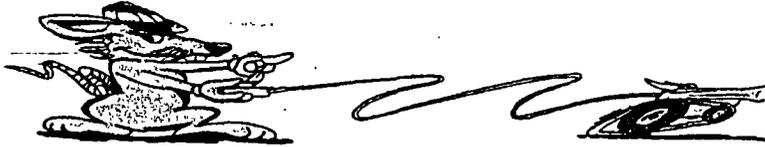


**MPI**  
**MARTIN'S**  
PIPELINE INSPECTION  
**859-987-2529**



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Case No. 2014-0009

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## Cedar Brook

**MARTIN'S PIPELINE INSPECTION**

PO BOX 5343  
PARIS, KY 40362-5343  
PHONE (859) 987-2529  
FAX (859) 987-2583

Note: Neal Buchanan

859-983-8605

CAMERA & VAC

Performed camera work and prepared  
this report re Cedarbrook 1-2006



**MARTINS PIPELINE INSPECTION**  
 113 WEST 2ND STREET  
 PARIS, KY 40513  
 Tel 859-987-2529, Fax 859-987-2583

## PROJ INFO

PROJ NAME:  
CedarBrook

PROJECT NUM:

RESPONSIBLE:  
R.A. Williams

DATE:  
01/24/2006

CLIENT: CedarBrook WWTP

RESPONSIBLE: R.A. Williams

DEPARTMENT: Owner

PO BOX:

STREET:

CITY, ST ZIP:

TELEPHONE: 502-693-8634

FAX:

MOBILE:

E-MAIL:

PROJ MGR

RESPONSIBLE:

DEPARTMENT:

PO BOX:

STREET:

CITY, ST ZIP:

TELEPHONE:

FAX:

MOBILE:

E-MAIL:

CONTRACTOR: MARTINS PIPELINE INSPECTION

RESPONSIBLE:

DEPARTMENT: TV INSPECTION

PO BOX: 5314

STREET: 113 WEST 2ND STREET

CITY, ST ZIP: PARIS, KY 40513

TELEPHONE: 859-987-2529

FAX: 859-987-2583

MOBILE: 859-983-8603

E-MAIL:



**MARTIN'S PIPELINE INSPECTION**  
 113 WEST 2ND STREET  
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 Tel. 859-987-2529, Fax. 859-987-2583

## RATING LEGEND

<b>PROJ NAME:</b> CedarBrook	<b>PROJECT NUM:</b>	<b>RESPONSIBLE:</b> R.A. Williams	<b>DATE:</b> 01/24/2006
---------------------------------	---------------------	--------------------------------------	----------------------------

**1:** Occurances without damage: for example, laterals, joints etc.

**NO DEFECTS WERE DETECTED.**

**2:** Constructional deficiencies or occurances with insignificant influence to tightness, hydraulic or static pressure of pipe: f.e. wide joints, badly torched intakes, minor deformation of plastic pipes, minor erosions etc.

**REHABILITATION CAN BE SCHEDULED LONG-TERM.**

**3:** Constructional deficiencies diminishing static, hydraulic and tightness: f.e. open joints, untorched intakes, cracks, minor drainage obstructions such as calcide build ups, protruding laterals, minor damages to pipe wall, individual root penetrations, corroded pipe walls etc.

**REHABILITATION IS NECESSARY MEDIUM-TERM WITHIN 3 TO 5 YEARS.**

**4:** Constructional damages with nonsufficient static safety, hydraulic or tightness: f.e. axial/radia! pipebursts, pipe deformations, visually noticeable infiltration/exfiltration, cavities in pipe-wall, severe protruding, laterals severe root penetrations, severe corrosion of pipe wall etc.

**REHABILITATION PROCEDURE IS URGENT AND HAS TO BE COMPLETED WITHIN 1 TO 2 YEARS. NECESSITY FOR EMERGENCY OPERATIONS HAS TO BE EXAMINED.**

**5:** Pipe is already or will shortly be impermeable: f.e. collapsed pipe, deeply rooted pipe or other drainage obstructions. Pipe loses water or danger of backwater in basements etc.

