

State of New Hampshire
Department of Environmental Services

Groveton Water Department
Water System Leak Detection Survey Report
2016

Prepared By

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Technical Services

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July 8, 2016

Groveton Water Dept
PWSID# 1781010

The following is a summary of leak detection performed on approximately 20 miles of the Groveton Water Department's water distribution system.

This survey was performed for the State of New Hampshire, Department of Environmental Services, Drinking Water and Groundwater Bureau

The system was surveyed using correlating noise loggers and ground microphones on all portions of the distribution system.

Four leaks were discovered during this survey. The total loss of these leaks is approximately 39.5 to 79 gpm. The actual amounts are to be confirmed during the repair of the leaks.

Main Leaks;

1st Street at Grand View Dr, Leaking 25-50 gpm

47 Brooklyn St, Main or abandoned service leaking 10-20 gpm

Service Leak;

53 Cumberland St, Service Leaking 4-8 gpm

Hydrant Leak;

Hydrant on Odell by Fiske, Hydrant Leaking, 1/2-1 gpm

Respectfully Submitted by Gregory Pyburn

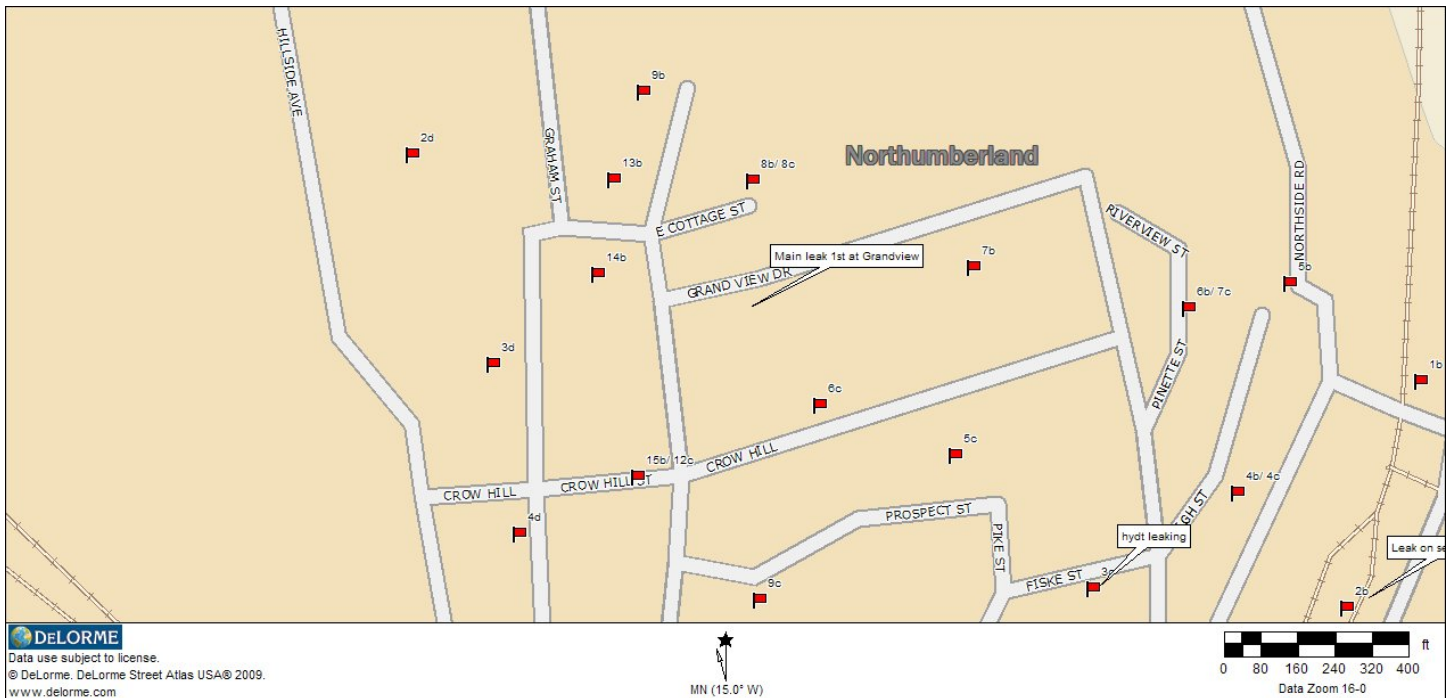
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Leak worksheet

