Jennifer Brooks Hutchinson
Senior Counsel

February 20, 2015

VIA HAND DELIVERY AND ELECTRONIC MAIL

Luly E. Massaro, Clerk
Rhode Island Public Utilities Commission
89 Jefferson Boulevard
Warwick, RI 02888

RE: Docket 4540 – National Grid's Proposed FY 2016 Gas Infrastructure, Safety, and Reliability Plan
Responses to PUC Data Requests – Set 1

Dear Ms. Massaro:

I have enclosed ten (10) copies of National Grid's[1] responses to the PUC's First Set of Data Requests issued in the above-referenced matter.

Thank you for your attention to this transmittal. If you have any questions, please contact me at (401) 784-7288.

Very truly yours,

Jennifer Brooks Hutchinson

Enclosures

cc: Docket 4540 Service List
Steve Scialabba
Leo Wold, Esq.
Jim Lanni
Don Ledversis

[1] The Narragansett Electric Company d/b/a National Grid (National Grid or the Company).

280 Melrose Street, Providence, RI 02907
T: 401-784-7288 ■ jennifer.hutchinson@nationalgrid.com ■ www.nationalgrid.com

Certificate of Service

I hereby certify that a copy of the cover letter and any materials accompanying this certificate was electronically transmitted to the individuals listed below.

Copies of this filing are being hand delivered to the Rhode Island Public Utilities Commission and the Rhode Island Division of Public Utilities and Carriers.

Joanne M. Scanlon

February 20, 2015
Date

Docket No. 4540 - National Grid's FY 2016 Gas Infrastructure, Safety and Reliability (ISR) Plan - Service List 1/8/15

Name/Address	E-mail Distribution	Phone
Raquel J. Webster, Esq. National Grid. 280 Melrose St. Providence, RI 02907	raquel.webster@nationalgrid.com celia.obrien@nationalgrid.com Joanne.scanlon@nationalgrid.com	
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File an original & nine (9) copies w/: Luly E. Massaro, Commission Clerk Public Utilities Commission 89 Jefferson Blvd. Warwick RI 02888	Luly.massaro@puc.ri.gov Todd.bianco@puc.ri.gov Patricia.Lucarelli@puc.ri.gov Sharon.ColbyCamara@puc.ri.gov	401-780-2107
Christopher Kearns, OER	Christopher.Kearns@energy.ri.gov Danny.Musher@energy.ri.gov	

PUC 1-1

Request:

Describe process that National Grid engages in to coordinate with a municipality and how costs are allocated between the municipality and National Grid's ratepayers for all aspects of a project including police details, opening of a street, repaving, etc.

Response:

The Company distributes letters to cities and towns requesting their construction plan for the following year. Public Work Liaison Engineers then follow up with the cities and towns, and review their proposed work and coordinate main relay as needed. A main relay schedule is often driven by the municipality's needs. Typically, the Company works with the municipality to determine the best timeframe and schedule for the coordination of the work. This generally can range from a few weeks to a number of months. Often times, work may be preceded by a pre-construction meeting between the Company and any affected parties. When necessary, the Company's Construction Field personnel may coordinate daily work activities with municipal officials.

Costs are not allocated between the Company and municipalities. Certain costs on Public Works projects may be reimbursable from the Federal government or the state, and these reimbursements are accounted for under the ISR Plan. On non-reimbursable projects, all costs associated with permitting, excavation, installation, abandonment, traffic control, and restoration of facilities consisting mainly of gas mains and services are included in the ISR Plan.

Prepared by or under the supervision of: David G. Iseler

PUC 1-2

Request:

Prior to December 31, 2013, how many miles and what percentage of the distribution system was made up of leak-prone pipe? In the five years prior to December 31, 2013, how many miles and what percentage of leak-prone pipe was replaced?

Response:

As of December 31, 2013, the Company had 1,356 miles of leak-prone pipe, which represents 43 percent of the Company's total distribution system. In the five years prior to December 31, 2013, the Company replaced 221 miles of leak-prone pipe, which represents 14 percent of leak-prone pipe based on 2009 inventory.

Prepared by or under the supervision of: David G. Iseler

PUC 1-3

Request:

Why do replacement footage and unit costs for replacement of cast iron pipe cost more in more populated dense areas? Please identify with explanation and example, how much more.

Response:

In general, the replacement of cast iron pipe and mains costs more in highly populated urban areas because of several key cost drivers.

First, there will usually be more main and service connections required in highly populated urban areas than in more sparsely populated suburban or rural areas. As a result, there will be more streets and buildings that will require the replacement of gas facilities. These include more multi-unit dwellings that require larger (greater than 2") services that need to be replaced in the street, as well as up to the meter.

Second, expanded public safety and Dig-safe measures are necessary in highly populated urban areas that may not be as necessary or are limited in less populated areas. For example, public streets and rights-of-ways in highly populated urban areas include a number of other utility facilities, such as telecommunications, electric, cable, water, sewer, and drains that the Company needs to locate, verify, and protect before gas work can commence. For example, there may be extra test pitting to find other utility facilities and larger excavation holes to offset around these conflicts. Such Dig-safe and public safety measures increase costs to a project. Moreover, excavation will usually need to be performed by hand, instead of other mechanical means, so as not to damage other utility facilities. Such hand excavation work takes more time and is more expensive.

Third, restoration requirements in more urban areas are typically greater because of the presence of sidewalks, thicker asphalt road conditions and reduced ability to install mains off the shoulder of the road in unpaved areas.

Last, because of the higher volume of traffic and public presence in highly populated urban areas, municipal coordination and public safety requires the Company to obtain permits and to hire more traffic control details when a public street is opened and excavation work is being performed. This includes possible permit restrictions on the time and location when gas excavation work can be performed. For example, when gas excavation work is being performed on a high traffic road or adjacent to a municipal building or school, a municipal permit may restrict the Company's work time at the beginning and/or end of the day.

Prepared by or under the supervision of: David G. Iseler

PUC 1-3, page 2

Based on a review of FY14 projects, the cost in predominately cast iron areas is approximately 50 percent greater than bare steel areas.

Prepared by or under the supervision of: David G. Iseler

PUC 1-4

Request:

Describe in detail, National Grid's leak detection program and the various methods used to detect leaks.

Response:

The Company conducts leak detection surveys on the following schedule:

- Leakage Survey / All pipe: Three-year cycle to complete all gas services and main pipeline. (Walking Survey).

In addition, the Company also conducts the following survey activities:

- Winter Frost Patrol Surveys–Determined by the Construction and Maintenance Manager to survey all cast iron and ductile iron mains.
- Cast Iron Encroachments are surveyed daily until any encroachment has been resolved.
- Blasting Survey Areas are surveyed pre- and post-blasting.
- Available Opening Survey: Walking survey within the Business District areas.
  - Conducted during the Winter months: Minimum of (1) completed cycle.
- Business District Survey: (Mobile survey of Business District areas)
  - Conducted during Winter months: Minimum of one (1) completed cycle. (initiated by Leak Survey Supervisor).

Prepared by or under the supervision of: David G. Iseler

PUC 1-5

Request:

Describe in detail the steps that National Grid takes after a leak has been detected.

Response:

Following detection of a leak, Rhode Island Gas Operations investigates and classifies the detected leaks in accordance with "CM6 – Distribution System: Leakage Classification" as provided in Attachment PUC 1-5.

The classification of a leak will determine further actions on the part of the Company, which are listed below:

- **Grade 1:** Grade 1 leaks shall be made safe and monitored daily until the necessary actions are taken to eliminate the Grade 1 leak.

- **Grade 2:** Leaks that are classified as Grade 2 shall be monitored within the 60 days for migration areas that are considered paved and 120 days for migration areas that are not considered unpaved.

- **Grade 2A:** Leaks that are classified as Grade 2A shall be monitored within the 14 days for migration areas that are considered paved and 30 days for migration areas that are not considered unpaved.

- **Grade 3:** Leaks that are classified as Grade 3 shall be monitored within the month of the one-year anniversary that the leak was discovered.

The Company re-checks leaks repaired as follows:

- **Grade 1:** Grade 1 leaks shall be checked the day after and within 30 days of the repair.

- **Grade 2: Leaks with Manhole Readings:**
  Grade 2 Leaks with manhole readings shall be checked within 30 days of the repair.

- **Grade 2A:** Grade 2A leaks shall be checked within 30 days of the repair.
  Data for the surveillance and re-check of leaks is recorded and maintained by the Company. The Company's technicians are required to take appropriate action if the classification of the leak subsequently changes.

Prepared by or under the supervision of: David G. Iseler

C M 6

Distribution Systems: Leakage Classification Revision Date: April 28, 2008

Contents:

References:

49 CFR, Part 192
Operating and Maintenance Plan Operator Qualification

1	**Scope** This standard prescribes the Company criteria for assigning priority designations (classification) to known gas leaks in the Company's gas system.
2	**General** Known leaks in the Company's gas system shall be classified only by qualified persons using appropriate and calibrated leak detection equipment. Guidelines for leak classification are provided in the classification guide. The judgment of the operator personnel at the scene is of primary importance in determining the grade assigned to the leak.
3	**Leak Classification Requirements:** **Grade 1** A leak that represents an existing or probable hazard to persons or property, and requires immediate repair or continuous action until the conditions are no longer hazardous. Action Criteria: Requires prompt action to protect life and property, and continuous action until the conditions are no longer hazardous. Prompt action in some instances may require one or more of the following: - Implementation of emergency plan. - Evacuating premises. - Blocking off an area. - Rerouting traffic. - Eliminating sources of ignition. - - - - -

C M 6

Distribution Systems: Leakage Classification Revision Date: April 28, 2008

	- Venting the area by removing manhole covers, bar holing, installing vent holes, or other means identified by the company as acceptable. - Stopping the flow of gas by closing valves or other means. - Notifying police and fire department personnel if forced entry is necessary. **Grade 2A & 2** – Leaks that are recognized as being non-hazardous at the time of detection, but justify repair based upon probable future hazard. Action Criteria: The leak repair schedule should be based considerations of the severity and history of the leak. In determining the repair priority, criteria such as the following should be considered: - Amount of migration of gas. - Proximity of gas to buildings and subsurface structures. - Extent of pavement. - Soil type and soil conditions (such as frost cap, moisture and natural venting). Grade 2 leaks may vary greatly in the degree of potential hazard. Grade 2A leaks generally require more immediate action than Grade 2 leaks based upon the above referenced criteria. **Grade 3** –A leak that is non-hazardous at the time of detection and can be reasonably expected to remain non-hazardous.
4	**Records** The Company shall maintain documentation of the leak in the form of electronic, paper, or other storage media accepted by the company.

PUC 1-6

Request:

Provide a list of all costs related to the police details required as part of completing work under the Gas ISR Plan for the last fiscal year. Break down these costs by category of work and include how much a flagger costs the Company for traffic details. For all categories, please specify if costs differ by municipality.

Response:

Please see the chart below for a breakdown of traffic control costs (police details and flaggers) for FY 2014.

GAS ISR Category		FY2014
Proactive Main		
	Leak Prone Pipe	$2,353,881
Public Works		
	City State Construction - Non-Reimbursable	$192,955
	City State Construction - Reimbursable	$147,227
Mandated		
	BS HP Leak-prone Services	$68,432
	CI Joint Encapsulation	$693
	Leaks	$509,174
	Non-Leaks / Other	$249,557
Reliability		
	Control Line Integrity Program	$2,783
	Gas Planning	$21,913
	I&R Reactive Programs	$8,304
	Pressure Regulating facilities	$29,882
FY 2014 TOTAL		**$3,584,802**

Of that total, the Company spent $1,090,967 for flaggers. The flaggers are hired directly by the Company's contractors.

Prepared by or under the supervision of: David G. Iseler

PUC 1-7

Request:

With regard to the 11 new hires in FY2015, provide a breakdown of the $400,000 included in the prior ISR docket, the date upon which these 11 hires were fully trained and operational and specify the additional miles of main that were able to be replaced as a result of the additional personnel.

Response:

For FY 2015 year-to-date, the Operations and Maintenance expense associated with the 11 hires is $340,000 of the $400,000 budgeted for FY 2015.

The 11 Meter Services Representatives were hired between March 3, 2014 and May 19, 2014. The Meter Services Representative position is the entry level position in the Customer Meter Services organization. After a six-month training period, Meter Services Representatives perform the limited job duties of the position independently. During this time, they also act as a second person to a two-man crew on the main replacement project. The next step in the job progression for Meter Service Representatives is to the position of Meter Service Technician. An employee trained as a Meter Service Technician can perform the work independently. The 11 new hires have now been promoted to the higher level Meter Service Technician position.

The Company does not track miles of main replacement by specific technician. Rather, for FY 2015, the 11 new employees were hired to support an increase in the Proactive Main Replacement Program to 53 miles of main replacement (an increase of 3 miles as compared to FY 2014) and an increase in the Public Works Main Replacement Program to 7 miles of main replacement (an increase of 4 miles as compared to FY 2014).

Prepared by or under the supervision of: David G. Iseler

PUC 1-8

Request:

The 2016 ISR budget includes an additional $160,000 to hire, train and supervise additional FTEs to support an increase in Main Replacement work for FY 2016.

a. Please indicate the number of FTEs to be hired and identify how the $160,000 will be allocated among those hired.

b. Please provide job descriptions.

c. Please explain when these FTEs will be fully trained and able to begin work and provide a detailed training schedule.

d. Are the additional FTEs being hired for a single year or on a permanent basis? If hired on a permanent basis, how will those positions be funded in subsequent years?

e. Identify any similar positions that are funded through base distribution rates.

f. Please confirm that these FTEs will support Main Replacement work only in National Grid's Rhode Island territory.

Response:

a. The Company would hire an additional five employees to support the increased workload summarized in the proposed FY 2016 Gas ISR Plan.

- Cost per FTE = $100,000
- CapEx/OpEx Split Factors = 65% / 35%
- 20% Overtime Estimate per FTE

b. Please see Attachment PUC 1-8-b for a copy of the job description for a Meter Service Technician. Upon reaching the Meter Service Technician level, new hires would perform the work independently. As described in Attachment PUC 1-8-b, the requirements of the Meter Service Technician are as follows:

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- Perform Emergency Response (i.e., Gas leaks, carbon monoxide leaks, No Gas)
- Perform Leak Investigation
- Perform Turn On and Off
- Perform Change/Remove/Set Meter
- Perform Residential and Commercial Fitting work & associated regulator work
- Investigate metering conditions
- Wires down
- Perform field training as directed by the Company
- Perform all duties of lower classifications

The incremental hires for main replacement projects will be assigned daily to pipe fitting work, such as building headers, setting meters, and lighting appliances.

c. In general, a new Meter Service Technician completes nine months of training before performing work independently.

d. The five employees will be hired on a permanent basis. The funding for these positions would be included each year in subsequent Gas ISR Plan filings until the Company files its next general rate case.

e. These positions are incremental and are not included in distribution rates.

f. These FTEs will support Main Replacement work only in National Grid's Rhode Island territory.

<< Only Local 310B members are eligible to bid on this posting >>

NOTICE OF LOCAL VACANCY

To the Employees of National Grid

Posting Number:	310B-116
Posting Date:	May 21 2014
Position:	Meter Service Technician- 2 positions
Department:	Customer Meter Services
Location:	Melrose, St Providence
Wage:	$ 19.89 to $ 35.06

Trial Period: Applicants must demonstrate proficiency of tasks within 45 calendar days or return to former classification if available. A trial period does not apply for this position for an employee that has previously held a comparable position within Field Operations. A vacancy shall be filled by the selection of the senior applicant, as determined by the seniority provisions within the collective bargaining agreement, who has the minimum qualifications for trial.

Progression: Promotion to CMS Meter Service Technician will be through the Meter Service Representative position or previously rated as class C or above. Prior to being awarded a promotion to CMS Meter Service Technician, an employee must have successfully demonstrated the qualifications of Meter Service Representative.

Qualifications:

- Must have high school education or the equivalent.
- Must have good mechanical aptitude and ability, high degree of dependability, and capable of exercising good judgment.
- Must have the ability to perform physically demanding CMS related activities.
- Must pass Company physical and qualification tests to enter Department
- Must have valid driver's license and be an approved driver of Company vehicles.
- Must be able to work shifts.
- D.O.T drug testing is a requirement for this position.

Requirements of Job:

- Perform Emergency Response (i.e. Gas Leaks, CO, No Gas)
- Perform Leak Investigation
- Perform Turn On & Off
- Perform Change/remove/set meter
- Perform Inspect Regulator
- Perform Residential and Commercial Fitting work & associated regulator work
- Investigate metering conditions
- Clear gas service freeze ups & blockages
- Storm restoration
- Perform field training as directed by the Company
- Perform all duties of lower classifications.

Applications must be made in writing to Monica Castillo, Employee & Labor Relations
WITHIN seven (7) days from the date of this posting. Closing date: May 29, 14
Interoffice Mail: E1.412, Reservoir Woods, Waltham
E-mail: Monica.castillo@nationalgrid.com
Fax: 315-460-8687

PUC 1-9

Request:

What is the total dollar amount that has been collected for the Gas Pilot Expansion Program since its inception? What percentage and dollar amount of those funds have been expended to date? Please list each project, the number of customers served, miles of extension, and the associated cost of each project.

