Louisville Gas & Electric

2008 Gas Meter Performance Control Plan

2008 Regulator Inspection & Replacement

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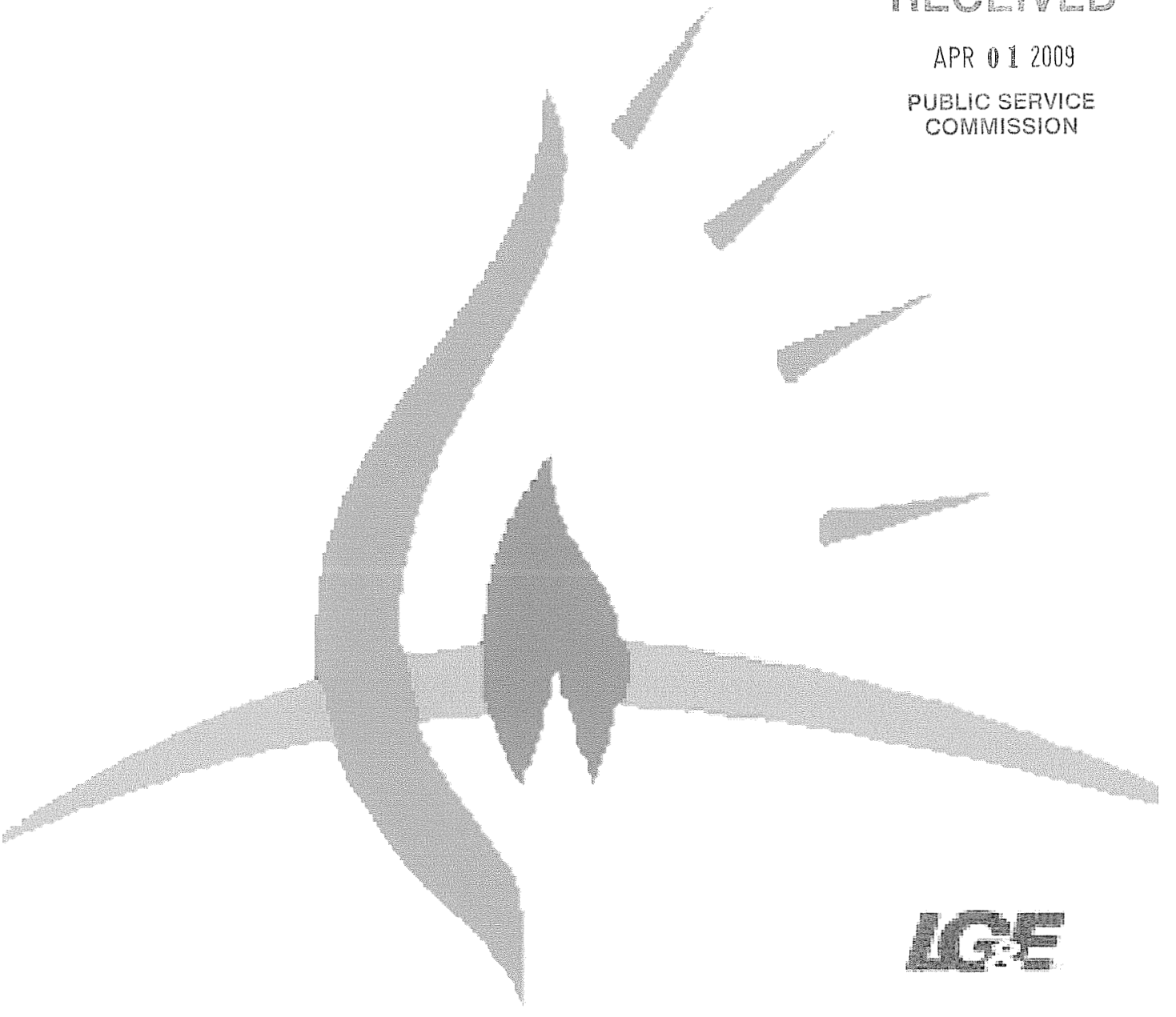

LG&E

an E·ON company

Mr. Jeff Derouen
Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40602-0615

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April 1, 2009

RE: The Application of Louisville Gas and Electric Company for Approval of a Permanent Statistical Meter Sampling Plan
Case No. 2000-00278
and
The Application of Louisville Gas and Electric Company to Implement a Gas Regulator Inspection and Replacement Program
Case No. 2002-00262

Dear Mr. Derouen:

Enclosed please find five copies of Louisville Gas and Electric Company's 2008 Gas Meter Performance Control Plan and the 2008 Regulator Inspection and Replacement Report pursuant to the Commission's Order in the above mentioned proceedings.

Should you have any questions concerning the enclosed, please contact me at your convenience.

Sincerely,

Rick E. Lovekamp

Enclosure

Louisville Gas & Electric

Gas Meter Performance
Control Plan Year 2008

Louisville Gas & Electric
Year 2008 Gas Meter Sampling Plan Results

I. Introduction

The 2008 LG&E Gas Meter Performance Control Program required 8,192 gas meters within 143 control groups be tested and their accuracy performance documented.

One (1) commercial meter was located within a vacant boarded up structure and no access could be gained to remove the meter. The meter is in the control group 058-1998 which was otherwise entirely removed in 2008 as the control group had reached its maximum service life. The one (1) remaining commercial gas meter in the control group will be classified as a prior meter beginning in 2009 and continuing attempts will made to gain access to and remove the meter.

Any sampled meter which proof tested beyond +/- 2% (fast or slow) was considered to be a failed meter. The control groups sampled during 2008 performed extremely well and no control groups failed the sampling criteria. This report summarizes the results of the 2008 LG&E Gas Meter Sampling Program.

II. Meter Performance

The meter groups were separated into three capacity classifications. Meters with capacities up to and including 500 CFH, which primarily represent residential meters, represented the largest group with eighty-nine (89) control groups and 7,130 meters. Meters with capacities which range from 501 CFH to 1500 CFH (Commercial), represented the second largest group with forty-six (46) control groups and 885 meters. Meters with capacities 1501 CFH (Industrial) and above comprised the balance of the sampling with eight (8) control groups and 177 meters.

A summary of each control group, along with statistical analysis data, is shown in appendix A. The definitions of selected statistical categories are included, and the sample groups are arranged from low to high capacity.

One commercial control group failed the sampling criteria out of the 143 control groups tested in 2008, and its remaining population of six (6) meters will be removed by June 30, 2010. A total of twelve (12) control groups had their remaining population removed through the sampling program in 2008.

A. Residential Class - Up to and including 500 cfh

1. Strong Performing Groups - Reduced Sampling

The strongest performing meter groups in this capacity continue to be the American AL175, AL250, AC250, and the AL425. Of the 1,504 meters in the twenty-three (23) control groups of AL175 meters, only thirteen (13) individual meters failed the sampling criteria, a 0.86 percent failure rate. The nineteen (19) AC250 control groups had a total of two (2) failures out of the 1,286 meters tested, a 0.16 percent failure rate. The ten (10) AL425 control groups totaling 320 meters experienced six (6) failures, a 1.88 percent failure rate.

The American Meter Company AL175, AC250, and the AL425 models, were the primary types of gas meters LG&E either purchased new or had remanufactured and placed back into the residential system, which continues to improve the overall accuracy of the installed meter population.

The one (1) American AL250 control group totaling thirty-two (32) meters experienced zero (0) failures. Although this model performs well, it is being phased out as the meters are removed due to the small number of this model installed.

Test results from year 2008 were analyzed for the below groups to verify each model did not exceed the Limit Numbers For Reduced Inspection, Table VIII, under the American Standard – Sampling Procedures and Tables For Inspection By Attributes guidelines.

Model – American AL175 CFH
Last 10 Control Groups Tested = 662 Meters Tested
Limit Number For Reduced Testing - 25
Actual Deviate Meters – 9

Model – American AL425CFH
Last 10 Control Groups Tested = 320 Meters Tested
Limit Number For Reduced Testing -- 8
Actual Deviate Meters - 6

Model – American AC250 CFH
Last 10 Control Groups Tested = 596 Meters Tested
Limit Number For Reduced Testing - 25
Actual Deviate Meters – 1

The below models will remain on Reduced Sampling in year 2009.

American Model AL175 Model Code 033 and 33A
American Model AL425 Model Code 015
American Model AC250 Model Code 078

2. Weak Performing Residential Group

The Actaris 250 Metris gas meter control groups performed moderately well. The five (5) control groups tested this year experienced eighteen (18/) failures out of a total of 606 meters tested, a 2.97 percent failure rate. The Actaris Metris control group from install year 2004 was responsible for thirteen (13) of the total eighteen (18) failures.

The older models of Rockwell residential class 250 CFH meters continued to be a weak performing control group. Of the two (2) Rockwell R250 Code 057 control groups consisting of 82 meters sampled this year, nine (9) of the individual meters failed the sampling criteria for a 10.97 percent failure rate.

Rockwell R250 and Actaris 250 Metris gas meters removed from the system are being replaced by the better performing models of the American AL175 and AC250 gas meter.

The Rockwell 175 CFH meters also continued to be one of the weaker performing control groups. Of the eighteen (18) Rockwell R175 control groups consisting of 2,955 meters sampled this year, one hundred-fourteen (114) of the individual meters failed the sampling criteria for a 3.86 percent failure rate.

B. Commercial Class - 501 cfh up to and including 1500 cfh

Forty-six (46) control groups in the Commercial Meter Class were tested in 2008 and only one group failed the sampling criteria, the AL1400 019-2002 control group.

The strongest performing meters in this class was the American AL800 meter which experienced one (1) individual meter failures within the eight (8) control groups tested, for a 1.08% failure rate.. The Rockwell R750 meter experienced four (4) individual meter failures within the eight (8) control groups tested, for a 1.69% failure rate.

The Rockwell #3 Emco control groups did extremely well in 2008, experiencing zero (0) individual meter failure within the seven (7) control groups tested.

The American AL1000 control groups demonstrated acceptable performance with eight (8) control groups tested, of which eleven (11) individual meters failed the sampling criteria, for a 4.89% failure rate.

The AL1400 experienced one (1) individual meter failure within the eight (8) control groups tested, for a 2.94% failure rate

Beginning in the 2003 test year, all Commercial Class Control Groups, regardless of whether they meet the Limit Numbers For Reduced Inspection, Table VIII, under the American Standard – Sampling Procedures and Tables For Inspection By Attributes guidelines, have been placed on the Single Sampling Plan For Normal Inspection due to the small volume of meters in the Commercial Class Control Groups.

C. Industrial Class - Over 1500 cfh

The eight (8) control groups in this capacity range performed well enough that no groups failed the sampling criteria. Two of the control groups were exhausted by the 2008 Sampling Program. The six (6) control groups not exhausted in the 2008 sample program had no individual meters exceed the sampling accuracy criteria.

Beginning in 2003 test year, all Industrial Class control groups, regardless of whether they meet the Limit Numbers For Reduced Inspection, Table VIII, under the American Standard – Sampling Procedures and Tables For Inspection By Attributes guidelines, have been placed on the Single Sampling Plan For Normal Inspection due to the small volume of meters in the Industrial Class control groups.

D. 2008 Failed Group Summary

One (1) group failed the sampling criteria in the 2008 sampling year.

The remainder of the 2007 test year Failed Control Groups, which have to be removed within a 18 month time period beginning January 1st 2008, are detailed below.

Table 1: 2007 Failed Meter Groups To Be Removed By June 30, 2009.

Manufacturer	Model	Type	Installed Year	Remaining Population
Rockwell	R250	057	1988	78
Rockwell	R250	057	1989	48

2008 Failed Meter Groups To Be Removed By June 30, 2010

Manufacturer	Model	Type	Installed Year	Remaining Population
American	AL1400	019	2002	6

III. Safety

As part of the LG&E Meter Sampling change-out activities, safety inspections were performed and "red-tags" were issued when deficiencies were found which resulted in a customers appliance being left off or the customers gas service partially or fully suspended until the deficiency was corrected by the customer. The results of these safety inspections directly associated with LG&E's Meter Sampling Program are summarized in Table 2 below.

Table 2: Year 2008 Safety Inspection Results

Type of Problem/Appliance	# of "Red Tags"
Water Heater Not Venting Correctly/Leaks/Other	25
Houseline Leak –left off at meter	19
Obsolete Appliance flexible hook-up lines, etc;)	2
Furnace Problem (internal leak, various Problems)	46
Gas Stove Line/Valve Leaking/Other	3
Gas Grill Valve Leaking	1
Gas Light Leaking	1

Additionally, 1,141 Customer Surveillance Notices were issued to customers to correct outside deficiencies on their meter loop or exposed outside gas piping.

Table 3: Year 2008 Customer Surveillance Notices Issued

Type of Customer Notice Issued	Number Issued
Corrosion / Rust On Outside Meter Loop & Associated Piping	861
Tree / Shrubbery Growing Inside / Against Meter Loop	10
Gas Piping Not Properly Supported	161
Meter Loop Too Low - In Contact With Soil / Pavement	7
Meter Not Protected From Vehicular Damage	89
Other	11

IV. Year 2008 Residential Meter Sampling Savings

Table 4, which highlights the estimated savings between a periodic change schedule and the LG&E Gas Meter Performance Control Program for the purchase of new/remanufactured residential class gas meters, is included on the next page.

Table 4: 2008 Residential Class Meter Sampling Program Estimated Savings

Metering Savings: Residential Gas Meters	
Periodic Program Costs (10-year Program):	
Number of Meters under Periodic Program [1]	31,516
Unit Remanufacture Cost – Average Blended Cost	$ 23.42
Residential Meter Costs Under Periodic Program	$738,104
Sampling Program Costs: [2]	
Number of Meters under Sampling Program	7,130
Number of poor performing meters scrapped	1,065
Number of Meters for Remanufacture	6,065
Remanufactured Meters	6,065
Average Unit Remanufacture Cost – All Models	$23.42
Remanufactured Meter Costs	$142,042
Replacement Meters (including FST Replacements)	1,876
Average Replacement Meter Cost (per unit)	$ 54.28
Replacement Meter Costs	$101,829
Total Meter Costs Under 2008 Program	$243,871
Meter Cost Savings From 2008 Program	$494,233

Administrative and Development Costs:	
Programming Development Costs: [3]	
Number of Hours in Programming	0
Pay Rate with Overheads	$ 0
Development Costs	$0
Additional Administrative Costs (Supervisory): [4]	
Total Hours (based on 10 hrs/week)	520
Pay Rate with Overheads	$ 52.98
Additional Admin. Costs	$27,550
Total Administrative & Development Costs	$27,550

Net 2008 Residential Meter Cost Savings	$466,683

[1] Residential meters on line end of year 2007
[2] Includes 2008 sample meters and failed meter groups.
[3] Development time for revisions to an Access Database.
[4] Estimated Hours Spent Specific On Administration & Reporting Functions

APPENDIX A

Control Group Data/Analysis

Control Group Test Data Range

Frequency Histograms (Examples)

Statistical Definitions

MEDIAN

The median is the number in the middle of a set of numbers; that is, half the numbers have values that are greater than the median and half have values that are less.

STANDARD DEVIATION

The standard deviation is a measure of how widely values are dispersed from the average value (the mean).

SKEWNESS

Skewness characterizes the degree of asymmetry of a distribution around its mean. Positive skewness indicates a distribution with an asymmetric tail extending towards more positive values. Negative skewness indicates a distribution with an asymmetric tail extending towards more negative values.

CONFIDENCE

The confidence interval is a range on either side of a sample mean. For example, if you order a product through the mail, you can determine, with a particular level of confidence, the earliest and latest the product should arrive.

American AL425
425 CFH
Code: 015

Test Year 2008

	Control Group-Installed Year									
	1994	1995	1996	1997	1998	1999	2000	2002	2004	2006
Sample Plan	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced
Sample Size	32	32	32	32	32	32	32	32	32	32
Original Population	67	180	555	460	614	479	498	364	416	643
# of Slow Failures	0	2	0	2	0	0	0	1	0	0
# of Fast Failures	0	0	0	0	0	1	0	0	0	0
Total Failures:	0	2	0	2	0	1	0	1	0	0
Accept Level	5	5	5	5	5	5	5	5	5	5
Reject Level	8	8	8	8	8	8	8	8	8	8
Pass/ Fail?	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
If Failed - Remove By:	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Statistical Data:										
Mean (Average Proof)	-0.09063	-0.76563	-0.71563	-0.70781	-0.56563	-0.34531	-0.39531	-0.48281	-0.5375	-0.3375
Median	-0.125	-0.55	-0.65	-0.725	-0.55	-0.425	-0.45	-0.4	-0.425	-0.4
Standard Deviation	0.657149	0.803564	0.535278	0.82473	0.553644	0.758432	-0.55	-0.3	0.47315	0.4445
Sample Variance	0.431845	0.645716	0.286522	0.680179	0.306522	0.575219	0.417961	0.464776	0.223871	0.197581
Skewness	-0.08803	-0.44192	-0.70189	-0.16947	-0.25754	1.772948	0.215034	-1.74153	-1.07752	0.287376
Minimum	-1.45	-2.7	-2	-2.95	-1.9	-1.45	-1.55	-3	-1.8	-1.2
Maximum	1.1	0.9	0.05	1.55	0.7	2.6	1.15	0.45	0.1	0.55
Count	32	32	32	32	32	32	32	32	32	32
Confidence Level(95.0%)	0.236927	0.289716	0.192988	0.297347	0.19961	0.273444	0.233088	0.245795	0.170589	0.160259

Year 2008

Meter Code 015 American AL 425

Code & Year:	1994
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	8
-.4 to .4	16
.4 to 1.2	6
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	1995
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	2
-.2 to -1.2	5
-1.2 to -.4	13
-.4 to .4	10
.4 to 1.2	2
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	1996
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	6
-1.2 to -.4	16
-.4 to .4	10
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	1997
Data Range	Number
LT -3.6	0
-3.6 to -2.8	1
-2.8 to -.2	1
-.2 to -1.2	5
-1.2 to -.4	13
-.4 to .4	11
.4 to 1.2	0
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	1998
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	3
-1.2 to -.4	17
-.4 to .4	11
.4 to 1.2	1
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	1999
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	14
-.4 to .4	14
.4 to 1.2	1
1.2 to 2.0	0
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	2000
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	5
-1.2 to -.4	11
-.4 to .4	12
.4 to 1.2	4
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	2002
Data Range	Number
LT -3.6	0
-3.6 to -2.8	1
-2.8 to -.2	0
-.2 to -1.2	3
-1.2 to -.4	12
-.4 to .4	15
.4 to 1.2	1
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	2004
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	14
-.4 to .4	16
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	2006
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	14
-.4 to .4	17
.4 to 1.2	1
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

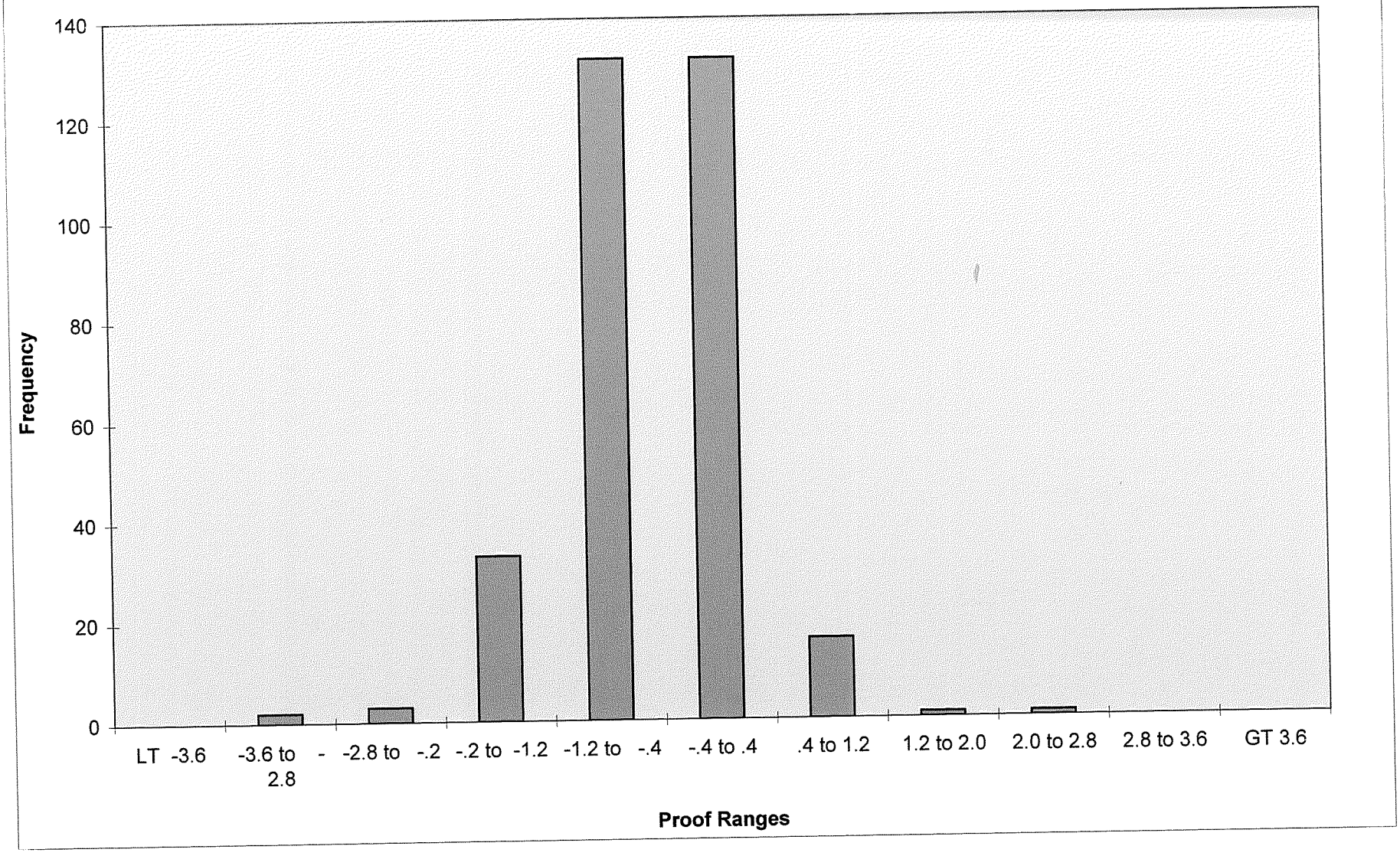
Year 2008

Meter Code 015 American AL 425

Code & Year:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	2
-2.8 to -.2	3
-.2 to -1.2	33
-1.2 to -.4	132
-.4 to .4	132
.4 to 1.2	16
1.2 to 2.0	1
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	320

