLEANED: HEAVY	RATE: 2480

STREET:

south main

MAP #1: Waterbury MAP #2:

MH:

40

41

286.5 ft

LOCALE:

CITY:

INSPECT REASON:

CUSTOMER COMPLAINT

PIPE SIZE: MATERIAL: 6 in

MH:

TV'D LGTH: VCP JT LGTH:

SECTION TYPE: AREA:

LINING: RSRVD:

REMARK:

1:759 DIST **OBSERVATION**

8.00

inspection begins at downstream manhole



122.00

182.00

198.10

218.20

220.20

228.50

246.40

275.40

286.30

286.50

service connection at 12 o'clock

offset joint, medium

pipe broken at joint at 11 o'clock

132.30 service connection capped at 12 o'clock 134.40

TAPE #:

service connection with roots light at 12 o'clock 140.30 sag in line

160.30 service connection with roots light at 12 o'clock

169.10 Multiple Fractures from 06 to 12 o'clock

172.40 offset joint, medium

180.20 service connection at 12 o'clock severe offset.

sag in line.

Longitudinal Crack at joint at 01 o'clock

service connection at 12 o'clock

sag in line

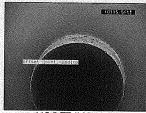
service connection at 12 o'clock, severe offset.

offset joint, medium

service connection at 12 o'clock, grease present.

service connection at 12 o'clock

capped service, busted or service busted.



115.5 FT // 00:03:39



122 FT // 00:04:00



132.3 FT // 00:04:29



134.4 FT // 00:05:01



140.3 FT // 00:05:30



Hartigan Company 31 Welch Park Drive Middlesex, VT. 05602

Middlesex, VT. 05602 Tel: 802-223-3452, Fax: 802-223-6116

Inspection report

			-		
Date: 20090701	P.O.#:	Weather: 1 Dry	Surveyed By: MLM	section number: 5	PSR: 8
Total Pipe Length:	Survey Customer: Waterbury, VT.	System Owner: Waterbury,VT.	Clean Date:	Pre-Cleaned: N No Pre-Cleaning	Map Grid #:

Street: Main St.	Flow Control:	Start MH:	87
City: Waterbury, VT.	Year Renewed	End MH:	84
Location Code: B Main Highway - Suburban/Rural	Tape/Media #: 1	pipe length:	338 ft

Reason for inspection:

Use of Sewer:

SS Sanitary

Dia/Height: Material: C Circular 8/8

VCP Vitrified Clay Pipe Pipe Length:

3ft

Lining Method: Category:

Drain. Area: Remark::

