a PPL company

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

March 13, 2014

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 Program
Case No. 2012-00491

Dear Mr. DeRouen:

Enclosed please find Louisville Gas and Electric Company's 2013 Gas Meter Performance Control Plan and Residential Gas Regulator Performance Control Program pursuant to the Commission's Orders in the above mentioned proceedings.

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

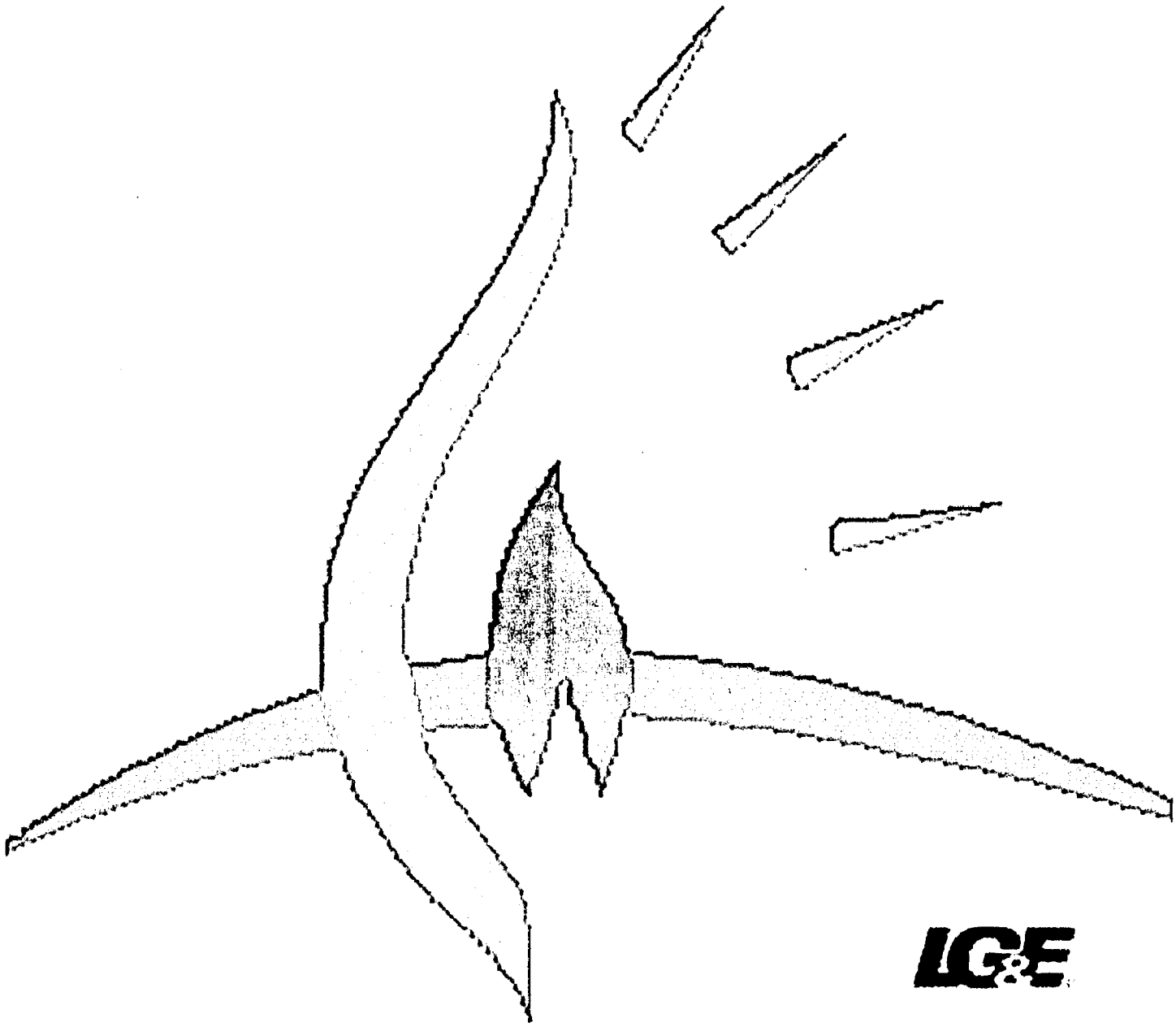
Sincerely,

Rick E. Lovekamp

Enclosure

Louisville Gas & Electric

Gas Meter Performance
Control Plan Year 2013



Year 2013 Gas Meter Sampling Plan Results

I. Introduction

The 2013 LG&E Gas Meter Performance Control Program required 8,204 gas meters within 148 control groups be tested and their accuracy performance documented.

Any sampled meter which proof tested beyond +/- 2% (fast or slow) was considered to be a failed meter. Of the control groups sampled during 2013 no control groups failed the sampling criteria. This report summarizes the results of the 2013 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 consist of primarily residential meters, represented the largest group with one hundred one (101) control groups and 7,385 meters. Meters with capacities which range from 501 CFH to 1500 CFH (Commercial), made up the second largest group with thirty-nine (39) control groups and 740 meters. Meters with capacities 1501 CFH (Industrial) and above comprised the balance of the sampling with eight (8) control groups and 79 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.

In the 2013 sampling program, all 148 control groups passed the sampling criteria.

A total of eleven (11) control groups had their remaining population removed through the sampling program in 2013.

A. Residential Class - Up to and including 500 cfh

Strong Performing Groups

The stronger performing meter groups in this capacity continue to be the American AL175, AC250, and the AL425 models. Of the 1,764 meters in the twenty-seven (27) control groups of AL175 meters, only thirty-four (34) individual meters failed the sampling criteria, a 1.93 % failure rate. The twenty-three (23) AC250 control groups had a total of eleven (11) individual meter failures out of the 1,564 meters tested, a 0.70 % failure rate. The fourteen (14) AL425 control groups totaling 386 meters experienced three (3) individual meter failures, a 0.78 % failure rate.

The American Meter Company AC250 residential model was the primary type of residential gas meter LG&E purchased as additional stock, which continues to improve the overall accuracy of the installed meter population.

Residential Reduced Sampling

Test results from year 2013 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 – 033 and 33A
Oldest 10 Control Groups Tested = 824 Meters Tested
Limit Number For Reduced Testing - 42
Actual Deviate Meters - 18

Model – American AL425CFH
Oldest 10 Control Groups Tested = 290 Meters Tested
Limit Number For Reduced Testing - 8
Actual Deviate Meters - 3

Model – American AC250 CFH
Oldest 10 Control Groups Tested = 584 Meters Tested
Limit Number For Reduced Testing - 25
Actual Deviate Meters - 5

The below models will remain on Reduced Sampling in year 2014.

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

Weaker Performing Residential Group

The older model Rockwell residential class 250 CFH meters continued to be a poor performing control group. The one (1) remaining Rockwell R250 Code 057 control group, year 1990, had 32 meters sampled this year, of which four (4) of the individual meters failed the sampling criteria for a 12.5 % failure rate. The 057 1990 control group at the end of 2013 had 23 meters remaining in its population and it will become an exhaust group in the 2014 sampling program.

The Rockwell 175 CFH meters, size codes 024, 24T, and 24B, continue to be one of the weaker performing models. Of the twenty-six (26) Rockwell R175 control groups consisting of 2,791

meters sampled this year, 130 of the individual meters failed the sampling criteria for a 4.66 % failure rate.

Beginning in 2010 the above 024 Rockwell R175 meters were divided into two sub-groups when remanufactured, becoming either size code 024T (top badge) or 024B (bottom badge). The 024T size code is the oldest vintage of the R175 models by original manufacturing year in the LG&E meter population and the 024B being the newer vintage. Due to the R175 model in general being a poorer performer in proof retention, this group of meters was sub-grouped to help LG&E determine at some future date if either sub-group should no longer be remanufactured and placed back into service.

The Actaris 250 Metris gas meter, size codes 018 and 18T, had six (6) control groups tested this year and experienced forty-eight (48) failures out of 780 meters tested, which was a 6.15 % failure rate. These models are not being refurbished and placed back into service.

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

All commercial class control performed extremely well in 2013.

The American AL800 control groups within the eight (8) control groups tested had one (1) individual meter failure out of the 87 meters tested, for a 1.15 % failure rate.

The American AL1000 control groups within the seven (7) control groups tested had four (4) individual meter failures out of the 289 meters tested for a 1.38 % failure rate.

The American AL1400 meters experienced zero (0) individual meter failures within the eight (8) control groups tested.

The Rockwell #3 Emco control groups experienced zero (0) individual meter failures within the eight (8) control groups tested.

The eight (8) Rockwell R750 control groups demonstrated acceptable performance with seven (7) individual meter failures within the 279 meters tested for a 2.51 % 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 extremely well and there were no individual meter failures with the eight (8) control groups tested. Two (2) of the control groups were exhausted by the 2013 Sampling Program.

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. Failed Group From Sample Year 2012

The commercial control group 014 2005, which failed in the 2012 sampling year, was classified at the start of year 2013 as a failed group and scheduled to be removed from service within the plans specified 18 month period. Of the 214 meters in the control group at the start of 2013, 162 were removed during the 2013 service year, and the remaining 52 meters are to be removed by July 1, 2014.

E. Prior Meters

No Access could be gained to remove one (1) prior residential meter from install year 1983, which is located inside a vacant and boarded up structure.

No Access could be gained to change/remove one (1) prior commercial meter from year 2002.

No access could be gained to change/remove one (1) commercial class meter in the 2003 sample Group.

The above three (3) meters will be classified as "Prior Meters" in service year 2014, and multiple annual attempts will continue to be made to remove these meters from service.

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 2013 Safety Inspection Results

Type of Problem/Appliance	# of "Red Tags"
Dryer Leaking	3
Flexline Through Furnace Wall	30
Furnace Valve Leaking	4
Water Heater Leaking	7
Water Heater Not Venting	64
Houseline Leak	20
Fireplace Leaking	1
Brass Flexline To Water Heater	14
Cook Stove Leaking	1
Brass Flexline To Stove	2
Brass Flexline To Furnace	3
Brass Flexline To Space Heater	1
Brass Flexline To Garage Heater	2
Bras Flexline To Dryer	1
Gas Line To Grill Rusted	2
Flame Exceeding Flame Shield	1

Additionally 3,167 Surveillance Notices were issued to correct outside deficiencies. Said deficiencies will be corrected by either the customer or by LG&E depending on ownership. The results of these surveillances directly associated with LG&E's Meter Sampling Program are summarized in Table 3 below.

Table 3: Year 2013 Customer Surveillance Notices Issued

Type Of Customer Notice Issued	Number Issued
Corrosion / Rust On Outside Meter Loop & Associated Piping	2,617
Tree / Shrubbery Growing Inside / Against Meter Loop	41
Gas Piping Not Properly Supported	284
Meter Loop Too Low - In Contact With Soil / Pavement	8
Meter Not Protected From Vehicular Damage	62
Customer Built Over Service Line / Around Meter	4
No Plastic Sleeve Around Riser Going Through Pavement	20
Other	131

IV. Year 2013 Residential Meter Sampling Savings

Table 4, 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.

Table 4: 2013 Residential Class Meter Sampling Program Estimated Savings

Meter Purchase Savings: Residential Gas Meters	
Periodic Program Costs (10-year Program):	
Number of Meters under Periodic Program [1]	32,396
Unit Remanufacture Cost – Average Blended Cost	$ 26.74
Residential Meter Costs Under Periodic Program	$866,269
Sampling Program Costs:	
Number of Meters under Sampling Program	7,385
Number of poor performing meters scrapped	880
Number of Meters for Remanufacture	6,505
Remanufactured Meters	6,505
Average Unit Remanufacture Cost – All Models	$26.74
Remanufactured Meter Costs	$173,944
Replacement Meters for Meters Scrapped	880
Average Replacement Meter Cost (per unit)	$ 40.09
Replacement Meter Costs	$35,279
Total Residential Meter Costs Under 2013 Program	$209,223
Meter Cost Savings From 2013 Program	$657,046

[1] Based On Residential Meters On Line Beginning Year 2013

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	Test Year 2013													
425 CFH	Control Group-Installed Year													
Code: 015	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2007	2009	2011
Sample Plan	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced
Sample Size	2	32	32	32	32	32	32	32	32	32	32	32	32	32
Original Population	3	322	241	336	226	264	387	193	219	284	419	437	622	604
# of Slow Failures	0	0	0	0	2	0	0	0	0	1	0	0	0	0
# of Fast Failures	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Failures:	0	0	0	0	2	0	0	0	0	1	0	0	0	0
Accept Level	0	5	5	5	5	5	5	5	5	5	5	5	5	5
Reject Level	1	8	8	8	8	8	8	8	8	8	8	8	8	8
Pass/ Fail?	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
If Failed - Remove By:	Exhaust	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Statistical Data:														
Mean (Average Proof)	0.125	-0.72344	-0.66094	-0.61094	-0.44063	-0.37969	-0.20938	-0.38438	-0.49219	-0.66094	-0.19375	-0.23125	-0.32813	-0.49063
Median	0.125	-0.775	-0.75	-0.725	-0.425	-0.4	-0.25	-0.4	-0.55	-0.75	-0.35	-0.35	-0.3	-0.5
Standard Deviation	0.671751	0.588736	0.648539	0.617452	0.794075	0.572749	0.656535	0.4039	0.500662	0.629097	0.664024	0.541764	0.506082	0.421104
Sample Variance	0.45125	0.34661	0.420602	0.381247	0.630554	0.328042	0.431038	0.163135	0.250663	0.395764	0.440927	0.293508	0.256119	0.177329
Skewness	NA	0.851023	0.456791	0.943446	-1.00302	0.446332	-0.24612	0.196389	1.627584	-0.43848	0.948215	1.882967	0.258063	0.370409
Minimum	-0.35	-1.8	-1.9	-1.8	-2.65	-1.6	-1.85	-1.35	-1.4	-2.4	-1.15	-1.05	-1.3	-1.2
Maximum	0.6	1.1	0.6	1	0.75	1	1.15	0.5	1.45	0.45	1.35	1.8	0.95	0.6
Count	2	32	32	32	32	32	32	32	32	32	32	32	32	32
Confidence Level(95.0%)	6.035447	0.212262	0.233823	0.222615	0.286294	0.206498	0.236706	0.145621	0.180508	0.226814	0.239406	0.195327	0.182462	0.151824

Year 2013

Meter Code 015 American AL 425

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	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:	1996
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	19
-.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	32

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	18
-.4 to .4	5
.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	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	21
-.4 to .4	4
.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:	1999
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	2
-.2 to -1.2	3
-1.2 to -.4	11
-.4 to .4	13
.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	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	2
-1.2 to -.4	14
-.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:	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	10
-.4 to .4	15
.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:	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	14
-.4 to .4	16
.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:	2003
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	16
-.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	1
-.2 to -1.2	2
-1.2 to -.4	18
-.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

Year 2013

Meter Code 015 American AL 425

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	0
-1.2 to -.4	15
-.4 to .4	13
.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	32

Code & Year:	2007
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	11
-.4 to .4	18
.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	32

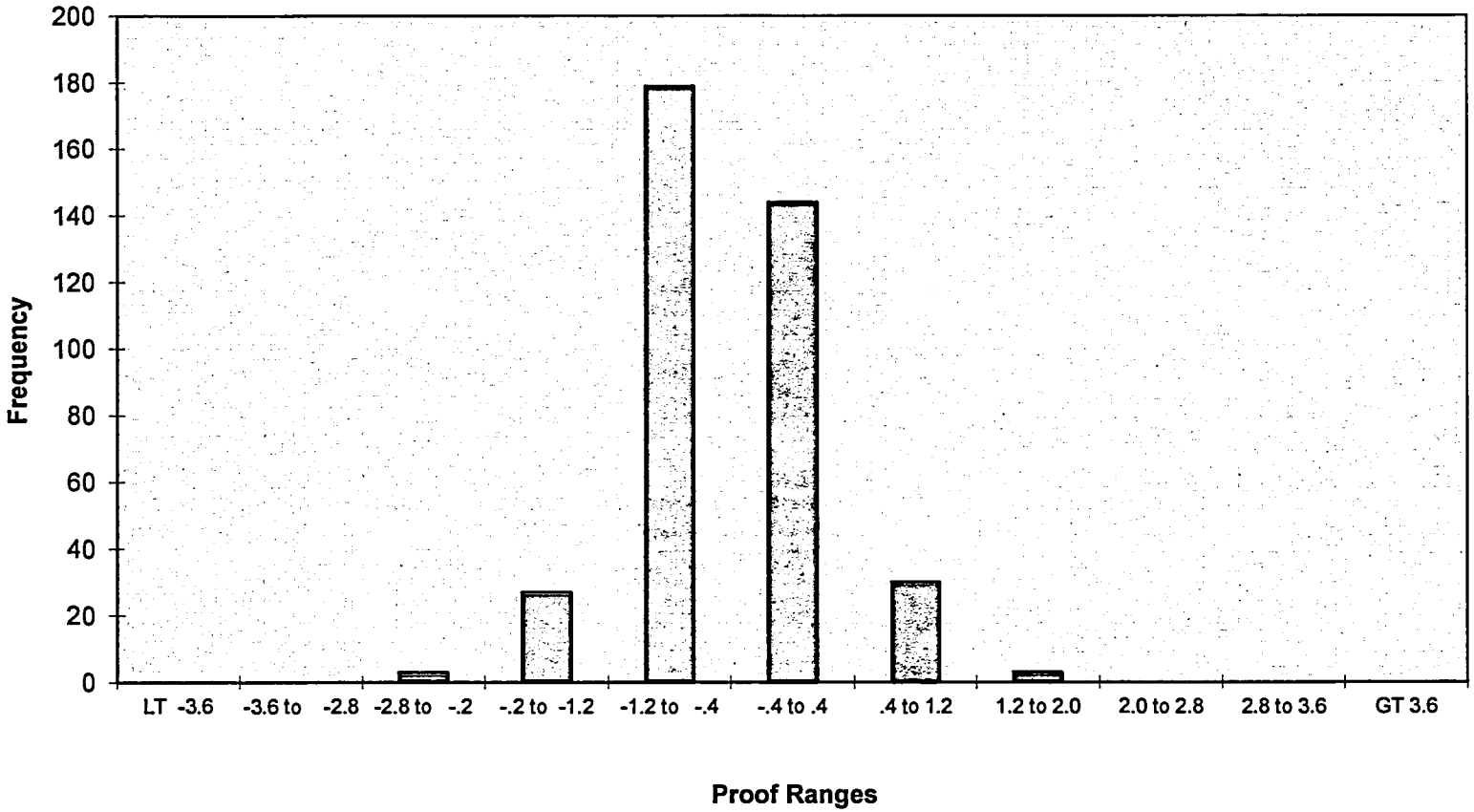
Code & Year:	2009
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	12
-.4 to .4	17
.4 to 1.2	2
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	2011
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	18
-.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:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	3
-.2 to -1.2	27
-1.2 to -.4	179
-.4 to .4	144
.4 to 1.2	30
1.2 to 2.0	3
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	386