Response:

As of February 2015, the Gas Expansion Pilot Program has collected $12,750 for applications received from customers requesting service. 100% of that amount was applied towards the completed projects. The status of and details of each project is as follows:

Project	Status	Town	No. Prospects	Applications	Main [Mile]	Actual Cost	
Cranston Pilot Project	Complete	Cranston	266	34	3.26	$926,647	
Brenton woods. Cortland	Complete	Cranston	32	24	0.31	$130,239	
Vista Dr, Diane Dr, Leahy St.	Complete	E. Providence	43	15	0.44	$125,331	
Kickemuit Av,Amy Ct,Amy Dr.	Feb/ March	Bristol	25	6	0.28	$300,311	*est*
Mountain Laurel Dr, Cranston	Complete	Cranston	19	6	0.17	$30,602	
Meadowsweet Trail,	Complete	Narragansett	10	6	0.08	$70,000	*est*
		Total	395	91	4.54	$1,583,130	

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PUC 1-10

Request:

For Proactive Main Replacement Program, how many requests did the Company receive in FY2015. Of those requests, how many were satisfied?

Response:

The Company identified 190 main replacement projects for completion as part of its ProActive Main Replacement Program. As of February 10, 2015, 182 projects are complete or in-progress. Details on the entire fiscal year 2015 results will be made available in the year-end reconciliation report.

Prepared by or under the supervision of: David G. Iseler

PUC 1-11

Request:

Please update the table in the previous ISR docket which summarizes the total spending, total installed footage, total abandoned footage, and total project count for the Proactive Main Replacement Program for FY2015.

Response:

The table below summarizes the total spending, total installed footage, total abandoned footage, and total project count for the Proactive Main Replacement Program for FY 2012, FY 2013, FY 2014 and FY 2015 (through December 31, 2014).

	FY 2012	**FY 2013**	**FY2014**	**FY 2015 thru Dec 31**
Total Spending	$26.0M	$32.1M	$41.8M	$32.1M
Total Installed Footage (miles)	41.7	50.9	52.5	45.5
Total Abandoned Footage (miles)	45.9	45.9	48.2	36.5
Total Project Count (completed or in progress)	145	162	166	185

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PUC 1-12

Request:

Please provide reimbursement data for Public Works projects for FY2015. How much does the Company anticipate receiving in reimbursements in FY2016? What percentage is that of Company's total cost of a project?

Response:

As of December 31, 2014, the Company has spent $1,217,000 on reimbursable Public Works projects for FY 2015. Of that amount, the Company has received $608,000 (approximately 50 percent) in reimbursements for the same time period. The Company has budgeted for a capital investment of $1,327,000 for reimbursable Public Works projects and an equal amount for reimbursements in FY 2016.

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PUC 1-13

Request:

With regard to Reactive Main Replacement:

a. how many requests have been made in this category in FY2015,
b. where were the replacements made, and
c. what was the amount expended?

Response:

a. The Company has received one request in the Reactive Main Category for FY 2015 to date.

b. The Company replaced 212 feet of main on Farwell Street in Newport.

c. The replacement project cost was $161,000.

Prepared by or under the supervision of: David G. Iseler

PUC 1-14

Request:

With regard to the Water Intrusion Program:

a. how many requests have been made in this category in FY2015,
b. where were the replacements made, and
c. what was the amount expended?

Response:

a. The Company identified two areas for investigation and remediation to address water intrusion issues in FY 2015.

b. The two projects are currently scheduled for replacement during FY 2016. The replacements will be made on Hope Street, Bristol and Sandra Court, Bristol.

c. The amount expended through December 31, 2014 in this category is approximately $4,000.

Prepared by or under the supervision of: David G. Iseler

PUC 1-15

Request:

With regard to the Gas Planning Program and the four projects identified for FY 2016, please provide a breakdown of the $1.50 million requested, the commencement date of each project, the anticipated completion date of the project, and the type of work that will be performed.

Response:

Please see the chart below:

Type of Work	**Estimated Cost**	**Estimated Start Date**	**Estimated Project Duration**
Project involves the replacement of approximately 3,015 feet of 4-inch low pressure main with 2-inch and 4-inch 60 pounds-per-square inch (psig) high pressure plastic main in the Griswold Avenue/Fesser Avenue area of Bristol. This work will allow the low pressure regulator station at the intersection of Wood St and Woodlawn Avenue, which is prone to flooding, to be abandoned.	$385,300	2nd Quarter	8 weeks
Project involves the replacement of approximately 3,420 feet of 4-inch and 6-inch low pressure main with 2-inch and 4-inch 8 psig plastic main on Ledge Rd, Mulberry Rd, Shore Rd, Clifton Rd, Greylock Rd, Crest Rd, and Fales Rd, Bristol. This work, which eliminates a small isolated low pressure distribution system, will allow the Gibson Rd low pressure district regulator to be abandoned.	$388,500	2nd Quarter	8 weeks
Project involves the installation of approximately 1,180 feet of 4-in 35 psig plastic main on Division St, East Greenwich. This work will provide a secondary source of gas to an isolated 30 psig system solely supplied by the district regulator located at the intersection of Division St and Route 2.	$235,410	3rd Quarter	2 weeks
Project involves the replacement of approximately 100 feet of 12-inch and 16-inch 99 psig high pressure steel main with 20-inch 99 psig high pressure steel main at the Manchester St, Providence take station. Also includes associated engineering and labor work not covered by Spectra at the take station. This work will allow pipeline gas to be supplied by Spectra at Manchester St to be injected into the Providence 99 psig distribution system, reducing the dependency on LNG operations at Allens Avenue to support system pressures.	$465,790	3rd Quarter	8 weeks
Engineering costs associated with 2016 projects	$25,000	N/A	N/A
Total	**$1,500,000**		

Prepared by or under the supervision of: David G. Iseler

PUC 1-16

Request:

With respect to National Grid's Company Procedure ENG04030 for identifying, evaluating, and prioritizing gas main segments for replacement, please provide digital spreadsheets for years 2004 to present, with main segments indexed in rows, and columns with the following data:

a. Main material,
b. Main vintage, if known,
c. Main deterioration factor, "D,"
d. Incident probability factor, "P,"
e. Consequence factor, "C,"
f. Risk factor, "R,"
g. Preliminary prioritization factor, "Pr,"
h. Public works factor, "PW,"
i. Reinforcement factor, "RI,"
j. Distribution integrity management program factor, "IM,"
k. Any other adjustments affecting final prioritization,
l. Final prioritization factor, "PrF"
m. Replaced/Not replaced

Response:

The Company does not have the information requested back to 2004. The Company also does not maintain the information in the form requested as part of the Company's normal course of business. The Company's gas main prioritization procedure set forth in ENG04030 was first implemented to analyze National Grid's Rhode Island distribution system, in part, for the projects selected for replacement in 2014. Prior to the implementation of the ENG04030 procedure, the gas main prioritization for Rhode Island was based on a legacy algorithm contained within a separate GIS system. Please see Attachment PUC 1-16, which is the current version of the ENG04030 file that contains the analysis of the projects that have been considered for replacement.

Prepared by or under the supervision of: David G. Iseler

HIGHEST RANKED RISKS and DIMP Factor-2013

Updated as of 11/25/2014

STATE: RHODE ISLAND
REGION: ALL
FACILITY: MAINS

Mitigation Will Be As Per Appendix D, Except As Otherwise Indicated In Notes

Material	Pressure	Diameter	Mileage	Risk Score	Threat Category	Additional Mitigation Notes	DIMP Factor
Cast Iron	LP	4" Thru 8"	701.77	2.05	NATURAL FORCE	An additional factor will be applied to the replacement qualification and prioritization algorithm to account for this asset's DIMP risk ranking	3.00
Wrought Iron	LP	4" Thru 8"	0.14	2.05	NATURAL FORCE / CORROSION	An additional factor will be applied to the replacement qualification and prioritization algorithm to account for this asset's DIMP risk ranking	3.00
UnprotectedBare Steel	> 60 PSI,Not T	Upto 4"	1.64	3.77	CORROSION / NATURAL FORCE	An additional factor will be applied to the replacement qualification and prioritization algorithm to account for this asset's DIMP risk ranking	3.00
UnprotectedBare Steel	> 60 PSI,Not T	Over 4" Thru 8"	0.87	3.77	CORROSION / NATURAL FORCE	An additional factor will be applied to the replacement qualification and prioritization algorithm to account for this asset's DIMP risk ranking	3.00
UnprotectedBare Steel	> 60 PSI,Not T	Over 8"	2.05	3.77	CORROSION	An additional factor will be applied to the replacement qualification and prioritization algorithm to account for this asset's DIMP risk ranking	3.00
UnprotectedBare Steel	HP	Upto 4"	176.76	2.98	CORROSION	An additional factor will be applied to the replacement qualification and prioritization algorithm to account for this asset's DIMP risk ranking	2.37
UnprotectedBare Steel	HP	Over 4" Thru 8"	29.55	2.98	CORROSION	An additional factor will be applied to the replacement qualification and prioritization algorithm to account for this asset's DIMP risk ranking	2.37
UnprotectedBare Steel	HP	Over 8"	4.01	2.98	CORROSION	An additional factor will be applied to the replacement qualification and prioritization algorithm to account for this asset's DIMP risk ranking	2.37
Cast Iron	HP	Under 4"	0.01	2.70	NATURAL FORCE	Schedule Replacement When Exposed Or Within Public Works. An additional factor will be applied to the replacement qualification and prioritization algorithm to account for this asset's DIMP risk ranking	2.15
Wrought Iron	HP	Under 4"	0.12	2.70	NATURAL FORCE	Schedule Replacement When Exposed Or Within Public Works. An additional factor will be applied to the replacement qualification and prioritization algorithm to account for this asset's DIMP risk ranking	2.15
Cast Iron	HP	4" Thru 8"	8.70	2.68	NATURAL FORCE	An additional factor will be applied to the replacement qualification and prioritization algorithm to account for this asset's DIMP risk ranking	2.13
UnprotectedCoated Steel	> 60 PSI,Not T	Upto 4"	1.57	2.25	CORROSION	An additional factor will be applied to the replacement qualification and prioritization algorithm to account for this asset's DIMP risk ranking	1.79

UnprotectedCoated Steel	> 60 PSI,Not T	Over 4" Thru 8"	1.42	2.25	CORROSION	An additional factor will be applied to the replacement qualification and prioritization algorithm to account for this asset's DIMP risk ranking	1.79
UnprotectedCoated Steel	> 60 PSI,Not T	Over 8"	4.22	2.25	CORROSION	An additional factor will be applied to the replacement qualification and prioritization algorithm to account for this asset's DIMP risk ranking	1.79
Plastic	> 60 PSI,Not T	Upto 4"	46.37	2.20	MATERIAL/WELD	An additional factor will be applied to the replacement qualification and prioritization algorithm to account for this asset's DIMP risk ranking	1.75
Plastic	> 60 PSI,Not T	Over 4" Thru 8"	21.57	2.20	MATERIAL/WELD	An additional factor will be applied to the replacement qualification and prioritization algorithm to account for this asset's DIMP risk ranking	1.75
Plastic	> 60 PSI,Not T	Over 8"	0.15	2.20	MATERIAL/WELD	An additional factor will be applied to the replacement qualification and prioritization algorithm to account for this asset's DIMP risk ranking	1.75
Ductile Iron	HP	Over 4" Thru 8"	0.81	2.20	NATURAL FORCE / CORROSION	An additional factor will be applied to the replacement qualification and prioritization algorithm to account for this asset's DIMP risk ranking	1.75
Cast Iron	LP	Under 4"	7.73	2.13	NATURAL FORCE	Schedule Replacement When Exposed Or Within Public Works. An additional factor will be applied to the replacement qualification and prioritization algorithm to account for this asset's DIMP risk ranking	1.70
Wrought Iron	LP	Under 4"	1.19	2.13	NATURAL FORCE	Schedule Replacement When Exposed Or Within Public Works. An additional factor will be applied to the replacement qualification and prioritization algorithm to account for this asset's DIMP risk ranking	1.70
UnprotectedBare Steel	LP	Upto 4"	53.69	2.08	CORROSION	An additional factor will be applied to the replacement qualification and prioritization algorithm to account for this asset's DIMP risk ranking	1.66
UnprotectedBare Steel	LP	Over 4" Thru 8"	47.81	2.08	CORROSION	An additional factor will be applied to the replacement qualification and prioritization algorithm to account for this asset's DIMP risk ranking	1.66
UnprotectedBare Steel	LP	Over 8"	3.47	2.08	CORROSION	An additional factor will be applied to the replacement qualification and prioritization algorithm to account for this asset's DIMP risk ranking	1.66
Cast Iron	HP	Over 8"	16.45	2.01	NATURAL FORCE	An additional factor will be applied to the replacement qualification and prioritization algorithm to account for this asset's DIMP risk ranking	1.60
Ductile Iron	LP	Upto 4"	6.89	1.71	NATURAL FORCE	An additional factor will be applied to the replacement qualification and prioritization algorithm to account for this asset's DIMP risk ranking	1.36
Ductile Iron	LP	Over 4" Thru 8"	7.78	1.65	NATURAL FORCE	An additional factor will be applied to the replacement qualification and prioritization algorithm to account for this asset's DIMP risk ranking	1.31