**REHABILITATION IS URGENT AND SHORT-TERM. IN ORDER TO PREVENT FURTHER DAMAGE, NECESSARY TEMPORARY SPOT REPAIR HAS TO BE CONDUCTED ON EMERGENCY LEVEL.**



MARTINS PIPELINE INSPECTION  
 113 WEST 2ND STREET  
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# INSPECTION REPORT

DATE: 01/24/2006	WORK #:	WEATHER: cloudy	OPERATOR: Scott Fleming	SECTION NR: 1	SECTION NAME:
PRESENT:	VEHICLE: TV-1	CAMERA: Zoom	PRESET:	CLEANED: No	RATE: 520

STREET: CedarBrook	MAP #1:	MH: 5
CITY: Cynthlana	MAP #2:	MH: 10
LOCALE: street area	TAPE #: Tape-1	TV'D LGTH: 90.2 ft

INSPECT REASON: gen. condition control	PIPE SIZE: 8"
SECTION TYPE: waste	MATERIAL: ceramics JT LGTH: 3ft
AREA:	LINING:
	RSRVD:

REMARK:

1:225	POSITION	CODE	OBSERVATION	MPEG	PH	RATE
	0.00	0	Inspection begins at downstream manhole			0
	19.40	360	service connection with roots heavy, at 09 o'clock	00:01:38		0
	72.20	160	service connection with roots light, at 09 o'clock	00:04:08		1
	84.30	0	service connection, at 03 o'clock	00:04:57		0
	88.70		roots in line	00:05:29		
	90.20	0	camera blocked, inspection abandoned	00:06:13		0



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# INSPECTION REPORT

DATE: 01/24/2006	WORK #:	WEATHER: cloudy	OPERATOR: Scott Fleming	SECTION NR: 2	SECTION NAME:
PRESENT:	VEHICLE: TV-1	CAMERA: Zoom	PRESET:	CLEANED: No	RATE: 0

STREET: Kingsbury	MAP #1:	MH: 10A
CITY: Cynthiana	MAP #2:	MH: 11
LOCALE: street area	TAPE #: Tape-1	TVD LGTH: 305.1 ft

INSPECT REASON: gen. condition control	PIPE SIZE: 8"
SECTION TYPE: waste	MATERIAL: ceramics JT LGTH: 3ft
AREA:	LINING:
	RSRVD:

REMARK:

1:750	POSITION	CODE	OBSERVATION	MPEG	PH	RATE
	0.00	0	inspection begins at downstream manhole			0
	79.80	0	service connection, at 03 o'clock	00:03:12		0
	81.90	0	service connection, at 09 o'clock	00:03:32		0
	149.70	0	service connection, at 03 o'clock	00:05:59		0
	161.80	0	service connection, at 09 o'clock	00:06:43		0
	231.40	0	service connection, at 09 o'clock	00:09:14		0
	293.70	0	service connection capped, at 03 o'clock	00:11:44		0
	304.00		roots in manhole	00:12:31		
	305.10	0	inspection ends at upstream manhole	00:13:11		0



MARTINS PIPELINE INSPECTION  
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# INSPECTION REPORT

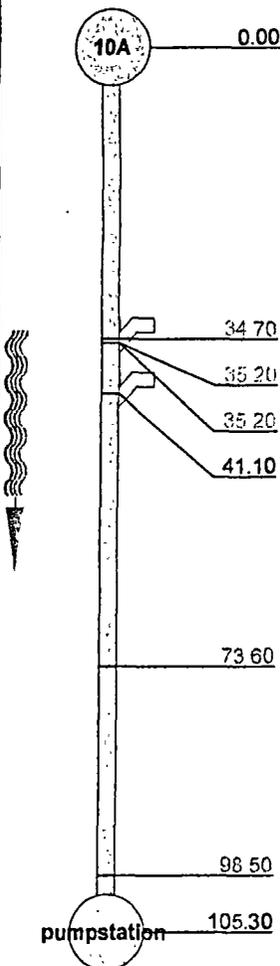
DATE: 01/24/2006	WORK #:	WEATHER: cloudy	OPERATOR: Scott Fleming	SECTION NR: 3	SECTION NAME:
PRESENT:	VEHICLE: TV-1	CAMERA: Zoom	PRESET:	CLEANED: No	RATE: 1865 ....