American AL425 Distribution Profile - 015

(1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2007, 2009, 2011)



Metris 250	Test Year 2013								
250 CFH	Control Group-Installed Year								
Code: 018	2000	2001	2002	2003	2004				
Sample Plan	Single	Single	Single	Single	Single				
Sample Size	80	50	200	200	200				
Original Population	866	461	3321	4506	4464				
# of Slow Failures	1	0	7	18	15				
# of Fast Failures	0	1	1	1	2				
Total Failures:	1	1	8	19	17				
Accept Level	10	7	21	21	21				
Reject Level	11	8	22	22	22				
Pass / Fail?	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**				
If Failed - Remove By:	NA	NA	NA	NA	NA				
Statistical Data:									
Mean (Average Proof)	-0.23563	-0.328	-0.87125	-1.15725	-0.81825				
Median	-0.2	-0.4	-0.95	-1.15	-0.85				
Standard Deviation	0.68317	0.791547	0.780163	0.963601	0.98694				
Sample Variance	0.466721	0.626547	0.608654	0.928528	0.97405				
Skewness	-0.23944	1.015683	0.846844	-2.1843	0.07874				
Minimum	-2.3	-1.95	-2.45	-8.7	-4.2				
Maximum	1.65	2.75	2.9	2.6	2.55				
Count	80	50	200	200	200				
Confidence Level(95.0%)	0.152032	0.224955	0.108785	0.134363	0.137617				

Year 2013 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	1
-.2 to -1.2	4
-1.2 to -.4	25
-.4 to .4	38
.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	80

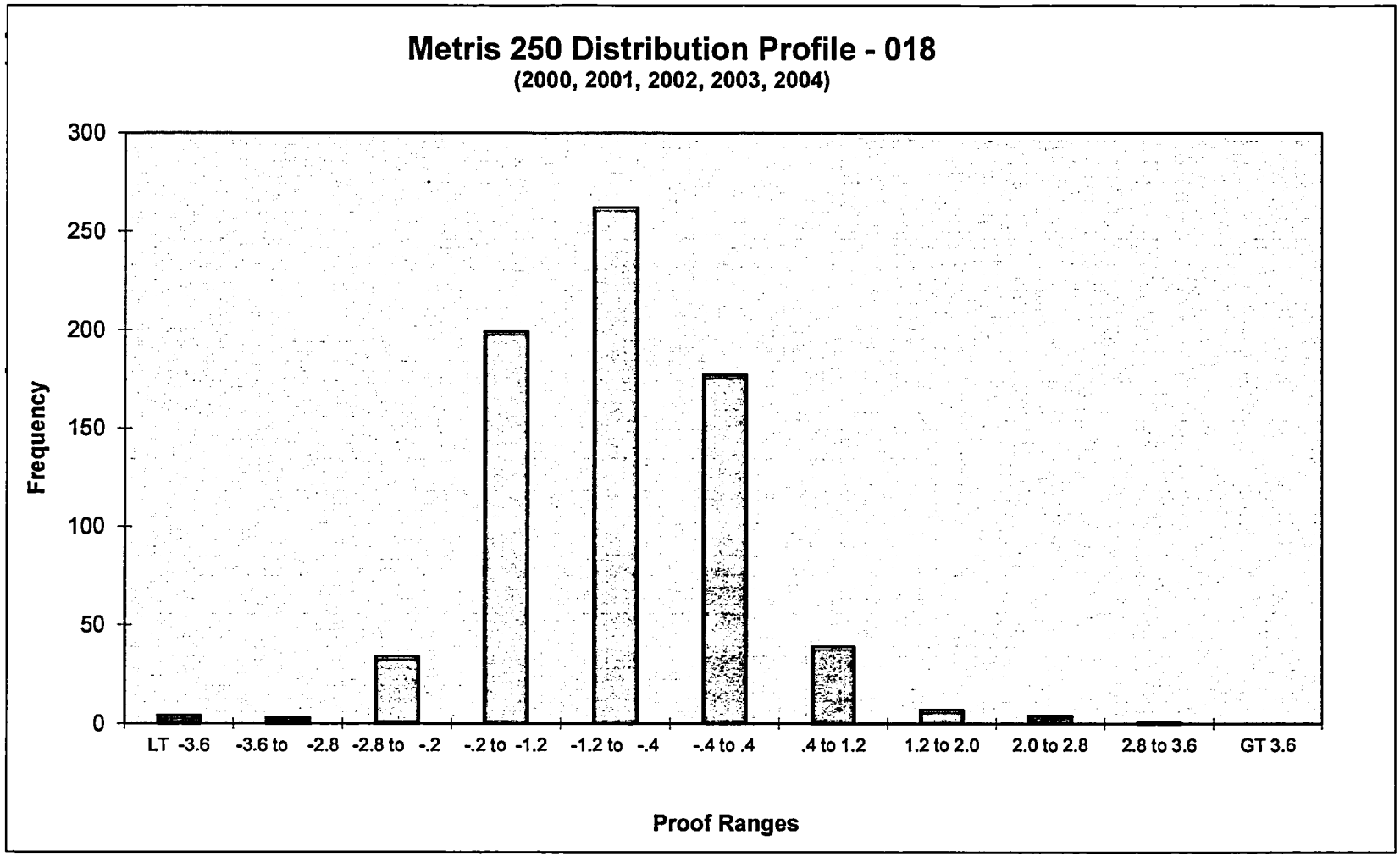
Code & Year: 2001	
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	6
-1.2 to -.4	16
-.4 to .4	23
.4 to 1.2	3
1.2 to 2.0	1
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	50

Code & Year: 2002	
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	7
-.2 to -1.2	64
-1.2 to -.4	79
-.4 to .4	39
.4 to 1.2	9
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	1
GT 3.6	0
Total	200

Code & Year: 2003	
Data Range	Number
LT -3.6	2
-3.6 to -2.8	1
-2.8 to -.2	15
-.2 to -1.2	76
-1.2 to -.4	74
-.4 to .4	26
.4 to 1.2	5
1.2 to 2.0	0
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	200

Code & Year: 2004	
Data Range	Number
LT -3.6	2
-3.6 to -2.8	2
-2.8 to -.2	11
-.2 to -1.2	49
-1.2 to -.4	68
-.4 to .4	51
.4 to 1.2	11
1.2 to 2.0	4
2.0 to 2.8	2
2.8 to 3.6	0
GT 3.6	0
Total	200

Code & Year: Total	
Data Range	Number
LT -3.6	4
-3.6 to -2.8	3
-2.8 to -.2	34
-.2 to -1.2	199
-1.2 to -.4	262
-.4 to .4	177
.4 to 1.2	39
1.2 to 2.0	7
2.0 to 2.8	4
2.8 to 3.6	1
GT 3.6	0
Total	730

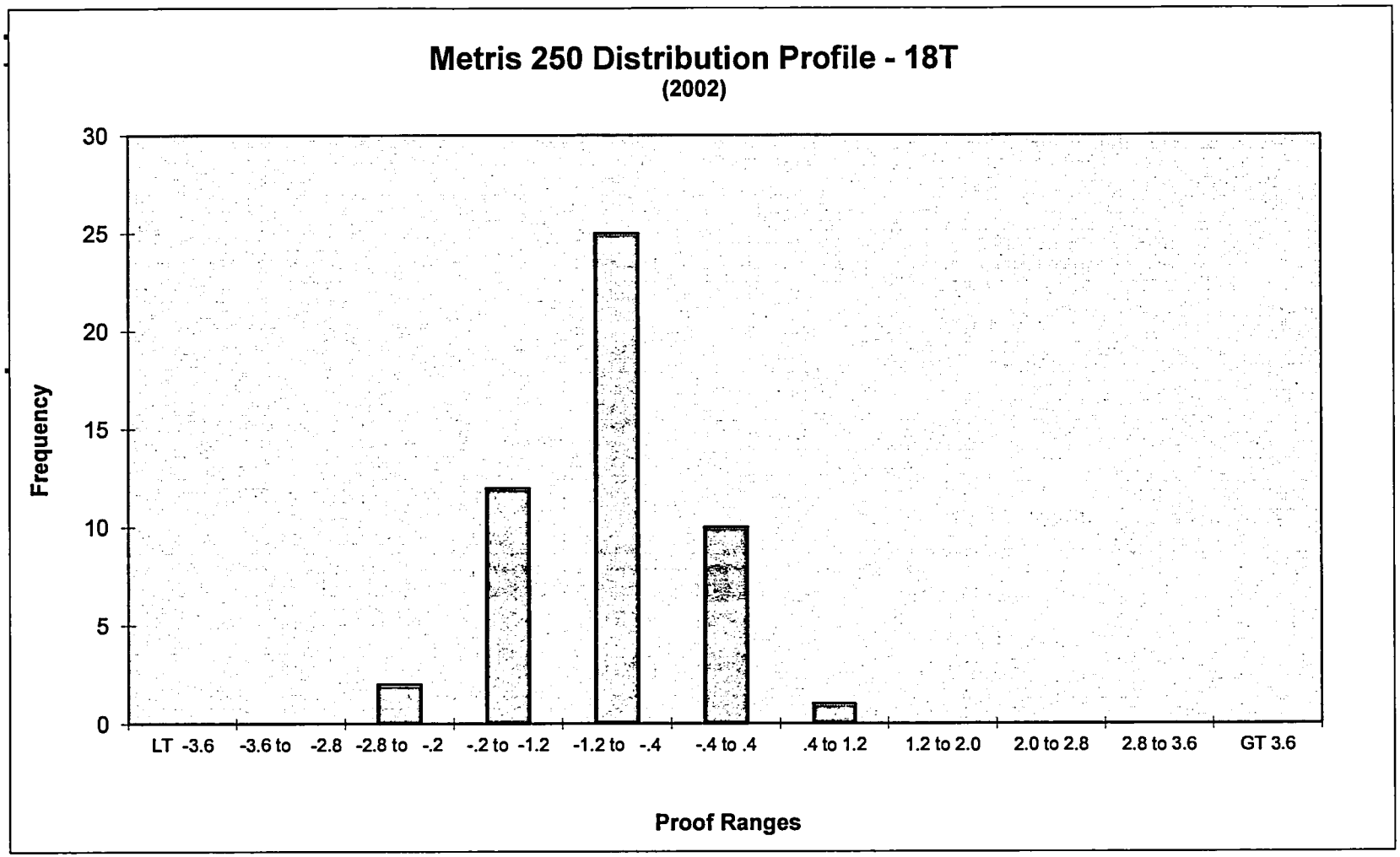

Metris 250 Distribution Profile - 018
(2000, 2001, 2002, 2003, 2004)
Frequency
300
250
200
150
100
50
0
LT -3.6
-3.6 to -2.8
-2.8 to -.2
-.2 to -1.2
-1.2 to -.4
-.4 to .4
.4 to 1.2
1.2 to 2.0
2.0 to 2.8
2.8 to 3.6
GT 3.6
Proof Ranges

Metris 250 TC	Test Year 2013								
175 CFH	Control Group-Installed Year								
Code: 18T	2002								
Sample Plan	Single								
Sample Size	50								
Original Population	393								
# of Slow Failures	2								
# of Fast Failures	0								
Total Failures:	2								
Accept Level	7								
Reject Level	8								
Pass / Fail?	**Pass**								
If Failed - Remove By:	NA								
Statistical Data:									
Mean (Average Proof)	-0.911								
Median	-0.85								
Standard Deviation	0.689816								
Sample Variance	0.475846								
Skewness	-0.09898								
Minimum	-2.4								
Maximum	0.65								
Count	50								
Confidence Level(95.0%)	0.196043								

Year 2013 Meter Code 18T Metris 250 TC

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	12
-1.2 to -.4	25
-.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	50

Code & Year:	Totals
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	2
-.2 to -1.2	12
-1.2 to -.4	25
-.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	50


Metris 250 Distribution Profile - 18T
(2002)
Frequency
30
25
20
15
10
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

Rockwell R175	Test Year 2013											
175 CFH	Control Group-Installed Year											
Code: 024	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Sample Plan	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single
Sample Size	200	125	125	125	125	125	200	200	125	125	80	50
Original Population	3208	3040	2207	3147	2746	3038	3494	3748	2704	2525	1017	387
# of Slow Failures	10	8	1	5	4	2	9	19	4	2	0	2
# of Fast Failures	7	2	4	2	1	1	2	2	2	1	0	0
Total Failures:	17	10	5	7	5	3	11	21	6	3	0	2
Accept Level	21	14	14	14	14	14	21	21	14	14	10	7
Reject Level	22	15	15	15	15	15	22	22	15	15	11	8
Pass / Fail?	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
If Failed - Remove By:	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Statistical Data:												
Mean (Average Proof)	-0.0005	-0.29	-0.1156	-0.122	-0.1152	-0.0124	-0.29075	-0.362	-0.0932	-0.2568	-0.3025	-0.339
Median	0.325	-0.1	-0.25	-0.15	0.05	0.05	-0.05	-0.2	-0.15	-0.2	-0.45	-0.35
Standard Deviation	1.865213	1.943932	1.091156	1.073684	1.040224	1.32965	1.441341	1.3844	1.415971	0.957827	0.788321	0.875651
Sample Variance	3.47902	3.778871	1.190622	1.152798	1.082065	1.76797	2.077464	1.916564	2.004974	0.917433	0.621449	0.766764
Skewness	-4.98022	-5.91293	0.255765	-0.66224	-1.57949	-4.03026	-3.69835	0.141445	3.529303	0.3727	0.843547	0.125277
Minimum	-18.1	-17.6	-3	-4.25	-5.55	-10.5	-13.15	-4.85	-4	-2.8	-1.9	-2.3
Maximum	4.15	2.55	2.9	3.6	2.55	2.1	3.75	6.8	10.85	3.6	2	1.95
Count	200	125	125	125	125	125	200	200	125	125	80	50
Confidence Level(95.0%)	0.260082	0.344139	0.19317	0.190077	0.184153	0.235391	0.200978	0.193039	0.250672	0.169566	0.175432	0.248857

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

Rockwell R175	Test Year 2012										
175 CFH	Control Group-Installed Year										
Code: 024	1998	1999	2000	2001	2002	2003	2004	2005	2007	2009	2011
Sample Plan	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single
Sample Size	80	125	80	80	125	125	125	200	125	2*	2*
Original Population	779	1403	847	911	1279	2018	2431	3110	2625	8	7
# of Slow Failures	3	7	3	2	4	2	5	2	6	0	0
# of Fast Failures	0	0	0	1	0	0	1	1	1	0	0
Total Failures:	3	7	3	3	4	2	6	3	7	0	0
Accept Level	10	14	10	10	14	14	14	21	14	0	0
Reject Level	11	15	11	11	15	15	15	22	15	1	1
Pass / Fail?	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
If Failed - Remove By:	NA	NA	NA	NA	NA	NA	NA	NA	NA	Exhaust	Exhaust
Statistical Data:											
Mean (Average Proof)	-0.41125	-0.3612	-0.36938	-0.26375	-0.1508	-0.284	-0.454	-0.21	-0.4604	0.1	-1.075
Median	-0.3	-0.35	-0.425	-0.2	-0.1	-0.15	-0.1	-0.15	-0.4	0.1	-1.075
Standard Deviation	0.903649	1.18609	0.915427	0.802172	1.04403	0.785442	2.298506	0.770892	1.09348	0.707107	0.601041
Sample Variance	0.816581	1.406809	0.838006	0.643479	1.089999	0.616919	5.283129	0.594274	1.195697	0.5	0.36125
Skewness	-0.41223	-2.82018	0.264421	0.071636	-2.46152	-0.29925	-6.91405	-0.10938	-0.10318	NA	NA
Minimum	-2.9	-8.65	-2.8	-2.45	-6.95	-2.6	-21.7	-2.3	-4.45	-0.4	-1.5
Maximum	1.65	2.05	2.5	2.25	1.55	1.8	3.75	2.25	4.45	0.6	-0.65
Count	80	125	80	80	125	125	125	125	125	2	2
Confidence Level(95.0%)	0.201097	0.209976	0.203718	0.178515	0.184827	0.139049	0.40691	0.136473	0.193581	6.353102	5.400137

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

Year 2013 Meter Code 024 Rockwell R175

Code & Year:	1986
Data Range	Number
LT -3.6	6
-3.6 to -2.8	1
-2.8 to -.2	3
-.2 to -1.2	17
-1.2 to -.4	29
-.4 to .4	54
.4 to 1.2	65
1.2 to 2.0	18
2.0 to 2.8	2
2.8 to 3.6	3
GT 3.6	2
Total	200

Code & Year:	1987
Data Range	Number
LT -3.6	2
-3.6 to -2.8	2
-2.8 to -.2	4
-.2 to -1.2	9
-1.2 to -.4	24
-.4 to .4	46
.4 to 1.2	27
1.2 to 2.0	9
2.0 to 2.8	2
2.8 to 3.6	0
GT 3.6	0
Total	125