Rhoe Island Cast Iron Leak Analysis

Project #	Slotted FY	Work Order #	Initial Date of Identification	Date of Analysis	Evaluating Engineer	Division	Town	Street	From	To	Address Range	System Pressure (PSIG)	CP System	Exst Diameter (Inches)	YOI	Relay Footage Length of main to be Installed	Install Footage Length of main to be installed	Abandon Footage Length of main to be abandoned	Cluster Footage Distance from first leak to the last leak in the 'cluster'	Building Consequnce Factor If there are no buildings in the area = 0 If there are only single family homes = 1 If there are small builindgs (multi-family, strip malls, etc) = 1.2 If there are public buildings (school, church, hospital, etc) = 1.5	DIMP Factor see DIMP Factors List (updated 11/25/2014)	X Total Leak Repairs	Total Open Workables	Total Open Non-Workables	Prioritization Factor (Pr) *If the Pr Factor is greater than 12, the segment is considered 'actively corroding'.*
1140	2015	90000142773	1/1/2013	3/21/2014	N VanWinkle	RI	Bristol	Monroe St, Oliver st	Franklin St	Bay View Ave	9-50	Lp to 8#		2	1940	1235	1235	1235	500	1.0	3.0	2	2	0	4.67
1608	2015	90000142280	3/21/2014	3/21/2014	N VanWinkle	RI	Central Falls	Cross St	Hawes St	Dexter	133-185	LP		4	1940	2258	2255	2255	500	1.5	3.0	6	2	0	24.00
1609	2015	90000142742	4/4/2014	4/4/2014	N VanWinkle	RI	Central Falls	Pacific St	Broad St	Washington St	45-85	LP		4	1940	690	690	690	500	1.2	3.0	2	0	0	10.30
1356	2015	90000142821	3/26/2014	3/26/2014	N VanWinkle	RI	Cranston	Brewster Rd	Pontiac Ave	Basswood Rd	11-39	LP		6	1937	1500	1530	1530	500	1.2	3.0	4	2	0	14.70
1349	2015	90000142828	5/5/2014	5/5/2014	N VanWinkle	RI	Cranston	Dyer Ave	Puritan Ave	#818	681-818	LP & 7#		4,6	1886	2870	2870	4440	500	1.5	3.0	6	0	0	22.00
1350	2015	90000142836	3/26/2014	3/26/2014	N VanWinkle	RI	Cranston	Elwyn St	Princess Ave	#175 Elwyn St	152-175	LP		6	1957	760	760	760	500	1.5	3.0	2	0	0	14.00
1346	2015	90000142784	3/26/2014	3/26/2014	N VanWinkle	RI	Cranston	Gordon St	Harmon Ave	#33 Gordon St	17-137	LP to 7#		6	1913	3330	3805	4260	500	1.0	3.0	12	1	0	17.67
1353	2015	90000142845	3/26/2014	3/26/2014	N VanWinkle	RI	Cranston	Overhill	North St	South St	38-40	LP		4	1907	3090	3035	3035	500	1.0	3.0	8	2	0	15.67
1354	2015	90000142852	3/26/2014	3/26/2014	N VanWinkle	RI	Cranston	Rockwood Ave	Holland St	EOM	30-131	LP		6	1946	2630	2630	2630	500	1.0	3.0	13	4	0	18.83
1355	2015	90000142858	3/24/2014	3/24/2014	N VanWinkle	RI	Cranston	Shaw Ave	Braod St	Narraganset Ave	73-196	LP		4	1886	1835	1835	1835	600	1.5	3.0	5	3	0	18.63
1359	2015	90000142829	5/5/2014	5/5/2014	N VanWinkle	RI	Cumberland	Hewes St	Ingraham St	Clark St	73-116	LP		4	1960	2470	2470	2470	500	1.2	3.0	4	0	0	16.20
1360	2015	90000142835	5/5/2014	5/5/2014	N VanWinkle	RI	Cumberland	Kinsman St	#23	#6	6-23	LP		4	1940	770	770	770	500	1.2	3.0	3	1	0	10.10
1361	2015	90000142844	5/5/2014	5/5/2014	N VanWinkle	RI	Cumberland	Williams St	Mowry St	Old Willis Rd	170-250	LP		4	1940	1820	1500	1500	500	1.0	3.0	4	1	0	12.17
1602	2015	90000142719	3/21/2014	3/21/2014	N VanWinkle	RI	East Providence	Deer St	Newport Ave	Toner St	130-160	LP		2	1942	265	265	265	500	1.2	1.0	3	0	0	11.20
1363	2015	90000142721	3/21/2014	3/21/2014	N VanWinkle	RI	East Providence	Harzard Ave	Pawtucket Ave	#105 Hazard Ave	14-105	LP to 8#		4	1914	2205	3660	3345	540	1.2	1.0	7	2	0	13.69
1365	2015	90000142727	5/5/2014	5/5/2014	N VanWinkle	RI	East Providence	Morris Ave	Pawtucket Ave	EOM	22	LP		4	1955	225	225	185	225	1.0	3.0	1	0	0	7.44
1525	2015	90000142714	3/21/2014	3/21/2014	N VanWinkle	RI	East Providence	N Broadway	Willmarth Ave	#741 N Broadway	635-741	LP to 99#		6,4	1911	5930	6000	6215	500	1.5	1.0	23	5	0	7.25
1366	2015	90000142729	3/27/2014	3/27/2014	N VanWinkle	RI	East Providence	Orchard St	Broadway	Henrry St	106-239	LP		6	1934	3755	3235	3235	500	1.5	3.0	5	4	0	14.00
971	2015	90000142735	1/1/2013	3/21/2014	N VanWinkle	RI	East Providence	Patwtucket Ave, Vincent Ave - Sect 3	Vincent Ave	Veterans Mem Pkwy	2761-3044	5#		6	1912	5240	4965	5240	500	1.5	1.0	5	0	0	16.50
973	2015	90000116872	1/1/2012	1/1/2012	N VanWinkle	RI	East Providence	Pawtucket Ave	#3645	White Squadren Rd	3393-3645	#5		6	1912	2240	2240	2240	1100	1.5	3.0	7	0	0	10.50
1369	2015	90000142733	3/27/2014	3/27/2014	N VanWinkle	RI	East Providence	Warren Ave (section 1)	S Broadway St	Brown St	337-531	LP		6,4	1913	3695	2815	3875	525	1.2	3.0	11	3	0	28.81
1370	2015	90000142740	3/27/2014	3/27/2014	N VanWinkle	RI	East Providence	Warren Ave (section 2)	Pawtucket Ave	Brown St	535-619	LP		6,4	1913	4850	4650	4775	500	1.2	3.0	3	2	0	11.00
1606	2015	90000142774	3/21/2014	3/21/2014	N VanWinkle	RI	Johnston	Manuel Ave	Phoebe St	EOM	1-105	LP		6	1948	1405	1405	1405	500	1.0	3.0	2	2	0	9.83
1484	2015	90000142777	5/5/2014	5/5/2014	N VanWinkle	RI	Johnston	Oakland Ave	Killingly St	EOM	5-22	LP		6	1947	585	585	585	500	1.0	3.0	2	0	0	9.50
1485	2015	90000142781	5/5/2014	5/5/2014	N VanWinkle	RI	Johnston	Plainfield St	Morgan Ave	Walnut St	1073-1209	LP		8,4	1910	4470	3820	3820	500	1.5	3.0	9	1	0	15.00
1479	2015	90000142700	3/21/2014	3/21/2014	N VanWinkle	RI	Lincoln	Edendale Dr	Grove St	Arlington Dr	1-23	LP		6	1955	1545	2005	2005	500	1.0	3.0	4	1	0	15.83
1481	2015	90000142709	5/5/2014	5/5/2014	N VanWinkle	RI	Lincoln	Smithfield Ave	Chapel St	EOM	1431-1530	LP		4	1940	2080	2010	2010	500	1.2	3.0	5	2	0	13.40
946	2015	90000118388	1/1/2011	1/8/2015	N VanWinkle	RI	Middletown	E Main	#566	#741	566-741	10#		4	1947	1990	1990	2100	500	1.0	0.0	2	0	0	2.50
1372	2015	90000142702	3/21/2014	3/21/2014	N VanWinkle	RI	Newport	Parker Ave	Bellevue Ave	Middletown Ave	15-43	LP to 10#		4	1940	1505	150	1505	500	1.2	3.0	2	0	0	8.80
1373	2015	90000142705	5/5/2014	5/5/2014	N VanWinkle	RI	Newport	Spring St	Bull St	Touro St	8-56	LP		8,4	1940	690	690	690	500	1.5	3.0	1	0	0	13.00
1488	2015	90000142696	3/24/2014	3/24/2014	N VanWinkle	RI	North Providence	Mineral Springs Ave	Joslin St	Smith St	2031-2161	LP		4, 8	1915	2793	2795	2795	500	1.2	3.0	23	5	0	22.00
1487	2015	90000142692	5/5/2014	5/5/2014	N VanWinkle	RI	North Providence	Mineral Springs Ave	Douglas Ave	Lexington Ave	1543-1650	LP		6	1954	2510	2410	3650	500	1.5	3.0	2	0	0	13.00
1489	2015	90000142698	5/5/2014	5/5/2014	N VanWinkle	RI	North Providence	Smith St, Belvedere Bl	Belvedere BL	Homewood Ave	1370-1535	LP		6	1913	3195	3195	3195	500	1.5	3.0	7	7	0	16.00
1490	2015	90000143034	3/24/2014	3/24/2014	N VanWinkle	RI	North Providence	Towanda Dr	Fruit Hill Ave	Monongahela Ave	9-53	LP		6	1940	2440	1965	2680	500	1.2	1.0	6	1	0	8.00
1649	2015	90000152058	1/29/2015	1/29/2015	N VanWinkle	RI	Pawtucket	Aiken St	Kenyon Ave	EOM	3-34	LP		2,4	1940	470	575	470	N/A	1.0	1.2	0	0	0	PW
1613	2015	90000145789	9/1/2014	9/1/2014	N VanWinkle	RI	Pawtucket	Cherry St	Barton St	EOM	6-10	LP		2,3	1940	210	210	210	500	1.5	3.0	3	0	0	13.50
1514	2015	90000142685	5/5/2014	5/5/2014	N VanWinkle	RI	Pawtucket	Oregon St	Kenmore St	Mainstee	15-175	LP to 10#		4	1940	3105	3010	3010	500	1.2	3.0	3	1	0	16.20
1650	2015	90000152055	1/29/2015	1/29/2015	N VanWinkle	RI	Pawtucket	Waldo	Clyde St	Pawtucket Ave	12-48	LP		2,4	1940	1565	1565	1565	500	1.2	3.0	4	0	0	PW
1461	2015	90000143088	3/24/2014	3/24/2014	N VanWinkle	RI	Providence	6th	Brewster St	Hope St	137-176	LP		4	1899	689	680	680	500	1.2	3.0	4	1	0	15.90
1527	2015	90000142604	5/5/2014	05/05/214	N VanWinkle	RI	Providence	Adelphi Ave	Wayland Ave	Taber Ave	10-51	LP to 99#		4	1954	1465	1465	1465	500	1.2	3.0	3	1	0	10.30
1402	2015	90000143077	3/24/2014	3/24/2014	N VanWinkle	RI	Providence	Argol 1	Edgeworth Ave	De Pinedo St	28-121	LP to 99#		4,6	1948	2320	2220	2085	500	1.2	3.0	6	3	0	10.50
1409	2015	90000142607	5/5/2014	05/05/214	N VanWinkle	RI	Providence	Broadway	Harkness St	#565	482-565	LP		6	1895	1115	2010	2190	500	1.2	3.0	4	1	0	17.20
1410	2015	90000142614	3/28/2014	3/28/2014	N VanWinkle	RI	Providence	Brown St	Barnes St	Olney St	91-216	LP to 99#		4	1900	1775	1775	2000	500	1.5	3.0	5	1	0	16.50
1526	2015	90000142618	3/28/2014	3/28/2014	N VanWinkle	RI	Providence	Charles St	Raphael St	Hagan St	762-822	LP		6	1910	2255	2255	2255	500	1.2	3.0	8	2	0	14.50
1418	2015	90000143073	3/24/2014	3/24/2014	N VanWinkle	RI	Providence	Cushing St	Congdon St	Brown St	5-95	LP		4	1888	1705	1645	1645	500	1.5	3.0	8	2	0	24.00
1420	2015	90000142626	3/28/2014	3/28/2014	N VanWinkle	RI	Providence	Douglas Ave	Mowry St	Eaton St	392-496	LP		6	1907	2835	2690	2835	500	1.5	3.0	6	3	0	24.75
1428	2015	90000142630	3/28/2014	3/28/2014	N VanWinkle	RI	Providence	Early St	Nagara St	Broad St	124-226	LP to 7#		4	1893	0	0	1250	500	1.5	3.0	6	1	0	14.25
1528	2015	90000142634	4/4/2014	4/4/2014	N VanWinkle	RI	Providence	Eastwood Ave	Merino St	Heath St	85-249	LP		4,6	1897	2700	2700	2700	500	1.5	0.0	12	2	0	27.00
1429	2015	90000142636	4/4/2014	4/4/2014	N VanWinkle	RI	Providence	Edward St	Northup Ave	EOM	12-44	LP to 99#		6	1925	415	415	375	375	1.0	3.0	3	0	0	14.78
1423	2015	90000143080	3/24/2014	3/24/2014	N VanWinkle	RI	Providence	Enfield Ave	Eaton St	Walton St	10-100	LP to 35#		6	1925	2680	3830	3705	500	1.2	3.0	8	4	0	15.40
1424	2015	90000142686	4/4/2014	4/4/2014	N VanWinkle	RI	Providence	Farm St	Minto St	Webb St	46-84	LP		6	1952	1205	1110	1110	500	1.2	3.0	3	1	0	14.70
1532	2015	90000142688	3/28/2014	3/28/2014	N VanWinkle	RI	Providence	Friendship St	Richmond St	Eddy St	80-91	LP to 99#		6	1913	1160	1740	1740	500	1.5	3.0	7	0	0	18.75
1432	2015	90000142564	3/24/2014	3/24/2014	N VanWinkle	RI	Providence	Gano St	Amy St	Angell St	194-277	LP to 35#		4	1887	3705	3645	3415	500	1.2	3.0	9	2	0	13.60
1436.1	2015	90000142585	3/24/2014	3/24/2014	N VanWinkle	RI	Providence	Grotto Ave (part 1)	Loring Ave	Upton Ave	91-151	LP to 99#		4,6	1894	3385	2585	5620	500	1.0	3.0	10	8	0	13.67