1:693	position	code	observation	MPEG	photo	grade
		*				
	*		e.			
	0.00	АМН	Upstream Manhole, Survey Begins	00:00:00		
(87)	0.00			55.55.55		
11	0.00	MWL	Water Level, 10 % of cross sectional area			M 2
e '	4.00	TSA	Tap Saddle Active, at 10 o'clock, 4", within 8 inch: YES	00:01:08	75a, b	
	7.00	TFD	Tap Factory Made Defective, at 12 o'clock, 42, within 8 inch: YES, Active Remark; Full of roots.	00:02:36	76a, b	M 2
e /)	27.40	TFD	Tap Factory Made Defective, at 12 o'clock, 4", within 8 inch: YES, Remark:Active Roots in service	00:05:04	77a, b	M 2
9///	31.20	CL	Crack Longitudinal, at 12 o'clock, within 8 inch: YES	00:05:59	78a	S 2
	50.50	TFD	Tap Factory Made Defective, at 12 o'clock, 4", within 8 inch: YES, Remark: Capped with broken cap	00:08:14	79a, b	M 2
	50.50	BVV	Broken Void Visible, at 12 o'clock, within 8 inch: YES, Remark: At lateral large void.	00:08:17	80a, b	S 5
0	61.40	TFA	Tap Factory Made Active, at 12 o'clock, 4", within 8 inch: YES	00:09:56	81a, b	
	108.50	TFA	Tap Factory Made Active, at 12 o'clock, 4", within 8 inch: YES	00:11:54	82a, b	
	119.50	TFA	Tap Factory Made Active, at 12 o'clock, 4", within 8 inch: YES, Remark: with light grease at connection	00:13:17	83a, b	
	138.20	CM	Crack Multiple, from 10 to 02 o'clock, within 8 inch: YES	00:14:21	84a, b	S 3
	141.00	CM	Crack Multiple, from 10 to 03 o'clock, within 8 inch: YES	00:14:51	85a	S 3
6 \	157.60	TFD	Tap Factory Made Defective, at 12 o'clock, 4", within 8 inch: YES, Remark: Active with offset joint at connection	00:16:13	86a, b	M 2
	169.00	SSS	Surface Spalling, from 01 to 04 o'clock, within 8 inch: YES	00:17:41	87a, b	
e 🔍	177.40	TFD	Tap Factory Made Defective, at 12 o´clock, 4", within 8 inch: YES, Remark: Active with Roots in service	00:18:49	88a, b	M 2
	203.30	TFD	Tap Factory Made Defective, at 12 o'clock, 4", within 8 inch: YES, Remark: Active with offset joint up lateral.	00:21:10	89a, b	M 2
	205.40	TFC	Tap Factory Made Capped, at 12 o'clock, 4", within 8 inch: YES	00:21:26	90a, b	
ø _	218.00	CL	Crack Longitudinal, at 10 o'clock, within 8 inch: YES	00:22:42	91a	S 2
	243.70	TFC	Tap Factory Made Capped, at 12 o'clock, 4", within 8 inch: YES	00:23:58	92a, b	
	260.70	TFC	Tap Factory Made Capped, at 12 o'clock, 4", within 8 inch: YES	00:25:04	93a, b	



Inspection report

Date: 20090701	P.O.#:	Weather: 1 Dry	Surveyed By: MLM	section number: 5	PSR: 8
Total Pipe Length:	Survey Customer: Waterbury, VT.	System Owner: Waterbury,VT.	Clean Date:	Pre-Cleaned: N No Pre-Cleaning	Map Grid #:

	1:693	position	code	observation	MPEG	photo	grade
un.		289.80	TFC	Tap Factory Made Capped, at 12 o'clock, 4", within 8 inch: YES	00:27:06	94a, b	
		293.40	CL	Crack Longitudinal, at 02 o'clock, within 8 inch: YES	00:27:35	95a	S 2
		303.80	TFC	Tap Factory Made Capped, at 12 o'clock, 4", within 8 inch: YES	00:28:57	96a, b	
		309.80	CM	Crack Multiple, from 10 to 11 o'clock, within 8 inch: YES	00:29:36	97a, b	S 3
	84	323.60	CM	Crack Multiple, from 12 to 01 o'clock, within 8 inch: YES	00:30:43	98a, b	S 3
I		329.20	CM	Crack Multiple, from 11 to 12 o'clock, within 8 inch: YES	00:31:20	99a, b	\$3
	\	331.30	CM	Crack Multiple, from 10 to 01 o'clock, within 8 inch: YES	00:31:49	100a	S 3
		334.30	CM	Crack Multiple, from 01 to 04 o'clock, within 8 inch: YES	00:32:08	101a	S 3



Inspection report

Date: 20090701	P.O.#:	Weather:	Surveyed By:	section number:	PSR:
Total Pipe Length:	Survey Customer: Waterbury, VT.	System Owner: Waterbury,VT.	Clean Date:	Pre-Cleaned: N No Pre-Cleaning	Map Grid #:

Street:	Main St.	Flow Control:	Start MH: 87
City:	Waterbury, VT.	Year Renewed	End MH: 88
Location Co	ode: B Main Highway - Suburban/Rural	Tape/Media #: 1	pipe length: 280.3 ft

Reason for inspection:

Use of Sewer: Drain. Area:

SS Sanitary

C Circular 8/8 Dia/Height:

Material:

VCP Vitrified Clay Pipe Pipe Length:

Lining Method: Category:

Remark::