Code & Year:	1988
Data Range	Number
LT -3.6	0
-3.6 to -2.8	1
-2.8 to -.2	0
-.2 to -1.2	20
-1.2 to -.4	27
-.4 to .4	41
.4 to 1.2	20
1.2 to 2.0	12
2.0 to 2.8	3
2.8 to 3.6	1
GT 3.6	0
Total	125

Code & Year:	1989
Data Range	Number
LT -3.6	3
-3.6 to -2.8	0
-2.8 to -.2	2
-.2 to -1.2	7
-1.2 to -.4	29
-.4 to .4	51
.4 to 1.2	23
1.2 to 2.0	8
2.0 to 2.8	1
2.8 to 3.6	1
GT 3.6	0
Total	125

Code & Year:	1990
Data Range	Number
LT -3.6	2
-3.6 to -2.8	1
-2.8 to -.2	1
-.2 to -1.2	11
-1.2 to -.4	23
-.4 to .4	53
.4 to 1.2	29
1.2 to 2.0	4
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	125

Code & Year:	1991
Data Range	Number
LT -3.6	1
-3.6 to -2.8	1
-2.8 to -.2	0
-.2 to -1.2	8
-1.2 to -.4	24
-.4 to .4	44
.4 to 1.2	33
1.2 to 2.0	13
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	125

Code & Year:	1992
Data Range	Number
LT -3.6	3
-3.6 to -2.8	1
-2.8 to -.2	5
-.2 to -1.2	27
-1.2 to -.4	49
-.4 to .4	61
.4 to 1.2	36
1.2 to 2.0	16
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	1
Total	200

Code & Year:	1993
Data Range	Number
LT -3.6	5
-3.6 to -2.8	2
-2.8 to -.2	12
-.2 to -1.2	30
-1.2 to -.4	38
-.4 to .4	59
.4 to 1.2	35
1.2 to 2.0	17
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	1
Total	200

Code & Year:	1994
Data Range	Number
LT -3.6	2
-3.6 to -2.8	0
-2.8 to -.2	2
-.2 to -1.2	9
-1.2 to -.4	32
-.4 to .4	49
.4 to 1.2	22
1.2 to 2.0	7
2.0 to 2.8	0
2.8 to 3.6	1
GT 3.6	1
Total	125

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	16
-1.2 to -.4	33
-.4 to .4	51
.4 to 1.2	15
1.2 to 2.0	7
2.0 to 2.8	0
2.8 to 3.6	1
GT 3.6	0
Total	125

Year 2013 Meter Code 024 Rockwell R175

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	5
-1.2 to -.4	36
-.4 to .4	27
.4 to 1.2	8
1.2 to 2.0	4
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	2
-.2 to -1.2	6
-1.2 to -.4	15
-.4 to .4	17
.4 to 1.2	8
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:	1998
Data Range	Number
LT -3.6	0
-3.6 to -2.8	1
-2.8 to -.2	2
-.2 to -1.2	11
-1.2 to -.4	22
-.4 to .4	31
.4 to 1.2	11
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:	1999
Data Range	Number
LT -3.6	1
-3.6 to -2.8	1
-2.8 to -.2	5
-.2 to -1.2	12
-1.2 to -.4	41
-.4 to .4	39
.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	125

Code & Year:	2000
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	3
-.2 to -1.2	8
-1.2 to -.4	29
-.4 to .4	23
.4 to 1.2	13
1.2 to 2.0	3
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	2001
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	2
-.2 to -1.2	4
-1.2 to -.4	28
-.4 to .4	34
.4 to 1.2	9
1.2 to 2.0	2
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	2002
Data Range	Number
LT -3.6	1
-3.6 to -2.8	0
-2.8 to -.2	3
-.2 to -1.2	9
-1.2 to -.4	27
-.4 to .4	51
.4 to 1.2	31
1.2 to 2.0	3
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	125

Code & Year:	2003
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	2
-.2 to -1.2	13
-1.2 to -.4	31
-.4 to .4	60
.4 to 1.2	14
1.2 to 2.0	5
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	125

Code & Year:	2004
Data Range	Number
LT -3.6	4
-3.6 to -2.8	1
-2.8 to -.2	0
-.2 to -1.2	10
-1.2 to -.4	28
-.4 to .4	60
.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	1
Total	125

Code & Year:	2005
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	2
-.2 to -1.2	11
-1.2 to -.4	31
-.4 to .4	59
.4 to 1.2	19
1.2 to 2.0	2
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	125

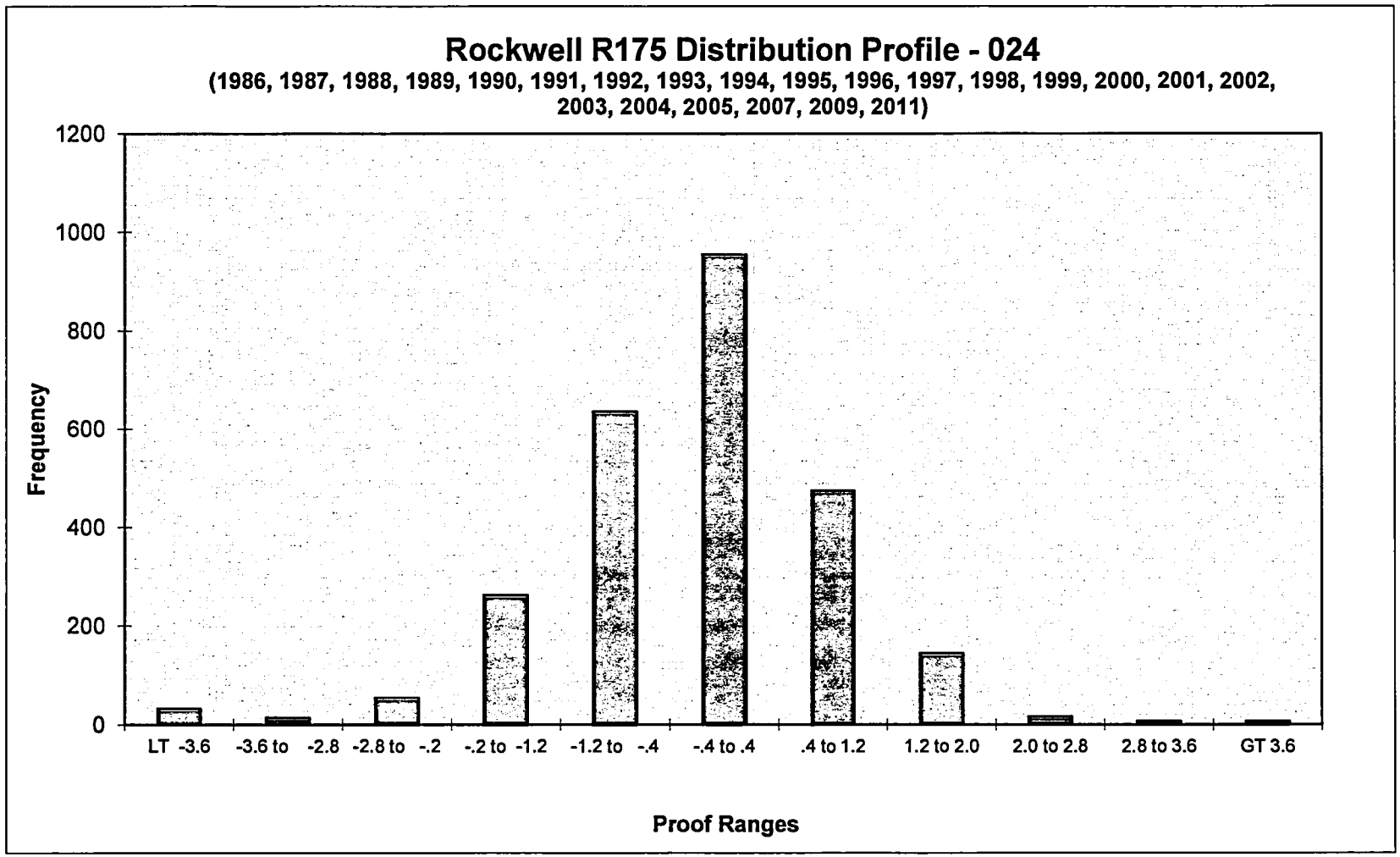
Year 2013 Meter Code 024 Rockwell R175

Code & Year:	2007
Data Range	Number
LT -3.6	2
-3.6 to -2.8	2
-2.8 to -.2	2
-.2 to -1.2	18
-1.2 to -.4	38
-.4 to .4	43
.4 to 1.2	15
1.2 to 2.0	4
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	1
Total	125

Code & Year:	2009
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:	2011
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:	Total
Data Range	Number
LT -3.6	32
-3.6 to -2.8	14
-2.8 to -.2	54
-.2 to -1.2	262
-1.2 to -.4	635
-.4 to .4	954
.4 to 1.2	474
1.2 to 2.0	144
2.0 to 2.8	16
2.8 to 3.6	7
GT 3.6	7
Total	2599


Rockwell R175 Distribution Profile - 024
(1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2007, 2009, 2011)
Frequency
1200
1000
800
600
400
200
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 R175	Test Year 2013							
175 CFH	Control Group-Installed Year							
Code: 24B	2009	2011						
Sample Plan	Single	Single						
Sample Size	32	80						
Original Population	91	770						
# of Slow Failures	0	1						
# of Fast Failures	0	1						
Total Failures:	0	2						
Accept Level	5	10						
Reject Level	6	11						
Pass / Fail?	Pass	Pass						
If Failed - Remove By:	NA	NA						
Statistical Data:								
Mean (Average Proof)	-0.165625	-0.450625						
Median	-0.2	-0.5						
Standard Deviation	0.77098989	0.7657004						
Sample Variance	0.5944254	0.5862971						
Skewness	0.5181154	0.5291331						
Minimum	-1.5	-2.4						
Maximum	1.65	2.55						
Count	32	80						
Confidence Level(95.0%)	0.2779715	0.1703983						

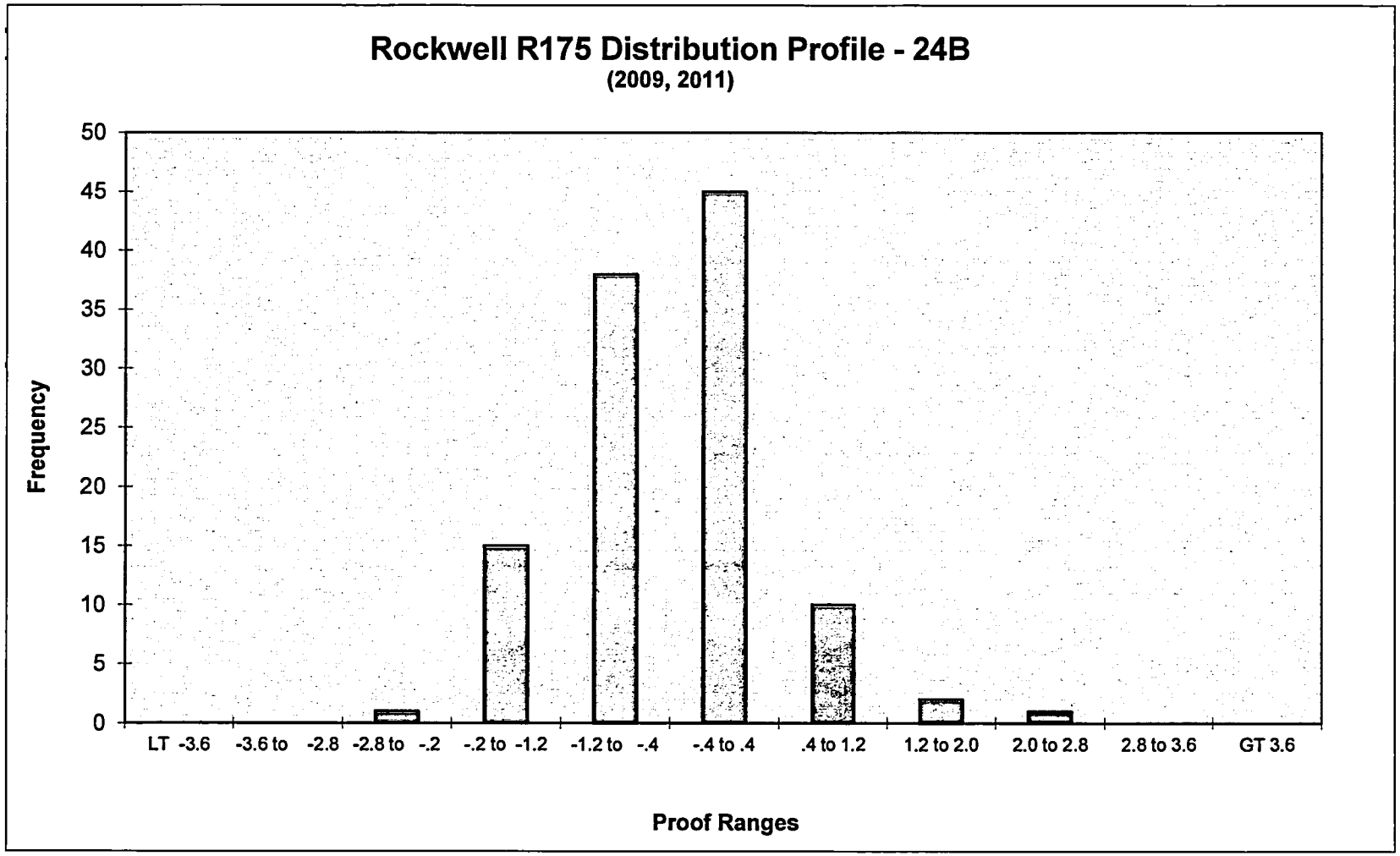
Year 2013

Meter Code 24B Rockwell 175

Code & Year:	2009
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	7
-.4 to .4	17
.4 to 1.2	3
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:	2011
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	12
-1.2 to -.4	31
-.4 to .4	28
.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	80

Code & Year:	Totals
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	15
-1.2 to -.4	38
-.4 to .4	45
.4 to 1.2	10
1.2 to 2.0	2
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	112


Rockwell R175 Distribution Profile - 24B
(2009, 2011)
Frequency
50
45
40
35
30
25
20
15
10
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

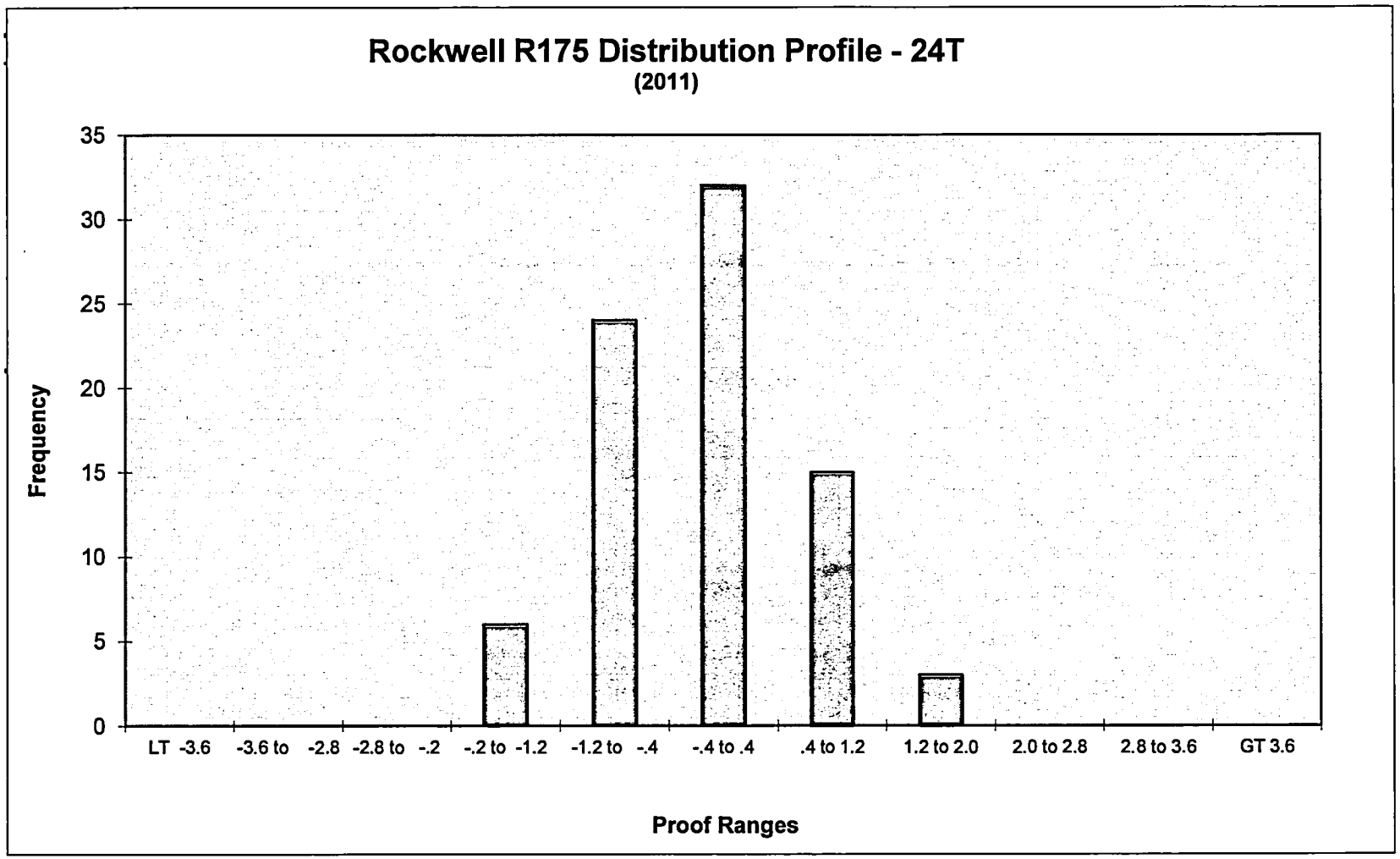
Rockwell R175	Test Year 2013							
175 CFH	Control Group-Installed Year							
Code: 24T	2011							
Sample Plan	Single							
Sample Size	80							
Original Population	662							
# of Slow Failures	0							
# of Fast Failures	0							
Total Failures:	0							
Accept Level	10							
Reject Level	11							
Pass / Fail?	Pass							
If Failed - Remove By:	NA							
Statistical Data:								
Mean (Average Proof)	-0.171875							
Median	-0.1							
Standard Deviation	0.7569444							
Sample Variance	0.5729648							
Skewness	-0.1207442							
Minimum	-1.85							
Maximum	1.35							
Count	80							
Confidence Level(95.0%)	0.1684497							