Rhoe Island Cast Iron Leak Analysis

Project #	Slotted FY	Work Order #	Initial Date of Identification	Date of Analysis	Evaluating Engineer	Division	Town	Street	From	To	Address Range	System Pressure (PSIG)	CP System	Exst Diameter (Inches)	YOI	Relay Footage Length of main to be Installed	Install Footage Length of main to be installed	Abandon Footage Length of main to be abandoned	Cluster Footage Distance from first leak to the last leak in the 'cluster'	Building Consequnce Factor If there are no buildings in the area = 0 If there are only single family homes = 1 If there are small builindgs (multi-family, strip malls, etc) = 1.2 If there are public buildings (school, church, hospital, etc) = 1.5	DIMP Factor see DIMP Factors List (updated 11/25/2014)	X Total Leak Repairs	Total Open Workables	Total Open Non-Workables	Prioritization Factor (Pr) If the Pr Factor is greater than 12, the segment is considered 'actively corroding'.
1436.2	2015	90000142581	3/24/2014	3/24/2014	N VanWinkle	RI	Providence	Grotto Ave (part 2)	Loring Ave	Irving Ave	10-91	LP to 99#		4,6	1894	1885	805	1885	500	1.0	3.0	10	8	0	13.67
1438	2015	90000142590	3/24/2014	3/24/2014	N VanWinkle	RI	Providence	Harris	Providence Pl	Atwells Ave	96-519	LP to 99#		12, 6	1895	6615	7020	6730	500	1.2	0.0	19	3	0	19.70
1603	2015	90000142594	5/30/2014	5/30/2014	N VanWinkle	RI	Providence	Holden St	Smith St	Promanade St	24-122	LP to 35#		6	1889	1830	2155	3975	500	1.2	3.0	2	0	0	6.70
1441	2015	90000142600	4/4/2014	4/4/2014	N VanWinkle	RI	Providence	Isabella Ave	Longwood Ave	#94 Isabella St	99-210	LP to 35#		6	1928	4890	4890	4890	500	1.2	3.0	4	5	0	8.70
1444	2015	90000143084	3/24/2014	3/24/2014	N VanWinkle	RI	Providence	James St	S Main st	Benefit St	17-22	LP		4	1911	325	375	325	325	1.0	3.0	2	0	0	15.31
1452	2015	90000142441	1/30/2015	1/30/2015	N VanWinkle	RI	Providence	Montague St	Hope St	Morris Ave	4-48	LP to 99#		4	1907	2690	2115	2840	500	1.5	3.0	5	4	0	27.00
1454	2015	90000142447	4/4/2014	4/4/2014	N VanWinkle	RI	Providence	Morgan St	Margaret St	EOM	10-29	LP		4	1892	510	510	510	500	1.2	3.0	3	0	0	12.90
1455	2015	90000142457	4/4/2014	4/4/2014	N VanWinkle	RI	Providence	Morris Ave	Savoy St	Rochambeau Ave	430-509	LP		4	1898	2250	2250	2250	500	1.2	3.0	8	1	0	18.30
1535	2015	90000142468	5/5/2014	05/05/214	N VanWinkle	RI	Providence	Oxford	Eddy St	EOM	72-100	LP		6	1902	0	0	640	500	1.0	3.0	3	1	0	13.50
1139	2015	90000142466	1/1/2013	5/29/2014	N VanWinkle	RI	Providence	Oxford St	Eddy St	Miner St	131-226	LP & 10#		4	1870	3115	3120	3120	500	1.5	3.0	14	6	0	39.00
1536	2015	90000142471	4/4/2014	4/4/2014	N VanWinkle	RI	Providence	Pratt St	Halsey St	S Court St	31-169	LP to 99#		4	1890	1650	2215	2215	500	1.2	3.0	5	1	0	12.70
1540	2015	90000143086	3/24/2014	3/24/2014	N VanWinkle	RI	Providence	Public St	Broad st	Milton St	558-646	Lp		6	1888	1350	1350	1350	650	1.5	3.0	6	1	0	19.92
1459	2015	90000142525	5/5/2014	05/05/214	N VanWinkle	RI	Providence	Roger Williams Ct	Elmwood Ave	EOM	50-81	LP		3	1859	515	430	515	500	1.2	3.0	1	0	0	7.40
1458	2015	90000142519	4/4/2014	4/4/2014	N VanWinkle	RI	Providence	Rounds St	Narragansett Ave	Reservior Ave	6-210	LP to 7#		4	1912	1810	1810	1810	600	1.2	3.0	9	1	0	15.58
1466	2015	90000142530	5/5/2014	05/05/214	N VanWinkle	RI	Providence	Smith St 2	Nelson St	Modena Ave	999-1089	LP		8,6	1908	2790	2660	2790	500	1.5	3.0	7	0	0	21.50
306	2015	90000073654	1/1/2010	2/26/2014	N VanWinkle	RI	Providence	Westminster St	Stewart St	Cranston St	674-885	LP		12	1870	1755	1755	1755	500	1.5	1.0	11	0	0	23.00
1133	2015	90000142535	1/1/2013	3/21/2014	N VanWinkle	RI	Providence	Weybosset St	Chestnut St	Eddy St	125-300	LP to 35#		6,12	1892	5130	3535	5615	500	1.5	3.0	17	1	0	13.00
1474	2015	90000142544	4/4/2014	4/4/2014	N VanWinkle	RI	Providence	Wickenden St	Traverse St	#520 Wickenden St	200-520	LP		4	1897	2040	2040	2040	500	1.5	3.0	6	1	0	15.25
1604	2015	90000142693	3/21/2014	3/21/2014	N VanWinkle	RI	Smithfield	Gladstone	Waterman St	#29 Gladstone	4-28	LP		4	1915	1245	1245	1120	500	1.0	3.0	6	1	0	13.00
1593	2015	90000142536	5/15/2014	5/15/2014	N VanWinkle	RI	Warwick	Elm St	#416	#240	240-416	LP to 35#		4	1912	4040	4030	3555	500	1.5	0.0	5	3	0	4.25
1389	2015	90000142430	3/28/2014	3/28/2014	N VanWinkle	RI	Woonsocket	Knight St	Capwell Ave	Logee St	27-135	LP		4	1940	2595	2565	2295	500	1.2	3.0	3	3	0	13.80
1390	2015	90000142426	4/4/2014	4/4/2014	N VanWinkle	RI	Woonsocket	Knight St 2	Capwell Ave	#373	143-391	LP		4	1940	3825	3650	3385	500	1.2	1.0	4	2	0	8.50
1394	2015	90000142423	5/5/2014	05/05/214	N VanWinkle	RI	Woonsocket	Mirtris Blvd	Campeau St	EOM	40-162	LP		3, 4	1959	1335	1335	1335	500	1.0	3.0	4	0	0	9.67
1610	2016	90000142761	3/21/2014	3/21/2014	N VanWinkle	RI	Central Falls	Sylvan St	Washington St	Broad St	27-154	LP		4	1940	2920	2920	2920	500	1.0	3.0	5	1	0	11.83
1351	2016	90000142840	5/5/2014	5/5/2014	N VanWinkle	RI	Cranston	Haven Ave	Cranston St	Cranston St	4-55	LP		6	1899	1630	2250	3220	500	1.2	3.0	3	0	0	14.70
1352	2016	90000142848	3/26/2014	3/26/2014	N VanWinkle	RI	Cranston	Laurens St	Greenwood St	Garden St	122-156	LP		4	1911	1300	1300	1300	500	1.5	3.0	4	0	0	12.00
1142	2016		1/1/2013	1/1/2013	N VanWinkle	RI	Cranston	Magnolia St	Belmont Rd	Clarence St	221-360	LP		4	1894	2040			500	1.5	3.0	3	0	0	12.00
1278	2016		1/1/2013	3/21/2014	N VanWinkle	RI	Cranston	Palmer	Park Ave	#69 Pamer Ave	37-69	LP		6	1947	725			500	1.2	1.0	2	0	0	8.00
1348	2016	90000142825	3/26/2014	3/26/2014	N VanWinkle	RI	Cranston	Richard St	Laurens St	Auburn St	56-116	LP		6	1924	3195	3075	3075	500	1.0	3.0	4	1	0	12.00
1544	2016	90000142854	3/26/2014	3/26/2014	N VanWinkle	RI	Cranston	St Mary's Dr	Cranston St	EOM	10-68	LP		6	1951	1455	1385	1385	500	1.5	3.0	5	1	0	21.25
1171	2016		1/1/2013	3/21/2014	N VanWinkle	RI	Cranston	Tremont St	Atwood Ave	#65	10-65	LP		4	1950	648			500	1.0	1.0	1	0	0	3.33
1177	2016		1/1/2013	3/21/2014	N VanWinkle	RI	Cranston	Victory St	Park Ave	Legion Way	17-89	LP & 35#		12	1956	1394			500	1.2	1.0	4	1	0	5.60
1178	2016		1/1/2013	3/21/2014	N VanWinkle	RI	Cranston	Wales St, Argyle St	Dyer Ave	Gladstone St	63-147	LP		6	1947	2200			500	1.2	1.0	7	3	0	12.90
1601	2016	90000142839	3/21/2014	3/21/2014	N VanWinkle	RI	Cumberland	Waterman St	High St	EOM	12-112	LP		4	1940	1795	2425	2425	500	1.0	3.0	3	0	0	9.33
1362	2016	90000142717	5/5/2014	5/5/2014	N VanWinkle	RI	East Providence	Burgess Ave	Warren Ave	Muran Ave	10-30	LP		4	1892	760	760	760	500	1.0	3.0	3	1	0	7.00
1367	2016		3/27/2014	3/27/2014	N VanWinkle	RI	East Providence	Tower Ave	City View Ave	Walmer St	2671-2580	LP		8, 6	1936	2605			500	1.5	3.0	8	9	0	15.00
1483	2016	90000142770	5/5/2014	5/5/2014	N VanWinkle	RI	Johnston	John St	Plainfield St	Pezzulo	5-63	LP to 99#		4,6	1914	2605	2700	3420	500	1.0	3.0	3	0	0	12.00
1143	2016	90000142704	1/1/2013	3/21/2014	N VanWinkle	RI	Lincoln	Sheffield Dr	Edendale Dr	Pleasant St	2-18	LP to 99#		4	1940	1860	1860	1860	500	1.0	3.0	1	0	0	7.00
1374	2016		5/5/2014	5/5/2014	N VanWinkle	RI	Newport	Webster St	Bellevue Ave	Ochre Point Ave	90-162	LP		6	1940	2000			500	1.5	3.0	1	0	0	8.00
1144	2016		1/1/2013	1/1/2013	N VanWinkle	RI	North Providence	Gillen Ave	Charles St	Randall Rd	26-60	LP		6	1940	2150			500	1.2	3.0	2	2	0	12.10
1212	2016		1/1/2013	3/24/2014	N VanWinkle	RI	Pawtucket	Harrison St, Garden St	Garden St	George St	1-78	LP		2	1940	1425			500	1.5	3.0	0	1	0	4.00
1145	2016		1/1/2013	3/24/2014	N VanWinkle	RI	Pawtucket	Mowry St	Cottage St	end	4-72	LP		4	1939	1210			500	1.2	3.0	1	0	0	7.40
	2016		3/24/2014	3/24/2014	N VanWinkle	RI	Providence	Argol 2	Edgeworth Ave	De Pinedo St	28-121	LP		4,6	1948	3085			500	1.2	3.0	11	0	0	15.00
1136	2016		1/1/2013	1/1/2013	N VanWinkle	RI	Providence	Brighton St	Knight St	Vinton St	1-14	LP		3	1867	0			500	1.0	3.0	2	0	0	9.00
1415	2016		3/24/2014	3/24/2014	N VanWinkle	RI	Providence	Courtland St	Penn St	Broadway	42-89	LP		3,4,6	1859	2975			500	1.2	3.0	3	0	0	16.20
1127	2016		1/1/2013	3/24/2014	N VanWinkle	RI	Providence	Delaine St	Manton Ave	Appleton Ln	133-161	LP		4	1892	571			500	1.5	1.0	3	0	0	10.00
1137	2016		1/1/2013	3/24/2014	N VanWinkle	RI	Providence	Detroit Ave	Braod St	Nigra St	7-109	LP		4	1883	1670			500	1.2	1.0	4	2	0	11.60
431 & 161	2016	90000142682/90000143075	4/4/2014	1/16/2015	N VanWinkle	RI	Providence	Elmwood Ave -2	McKinly Ave	Park Ave	1137-1275	LP		6,4	1886	5225	5560	5560	560	1.2	3.0	16	0	0	18.89
1131	2016		1/1/2013	3/24/2014	N VanWinkle	RI	Providence	Evergreen St	N Main St	Camp St	11-108	LP		4	1895	1115			500	1.2	3.0	1	0	0	7.40
1534	2016	90000142568	3/24/2014	3/24/2014	N VanWinkle	RI	Providence	Gallatin St	Melrose St	Nigara St	101-192	LP		6	1913	2120	2120	2120	500	1.2	1.0	12	2	0	13.30
1435	2016	90000142575	4/4/2014	4/4/2014	N VanWinkle	RI	Providence	Grand View St	Camp St	N Main St	11-125	LP		4	1914	2205			500	1.0	3.0	4	3	0	12.17
1451	2016	90000142437	5/5/2014	05/05/214	N VanWinkle	RI	Providence	Mitchell St	Potters Ave	Congress Ave	41-134	LP		4	1887	4095	3075	2995	500	1.5	3.0	6	0	0	15.50
1453	2016	90000142445	3/24/2014	3/24/2014	N VanWinkle	RI	Providence	Montgomery St	Brpad St	Narraganset Ave	162-308	LP		4	1940	5145	5495	5730	500	1.5	3.0	12	0	0	13.50
1132	2016		1/1/2013	3/24/2014	N VanWinkle	RI	Providence	Morris Ave	Forest St	Savoy St	347-407	LP		4	1910	1380			500	1.0	1.0	3	0	0	10.00

Rhoe Island Cast Iron Leak Analysis

Project #	Slotted FY	Work Order #	Initial Date of Identification	Date of Analysis	Evaluating Engineer	Division	Town	Street	From	To	Address Range	System Pressure (PSIG)	CP System	Exst Diameter (Inches)	YOI	Relay Footage Length of main to be Installed	Install Footage Length of main to be installed	Abandon Footage Length of main to be abandoned	Cluster Footage Distance from first leak to the last leak in the 'cluster'	Building Consequnce Factor If there are no buildings in the area = 0 If there are only single family homes = 1 If there are small builindgs (multi-family, strip malls, etc) = 1.2 If there are public buildings (school, church, hospital, etc) = 1.5	DIMP Factor see DIMP Factors List (updated 11/25/2014)	X Total Leak Repairs	Total Open Workables	Total Open Non-Workables	*Prioritization Factor (Pr) If the Pr Factor is greater than 12, the segment is considered 'actively corroding'.*
1437	2016	90000142462	5/5/2014	1/30/2015	N VanWinkle	RI	Providence	Ocean St	Thurbers Ave	Oxfrod St	141-223	LP		6	1883	1130	1240	1240	500	1.2	3.0	8	0	0	23.50
1538	2016	90000142474	5/5/2014	05/05/214	N VanWinkle	RI	Providence	Pleasant Vally Pkwy	Whitford Ave	Justice St	591-665	LP		6	1929	2130	2020	2020	500	1.0	3.0	5	1	0	15.17
1537	2016		4/4/2014	4/4/2014	N VanWinkle	RI	Providence	President Ave	Wayland Ave	Slater Ave	144-214	LP		4,6	1940	4900			500	1.5	1.0	10	2	0	22.50
1467	2016	90000142533	5/5/2014	05/05/214	N VanWinkle	RI	Providence	Smith St 3	Tyndall Ave	Oakland Ave	584-674	LP		6,4	1974	2250	2250	2250	560	1.5	3.0	3	1	0	14.38
1134	2016		1/1/2013	3/24/2014	N VanWinkle	RI	Providence	Transit St	S Main st	Benefit St	38-53	LP		3	1850	355			355	1.0	1.0	4	1	0	11.09
1475	2016	90000142541	3/24/2014	3/24/2014	N VanWinkle	RI	Providence	Whitehall St	Sterling Ave	Magnolia St	10-37	LP		6,4	1927	1715	1725	1725	500	1.2	1.0	3	1	0	13.60
1129	2016		1/1/2013	1/1/2013	N VanWinkle	RI	Providence	Wolcott St	Regent St	Valley St	20-28	LP		6	1893	830			500	1.0	1.0	1	1	0	5.00
1594	2016		5/15/2014	5/15/2014	N VanWinkle	RI	Warwick	Broad St	Pawtuxet Ave	Pettaconsett Ave	7-134	LP to 35#		6	1912	3390			500	1.2	1.0	12	2	0	5.40
1595	2016		5/15/2014	5/15/2014	N VanWinkle	RI	Warwick	Elmwood Ave	Post Rd	Pawtuxet Ave	1924-2112	LP to 35#		8,12,6	1925	4385			500	1.2	2.7	6	5	0	10.00
1596	2016	90000142582	5/15/2014	5/15/2014	N VanWinkle	RI	Warwick	Manolla Ave	Pawtuxet Ave	EOM	79-195	LP to 35#		6	1952	3260			500	1.0	1.0	4	3	0	10.00
	2016		3/24/2014	3/24/2014	N VanWinkle	RI	Warwick	Narragansett PKWY	Bayside Ave	Canonchet Ave	156-272	LP		6	1912	2095			570	1.0	1.0	2	8	0	8.46
1390	2016		3/28/2014	4/23/2014	N VanWinkle	RI	Woonsocket	Knight St 2	Capwell Ave	Broadway	143-373	LP		4	1940	2565			500	1.2	1.0	4	1	0	7.60
1391	2016	90000142417	5/5/2014	05/05/214	N VanWinkle	RI	Woonsocket	Roberta Ave	Alice Ave	Rockland Ave	89-203	LP		6	1954	1480	820	1575	500	1.0	3.0	2	0	0	11.00
1456	2018	90000142516	4/4/2014	4/4/2014	N VanWinkle	RI	Providence	River St	Pleasant Valley PKWY	Rent Ave	101-270	LP to 99#		4	1904	3065	3065	3065	500	1.2	3.0	5	1	0	20.00
1492	2020		5/5/2014	5/5/2014	N VanWinkle	RI	North Smithfield	Morse St	Great Rd	Town Line	18-80	LP		6	1931	875			500	1.0	3.0	1	0	0	7.00
745	2050	9000106801	1/1/2013	5/29/2014	N VanWinkle	RI	Bristol	HOPE ST	Thames St	Constitution st	275-742	LP		6	1940	5830			550	1.5	3.0	34	8	0	40.50
1599	017 or 2016		5/15/2014	5/15/2014	N VanWinkle	RI	Warwick	Pawtuxet Ave	Elmwood Ave	Broad St	184-353	LP to 35#		6	1912	2350			500	1.2	1.0	1	1	0	6.30
1597	017 or 2018		5/15/2014	5/15/2014	N VanWinkle	RI	Warwick	Harrington Ave	Pawtuxet Ave	EOM	53-196	LP to 35#		6	1947	3780			500	1.2	1.0	4	1	0	7.60
1340			4/4/2014	4/4/2014	N VanWinkle	RI	Central Falls	Brook st	Lonsdale Ave	EOM	14-63	LP		4	1940	525			500	1.0	3.0	1	0	0	7.00
1341			4/4/2014	4/4/2014	N VanWinkle	RI	Central Falls	Cleveland St	Lonsdale Ave	EOM	15-131	LP		4	1940	1365			500	1.2	3.0	1	0	0	7.40
1141			1/1/2013	3/21/2014	N VanWinkle	RI	Central Falls	Hawes St	Central st	Clay St	62-98	LP		4, 6	1940	1156			500	1.2	3.0	3	0	0	7.80
1344			5/5/2014	5/5/2014	N VanWinkle	RI	Central Falls	Shawmut Ave	Temple St	Liberty St	85-315	LP		4	1940	200			200	1.2	3.0	2	0	0	8.00
1126			1/1/2013	1/1/2013	N VanWinkle	RI	Cranston	Baldina Dr, Budlong Rd	Baldina Dr to Tome St			LP		6	1955	1061			500			5	0	0	0.00
			1/30/2015	1/30/2015	N VanWinkle	RI	Cranston	Brooks St	Cranston St	Norton St	9-56	Lp		12	1957	755	755	755	500	1.2	1.6	1	0	0	6.00
1547			3/21/2014	3/21/2014	N VanWinkle	RI	Cranston	Garden City Dr	New London Ave	Garden Ct	20-79	LP		6	1948	1691			500	1.2	1.7	4	0	0	4.60
			1/30/2015	1/30/2015	N VanWinkle	RI	Cranston	Grand Ave	Pawtuxet Ave	Narragansett BL	21-71	LP		6	1930	1360	1360	1360	500	1.0	3.0	1	0	0	7.83
1546			5/7/2014	5/7/2014	N VanWinkle	RI	Cranston	Pheasant Dr	Birchwood Dr	Elton Ci	17-66	LP		6	1956	1360			500	1.0	3.0	1	0	0	7.00
			3/21/2014	3/21/2014	N VanWinkle	RI	Cranston	Pontiac Ave	Park Ave	Bridge	199-304	LP		12	1895	4930			500	1.5	1.0	29	4	0	13.50
1545			5/7/2014	5/7/2014	N VanWinkle	RI	Cranston	Smith St	Broad St	Narraganset Ave	215-308	LP		4	1894	1795			500	1.2	3.0	2	0	0	7.40
1546			5/7/2014	5/7/2014	N VanWinkle	RI	Cranston	Wellington Ave	Wellington Ave	End	860-890	LP		12,6	1931	1660			500	1.0	0.0	2	2	0	7.33
1347			3/21/2014	3/21/2014	N VanWinkle	RI	Cranston	Westfield Dr	Plainfield St	Westfield Dr	5-33	LP		6	1955	650			500	1.0	3.0	2	1	0	7.83
1357			5/5/2014	5/5/2014	N VanWinkle	RI	Cumberland	Blackstone St	High St	Kent St	20-64	LP		4	1940	1475			500	1.0	3.0	1	1	0	7.83
1358			5/5/2014	5/5/2014	N VanWinkle	RI	Cumberland	Geldard St	Broad St	EOM	2-33	LP		6	1957	905			500	1.2	3.0	1	0	0	7.40
			3/21/2014	3/21/2014	N VanWinkle	RI	Cumberland	Ralco Wy	Carpenter St	EOM	19-120	LP		8	1955	1418			500	1.0	1.1	1	1	0	5.89
961		9000118355	1/1/2013	1/1/2013	N VanWinkle	RI	East Providence	Austin Ave	Massasoit Ave	#20 Austin Ave	5-22	5#		6	1928	660	660	660	550	1.0	0.0	5	0	0	11.06
			1/20/2015	1/20/2015	N VanWinkle	RI	East Providence	Barney St	Newman Av	EOM	10-42	LP		4	1928	510	510	510	500	1.0	3.0	2	0	0	8.00
1528			5/5/2014	5/5/2014	N VanWinkle	RI	East Providence	Centre St	Castro St	Pearl Ave	92-152	LP		6	1916	700			500	1.0	3.0	1	0	0	7.00
960		9000118353	1/1/2013	2/13/2015	N VanWinkle	RI	East Providence	Merrill St	Massasoit Ave	Standish Ave	9-45	5#		6	1924	460			460	1.0	0.0	1	0	0	2.72
1364			5/5/2014	5/5/2014	N VanWinkle	RI	East Providence	Middle St	Narragansett Ave	Rocks Point ave	15-103	LP		4	1912	1075			500	1.0	3.0	1	0	0	5.00
1368			5/5/2014	5/5/2014	N VanWinkle	RI	East Providence	Vineyard Ave	Pawtucket Ave	EOM	18-69	LP		6	1952	695			500	1.2	3.0	1	0	0	5.00
			1/20/2015	1/20/2015	N VanWinkle	RI	East Providence	Warren	S Broadway St	Ninth St	177-323	LP		4, 6	1883	4985	4985	4985	560	1.5	3.0	10	0	0	11.48
970			1/1/2013	1/1/2013	N VanWinkle	RI	East Providence	Fort St	First St	S Broadway	11-415	5#		8	1912	7063			500	1.2	0.0	4	0	0	9.30
974		9000118376	1/1/2013	1/1/2013	N VanWinkle	RI	East Providence	Martin St	S Broadway St	Dodge St		5#		8	1912	3374			500	1.2	0.0	2	4	0	2.60
843		90000110597	1/1/2011	1/8/2015	N VanWinkle	RI	Lincoln	Arnold Ave	Smithfield Ave	EOM	3-17	LP to 99#		4	1940	625	625	625	500	1.2	3.0	1	0	0	7.40
752			1/1/2013	1/1/2013	N VanWinkle	RI	Lincoln	Old River Rd	Manville Ave	Handy's Ln	324-341	Low		6	1940	1100			500	1.2	0.0	0	0	0	0.00
1482			5/5/2014	5/5/2014	N VanWinkle	RI	Lincoln	Summer St	Railroad St	Central St	8-71	LP		6	1940	0	0	925	500	1.2	3.0	1	0	0	7.40
508		9000118384	1/1/2013	1/1/2013	N VanWinkle	RI	Middletown	Aquidneck Ave	Green End Ave	Morrison Ave	534-711	10#		4	1952	240	240	2245	500	1.0	1.0	8	6	0	15.83
			3/21/2014	3/21/2014	N VanWinkle	RI	Newport	Atlantic Ave	Marchant st	Carroll Ave	4-16	LP		3,4	1934	815			500	1.0	1.0	3	0	0	6.33
1600			3/21/2014	3/21/2014	N VanWinkle	RI	Newport	E Bowery St	Freebody St	Annandale Rd	20-67	LP		4, 2	1935	2285			500	1.2	3.0	2	0	0	10.00
1371			5/5/2014	5/5/2014	N VanWinkle	RI	Newport	Gibbs St	Bliss Rd	EOM	24-146	LP		4	1940	1545			500	1.2	3.0	2	0	0	7.40
952		9000118015	1/1/2013	1/1/2013	N VanWinkle	RI	Newport	Halidon Ave, Harrison Ave	Wellington Ave	Reg #214		10#		4	1954	3930			500	1.0	0.0	0	0	0	0.00
952		90000118015	1/1/2012	12/10/2014	N VanWinkle	RI	Newport	Harrison Ave	Beacon Hill	Halidon Ave	25-134	10#		4	1954	3820	3820	3820	500	1.2	1.0	3	0	0	3.90
953		9000118017	1/1/2013	1/1/2013	N VanWinkle	RI	Newport	Thames St	Dixon St	Wellington Ave	580-604	10#		4	1940	265	265	265	265	1.0	0.0	3	0	0	7.86