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Date: 7/8/2016

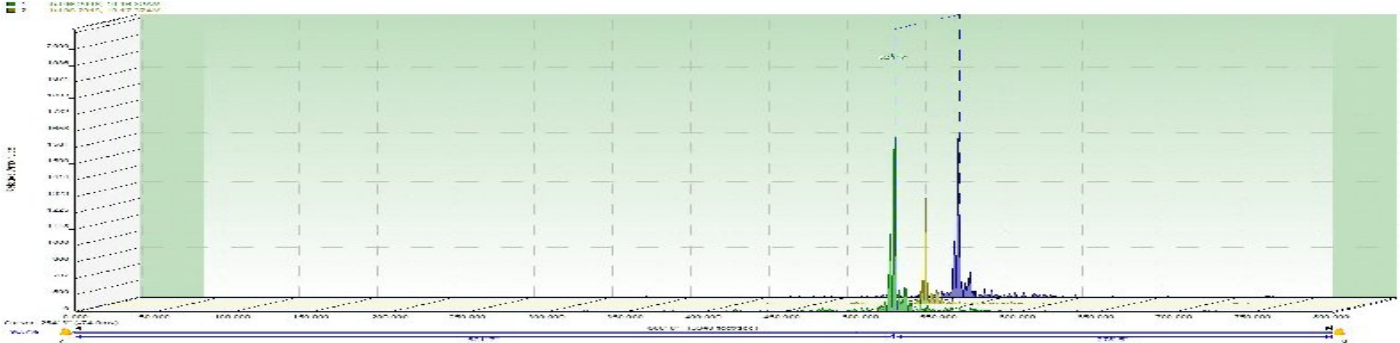
System Name: Groveton Water

Location: 1st Street at Grand View, Main Leaking

Approx. Size: 25-50 gpm, Type of Surface Cover: Asphalt

Pipe Material; CI

Date and Time of detection on Correlation



Pipe ID	Length	Diameter	Material	Sound Velocity
P7	500' 0"	8"	Cast Iron	3940 feet/sec
P8	300' 0"	8"	Cast Iron	3940 feet/sec

Leak ID	Leak Position	Correlation Between	Confidence	Recording Time
L28	52' 1" 7" from 7	7 → 8	96.7%	Jul 06 2016, 10:16:32AM
L29	52' 1" 2" from 7	7 → 8	96.1%	Jul 06 2016, 10:17:32AM
L30	52' 0" 4" from 7	7 → 8	96.3%	Jul 06 2016, 10:18:32AM
L31	52' 0" 5" from 7	7 → 13	92.4%	Jul 06 2016, 10:16:32AM
L32	52' 0" 0" from 7	7 → 13	90.1%	Jul 06 2016, 10:17:32AM
L33	52' 0" 5" from 7	7 → 13	91.4%	Jul 06 2016, 10:18:32AM
L76	52' 1" 7" from 7	7 → 8	96.7%	Jul 06 2016, 10:16:32AM
L77	52' 1" 2" from 7	7 → 8	96.1%	Jul 06 2016, 10:17:32AM
L78	52' 0" 9" from 7	7 → 8	96.1%	Jul 06 2016, 10:18:32AM