Year 2013

Meter Code 24T Rockwell 175

Code & Year:	2011
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	24
-.4 to .4	32
.4 to 1.2	15
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:	Totals
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	24
-.4 to .4	32
.4 to 1.2	15
1.2 to 2.0	3
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80


Rockwell R175 Distribution Profile - 24T
(2011)
Frequency
35
30
25
20
15
10
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 AL175
175 CFH
Code: 033

Test Year 2013

Control Group-Installed Year	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Sample Plan	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced
Sample Size	32	50	32	80	50	80	80	80	80	80	80	80
Original Population	1025	1589	720	3286	1968	6052	7445	7219	7239	7536	7526	4734
# of Slow Failures	0	3	0	0	1	1	0	0	2	0	1	3
# of Fast Failures	0	0	1	2	1	1	3	1	0	1	1	1
Total Failures:	0	3	1	2	2	2	3	1	2	1	2	4
Accept Level	5	7	5	10	7	10	10	10	10	10	10	10
Reject Level	8	10	8	13	10	13	13	13	13	13	13	13
Pass / Fail?	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
If Failed - Remove By:	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Statistical Data:												
Mean (Average Proof)	-0.03906	-0.541	0.078125	0.070625	0.131	-0.0325	0.2775	0.134375	0.0425	-0.07187	-0.27688	-0.30188
Median	-0.075	-0.3	0.075	-0.05	-0.025	0.025	0.25	0.075	0.05	-0.05	-0.3	-0.35
Standard Deviation	0.659635	1.711357	1.088202	0.922184	1.536225	0.753057	0.899399	0.948636	0.907323	0.699133	0.818456	1.762917
Sample Variance	0.435118	2.928744	1.184183	0.850424	2.359989	0.567095	0.808918	0.899911	0.823234	0.488788	0.66987	3.107876
Skewness	0.83483	-4.64406	2.664638	3.07517	5.609293	-0.95698	1.534786	4.230336	-1.88035	0.147	0.227804	5.395657
Minimum	-1.3	-10.8	-1.85	-1.9	-2.3	-3.75	-1.85	-1.8	-4.7	-1.85	-3.6	-4.6
Maximum	2	1.6	4.85	5.8	10.05	2.7	4.35	6.75	1.7	2.25	3	13.1
Count	32	50	32	80	50	80	80	80	80	80	80	80
Confidence Level(95.0%)	0.237824	0.486362	0.392339	0.205222	0.43659	0.167585	0.200151	0.211109	0.201915	0.155585	0.182138	0.392318

American AL175	Test Year 2013											
175 CFH	Control Group-Installed Year											
Code: 033	1997	1998	1999	2000	2001	2002	2003	2004	2005	2007	2009	2011
Sample Plan	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced
Sample Size	80	80	80	80	80	50	50	50	50	80	50	50
Original Population	8844	5301	7992	7296	4151	2527	2578	2000	2138	2007	2676	3148
# of Slow Failures	2	1	1	1	0	0	0	1	1	0	0	2
# of Fast Failures	0	0	0	0	0	0	0	0	1	0	0	0
Total Failures:	2	1	1	1	0	0	0	1	2	0	0	2
Accept Level	10	10	10	10	10	7	7	7	7	10	7	7
Reject Level	13	13	13	13	13	10	10	10	10	13	10	10
Pass / Fail?	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
If Failed - Remove By:	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Statistical Data:												
Mean (Average Proof)	-0.47375	-0.6125	-0.35688	-0.16063	-0.4525	-0.621	-0.397	-0.619	-0.538	-0.33625	-0.441	-0.604
Median	-0.4	-0.625	-0.4	-0.125	-0.45	-0.675	-0.425	-0.7	-0.55	-0.35	-0.4	-0.55
Standard Deviation	1.094664	0.676808	0.618478	0.861177	0.482865	0.555408	0.555622	0.59246	1.182162	0.482279	0.526317	0.682271
Sample Variance	1.19829	0.45807	0.382515	0.741626	0.233158	0.308479	0.308715	0.351009	1.397506	0.232593	0.277009	0.465494
Skewness	-4.07967	0.199476	-0.23875	0.987738	-0.33388	0.059075	1.19238	0.179668	2.924704	-0.36034	0.115899	-0.63414
Minimum	-7.9	-2.3	-2.5	-3.1	-1.9	-1.7	-1.7	-2.15	-3.25	-1.95	-1.75	-2.85
Maximum	1.4	1.6	1	3.8	0.6	0.5	1.95	1.2	5.7	0.7	0.95	0.95
Count	80	80	80	80	80	50	50	50	50	80	50	50
Confidence Level(95.0%)	0.243606	0.150616	0.137636	0.191646	0.107456	0.157845	0.157906	0.168375	0.335967	0.107326	0.149578	0.193899

Year 2013 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	0
-.2 to -1.2	2
-1.2 to -.4	8
-.4 to .4	17
.4 to 1.2	3
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:	1986
Data Range	Number
LT -3.6	2
-3.6 to -2.8	1
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	18
-.4 to .4	23
.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:	1987
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	16
.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	1
Total	32

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	2
-1.2 to -.4	13
-.4 to .4	49
.4 to 1.2	13
1.2 to 2.0	1
2.0 to 2.8	1
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	1
-.2 to -1.2	0
-1.2 to -.4	11
-.4 to .4	27
.4 to 1.2	10
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	1
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	2
-1.2 to -.4	12
-.4 to .4	50
.4 to 1.2	13
1.2 to 2.0	1
2.0 to 2.8	1
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	2
-1.2 to -.4	11
-.4 to .4	34
.4 to 1.2	28
1.2 to 2.0	2
2.0 to 2.8	1
2.8 to 3.6	1
GT 3.6	1
Total	80

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	3
-1.2 to -.4	9
-.4 to .4	47
.4 to 1.2	18
1.2 to 2.0	2
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	1
Total	80

Code & Year:	1993
Data Range	Number
LT -3.6	1
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	2
-1.2 to -.4	15
-.4 to .4	35
.4 to 1.2	20
1.2 to 2.0	6
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	4
-1.2 to -.4	17
-.4 to .4	43
.4 to 1.2	13
1.2 to 2.0	2
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	80

Year 2013

Meter Code 033 American AL175

Code & Year:	1995
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	25
-.4 to .4	42
.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	80

Code & Year:	1996
Data Range	Number
LT -3.6	2
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	7
-1.2 to -.4	27
-.4 to .4	36
.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	1
Total	80

Code & Year:	1997
Data Range	Number
LT -3.6	1
-3.6 to -2.8	1
-2.8 to -.2	0
-.2 to -1.2	7
-1.2 to -.4	26
-.4 to .4	34
.4 to 1.2	10
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	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	12
-1.2 to -.4	35
-.4 to .4	27
.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	80

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	6
-1.2 to -.4	30
-.4 to .4	34
.4 to 1.2	9
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	1
-2.8 to -.2	0
-.2 to -1.2	4
-1.2 to -.4	25
-.4 to .4	39
.4 to 1.2	7
1.2 to 2.0	2
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	1
Total	80

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	6
-1.2 to -.4	35
-.4 to .4	38
.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:	2002
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	26
-.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	50

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	3
-1.2 to -.4	22
-.4 to .4	24
.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	50

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	6
-1.2 to -.4	23
-.4 to .4	18
.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

Year 2013

Meter Code 033 American AL175

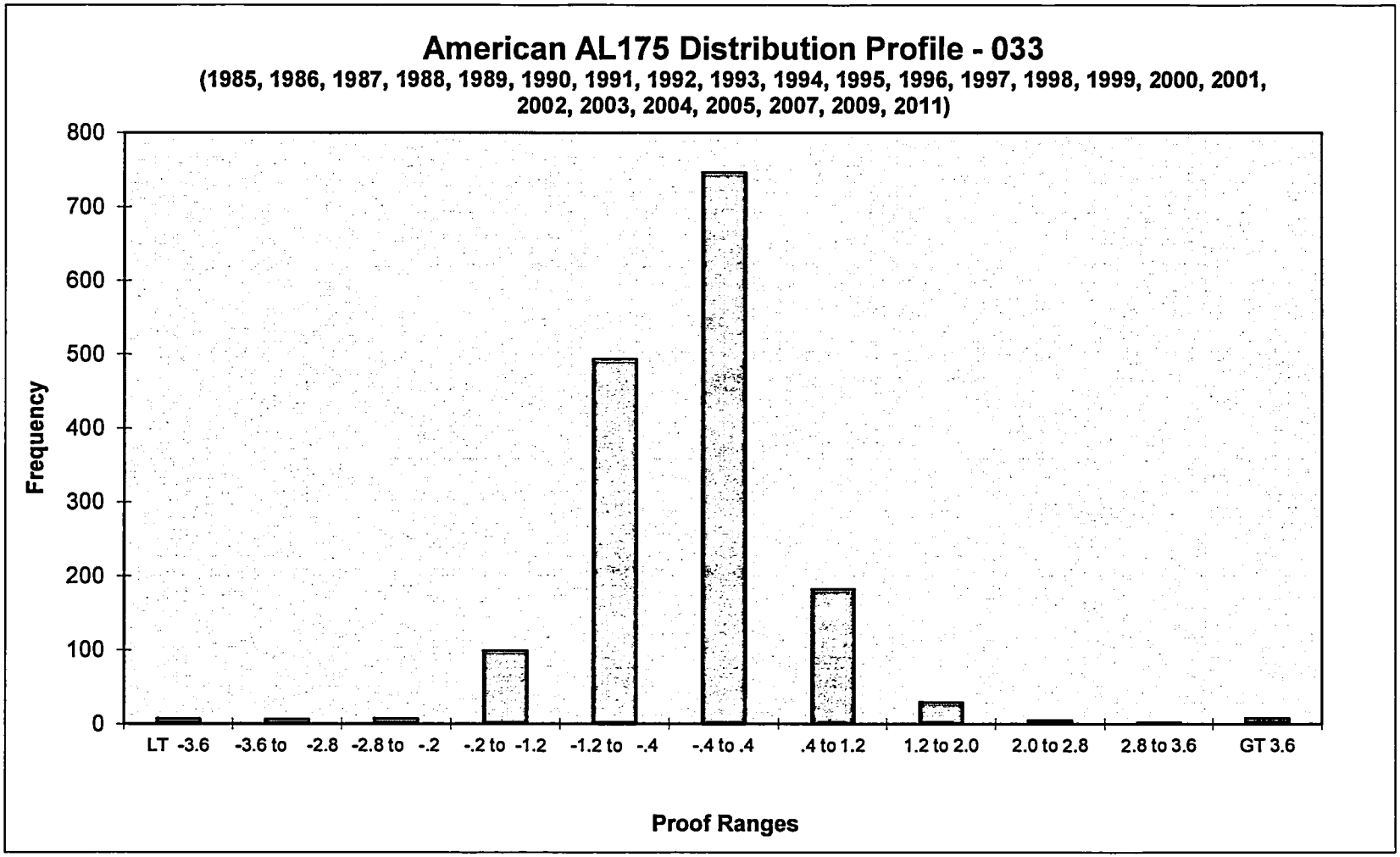
Code & Year:	2005
Data Range	Number
LT -3.6	0
-3.6 to -2.8	1
-2.8 to -.2	0
-.2 to -1.2	9
-1.2 to -.4	19
-.4 to .4	16
.4 to 1.2	3
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	1
Total	50

Code & Year:	2007
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	34
-.4 to .4	41
.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:	2009
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	22
-.4 to .4	24
.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:	2011
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	23
-.4 to .4	17
.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:	Total
Data Range	Number
LT -3.6	7
-3.6 to -2.8	6
-2.8 to -.2	7
-.2 to -1.2	99
-1.2 to -.4	493
-.4 to .4	746
.4 to 1.2	182
1.2 to 2.0	29
2.0 to 2.8	5
2.8 to 3.6	2
GT 3.6	8
Total	1584


American AL175 Distribution Profile - 033
(1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2007, 2009, 2011)
Frequency
800
700
600
500
400
300
200
100
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 2013								
175 CFH	Control Group-Installed Year								
Code: 33A	1992	1993	1994						
Sample Plan	Reduced	Reduced	Reduced						
Sample Size	80	50	50						
Original Population	4633	1799	2390						
# of Slow Failures	0	0	0						
# of Fast Failures	0	0	1						
Total Failures:	0	0	1						
Accept Level	10	7	7						
Reject Level	13	10	10						
Pass / Fail?	Pass	Pass	Pass						
If Failed - Remove By:	NA	NA	NA						
Statistical Data:									
Mean (Average Proof)	-0.09125	-0.082	-0.118						
Median	-0.1	-0.15	-0.1						
Standard Deviation	0.586816	0.511875	0.743596						
Sample Variance	0.344353	0.262016	0.552935						
Skewness	0.009692	0.416812	0.183308						
Minimum	-1.4	-1	-1.95						
Maximum	1.15	1.5	2.3						
Count	80	50	50						
Confidence Level(95.0%)	0.130589	0.145473	0.211328						

Year 2013

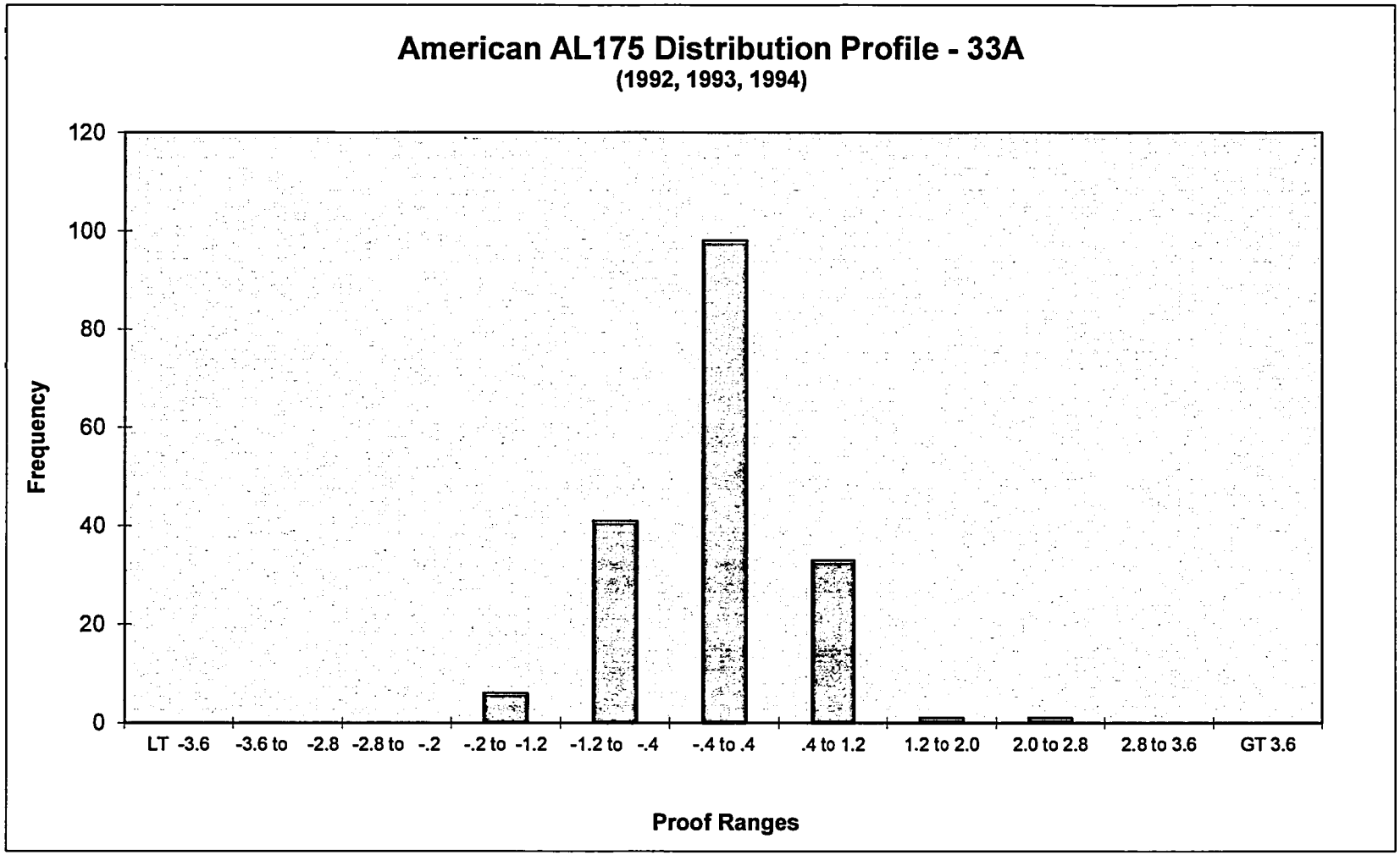
Meter Code 33A American AL175

Code & Year:	1992
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	21
-.4 to .4	39
.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:	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	9
-.4 to .4	35
.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:	1994
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	11
-.4 to .4	24
.4 to 1.2	10
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	0
-2.8 to -.2	0
-.2 to -1.2	6
-1.2 to -.4	41
-.4 to .4	98
.4 to 1.2	33
1.2 to 2.0	1
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	180