1:700	position	code	observatio	1			MPEG	photo	grade
	2010 1010 2010 1010 1110								
87	0.00	АМН	Downstrear	n Manhole, Survey Bo	egins		00:00:00		
	0.00	MWL	Water Leve	I, 10 of cross sections	ıl area				M 2
	2.00	MWM	Water Mark	, 50 % of cross secti	onal area			54a	М 3
B	2.00	DAGS		tached Grease, 5 %	of cross sectional ar	ea, from 12 to 12	00:03:42	55a	M 2
	33.00	TFC		thin 8 inch: NO starts / Made Capped, at 10	o'clock, 4", within 8	inch: YES	00:04:23	56a, b	
	64.90	TFA	Tap Factor	/ Made Active, at 02 of	clock, 4", within 8 in	nch: YES	00:05:56	57a, b	
	64.90	RFJ	Roots Fine	Joint, from 08 to 12 o	'clock, within 8 inch:	YES	00:06:27	58a	
	70.00	TFA	Tap Factor	y Made Active, at 10 c	'clock, 4", within 8 in	nch: YES	00:06:57	59a, b	
	104.90	TFA	Tap Factor	y Made Active, at 02 o et joint.	'clock, 4", within 8 in	nch: YES, Remark:	00:08:54	60a, b	
	136.90	TFA	Tap Factor	y Made Active, at 02 c	Clock, 4", within 8 in	nch: YES	00:10:29	61a, b	
	147.90	TFA	Tap Factor	y Made Active, at 10 c	Clock, 4", within 8 in	nch: YES	00:11:58	62a, b	
	188.70	TFC	Tap Factor	y Made Capped, at 02	o'clock, 4", within 8	inch: YES	00:14:23	63a, b	
	193.70	TFA		y Made Active, at 10 o	clock, 4", within 8 in	nch: YES, Remark:	00:16:01	64a, b	
	211.80	DSGV	Deposits S		cross sectional area	a, at 06 o'clock, within	00:17:05		M 2
	223.00	TFA		y Made Active, at 02 o	clock, 4", within 8 in	nch: YES, Remark:	00:18:15	66a, b	
	243.10	TFD		y Made Defective, at		8 inch: YES, Remark:	00:20:14	67a, b	M 2
	266.30	TFD	Tap Factor			8 inch: YES, Remark:	00:22:34	68a, b	M 2
K	274.80	RBJ		h Heavy roots. Joint, from 07 to 10 o	clock, 30 %, within	8 inch: YES	00:24:24	69a, b	
	279.00	RBL	Roots Ball	Lateral, at 10 o'clock,	50 %, within 8 inch	:YES	00:25:58	70a, b	M 4
	280.30	TFD		y Made Defective, at		8 inch: YES,	00:27:06	71a, b	M 2
	280.30	MSA		II pipe of Roots in ser andoned, Remark: Du		ering line from lateral.	00:28:03	72a	
980									
QSR	QMR		SPR	MPR	OPR	SPRI	MPRI		OPRI
0000	4131		0	19 0000	19	0	2.38		2.38



Inspection report

Date: 20090710	P.O.#:	Weather:	Surveyed By:	section number:	PSR:
Total Pipe Length:	Survey Customer: Waterbury, VT.	System Owner: Waterbury,VT.	Clean Date:	Pre-Cleaned: N No Pre-Cleaning	Map Grid #:

Street:	Main St.	Flow Control:	Start MH: 87
City:	Waterbury, VT.	Year Renewed	End MH: 88
Location Code	e: B Main Highway - Suburban/Rural	Tape/Media #: 1	pipe length: 354.5 ft

Reason for inspection:

Use of Sewer:

SS Sanitary

Dia/Height: Material:

C Circular 8/8

VCP Vitrified Clay Pipe Pipe Length:

Lining Method: Category:

Drain. Area: Remark::

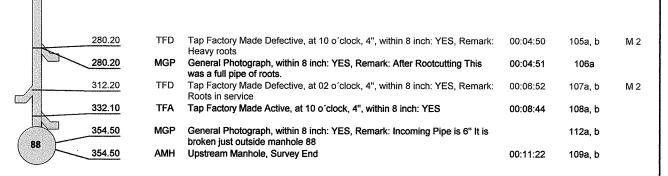
Re-Televise after rootcutting.