American AL425 Distribution Profile - 015

(1994, 1995, 1996, 1997, 1998, 1999, 2000, 2002, 2004, 2006)



Metris 250
250 CFH
Code: 018

Test Year 2008

	Control Group-Installed Year								
	2000	2002	2004	2006					
Sample Plan	Single	Single	Single	Single					
Sample Size	125	200	200	1					
Original Population	1505	4339	5250	1					
# of Slow Failures	0	2	0	0					
# of Fast Failures	2	0	13	0					
Total Failures:	2	2	13	0					
Accept Level	14	21	21	0					
Reject Level	15	22	22	1					
Pass / Fail?	Pass	Pass	Pass	Pass					
If Failed - Remove By:	NA	NA	NA	Exhaust					
Statistical Data:									
Mean (Average Proof)	0.198	-0.61225	-0.56925	1					
Median	0.15	-0.55	-0.5	1					
Standard Deviation	0.734282	0.703321	0.964621	NA					
Sample Variance	0.539169	0.494661	0.930494	NA					
Skewness	1.288696	-0.103824	-0.437905	NA					
Minimum	-1.7	-2.6	-4.65	1					
Maximum	4.1	1	1.9	1					
Count	125	200	200	1					
Confidence Level(95.0%)	0.129991	0.09807	0.134505	NA					

Year 2008 Meter Code 018 Metris 250

Code & Year:	2000
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	19
-.4 to .4	70
.4 to 1.2	27
1.2 to 2.0	5
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	1
Total	125

Code & Year:	2002
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	2
-.2 to -1.2	44
-1.2 to -.4	74
-.4 to .4	65
.4 to 1.2	15
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	200

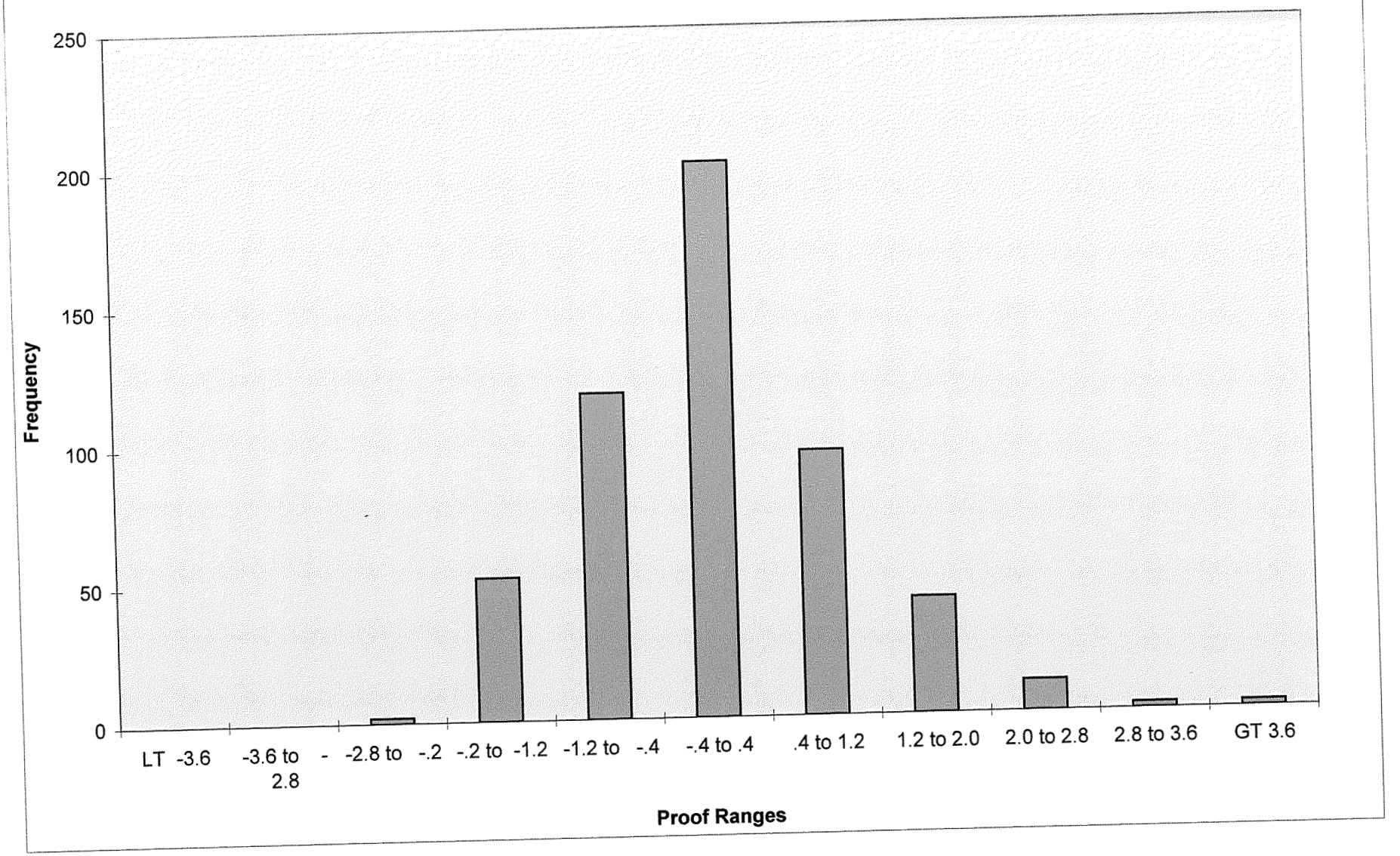
Code & Year:	2004
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	6
-1.2 to -.4	25
-.4 to .4	66
.4 to 1.2	53
1.2 to 2.0	37
2.0 to 2.8	10
2.8 to 3.6	2
GT 3.6	1
Total	200

Code & Year:	2006
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	0
-.4 to .4	0
.4 to 1.2	1
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	1

Code & Year:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	2
-.2 to -1.2	52
-1.2 to -.4	118
-.4 to .4	201
.4 to 1.2	96
1.2 to 2.0	42
2.0 to 2.8	11
2.8 to 3.6	2
GT 3.6	2
Total	526

Metris 250 Distribution Profile - 018

(2000, 2002, 2004, 2006)



Metris 250 TC	Test Year 2008								
175 CFH	Control Group-Installed Year								
Code: 18T	2002								
Sample Plan	Single								
Sample Size	80								
Original Population	717								
# of Slow Failures	1								
# of Fast Failures	0								
Total Failures:	1								
Accept Level	10								
Reject Level	11								
Pass / Fail?	Pass								
If Failed - Remove By:	NA								
Statistical Data:									
Mean (Average Proof)	-0.446875								
Median	-0.45								
Standard Deviation	0.807534								
Sample Variance	0.65211								
Skewness	-0.637424								
Minimum	-3.75								
Maximum	1.3								
Count	80								
Confidence Level(95.0%)	0.179708								

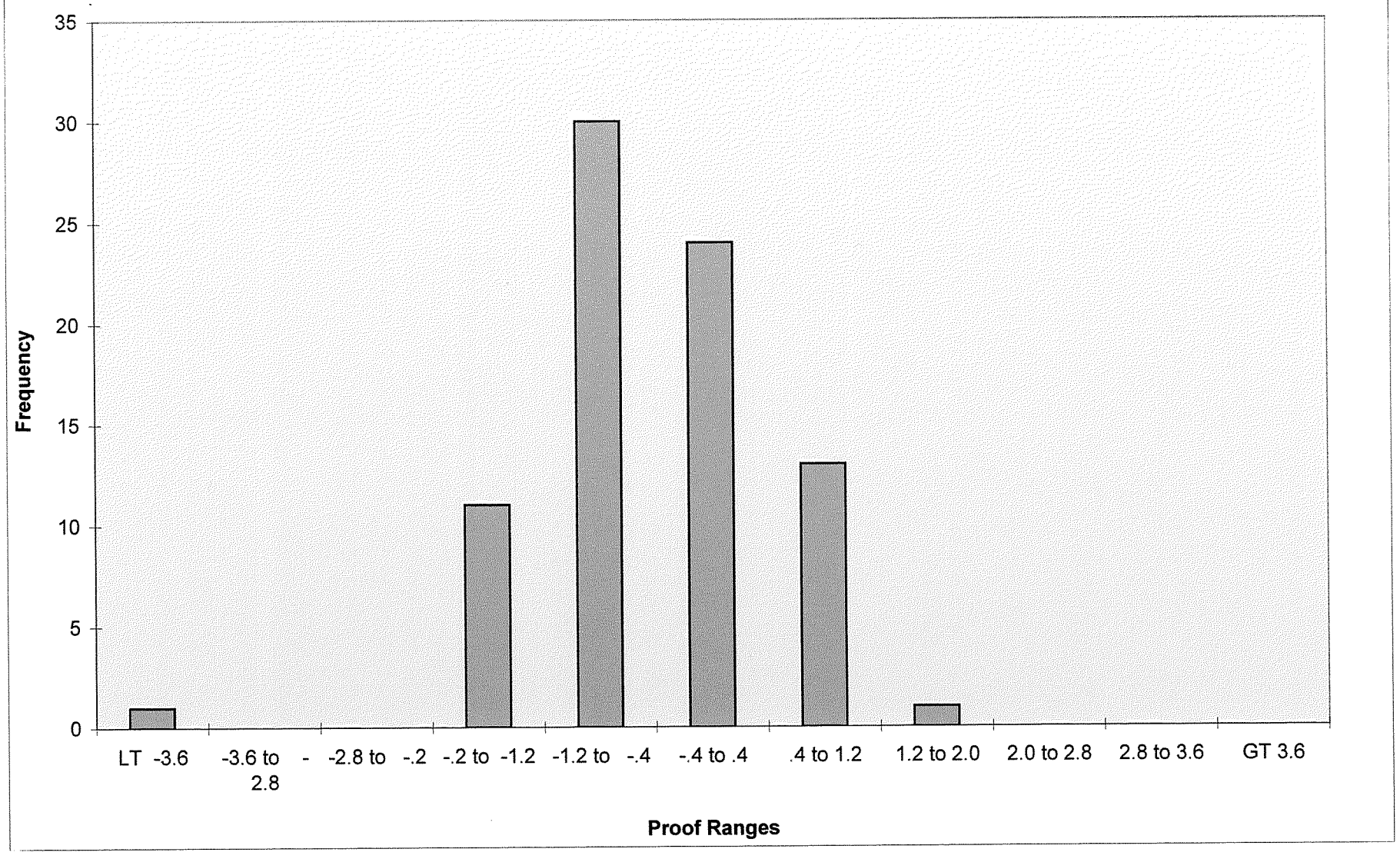
Year 2008 Meter Code 18T Mteris 250 TC

Code & Year:	2002
Data Range	Number
LT -3.6	1
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	11
-1.2 to -.4	30
-.4 to .4	24
.4 to 1.2	13
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	Totals
Data Range	Number
LT -3.6	1
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	11
-1.2 to -.4	30
-.4 to .4	24
.4 to 1.2	13
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Metris 250 TC Distribution Profile - 18T

(2002)



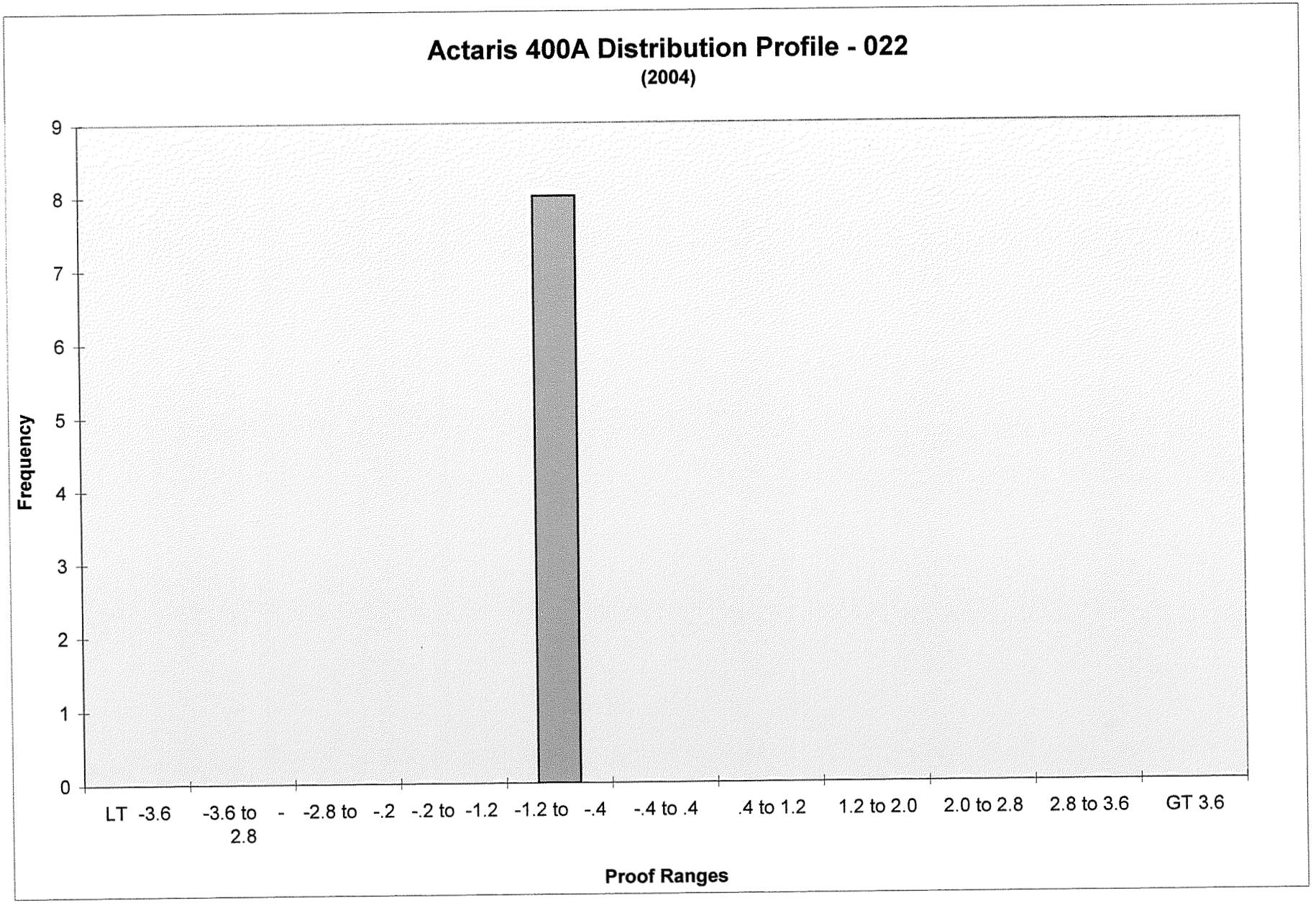
Actaris 400A	Test Year 2008								
400 CFH	Control Group-Installed Year								
Code: 022	2004								
Single or Double (S or D)	Single								
Sample Size	8*								
Original Population	21								
# of Slow Failures	0								
# of Fast Failures	0								
Total Failures:	0								
Accept Level	1								
Reject Level	2								
Pass / Fail?	Pass								
If Failed - Remove By:	Exhaust								
Statistical Data:									
Mean (Average Proof)	-0.49375								
Median	-0.375								
Standard Deviation	0.479909								
Sample Variance	0.230313								
Skewness	-0.400852								
Minimum	-1.15								
Maximum	-0.05								
Count	8								
Confidence Level(95.0%)	0.401214								

* Population less than required 32 minimum sample size - all meters to be changed - Single Sampling Plan For Normal Inspection used to obtain sample size to determine if control passed or failed.

Year 2008 Meter Code 022 Actaris 400A

Code & Year:	2004
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	8
-.4 to .4	0
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

Code & Year:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	8
-.4 to .4	0
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8


Actaris 400A Distribution Profile - 022
(2004)
Frequency
0
1
2
3
4
5
6
7
8
9
LT -3.6
-3.6 to -2.8
-2.8 to -.2
-.2 to -1.2
-1.2 to -.4
-.4 to .4
.4 to 1.2
1.2 to 2.0
2.0 to 2.8
2.8 to 3.6
GT 3.6
Proof Ranges

Rockwell R175	Test Year 2008								
175 CFH	Control Group-Installed Year								
Code: 024	1986	1987	1988	1989	1990	1991	1992	1993	1994
Sample Plan	Single	Single	Single	Single	Single	Single	Single	Single	Single
Sample Size	200	200	125	200	200	200	200	200	200
Original Population	4414	4201	2932	4341	3607	4176	4701	4944	3631
# of Slow Failures	5	4	4	4	1	3	11	12	2
# of Fast Failures	8	5	2	3	5	4	4	1	4
Total Failures:	13	9	6	7	6	7	15	13	6
Accept Level	21	21	14	21	21	21	21	21	21
Reject Level	22	22	15	22	22	22	22	22	22
Pass / Fail?	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
If Failed - Remove By:	NA	NA	NA	NA	NA	NA	NA	NA	NA
Statistical Data:									
Mean (Average Proof)	0.23375	0.19275	-0.104	0.03	0.08725	0.15525	-0.2695	-0.16675	0.094
Median	0.25	0.2	-0.05	0.05	0.1	0.2	-0.275	-0.1	0.05
Standard Deviation	1.113721	1.000796	0.895927	1.043104	0.83636	0.947523	1.1031	1.102729	0.821791
Sample Variance	1.240375	1.001593	0.802685	1.088065	0.699497	0.897799	1.216829	1.216012	0.675341
Skewness	-0.15623	-0.15171	-0.21261	-0.35059	0.454607	0.199154	-0.00474	-0.75593	0.072878
Minimum	-4.1	-3.85	-2.75	-4.95	-2.7	-2.8	-3.7	-4.3	-2.55
Maximum	4.25	3.6	2.35	4.75	3.2	4.05	3.55	2.15	2.4
Count	200	200	125	200	200	200	200	200	200
Confidence Level(95.0%)	0.155296	0.139549	0.158608	0.145449	0.116621	0.132121	0.153814	0.153763	0.114589

Rockwell R175	Test Year 2008								
175 CFH	Control Group-Installed Year								
Code: 024	1995	1996	1997	1998	1999	2000	2002	2004	2006
Sample Plan	Single	Single	Single	Single	Single	Single	Single	Single	Single
Sample Size	200	125	80	125	125	125	125	125	200
Original Population	3444	1646	805	1287	2105	1388	1825	2890	4040
# of Slow Failures	6	6	0	7	1	2	2	2	1
# of Fast Failures	2	1	0	0	0	1	1	0	0
Total Failures:	8	7	0	7	1	3	3	2	1
Accept Level	21	14	10	14	14	14	14	14	21
Reject Level	22	15	11	15	15	15	15	15	22
Pass / Fail?	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
If Failed - Remove By:	NA	NA	NA	NA	NA	NA	NA	NA	NA
Statistical Data:									
Mean (Average Proof)	-0.159	-0.5768	-0.20625	-0.4688	-0.2444	-0.2104	-0.0796	-0.2156	-0.143
Median	-0.05	-0.45	-0.25	-0.35	-0.2	-0.15	-0.1	-0.25	-0.075
Standard Deviation	0.83586	1.043597	0.68669	0.870082	0.840776	0.832246	0.77254	0.66355	0.622203
Sample Variance	0.698662	1.089095	0.471543	0.757043	0.706904	0.692633	0.596818	0.440299	0.387137
Skewness	-0.42384	-0.38412	0.25018	-0.73835	-0.60657	0.207355	-0.094	-0.52046	-0.61405
Minimum	-2.95	-5	-1.85	-3.7	-3.95	-3.5	-2.35	-2.85	-2.7
Maximum	2.35	2.8	1.9	1.4	1.75	3.45	2.4	1.2	1.45
Count	200	125	80	125	125	125	125	125	200
Confidence Level(95.0%)	0.116551	0.18475	0.152815	0.154033	0.148844	0.147334	0.136764	0.11747	0.086759

Year 2008 Meter Code 024 Rockwell R175

Code & Year:	1986
Data Range	Number
LT -3.6	1
-3.6 to -2.8	2
-2.8 to -.2	2
-.2 to -1.2	11
-1.2 to -.4	24
-.4 to .4	74
.4 to 1.2	59
1.2 to 2.0	19
2.0 to 2.8	5
2.8 to 3.6	0
GT 3.6	3
Total	200

Code & Year:	1987
Data Range	Number
LT -3.6	1
-3.6 to -2.8	0
-2.8 to -.2	3
-.2 to -1.2	8
-1.2 to -.4	36
-.4 to .4	73
.4 to 1.2	54
1.2 to 2.0	20
2.0 to 2.8	3
2.8 to 3.6	2
GT 3.6	0
Total	200

Code & Year:	1988
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	4
-.2 to -1.2	6
-1.2 to -.4	33
-.4 to .4	48
.4 to 1.2	27
1.2 to 2.0	5
2.0 to 2.8	2
2.8 to 3.6	0
GT 3.6	0
Total	125