American AL175 Distribution Profile - 33A
(1992, 1993, 1994)
120
100
80
60
40
20
0
Frequency
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 5B225	Test Year 2013							
225 CFH	Control Group-Installed Year							
Code: 041	1995	1996						
Sample Plan	Single	Single						
Sample Size	2*	32						
Original Population	12	36						
# of Slow Failures	0	2						
# of Fast Failures	0	0						
Total Failures:	0	2						
Accept Level	0	5						
Reject Level	1	6						
Pass / Fail?	**Pass**	**Pass**						
If Failed - Remove By:	Exhaust	NA						
Statistical Data:								
Mean (Average Proof)	-1.05	-0.79844						
Median	-1.05	-0.875						
Standard Deviation	0.5656854	0.969826						
Sample Variance	0.32	0.940562						
Skewness	NA	-1.02736						
Minimum	-1.45	-4.2						
Maximum	-0.65	1.1						
Count	2	32						
Confidence Level(95.0%)	5.0824819	0.349659						

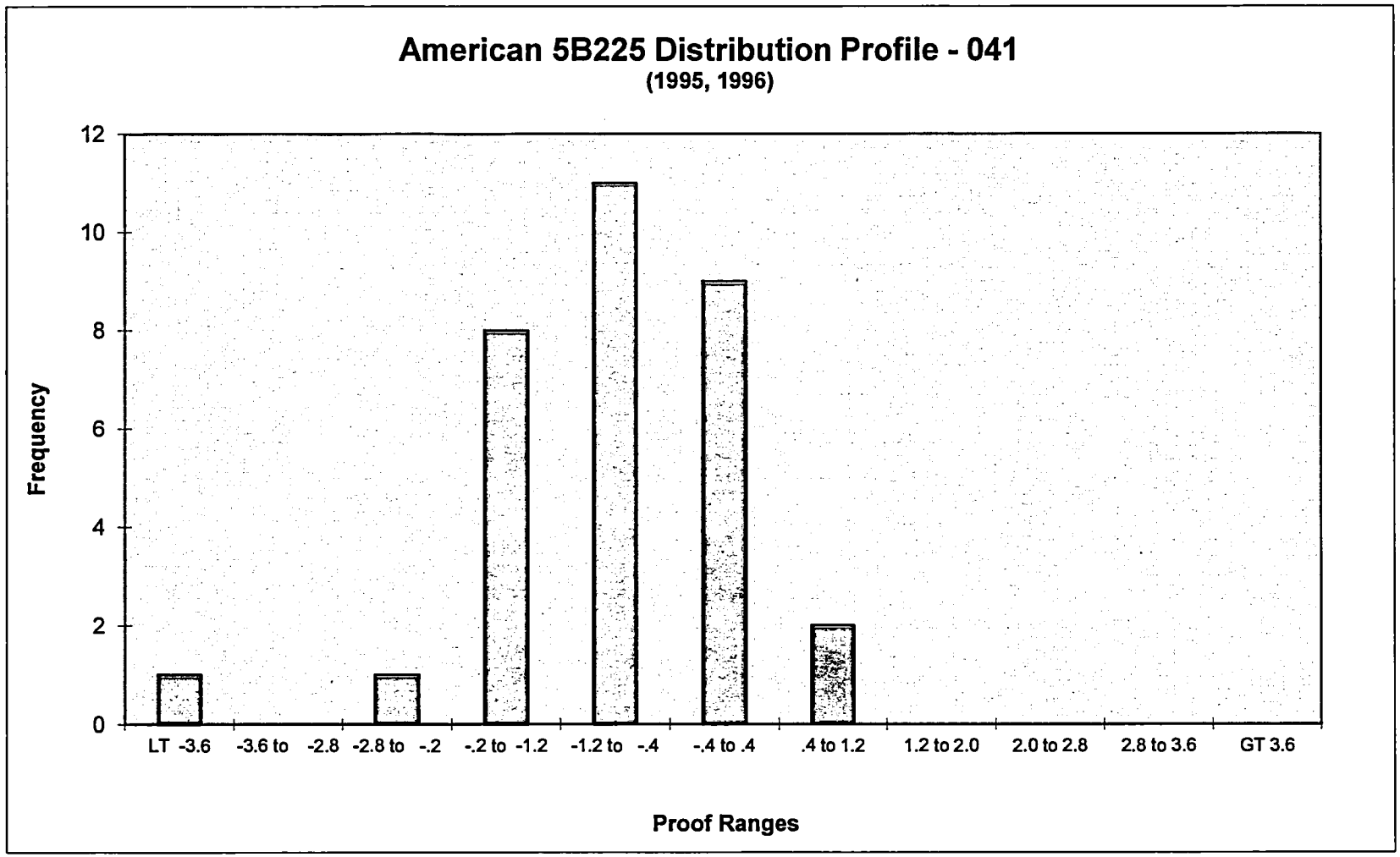
Year 2013

Meter Code 041 American 5B-225

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	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:	1996
Data Range	Number
LT -3.6	1
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	8
-1.2 to -.4	11
-.4 to .4	9
.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	1
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	9
-1.2 to -.4	12
-.4 to .4	9
.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

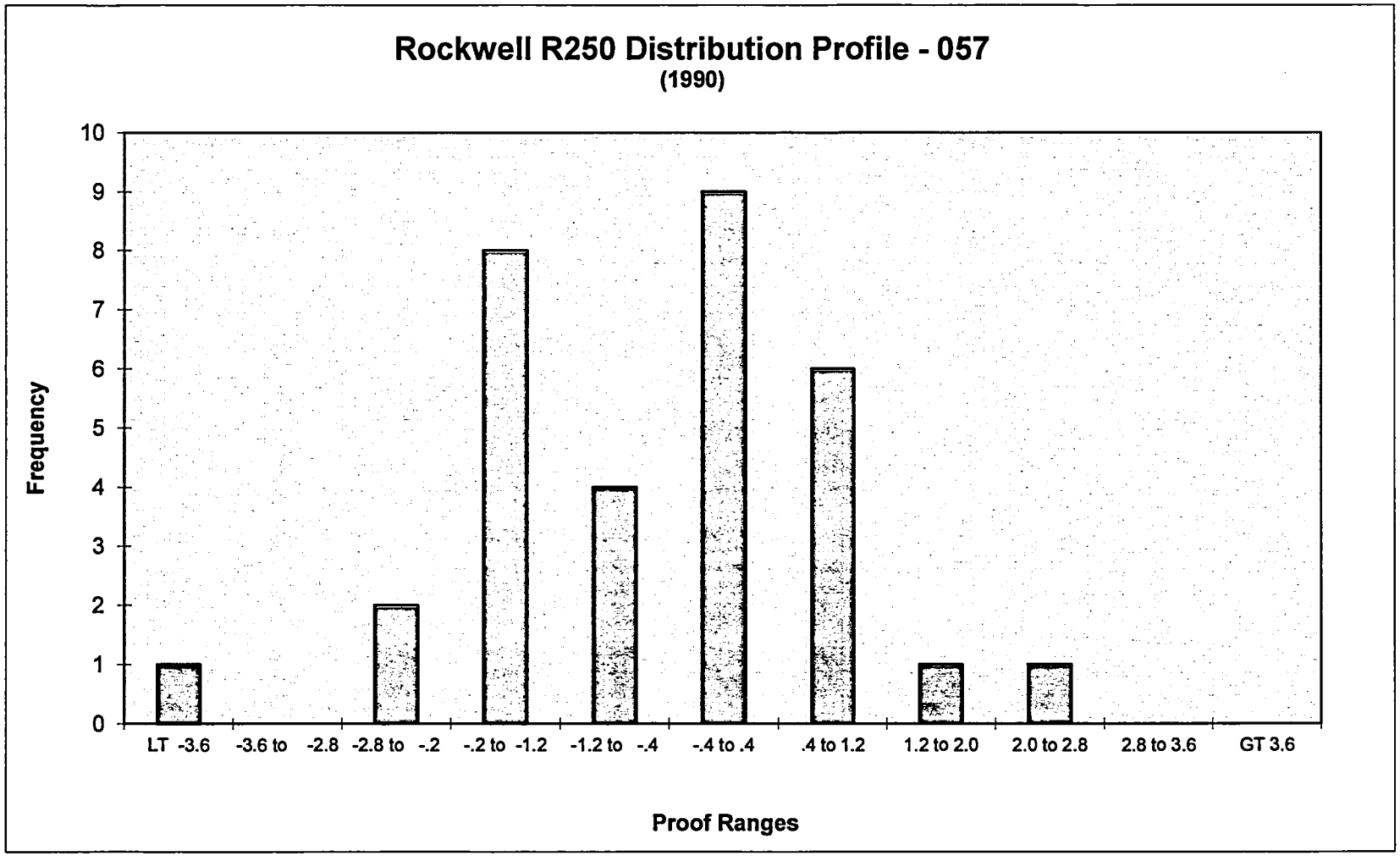

American 5B225 Distribution Profile - 041
(1995, 1996)
Frequency
12
10
8
6
4
2
0
LT -3.6
-3.6 to -2.8
-2.8 to -.2
-.2 to -1.2
-1.2 to -.4
-.4 to .4
.4 to 1.2
1.2 to 2.0
2.0 to 2.8
2.8 to 3.6
GT 3.6
Proof Ranges

Rockwell R250	Test Year 2013								
250 CFH	Control Group-Installed Year								
Code: 057	1990								
Sample Plan	Single								
Sample Size	32								
Original Population	126								
# of Slow Failures	3								
# of Fast Failures	1								
Total Failures:	4								
Accept Level	5								
Reject Level	6								
Pass / Fail?	Pass								
If Failed - Remove By:	NA								
Statistical Data:									
Mean (Average Proof)	-0.5328125								
Median	-0.3								
Standard Deviation	1.3685175								
Sample Variance	1.8728402								
Skewness	-0.2173939								
Minimum	-4.15								
Maximum	2.8								
Count	32								
Confidence Level(95.0%)	0.4934032								

Year 2013 Meter Code 057 Rockwell R250

Code & Year:	1990
Data Range	Number
LT -3.6	1
-3.6 to -2.8	0
-2.8 to -.2	2
-.2 to -1.2	8
-1.2 to -.4	4
-.4 to .4	9
.4 to 1.2	6
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:	Total
Data Range	Number
LT -3.6	1
-3.6 to -2.8	0
-2.8 to -.2	2
-.2 to -1.2	8
-1.2 to -.4	4
-.4 to .4	9
.4 to 1.2	6
1.2 to 2.0	1
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	32


Rockwell R250 Distribution Profile - 057
(1990)
Frequency
10
9
8
7
6
5
4
3
2
1
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 AC250	Test Year 2013											
250 CFH	Control Group-Installed Year											
Code: 078	1985	1986	1987	1988	1989	1990	1991	1993	1994	1995	1996	1997
Sample Plan	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced
Sample Size	32	80	50	80	50	80	50	32	50	80	80	80
Original Population	774	3662	3181	3733	2865	4004	2428	495	2115	4040	8913	8203
# of Slow Failures	0	0	0	0	1	0	1	1	0	2	1	0
# of Fast Failures	0	0	0	0	0	0	0	0	0	0	0	0
Total Failures:	0	0	0	0	1	0	1	1	0	2	1	0
Accept Level	5	10	7	10	7	10	7	5	7	10	10	10
Reject Level	8	13	10	13	10	13	10	8	10	13	13	13
Pass / Fail?	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
If Failed - Remove By:	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Statistical Data:												
Mean (Average Proof)	-0.20938	-0.25813	-0.834	-0.81938	-0.97	-0.48625	-1.056	-0.17031	-0.458	-0.46188	-0.49625	-0.19
Median	-0.325	-0.25	-0.9	-0.825	-0.9	-0.525	-1.125	-0.15	-0.425	-0.25	-0.6	-0.25
Standard Deviation	0.561886	0.664538	0.627063	0.430594	0.46915	0.565236	0.709026	0.611959	0.522197	2.045654	0.5887	0.546531
Sample Variance	0.315716	0.44161	0.393208	0.185411	0.220102	0.319492	0.502718	0.374493	0.27269	4.184699	0.346568	0.298696
Skewness	0.647656	0.062999	0.153724	0.139377	-1.23137	0.34784	0.662026	-0.90587	0.098114	-7.19603	-0.12235	0.007079
Minimum	-1.35	-1.85	-1.95	-1.8	-2.8	-1.8	-3.35	-2.15	-2	-17.15	-2.3	-1.55
Maximum	1	1.5	0.55	0.2	-0.3	0.85	1.7	0.95	1.25	1.25	0.85	1.1
Count	32	80	50	80	50	80	50	32	50	80	80	80
Confidence Level(95.0%)	0.202581	0.147886	0.178209	0.095824	0.133331	0.125787	0.201503	0.220635	0.148407	0.455238	0.131009	0.121625

American AC250	Test Year 2013										
250 CFH	Control Group-Installed Year										
Code: 078	1998	1999	2000	2001	2002	2003	2004	2005	2007	2009	2011
Sample Plan	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced
Sample Size	80	80	80	80	50	50	80	80	80	80	80
Original Population	6152	4396	5283	5050	2227	1967	3689	7146	5152	6693	4700
# of Slow Failures	0	0	0	0	0	0	0	2	0	0	1
# of Fast Failures	0	0	0	0	0	0	0	1	0	0	0
Total Failures:	0	0	0	0	0	0	0	3	0	0	1
Accept Level	10	10	10	10	7	7	10	10	10	7	7
Reject Level	13	13	13	13	10	10	13	13	13	10	10
Pass / Fail?	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
If Failed - Remove By:	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Statistical Data:											
Mean (Average Proof)	-0.27125	-0.22375	-0.29938	-0.31938	-0.225	-0.451	-0.02438	0.05	-0.03812	-0.2525	-0.57688
Median	-0.35	-0.2	-0.35	-0.25	-0.2	-0.4	0.025	0.1	-0.1	-0.275	-0.65
Standard Deviation	0.488266	0.473472	0.502997	0.498764	0.456053	0.435479	0.686995	1.140259	0.49614	0.451222	0.533969
Sample Variance	0.238403	0.224176	0.253006	0.248765	0.207985	0.189642	0.471962	1.30019	0.246155	0.203601	0.285123
Skewness	0.23775	0.100318	1.295758	-0.43793	0.367449	-0.49114	0.070823	3.559651	-0.10944	0.334519	0.886706
Minimum	-1.4	-1.15	-1.4	-2	-1.05	-1.6	-1.7	-2.65	-1.85	-1.15	-2.15
Maximum	1	0.75	1.65	1	1.05	0.4	1.75	7.7	1.4	1.1	1.3
Count	80	80	80	80	50	50	80	80	80	80	80
Confidence Level(95.0%)	0.108658	0.105366	0.111936	0.110994	0.129609	0.123762	0.152883	0.253752	0.11041	0.100415	0.118829

Year 2013

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	1
-1.2 to -.4	12
-.4 to .4	13
.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:	1986
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	23
-.4 to .4	39
.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	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	18
-1.2 to -.4	16
-.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	50

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	10
-1.2 to -.4	55
-.4 to .4	15
.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	80

Code & Year:	1989
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	14
-1.2 to -.4	29
-.4 to .4	6
.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	50

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	6
-1.2 to -.4	41
-.4 to .4	26
.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:	1991
Data Range	Number
LT -3.6	0
-3.6 to -2.8	1
-2.8 to -.2	0
-.2 to -1.2	20
-1.2 to -.4	23
-.4 to .4	5
.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	50

Code & Year:	1993
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	9
-.4 to .4	18
.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:	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	23
-.4 to .4	24
.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	50

Code & Year:	1995
Data Range	Number
LT -3.6	2
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	24
-.4 to .4	46
.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	80

Year 2013

Meter Code 078 American AC250

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	6
-1.2 to -.4	40
-.4 to .4	27
.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	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	40
.4 to 1.2	13
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	1
-1.2 to -.4	32
-.4 to .4	40
.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	0
-1.2 to -.4	26
-.4 to .4	45
.4 to 1.2	9
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	2
-1.2 to -.4	30
-.4 to .4	44
.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	80

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	25
-.4 to .4	47
.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	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	17
-.4 to .4	29
.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:	2003
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	23
-.4 to .4	25
.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	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	4
-1.2 to -.4	20
-.4 to .4	39
.4 to 1.2	14
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:	2005
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	2
-.2 to -1.2	2
-1.2 to -.4	18
-.4 to .4	35
.4 to 1.2	20
1.2 to 2.0	2
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	1
Total	80