1:875 position code observation **MPEG** photo grade

0.00 AMH Downstream Manhole, Survey Begins 00:00:00 87 0.00

Water Level, 10 % of cross sectional area

M 2



Buried at time of Inspection.

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	2300	0	6	6.7	0	2	2



liddlesex VT 05602
800-696-0761

Pipe Segme	nt Refere	C	ity	Street	Mat	erial	Location C	Pipe Use
		VILLAGE OF	WATERBUR	MAIN ST	VITRIFIED	CLAY PIPE	PRIMARY MA.	SANITARY S
Upstrea	am MH	Total I	Length	Year Constructed	Sh	ape	Locatio	n Details
9					CIRC	ULAR		
Downstre		Length s	surveyed	Year Renewed	Height	Width	Pipe Joint	
90		1).1		6	6		
SPR	5	MPR 3		PO Number		Customer		
SPRI	1.7	MPRI	1.5	Work Order Number		,	Purpose	
QSR	3112	QMR	2111	Work order Hall		RO	UTINE ASSESS	MENT
OF	PR	Surve	yed By	Direction	D	ate	Med	ia label
	3	E	EM	UPSTREAM	2017	70524		
	PRI	Certificat	e Number	Pre-Cleaning	Ti	ime	Weather	
	.6	U-1016-	07005746	LIGHT CLEANING	07	':03	DRY - NO P	-
			Cleaned		End	Time	Additi	onal Info
					07	':17		

Code: Access Point Manhole 90 Miscellaneous Water Le Crack Circumferential	evel	Continuous:	Pos: V	/al 1 / 2 :	% : 5	Gallons:
90 t. Miscellaneous Water Le	evel				 5	
	evel				5	
t. Crack Circumferential					,	
		 Line State of the state of the	7 - 12		and the second	
ft. Crack Multiple		anga ang ang ang ang ang ang ang ang ang	8 - 3			
ft. Roots Fine Barrel		e e e e e e	2			
ft. Tap Factory Made ROOTS & BROKEN			9	3		
ft. Roots Fine Joint			1			
ft. Crack Circumferential			12 - 4			
ft. Tap Factory Made			2	3		
ft. Access Point Manhole						
	ft. Tap Factory Made ROOTS & BROKEN ft. Roots Fine Joint ft. Crack Circumferential ft. Tap Factory Made	ft. Tap Factory Made ROOTS & BROKEN ft. Roots Fine Joint ft. Crack Circumferential ft. Tap Factory Made ft. Access Point Manhole	ft. Tap Factory Made ROOTS & BROKEN ft. Roots Fine Joint ft. Crack Circumferential ft. Tap Factory Made ft. Access Point Manhole	ft. Tap Factory Made 9 ROOTS & BROKEN ft. Roots Fine Joint 1 ft. Crack Circumferential 12 - 4 ft. Tap Factory Made 2 ft. Access Point Manhole	ft. Tap Factory Made 9 3 ROOTS & BROKEN ft. Roots Fine Joint 1 ft. Crack Circumferential 12 - 4 ft. Tap Factory Made 2 3 ft. Access Point Manhole	ft. Tap Factory Made 9 3 ROOTS & BROKEN ft. Roots Fine Joint 1 ft. Crack Circumferential 12 - 4 ft. Tap Factory Made 2 3 ft. Access Point Manhole

Page #: 117



800-696-0761

Pipe Segm	ent Refere	C	City	Street	Mat	erial	Location C	Pipe Use	
		VILLAGE OF	WATERBUR	MAIN ST	VITRIFIED	VITRIFIED CLAY PIPE		SANITARY S	
Upstre	eam MH	Total	Length	Year Constructed	Sha	ape	Location	n Details	
	91				CIRC	CIRCULAR			
Downst	ream MH	Length:	surveyed	Year Renewed	Height	Width	Pipe Joint		
9	90	165.9			6	6			
SPR	0	MPR	4	PO Number			Customer		
SPRI	0	MPRI	1.3						
000				Work Order Numl	ber	Purpose			
QSR	0000	QMR	2112			RO	ROUTINE ASSESSMENT		
0	PR	Surve	yed By	Direction	Da	Date		a label	
	4	E	EM	UPSTREAM	2017	0524			
OI	PRI	Certificat	e Number	Pre-Cleaning	Tir	Time			
1	.3	U-1016-07005746		LIGHT CLEANING	07:	:20	DRY - NO P		
		Date C	leaned		End '	Time	Additio	nal Info	
				and m	07:	:47			