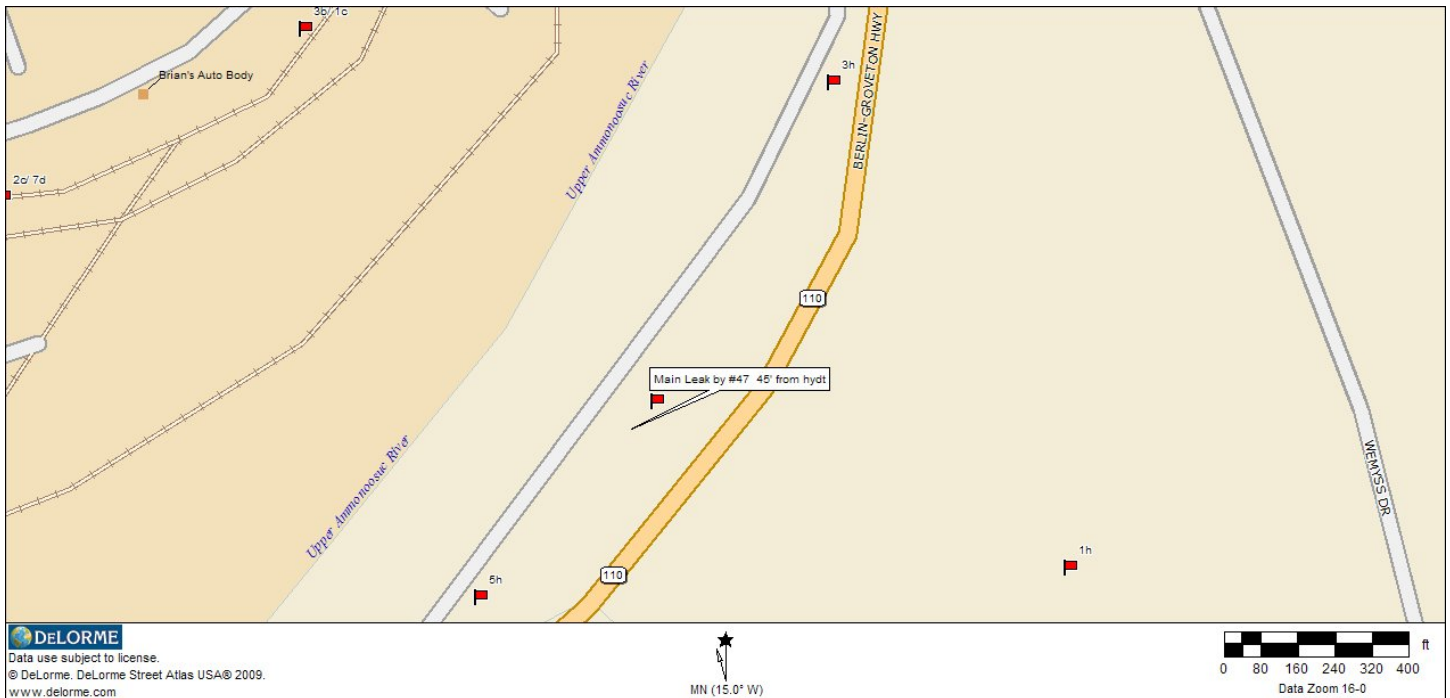
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Date: 7/9/2016