Code & Year:	1989
Data Range	Number
LT -3.6	2
-3.6 to -2.8	0
-2.8 to -.2	2
-.2 to -1.2	16
-1.2 to -.4	36
-.4 to .4	75
.4 to 1.2	51
1.2 to 2.0	15
2.0 to 2.8	2
2.8 to 3.6	0
GT 3.6	1
Total	200

Code & Year:	1990
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	8
-1.2 to -.4	37
-.4 to .4	97
.4 to 1.2	44
1.2 to 2.0	8
2.0 to 2.8	3
2.8 to 3.6	2
GT 3.6	0
Total	200

Code & Year:	1991
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	3
-.2 to -1.2	9
-1.2 to -.4	40
-.4 to .4	72
.4 to 1.2	56
1.2 to 2.0	16
2.0 to 2.8	2
2.8 to 3.6	1
GT 3.6	1
Total	200

Code & Year:	1992
Data Range	Number
LT -3.6	1
-3.6 to -2.8	2
-2.8 to -.2	8
-.2 to -1.2	22
-1.2 to -.4	54
-.4 to .4	65
.4 to 1.2	35
1.2 to 2.0	9
2.0 to 2.8	3
2.8 to 3.6	1
GT 3.6	0
Total	200

Code & Year:	1993
Data Range	Number
LT -3.6	2
-3.6 to -2.8	1
-2.8 to -.2	9
-.2 to -1.2	22
-1.2 to -.4	33
-.4 to .4	66
.4 to 1.2	51
1.2 to 2.0	15
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	200

Code & Year:	1994
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	2
-.2 to -1.2	7
-1.2 to -.4	45
-.4 to .4	78
.4 to 1.2	52
1.2 to 2.0	12
2.0 to 2.8	4
2.8 to 3.6	0
GT 3.6	0
Total	200

Code & Year:	1995
Data Range	Number
LT -3.6	0
-3.6 to -2.8	1
-2.8 to -.2	5
-.2 to -1.2	13
-1.2 to -.4	45
-.4 to .4	89
.4 to 1.2	43
1.2 to 2.0	2
2.0 to 2.8	2
2.8 to 3.6	0
GT 3.6	0
Total	200

Year 2008 Meter Code 024 Rockwell R175

Code & Year:	1996
Data Range	Number
LT -3.6	2
-3.6 to -2.8	0
-2.8 to -.2	4
-.2 to -1.2	22
-1.2 to -.4	41
-.4 to .4	44
.4 to 1.2	6
1.2 to 2.0	5
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	125

Code & Year:	1997
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	6
-1.2 to -.4	25
-.4 to .4	36
.4 to 1.2	12
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	1998
Data Range	Number
LT -3.6	1
-3.6 to -2.8	0
-2.8 to -.2	6
-.2 to -1.2	11
-1.2 to -.4	35
-.4 to .4	52
.4 to 1.2	19
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	125

Code & Year:	1999
Data Range	Number
LT -3.6	1
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	14
-1.2 to -.4	33
-.4 to .4	52
.4 to 1.2	21
1.2 to 2.0	4
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	125

Code & Year:	2000
Data Range	Number
LT -3.6	0
-3.6 to -2.8	1
-2.8 to -.2	1
-.2 to -1.2	10
-1.2 to -.4	33
-.4 to .4	65
.4 to 1.2	10
1.2 to 2.0	4
2.0 to 2.8	0
2.8 to 3.6	1
GT 3.6	0
Total	125

Code & Year:	2002
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	2
-.2 to -1.2	5
-1.2 to -.4	32
-.4 to .4	52
.4 to 1.2	31
1.2 to 2.0	2
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	125

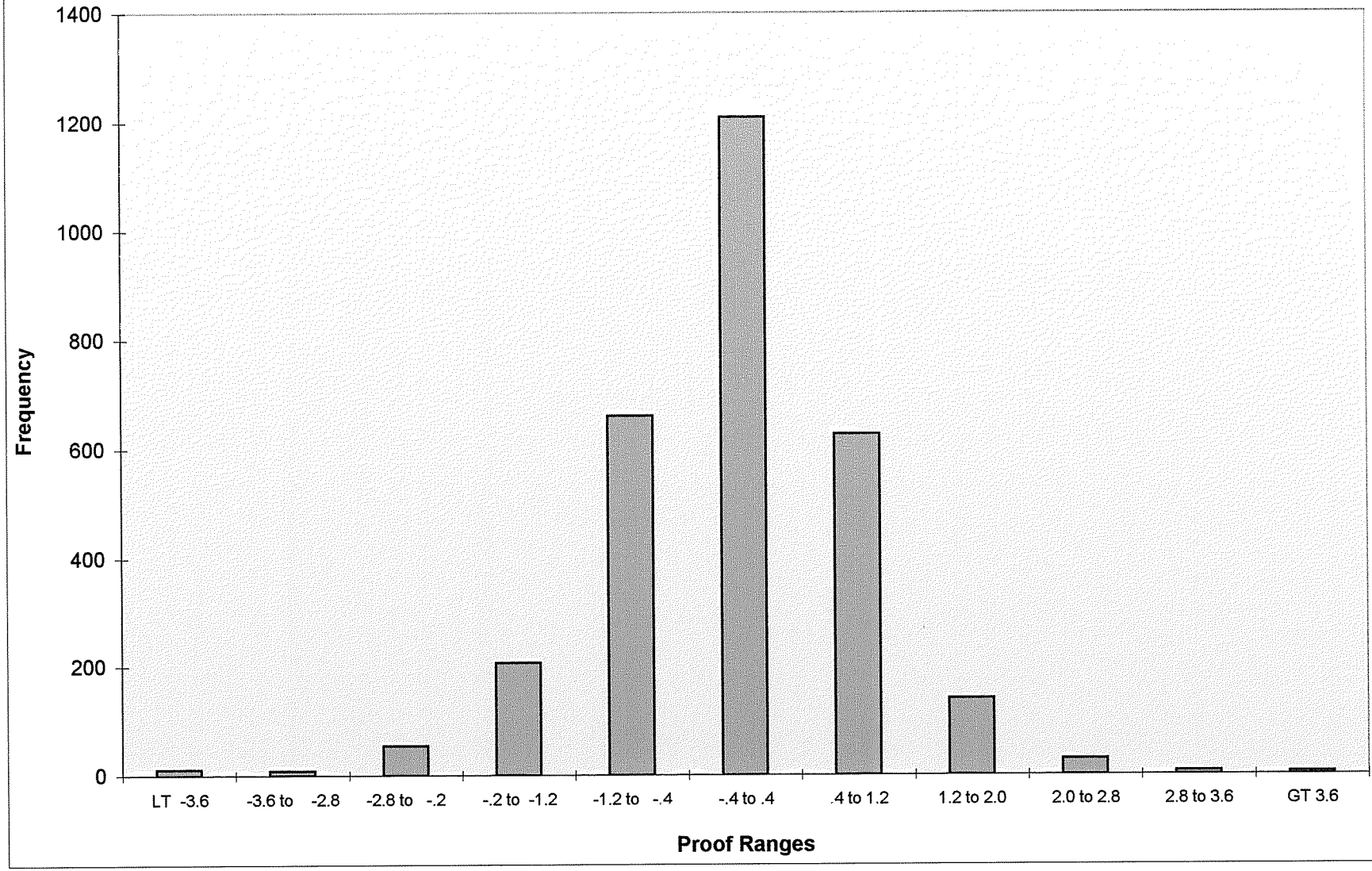
Code & Year:	2004
Data Range	Number
LT -3.6	0
-3.6 to -2.8	1
-2.8 to -.2	1
-.2 to -1.2	6
-1.2 to -.4	36
-.4 to .4	58
.4 to 1.2	23
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	125

Code & Year:	2006
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	11
-1.2 to -.4	43
-.4 to .4	113
.4 to 1.2	30
1.2 to 2.0	2
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	200

Code & Year:	Total
Data Range	Number
LT -3.6	11
-3.6 to -2.8	8
-2.8 to -.2	54
-.2 to -1.2	207
-1.2 to -.4	661
-.4 to .4	1209
.4 to 1.2	624
1.2 to 2.0	140
2.0 to 2.8	29
2.8 to 3.6	7
GT 3.6	5
Total	2955

Rockwell R175 Distribution Profile - 024

(1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2002, 2004, 2006)

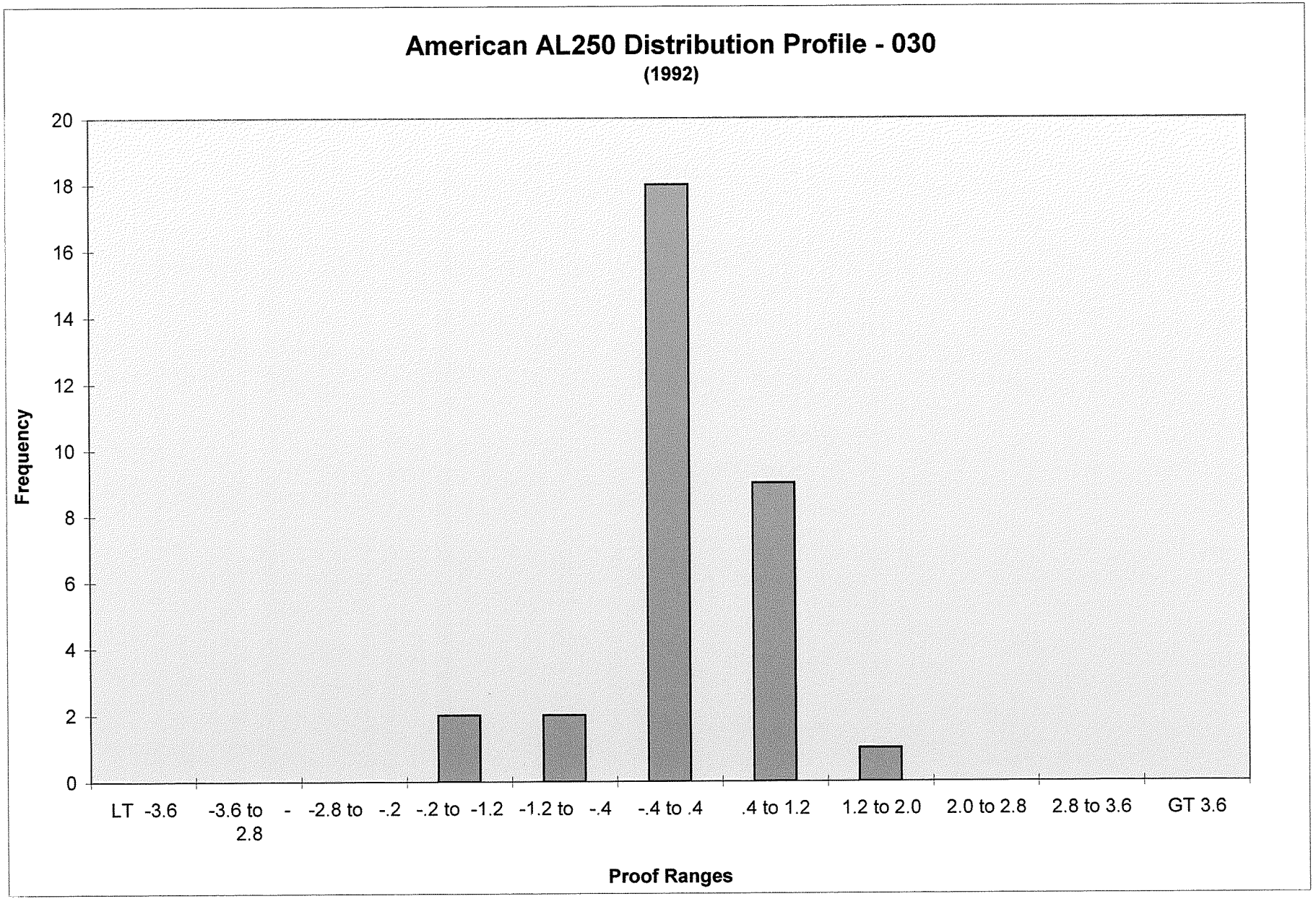


American AL 250	Test Year 2008								
250 CFH	Control Group-Installed Year								
Code: 030	1992								
Sampling Plan	Single								
Sample Size	32								
Original Population	132								
# of Slow Failures	0								
# of Fast Failures	0								
Total Failures:	0								
Accept Level	5								
Reject Level	6								
Pass/ Fail?	**Pass**								
If Failed - Remove By:	NA								
Statistical Data:									
Mean (Average Proof)	-0.40938								
Median	-0.5								
Standard Deviation	0.885314								
Sample Variance	0.78378								
Skewness	-0.56046								
Minimum	-3.1								
Maximum	1.5								
Count	32								
Confidence Level(95.0%)	0.31919								

Year 2008 Meter Code 030 American AL250

Code & Year:	1992
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	2
-.4 to .4	18
.4 to 1.2	9
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	2
-.4 to .4	18
.4 to 1.2	9
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32


American AL250 Distribution Profile - 030
(1992)
Frequency
20
18
16
14
12
10
8
6
4
2
0
LT -3.6
-3.6 to 2.8
-2.8 to -.2
-.2 to -1.2
-1.2 to -.4
-.4 to .4
.4 to 1.2
1.2 to 2.0
2.0 to 2.8
2.8 to 3.6
GT 3.6
Proof Ranges

American AL175	Test Year 2008									
175 CFH	Control Group-Installed Year									
Code: 033	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Sample Plan	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced
Sample Size	50	50	32	80	50	80	80	80	80	80
Original Population	1297	1962	943	3830	2347	6716	8171	7950	8025	8260
# of Slow Failures	1	1	1	2	0	1	0	1	1	0
# of Fast Failures	0	0	0	1	0	0	0	0	0	0
Total Failures:	1	1	1	3	0	1	0	1	1	0
Accept Level	7	7	5	10	7	10	10	10	10	10
Reject Level	10	10	8	13	10	13	13	13	13	13
Pass / Fail?	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
If Failed - Remove By:	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Statistical Data:										
Mean (Average Proof)	0.091	-0.288	-0.07656	-0.065	0.166	-0.30438	0.149375	0.113125	0.013125	-0.00937
Median	0.05	-0.175	-0.025	-0.05	0.175	-0.125	0.1	0.15	0.15	-0.075
Standard Deviation	0.727919	0.72334	1.064378	0.781203	0.519953	1.053601	0.486234	0.676586	0.759694	0.565131
Sample Variance	0.529866	0.52322	1.132901	0.610278	0.270351	1.110076	0.236424	0.457769	0.577136	0.319373
Skewness	-0.60368	-0.42619	-3.04043	-1.29066	-0.908	-5.26533	-0.61819	-0.88154	-1.50095	0.198517
Minimum	-2.15	-2.25	-5	-3.4	-1.85	-8.1	-2	-2.5	-3.4	-1.6
Maximum	1.45	1.7	1.7	2.65	1.1	0.95	1.3	1.55	1.3	1.65
Count	50	50	32	80	50	80	80	80	80	80
Confidence Level(95.0%)	0.206872	0.205571	0.383749	0.173848	0.147769	0.234467	0.108206	0.150567	0.169062	0.125764

American AL175	Test Year 2008								
175 CFH	Control Group-Installed Year								
Code: 033	1995	1996	1997	1998	1999	2000	2002	2004	2006
Sample Plan	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced
Sample Size	80	80	80	80	80	80	50	50	50
Original Population	8263	5396	9716	5877	8660	7957	2844	2216	1531
# of Slow Failures	0	1	0	1	0	0	0	0	0
# of Fast Failures	0	0	0	0	0	0	0	0	0
Total Failures:	0	1	0	1	0	0	0	0	0
Accept Level	10	10	10	10	10	10	7	7	7
Reject Level	13	13	13	13	13	13	10	10	10
Pass / Fail?	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
If Failed - Remove By:	NA	NA	NA	NA	NA	NA	NA	NA	NA
Statistical Data:									
Mean (Average Proof)	-0.155	-0.425	-0.02563	-0.515	-0.20125	-0.18	-0.312	-0.667	-0.214
Median	-0.15	-0.45	-0.1	-0.6	-0.2	-0.275	-0.4	-0.6	-0.225
Standard Deviation	0.571507	0.668031	0.837227	0.560707	0.575116	0.534541	0.632259	0.540182	0.347886
Sample Variance	0.32662	0.446266	0.700949	0.314392	0.330758	0.285734	0.399751	0.291797	0.121024
Skewness	0.376762	0.34757	1.050308	-0.25604	0.333349	0.29355	0.822807	0.17335	-0.18407
Minimum	-1.85	-2.55	-1.8	-2.25	-1.8	-1.5	-1.7	-1.75	-1
Maximum	1.45	1.85	2.7	0.75	1.8	1.1	1.6	0.75	0.55
Count	80	80	80	80	80	80	50	50	50
Confidence Level(95.0%)	0.127183	0.148663	0.186316	0.124779	0.127986	0.118956	0.179686	0.153518	0.098868

Year 2008

Meter Code 033 American AL175

Code & Year:	1985
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	1
-1.2 to -.4	9
-.4 to .4	20
.4 to 1.2	17
1.2 to 2.0	2
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	50

Code & Year:	1986
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	5
-1.2 to -.4	13
-.4 to .4	25
.4 to 1.2	5
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	50

Code & Year:	1987
Data Range	Number
LT -3.6	1
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	4
-.4 to .4	23
.4 to 1.2	1
1.2 to 2.0	3
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	1988
Data Range	Number
LT -3.6	0
-3.6 to -2.8	2
-2.8 to -.2	0
-.2 to -1.2	3
-1.2 to -.4	10
-.4 to .4	49
.4 to 1.2	15
1.2 to 2.0	0
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	1989
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	2
-.4 to .4	31
.4 to 1.2	16
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	50

Code & Year:	1990
Data Range	Number
LT -3.6	1
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	4
-1.2 to -.4	18
-.4 to .4	49
.4 to 1.2	8
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	1991
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	4
-.4 to .4	53
.4 to 1.2	21
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	1992
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	2
-1.2 to -.4	7
-.4 to .4	50
.4 to 1.2	17
1.2 to 2.0	3
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	1993
Data Range	Number
LT -3.6	0
-3.6 to -2.8	1
-2.8 to -.2	0
-.2 to -1.2	4
-1.2 to -.4	11
-.4 to .4	43
.4 to 1.2	19
1.2 to 2.0	2
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	1994
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	17
-.4 to .4	44
.4 to 1.2	17
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Year 2008

Meter Code 033 American AL175

Code & Year:	1995
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	21
-.4 to .4	48
.4 to 1.2	7
1.2 to 2.0	3
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	1996
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	5
-1.2 to -.4	36
-.4 to .4	30
.4 to 1.2	6
1.2 to 2.0	2
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	1997
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	25
-.4 to .4	36
.4 to 1.2	10
1.2 to 2.0	5
2.0 to 2.8	2
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	1998
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	6
-1.2 to -.4	37
-.4 to .4	33
.4 to 1.2	3
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	1999
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	26
-.4 to .4	45
.4 to 1.2	6
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	2000
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	25
-.4 to .4	43
.4 to 1.2	11
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	2002
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	22
-.4 to .4	21
.4 to 1.2	4
1.2 to 2.0	2
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	50

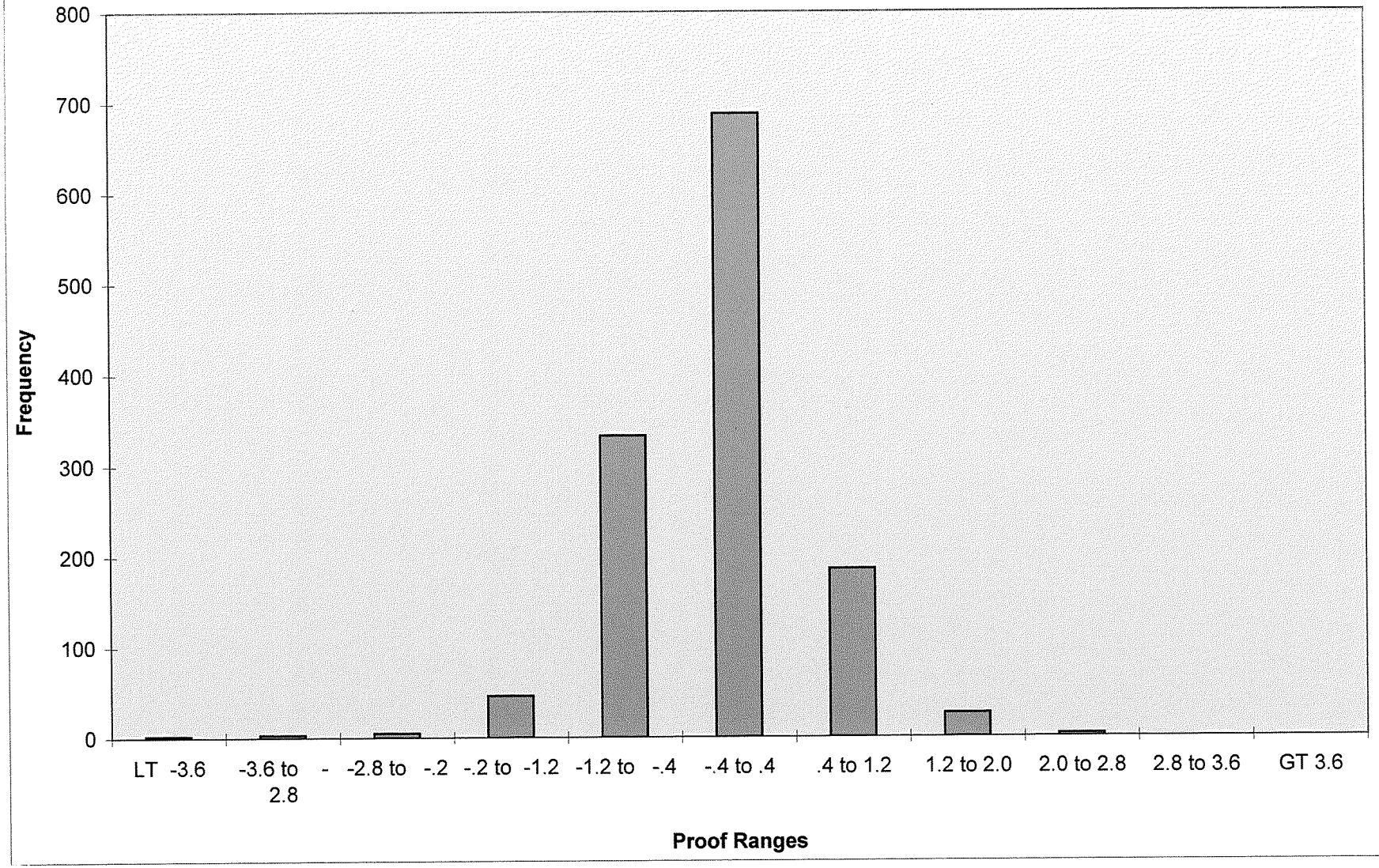
Code & Year:	2004
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	6
-1.2 to -.4	30
-.4 to .4	12
.4 to 1.2	2
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	50