	90	T.V. FROM HEADING SOUTH Code:	SOUTH TO MH	9/ Continuous:	Pos:	Val 1 / 2 :	%:	Gallons:
	0.0 ft.	Access Point Manhole 90						
	0.0 ft.	Miscellaneous Water Level	•				5	
	4.3 ft.	Tap Factory Made		territoria. Antonio	10	3		
1	19.2 ft.	Infiltration Stain Joint MINERAL DEPOSIT	terre and a constant was a second with the second with the second with the second was a second with the second with the second with the second was a second with the second with the second with the second was a second with the second with the second was a second with the second with the second with the second was a second with the second with the second with the second was a second with the secon		12			
	21.2 ft.	Tap Factory Made CAPPED			2	3 3		
1	33.1 ft.	Infiltration Stain Joint MINERAL DEPOSIT		en e				
	35.1 ft.	Tap Factory Made CAPPED			10	3		
	76.2 ft.	Tap Factory Made			2	3		
	87.0 ft.	Tap Factory Made ROOTS			10	3		
	107.1 ft.	Tap Factory Made CAPPED			2	3		
	113.0 ft.	Miscellaneous Material Change VCP TO PVC						
	134.5 ft.	Miscellaneous Material Change PVC TO VCP						Children in Start
	139.1 ft.	Tap Factory Made				3		
2	165.4 ft.	Tap Break-In Intruding			2	3/1		





Hartigan Company 31 Welch Park Dr. Middlesex VT 05602 800-696-0761

Pipe Segme	ent Refere	C	City	Street	Mat	erial	Location C	Pipe Use	
		VILLAGE OF	WATERBUR	MAIN ST VITRIFIED CL		CLAY PIPE PRIMARY MASAN		SANITARY S.	
Upstre	am MH	Total	Length	Year Constructed	Sha	ape	Location	n Details	
90	DA AC			and the same of th	CIRC	CIRCULAR			
Downstr	eam MH	Length	surveyed	Year Renewed	Height	Width	Pipe Joint	I	
90)B	14	0.3		6	6			
SPR	5	MPR	1	PO Number			Customer		
SPRI	2.5	MPRI	1 -	Work Order Numi			Purpose DUTINE ASSESSMENT		
QSR	3121	QMR	1100	Work Order Num	ber	RO			
OI	PR	Surve	yed By	Direction	Da	ate	Media	a label	
(6	E	EM	DOWNSTREAM	2017	20170524			
OF	PRI	Certificat	e Number	Pre-Cleaning	Tir	ne	Weather		
:	2	U-1016-07005746		LIGHT CLEANING	08:	:13	DRY - NO P		
		Date 0	Cleaned		End	Time	Additio	nal Info	
					08:	:35			

					00:35				
	90A								
\} }		Code:	Co	ntinuous:	Pos:	Val 1	2:	%:	Gallons:
	0.0 ft.	Access Point Manhole 90A							
	0.0 ft.	Miscellaneous Water Level						5	
	46.4 ft.	Tap Factory Made			10	3			
	51.4 ft.	Tap Factory Made			2	3 			
	71.3 ft.	Tap Factory Made CAPPED			10	3			
	91.3 ft.	Tap Factory Made CAPPED & ROOTS							
1	119.0 ft.	Infiltration Stain Joint			10				
	120.4 ft.	Tap Factory Made CAQPPED		and an approximation of	10	3			
3	121.5 ft.	Crack Multiple			1 - 3				
2	124.5 ft.	Crack Spiral			8 - 10				
	133.4 ft.	Point Repair Replacement A PEACE OF PVC							
	137.3 ft.	Tap Factory Made			2	3			

90B

144

Access Point Manhole

88 90 B



Defect

	•	Middles	sex VT 05602
t Listing Plot L	eft	8	300-696-0761
Street	Material	Location C	Pipe Use