Rhoe Island Cast Iron Leak Analysis

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1486			5/5/2014	5/5/2014	N VanWinkle	RI	North Providence	Gardner	Olney Ave	EOM	5-57	LP		6	1941	1470			500	1.0	3.0	1	0	0	7.00
			1/16/2015	1/16/2015	N VanWinkle	RI	North Providence	Humbert St	Cranberry St	Victor St	9-97	LP		6	1923	2095	2095	2095	500	1.0	3.0	4	0	0	10.33
1508			5/5/2014	5/5/2014	N VanWinkle	RI	North Providence	Mineral Springs Ave	Dora St	Charles St	936-1050	LP		6	1940	1635			500	1.2	3.0	1	0	0	7.40
1491			5/5/2014	5/5/2014	N VanWinkle	RI	North Providence	Vincent Ave	Dora St	Ada St	58-112	LP		6	1940	920			500	1.0	3.0	1	1	0	7.83
1493			5/5/2014	5/5/2014	N VanWinkle	RI	Pawtucket	Bacon St	Divison St	Columbus Ave	11-130	LP		4	1940	2070			500	1.2	3.0	2	0	0	10.30
1494			5/5/2014	5/5/2014	N VanWinkle	RI	Pawtucket	Benefit St	Central Ave	#700	707-764	LP		6	1940	1195			500	1.5	3.0	4	0	0	11.50
1495			5/5/2014	5/5/2014	N VanWinkle	RI	Pawtucket	Beverage Hill Rd	George Benefit Hwy	Willston WA	265-591	LP		6	1940	2805			500	1.2	3.0	8	0	0	7.40
1496			5/5/2014	5/5/2014	N VanWinkle	RI	Pawtucket	Central Ave	Front St	Middle St	32-34	LP		12	1940	455			500	1.0	3.0	1	0	0	7.00
1001		9000118461	1/1/2013	1/1/2013	N VanWinkle	RI	Pawtucket	Crest Dr	Rice St	#136 Crest Dr		Low		4	1947	2415	2415	2415	500	1.0	0.0	5	1	0	2.50
1498			5/5/2014	5/5/2014	N VanWinkle	RI	Pawtucket	Darlingdale Ave	Morris Ave	Mendon Ave	48-188	LP		4	1940	1545			500	1.0	3.0	1	1	0	7.83
1499			5/5/2014	5/5/2014	N VanWinkle	RI	Pawtucket	East Ave	Ridge St	Hillside Ave	695-749	LP		6,4	1940	1555			500	1.5	3.0	3	0	0	8.00
1500			5/5/2014	5/5/2014	N VanWinkle	RI	Pawtucket	East Ave 2	Grace St	EOM	244-259	LP		6	1940	390			500	1.0	3.0	1	1	0	7.83
1501			5/5/2014	5/5/2014	N VanWinkle	RI	Pawtucket	East St	Middle St	#55	44-76	LP		4	1940	1940			500	1.2	3.0	1	0	0	5.00
1502&1503			5/5/2014	5/5/2014	N VanWinkle	RI	Pawtucket	Exchange St	Broadway st	#150	35-122	LP		12,6	1940	2585			500	1.5	3.0	5	1	0	15.50
			1/20/2015	1/20/2015	N VanWinkle	RI	Pawtucket	George St	Park Pl N	Cedar St	2-67	LP		6	1940	1870	1870	1870	500	1.5	3.0	3	0	0	15.00
1497			5/5/2014	5/5/2014	N VanWinkle	RI	Pawtucket	Greight st	Cottage St	EOM	21-101	LP		6	1940	1585			500	1.0	3.0	3	0	0	10.50
1504			5/5/2014	5/5/2014	N VanWinkle	RI	Pawtucket	Main St	Moshassuck St	Grenville St	1088-1131	LP		6	1940	425			500	1.0	3.0	1	0	0	7.00
1505			3/24/2014	3/24/2014	N VanWinkle	RI	Pawtucket	Martin St	Ashburne St	Burgess St	4-106	LP		4	1940	2655			500	1.0	3.0	4	2	0	8.67
1506			5/5/2014	5/5/2014	N VanWinkle	RI	Pawtucket	Mendon Ave	Benefit St	Cottage st	231-219	LP		6	1940	2900			500	1.0	3.0	3	0	0	7.00
1507			5/5/2014	5/5/2014	N VanWinkle	RI	Pawtucket	Mendon Ave 2	Central Ave	Hunts St	101-132	LP		4	1940	580			500	1.0	3.0	1	0	0	7.00
1509			5/5/2014	5/5/2014	N VanWinkle	RI	Pawtucket	Mineral Springs Ave	Hurley St	#500	428-500	LP		12	1940	1170			500	1.0	0.0	2	0	0	4.00
1511			5/5/2014	5/5/2014	N VanWinkle	RI	Pawtucket	N Bend St	Saunders St	EOM	150-198	10		4	1940	1355			500	1.2	3.0	4	0	0	14.20
1510			5/5/2014	5/5/2014	N VanWinkle	RI	Pawtucket	Newport Ave	Liberty St	Armistice BL	701-814	LP		6	1940	1075			500	1.2	3.0	1		0	7.40
1512			5/5/2014	5/5/2014	N VanWinkle	RI	Pawtucket	Pine St	Geoff St	Main St	248-280	LP		10	1940	1125			500	1.0	0.0	1	0	0	4.00
1513			5/5/2014	5/5/2014	N VanWinkle	RI	Pawtucket	Pinecrest Dr	Crest Dr	Diana Dr	92-217	LP		6,4	1940	2900			500	1.0	3.0	2	1	0	8.67
1515			5/5/2014	5/5/2014	N VanWinkle	RI	Pawtucket	Power Rd	W Lawn Ave	Norman Ave	270-360	LP		4	1940	2210			500	1.2	3.0	2	0	0	11.80
1516			5/5/2014	5/5/2014	N VanWinkle	RI	Pawtucket	Prentice Ave	Smithfiend Ave	EOM	13-127	LP		6	1940	1145			500	1.0	3.0	1	0	0	7.00
			2/4/2015	2/4/2015	N VanWinkle	RI	Pawtucket	Progress St	East Ave	EOM	102-142	LP		4,6	1940	1850	1850	1850	500	1.2	3.0	1	0	0	7.40
1517			5/5/2014	5/5/2014	N VanWinkle	RI	Pawtucket	Randall St	Jefferson Ave	Pine St	44-123	LP		4	1940	1275			500	1.5	3.0	3	0	0	10.25
1518			5/5/2014	5/5/2014	N VanWinkle	RI	Pawtucket	Smithfield Ave	Thomas Ave	Lowen Ave	504-555	LP		6	1940	970			500	1.5	3.0	1	0	0	8.00
1519			5/5/2014	5/5/2014	N VanWinkle	RI	Pawtucket	Stearns St	Keyon Ave	Cottage st	1-150	LP		6	1940	4830			500	1.2	3.0	6	0	0	8.30
1520			5/5/2014	5/5/2014	N VanWinkle	RI	Pawtucket	Summit Ave	Divison St	Pond St	145-193	LP		6	1940	1745			500	1.5	3.0	4	0	0	12.00
1521			5/5/2014	5/5/2014	N VanWinkle	RI	Pawtucket	Taft St	Merry St	EOM	217-250	LP		4	1957	320			320	1.0	3.0	1	0	0	9.25
			3/24/2014	3/24/2014	N VanWinkle	RI	Pawtucket	Vale St	Main St	EOM	12-67	LP		4	1940	1935			500	1.2	3.0	2	1	0	11.20
1522			5/5/2014	5/5/2014	N VanWinkle	RI	Pawtucket	York Ave	Boyce Ave	Columbus Ave	435-715	LP		6	1940	2880			500	1.0	3.0	3	0	0	7.83
1398			5/5/2014	05/05/214	N VanWinkle	RI	Providence	Allston St	Harold St	Wolcott St	101-197	LP		4	1893	1435			500	1.0	3.0	1	0	0	7.00
1399			3/28/2014	3/28/2014	N VanWinkle	RI	Providence	Alverson St	Nye St	Plainfield St	1-120	LP		4	1897	1550			500	1.0	3.0	3	0	0	9.50
1400			5/5/2014	05/05/214	N VanWinkle	RI	Providence	Armstrong Ave	Geroge M Cohen BL	Hope St	14-57	LP		4	1877	1260			500	1.2	3.0	3	0	0	13.80
			1/16/2015	1/16/2015	N VanWinkle	RI	Providence	Atwells Ave	Vincton St	Dean St	210-373	LP		12	1870	2170	2170	2250	500	1.2	3.0	7	0	0	17.00
1401			5/5/2014	05/05/214	N VanWinkle	RI	Providence	Ayrault St	Valley St	Chalkstone St	21-93	LP		4	1887	1190			500	1.2	3.0	1	1	0	8.30
1403			3/24/2014	3/24/2014	N VanWinkle	RI	Providence	Barton St	Westminster St	Broadway	6-58	LP		4	1895	740			500	1.5	3.0	2	1	0	11.00
1405			4/4/2014	4/4/2014	N VanWinkle	RI	Providence	Basswood Ave	Mount Pleasant Ave	Sheffield St	10-106	LP		6	1931	3160			500	1.0	3.0	5	2	0	11.17
1406			3/28/2014	3/28/2014	N VanWinkle	RI	Providence	Benefit St	Waterman St	N Court St	150-210	LP		12	1906	2360			500	1.5	0.0	8	1	0	12.25
1407			3/28/2014	3/28/2014	N VanWinkle	RI	Providence	Broad St	Badcock St	Eddy St	1343-1453	LP		6, 12	1985	3565			500	1.5	3.0	6	1	0	9.00
1408			5/5/2014	05/05/214	N VanWinkle	RI	Providence	Broad St 2	Colfax	#977	935-977	LP		6	1879	70			70	1.2	3.0	1	0	0	34.43
			1/30/2015	1/30/2015	N VanWinkle	RI	Providence	Brook St	Wickeden St	power St	115-223	LP		12	1874	1655	1655	1655	710	1.2	1.6	5	0	0	12.59
			1/16/2015	1/16/2015	N VanWinkle	RI	Providence	Burlington St	Hope	Bayard St	27-55	LP		4	1916	400	400	400	400	1.2	3.0	1	0	0	8.50
			1/16/2015	1/16/2015	N VanWinkle	RI	Providence	Burnett St	Dexter St	Elmwood Ave	65-143	LP		4	1884	1130	1235	1130	500	1.5	3.0	1	0	0	8.00
1411			5/5/2014	05/05/214	N VanWinkle	RI	Providence	Calvery St	Smith St	Bath St	70-109	LP		6	1905	1860			500	1.2	3.0	1	0	0	7.40
1412			3/28/2014	3/28/2014	N VanWinkle	RI	Providence	Carr St	Cactus St	Broad St	9-105	LP		6	1922	1420			500	1.2	3.0	3	0	0	8.50
1413			5/5/2014	05/05/214	N VanWinkle	RI	Providence	Charles St 2	Viktyrbi St	Habe St	2961-996	LP		6	1940	2190			500	1.2	3.0	1	1	0	8.30
1414			4/4/2014	4/4/2014	N VanWinkle	RI	Providence	Chaucer St	Erastus St	Carleton St	9-82	LP		4	1931	1280			500	1.2	3.0	2	0	0	10.20
1417			3/28/2014	3/28/2014	N VanWinkle	RI	Providence	Cowper Ct	Messer St	EOM	14-57	LP		4	1895	510			500	1.2	3.0	1	0	0	7.40
1416			5/5/2014	05/05/214	N VanWinkle	RI	Providence	Cranston St	Service Rd	Wadsworth St	575-770	LP		4	1870	1610			500	1.2	3.0	3	2	0	12.10