Code & Year:	2006
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	16
-.4 to .4	33
.4 to 1.2	1
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	50

Code & Year:	Total
Data Range	Number
LT -3.6	2
-3.6 to -2.8	3
-2.8 to -.2	5
-.2 to -1.2	46
-1.2 to -.4	333
-.4 to .4	688
.4 to 1.2	186
1.2 to 2.0	26
2.0 to 2.8	3
2.8 to 3.6	0
GT 3.6	0
Total	1292

American AL175 Distribution Profile - 033

(1985, 1986, 1987, 1988, 1989, 1990, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2002, 2004, 2006)



American AL175	Test Year 2008								
175 CFH	Control Group-Installed Year								
Code: 33A	**1992**	**1993**	**1994**	**1997**					
Sample Plan	Reduced	Reduced	Reduced	Reduced					
Sample Size	80	50	50	32					
Original Population	5305	2201	2752	48					
# of Slow Failures	0	0	0	0					
# of Fast Failures	0	0	1	1					
Total Failures:	0	0	1	1					
Accept Level	10	7	7	5					
Reject Level	13	10	10	8					
Pass / Fail?	Pass	Pass	Pass	Pass					
If Failed - Remove By:	NA	NA	NA	NA					
Statistical Data:									
Mean (Average Proof)	-0.10875	0.031	-0.043	-0.25313					
Median	0	0.1	-0.05	-0.275					
Standard Deviation	0.764057	0.542094	0.792633	0.706529					
Sample Variance	0.583783	0.293866	0.628266	0.499183					
Skewness	-1.1485	-0.45872	2.696911	1.078399					
Minimum	-2.8	-1.6	-1.7	-1.8					
Maximum	1.75	1.3	4	2.25					
Count	80	50	50	32					
Confidence Level(95.0%)	0.170033	0.154062	0.225264	0.254731					

Year 2008 Meter Code 33A American AL175

Code & Year:	1992
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	3
-.2 to -1.2	2
-1.2 to -.4	16
-.4 to .4	44
.4 to 1.2	13
1.2 to 2.0	2
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	1993
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	6
-.4 to .4	30
.4 to 1.2	11
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	50

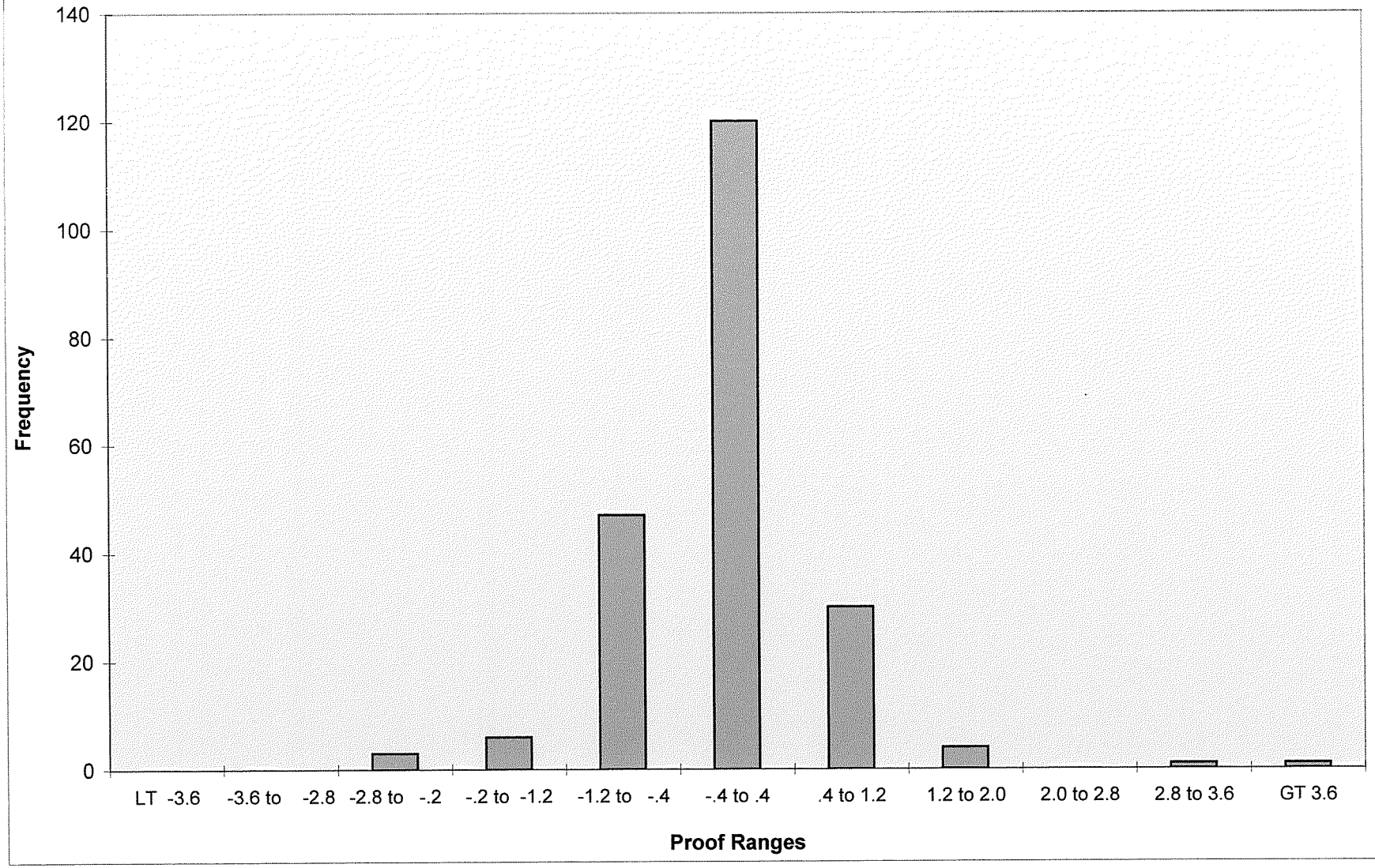
Code & Year:	1994
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	13
-.4 to .4	30
.4 to 1.2	4
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	1
Total	50

Code & Year:	1997
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	12
-.4 to .4	16
.4 to 1.2	2
1.2 to 2.0	0
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	3
-.2 to -1.2	6
-1.2 to -.4	47
-.4 to .4	120
.4 to 1.2	30
1.2 to 2.0	4
2.0 to 2.8	0
2.8 to 3.6	1
GT 3.6	1
Total	212

American AL175 Distribution Profile - 33A

(1992, 1993, 1994, 1997)



American 5B225
225 CFH
Code: 041

Test Year 2008

	Control Group-Installed Year							
	1986	1987	1988	1989	1990	1993	1995	1996
Sample Plan	Single	Single	Single	Single	Single	Single	Single	Single
Sample Size	32	32	32	32	32	8*	32	50
Original Population	128	61	76	112	89	18	242	358
# of Slow Failures	2	0	0	1	0	0	0	0
# of Fast Failures	0	0	0	1	0	1	0	1
Total Failures:	2	0	0	2	0	1	0	1
Accept Level	5	5	5	5	5	1	5	7
Reject Level	6	6	6	6	6	2	6	8
Pass / Fail?	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
If Failed - Remove By:	NA	NA	NA	NA	NA	Exhaust	NA	NA
Statistical Data:								
Mean (Average Proof)	-0.4	-0.401563	0.323438	-0.215625	-0.195313	0.68125	-0.4625	-0.606
Median	-0.525	-0.475	0.425	-0.3	-0.15	0.4	-0.4	-0.55
Standard Deviation	1.0351874	0.816116	1.142224	1.129976	0.775986	1.340825	0.685565	0.828857
Sample Variance	1.0716129	0.666046	1.304675	1.276845	0.602155	1.797813	0.47	0.687004
Skewness	-0.001279	0.23386	-0.044397	0.486211	-0.028637	2.118034	0.741499	0.748937
Minimum	-2.95	-1.75	-2.05	-3	-1.7	-0.8	-1.85	-2.4
Maximum	1.65	1.1	2.6	2.85	1.3	3.8	1.4	2.5
Count	32	32	32	32	32	8	32	50
Confidence Level(95.0%)	0.3732248	0.294241	0.411816	0.4074	0.279773	1.120958	0.247173	0.235559

* Population less than required 32 minimum sample size - all meters to be changed - Single Sampling Plan for Normal Inspection used to obtain sample size to determine if control group passed or failed.

Year 2008

Meter Code 041 American 5B-225

Code & Year:	1986
Data Range	Number
LT -3.6	0
-3.6 to -2.8	1
-2.8 to -.2	1
-.2 to -1.2	3
-1.2 to -.4	14
-.4 to .4	7
.4 to 1.2	2
1.2 to 2.0	4
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	1987
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	6
-1.2 to -.4	12
-.4 to .4	7
.4 to 1.2	7
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	1988
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	2
-1.2 to -.4	5
-.4 to .4	8
.4 to 1.2	11
1.2 to 2.0	2
2.0 to 2.8	3
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	1989
Data Range	Number
LT -3.6	0
-3.6 to -2.8	1
-2.8 to -.2	0
-.2 to -1.2	5
-1.2 to -.4	8
-.4 to .4	10
.4 to 1.2	5
1.2 to 2.0	2
2.0 to 2.8	0
2.8 to 3.6	1
GT 3.6	0
Total	32

Code & Year:	1990
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	4
-1.2 to -.4	8
-.4 to .4	14
.4 to 1.2	5
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	1993
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	1
-.4 to .4	4
.4 to 1.2	2
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	1
Total	8

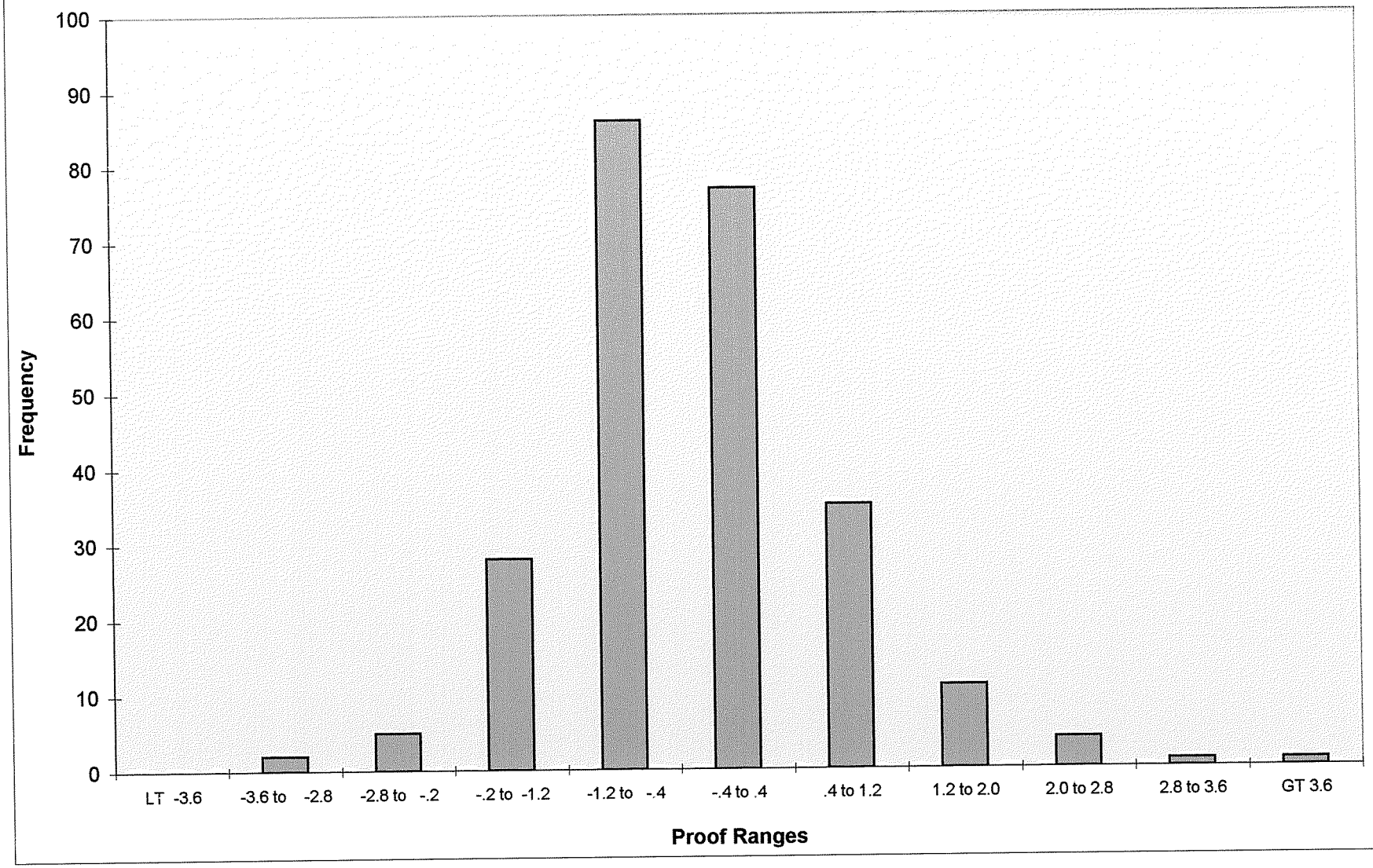
Code & Year:	1995
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	3
-1.2 to -.4	12
-.4 to .4	15
.4 to 1.2	0
1.2 to 2.0	2
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	1996
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	3
-.2 to -1.2	5
-1.2 to -.4	26
-.4 to .4	12
.4 to 1.2	3
1.2 to 2.0	0
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	50

Code & Year:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	2
-2.8 to -.2	5
-.2 to -1.2	28
-1.2 to -.4	86
-.4 to .4	77
.4 to 1.2	35
1.2 to 2.0	11
2.0 to 2.8	4
2.8 to 3.6	1
GT 3.6	1
Total	250

American 5b-225 Distribution Profile - 041

(1986, 1987, 1988, 1989, 1990, 1993, 1995, 1996)



Rockwell R250	Test Year 2008								
250 CFH	Control Group-Installed Year								
Code: 057	1990	1995							
Sample Plan	Single	Single							
Sample Size	50	32							
Original Population	418	225							
# of Slow Failures	4	3							
# of Fast Failures	1	1							
Total Failures:	5	4							
Accept Level	7	5							
Reject Level	8	6							
Pass / Fail?	Pass	Pass							
If Failed - Remove By:	NA	NA							
Statistical Data:									
Mean (Average Proof)	-0.245	-0.68594							
Median	-0.05	-0.725							
Standard Deviation	1.462917	1.651355							
Sample Variance	2.140128	2.726973							
Skewness	-1.02939	-1.05508							
Minimum	-4.6	-5.65							
Maximum	2.1	2.55							
Count	50	32							
Confidence Level(95.0%)	0.415757	0.595377							

Year 2008

Meter Code 057 Rockwell R250

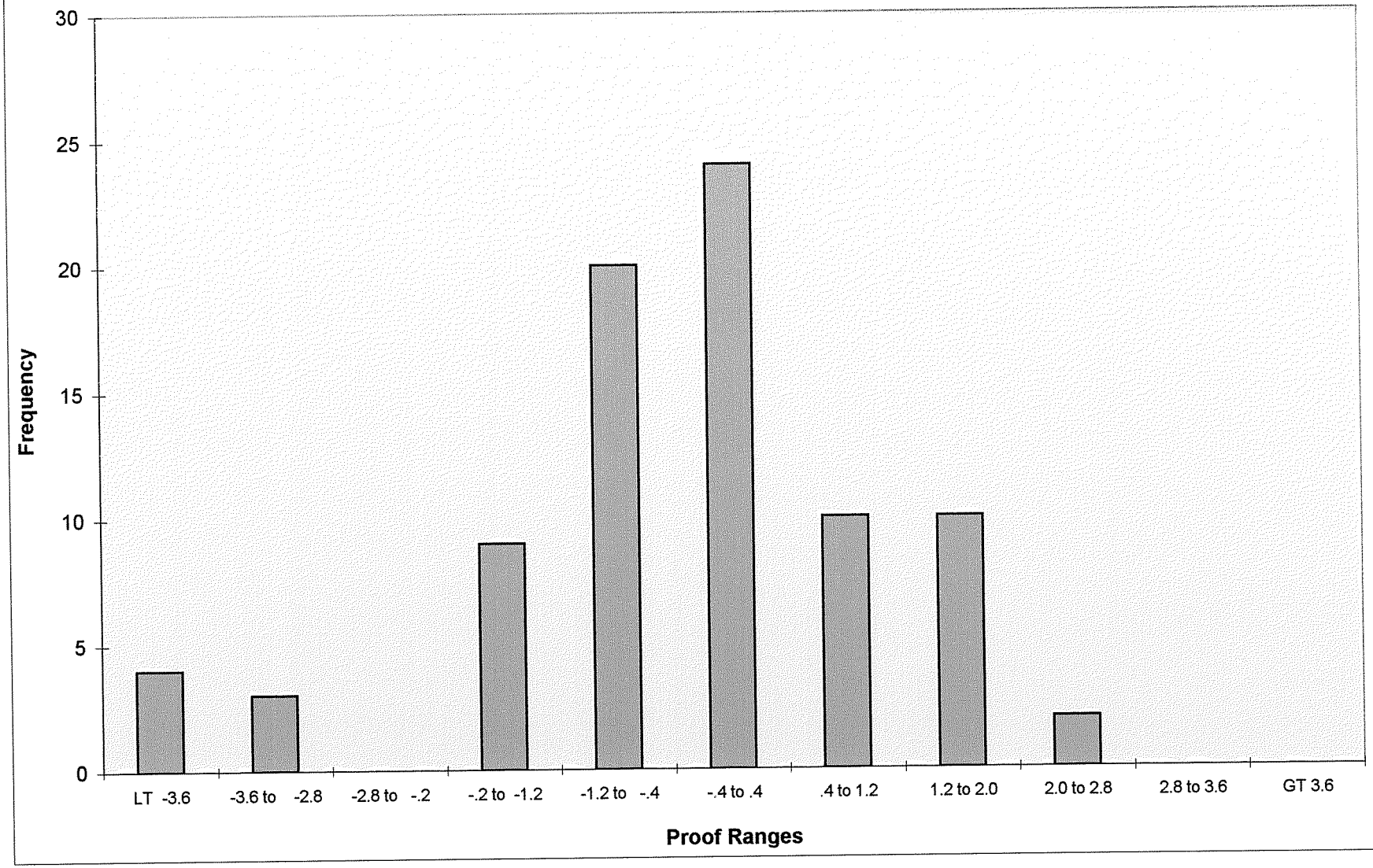
Code & Year:	1990
Data Range	Number
LT -3.6	2
-3.6 to -2.8	2
-2.8 to -.2	0
-.2 to -1.2	4
-1.2 to -.4	10
-.4 to .4	17
.4 to 1.2	6
1.2 to 2.0	8
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	50

Code & Year:	1995
Data Range	Number
LT -3.6	2
-3.6 to -2.8	1
-2.8 to -.2	0
-.2 to -1.2	5
-1.2 to -.4	10
-.4 to .4	7
.4 to 1.2	4
1.2 to 2.0	2
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	Total
Data Range	Number
LT -3.6	4
-3.6 to -2.8	3
-2.8 to -.2	0
-.2 to -1.2	9
-1.2 to -.4	20
-.4 to .4	24
.4 to 1.2	10
1.2 to 2.0	10
2.0 to 2.8	2
2.8 to 3.6	0
GT 3.6	0
Total	82

American AL175 Distribution Profile - 033

(1985, 1986, 1987, 1988, 1989, 1990, 1992, 1994, 1996)



American AC250	Test Year 2008									
250 CFH	Control Group-Installed Year									
Code: 078	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Sample Plan	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced
Sample Size	32	80	80	80	80	80	50	32	32	50
Original Population	979	4339	3749	4299	3288	4704	2803	109	688	2441
# of Slow Failures	0	0	0	0	0	0	0	0	0	0
# of Fast Failures	0	0	0	1	0	0	0	0	0	0
Total Failures:	0	0	0	1	0	0	0	0	0	0
Accept Level	5	10	10	10	10	10	7	5	5	7
Reject Level	8	13	13	13	13	13	10	8	8	10
Pass / Fail?	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
If Failed - Remove By:	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Statistical Data:										
Mean (Average Proof)	0.09375	-0.484	-0.493125	-0.306875	-0.60875	-0.135	-0.796	-0.248438	0.184375	-0.127
Median	0.1	-0.45	-0.475	-0.375	-0.625	-0.175	-0.775	-0.275	0.225	-0.175
Standard Deviation	0.391389	0.369561	0.511745	0.76061	0.392797	0.528216	0.572306	0.572556	0.397256	0.526076
Sample Variance	0.153185	0.136576	0.261883	0.578528	0.15429	0.279013	0.327535	0.32782	0.157813	0.276756
Skewness	-0.491954	-0.698402	0.946984	3.148135	0.443495	0.192069	0.304492	0.449136	0.019453	0.419681
Minimum	-0.8	-1.55	-1.55	-1.75	-1.35	-1.35	-1.95	-1.4	-0.55	-1.45
Maximum	0.85	0.05	1.75	4.45	0.6	1.55	0.8	1	1	1.5
Count	32	50	80	80	80	80	50	32	32	50
Confidence Level(95.0%)	0.141111	0.105028	0.113883	0.169266	0.087413	0.117549	0.162648	0.206428	0.143226	0.149509