Pipe Segme	ent Refere	C	City	Street	Mat	erial	Location C	Pipe Use	
		VILLAGE OF	WATERBUR	MAIN ST VITRIFIED C		CLAY PIPE	SANITARY S		
Upstre	am MH	Total	Length	Year Constructed	Sh	ape	Location	n Details	
90)B				CIRC	CIRCULAR			
Downstr	eam MH	Length	surveyed	Year Renewed	Height	Width	Pipe Joint		
8	8	92.2			6	6			
SPR	6	MPR	0	PO Number				Customer	
SPRI	2	MPRI	0						
				Work Order Numl	ber	Purpose			
QSR	3121	QMR	0000			ROUTINE ASSESSMENT		VENT	
Ol	PR	Surve	yed By	Direction Da		Date Media lab		a label	
(6	E	EM	DOWNSTREAM	2017	0524			
OF	PRI	Certificat	e Number	Pre-Cleaning	Ti	me	Weather		
:	2	U-1016-07005746		LIGHT CLEANING	08	:39	DRY - NO P		
		Date 0	Cleaned		End	Time	Additio	nal Info	
					08	:58			

				08:56			
	90B						
\ \\ \\ /\		Code:	Conti	nuous: Pos:	Val 1 / 2 :	% :	Gallons:
	0.0 ft.	Access Point Manhole 88					
	0.0 ft.	Miscellaneous Water Level				5	
1	14.4 ft.	Crack Circumferential		9 - 10			
2	21.0 ft.	Crack Longitudinal	es.				
	22.1 ft.	Point Repair Patch BROKEN PIPE PATCHED		7 - 5			
	30.6 ft.	Tap Factory Made		10	3		
	63.1 ft.	Tap Factory Made		· 2	3		
	77.2 ft.	Tap Factory Made		10	3		
3	87.2 ft.	Crack Multiple		7 - 5			
	92.2 ft.	Access Point Manhole	3				

88



1

2017 MH 91 TO 90

Hartigan Company 31 Welch Park Dr. Middlesex VT 05602 800-696-0761

Defect Listing Plot Left

Pipe Segme	ent Refere	C	ity	Street	Ma	terial	Location C	Pipe Use	
		VILLAGE OF	WATERBUR	MAIN ST	VITRIFIED	VITRIFIED CLAY PIPE		SANITARY S.	
Upstre	am MH	Total	Length	Year Constructed	Sh	ape	Locatio	n Details	
9	91				CIRC	ULAR			
Downstr	ream MH	Length	surveyed	Year Renewed	Height	Width	Pipe Joint		
9	90	12	2.6		6	6			
SPR	0	MPR	1	PO Number			Customer		
SPRI	0	MPRI	1				Purpose		
	·			Work Order Numi	ber	·			
QSR	0000	QMR	1100			RO	OUTINE ASSESSMENT		
O	PR	Surve	yed By	Direction	D	ate	Media	a label	
•	1	EI	EM	DOWNSTREAM	2017	20170524			
OF	PRI	Certificat	e Number	Pre-Cleaning	Ti	me	Weather		
	1	U-1016-07005746		LIGHT CLEANING	10	:38	DRY - NO P		
		Date C	Cleaned		End	Time	Additio	onal Info	
					11	:13			

91	ENTERED GIMIT HEADING NONTH Code: C	Continuous:	Pos:	Val 1 / 2 :	%:	Gallons:
0.0 ft.	Access Point Manhole 91					
0.0 ft.	Miscellaneous Water Level				5	
4.0 ft.	Tap Factory Made		2	3		
6.0 ft.	Tap Factory Made	ad ad a contrar and a contrar	2	3		
44.4 ft.	Tap Factory Made GNENIEL SEN	V1 CE	2	3		
45.8 ft.	Roots Fine Joint		3			
45.8 ft.	Tap Factory Made		10	3		
81.3 ft.	Tap Factory Made		10	3		
98.0 ft.	Tap Factory Made		2	3		
122.6 ft.	Miscellaneous Survey Abandoned AT THE LIMIT OF PUSH CAMERA					