Rhoe Island Cast Iron Leak Analysis

Project #	Slotted FY	Work Order #	Initial Date of Identification	Date of Analysis	Evaluating Engineer	Division	Town	Street	From	To	Address Range	System Pressure (PSIG)	CP System	Exst Diameter (Inches)	YOI	Relay Footage Length of main to be Installed	Install Footage Length of main to be installed	Abandon Footage Length of main to be abandoned	Cluster Footage Distance from first leak to the last leak in the 'cluster'	Building Consequnce Factor If there are no buildings in the area = 0 If there are only single family homes = 1 If there are small builindgs (multi-family, strip malls, etc) = 1.2 If there are public buildings (school, church, hospital, etc) = 1.5	DIMP Factor see DIMP Factors List (updated 11/25/2014)	X Total Leak Repairs	Total Open Workables	Total Open Non-Workables	Prioritization Factor (Pr) *If the Pr Factor is greater than 12, the segment is considered 'actively corroding'.*
1130			1/1/2013	1/1/2013	N VanWinkle	RI	Providence	Dexter St	Huntington Ave	Potters Ave	519-560	LP		4	1892	0			500	1.2	0.0	0	0	0	0.00
1421			5/5/2014	05/05/214	N VanWinkle	RI	Providence	Douglas Ave	Oneil St	Stansburn St	792-902	LP		6,4	1890	2270			500	1.2	3.0	2	1	0	12.70
1419			3/24/2014	3/24/2014	N VanWinkle	RI	Providence	E Transit St	Ives st	Gano St	40-80	LP		4	1890	600			500	1.2	3.0	2	0	0	11.80
770			3/28/2014	3/28/2014	N VanWinkle	RI	Providence	East George	Govenor St	Gano St	7-77	LP		6	1896	2265			500	1.2	3.0	10	2	0	13.60
1425			4/4/2014	4/4/2014	N VanWinkle	RI	Providence	East Transit St 2	Ives st	Gano St	40-72	LP		4	1896	530			500	1.2	3.0	2	0	0	11.80
1426			5/5/2014	05/05/214	N VanWinkle	RI	Providence	Eddy St	Brook St	Baker St	1201-1261	LP		4	1891	1875			500	1.2	3.0	1	0	0	7.40
1427			5/5/2014	5/5/2014	N VanWinkle	RI	Providence	Eddy st 2	#77	Weybosset St	65-97	LP		4	1853	140			140	1.2	3.0	1	0	0	18.71
1430		90000142680	4/4/2014	4/4/2014	N VanWinkle	RI	Providence	Elmwood Ave -1	Daboll St	Carter St	312-433	LP		12,6	1891	1450	2905	2905	500	1.5	3.0	9	2	0	28.00
1422		90000152448	3/24/2014	2/11/2015	N VanWinkle	RI	Providence	Elton St	Blackstone BL	Taber Ave	4-151	LP to 99#		4	1912	10580	10580	10580	500	1.2	3.0	7	3	0	PW
1433			4/4/2014	4/4/2014	N VanWinkle	RI	Providence	Fairfield Ave	Richland St	Manton Ave	13-89	LP		4	1929	2060			500	1.2	3.0	4	1	0	12.10
1529			5/5/2014	05/05/214	N VanWinkle	RI	Providence	Felix BL	Valley St	Chalkstone Ave	2-74	LP		4	1894	860			500	1.2	3.0	1	0	0	7.40
1530			4/4/2014	4/4/2014	N VanWinkle	RI	Providence	Firglad Ave	Forest St	Hart St	14-48	LP		4	1905	1640			500	1.0	3.0	3	2	0	11.83
			1/30/2015	1/30/2015	N VanWinkle	RI	Providence	Fosdyke St	Woodbury St	Morris Ave	14-140	LP		6	1929	1485	1485	1485	500	1.2	3.0	1	0	0	8.30
1531			4/4/2014	4/4/2014	N VanWinkle	RI	Providence	Freeman PKWY	Taber Ave	Morris Ave	2-106	LP		6	1925	2390			500	1.0	3.0	2	1	0	8.83
1533			4/4/2014	1/16/2015	N VanWinkle	RI	Providence	Friendship St 2	Lockwood St	Linden St	367-440	LP		4	1887	2090			500	1.2	3.0	3	2	0	13.90
			4/4/2014	4/4/2014	N VanWinkle	RI	Providence	Gallatin St - 2	Elmwood St	Melorse St	209-273	LP		6	1913	2120			500	1.2	3.0	7	0	0	11.10
			4/4/2014	4/4/2014	N VanWinkle	RI	Providence	Gordon St	Broad St	Praire Ave	193-201	LP		4	1895	2665			500	1.5	3.0	2	0	0	13.00
1434			3/24/2014	3/24/2014	N VanWinkle	RI	Providence	Greeely St	Sherman St	#192 Greenly St	140-192	LP		6	1947	710			500	1.0	3.0	3	1	0	10.33
1440			3/24/2014	3/24/2014	N VanWinkle	RI	Providence	Hanover St	Bucklin St	Elmwood Ave	5-78	LP		4	1902	3400			500	1.2	3.0	6	0	0	12.60
			3/24/2014	3/24/2014	N VanWinkle	RI	Providence	Harrison St	Westnubster St	Division St	18-64	LP		3,4	1879	1150			500	1.2	1.0	3	0	0	9.60
			1/30/2015	1/30/2015	N VanWinkle	RI	Providence	Homer St	Broad St	Cactus St	12-106	LP		4	1891	1100	1100	1100	500	1.2	3.0	4	0	0	15.00
1439			5/5/2014	05/05/214	N VanWinkle	RI	Providence	Hope St	eleventh St	Blackstone BL	1016-1100	LP		6	1926	975			500	1.2	3.0	7	0	0	12.30
1443			4/4/2014	2/4/2015	N VanWinkle	RI	Providence	Indiana Ave	Eddy St	Narraganset Ave	162-316	LP		4	1895	2650			500	1.2	3.0	13	1	0	12.80
			1/30/2015	1/30/2015	N VanWinkle	RI	Providence	Ives St	Trenton St	Fremont St	99-147	LP		4	1896	2360	2360	2360	575	1.5	3.0	6	0	0	15.83
1442			4/4/2014	4/4/2014	N VanWinkle	RI	Providence	Ivy St	Hart St	EOM @ 226	181-226	LP		4	1910	1535			500	1.2	3.0	3	1	0	9.40
1447			4/4/2014	4/4/2014	N VanWinkle	RI	Providence	Jenkins St	Camp St	N Main St	13-132	LP		4	1873	3460			500	1.2	3.0	5	0	0	7.00
1445			5/5/2014	05/05/214	N VanWinkle	RI	Providence	Jewett st	Valley St	Calais St	86-266	LP		4	1893	2550			500	1.2	3.0	5	0	0	12.70
1446			5/5/2014	05/05/214	N VanWinkle	RI	Providence	Judith St	Sterling Ave	Lena St	20-80	LP		4	1925	1925			500	1.2	3.0	1	0	0	7.40
1448			4/4/2014	4/4/2014	N VanWinkle	RI	Providence	Lancaster St	Camp St	N Main St	7-101	LP		4	1909	2395			500	1.2	3.0	6	1	0	12.40
309			3/24/2014	3/24/2014	N VanWinkle	RI	Providence	Linclon St	Grotto Ave	EOM	345	LP		3,6	1877	2740			500	1.5	0.0	0	0	0	0.00
1449			5/5/2014	05/05/214	N VanWinkle	RI	Providence	Linden Dr	Cole Ave	EOM	2-28	LP		4	1958	330			500	1.0	3.0	1	0	0	7.00
1450			5/5/2014	05/05/214	N VanWinkle	RI	Providence	Loreto St	Charles St	EOM	10-11	LP		6	1925	150			500	1.0	3.0	1	0	0	7.00
			3/21/2014	3/21/2014	N VanWinkle	RI	Providence	Meeting St	Benefit St	EOM	15-28	LP		4	1875	345			500	1.5	3.0	5	0	0	13.75
1464			3/28/2014	3/28/2014	N VanWinkle	RI	Providence	Napples Ave	Sharon Ave	Enfield Ave	11-119	LP		5	1930	3050			500	1.0	3.0	17	1	0	10.50
			4/4/2014	4/4/2014	N VanWinkle	RI	Providence	Oak St	Messer St	Parade St	12-100	LP		4	1873	1035			500	1.2	3.0	1	0	0	7.40
511			1/1/2011	5/22/2014	N VanWinkle	RI	Providence	Pinehurst Ave	Smith St	Eaton St	9-130	LP		4	1911	1575			790	1.2	1.0	4	2	0	6.82
			1/30/2015	1/30/2015	N VanWinkle	RI	Providence	Plainfield St	Hartford St	Route 6	10-114	LP		4,8	1912	1675	1675	1675	850	1.5	3.0	8	0	0	16.24
1539			4/4/2014	4/4/2014	N VanWinkle	RI	Providence	Pomona Ave	Carleton St	Academy Ave	10-83	LP		4	1893	2925			500	1.5	3.0	4	3	0	9.00
			1/16/2015	1/16/2015	N VanWinkle	RI	Providence	Providence St	Pearl St	Dudley St	68-126	LP		4	1884	1420	1420	1420	500	1.2	3.0	1	0	0	7.40

Rhode Island Steel Leak Analysis

Project #	FY	WO#	Initial Date of Identification	Date of Analysis	Evaluating Engineer	Division	Town	Street	From	To	Address Range	System Pressure (PSIG)	CP System	Exst Diameter	YOI	Relay Footage Length of main to be replaced	Install Footage	Abandon Footage	Cluster Footage Distance from first leak to the last leak in the 'cluster'	Building Consequnce Factor If there are no buildings in the area = 0 If there are only single family homes = 1 If there are small builindgs (multi-family, strip malls, etc) = 1.2 If there are public buildings (school, church, hospital, etc) = 1.5	DIMP Factor see DIMP Factors List (updated 11/25/2014)	*X Total Leak Repairs*	*Total Open Workables*	*Total Open Non-Workables*	*Prioritization Factor (Pr)* *If the Pr Factor is greater than 12, the segment is considered 'actively corrodina'.*
1097	2014	9000118308	1/1/2013	1/1/2013	N VanWinkle	RI	Cranston	Flynn Ave, Beeckman	East St	Stam Ave		35#		2	1964	855			650	1.0	2.4	5	1	0	8.43
1061	2014	9000118581	1/1/2013	1/1/2013	N VanWinkle	RI	Johnston	Atwood Ave	#1178	#973		35#		8	1959	3335	3335	3335	500	1.2	2.4	8	2	0	14.40
1008	2014	9000118157	1/1/2013	1/1/2013	N VanWinkle	RI	Warwick	Chestnut St, Ash St	Post Rd	bly St		35#		2	1930	1420	1420	1420	500	1.2	2.4	1	0	0	5.20
1234	2014	90000131212	1/1/2013	1/6/2014	N VanWinkle	RI	Warwick	Endicott Dr	Strawberry Field Rd	Norflok Rd		35#		2	1949	1740	1740	1740	1060	1.0	2.4	4	5	0	9.63
1635	2014	90000148199	10/24/2014	10/24/2014	N VanWinkle	RI	Warwick	George st	#156	#173	156-173	35#		2	1962	135	135	135		1.0	2.4	0	0	0	FIELD REQUEST
1335	2014		1/1/2011	3/25/2014	N VanWinkle	RI	Warwick	Gilbert St	Sutter Ave	#7 Gilbert St	2-7	35#		2	1965	218			500	1.0	1.7	2	2	0	7.20
1021	2014	9000118185	1/1/2013	1/7/2015	N VanWinkle	RI	Warwick	Hollywood Ave	Post Rd	Mann St		35#		2	1930	755	755	755	500	1.0	2.4	1	2	0	10.07
1228	2014	90000131011	1/1/2013	1/6/2014	N VanWinkle	RI	Warwick	Lucas Rd, Topaz Dr	Weeden Dr	Court B		35#		2	1964	4045	3945	3945	625	1.0	2.4	5	2	0	14.53
1227	2014	90000131005	1/1/2013	1/6/2014	N VanWinkle	RI	Warwick	Norwood Ave	Post Rd	#201 Norwood Ave		35#		2	1930	3235	3235	3235	570	1.5	2.4	7	1	0	19.07
1160	2015	90000146591	1/20/2015	1/20/2015	N VanWinkle	RI	Barrington	Blanding Ave	Latham Ave	Ocean Ave	10-77	35		2	1933	2090	2090	2090	500	1.2	1.7	4	1	0	13.50
1162	2015	90000142785	1/1/2013	1/20/2015	N VanWinkle	RI	Barrington	Centennial Ave	Maple St	#8 Centennial Ave	2-8	25		2	1967	295	295	295	295	1.0	1.7	3	0	0	12.96
1156	2015	90000138768	1/1/2013	3/21/2014	N VanWinkle	RI	Barrington	Chachapacasset Rd	Rumstick Rd	Lorrain St		25		4,2	1931	2435	2435	2435	500	1.0	1.7	4	1	0	10.53
1163	2015	90000142814	1/1/2013	3/21/2014	N VanWinkle	RI	Barrington	Tiffany Ct	Lincoln Ave	#3 Tiffany Ci	1-4	25		2	1957	226	220	220	226	1.0	1.7	1	0	0	8.30
1158	2015	90000142818	1/20/2015	1/20/2015	N VanWinkle	RI	Barrington	Water Way St	Bluff Rd	Highland Ave	33-71	35		2, 1.5	1931	2085	2085	2085	700	1.0	2.4	6	1	0	12.40
1634	2015	90000146595	9/17/2014	9/17/2014	N VanWinkle	RI	Bristol	Highland Ave	Gibson Rd	EOM	1-40	LP to 8#		4,3,2	1940	5125	5125	5125	500	1.0	1.7	2	0	0	7.70
1633	2015	90000146593	9/17/2014	9/17/2014	N VanWinkle	RI	Bristol	Siege St	Mt Hope Rd	EOM	4-11	LP		2	1940	135	135	135	135	1.2	1.7	2	0	0	20.22
1605	2015	90000142780	5/29/2014	5/29/2014	N VanWinkle	RI	Bristol	Union St	High St	Hope St	17-58	LP		3	1940	1000	1000	1000	500	1.0	2.4	15	1	0	39.23
1167	2015	90000146589	1/1/2013	3/21/2014	N VanWinkle	RI	Coventry	Arnold Rd	Johnson Bl	Forest St	187-251	35#		2	1960	1605	1605	1605	500	1.2	1.7	3	0	0	8.50
1562	2015	90000142815	5/9/2014	5/9/2014	N VanWinkle	RI	Cranston	Beckwidth St	Grace St	EOM	170	LP to 7#		4	1958	180	180	180	180	1.2	1.7	2	1	0	22.22
1172	2015	90000142831	1/1/2013	1/20/2015	N VanWinkle	RI	Cranston	E View Ave	N View Ave	Palmer Ave	85-171	LP to 99#		6	1964	2315	2745	3005	650	1.0	1.7	7	1	0	10.76
1179	2015	90000146542	5/13/2014	5/13/2014	N VanWinkle	RI	Cranston	Mockingbird Dr	Quail Hollow Rd	Stony Acre Dr	12-130	LP to 35#		6	1965	3990	3990	3990	500	1.0	1.7	3	0	0	9.20
1173	2015	90000146544	1/1/2013	3/21/2014	N VanWinkle	RI	Cranston	Natick Ave	Wilbur Ave	bridge crossing	47-164	35#		8,2	1959	2015	2015	2015	500	1.5	1.7	1	2	0	6.45
1548	2015	90000142538	5/9/2014	5/9/2014	N VanWinkle	RI	Cranston	Spectacle St	Manhasset Rd	Westrussie St	1-4	LP		4	1963	0	0	635	500	1.0	1.7	2	0	0	8.33
1174	2015	90000146546	1/20/2014	3/21/2014	N VanWinkle	RI	Cranston	Sweet Meadow Dr	Bateman Ave	#71 Sweet Meadow Dr	21-71	35#		2	1963	1055	930	1055	500	1.0	1.7	7	2	0	11.87
1551	2015	90000146583	5/9/2014	5/9/2014	N VanWinkle	RI	Cranston	Whiting St	#247	#171	171-247	LP		6	1951	1685	1685	1685	500	1.0	1.7	2	1	0	9.99
1175	2015	90000146585	1/1/2013	3/21/2014	N VanWinkle	RI	Cranston	Woodlawn Dr	Briarwood Rd	Warfield Ave	5-94	35#		2	1958	2045	2045	2045	500	1.0	1.7	3	0	0	7.66
1552	2015	90000146587	1/20/2015	1/20/2015	N VanWinkle	RI	Cranston	Woodrow Ave	Oaklawn Ave	Kermit Ave	14-45	35#		2	1958	570	570	570	500	1.2	2.4	4	0	0	14.60
1185	2015	90000146654	1/1/2013	3/21/2014	N VanWinkle	RI	East Greenwich	Sixth Ave	Main St	Fourth St	17-55	35#		2	1950	2155			500	1.2	1.7	3	1	0	9.90
1189	2015	90000146526	1/1/2013	3/21/2014	N VanWinkle	RI	East Providence	Breeze Ave	Crescent View Ave	End	22-49	25#		2	1939	230	230	230	230	1.0	1.7	3	0	0	14.74
1632	2015	90000146528	9/17/2014	9/17/2014	N VanWinkle	RI	East Providence	Coyle	Roger Williams Ave	Pioneer Ave	6-56	LP to 35#		6	1958	890	890	890	500	1.2	1.7	1	2	0	9.90
1195	2015	90000146532	1/1/2013	3/21/2014	N VanWinkle	RI	East Providence	Legion Wy, Cedarwood Dr	Beverly Rd	#103 Legion Wy	103-118	25#		2	1962	2145	2145	2145	500	1.0	1.7	3	0	0	7.70
1197	2015	90000146540	1/1/2013	3/21/2014	N VanWinkle	RI	East Providence	Pickett Rd	Hedley Ci	Wampanoag Tr	2-21	25#		2	1964	1880	1880	1880	500	1.2	1.7	2	2	0	6.06
1198	2015	90000142764	1/1/2013	3/21/2014	N VanWinkle	RI	Johnston	Atwood Ave	#1255	#1294	1294-1296	35#		8	1958	110	110	110	110	1.0	1.7	2	1	0	35.03
1202	2015	90000143017	1/1/2013	3/21/2014	N VanWinkle	RI	Johnston	Carpenter Dr	Atwood Ave	Buena Vista Ave	57-67	35#		2	1959	2450	2440	2225	500	1.0	1.7	3	0	0	10.70
1200	2015	90000143019	1/1/2013	3/21/2014	N VanWinkle	RI	Johnston	Greenville Ave	Blackberry Knl Wy	#369 Greenville Ave	372-433	35#		6	1958	2085	2085	2085	500	1.0	1.7	4	4	0	10.03
1199	2015	90000146522	5/13/2014	5/13/2014	N VanWinkle	RI	Johnston	Old Pocasset Rd	Central Ave	Scituate Ave		35#		6	1963	3675	3675	3675	500	1.0	1.7	2	2	0	7.20
1631	2015	90000146520	9/17/2014	9/17/2014	N VanWinkle	RI	Lincoln	Reservior Ave	Old River Rd	Valley St	12-27	LP		4	1940	970	1035	970	415	1.2	1.7	1	0	0	8.21
950	2015	9000118396	1/1/2013	1/8/2015	N VanWinkle	RI	Middletown	Rego Te	E Main Rd	MappleWood Rd		10#		4	1940	370	370	370	370	1.2	2.4	2	0	0	11.05
1210	2015	90000146502	1/1/2013	3/24/2014	N VanWinkle	RI	North Kingstown	Heritage Rd	Chadsey Rd	Lynn Dr	5-221	35#		3	1962	5550	5550	5550	735	1.2	1.7	4	2	0	4.79
1630	2015	90000146500	9/17/2014	9/17/2014	N VanWinkle	RI	North Providence	Redwood	Longwood Ave	EOM	11-27	35		2	1958	1200	1200	1200	500	1.2	2.4	1	1	0	6.60
1555	2015	90000146660	5/9/2014	5/9/2014	N VanWinkle	RI	Pawtucket	Taft St	Bensley St	Merry St	255-274	LP		4,1.5	1940	230			230	1.2	2.4	2	2	0	15.44
1554	2015	90000146658	3/2/2014	1/21/2015	N VanWinkle	RI	Providence	Christopher St	#200	Devon St	44-97	LP		6	1962	1430	1430	1430	500	1.0	1.7	5	0	0	6.66
1629	2015	90000146498	9/17/2014	9/17/2014	N VanWinkle	RI	Providence	Elmdale St	Laurel Hill Ave	EOM	189-205	LP		6,2	1951	330	330	330	330	1.2	1.7	1	1	0	13.52
1628	2015	90000146496	9/17/2014	9/17/2014	N VanWinkle	RI	Providence	Lynch	Atwells Ave	EOM	1-5	LP		2	1960	195	195	195	195	1.0	1.7	3	1	0	36.74
1216	2015	90000146492	5/13/2014	5/13/2014	N VanWinkle	RI	Smithfield	Circle Rd	Lakeside Dr	Old County Rd	1-12	35#		2	1958	2475			500	1.0	1.7	2	1	0	6.99
1213	2015	90000146490	1/21/2015	1/21/2015	N VanWinkle	RI	Smithfield	Farnum Pl	#3	#39	3-39	35#		2	1960	1070	1070	1070	650	1.2	2.4	3	2	0	11.32
1627	2015	90000146494	1/21/2015	1/21/2015	N VanWinkle	RI	Smithfield	Spencer Rd	Barnes St	Sutton St	17-38	35		2	1967	3095	3095	3095	500	1.0	2.4	4	0	0	11.40
1553	2015	90000142677	5/9/2014	5/9/2014	N VanWinkle	RI	Smithfield	Tucker Rd	Concord St	Sutton St	3-15	35#		2	1967	2640	2480	2385	590	1.0	2.4	4	1	0	12.85
1624	2015	90000146488	9/17/2014	9/17/2014	N VanWinkle	RI	Warren	Beach St	Main St	#66	11-66	8		3	1900	980	880	980	500	1.2	2.4	1	1	0	8.20
1625	2015	90000146460	9/17/2014	9/17/2014	N VanWinkle	RI	Warren	Everett St	Kickemuit Rd	EOM	41-72	LP		3	1940	450	450	450	450	1.0	1.7	2	0	0	6.70