STREET: Kingsbury	MAP #1:	MH: 10A
CITY: Cynthiana	MAP #2:	MH: pumpstation
LOCALE: street area	TAPE #: Tape-1	TVD LGTH: 105.3 ft

INSPECT REASON: gen. condition control	PIPE SIZE: 8"
SECTION TYPE: waste	MATERIAL: ceramics JT LGTH: 3ft
AREA:	LINING:
	RSRVD:

REMARK:

1:275	POSITION	CODE	OBSERVATION	MPEG	PH	RATE
	0.00	0	inspection begins at upstream manhole			0
	34.70	575	service connection with infiltration gushing around, at 09 o'clock	00:01:37		4
	35.20	500	pipe broken at joint at 09 o'clock	00:02:11		3
	35.20	320	Infiltration Running at joint at 09 o'clock	00:02:12		3
	41.10	0	service connection capped, at 09 o'clock	00:02:33		0
	73.60	220	Infiltration Seeping at joint at 09 o'clock	00:04:04		2
	98.50	250	separated joint medium	00:05:10		2
	105.30	0	inspection ends at pumpstation	00:05:56		0





**MARTIN'S PIPELINE INSPECTION**  
 113 WEST 2ND STREET  
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## INSPECTION REPORT

DATE: 01/24/2006	WORK #:	WEATHER: cloudy	OPERATOR: Scott Fleming	SECTION NR: 4	SECTION NAME:
PRESENT:	VEHICLE: TV-1	CAMERA: Zoom	PRESET:	CLEANED: No	RATE: 0

STREET: kingsbury	MAP #1:	-MH: 3
CITY: Cynthiana	MAP #2:	.MH: 4
LOCALE: street area	TAPE #: Tape-1	TVD LGTH: 176.1 ft

INSPECT REASON: gen. condition control	PIPE SIZE: 8"
SECTION TYPE: waste	MATERIAL: ceramics JT LGTH: 3ft
AREA:	LINING:
	RSRVD:

REMARK:

1:450	POSITION	CODE	OBSERVATION	MPEG	PH	RATE
	0.00	0	inspection begins at upstream manhole			0
	15.70	0	service connection, at 03 o'clock	00:01:24		0
	176.10	0	camera blocked, inspection abandoned	00:09:23		0





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## INSPECTION REPORT

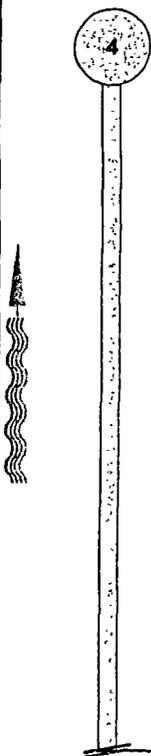
DATE: 01/24/2006	WORK #:	WEATHER: cloudy	OPERATOR: Scott Fleming	SECTION NR: 5	SECTION NAME:
PRESENT:	VEHICLE: TV-1	CAMERA: Zoom	PRESET:	CLEANED: No	RATE: 0

STREET: CedarBrook reverse	MAP #1:	MH: 4
CITY: Cynthiana	MAP #2:	MH: 3
LOCALE: street area	TAPE #: Tape-1	TV'D LGTH: 7.6 ft

INSPECT REASON: gen. condition control	PIPE SIZE: 8"
SECTION TYPE: waste	MATERIAL: ceramics JT LGTH: 3ft
AREA:	LINING:
	RSRVD:

REMARK:

1:25	POSITION	CODE	OBSERVATION	MPEG	PH	RATE
	0.00	0	inspection begins at downstream manhole			0
	7.60	0	inspection abandoned flow to high	00:00:48		0





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# INSPECTION REPORT

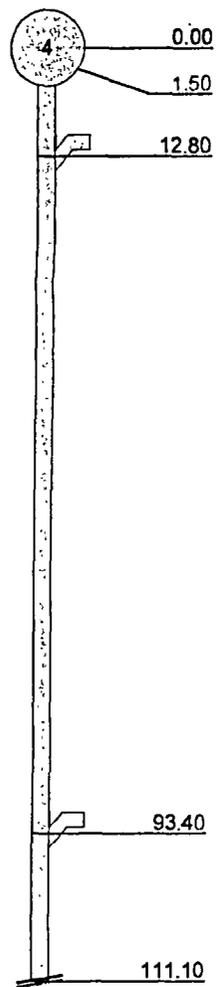
DATE: 01/24/2006	WORK #:	WEATHER: cloudy	OPERATOR: Scott Fleming	SECTION NR: 6	SECTION NAME:
PRESENT:	VEHICLE: TV-1	CAMERA: Zoom	PRESET:	CLEANED: No	RATE: 220