Year 2013

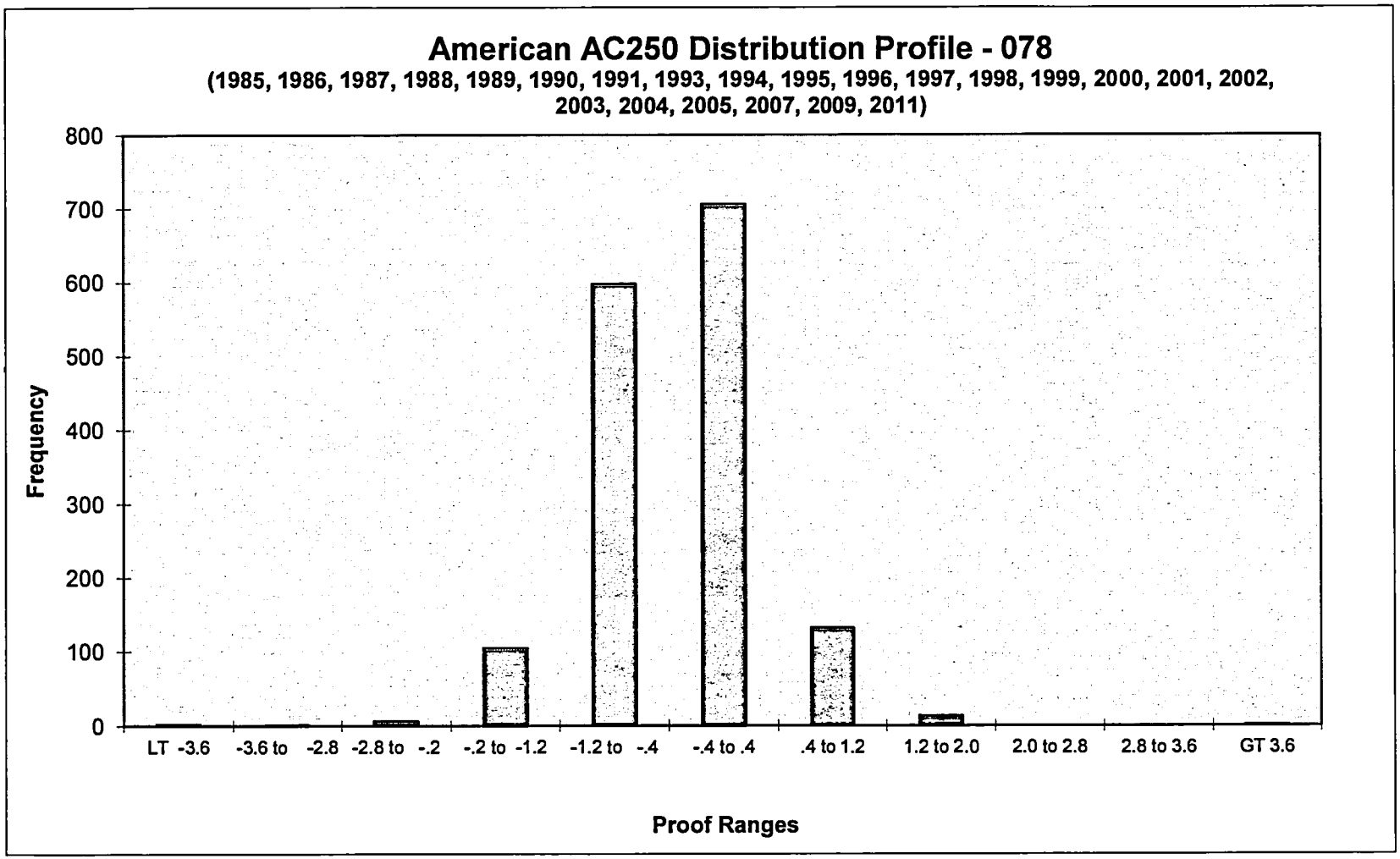
Meter Code 078 American AC250

Code & Year:	2007
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	56
.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	80

Code & Year:	2009
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	26
-.4 to .4	50
.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	80

Code & Year:	2011
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	3
-1.2 to -.4	50
-.4 to .4	22
.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	80

Code & Year:	Total
Data Range	Number
LT -3.6	2
-3.6 to -2.8	1
-2.8 to -.2	6
-.2 to -1.2	105
-1.2 to -.4	598
-.4 to .4	706
.4 to 1.2	132
1.2 to 2.0	13
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	1
Total	1564


American AC250 Distribution Profile - 078
(1985, 1986, 1987, 1988, 1989, 1990, 1991, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2007, 2009, 2011)
Frequency
800
700
600
500
400
300
200
100
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 R200	Test Year 2013								
200 CFH	Control Group-Installed Year								
Code: 079	1985	1996							
Sample Plan	Single	Single							
Sample Size	32	2*							
Original Population	56	7							
# of Slow Failures	0	0							
# of Fast Failures	2	0							
Total Failures:	2	0							
Accept Level	5	0							
Reject Level	6	1							
Pass/ Fail?	**Pass**	**Pass**							
If Failed - Remove By:	NA	Exhaust							
Statistical Data:									
Mean (Average Proof)	0.7375	-0.2							
Median	0.675	-0.2							
Standard Deviation	0.849193	0.212132							
Sample Variance	0.721129	0.045							
Skewness	0.5152	NA							
Minimum	-0.8	-0.35							
Maximum	3.1	-0.05							
Count	32	2							
Confidence Level(95.0%)	0.306167	1.905931							

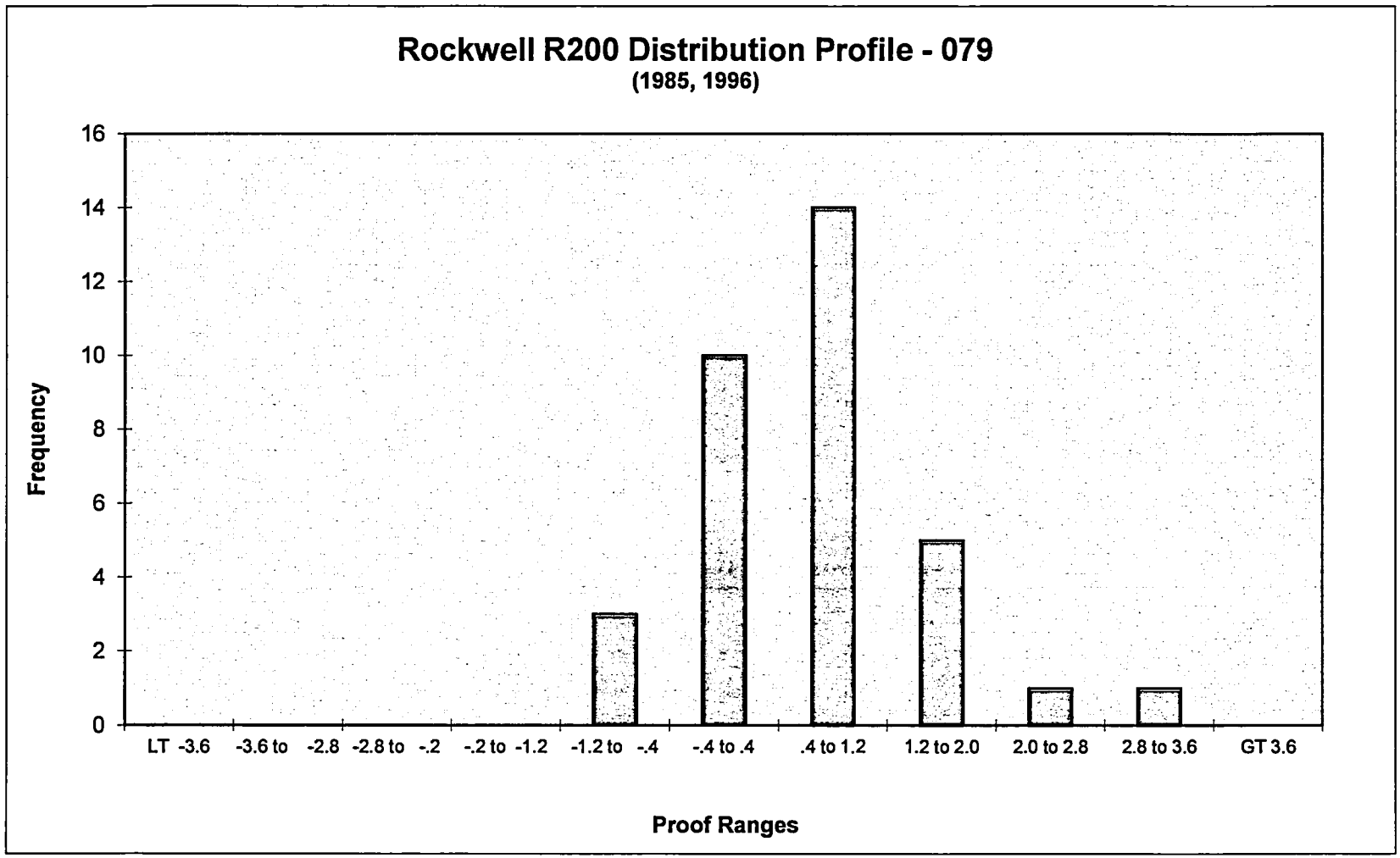
Year 2013

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	3
-.4 to .4	8
.4 to 1.2	14
1.2 to 2.0	5
2.0 to 2.8	1
2.8 to 3.6	1
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	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	3
-.4 to .4	10
.4 to 1.2	14
1.2 to 2.0	5
2.0 to 2.8	1
2.8 to 3.6	1
GT 3.6	0
Total	34


Rockwell R200 Distribution Profile - 079
(1985, 1996)
Frequency
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 AL1000	Test Year 2013								
1000 CFH	Control Group-Installed Year								
Code: 014	2003	2004	2006	2007	2008	2009	2011		
Sample Plan	Single	Single	Single	Single	Single	Single	Single		
Sample Size	13	32	32	32	50	50	80		
Original Population	80	175	187	237	347	391	563		
# of Slow Failures	0	1	0	0	2	0	0		
# of Fast Failures	0	0	0	1	0	0	0		
Total Failures:	0	1	0	1	2	0	0		
Accept Level	2	5	5	5	7	7	10		
Reject Level	3	6	6	6	8	8	11		
Pass / Fail?	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**		
If Failed - Remove By:	NA**	NA	NA	NA	NA	NA	NA		
Statistical Data:									
Mean (Average Proof)	-1.3038462	-0.885938	-0.73594	0.082813	-0.625	-0.39	-0.66625		
Median	-1.3	-0.75	-0.725	0.05	-0.6	-0.3	-0.7		
Standard Deviation	0.43178966	1.1361533	0.754153	1.027494	0.918086	0.833789	0.747052		
Sample Variance	0.18644231	1.2908443	0.568747	1.055743	0.842883	0.695204	0.558087		
Skewness	0.00390352	-2.179345	2.65	2.192121	-0.48126	0.115112	0.659024		
Minimum	-1.85	-5.55	-2	-1.35	-3.8	-1.9	-2		
Maximum	-0.8	0.7	0.65	4.3	1.8	1.55	1.9		
Count	13	32	32	32	50	50	80		
Confidence Level(95.0%)	0.26092788	0.4096269	0.271901	0.370451	0.260917	0.23696	0.166248		

* 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.

**One meter still in service-Could not gain access-Meter will be marked as a prior in 2014

Year 2013

Meter Code 014 American AL1000

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	7
-1.2 to -.4	6
-.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	13

Code & Year:	2004
Data Range	Number
LT -3.6	1
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	9
-1.2 to -.4	10
-.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:	2006
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	8
-1.2 to -.4	15
-.4 to .4	6
.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	32

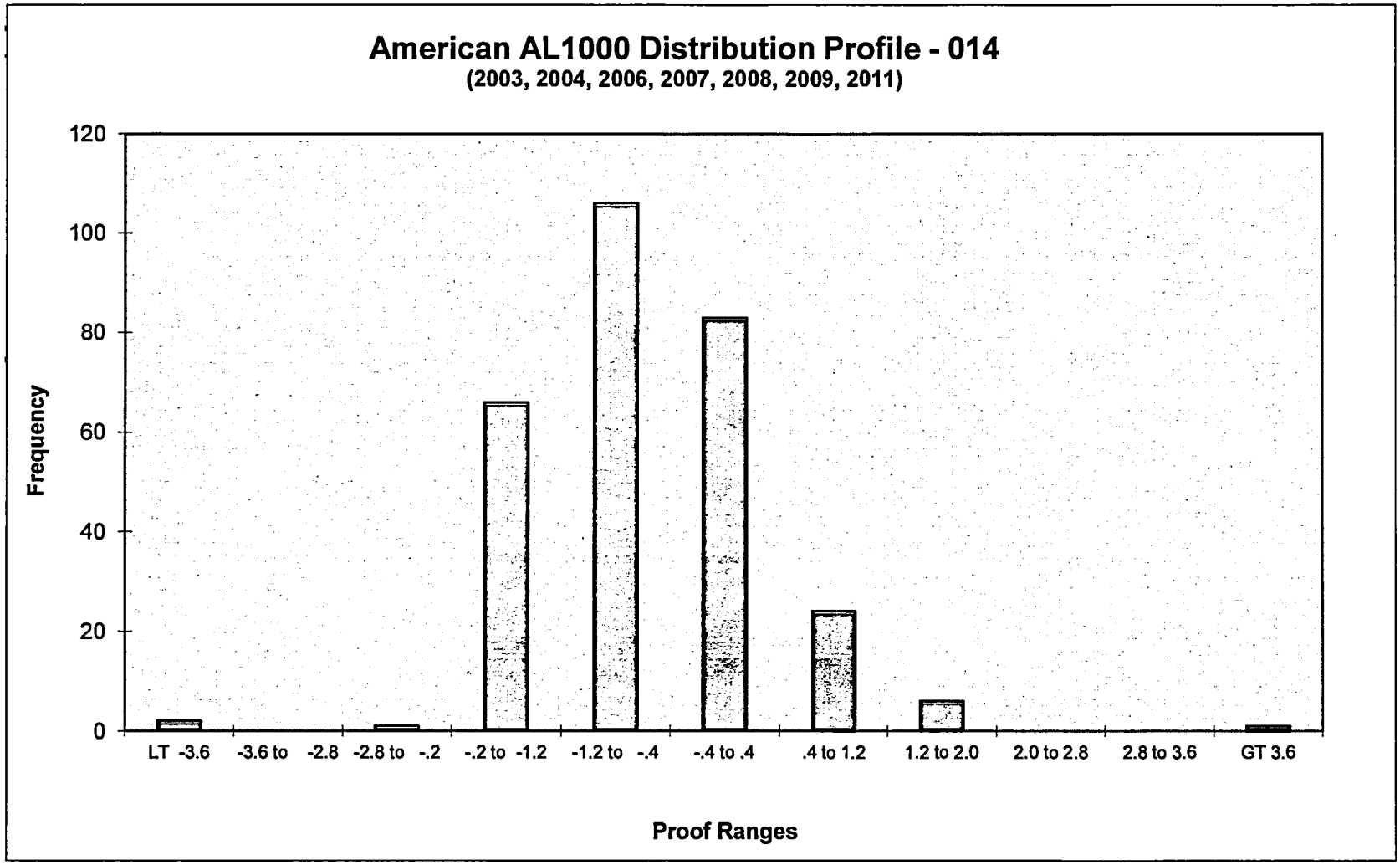
Code & Year:	2007
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	8
-.4 to .4	15
.4 to 1.2	5
1.2 to 2.0	2
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	1
Total	32

Code & Year:	2008
Data Range	Number
LT -3.6	1
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	10
-1.2 to -.4	17
-.4 to .4	18
.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	50

Code & Year:	2009
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	10
-1.2 to -.4	14
-.4 to .4	17
.4 to 1.2	7
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:	2011
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	21
-1.2 to -.4	36
-.4 to .4	16
.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:	Total
Data Range	Number
LT -3.6	2
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	66
-1.2 to -.4	106
-.4 to .4	83
.4 to 1.2	24
1.2 to 2.0	6
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	1
Total	289


American AL1000 Distribution Profile - 014
(2003, 2004, 2006, 2007, 2008, 2009, 2011)
Frequency
120
100
80
60
40
20
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 2013								
1400 CFH	Control Group-Installed Year								
Code: 019	2003	2004	2005	2006	2007	2008	2009	2011	
Sample Plan	Single	Single	Single	Single	Single	Single	Single	Single	
Sample Size	2*	2	2	2	2	8	2	8	
Original Population	10	9	11	8	13	24	4	19	
# of Slow Failures	0	0	0	0	0	0	0	0	
# of Fast Failures	0	0	0	0	0	0	0	0	
Total Failures:	0	0	0	0	0	0	0	0	
Accept Level	0	0	0	0	0	1	0	1	
Reject Level	1	1	1	1	1	2	1	2	
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)	-0.525	0.075	-0.8	-0.25	-0.925	-0.34375	-0.025	-0.45625	
Median	-0.525	0.075	-0.8	-0.25	-0.925	-0.475	-0.025	-0.4	
Standard Deviation	0.318198	1.237437	0.282843	0	0.318198	0.693046	0.671751	0.849974	
Sample Variance	0.10125	1.53125	0.08	0	0.10125	0.480313	0.45125	0.722455	
Skewness	NA	NA	NA	NA	NA	0.097466	NA	-0.15744	
Minimum	-0.75	-0.8	-1	-0.25	-1.15	-1.25	-0.5	-1.6	
Maximum	-0.3	0.95	-0.6	-0.25	-0.7	0.45	0.45	0.65	
Count	2	2	2	2	2	8	2	8	
Confidence Level(95.0%)	2.858896	11.11793	2.541241	0	2.858896	0.579401	6.035447	0.710596	

* 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 2013 Meter Code 019 American AL 1400

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	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:	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	1
-.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	2

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	0
-1.2 to -.4	2
-.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:	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	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