Rhode Island Steel Leak Analysis

Project #	FY	WO#	Initial Date of Identificati on	Date of Analysis	Evaluating Engineer	Division	Town	Street	From	To	Address Range	System Pressure (PSIG)	CP System	Exst Diameter	YOI	Relay Footage Length of main to be replaced	Install Footage	Abandon Footage	Cluster Footage Distance from first leak to the last leak in the 'cluster'	Building Consequnce Factor If there are no buildings in the area = 0 If there are only single family homes = 1 If there are small builindgs (multi-family, strip malls, etc) = 1.2 If there are public buildings (school, church, hospital, etc) = 1.5	DIMP Factor see DIMP Factors List (updated 11/25/2014)	X Total Leak Repairs	Total Open Workables	Total Open Non-Workables	Prioritization Factor (Pr) If the Pr Factor is greater than 12, the segment is considered 'actively corrodina'.
1626	2015	90000146455	9/17/2014	9/17/2014	N VanWinkle	RI	Warren	Market St	246	314	246-314	60		4	1940	1100	1100	1100	500	1.2	2.4	2	0	0	7.60
1558	2015	90000146438	5/9/2014	5/9/2014	N VanWinkle	RI	Warwick	Alger Ave	Post Rd	John Wickes Ave	2-94	35#		2	1932	985			500	1.2	2.4	5	1	0	20.60
1557	2015	90000142444	5/9/2014	5/9/2014	N VanWinkle	RI	Warwick	Almy St	Berry Field Rd	EOM	12-57	35#		2	1949	540	540	365	500	1.5	2.4	2	2	0	12.15
1559	2015	90000142461	5/9/2014	5/9/2014	N VanWinkle	RI	Warwick	Alpine St	Church Ave	Bend St	13-83	35#		2	1929	1060	1060	1060	500	1.0	2.4	4	0	0	15.90
1647	2015	90000150324			N VanWinkle	RI	Warwick	Apple Tree Ln	Pocono Dr	#1	1-122	35		2	1958	3915	3915	3915		1.0	2.4	0	0	0	PW
1563	2015	90000142469	5/9/2014	5/9/2014	N VanWinkle	RI	Warwick	Beaver Ave	Warmick Neck Ave	Charlestown Ave	15-88	35#		2	1950	1880	1880	1800	500	1.0	2.4	8	3	0	18.23
1567	2015	90000142529	5/9/2014	5/9/2014	N VanWinkle	RI	Warwick	Commonwealth ave	#688	#750	688-750	35#		4	1967	870	870	870	540	1.0	2.4	3	2	0	14.13
1565	2015	90000142515	1/21/2015	1/21/2015	N VanWinkle	RI	Warwick	Crestwood Dr	Windemere Wa	#215	215-330	35#		2	1940	1945	1945	1945	500	1.0	2.4	5	3	0	16.07
761	2015	90000119984	1/1/2012	5/22/2014	N VanWinkle	RI	Warwick	Cypress St	Jefferson BL	EOM		35#		2	1967	135			135	1	2.4	3	1	0	18.90
1569	2015	90000142547	5/9/2014	5/9/2014	N VanWinkle	RI	Warwick	Greenwich Ave	Greenwood Ave	EOM	887-1055	35#		2,8,3	1951	2465	4275	4275	500	1.2	2.4	5	8	0	8.20
1570	2015	90000146664	5/9/2014	5/9/2014	N VanWinkle	RI	Warwick	Greenwich Ave 2	Greenwood Ave	Potters Ave	819-882	35#		3,2	1951	895			500	1.2	2.4	4	4	0	14.00
1573	2015	90000142570	5/13/2014	5/13/2014	N VanWinkle	RI	Warwick	Lima st	#40	Glendale Ave	4-40	35#		2	1947	760	760	715	500	1.0	2.4	4	1	0	12.73
1621	2015	90000146436	9/17/2014	9/17/2014	N VanWinkle	RI	Warwick	Main Ave	Spooner Ave	Alvin St	930-1099	35		2	1949	1460	1460	2075	850	1.0	2.4	5	4	0	14.85
1622	2015	90000146434	9/17/2014	9/17/2014	N VanWinkle	RI	Warwick	Meadow St	Centerville Rd	EOM	100-135	35		2	1958	575	575	575	500	1.2	2.4	4	2	0	19.00
1579	2015	90000142591	5/13/2014	5/13/2014	N VanWinkle	RI	Warwick	Northup St	Okland Beach Ave	Shore View Rd	9-193	35#		2	1952	3105	3105	3105	500	1.0	2.4	5	1	0	14.90
1623	2015	90000146431	9/17/2014	9/17/2014	N VanWinkle	RI	Warwick	Palm BL	Post Rd	#1	1-70	35		2	1938	900	900	900	550	1.2	2.4	7	3	0	20.40
1582	2015	90000142605	5/13/2014	5/13/2014	N VanWinkle	RI	Warwick	Pritan Dr -Elmwood Ave	Post Rd	Puritan Dr	2168-2238	35#		2	1930	1820	1820	1820	500	1.0	2.4	7	0	0	15.57
1583	2015	90000142613	5/13/2014	5/13/2014	N VanWinkle	RI	Warwick	Red Chimney Dr	Timberline Dr	EOM	35-129	35#		2	1956	1810	1810	1810	500	1.5	2.4	4	1	0	17.40
1584	2015	90000142619	5/13/2014	5/13/2014	N VanWinkle	RI	Warwick	Sweet St	Victory St	#41	41-81	35#		2	1954	840			500	1.0	2.4	6	2	0	13.90
1588	2015	90000142632	5/13/2014	1/21/2015	N VanWinkle	RI	Warwick	Tennyson Rd	Post Rd	EOM	1344-261	35#		2	1946	3025	3045	3045	500	1.0	2.4	7	1	0	17.57
1589	2015	90000142638	5/13/2014	5/13/2014	N VanWinkle	RI	Warwick	Tirnan Ave	Davidson Rd	Darrow Dr	5-30	35#		2	1957	405	405	405	405	1.0	2.4	3	3	0	15.36
1587	2015	90000142625	5/13/2014	5/13/2014	N VanWinkle	RI	Warwick	Trinity St	Natick Ave	Hillard Ave	23-131	35#		2	1950	2235	2335	2670	500	1.0	2.4	5	0	0	14.90
1592	2015	90000142640	5/13/2014	5/13/2014	N VanWinkle	RI	Warwick	Warwick Neck Ave	Rock Point Ave	Blackstone Ave	351-588	35#		6,4	1956	4020	4050	4050	500	1.5	2.4	4	4	0	18.65
1619	2015	90000146427	9/18/2014	9/18/2014	N VanWinkle	RI	West Warwick	Coogan Ct	Clyde St	EOM	7-12	35		2	1940	205	205	205	205	1.0	2.4	1	1	0	22.73
1219	2015	90000142434	5/13/2014	5/13/2014	N VanWinkle	RI	West Warwick	Elbow St	Phenix Ave	Angell St	23-27	35#		2	1965	210	210	210	210	1.0	2.7	1	0	0	16.99
1547	2015	90000142427	5/9/2014	1/22/2015	N VanWinkle	RI	West Warwick	Epworth Ave	Main st	EOM	8-50	35#		2	1965	535	535	535	500	1.2	2.4	4	0	0	20.97
1220	2015	90000142421	5/13/2014	5/13/2014	N VanWinkle	RI	West Warwick	Main St	Washington St	Robert St	1277-1321	35#		2	1960	741	775	775	500	1.0	2.7	1	1	0	10.03
1620	2015	90000146429	9/18/2014	9/18/2014	N VanWinkle	RI	West Warwick	Manchester St	Pulaski St	#16	16-47	35		2	1962	665	665	665	500	1.2	2.4	1	0	0	6.00
1618	2015	90000146444	9/18/2014	9/18/2014	N VanWinkle	RI	Westerly	Bradford	S Main St	Woody Hill Rd	275-360	60		4	1940	2825	2825	2825	500	1.0	2.4	3	3	0	11.07
1615	2015	90000145784	9/8/2014	9/8/2014	N VanWinkle	RI	Westerly	Dayton St	Pierce St	Pleasant St	3-25	#60		3	1940	665	665	665	500	1.2	2.4	1	1	0	9.20
1223	2015	90000130954	1/1/2013	9/18/2014	N VanWinkle	RI	Westerly	East St 2	Riverview Ave	Sosoa Ln		LP		4	1940	3425	3425	3425	500	1.0	1.7	3	1	0	15.70
1611	2015	90000145676	8/1/2014	8/1/2014	N VanWinkle	RI	Westerly	Joseph	Brenden	Henery	1-22	35		4,2	1940	3550	3550	3550	500	1.2	2.4	1	2	0	10.80
1616	2015	90000146446	9/1/2014	9/1/2014	N VanWinkle	RI	Westerly	Margin St	Greenman Ave	beach St	2-19	LP to 60#		4, 3	1940	2960	2960	2960	500	1.2	1.7	2	0	0	8.50
1617	2015	90000146450	9/17/2014	9/17/2014	N VanWinkle	RI	Westerly	Yankee	Netherwood	Davenport St	12-42	21		2	1940	1590	1590	1590	500	1.2	2.4	3	1	0	12.40
1645	2016	90000150292	11/12/2014	11/12/2014	N VanWinkle	RI	Warwick	Ardway Ave	#86	EOM near # 46	46-86	35		2	1929	320	320	320	320	1.0	2.4	2	0	0	19.33
1644	2016	90000150295	11/12/2014	11/12/2014	N VanWinkle	RI	Warwick	Creston Wa	Crestwood Rd	Weschester Wa	6-60	35		2	1940	1615	1615	1615	500	1.0	2.4	4	0	0	18.73
1640	2016	90000150297	11/12/2014	11/12/2014	N VanWinkle	RI	Warwick	Foxcroft Ave	Lindbrook Dr	Peabody Dr	3-67	35		2	1959	3620	3620	3620	500	1.0	2.4	4	0	0	13.40
1642	2016	90000150299	11/12/2014	11/12/2014	N VanWinkle	RI	Warwick	Hedgerow Dr	LadderLook Dr	Major Potter Rd	65-155	35		2	1965	910	910	910	500	1.0	2.4	3	0	0	16.07
1646	2016	90000150306	11/12/2014	11/12/2014	N VanWinkle	RI	Warwick	Love Ln 2	#425	#437	425-437	35		8	1958	65	65	65	65	1.0	2.4	3	0	0	67.78
1641	2016	90000150315	11/12/2014	11/12/2014	N VanWinkle	RI	Warwick	Manning St	Wilson Ave	Brushneck Ave	112-178	35		2	1948	2735	2735	2735	500	1.0	2.4	4	0	0	13.90
1638	2016		11/12/2014	11/12/2014	N VanWinkle	RI	Warwick	Marquette St	Farnum Rd	EOM	1-47	35		2	1949	1145	1145	1145	500	1.0	2.4	3	0	0	13.23
1639	2016	90000150290	11/12/2014	11/12/2014	N VanWinkle	RI	Warwick	Vaughn Ave	Post Rd	Sharon St	18-111	35		2	1929	1100	1100	1100	500	1.0	2.4	3	2	0	13.40
1643	2016	90000150285	11/12/2014	11/12/2014	N VanWinkle	RI	Warwick	Vineyard Rd	Burgoyne Dr	#248	165-248	35		2	1958	2310	2310	2310	500	1.2	2.4	5	1	0	16.20
1637	2016	90000150287	11/12/2014	11/12/2014	N VanWinkle	RI	Warwick	Vineyard Rd 2	Ticonderoga Dr	Burgoyne Dr	303-332	35		2	1958	615	615	615	500	1.2	2.4	3	2	0	13.00
867	2019	9000118523	1/1/2013	1/6/2014	N VanWinkle	RI	Westerly	Spruce	Park	End		Low to 60#		4	1940	2250	2250	3810	600	1.2	1.7	1	0	0	8.37
1098	2020	9000118311	1/1/2013	1/7/2014	N VanWinkle	RI	Cranston	Broad St	Chiswick Rd	Tucker Ave		LP		6	1960	1570	1570	1570	500	1.2	2.4	6	0	0	21.40
	2020		1/20/2014	1/20/2014	N VanWinkle	RI	Newport	Whitwell Ave	Bliss Rd	Watson Rd	2-52	LP		4	1933	1200	1200	1200	500	1.0	1.7	2	0	0	4.53
932	**2020**	9000112036	1/1/2013	2/13/2015	N VanWinkle	RI	North Kingstown	Post Rd	#6000	#5941	5941-6000	35#		8	1954	1784	1784	1784	500	1.0	0.0	0	0	0	2.67
			9/17/2014	9/17/2014	N VanWinkle	RI	Barrington	Brentwood	Rumstick rd	EOM	4-23	25		2	1937	1550	1810	1550	500	1.0	2.4	1	3	0	7.90
			1/20/2014	1/20/2014	N VanWinkle	RI	Barrington	George Finnerty Rd	New Meadow Rd	#5	#5	25		2	1961	215	215	215	400	1.0	2.4	3	0	0	10.53