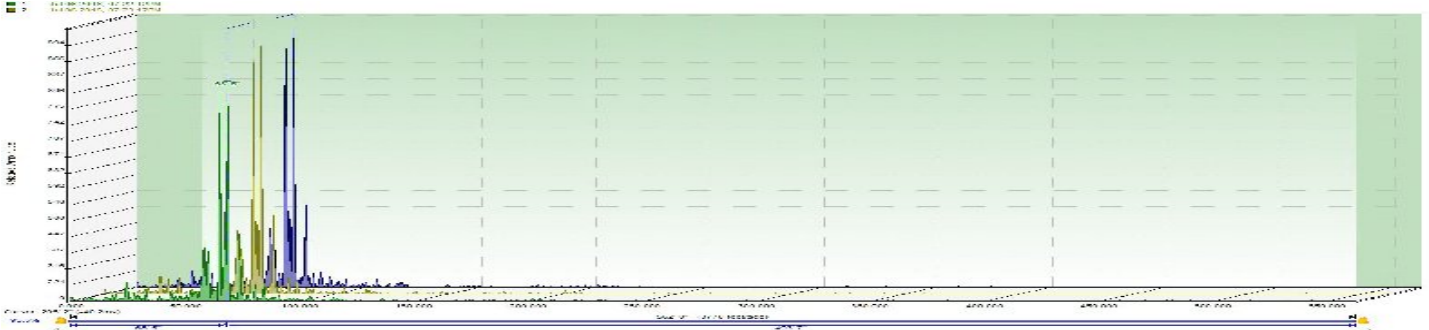
System Name: Groveton Water

Location: 47 Brooklyn St, Main or abandoned service leaking,

Approx. Size: 10-20 gpm Type of Surface Cover: Asphalt

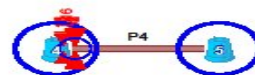
Pipe Material; CI

Date and time of detection on correlation



Pipe ID	Length	Diameter	Material	Sound Velocity
P4	562' 0"	12"	Cast Iron	3770 feet/sec

Leak ID	Leak Position	Correlation Between	Confidence	Recording Time
L13	819' 7" from 3	3 → 5	92.9%	Jul 06 2016, 07:22:12PM
L14	820' 4" from 3	3 → 5	92.8%	Jul 06 2016, 07:23:12PM
L15	819' 11" from 3	3 → 5	92.9%	Jul 06 2016, 07:24:12PM
L16	68' 5" from 4	4 → 5	93.5%	Jul 06 2016, 07:22:12PM
L17	68' 5" from 4	4 → 5	93.8%	Jul 06 2016, 07:23:12PM
L18	67' 12" from 4	4 → 5	93.6%	Jul 06 2016, 07:24:12PM
L61	68' 5" from 4	4 → 5	93.8%	Jul 06 2016, 07:23:12PM
L62	67' 12" from 4	4 → 5	93.6%	Jul 06 2016, 07:24:12PM