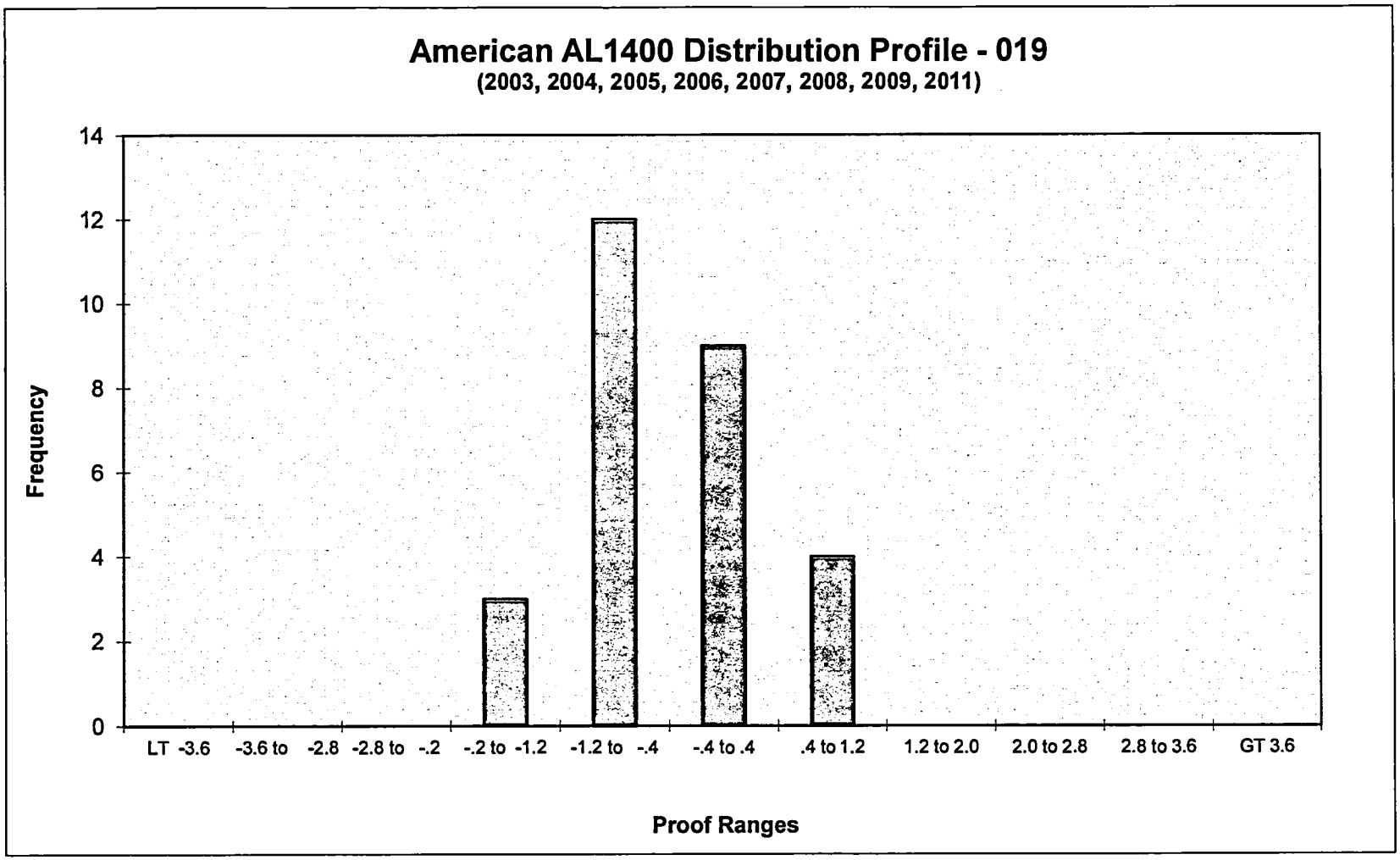
Code & Year:	2007
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	2
-.4 to .4	0
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	2

Code & Year:	2008
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	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:	2009
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	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	2

Code & Year:	2011
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	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:	Total
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	9
.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	28


American AL1400 Distribution Profile - 019
(2003, 2004, 2005, 2006, 2007, 2008, 2009, 2011)
Frequency
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

Rockwell #3 Emco	Test Year 2013								
1200 CFH	Control Group-Installed Year								
Code: 056	2003	2004	2005	2006	2007	2008	2009	2011	
Sample Plan	Single	Single	Single	Single	Single	Single	Single	Single	
Sample Size	2*	8	8	8	8	8	2	13	
Original Population	8	37	25	20	41	39	12	73	
# of Slow Failures	0	0	0	0	0	0	0	0	
# of Fast Failures	0	0	0	0	0	0	0	0	
Total Failures:	0	0	0	0	0	0	0	0	
Accept Level	0	1	1	1	1	1	0	2	
Reject Level	1	2	2	2	2	2	1	3	
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)	-1.925	-0.81875	-0.88125	-0.8125	-0.3625	-0.1375	-0.975	-0.46923	
Median	-1.925	-1.05	-1	-0.875	-0.5	-0.55	-0.975	-0.45	
Standard Deviation	0.106066	0.964342	0.784646	0.642401	0.732291	0.936464	0.247487	0.997192	
Sample Variance	0.01125	0.929955	0.61567	0.412679	0.53625	0.876964	0.06125	0.994391	
Skewness	NA	1.360686	0.531468	1.688886	1.5477	2.116364	NA	0.416857	
Minimum	-2	-2	-1.95	-1.45	-1.15	-0.9	-1.15	-1.8	
Maximum	-1.85	1.2	0.5	0.6	1.2	2	-0.8	1.5	
Count	2	8	8	8	8	8	2	13	
Confidence Level(95.0%)	0.952965	0.80621	0.655981	0.53706	0.612211	0.782903	2.223586	0.602597	

* 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 2013 Meter Code 056 Rockwell #3 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	2
-1.2 to -.4	0
-.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	4
-1.2 to -.4	2
-.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	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	4
-1.2 to -.4	2
-.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	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	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	8

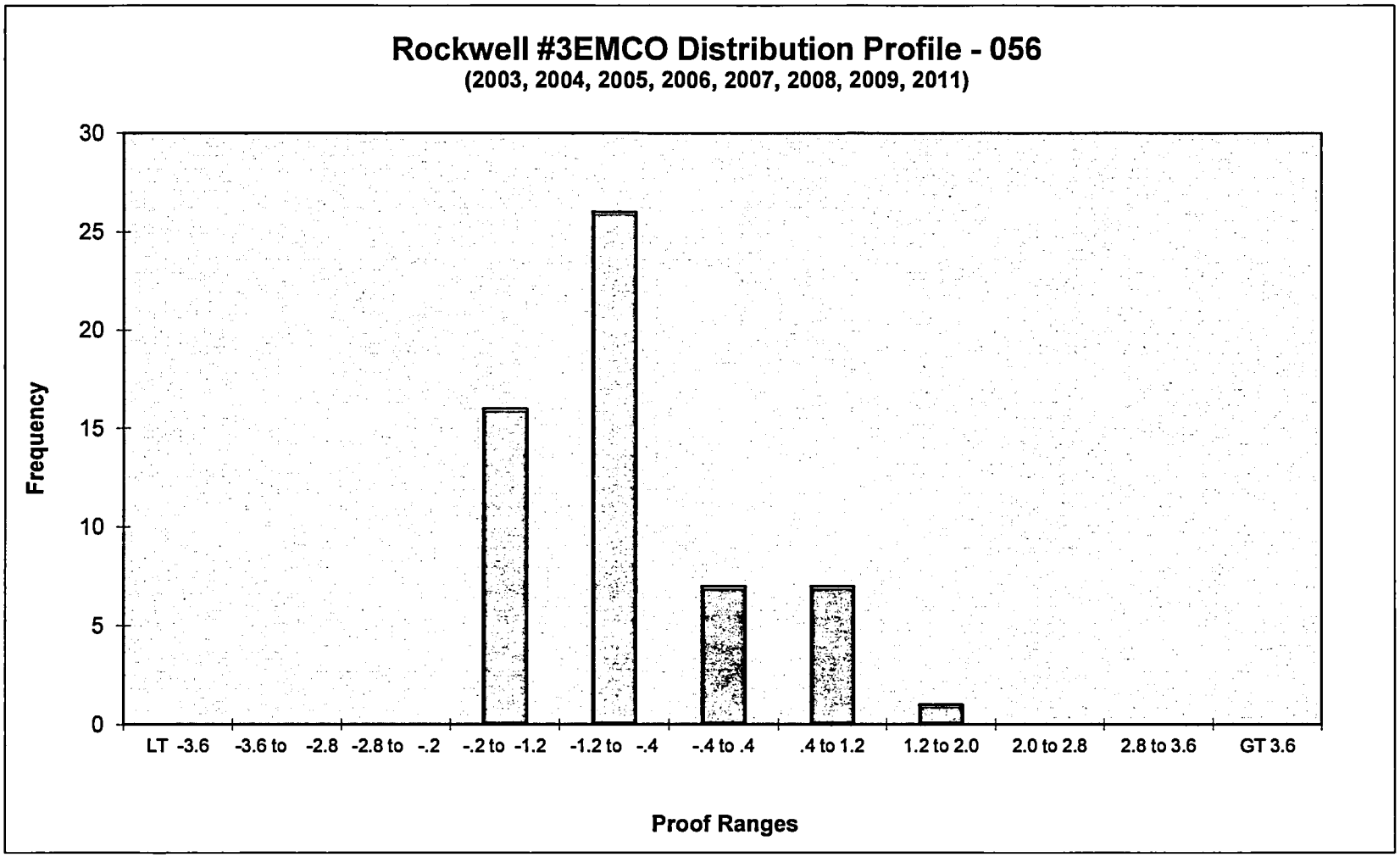
Code & Year:	2007
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	6
-.4 to .4	1
.4 to 1.2	1
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

Code & Year:	2008
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	5
-.4 to .4	2
.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:	2009
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	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:	2011
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	4
-.4 to .4	2
.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	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	16
-1.2 to -.4	26
-.4 to .4	7
.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	57


Rockwell #3EMCO Distribution Profile - 056
(2003, 2004, 2005, 2006, 2007, 2008, 2009, 2011)
Frequency
30
25
20
15
10
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

Rockwell R750	Test Year 2013								
750 CFH	Control Group-Installed Year								
Code: 058	2003	2004	2005	2006	2007	2008	2009	2011	
Sample Plan	Single	Single	Single	Single	Single	Single	Single	Single	
Sample Size	13*	20	32	32	32	50	50	50	
Original Population	85	118	224	238	270	313	346	382	
# of Slow Failures	0	1	1	2	0	1	1	0	
# of Fast Failures	1	0	0	0	0	0	0	0	
Total Failures:	1	1	1	2	0	1	1	0	
Accept Level	2	3	5	5	5	7	7	7	
Reject Level	3	4	6	6	6	8	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)	0.4	-0.08	-0.25	-0.37188	0.148438	-0.052	0.028	-0.119	
Median	0.25	0.15	-0.25	-0.25	0.2	-0.025	-0.05	-0.25	
Standard Deviation	1.088194	1.001367	0.836756	1.689099	0.90362	0.92234	0.707767	0.604818	
Sample Variance	1.184167	1.002737	0.700161	2.853054	0.81653	0.85071	0.500935	0.365805	
Skewness	0.411505	-0.51499	-0.19839	-2.61166	-0.34902	-0.15169	-0.27256	0.749867	
Minimum	-1.4	-2.1	-2.05	-7.25	-1.9	-2.35	-2.35	-1.3	
Maximum	2.55	1.75	1.3	1.8	1.65	2	2	1.95	
Count	13	20	32	32	32	50	50	50	
Confidence Level(95.0%)	0.657589	0.468654	0.301683	0.608985	0.32579	0.262126	0.201145	0.171887	

* 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 2013 Meter Code 058 Rockwell R750

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	6
.4 to 1.2	2
1.2 to 2.0	2
2.0 to 2.8	1
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	1
-.2 to -1.2	3
-1.2 to -.4	2
-.4 to .4	6
.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	20

Code & Year:	2005
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	3
-1.2 to -.4	11
-.4 to .4	7
.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:	2006
Data Range	Number
LT -3.6	2
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	10
-.4 to .4	10
.4 to 1.2	6
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:	2007
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	13
.4 to 1.2	8
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:	2008
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	9
-.4 to .4	22
.4 to 1.2	10
1.2 to 2.0	4
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	50

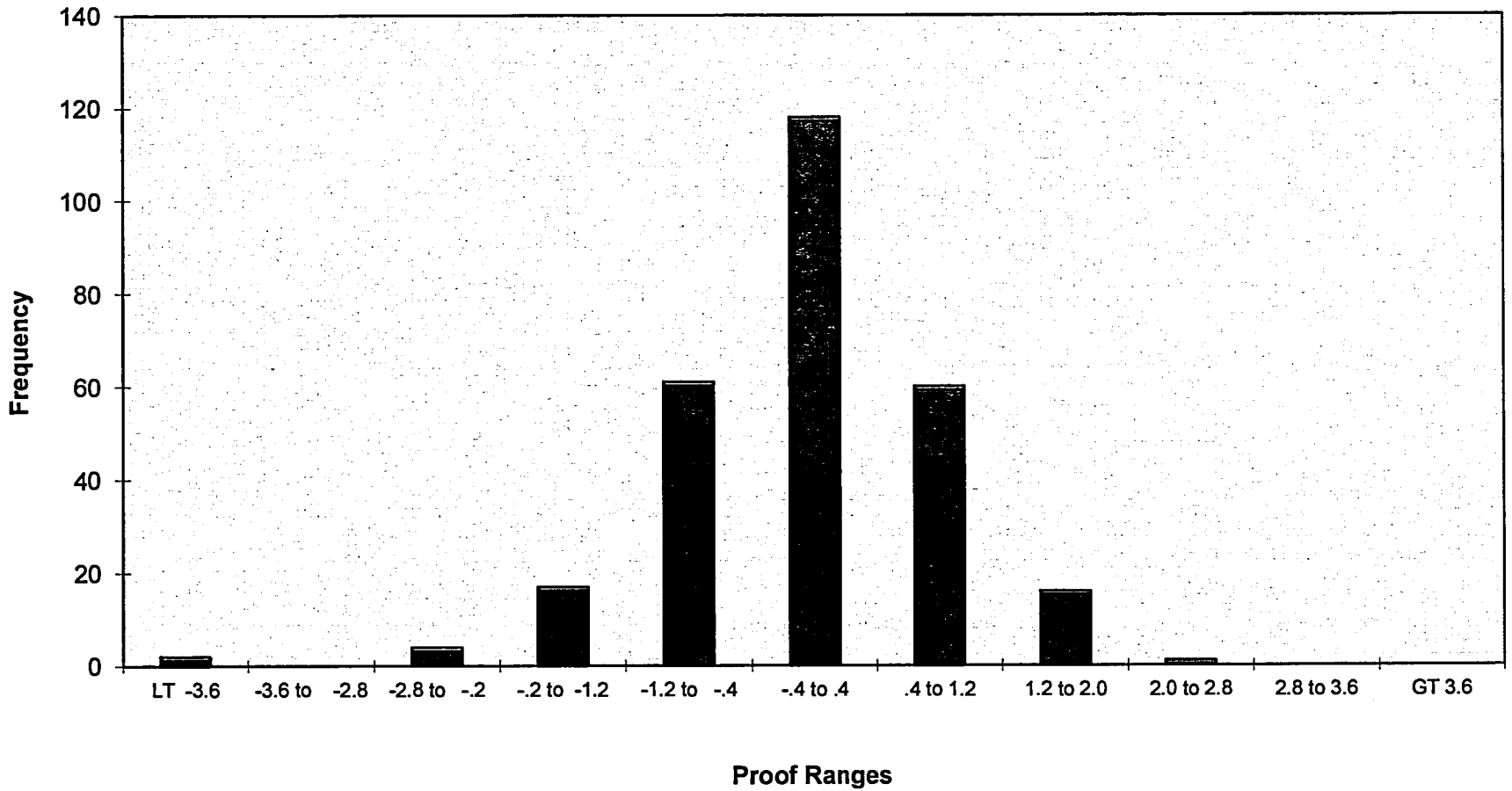
Code & Year:	2009
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	0
-1.2 to -.4	10
-.4 to .4	25
.4 to 1.2	13
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	50

Code & Year:	2011
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	29
.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:	Total
Data Range	Number
LT -3.6	2
-3.6 to -2.8	0
-2.8 to -.2	4
-.2 to -1.2	17
-1.2 to -.4	61
-.4 to .4	118
.4 to 1.2	60
1.2 to 2.0	16
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	279

Rockwell R750 Distribution Profile - 058

(2003, 2004, 2005, 2006, 2007, 2008, 2009, 2011)



American AL 800	Test Year 2013							
800 CFH	Control Group-Installed Year							
Code: 076	2003	2004	2005	2006	2007	2008	2009	2011
Sample Plan	Single	Single	Single	Single	Single	Single	Single	Single
Sample Size	8	8	2	8	8	13	20	20
Original Population	31	46	13	36	39	60	104	141
# of Slow Failures	0	0	0	0	0	0	0	1
# of Fast Failures	0	0	0	0	0	0	0	0
Total Failures:	0	0	0	0	0	0	0	1
Accept Level	1	1	0	1	1	2	3	3
Reject Level	2	2	1	2	2	3	4	4
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)	-0.66875	-0.725	-0.65	-0.63125	-0.5	-0.73462	-0.31	-0.5275
Median	-0.575	-0.775	-0.65	-0.85	-0.275	-0.65	-0.35	-0.675
Standard Deviation	0.530456	0.557418	0	1.092487	0.681909	0.650764	0.895545	0.830262
Sample Variance	0.281384	0.310714	0	1.193527	0.465	0.423494	0.802	0.689336
Skewness	-1.21809	-0.11383	NA	0.99972	-1.27725	-0.20721	0.877275	0.168474
Minimum	-1.7	-1.5	-0.65	-2	-1.9	-1.7	-1.7	-2.35
Maximum	-0.1	0.05	-0.65	1.45	0.3	0.1	1.9	1.05
Count	8	8	2	8	8	13	20	20
Confidence Level(95.0%)	0.443473	0.466013	0	0.913342	0.57009	0.393253	0.419128	0.388575

* 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 2013 Meter Code 076 American AL800

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	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:	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	3
-.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:	2005
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	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:	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	3
-.4 to .4	1
.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