STREET: CedarBrook	MAP #1:	MH: 4
CITY: Cynthlana	MAP #2:	MH: 9A
LOCALE: street area	TAPE #: Tape-1	TVD LGTH: 111.1 ft

INSPECT REASON: gen. condition control	PIPE SIZE: 8"
SECTION TYPE: waste	MATERIAL: ceramics JT LGTH: 3ft
AREA:	LINING:
	RSRVD:

REMARK:

1:275	POSITION	CODE	OBSERVATION	MPEG	PH	RATE
	0.00	0	inspection begins at upstream manhole			0
	1.50	220	Infiltration Seeping at joint at 03 o'clock	00:00:57		2
	12.80	0	service connection, at 10 o'clock	00:01:43		0
	93.40	0	service connection capped, at 09 o'clock	00:04:24		0
	111.10	0	camera blocked, inspection abandoned	00:06:21		0





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# INSPECTION REPORT

DATE: 01/24/2006	WORK #:	WEATHER: cloudy	OPERATOR: Scott Fleming	SECTION NR: 7	SECTION NAME:
PRESENT:	VEHICLE: TV-1	CAMERA: Zoom	PRESET:	CLEANED: No	RATE: 0

STREET: Daisy Court	MAP #1:	MH: 2
CITY: Cynthiana	MAP #2:	MH: 9B
LOCALE: street area	TAPE #: Tape-1	TV'D LGTH: 62.4 ft

INSPECT REASON: gen. condition control	PIPE SIZE: 8"
SECTION TYPE: waste	MATERIAL: ceramics JT LGTH: 3ft
AREA:	LINING:
	RSRVD:

REMARK:

1:175	POSITION	CODE	OBSERVATION	MPEG	PH	RATE
	0.00	0	inspection begins at upstream manhole			0
	30.50	0	service connection, at 09 o'clock	00:01:35		0
	62.40	0	inspection abandoned	00:03:33		0



# INSPECTION REPORT

DATE: 01/24/2006	WORK #:	WEATHER: cloudy	OPERATOR: Scott Fleming	SECTION NR: 8	SECTION NAME:
PRESENT:	VEHICLE: TV-1	CAMERA: Zoom	PRESET:	CLEANED: No	RATE: 950

STREET: Carnation Court	MAP #1:	MH: 1
CITY: Cynthiana	MAP #2:	MH: 8A
LOCALE: street area	TAPE #: Tape-1	TV'D LGTH: 175.6 ft

INSPECT REASON: gen. condition control	PIPE SIZE: 8"
SECTION TYPE: waste	MATERIAL: ceramics JT LGTH: 3ft
AREA:	LINING:
	RSRVD:

REMARK:

1:450	POSITION	CODE	OBSERVATION	MPEG	PH	RATE
	0.00	0	inspection begins at upstream manhole			0
	46.10	0	service connection, at 03 o'clock	00:01:38		0
	88.50	0	service connection, at 09 o'clock	00:03:00		0
	114.30	230	roots medium	00:04:05		2
	124.10	230	roots medium	00:04:41		2
	129.30	130	roots light	00:05:30		1
	140.40	350	service connection with roots heavy at 02 o'clock	00:06:24		3
	175.60	0	inspection ends at downstream manhole	00:08:32		0





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# INSPECTION REPORT

DATE: 01/24/2006	WRK #:	WEATHER: cloudy	OPERATOR: Scott Fleming	SECTION NR: 9	SECTION NAME:
PRESENT:	VEHICLE: TV-1	CAMERA: Zoom	PRESET:	CLEANED: No	RATE: 0

STREET: Carnation Court	MAP #1:	MH: 8A
CITY: Cynthiana	MAP #2:	MH: 8
LOCALE: street area	TAPE #: Tape-1	TVD LGTH: 256.1 ft

INSPECT REASON: gen. condition control	PIPE SIZE: 8"
SECTION TYPE: waste	MATERIAL: ceramics JT LGTH: 3ft
AREA:	LINING:
	RSRVD:

REMARK:

1:625	POSITION	CODE	OBSERVATION	MPEG	PH	RATE
	0.00	0	inspection begins at upstream manhole	00:00:12		0
	112.20	0	service connection, at 09 o'clock	00:03:42		0
	124.20	0	service connection, at 03 o'clock	00:04:36		0
	207.40	0	service connection, at 09 o'clock	00:07:16		0
	256.10	0	inspection ends at downstream manhole	00:09:30		0



**MARTINS PIPELINE INSPECTION**  
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# INSPECTION REPORT

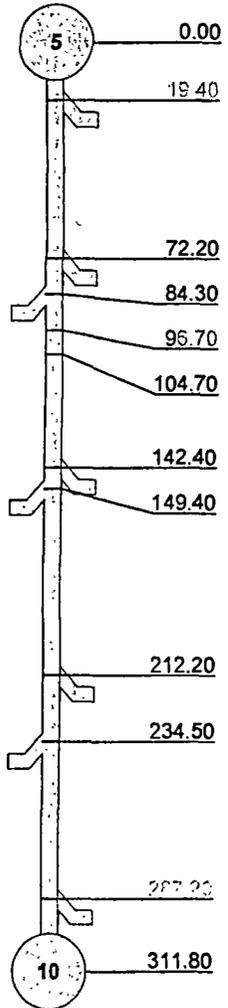
DATE: 01/27/2006	WORK #:	WEATHER: cloudy	OPERATOR: Scott Fleming	SECTION NR: 10	SECTION NAME:
PRESENT:	VEHICLE: TV-1	CAMERA: Zoom	PRESET:	CLEANED: No	RATE: 1080

STREET: Cedarbrook re-tv	MAP #1:	MH: 5
CITY: Cynthiana	MAP #2:	MH: 10
LOCALE: street area	TAPE #: Tape-1	TVD LGTH: 311.8 ft

INSPECT REASON: gen. condition control	PIPE SIZE: 8"
SECTION TYPE: waste	MATERIAL: ceramics JT LGTH: 3ft
AREA:	LINING:
	RSRVD:

REMARK:

1:775	POSITION	CODE	OBSERVATION	MPEG	PH	RATE
	0.00	0	inspection begins at downstream manhole			0
	19.40	350	service connection with roots heavy, at 09 o'clock	00:01:09		3
	72.20	0	service connection, at 09 o'clock	00:03:08		0
	84.30	0	service connection, at 03 o'clock	00:03:45		0
	95.70	230	roots medium	00:04:23		2
	104.70	130	roots light	00:04:48		1
	142.40	0	service connection, at 09 o'clock	00:06:10		0
	149.40	0	service connection, at 03 o'clock	00:06:40		0
	212.20	0	service connection, at 09 o'clock	00:08:59		0
	234.50	0	service connection, at 03 o'clock	00:09:58		0
	267.20	350	service connection with roots heavy, at 03 o'clock	00:12:00		3
	311.80	0	inspection ends at upstream manhole	00:13:37		0





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# INSPECTION REPORT

DATE: 01/27/2006	WORK #:	WEATHER: cloudy	OPERATOR: Scott Fleming	SECTION NR: 11	SECTION NAME:
PRESENT:	VEHICLE: TV-1	CAMERA: Zoom	PRESET:	CLEANED: No	RATE: 0

STREET: Kingsbury re-tv	MAP #1:	MH: 3
CITY: Cynthiana	MAP #2:	MH: 4
LOCALE: street area	TAPE #: Tape-1	TV'D LGTH: 307.2 ft

INSPECT REASON: gen. condition control	PIPE SIZE: 8"
SECTION TYPE: waste	MATERIAL: ceramics JT LGTH: 3ft
AREA:	LINING:
	RSRVD:

REMARK:

1:750	POSITION	CODE	OBSERVATION	MPEG	PH	RATE
	0.00	0	inspection begins at upstream manhole			0
	15.80	0	service connection, at 03 o'clock	00:00:59		0
	196.00	0	service connection, at 03 o'clock	00:07:55		0
	221.80	0	sag begins	00:08:54		1
	307.20	0	inspection ends at downstream manhole	00:14:08		0



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# INSPECTION REPORT

DATE: 01/27/2006	WORK #:	WEATHER: cloudy	OPERATOR: Scott Fleming	SECTION NR: 12	SECTION NAME:
PRESENT:	VEHICLE: TV-1	CAMERA: Zoom	PRESET:	CLEANED: No	RATE: 1630