Rhode Island Steel Leak Analysis

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1157			1/1/2013	3/21/2014	N VanWinkle	RI	Barrington	Lantern Ln	Rumstick Rd	Lantern Ln	9-27	35		2	1950	2496			500	1.0	1.7	3	0	0	6.70
1161			1/1/2013	3/21/2014	N VanWinkle	RI	Barrington	Washington Rd	Milton Rd	Brook St	48-110	25		2	1961	1900			500	1.0	1.7	1	1	0	4.53
			1/20/2014	1/20/2014	N VanWinkle	RI	Bristol	State St	High St	Wood St	131-173	LP		4	1940	670	670	670	500	1.5	1.7	1	0	0	5.70
			1/20/2014	1/20/2014	N VanWinkle	RI	Centeral falls	Budlong Rd	Midvale Ave	Farrar St	185-305	LP		6	1961	3450	3450	3450	500	1.2	1.7	4	0	0	13.50
			9/17/2014	9/17/2014	N VanWinkle	RI	Centeral falls	Walnut St	Broad St	#60	14-60	LP		4	1940	670	670	670	500	1.2	1.7	1	0	0	6.10
1166			5/5/2014	5/5/2014	N VanWinkle	RI	Central Falls	Emmett St	Lonsdale Ave	Townline		Low to 99#		2	1910	1023			500	1.0	0.0	0	0	0	0.00
1165			5/13/2014	5/13/2014	N VanWinkle	RI	Central Falls	King St, Summer St	Washiington St	Perry St		Low		3	1940	1107			500	1.0	0.0	0	0	0	0.00
1164			5/13/2014	5/13/2014	N VanWinkle	RI	Central Falls	Lonsdale Ave	Dexter St	Althea Ave		Low & 60#		4	1911	2512			500	1.0	0.0	0	0	0	0.00
1169			3/21/2014	3/21/2014	N VanWinkle	RI	Coventry	Anderson	Raymond St	EOM	19-37	35		2	1961	620			500	1.0	1.7	1	0	0	3.16
1169			5/13/2014	5/13/2014	N VanWinkle	RI	Coventry	Anderson Ave	Yates Ave	Raymond St	19-37	35#		2	1961	623			500	1.0	2.4	1	0	0	5.40
1170			5/13/2014	5/13/2014	N VanWinkle	RI	Coventry	Manor Dr	S Main St	end	1-23	35#		2	1965	982			500	1.0	0.0	0	0	0	0.00
1550			5/9/2014	5/9/2014	N VanWinkle	RI	Cranston	Angell Ave	Overbrook Dr	#126	126-208	35#		2	1958	1590			500	1.0	2.4	4	0	0	6.40
1176			5/13/2014	5/13/2014	N VanWinkle	RI	Cranston	Blais Ave	#21	#229 East St	11-21	35#		2	1963	215			500	1.0	0.0	0	0	0	0.00
1180			5/13/2014	5/13/2014	N VanWinkle	RI	Cranston	New London Ave	Townline	Warfield Ave	1330-1414	35#		6	1958	1250			500	1.2	1.7	0	3	0	4.50
			1/20/2014	1/20/2014	N VanWinkle	RI	Cranston	Woodridge Ave	Reservior Ave	EOM		LP		6	1963	245	245	245	245	1.5	1.7	7	0	0	52.72

Rhode Island Steel Leak Analysis

Project #	FY	WO#	Initial Date of Identification	Date of Analysis	Evaluating Engineer	Division	Town	Street	From	To	Address Range	System Pressure (PSIG)	Exst Diameter	YOI	Install Footage	Abandon Footage	Cluster Footage Distance from first leak to the last leak in the 'cluster'	Building Consequnce Factor If there are no buildings in the area = 0 If there are only single family homes = 1 If there are small builindgs (multi-family, strip malls, etc) = 1.2 If there are p	DIMP Factor see DIMP Factors List (updated 11/25/2014)	*X Total Leak Repairs*	*Total Open Workables*	*Total Open Non-Workables*	*Prioritization Factor (Pr)* *If the Pr Factor is greater than 12, the segment is considered 'actively corroding'.*
			9/1/2014	9/1/2014	N Van Winkle	RI	North Providence	Woodard Ave	#739	Town Line	739-759	60	2	1973	240	240		1.0		0	0	0	
1614	2015	90000145782	9/1/2014	9/1/2014	N Van Winkle	RI	Westerly	High St	Potter Hill Rd	Center St	269-315	60	4	1973	2285	2285		1.2		0	0	0	
1648	2015	90000151877	9/1/2014	9/1/2014	N Van Winkle	RI	Westerly	W Beach St	Beach St	EOM	1-33	LP	3	1971	3275	3275		1.0		0	0	0	
			9/1/2014	9/1/2014	N Van Winkle	RI	Westerly	Wadchu Rd	Quannacut Rd	EOM	5-11	60	2	1973	475	475		1.0		0	0	0	

Rhode Island Steel Leak Analysis

Project #	FY	WO#	Initial Date of Identification	Date of Analysis	Evaluating Engineer	Division	Town	Street	From	To	Address Range	System Pressure (PSIG)	Exst Diameter	YOI	Install Footage	Abandon Footage	Cluster Footage Distance from first leak to the last leak in the 'cluster'	Building Consequnce Factor If there are no buildings in the area = 0 If there are only single family homes = 1 If there are small builindgs (multi-family, strip malls, etc) = 1.2 If there are p	DIMP Factor see DIMP Factors List (updated 11/25/2014)	*X Total Leak Repairs*	*Total Open Workables*	*Total Open Non-Workables*	*Prioritization Factor (Pr)* *If the Pr Factor is greater than 12, the segment is considered 'actively corroding'.*

Rhode Island Steel Leak Analysis

Project #	FY	WO#	Initial Date of Identification	Date of Analysis	Evaluating Engineer	Division	Town	Street	From	To	Address Range	System Pressure (PSIG)	Exst Diameter	YOI	Install Footage	Abandon Footage	Cluster Footage Distance from first leak to the last leak in the 'cluster'	Building Consequnce Factor If there are no buildings in the area = 0 If there are only single family homes = 1 If there are small builindgs (multi-family, strip malls, etc) = 1.2 If there are p	DIMP Factor see DIMP Factors List (updated 11/25/2014)	*X Total Leak Repairs*	*Total Open Workables*	*Total Open Non-Workables*	*Prioritization Factor (Pr) If the Pr Factor is greater than 12, the segment is considered 'actively corroding'.*

Rhode Island Steel Leak Analysis

Project #	**FY**	**WO#**	**Initial Date of Identification**	**Date of Analysis**	**Evaluating Engineer**	**Division**	**Town**	**Street**	**From**	**To**	**Address Range**	**System Pressure (PSIG)**	**Exst Diameter**	**YOI**	**Install Footage**	**Abandon Footage**	**Cluster Footage** Distance from first leak to the last leak in the 'cluster'	**Building Consequnce Factor** If there are no buildings in the area = 0 If there are only single family homes = 1 If there are small builindgs (multi-family, strip malls, etc) = 1.2 If there are p	**DIMP Factor** see DIMP Factors List (updated 11/25/2014)	***X Total Leak Repairs***	***Total Open Workables***	***Total Open Non-Workables***	***Prioritization Factor (Pr)*** *If the Pr Factor is greater than 12, the segment is considered 'actively corroding'.*

PUC 1-17

Request:

With respect to factors D, P, C, and R above, does the company use a bulk or average quantification of these values to track how the system has changed through time? If so, please explain the calculation, and provide the data for all years it has been quantified.

Response:

The factors D, P, C and R identified in PUC 1-16 are calculated for the individual segment based on leak activity and other known characters of the segment. The Company uses other performance metrics to evaluate the effectiveness of this program and the trends (i.e. leaks per mile, leak repairs-per-mile of leak prone pipe). Also, see the Company's response to PUC 1-16.

Prepared by or under the supervision of: David G. Iseler

PUC 1-18

Request:

Please provide the Company's calculation for lost and unaccounted for gas that underlies the percentage reported to the Pipeline and Hazardous Materials Safety Administration ("PHMSA") in the Gas Distribution Annual Report form for years 2005 to present. Please include an explanation of any "appropriate adjustments" made by the Company and allowed by PHMSA.

Response:

Attachment PUC 1-18 includes the calculations performed for lost and unaccounted for gas since 2007, as reported in the Company's Gas Distribution Annual Reports. The spreadsheet also includes the reduction of unaccounted for gas by gas emission due to leaks using Environmental Protection Agency STAR program standards, as allowed by PHMSA.

Prepared by or under the supervision of: David G. Iseler

SPREADSHEET FOR CALCULATING DOT REPORT "NET" UFG
WITH SYSTEM LEAKAGE ADJUSTMENT

YEAR: 2007- 2013 *(Using "Annual" Emissions Rates Listed In The EPA STAR Report - in MCF/mile)*

ENTER ALL INVENTORY VALUES IN RED FIELDS WITH DATA FROM THE DOT REPORT
ENTER SENDOUT & GROSS UFG FIELDS IN RED FROM 6/30 UFG DATA SUPPLIED
THE SPREADSHEET CALCULATES EVERYTHING ELSE

MAINS		SERVICES	
Cast Iron	239	Copper	0.3
Protected Steel	3	Protected Steel	0.2
Unprotected Steel	110	Unprotected Steel	1.7
Plastic	12	Plastic	0.01

AVG SRVC LENGTHS 68 ft 68 ft 68 ft 68 ft 65 ft 66 ft 66.09 ft

	RI-2007*			RI-2008			RI-2009			RI-2010			RI-2011			RI-2012			RI-2013		
MATERIAL	NUMBER	MILES	LEAKAGE	NUMBER	MILES	LEAKAGE	NUMBER	MILES	LEAKAGE	NUMBER	MILES	LEAKAGE	NUMBER	MILES	LEAKAGE	NUMBER	MILES	LEAKAGE	NUMBER	MILES	LEAKAGE
MAIN - CI		902	215578		896.336	214224.304		885.244	211573.316		878	209778.426		875	209018.884		859	205267.779		831	198625.73
MAIN - Prot Steel		563	1689		578.477	1735.431		550.88	1652.64		601	1801.812		588	1764.978		597	1790.814		596	1788.744
MAIN - UP Steel*		697	76670		681.373	74951.03		690.707	75977.77		609	66995.39		597	65669.01		550	60551.92		524	57652.43
MAIN - Plastic		941	11292		967.73	11612.76		1001.768	12021.216		1044	12531.492		1103	13239.816		1168	14014.092		1227	14725.896
SERV - Cu	180	2.316136	0.694840909	178		53.4	177		53.1	171		51.3	209		62.7	208		62.4	207		62.1
SERV - Prot Steel	11408	146.7916	29.35831515	12066		2413.2	11260		2252	11206		2241.2	10422		2084.4	10285		2057	10150		2030
SERV - UP Steel*	68020	875.2422	1487.911735	65564		111458.8	64035		108859.5	61310		104227	56259		95640.3	53654		91211.8	51572		87672.4
SERV - Plastic*	106500	1370.381	137.0380682	109144		1091.44	112313		1123.13	115718		1157.18	123076		1230.76	127543		1275.43	131002		1310.02
Total	*186108*	*5498*					*187785*	*3129*		*188405*	*3132*		*189966*	*3163*		*191690*	*3174*		*192931*	*3179*	
TOTAL LEAKAGE in MCF			**306884**			**417540**			**413513**			**398784**			**388711**			**376231**			**363867**
TOTAL LEAKAGE in DTH			**316,091**			**430,067**			**425,918**			**410,747**			**400,372**			**387,518**			**374,783**
(DTH = MCF x 1.03)																					
TOTAL LEAKAGE in MDT			**316**			**430**			**426**			**411**			**400**			**388**			**375**
SENDOUT in MDT			**37,507**			**38,972**			**39,133**			**37,493**			**39,986**			**34,286**			**39,493**
GROSS UFG in MDT			**988**			**1,311**			**1,397**			**1,094**			**1,486**			**1,222**			**1,721**
Gross UFG (% of Sendout)			**2.63%**			**3.36%**			**3.57%**			**2.92%**			**3.72%**			**3.56%**			**4.36%**
LEAKAGE (as % of Sendout)			**Not Adjusted**			**1.10%**			**1.09%**			**1.10%**			**1.00%**			**1.13%**			**0.95%**
NET UFG			**2.63%**			**2.26%**			**2.48%**			**1.82%**			**2.72%**			**2.43%**			**3.41%**
NET UFG (Round to 1 Dec Pl)			**2.6%**			**2.3%**			**2.5%**			**1.8%**			**2.7%**			**2.4%**			**3.4%**
NET UFG in MDT			**672**			**881**			**971**			**683**			**1,086**			**834**			**1,346**
NET UFG in DT			**671,909**			**880,933**			**971,082**			**683,253**			**1,085,944**			**834,457**			**1,346,217**
NET UFG in MMBTU			**671,909**			**880,933**			**971,082**			**683,253**			**1,085,944**			**834,457**			**1,346,217**

**** UP Steel Svcs for Upstate include CI***

**** UP Steel Main for RI includes Ductile iron & Other***

**** UP Steel Svcs for RI include CI & DI Svcs***

**** Plastic Svcs for RI include Other Svcs***

***NOTE**
- Different EPA Leakage rates were in place in 2007
2006 UFG = 2.8%

PUC 1-19

Request:

Please provide the status of the Company's "soft-off" program.

Response:

The Company and the Rhode Island Division of Public Utilities and Carriers entered into a Settlement Agreement dated April 18, 2012 (Agreement), which was incorporated into the Company's gas and electric tariffs, and approved by the Rhode Island Public Utilities Commission on May 4, 2012. This Agreement was designed to resolve remaining issues related to the Company's Soft-Off policy and program and to establish a one-year pilot program (Pilot) intended to collect and evaluate data regarding the Soft-Off program. The Company filed quarterly reports regarding the data collected during the Pilot and a final report on June 4, 2013. The final report provided a cost-benefit analysis and a proposal by the Company to continue the Soft-Off program based on the results of the Pilot. The Company continues to operate the Soft-Off program pursuant to its tariffs.

In 2014, the Company performed 42,117 electric disconnects, and 28,523 gas disconnects. The percentages of disconnects using Soft-Off are shown in the table below.

Rhode Island Disconnects 2014			
	Total	Soft-Off	Soft-Off %
Gas	28,523	20,834	73.0%
Electric	42,117	33,347	79.2%

The Company maintains and manages a prioritized open case report which is valuable in allowing it to draw upon and fill available field resource time. This case report is also instrumental in providing the Company continuous detection of growth in the backlog.

Prepared by or under the supervision of: Jeffrey P. Martin

PUC 1-20

Request:

Please describe the Company's atmospheric corrosion inspection activities. If it is known, please include how many possible corrosion identifications were submitted as part of field worker reports in FY15, and how many outstanding corrosion reports currently exist.

Response:

The atmospheric inspection program has two asset components, Services and Mains, as described below:

Services:

National Grid performs atmospheric inspections on gas services during the three-year walking survey program. Assets with moderate and heavy corrosion conditions are referred to the Corrosion Control department for outside services and to the Customer Meter Services Group for inside services for risk assessment and remediation.

The chart below provides the count of outside walking survey referrals to the Corrosion Control department in calendar year (CY) 2014. Absent an immediate risk, post inspections are typically scheduled in the next calendar year. For CY 2014, out of the total of 421 identified inspections, four post corrosion inspections have been completed.

Count of TOWN		
DIVISION	TOWN	Total
BRISTOL - WARREN	BRISTOL	5
BRISTOL - WARREN Total		5
CUMBERLAND DIVISION	CUMBERLAND	17
	LINCOLN	6
	PAWTUCKET	21
CUMBERLAND DIVISION Total		44
PROVIDENCE DIVISION	BARRINGTON	1
	COVENTRY	1
	CRANSTON	170
	EAST GREENWICH	2
	EAST PROVIDENCE	7
	EXETER	2
	JOHNSTON	16
	MIDDLETOWN	1
	NEWPORT	2
	NORTH KINGSTOWN	88
	PORTSMOUTH	1
	PROVIDENCE	2
	SOUTH KINGSTOWN	1
	WARWICK	9
	WEST WARWICK	69
PROVIDENCE DIVISION Total		372
Grand Total		421

Prepared by or under the supervision of: David G. Iseler

PUC 1-20, page 2

The Customer Meter Services group received 35 corrosion referrals in CY 2014 from the survey group. The requests are in the following status:

- 18 have been completed
- 13 were CGI (i.e. can't get in) and letters have been sent
- 3 have been referred to the Construction and Maintain Department
- 1 is pending a customer shut down

Mains:

National Grid performs atmospheric inspections of gas mains. These are performed under the direction of the Corrosion Department and scheduled on a three-year cycle. Corrosion conditions are identified by our contractors performing the work and reviewed by a corrosion engineer for final disposition. Minor touch-up recoating work is typically performed at the initial inspections and full recoating (if required) scheduled for the next inspection. A total of 49 inspections were completed with 47 minor or no corrosion conditions. In addition, two complete recoats were completed in January 2015