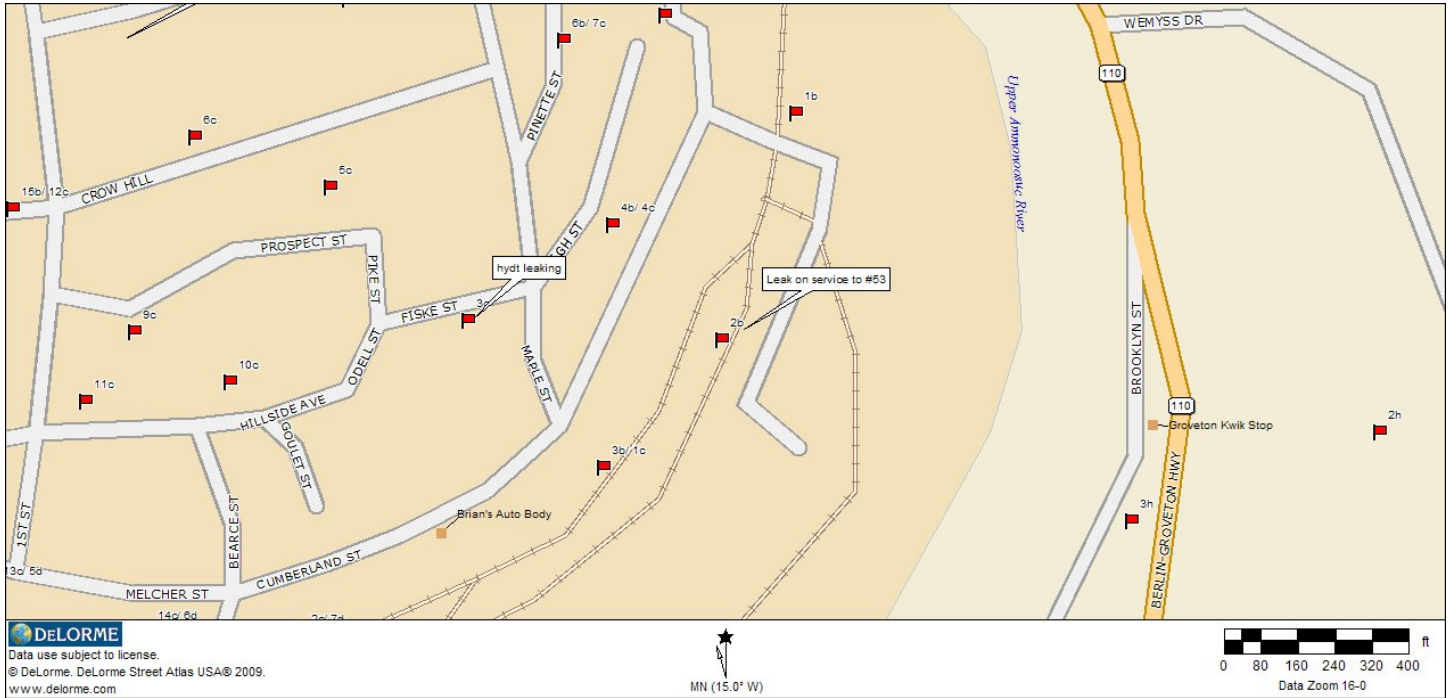
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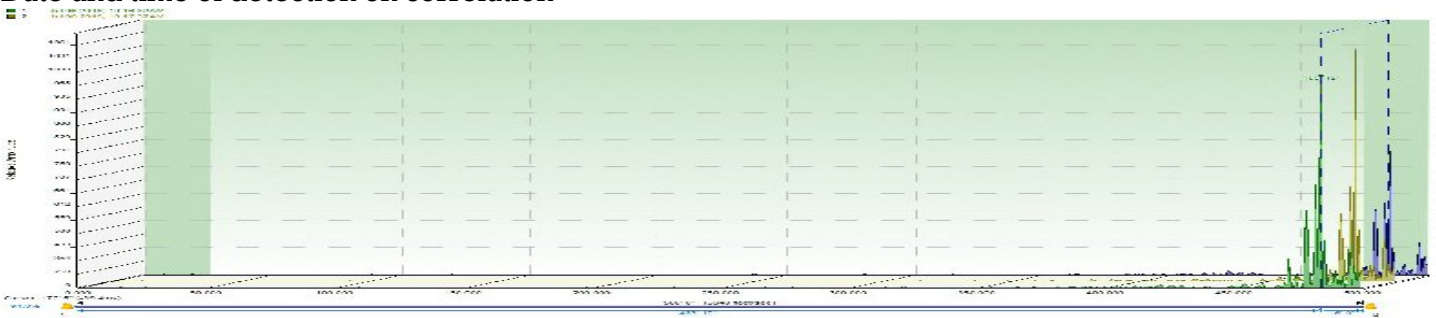
System Name: Groveton Water

Location: 53 Cumberland St, service leaking,

Approx. Size: 4-8 gpm, Type of Surface Cover: mixed

Pipe Material; unknown

Date and time of detection on correlation



Pipe ID	Length	Diameter	Material	Sound Velocity
P1	500' 0"	8"	Cast Iron	3940 feet/sec

Leak ID	Leak Position	Correlation Between	Confidence	Recording Time
L1	483' 12" from 1	1 → 2	94.3%	Jul 06 2016, 10:16:32AM
L2	484' 5" from 1	1 → 2	94.7%	Jul 06 2016, 10:17:32AM
L3	484' 10" from 1	1 → 2	93.6%	Jul 06 2016, 10:18:32AM
L4	469' 8" from 1	1 → 3	94.2%	Jul 06 2016, 10:16:32AM
L5	470' 1" from 1	1 → 3	93.8%	Jul 06 2016, 10:17:32AM
L6	470' 1" from 1	1 → 3	93.3%	Jul 06 2016, 10:18:32AM
L67	483' 12" from 1	1 → 2	94.3%	Jul 06 2016, 10:16:32AM
L68	484' 5" from 1	1 → 2	94.7%	Jul 06 2016, 10:17:32AM
L69	484' 10" from 1	1 → 2	93.6%	Jul 06 2016, 10:18:32AM