American AC250	Test Year 2008								
250 CFH	Control Group-Installed Year								
Code: 078	1995	1996	1997	1998	1999	2000	2002	2004	2006
Sample Plan	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced
Sample Size	80	80	80	80	80	80	50	80	80
Original Population	1101	4744	4065	4658	3635	5176	3048	216	800
# of Slow Failures	0	0	0	0	0	0	0	0	0
# of Fast Failures	0	0	0	0	0	0	0	1	0
Total Failures:	0	0	0	0	0	0	0	1	0
Accept Level	10	10	10	10	10	10	7	10	10
Reject Level	13	13	13	13	13	13	10	13	13
Pass / Fail?	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
If Failed - Remove By:	NA	NA	NA	NA	NA	NA	NA	NA	NA
Statistical Data:									
Mean (Average Proof)	-0.165	-0.090625	0.0725	-0.06625	-0.106875	0.04375	-0.134	0.21125	0.105
Median	-0.2	-0.1	0.05	-0.05	-0.15	0	-0.1	0.25	0.1
Standard Deviation	0.409955	0.495173	0.415438	0.401483	0.416035	0.403652	0.391939	0.616132	0.438106
Sample Variance	0.168063	0.245196	0.172589	0.161188	0.173085	0.162935	0.153616	0.379619	0.191937
Skewness	-0.004525	0.231371	-0.156082	0.038643	0.096578	0.387025	0.047839	0.361321	-0.588698
Minimum	-1.1	-1.5	-1.05	-1	-1.25	-0.8	-0.9	-0.9	-1.25
Maximum	0.7	1.35	1	1	1.1	1.2	0.8	2.1	0.85
Count	80	80	80	80	80	80	50	80	80
Confidence Level(95.0%)	0.091231	0.110195	0.092451	0.089346	0.092584	0.089828	0.111388	0.137113	0.097496

Year 2008

Meter Code 078 American AC250

Code & Year:	1985
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	4
-.4 to .4	23
.4 to 1.2	5
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	1986
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	25
-.4 to .4	37
.4 to 1.2	14
1.2 to 2.0	2
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	1987
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	7
-1.2 to -.4	39
-.4 to .4	31
.4 to 1.2	2
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	1988
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	4
-1.2 to -.4	32
-.4 to .4	39
.4 to 1.2	3
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	1
Total	80

Code & Year:	1989
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	5
-1.2 to -.4	51
-.4 to .4	23
.4 to 1.2	1
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	1990
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	18
-.4 to .4	50
.4 to 1.2	9
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	1991
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	12
-1.2 to -.4	26
-.4 to .4	11
.4 to 1.2	1
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	50

Code & Year:	1992
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	12
-.4 to .4	15
.4 to 1.2	4
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	1993
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	2
-.4 to .4	22
.4 to 1.2	8
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	1994
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	13
-.4 to .4	31
.4 to 1.2	4
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	50

Year 2008 Meter Code 078 American AC250

Code & Year:	1995
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	19
-.4 to .4	54
.4 to 1.2	7
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	1996
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	13
-.4 to .4	56
.4 to 1.2	9
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	1997
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	10
-.4 to .4	52
.4 to 1.2	18
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	1998
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	14
-.4 to .4	59
.4 to 1.2	7
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	1999
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	12
-.4 to .4	60
.4 to 1.2	7
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	2000
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	10
-.4 to .4	58
.4 to 1.2	12
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	2002
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	12
-.4 to .4	35
.4 to 1.2	3
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	50

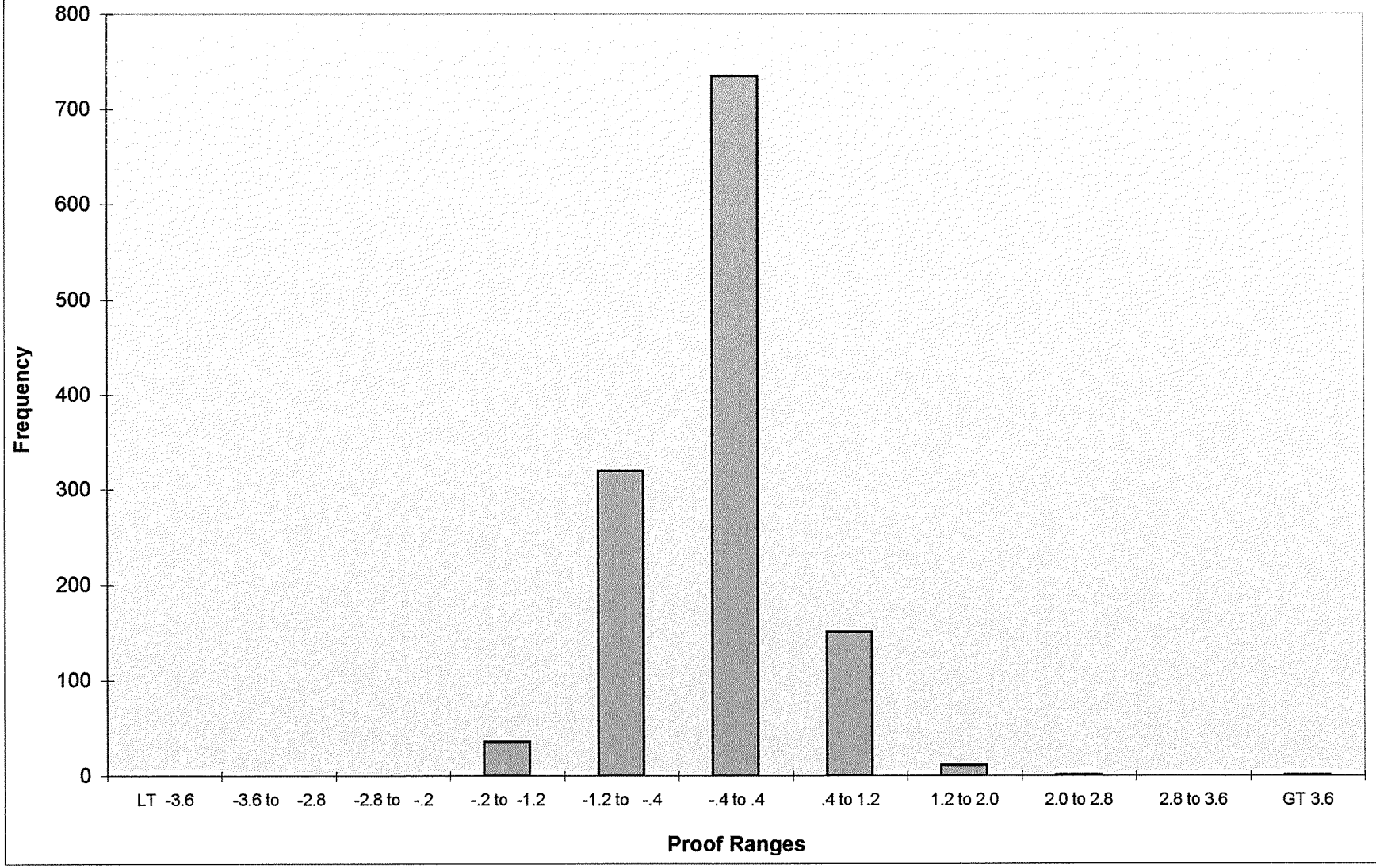
Code & Year:	2004
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	12
-.4 to .4	42
.4 to 1.2	21
1.2 to 2.0	4
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	2006
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	7
-.4 to .4	52
.4 to 1.2	20
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	36
-1.2 to -.4	319
-.4 to .4	735
.4 to 1.2	151
1.2 to 2.0	11
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	1
Total	1254

American AC250 Distribution Profile - 078

(1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2002, 2004, 2006)



Rockwell R200	Test Year 2008								
200 CFH	Control Group-Installed Year								
Code: 079	1985	1996							
Sample Plan	Single	Single							
Sample Size	32	32							
Original Population	246	221							
# of Slow Failures	0	0							
# of Fast Failures	1	0							
Total Failures:	1	0							
Accept Level	5	5							
Reject Level	6	6							
Pass/ Fail?	Pass	Pass							
If Failed - Remove By:	NA	NA							
Statistical Data:									
Mean (Average Proof)	0.484375	-0.33281							
Median	0.325	-0.4							
Standard Deviation	0.770781	0.554106							
Sample Variance	0.594103	0.307034							
Skewness	1.074392	0.397155							
Minimum	-0.7	-1.4							
Maximum	2.7	1.1							
Count	32	32							
Confidence Level(95.0%)	0.277896	0.199777							

Year 2008

Meter Code 079 Rockwell R200

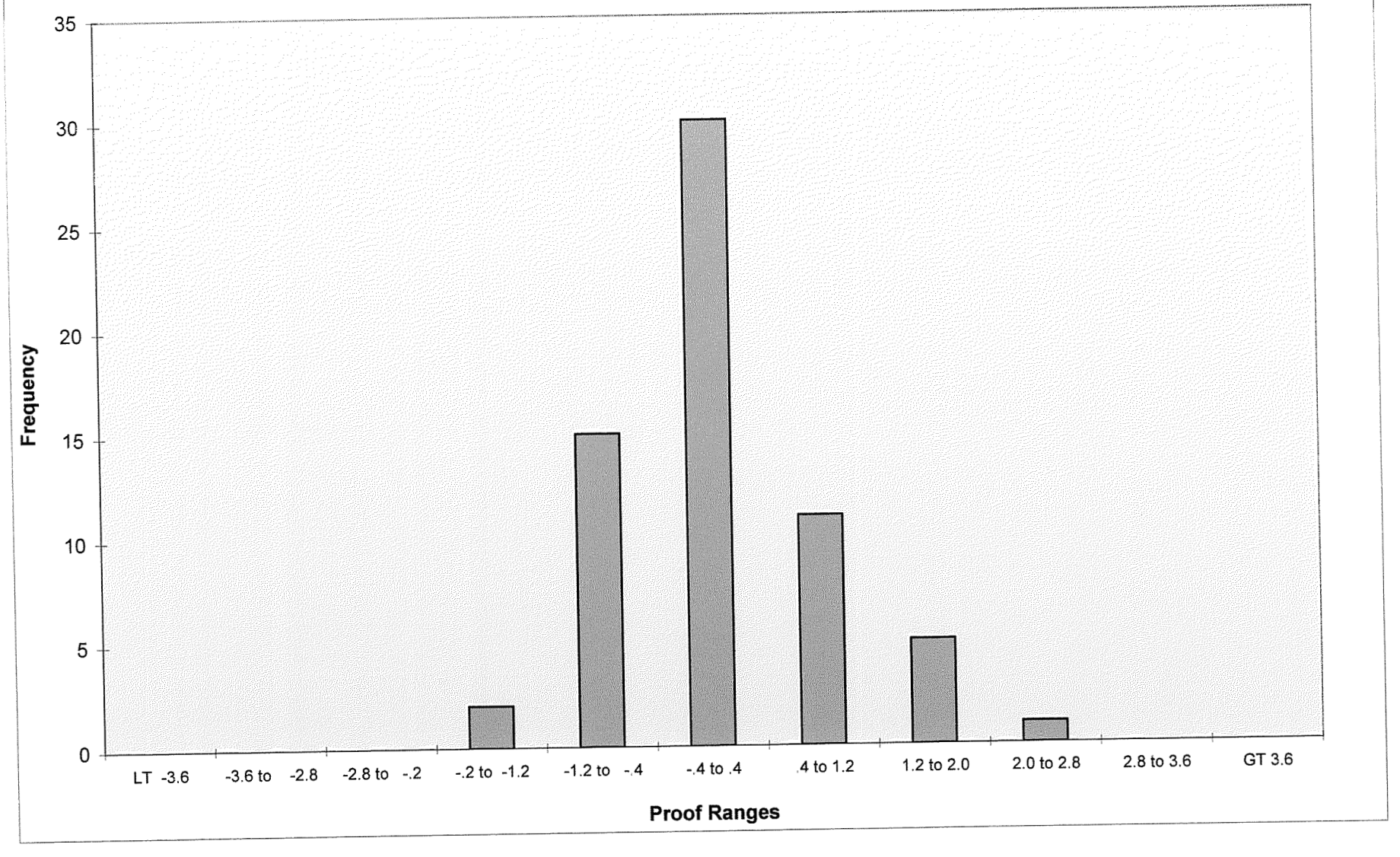
Code & Year:	1985
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	2
-.4 to .4	15
.4 to 1.2	9
1.2 to 2.0	5
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	1996
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	13
-.4 to .4	15
.4 to 1.2	2
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	15
-.4 to .4	30
.4 to 1.2	11
1.2 to 2.0	5
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	64

Rockwell R200 Distribution Profile - 079

(1985, 1996)



American AL1000	Test Year 2008								
1000 CFH	Control Group-Installed Year								
Code: 014	1998	1999	2000	2001	2002	2003	2004	2006	
Sample Plan	Single	Single	Single	Single	Single	Single	Single	Single	
Sample Size	20*	13	20	32	8	32	50	50	
Original Population	105	83	141	219	45	225	392	400	
# of Slow Failures	1	0	0	0	0	3	2	4	
# of Fast Failures	0	0	0	1	0	0	0	0	
Total Failures:	1	0	0	1	0	3	2	4	
Accept Level	3	2	3	5	1	5	7	7	
Reject Level	4	3	4	6	2	6	8	8	
Pass / Fail?	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	
If Failed - Remove By:	Exhaust	NA	NA	NA	NA	NA	NA	NA	
Statistical Data:									
Mean (Average Proof)	-0.165	-0.426923	-0.3775	-0.164063	-1.01875	-0.751563	-0.58	-0.503	
Median	-0.25	-0.4	-0.35	-0.15	-0.625	-0.45	-0.425	-0.35	
Standard Deviation	0.867559	0.422106	0.528273	0.896969	0.913759	0.802766	0.793404	0.991773	
Sample Variance	0.752658	0.178173	0.279072	0.804554	0.834955	0.644433	0.62949	0.983613	
Skewness	-0.660599	0.349073	-0.142806	0.189082	-0.741874	-1.002186	-0.44721	-1.029133	
Minimum	-2.55	-1.1	-1.45	-1.85	-2.45	-2.8	-2.5	-3.35	
Maximum	1.5	0.4	0.55	2.2	-0.2	0.65	1	1.05	
Count	20	13	20	32	8	32	50	50	
Confidence Level(95.0%)	0.40603	0.255076	0.247239	0.323392	0.763922	0.289428	0.225483	0.281859	

* Control group in 10th year of service - maximum service period - all meters to be removed/tested. Sample size based on population was used to determine if group passed/failed in it's last year of service.

Year 2008

Meter Code 014 American AL1000

Code & Year: 1998	
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	1
-1.2 to -.4	3
-.4 to .4	11
.4 to 1.2	3
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	20

Code & Year: 1999	
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	6
-.4 to .4	7
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	13

Code & Year: 2000	
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	7
-.4 to .4	10
.4 to 1.2	2
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	20

Code & Year: 2001	
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	4
-1.2 to -.4	8
-.4 to .4	12
.4 to 1.2	7
1.2 to 2.0	0
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year: 2002	
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	2
-.2 to -1.2	1
-1.2 to -.4	2
-.4 to .4	3
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

Code & Year: 2003	
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	3
-.2 to -1.2	6
-1.2 to -.4	9
-.4 to .4	13
.4 to 1.2	1
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

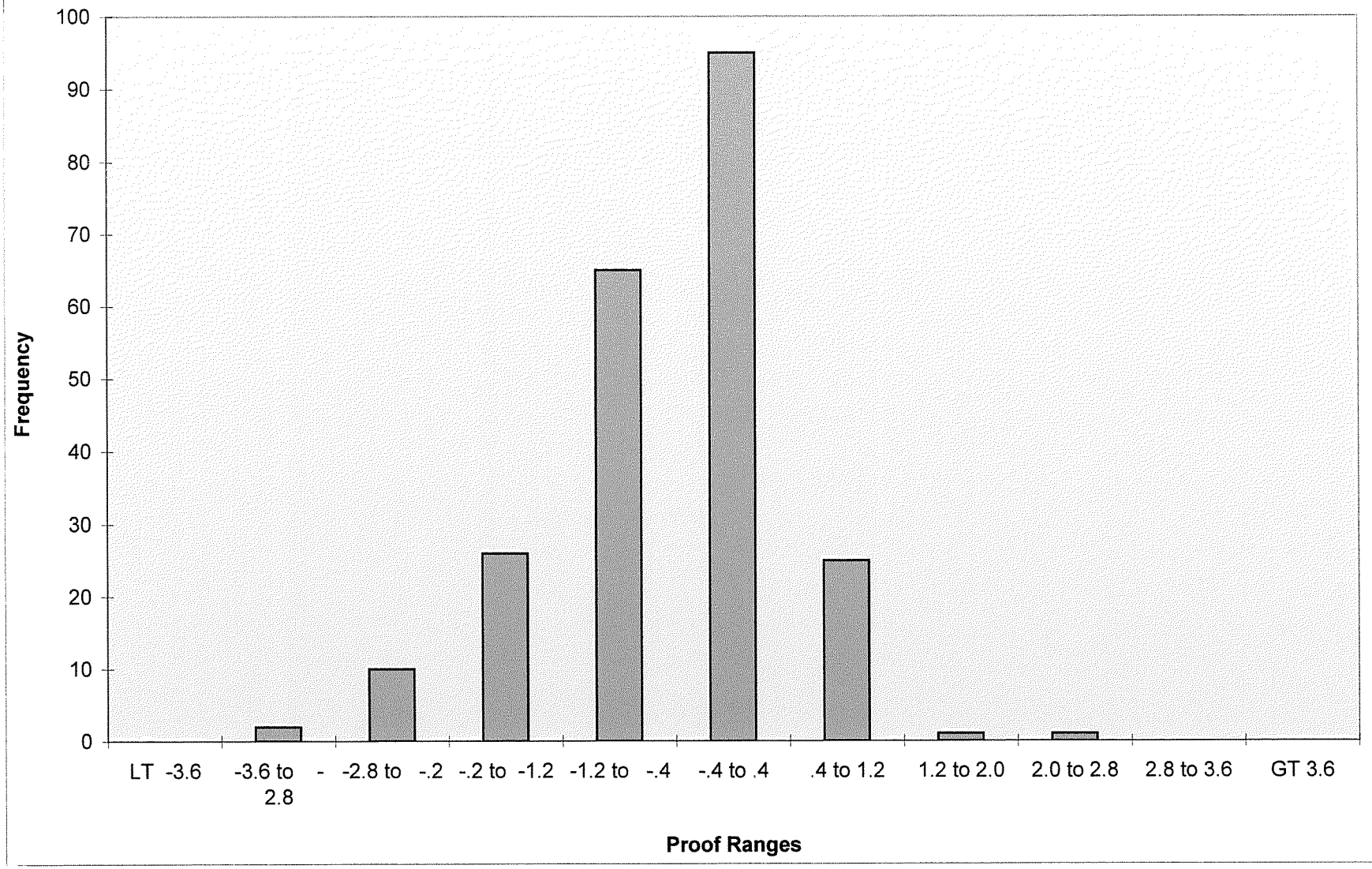
Code & Year: 2004	
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	2
-.2 to -1.2	10
-1.2 to -.4	13
-.4 to .4	21
.4 to 1.2	4
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	50

Code & Year: 2006	
Data Range	Number
LT -3.6	0
-3.6 to -2.8	2
-2.8 to -.2	2
-.2 to -1.2	3
-1.2 to -.4	17
-.4 to .4	18
.4 to 1.2	8
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	50

Code & Year: Total	
Data Range	Number
LT -3.6	0
-3.6 to -2.8	2
-2.8 to -.2	10
-.2 to -1.2	26
-1.2 to -.4	65
-.4 to .4	95
.4 to 1.2	25
1.2 to 2.0	1
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	225

American AL1000 Distribution Profile - 014

(1998, 1999, 2000, 2001, 2002, 2003, 2004, 2006)



Actaris 800A	Test Year 2008								
800 CFH	Control Group-Installed Year								
Code 016	2002	2003							
Sample Plan	Single	Single							
Sample Size	13	1							
Original Population	77	1							
# of Slow Failures	0	0							
# of Fast Failures	0	0							
Total Failures:	0	0							
Acept Level	2	0							
Reject Level	3	1							
Pass / Fail ?	**Pass**	**Pass**							
If Failed - Remove By:	NA	Exhaust							
Statistical Data:									
Mean (Average Proof)	0.169231	0.45							
Median	0.15	0.45							
Standard Deviation	0.597404	NA							
Sample Variance	0.356891	NA							
Skewness	0.104719	NA							
Minimum	-0.85	0.45							
Maximum	1.35	0.45							
Count	13	1							
Confidence Level(95.0%)	0.361007	NA							