STREET: Daisy Court re-tv	MAP #1:	MH: 2
CITY: Cynthiana	MAP #2:	MH: 9B
LOCALE: street area	TAPE #: Tape-1	TV'D LGTH: 277 ft

INSPECT REASON: gen. condition control	PIPE SIZE: 8"
SECTION TYPE: waste	MATERIAL: ceramics JT LGTH: 3ft
AREA:	LSRVD:

REMARK:

1:700	POSITION	CODE	OBSERVATION	MPEG	PH	RATE
	0.00	0	inspection begins at upstream manhole			0
	29.30	0	service connection, at 09 o'clock	00:01:29		0
	49.50	130	roots light	00:02:19		1
	59.70	130	roots light	00:03:00		1
	60.80	350	service connection with roots heavy, at 03 o'clock	00:03:17		0
	71.70	130	roots light	00:03:49		1
	147.70	350	service connection with roots heavy, at 03 o'clock	00:05:04		0
	150.20	0	service connection, at 02 o'clock	00:06:31		0
	153.10	0	hole in pipe, at 12 o'clock	00:06:53		0
	174.90	160	service connection with roots light, at 09 o'clock	00:07:54		1
	222.30	350	service connection with roots heavy, at 03 o'clock	00:09:40		0
	277.00	0	inspection ends at downstream manhole	00:12:13		0



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## INSPECTION REPORT

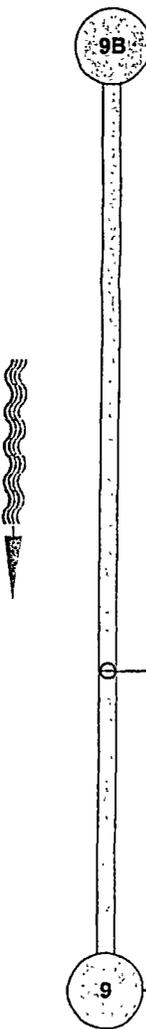
DATE: 01/27/2006	WORK #:	WEATHER: cloudy	OPERATOR: Scott Fleming	SECTION NR: 13	SECTION NAME:
PRESENT:	VEHICLE: TV-1	CAMERA: Zoom	PRESET:	CLEANED: No	RATE: 0

STREET: Daisy Court re-tv	MAP #1:	MH: 9B
CITY: Cynthiana	MAP #2:	MH: 9
LOCALE: street area	TAPE #: Tape-1	TVD LGTH: 132.8 ft

INSPECT REASON: gen. condition control	PIPE SIZE: 8"
SECTION TYPE: waste	MATERIAL: ceramics JT LGTH: 3ft
AREA:	LINING:
	RSRVD:

REMARK:

1:325	POSITION	CODE	OBSERVATION	MPEG	PH	RATE
	0.00	0	inspection begins at upstream manhole			0
	87.90	0	service connection, at 01 o'clock	00:02:51		0
	132.80	0	inspection ends at downstream manhole	00:04:46		0





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# INSPECTION REPORT

DATE: 02/06/2006	WORK #:	WEATHER: cloudy	OPERATOR: Scott Fleming	SECTION NR: 14	SECTION NAME:
PRESENT:	VEHICLE: TV-1	CAMERA: Zoom	PRESET:	CLEANED: No	RATE: 0

STREET: CedarBrook	MAP #1:	MH: 4
CITY: Cynthiana	MAP #2:	MH: 9A
LOCALE: street area	TAPE #: Tape-1	TVD LGTH: 120.2 ft

INSPECT REASON: gen. condition control	PIPE SIZE: 8"
SECTION TYPE: waste	MATERIAL: ceramics JT LGTH: 3ft
AREA:	LINING:
	RSRVD:

REMARK:

1:300	POSITION	CODE	OBSERVATION	MPEG	PH	RATE
	0.00	0	inspection begins at upstream manhole			0
	13.00	0	service connection, at 09 o'clock	00:00:56		0
	93.30	0	service connection capped, at 09 o'clock	00:04:11		0
	94.40	0	multiple fractures from 11 to 0 o'clock	00:08:10		0
	120.20	0	inspection abandoned pipe collapsed outside of manhole.	00:09:32		0