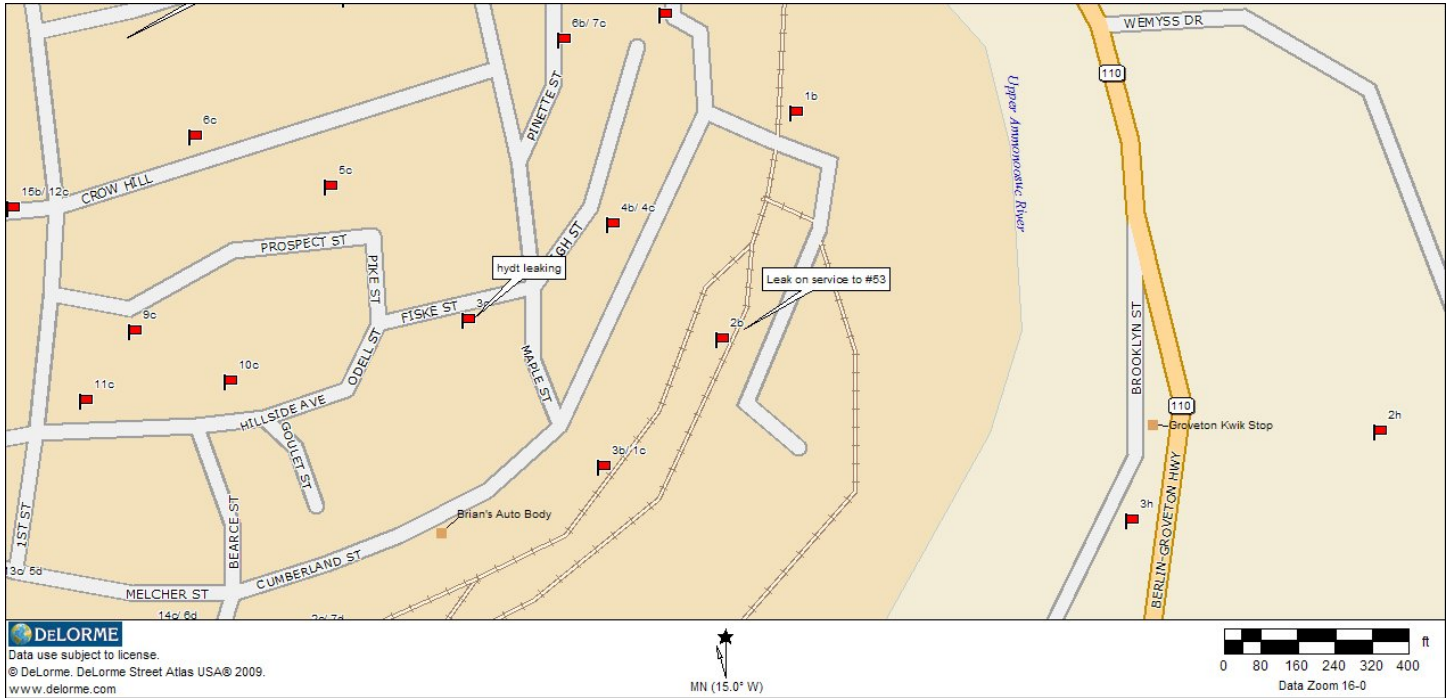
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Date: 7/9/2016

System Name: Groveton Water

Location: Odell by Fiske, Hydrant leaking,

Approx. Size: 1/2-1 gpm, Type of Surface Cover: mixed

Pipe Material; unknown

Detected on review of logger recordings