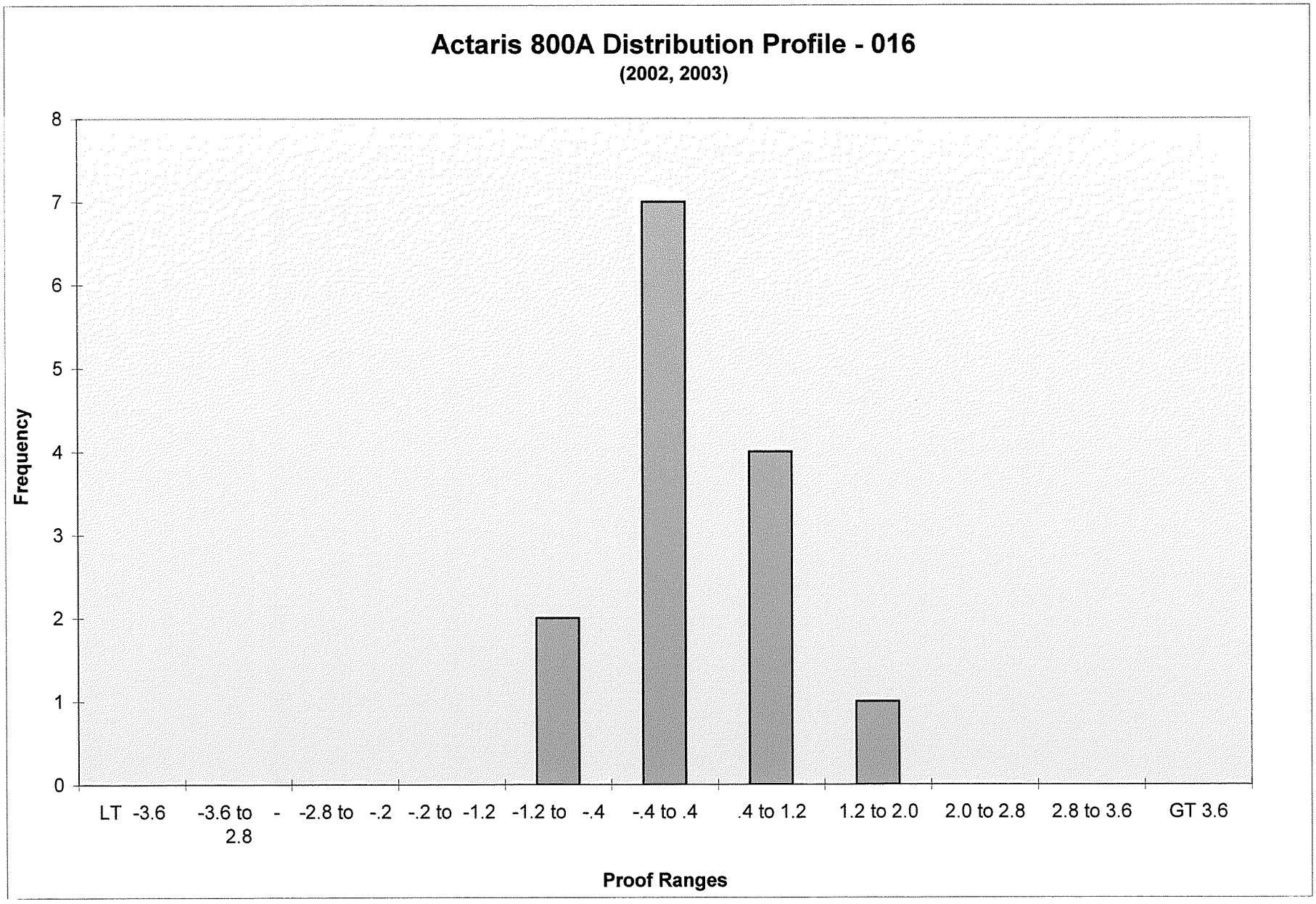
Year 2008

Meter Code 016 Actaris 800A

Code & Year:	2002
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	2
-.4 to .4	7
.4 to 1.2	3
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	13

Code & Year:	2003
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	0
-.4 to .4	0
.4 to 1.2	1
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	1

Code & Year:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	2
-.4 to .4	7
.4 to 1.2	4
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	14


Actaris 800A Distribution Profile - 016
(2002, 2003)
Frequency
0
1
2
3
4
5
6
7
8
LT -3.6
-3.6 to -2.8
-2.8 to -.2
-.2 to -1.2
-1.2 to -.4
-.4 to .4
.4 to 1.2
1.2 to 2.0
2.0 to 2.8
2.8 to 3.6
GT 3.6
Proof Ranges

Actaris 800A	Test Year 2008								
800 CFH	Control Group-Installed Year								
Code 16T	2002								
Sample Plan	Single								
Sample Size	2								
Original Population	6								
# of Slow Failures	0								
# of Fast Failures	0								
Total Failures:	0								
Acept Level	0								
Reject Level	1								
Pass / Fail ?	**Pass**								
If Failed - Remove By:	NA								
Statistical Data:									
Mean (Average Proof)	0.525								
Median	0.525								
Standard Deviation	0.388909								
Sample Variance	0.15125								
Skewness	NA								
Minimum	0.25								
Maximum	0.8								
Count	2								
Confidence Level(95.0%)	3.494206								

Year 2008

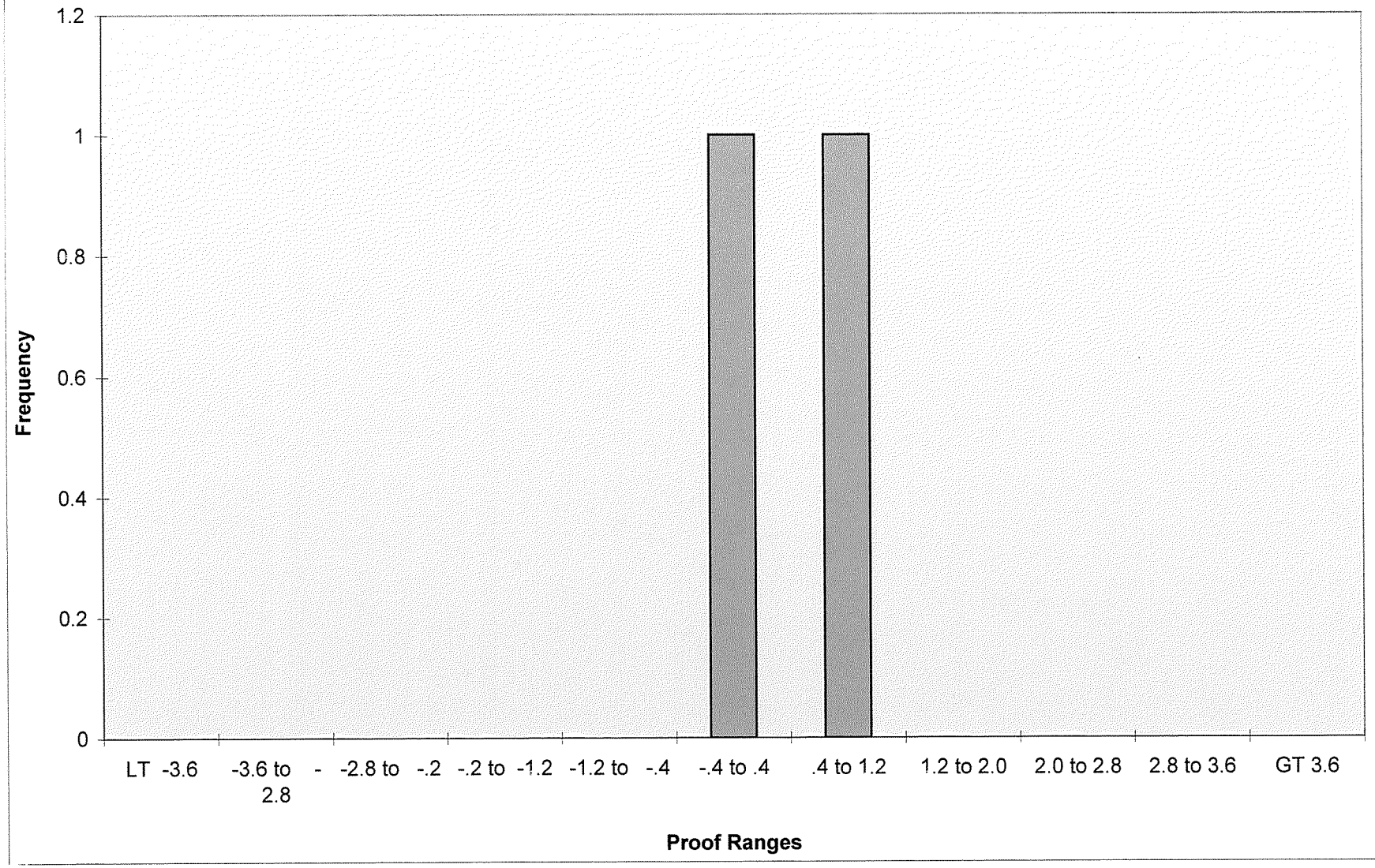
Meter Code 16T Actaris 800A

Code & Year:	2002
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	0
-.4 to .4	1
.4 to 1.2	1
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	2

Code & Year:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	0
-.4 to .4	1
.4 to 1.2	1
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	2

Actaris 800A Distribution Profile - 16T

(2002)



Actaris 1000A	Test Year 2008								
1000 CFH	Control Group-Installed Year								
Code 017	2002	2003							
Sample Plan	Single	Single							
Sample Size	13	2							
Original Population	85	11							
# of Slow Failures	0	0							
# of Fast Failures	0	0							
Total Failures:	0	0							
Accept Level	2	0							
Reject Level	3	1							
Pass / Fail ?	Pass	Pass							
If Failed - Remove By:	NA	NA							
Statistical Data:									
Mean (Average Proof)	-0.23077	0.2							
Median	-0.3	0.2							
Standard Deviation	-0.3	0.636396							
Sample Variance	0.378558	0.405							
Skewness	-0.50097	NA							
Minimum	-1.75	-0.25							
Maximum	0.95	0.65							
Count	13	2							
Confidence Level(95.0%)	0.371804	5.717792							

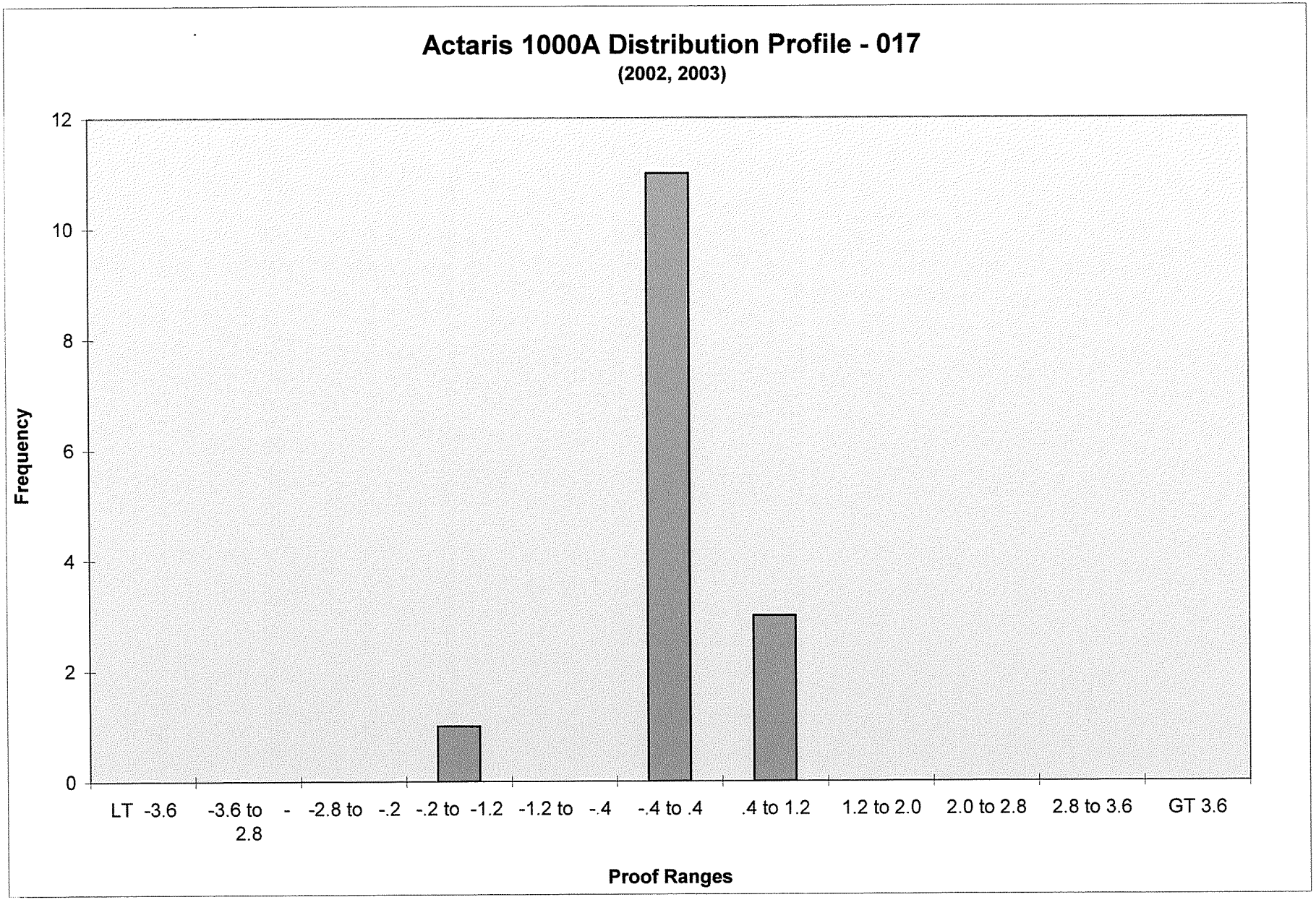
Year 2008

Meter Code 017 Actaris 1000A

Code & Year:	2002
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	0
-.4 to .4	10
.4 to 1.2	2
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	13

Code & Year:	2003
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	0
-.4 to .4	1
.4 to 1.2	1
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	2

Code & Year:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	0
-.4 to .4	11
.4 to 1.2	3
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	15


Actaris 1000A Distribution Profile - 017
(2002, 2003)
Frequency
12
10
8
6
4
2
0
LT -3.6
-3.6 to 2.8
- -2.8 to -.2
-.2 to -1.2
-1.2 to -.4
-.4 to .4
.4 to 1.2
1.2 to 2.0
2.0 to 2.8
2.8 to 3.6
GT 3.6
Proof Ranges

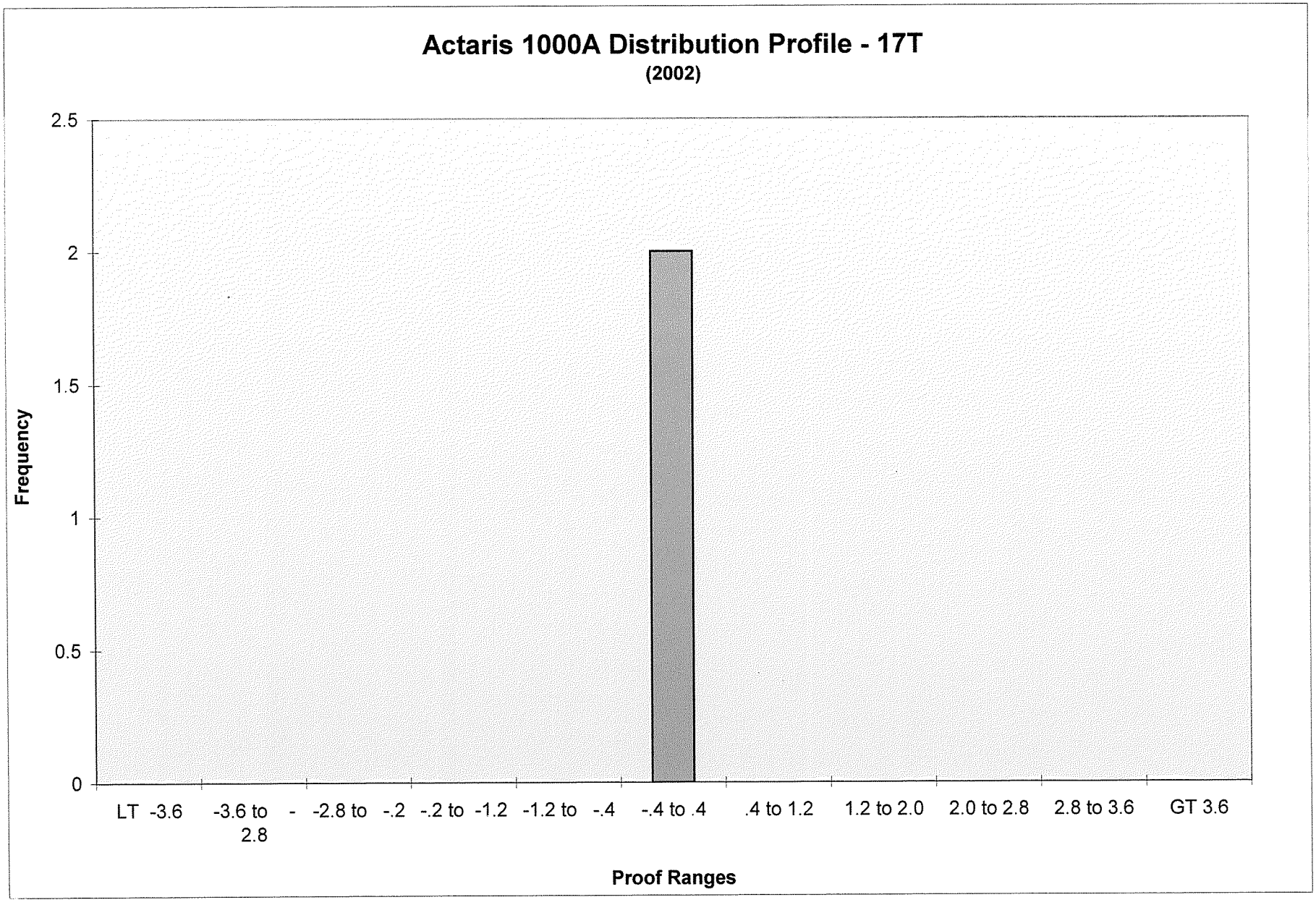
Actaris 1000A	Test Year 2008								
1000 CFH	Control Group-Installed Year								
Code 17T	2002								
Sample Plan	Single								
Sample Size	2								
Original Population	6								
# of Slow Failures	0								
# of Fast Failures	0								
Total Failures:	0								
Accept Level	0								
Reject Level	1								
Pass / Fail ?	Pass								
If Failed - Remove By:	NA								
Statistical Data:									
Mean (Average Proof)	-0.15								
Median	-0.15								
Standard Deviation	0.141421								
Sample Variance	0.02								
Skewness	NA								
Minimum	-0.25								
Maximum	-0.05								
Count	2								
Confidence Level(95.0%)	1.27062								

Year 2008

Meter Code 17T Actaris 1000A

Code & Year:	2002
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	0
-.4 to .4	2
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	2

Code & Year:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	0
-.4 to .4	2
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	2


Actaris 1000A Distribution Profile - 17T
(2002)
Frequency
2.5
2
1.5
1
0.5
0
LT -3.6
-3.6 to 2.8
-2.8 to -.2
-.2 to -1.2
-1.2 to -.4
-.4 to .4
.4 to 1.2
1.2 to 2.0
2.0 to 2.8
2.8 to 3.6
GT 3.6
Proof Ranges

American AL 1400	Test Year 2005								
1400 CFH	Control Group-Installed Year								
Code: 019	1998	1999	2000	2001	2002	2003	2004	2006	
Sample Plan	Single	Single	Single	Single	Single	Single	Single	Single	
Sample Size	2*	2	2	2	2	8	8	8	
Original Population	6	3	5	9	8	19	30	28	
# of Slow Failures	0	0	0	0	1	0	0	0	
# of Fast Failures	0	0	0	0	0	0	0	0	
Total Failures:	0	0	0	0	1	0	0	0	
Accept Level	0	0	0	0	0	1	1	1	
Reject Level	1	1	1	1	1	2	2	2	
Pass / Fail?	Pass	Pass	Pass	Pass	Fail	Pass	Pass	Pass	
If Failed - Remove By:	Exhaust	NA	NA	NA	July 1, 2010	NA	NA	NA	
Statistical Data:									
Mean (Average Proof)	0	-0.9	-0.225	-0.05	-1.275	-0.08125	-0.0625	-0.83125	
Median	-1.375	-0.9	-0.225	-0.05	-1.275	-0.125	0.025	-0.675	
Standard Deviation	0.813173	2.333452	0.247487	0.141421	1.025305	0.592174	0.62778	0.77687	
Sample Variance	0.66125	5.445	0.06125	0.02	1.05125	0.35067	0.394107	0.603527	
Skewness	NA	NA	NA	NA	NA	0.510682	0.130854	-0.345037	
Minimum	-1.95	-2.55	-0.4	-0.15	-2	-0.75	-0.95	-2	
Maximum	-0.8	0.75	-0.05	0.05	-0.55	0.95	1	0.35	
Count	2	2	2	2	2	8	8	8	
Confidence Level(95.0%)	7.306068	20.96524	2.223586	1.27062	9.211998	0.49507	0.524837	0.649479	

* Control group in 10th year of service - maximum service period - all meters to be removed/tested. Sample size based on population was used to determine if group passed/failed in it's last year of service.