) 90 SIDFT



Inspection report

Date: 20111130	P.O.#:	Weather: 1 Dry	Surveyed By: DEH	section number:	PSR:
Total Pipe Length:	Survey Customer: Waterbury, VT	System Owner: Waterbury, VT	Clean Date:	Pre-Cleaned: J Jetting	Map Grid #:

 Street:
 Main Street
 Flow Control:
 Start MH:
 MH 91

 City:
 Waterbury, VT
 Year Renewed
 End MH:
 MH 90

 Location Code:
 Tape/Media #:
 1
 Total length:
 244.1 ft

Purpose: Dia/Height: C Circular 6"/6"

Use: SS Sanitary Material: AC Asbestos Cement Pipe length: 13ft Lining:

Drain. Area: Category:

Comment: Location details:

1 600	nosition	code observation	

1:600	position	code	Observation	MPEG	photo	gr
	0.00	АМН	Downstream Manhole, Survey Begins	00:00:00		
~/	0.00	MWL	Water Level, 5 % of cross sectional area	00:00:00		
MH 91	5.00	TFA	Tap Factory Made Active, at 03 o'clock, 4", within 8 inch: YES, Remark: Steady Clear Flow	00:00:45	40a, b	
	7.00	TFD	Tap Factory Made Defective, at 03 o´clock, 4", within 8 inch: YES, Remark: Service seperating from main line	00:02:34	41a, b	M
	41.00	MMC	Material Change, VCP Vitrified Clay Pipe	00:08:16		
	49.20	JOM	Joint Offset Medium with Roots also at joint	00:08:23	43a, b	s
	49.20	TFC	Tap Factory Made Capped, at 03 o'clock, 6", within 8 inch: YES	00:10:45	44a, b	
	49.20	TFC	Tap Factory Made Capped, at 09 o'clock, 6", within 8 inch: YES	00:11:43	45a, b	
	56.10	СМ	Crack Multiple, from 03 to 05 o'clock, within 8 inch: YES	00:12:48	46a	s
	84.10	TFA	Tap Factory Made Active, at 09 o'clock, 4", within 8 inch: YES	00:14:47	47a, b	
	96.90	CL	Crack Longitudinal, at 01 o'clock, within 8 inch: YES	00:15:55	48a	S
	101.20	TFC	Tap Factory Made Capped, at 03 o'clock, 4", within 8 inch: YES	00:16:31	49a, b	
	137.40	TFC	Tap Factory Made Capped, at 03 o'clock, 4", within 8 inch: YES	00:18:35	50a, b	
/	159.90	cc	Crack Circumferential, from 11 to 04 o'clock, within 8 inch: YES	00:21:04	51a	s
\mathbb{T}	<u>173.10</u>	TFC	Tap Factory Made Capped, at 09 o'clock, 4", within 8 inch: YES	00:22:29	52a, b	
	175.10	TFD	Tap Factory Made Defective, at 03 o'clock, 4", within 8 inch: YES, Remark:	00:23:16	53a, b	M
$-\Pi \mathcal{J}$	176.00	CM	Hole at 12 o clock inside service Crack Multiple, from 03 to 05 o'clock, within 8 inch: YES	00:23:49	54a	s
	199.20	cc	Crack Circumferential, from 07 to 12 o'clock, within 8 inch: YES	00:25:16	55a	s
	208.60	СМ	Crack Multiple, from 10 to 02 o'clock, within 8 inch: YES	00:25:49	56a	S
	212.80	TFA	Tap Factory Made Active, at 09 o'clock, 4", within 8 inch: YES	00:26:20	57a, b	
	240.00	TFC	Tap Factory Made Capped, at 03 o'clock, 4", within 8 inch: YES	00:27:48	58a, b	
	244.10	JOL	Joint Offset Large, Remark: Fernco Fitting	00:28:39	59a	s
	244.10	MMC	Material Change, PVC Polyvinyl Chloride	00:30:24	60a	
	244.10	MSA	Survey Abandoned, Remark: Due to large offset joint in pipe	00:30:59	61a	

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
3322	2200	16	4 ///	20	2	2	2
00 44 0044							