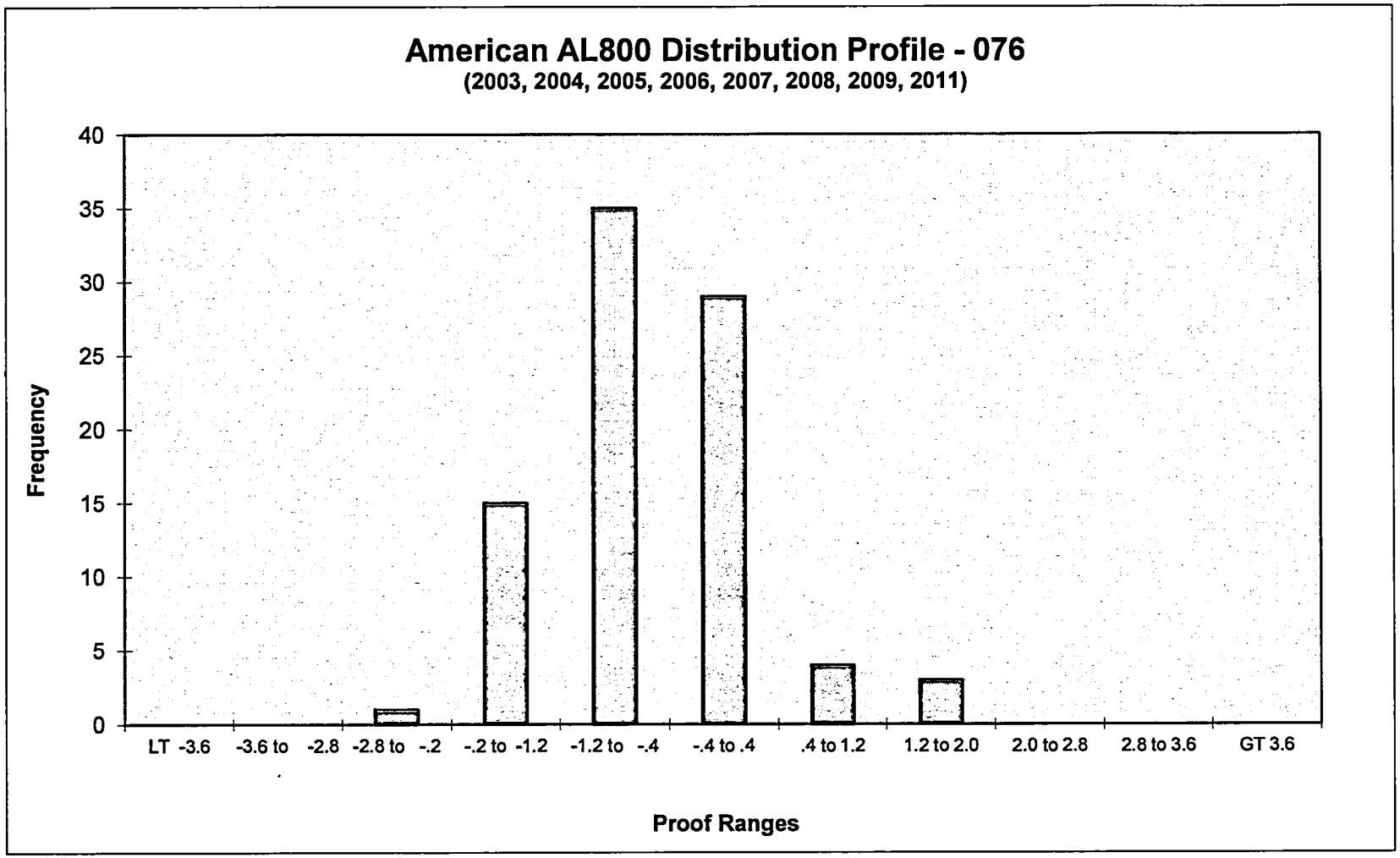
Code & Year:	2007
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	2
-.4 to .4	5
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

Code & Year:	2008
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	4
-.4 to .4	5
.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:	2009
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	6
-.4 to .4	8
.4 to 1.2	1
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:	2011
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	11
-.4 to .4	4
.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	20

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	15
-1.2 to -.4	35
-.4 to .4	29
.4 to 1.2	4
1.2 to 2.0	3
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	87


American AL800 Distribution Profile - 076
(2003, 2004, 2005, 2006, 2007, 2008, 2009, 2011)
Frequency
40
35
30
25
20
15
10
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

Rockwell #4 Emco	Test Year 2013								
2250 CFH	Control Group-Installed Year								
Code: 028	2008	2009	2010	2011					
Sample Plan	Single	Single	Single	Single					
Sample Size	13*	13	13	20					
Original Population	66	58	86	116					
# of Slow Failures	0	0	0	0					
# of Fast Failures	0	0	0	0					
Total Failures:	0	0	0	0					
Accept Level	2	2	2	3					
Reject Level	3	3	3	4					
Pass / Fail?	**Pass**	**Pass**	**Pass**	**Pass**					
If Failed - Remove By:	Exhaust	NA	NA	NA					
Statistical Data:									
Mean (Average Proof)	-0.51154	-0.44615	-0.52308	-0.1475					
Median	-0.55	-0.45	-0.65	-0.25					
Standard Deviation	0.998781	0.93996	0.821233	0.629844					
Sample Variance	0.997564	0.883526	0.674423	0.396704					
Skewness	0.581141	0.648207	0.3017	-0.01619					
Minimum	-1.95	-1.9	-1.5	-1.7					
Maximum	1.5	1.65	0.75	1.4					
Count	13	13	13	20					
Confidence Level(95.0%)	0.603558	0.568012	0.496266	0.294776					

* 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 2013

Meter Code 028 Rockwell #4 Emco

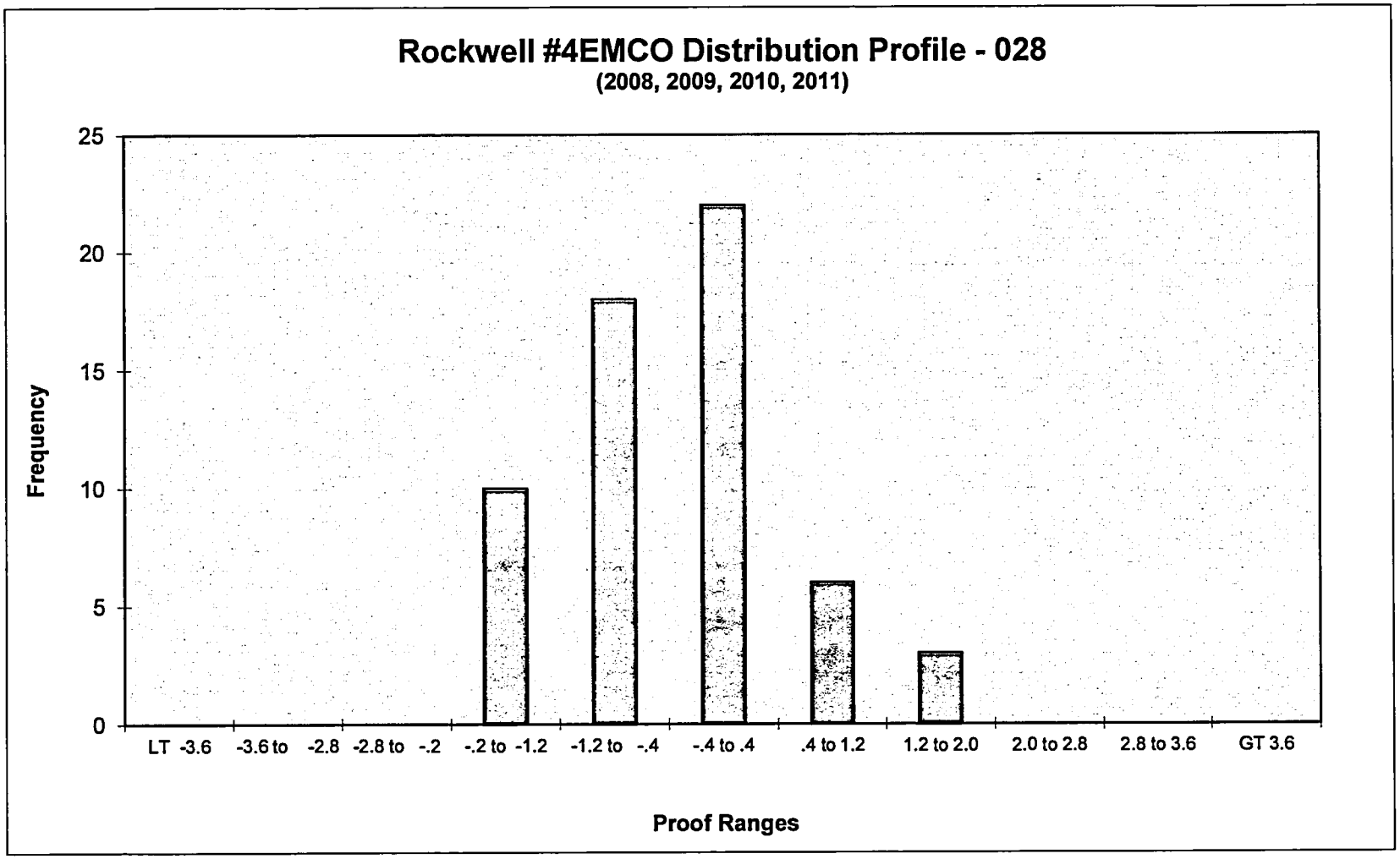
Code & Year:	2008
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	3
-1.2 to -.4	6
-.4 to .4	2
.4 to 1.2	1
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	13

Code & Year:	2009
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	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:	2010
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	3
.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	13

Code & Year:	2011
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	13
.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:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	10
-1.2 to -.4	18
-.4 to .4	22
.4 to 1.2	6
1.2 to 2.0	3
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	59


Rockwell #4EMCO Distribution Profile - 028
(2008, 2009, 2010, 2011)
Frequency
25
20
15
10
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

Rockwell 10Emco	Test Year 2013								
5000 CFH	Control Group-Installed Year								
Code: 061	2008	2009	2010	2011					
Sample Plan	Single	Single	Single	Single					
Sample Size	2*	2	8	8					
Original Population	11	10	42	34					
# of Slow Failures	0	0	0	0					
# of Fast Failures	0	0	0	0					
Total Failures:	0	0	0	0					
Accept Level	0	0	1	1					
Reject Level	1	1	2	2					
Pass / Fail?	**Pass**	**Pass**	**Pass**	**Pass**					
If Failed - Remove By:	Exhaust	NA	NA	NA					
Statistical Data:									
Mean (Average Proof)	0.025	-0.575	-0.725	0.05					
Median	0.025	-0.575	-0.7	0.325					
Standard Deviation	1.378858	0.388909	0.565685	0.55356					
Sample Variance	1.90125	0.15125	0.32	0.306429					
Skewness	NA	NA	0.814041	-0.81103					
Minimum	-0.95	-0.85	-1.5	-0.9					
Maximum	1	-0.3	0.4	0.6					
Count	2	2	8	8					
Confidence Level(95.0%)	12.38855	3.494206	0.472925	0.462788					

* 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 2013

Meter Code 061 Rockwell 10M Emco

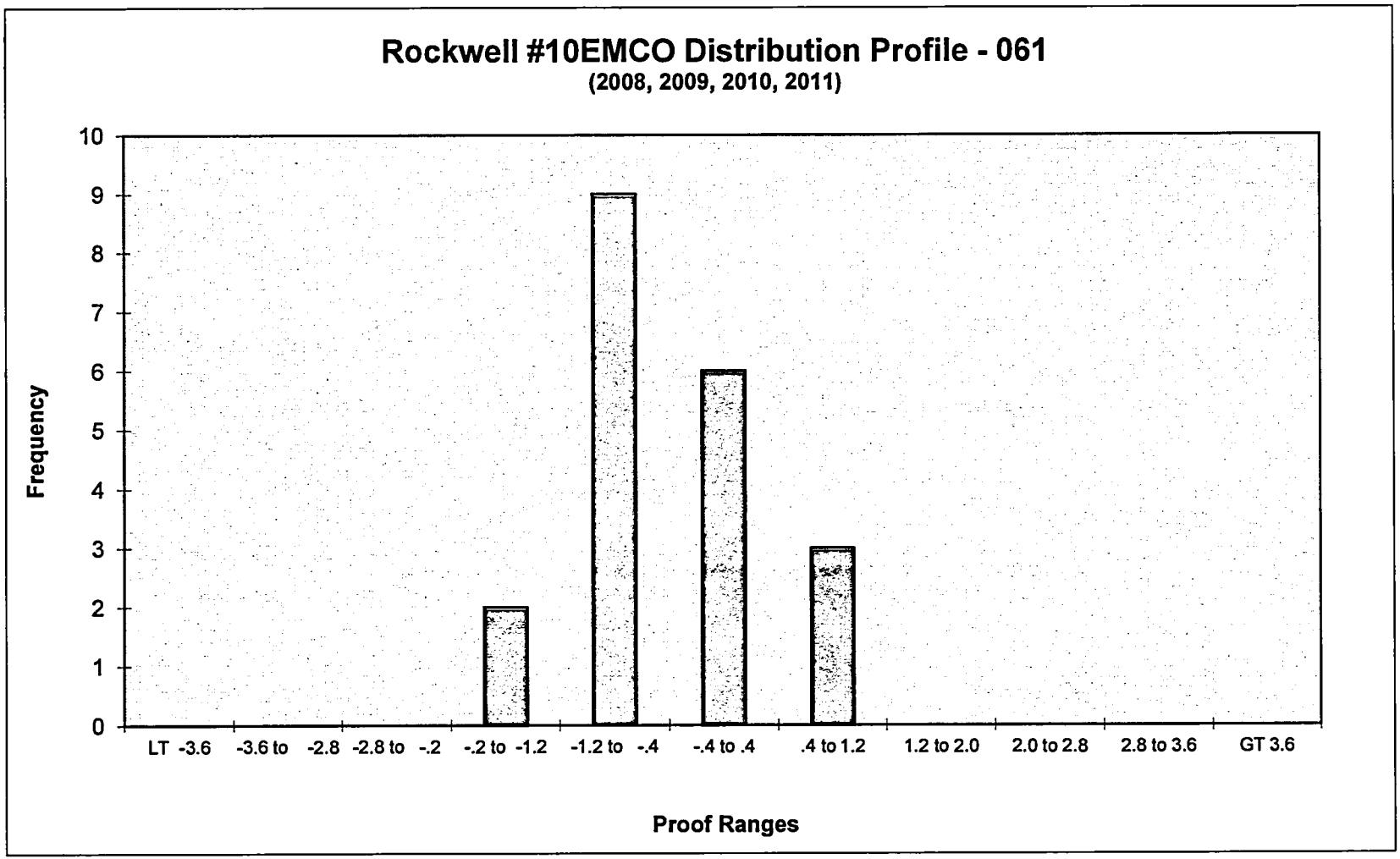
Code & Year:	2008
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	1
-.4 to .4	0
.4 to 1.2	1
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	2

Code & Year:	2009
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:	2010
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:	2011
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	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	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	2
-1.2 to -.4	9
-.4 to .4	6
.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	20


Rockwell #10EMCO Distribution Profile - 061
(2008, 2009, 2010, 2011)
Frequency
10
9
8
7
6
5
4
3
2
1
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

LOUISVILLE GAS AND ELECTRIC COMPANY
2013 RESIDENTIAL GAS REGULATOR
PERFORMANCE CONTROL PROGRAM REPORT

Introduction

Louisville Gas and Electric Company's Residential Gas Regulator Performance Control Program is a procedure designed to provide a continuous high level of performance of gas regulators while controlling inspection and replacement costs. A summary of the program results are being submitted pursuant to Case No. 2000-00278 and Case No. 2012-00491.

General Description of Program

LG&E's Residential Gas Regulator Performance Control Program leverages LG&E's Gas Meter Performance Control Program to test the protective capability of all classes of residential regulators. Under performance control, LG&E's residential gas regulator population will be classified into homogeneous control groups representing like regulators. A control group would be subject to random sample testing during LG&E's Gas Meter Performance Control Program activities. Specifically, when a meter serving a residential account is tested under the Gas Meter Performance Control Program, the associated regulator will also be tested if one is present.

2013 Sampling Criteria and Results

6,849 residential regulators were tested as part of the Residential Gas Regulator Performance Control Program. There were no regulators tested as part of the program that were excluded from the sample. There were no control groups rejected as a result of the program.

One (1) regulator was removed from service as a result of failing the test criteria at the time of the meter change. The reject level for that particular control group is 103, so the control group passed.

Table 1 summarizes key program data broken out by control group. The rows in the table listed in red are the control groups where the actual number of sampled regulators did not meet or exceed the required number. Per the Residential Gas Regulator Performance Control Program, the test period for those groups will be extended annually up to a maximum of 10 years until an adequate sample size is gathered. If an adequate sample has not been tested within 10 years, action will be taken the following year to acquire an adequate sampling. The control groups for which an adequate sample size was obtained last year represent approximately 99% of the regulators covered by the Residential Gas Regulator Performance Control Program.

Table 1 – Key Program Data by Control Group

Control Groups		Installed Residential Regulators as of Dec. 31, 2013	Minimum Sample Size	Actual Sample Size	Number Passing Inspection	Number Failing Inspection/ Removed from Service	Reject Failure Level
NATIONAL (or predecessor company)	61	31	8	0	NA	NA	NA
NATIONAL (or predecessor company)	496	44,281	200	979	978	1	103
AMERICAN METER CO.	1803	4	2	0	NA	NA	NA
AMERICAN METER CO.	1883	157	32	3	3	0	1
AMERICAN METER CO.	1213B	59,119	200	1,191	1,191	0	125
AMERICAN METER CO.	1813B	165	32	10	10	0	5
ITRON (or predecessor company)	B31	55	13	1	1	0	2
ITRON (or predecessor company)	B32	3	2	2	2	0	1
ITRON (or predecessor company)	B34	3,118	125	164	164	0	18
ITRON (or predecessor company)	B35	1	1	0	NA	NA	1
ITRON (or predecessor company)	B42	187,456	200	4,455	4,455	0	468
FISHER	627	1	1	0	NA	NA	1
FISHER	730	1	1	1	1	0	1
FISHER	HSR	2,543	125	30	30	0	14
FISHER	S102	2	2	1	1	0	1
FISHER	S252	44	8	1	1	0	1
FISHER	S302	263	32	11	11	0	5
OVERALL RESULTS		297,244		6,849	6,848	1	