Year 2008 Meter Code 019 American AL 1400

Code & Year:	1998
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	1
-.4 to .4	0
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	2

Code & Year:	1999
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	0
-1.2 to -.4	1
-.4 to .4	0
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	2

Code & Year:	2000
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	0
-.4 to .4	2
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	2

Code & Year:	2001
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	0
-.4 to .4	2
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	2

Code & Year:	2002
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	1
-.4 to .4	0
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	2

Code & Year:	2003
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	3
-.4 to .4	4
.4 to 1.2	1
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

Code & Year:	2004
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	2
-.4 to .4	5
.4 to 1.2	1
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

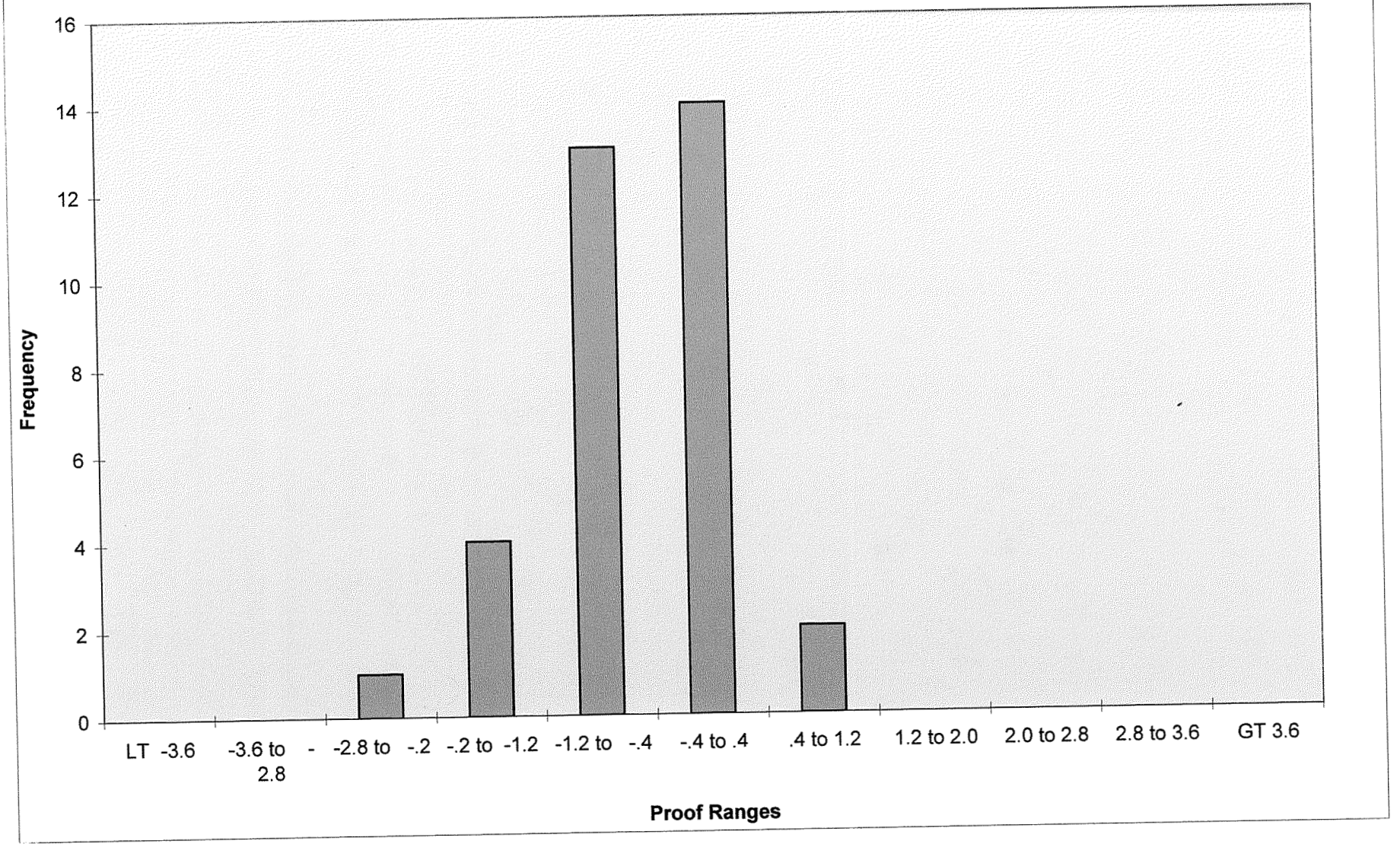
Code & Year:	2006
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	5
-.4 to .4	1
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

Code & Year:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	4
-1.2 to -.4	13
-.4 to .4	14
.4 to 1.2	2
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	34

* All Eight Meters In Polulation Used In This Chart and History Graph

American AL1400 Distribution Profile - 019

(1998, 1999, 2000, 2001, 2002, 2003, 2004, 2006)



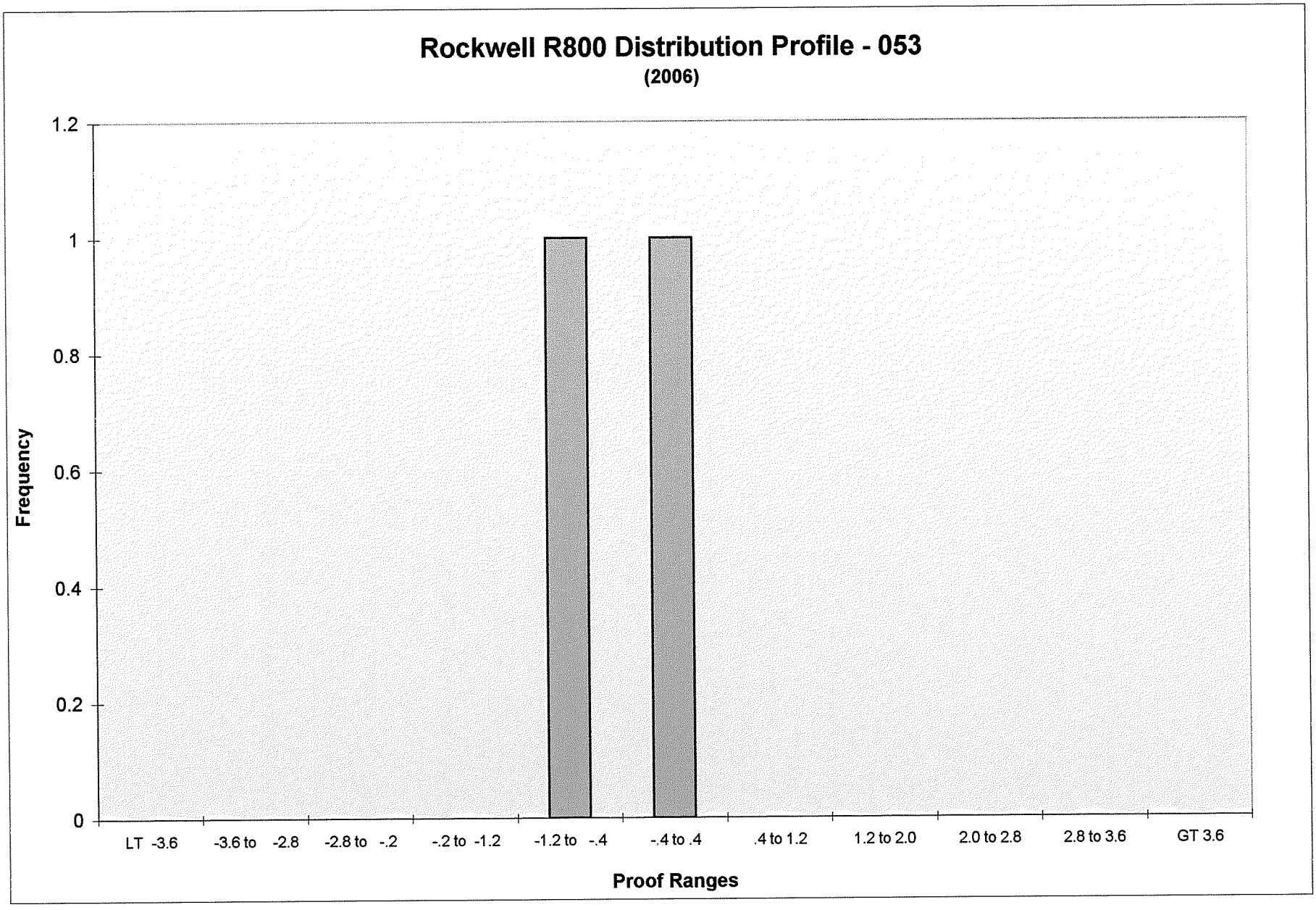
Rockwell R800	Test Year 2008								
800 CFH	Control Group-Installed Year								
Code: 053	2006								
Sample Plan	Single								
Sample Size	2								
Original Population	2								
# of Slow Failures	0								
# of Fast Failures	0								
Total Failures:	0								
Accept Level	0								
Reject Level	1								
Pass / Fail?	Pass								
If Failed - Remove By:	Exhaust								
Statistical Data:									
Mean (Average Proof)	-0.4								
Median	-0.4								
Standard Deviation	0.707107								
Sample Variance	0.5								
Skewness	NA								
Minimum	-0.9								
Maximum	0.1								
Count	2								
Confidence Level(95.0%)	6.353102								

Year 2008

Meter Code 053 Rockwell R800

Code & Year:	2006
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	1
-.4 to .4	1
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	2

Code & Year:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	1
-.4 to .4	1
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	2


Rockwell R800 Distribution Profile - 053
(2006)
Frequency
1.2
1
0.8
0.6
0.4
0.2
0
LT -3.6
-3.6 to -2.8
-2.8 to -.2
-.2 to -1.2
-1.2 to -.4
-.4 to .4
.4 to 1.2
1.2 to 2.0
2.0 to 2.8
2.8 to 3.6
GT 3.6
Proof Ranges

Rockwell #3 Emco	Test Year 2008								
1200 CFH	Control Group-Installed Year								
Code: 056	1999	2000	2001	2002	2003	2004	2006		
Sample Plan	Single	Single	Single	Single	Single	Single	Single		
Sample Size	8	8	8	8	8	20	13		
Original Population	32	39	31	40	47	108	63		
# of Slow Failures	0	0	0	0	0	0	0		
# of Fast Failures	0	0	0	0	0	0	0		
Total Failures:	0	0	0	0	0	0	0		
Accept Level	1	1	1	1	1	3	2		
Reject Level	2	2	2	2	2	4	3		
Pass / Fail?									
If Failed - Remove By:	Pass	Pass	Pass	Pass	Pass	Pass	Pass		
Statistical Data:									
Mean (Average Proof)	-0.36875	-0.75625	-0.275	-1.08125	-0.44375	-0.2675	-0.48462		
Median	-0.525	-0.85	-0.475	-1.2	-0.475	-0.3	-0.75		
Standard Deviation	0.955786	0.772952	1.05017	0.896397	1.062489	1.043183	0.939722		
Sample Variance	0.913527	0.597455	1.102857	0.803527	1.128884	1.08823	0.883077		
Skewness	-0.24801	-0.02648	0.3606	1.248639	0.838687	0.014694	0.351539		
Minimum	-1.95	-1.85	-1.75	-1.95	-2	-2	-1.9		
Maximum	0.85	0.2	1.35	0.75	1.65	1.7	1.4		
Count	8	8	8	8	8	20	13		
Confidence Level(95.0%)	0.799057	0.646204	0.877964	0.749406	0.888263	0.488225	0.567868		

Year 2008

Meter Code 056 Rockwell #3 Emco

Code & Year:	1999
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	3
-.4 to .4	1
.4 to 1.2	3
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

Code & Year:	2000
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	3
-1.2 to -.4	2
-.4 to .4	3
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

Code & Year:	2001
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	3
-.4 to .4	1
.4 to 1.2	1
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

Code & Year:	2002
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	4
-1.2 to -.4	3
-.4 to .4	0
.4 to 1.2	0
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

Code & Year:	2003
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	4
-.4 to .4	2
.4 to 1.2	0
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

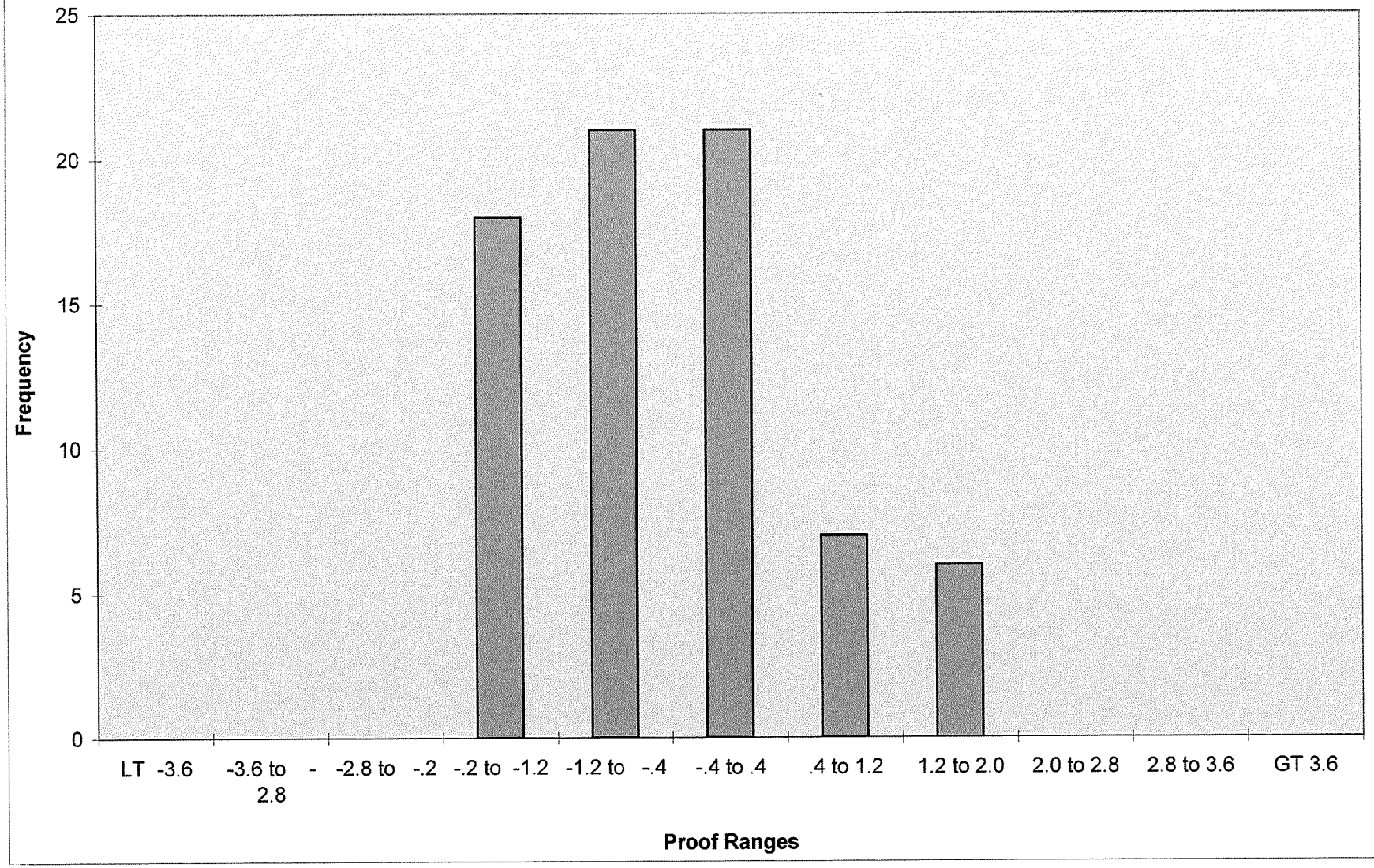
Code & Year:	2004
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	4
-1.2 to -.4	2
-.4 to .4	10
.4 to 1.2	2
1.2 to 2.0	2
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	20

Code & Year:	2006
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	3
-1.2 to -.4	4
-.4 to .4	4
.4 to 1.2	1
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	13

Code & Year:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	18
-1.2 to -.4	21
-.4 to .4	21
.4 to 1.2	7
1.2 to 2.0	6
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	73

Rockwell #3 Emco Distribution Profile - 056

(1999, 2000, 2001, 2002, 2003, 2004, 2006)



Rockwell R750	Test Year 2008								
750 CFH	Control Group-Installed Year								
Code: 058	1998	1999	2000	2001	2002	2003	2004	2006	
Sample Plan	Single	Single	Single	Single	Single	Single	Single	Single	
Sample Size	20*	13	20	32	20	32	50	50	
Original Population	113	89	136	240	105	225	301	462	
# of Slow Failures	0	0	0	0	1	1	0	0	
# of Fast Failures	0	0	0	1	0	1	0	0	
Total Failures:	0	0	0	1	1	2	0	0	
Accept Level	3	2	3	5	3	5	7	7	
Reject Level	4	3	4	6	4	6	8	8	
Pass / Fail?	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	
If Failed - Remove By:	Exhaust	NA	NA	NA	NA	NA	NA	NA	
Statistical Data:									
Mean (Average Proof)	-0.0125	0.130769	0.1125	0.10625	-0.045	0.296875	0.255	0.07	
Median	0.025	0.15	0.275	0.1	-0.05	0.2	0.325	0	
Standard Deviation	0.524875	0.913906	0.662705	0.942521	1.018887	1.134214	0.81242	0.708836	
Sample Variance	0.275493	0.835224	0.439178	0.888347	1.038132	1.286442	0.660026	0.502449	
Skewness	-1.14656	0.327	-0.85105	0.302766	-0.51584	-0.55306	0.156906	-0.08997	
Minimum	-1.35	-1.15	-1.7	-1.85	-2.65	-3.15	-1.15	-1.75	
Maximum	0.7	1.9	1.2	2.7	1.6	2.35	1.85	1.9	
Count	20	13	20	32	20	32	50	50	
Confidence Level(95.0%)	0.245649	0.552268	0.310155	0.339815	0.476854	0.408928	0.230887	0.201449	

* Control group in 10th year of service - maximum service period - all meters to be removed/tested. Sample size based on population was used to determine if group passed/failed in it's last year of service.

Year 2008 Meter Code 058 Rockwell R750

Code & Year:	1998
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	1
-.4 to .4	14
.4 to 1.2	4
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	20

Code & Year:	1999
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	4
-.4 to .4	5
.4 to 1.2	2
1.2 to 2.0	2
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	13

Code & Year:	2000
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	3
-.4 to .4	11
.4 to 1.2	5
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	20

Code & Year:	2001
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	3
-1.2 to -.4	5
-.4 to .4	12
.4 to 1.2	10
1.2 to 2.0	1
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	2002
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	0
-1.2 to -.4	5
-.4 to .4	8
.4 to 1.2	3
1.2 to 2.0	3
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	20

Code & Year:	2003
Data Range	Number
LT -3.6	0
-3.6 to -2.8	1
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	5
-.4 to .4	13
.4 to 1.2	4
1.2 to 2.0	7
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	32

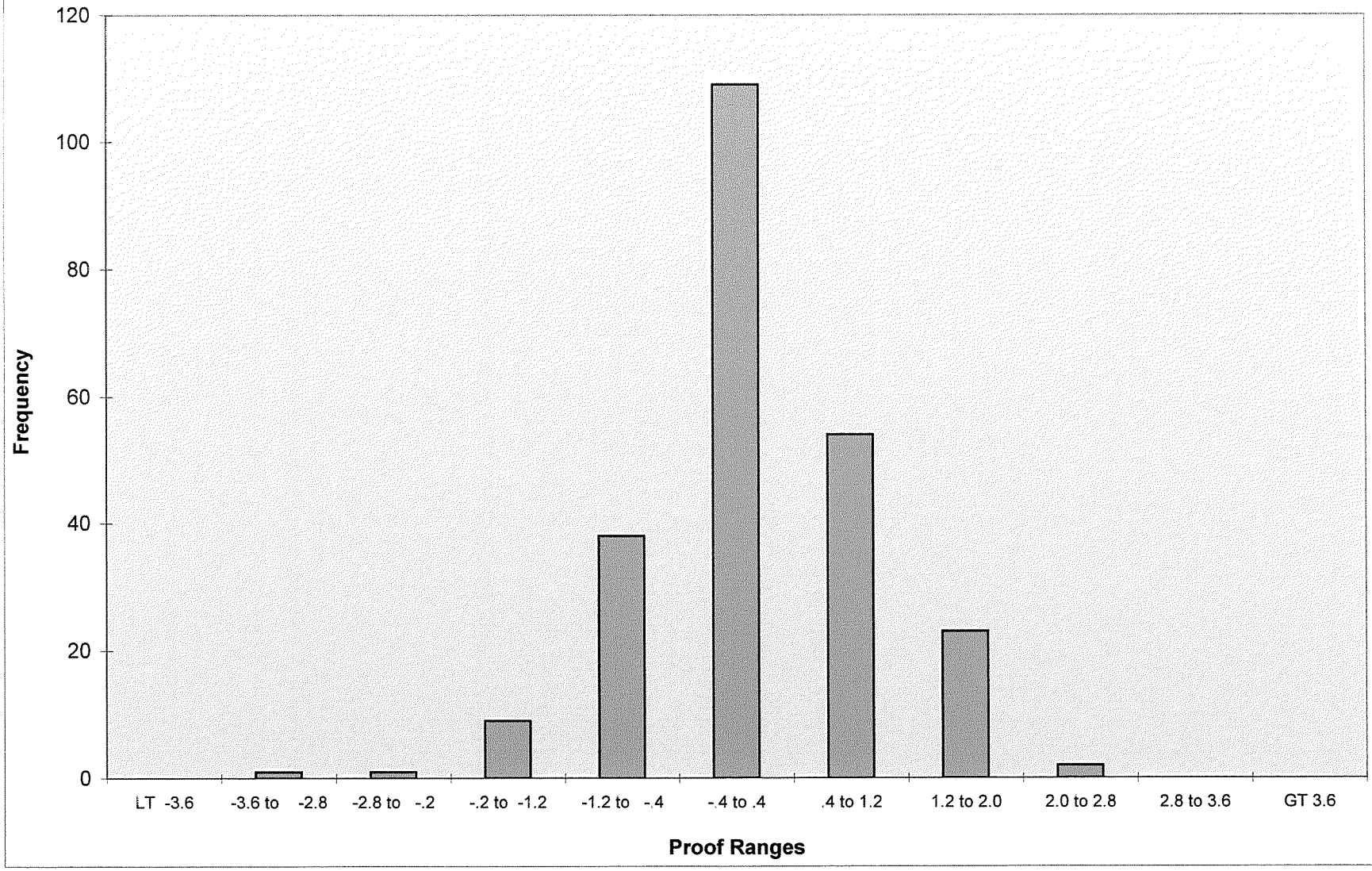
Code & Year:	2004
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	10
-.4 to .4	17
.4 to 1.2	16
1.2 to 2.0	7
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	50

Code & Year:	2006
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	3
-1.2 to -.4	5
-.4 to .4	29
.4 to 1.2	10
1.2 to 2.0	3
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	50

Code & Year:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	1
-2.8 to -.2	1
-.2 to -1.2	9
-1.2 to -.4	38
-.4 to .4	109
.4 to 1.2	54
1.2 to 2.0	23
2.0 to 2.8	2
2.8 to 3.6	0
GT 3.6	0
Total	237

Rockwell R750 Distribution Profile - 058

(1998, 1999, 2000, 2001, 2002, 2003, 2004, 2006)



American AL 800	Test Year 2008								
800 CFH	Control Group-Installed Year								
Code: 076	1998	1999	2000	2001	2002	2003	2004	2006	
Sample Plan	Single	Single	Single	Single	Single	Single	Single	Single	
Sample Size	2*	2	8	8	8	20	32	13	
Original Population	8	2	24	47	26	99	158	87	
# of Slow Failures	0	0	0	0	0	0	1	0	
# of Fast Failures	0	0	0	0	0	0	0	0	
Total Failures:	0	0	0	0	0	0	1	0	
Accept Level	0	0	1	1	1	3	5	2	
Reject Level	1	1	2	2	2	4	6	3	
Pass / Fail?	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	
If Failed - Remove By:	Exhaust	Exhaust	NA	NA	NA	NA	NA	NA	
Statistical Data:									
Mean (Average Proof)	0.125	-0.3	0.1125	-0.30625	-0.40625	-0.7675	-0.685938	-0.273077	
Median	0.125	-0.3	0.025	-0.5	-0.45	-0.875	-0.55	-0.15	
Standard Deviation	0.106066	1.131371	0.379614	0.896994	0.614374	0.684466	0.697141	0.5525	
Sample Variance	0.01125	1.28	0.144107	0.804598	0.377455	0.468493	0.486006	0.305256	
Skewness	NA	NA	0.976338	0.211725	0.426843	0.425383	-0.593119	-0.118099	
Minimum	0.05	-1.1	-0.35	-1.65	-1.1	-1.9	-2.5	-1.1	
Maximum	0.2	0.5	0.85	1	0.55	0.6	0.8	0.5	
Count	2	2	8	8	8	20	32	13	
Confidence Level(95.0%)	0.952965	10.16496	0.317366	0.749906	0.513629	0.32034	0.251346	0.333872	

* Control group in 10th year of service - maximum service period - all meters to be removed/tested. Sample size based on population was used to determine if group passed/failed in it's last year of service.

Year 2008

Meter Code 076 American AL800

Code & Year:	1998
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	0
-.4 to .4	2
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	2

Code & Year:	1999
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	1
-.4 to .4	1
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	2

Code & Year:	2000
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	0
-.4 to .4	7
.4 to 1.2	1
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

Code & Year:	2001
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	3
-.4 to .4	2
.4 to 1.2	2
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

Code & Year:	2002
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	4
-.4 to .4	3
.4 to 1.2	1
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

Code & Year:	2003
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	4
-1.2 to -.4	9
-.4 to .4	5
.4 to 1.2	1
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	20

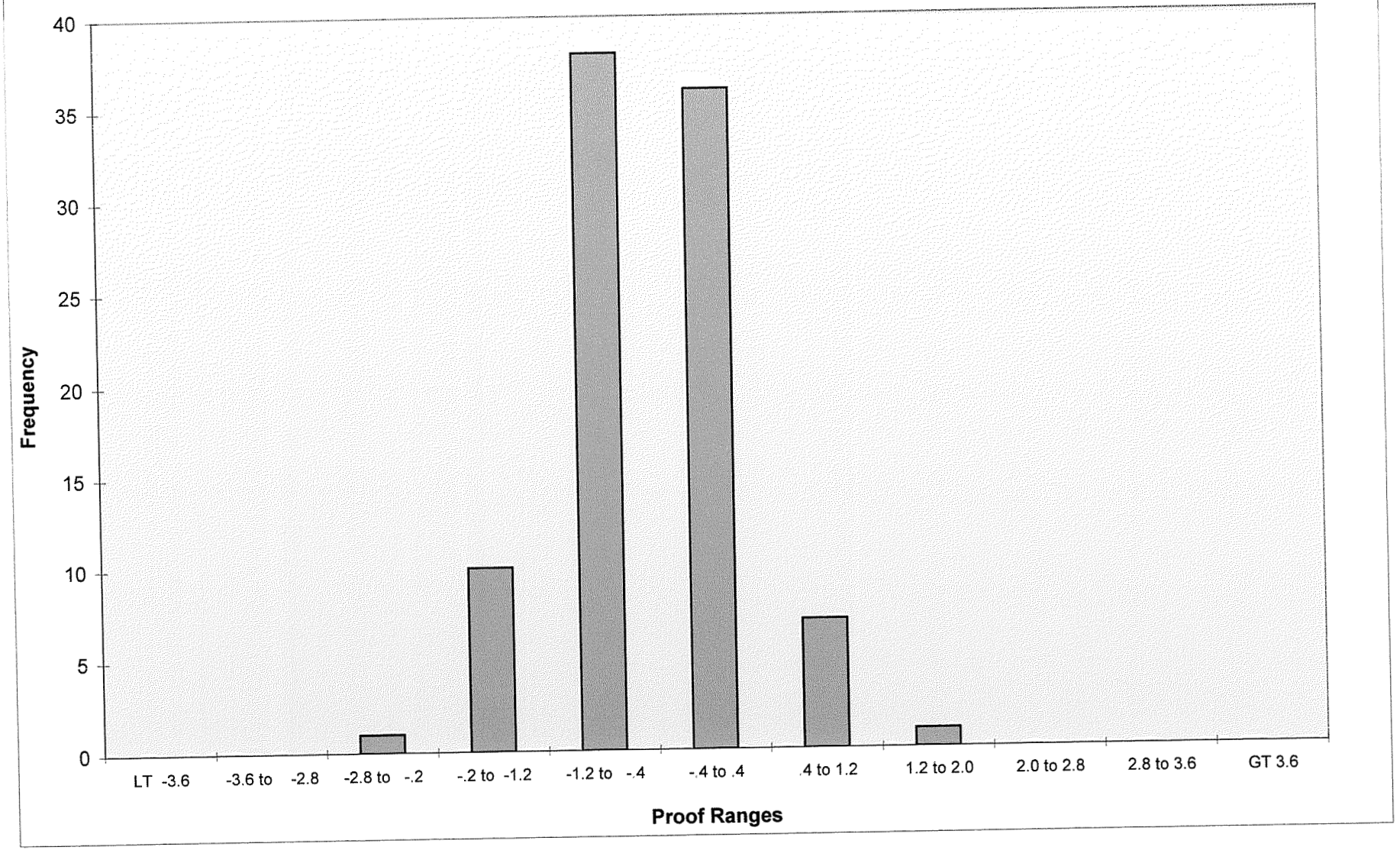
Code & Year:	2004
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	5
-1.2 to -.4	15
-.4 to .4	10
.4 to 1.2	1
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	2006
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	6
-.4 to .4	6
.4 to 1.2	1
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	13

Code & Year:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	10
-1.2 to -.4	38
-.4 to .4	36
.4 to 1.2	7
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	93

American AL800 Distribution Profile - 076

(1998, 1999, 2000, 2001, 2002, 2003, 2004, 2006)



Rockwell #4 Emco	Test Year 2008								
2250 CFH	Control Group-Installed Year								
Code: 028	2003	2004	2005	2006					
Sample Plan	Single	Single	Single	Single					
Sample Size	13*	20	20	20					
Original Population	78	146	103	128					
# of Slow Failures	0	0	0	0					
# of Fast Failures	0	0	0	0					
Total Failures:	0	0	0	0					
Accept Level	2	3	3	3					
Reject Level	3	4	4	4					
Pass / Fail?	Exhaust	Pass	Pass	Pass					
If Failed - Remove By:	NA	NA	NA	NA					
Statistical Data:									
Mean (Average Proof)	-0.75	-0.285	-0.1425	-0.0815					
Median	-0.85	-0.625	-0.475	-0.325					
Standard Deviation	0.883412	0.899137	0.940503	0.840459					
Sample Variance	0.780417	0.808447	0.884546	0.706371					
Skewness	0.150528	1.650369	0.815717	1.470961					
Minimum	-2	-1.55	-2	-0.95					
Maximum	0.8	2	2	1.95					
Count	13	20	20	20					
Confidence Level(95.0%)	0.53384	0.420809	0.440169	0.393347					

* Control group in 5th year of service - maximum service period - all meters to be removed/tested. Sample size based on population was used to dertermine if group passed/failed in it's last year of service.

Year 2008

Meter Code 028 Rockwell #4 Emco

Code & Year:	2003
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	4
-1.2 to -.4	5
-.4 to .4	3
.4 to 1.2	1
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	13

Code & Year:	2004
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	11
-.4 to .4	4
.4 to 1.2	2
1.2 to 2.0	2
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	20

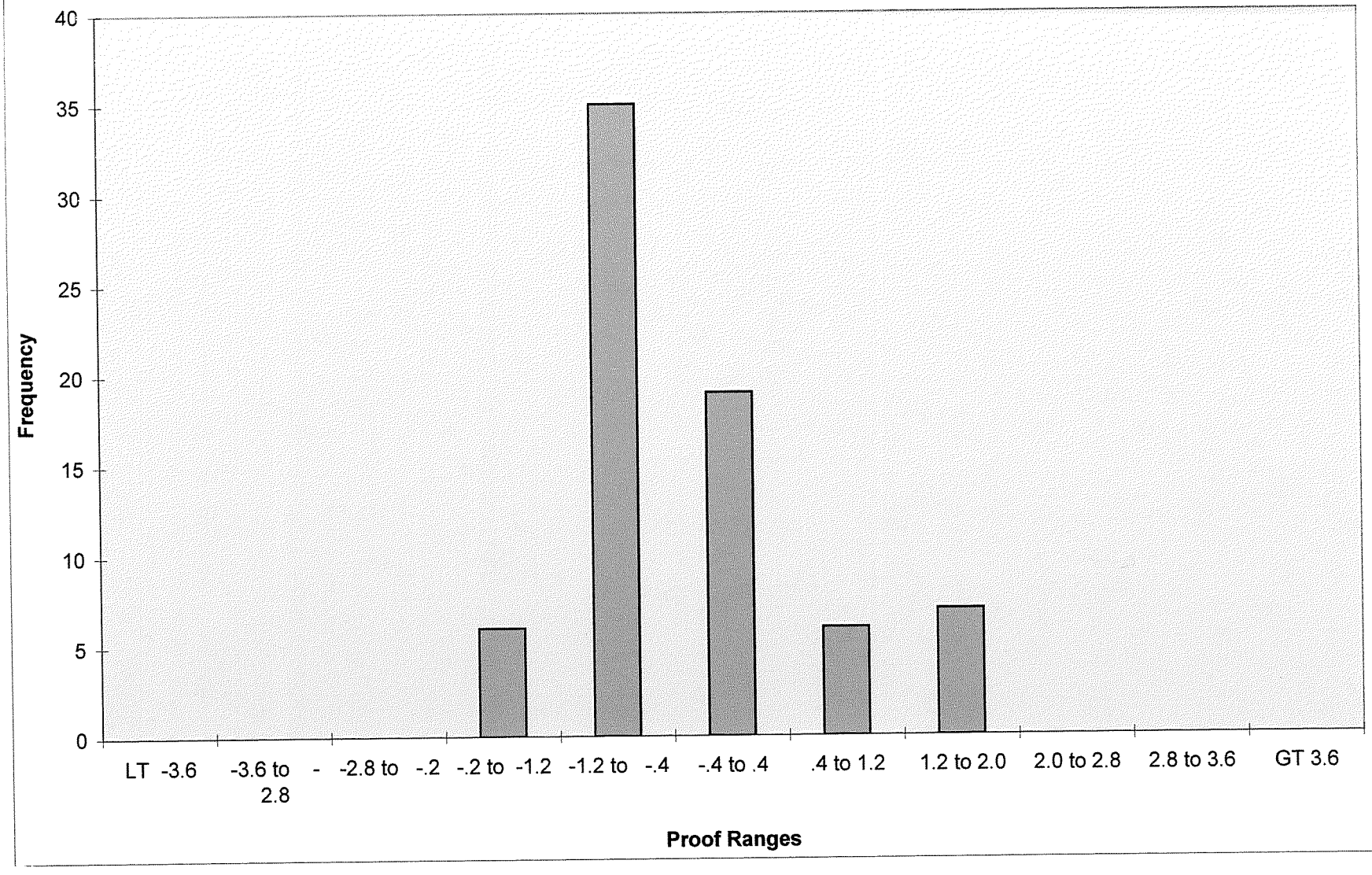
Code & Year:	2005
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	10
-.4 to .4	5
.4 to 1.2	1
1.2 to 2.0	3
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	20

Code & Year:	2006
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	9
-.4 to .4	7
.4 to 1.2	2
1.2 to 2.0	2
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	20

Code & Year:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	6
-1.2 to -.4	35
-.4 to .4	19
.4 to 1.2	6
1.2 to 2.0	7
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	73

Rockwell #4 Emco Distribution Profile - 028

(2003, 2004, 2005, 2006)



Rockwell 10Emco	Test Year 2008								
5000 CFH	Control Group-Installed Year								
Code: 061	2003	2004	2005	2006					
Sample Plan	Single	Single	Single	Single					
Sample Size	2*	8	8	8					
Original Population	15	28	50	43					
# of Slow Failures	0	0	0	0					
# of Fast Failures	0	0	0	0					
Total Failures:	0	0	0	0					
Accept Level	0	1	1	1					
Reject Level	1	2	2	2					
Pass / Fail?	Pass	Pass	Pass	Pass					
If Failed - Remove By:	Exhaust	NA	NA	NA					
Statistical Data:									
Mean (Average Proof)	-0.475	0.05	-0.55	0.1375					
Median	-0.475	-0.225	-0.725	0.475					
Standard Deviation	1.732412	0.890425	0.505682	0.724938					
Sample Variance	3.00125	0.792857	0.255714	0.525536					
Skewness	NA	0.497788	0.578896	-0.637968					
Minimum	-1.7	-0.95	-1.25	-0.95					
Maximum	0.75	1.4	0.25	0.9					
Count	2	8	8	8					
Confidence Level(95.0%)	15.5651	0.744414	0.422761	0.606064					

* Control group in 5th year of service - maximum service period - all meters to be removed/tested. Sample size based on population was used to dertermine if group passed/failed in it's last year of service.

Year 2008

Meter Code 061 Rockwell 10M Emco

Code & Year:	2003
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	1
-.4 to .4	0
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	2

Code & Year:	2004
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	4
-.4 to .4	1
.4 to 1.2	2
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

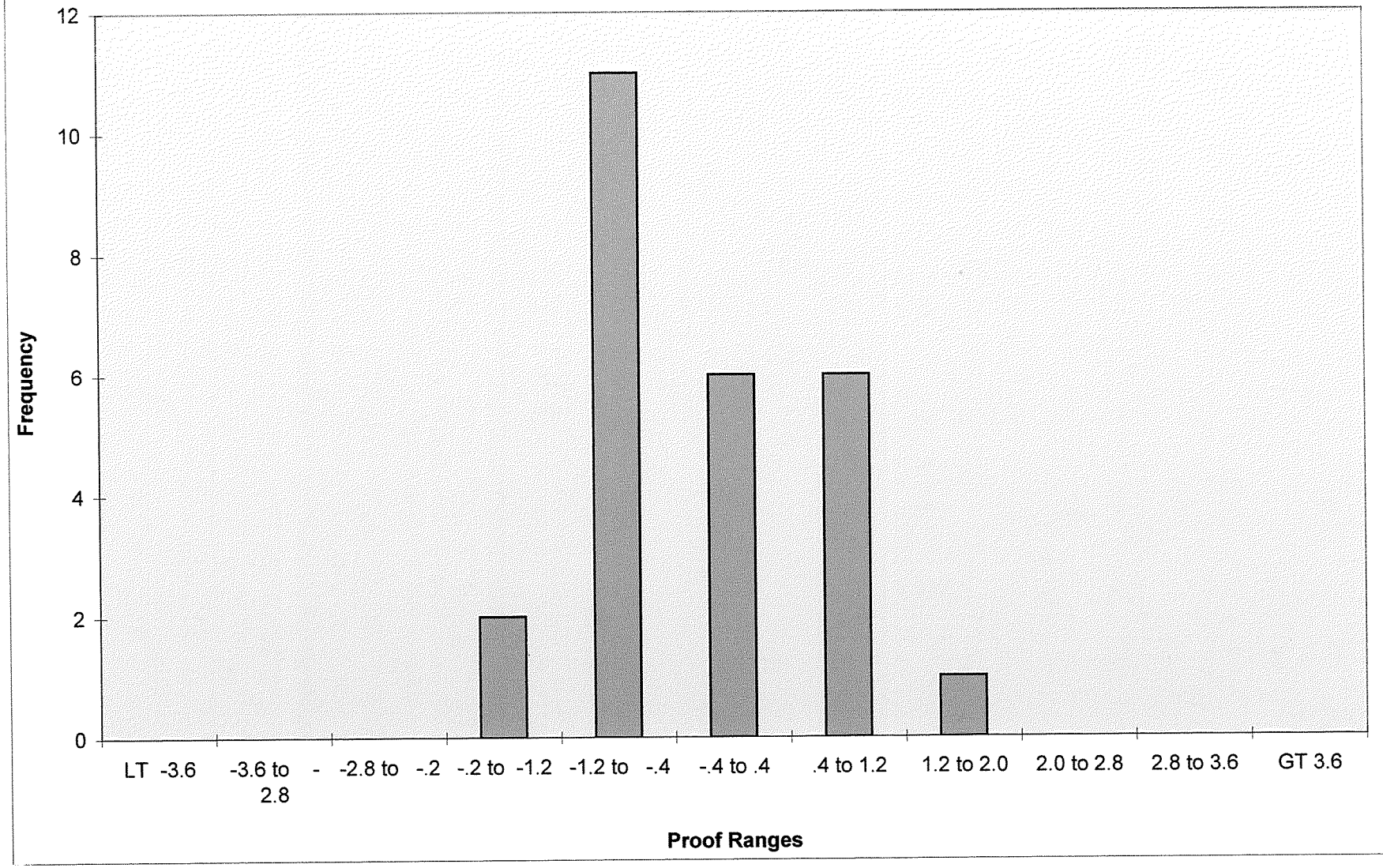
Code & Year:	2005
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	4
-.4 to .4	3
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

Code & Year:	2006
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	2
-.4 to .4	2
.4 to 1.2	4
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

Code & Year:	Totals
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	11
-.4 to .4	6
.4 to 1.2	6
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	26

Rockwell 10M Emco Distribution Profile - 061

(2003, 2004, 2005, 2006)



Louisville Gas & Electric

Regulator Inspection and Replacement Program Report 2008

Year 2008 Regulator Inspection and Replacement Program

I. Progress Summary

During 2008, LG&E inspected or replaced a total of 25,084 gas pressure regulators as part of LG&E's regulator inspection and upgrade program. A total of 9,996 existing Schlumberger B42, National 496, or American 1213B gas pressure regulators remained in service. A total of 23,069 regulators were replaced with Schlumberger B42, National 496 and American 1213B regulators as part of LG&E's program to upgrade and standardize residential gas regulators. An additional 2,015 regulators were replaced as a result of either improper function of the regulator, damage/vandalism, service line replacement, or meter loop repairs. The distribution of the reasons for these regulator replacements is shown in Table 1 below.

Table 1: Year 2008 Regulator Change Reasons

Reason	Quantity
Regulator Replacement Program	23,069
Failed Lockup Test	19
Vent Leaking	111
Leak on Regulator	95
Routine Change During Meter Loop Repair	738
Could Not Adjust Pressure	16
Damage/Vandalism	20
Routine Change During Service Renewal	1,014
Test Site	2
Total	**25,084**

For the time period of 2002 – 2008, a total of 100,861 regulator replacements have been made. This total represents 53% of the approximately 190,554 residential regulators that are expected to be replaced over the ten year period of the regulator replacement program.

II. Safety

As part of LG&E's regulator replacement activities, safety inspections were performed and "red-tags" were issued when deficiencies were found. The results of these safety inspections directly associated with LG&E's regulator replacement program are summarized in Table 2 below.

Table 2: Year 2008 Safety Inspection Results

Reason	Quantity
Houseline Leak (includes lines to gas grills, pool heaters, appliance flexible hook-up lines, fireplace, etc.)	33
Furnace Problem (internal leak, not burning correctly)	0
Leak or Not Venting Properly (dryer,range,water heater)	12
Flex Lines/Brass Connectors	136
Other Leaks (leaks on riser, space heater, etc.)	12

Misc. (trees, bushes around meter, etc.)	0
Total	**193**

Additionally, the following Customer Surveillance Notices were issued to customers to correct outside deficiencies on their meter loop or exposed outside gas piping. The results of these safety inspections directly associated with LG&E's regulator replacement program, are summarized in Table 3 below.

Table 3: Year 2008 Customer Surveillance Notices Issued

Reason	Quantity
Corrosion / Rust On Outside Meter Loop & Associated Piping	4,657
Gas Meter In Contact With Soil / Pavement	51
Meter partially buried	27
Asphalt or Concrete Paving in Contact With Piping Entering Ground	267
Gas Piping Not Properly Supported	199
Meter Not Protected From Vehicular Damage	17
Customer Built Over Service Line / Around Meter	4
Tree / Shrubbery Growing Inside / Against Meter Loop	23
Total	**5,245**