ENCLOSURE 1

STEAM GENERATOR REPORT
VOLTAGE BASED ALTERNATE REPAIR CRITERIA
UNIT 2 CYCLE 16
90 DAY REPORT

SG-SGMP-10-2
Revision 0

January 2010

Condition Monitoring and Operational Assessment: GL-95-05 Alternate Repair Criterion End of Cycle 16 90 Day Report Sequoyah Unit 2

Prepared for the
Tennessee Valley Authority

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Author's Name	Signature / Date	For Pages
Thomas P. Magee	*TPM (*)*	All
Verifier's Name	Signature / Date	For Pages
David J. Ayres	*DJA (*)*	All
Manager Name	Signature / Date	For Pages
Damian A. Testa	*DAT (*)*	All

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Westinghouse Electric Company LLC
P.O. Box 355
Pittsburgh, PA 15230-0355

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

GLOSSARY OF ACRONYMS

BOC — Beginning of operation cycle. The most recent inspection was completed just prior to BOC-17.

EOC — End of operation cycle. The most recent inspection was completed just after EOC-16. The end of the next cycle is EOC-17.

NODP — Normal operating differential pressure.

MRPC — Motorized rotating pancake coil. Also refers to the +Point™ coil (+Point™ is a trademark of Zetec, Inc.).

ODSCC — Outside diameter stress corrosion cracking.

POD — Probability of detection. This value is set equal to 0.60 for the GL-95-05 predictive analysis for the condition of the steam generators at the end of the next cycle.

SG — Steam generator identifier. Specifically SG1, SG2, SG3 and SG4.

TSP — Tube support plate. The generic letter 95-05 alternate repair criterion applies to ODSCC in the tubes at the TSPs.

1.0 INTRODUCTION

Sequoyah Unit 2 completed its Cycle 16 of operation and subsequent steam generator tube inspection in November 2009. Axial ODSCC has been confirmed within the TSP regions of the steam generators and is an existing degradation mechanism at Sequoyah Unit 2. The alternate repair criterion (ARC) defined in NRC Generic Letter 95-05 (Reference 1) is implemented at Sequoyah Unit 2. This report provides a condition monitoring assessment that demonstrates that the GL-95-05 acceptance criteria were satisfied at the end of operational Cycle 16 (EOC-16), and an operational assessment that demonstrates that the GL 95-05 acceptance criteria will continue to be satisfied throughout operational Cycle 17. A Sequoyah-2 specific voltage growth rate was used in the EOC-17 prediction.

The operation cycle just completed, Cycle 16, was 485.0 Effective Full Power Days (EFPD). The next cycle, Cycle 17 is estimated to be 499.9 EFPD (Reference 2).

2.0 SUMMARY AND CONCLUSIONS

Bobbin voltage indications of ODSCC at the tube support plates were detected and measured in all four steam generators. Based on this voltage distribution, using the methodology of Reference 1 and Reference 3, a Condition Monitoring evaluation including the computation of the probability of tube burst (POB) and the amount of leakage predicted for steam line break conditions at EOC-16 was performed. The acceptance criteria on POB and leakage are satisfied with significant margin.

The change in voltage from the previous inspection was determined by historical review for each indication detected. The apparent voltage growth rate during Cycle 16 was based on the historic review of 3743 DSI indications identified during the Sequoyah Unit 2 EOC-16 inspection that were reportable in the last inspection. An operational assessment prediction of the POB and leakage at steam line break conditions at EOC-17 was performed using a site specific bounding growth rate. The results indicate that the acceptance criteria on POB and leakage at EOC-17 will be satisfied with acceptable margin. Therefore the Reference 1 acceptance criteria will be satisfied throughout Cycle 17.

3.0 EOC-16 INSPECTION RESULTS

3.1 VOLTAGE DISTRIBUTIONS AT EOC-16

Summaries of eddy current signal voltage distributions at the drilled support plates, for each steam generator, are shown in Table 3-1 through Table 3-4. Also shown are the number of indications in each voltage range detected at EOC-16 and the number of indications removed from service due to tube repairs for any reason. The number of indications that remain in service for Cycle 17 is the difference between the number of indications detected and the number of indications removed from service. No tubes were unplugged with the intent to return them to service after inspection.

Appendix A contains a listing of all EOC-16 DSI indications and their repair status. All DSI indications with an EOC-16 voltage greater than or equal to 2 volts were subject to +Point™ inspections, in accordance with Reference 1 requirements for 7/8-inch diameter tubing. Plugging was used to repair indications, greater than or equal to 2 volts, confirmed as being present by the +Point™ inspection.

The summary of all four-steam generators shows the following:

- A total of 3747 TSP regions were identified as having ODSCC bobbin signal indications (DSIs) during the inspection. This includes five TSP regions identified as having ODSCC by MRPC (but without a bobbin DSI) whose DSI voltage was imputed by statistical means.
- As noted in Reference 4, Sequoyah-2 does not have intersections that are excluded from the voltage-based repair criteria (Section 1.b.1 of Reference 1). None of these 3747 indications were associated with a dent signal greater than 5 volts, copper deposits, or mixed residuals of sufficient magnitude to cause a 1.0 volt ODSCC indication to be missed or misread.
- Of the 3747 TSP regions, 20 had DSI indications above 2 volts.
- All indication with voltages greater than or equal to 2 volts, were subjected to an inspection with a +Point™ probe. Indications that confirmed during the +Point™ inspection were removed from service by plugging.
- 18 of the 20 TSP regions with indications above 2 volts were confirmed by MRPC examination; however all 20 TSP regions with indications above 2 volts were repaired by plugging. The tubes associated with these TSP regions were plugged because of MRPC-confirmed ODSCC, or a DSI indication greater than 2 volts, at that particular support plate.
- A total of 91 of the 3747 TSP regions were removed from service. Some of these were removed specifically for MRPC-confirmed ODSCC within one of the support plates within the same tube, but others were removed for reasons unrelated to ODSCC at a support plate.

Figure 3-1 through Figure 3-12 illustrates the voltage distribution in each steam generator. Figure 3-1 through Figure 3-4 show the detected voltage distribution compared to the predicted distribution which was developed in the previous 90-day report, Reference 5. The measured

distribution of voltages is skewed towards smaller voltages than the predicted distribution of voltages, and the number of indications is smaller than the predicted number for all four steam generators.

Two indications, one in SG3 and one in SG4, were larger than the largest predicted voltage. In SG3, the largest DSI voltage was 4.17 V while the largest predicted voltage was 4.1 V. In SG4, the largest DSI voltage was 6.55 V while the largest predicted voltage was 4.1 V. These differences are attributable to favorable inspection results during the last inspection and how the largest voltage is predicted. At EOC-15, the largest DSI was only 2.77 V, which resulted in a predicted EOC-16 voltage distribution with a reduced upper voltage tail. The prediction of the maximum voltage is not a requirement of GL95-05, nor is any methodology established for its determination; the maximum voltage was arbitrarily chosen as the part of the tail where there is a 0.3 fractional indication. The choice of 0.3 indications as the predicted maximum DSI voltage was conservative for inspections conducted at EOC-13, EOC-14 and EOC-15.

Figure 3-5 through Figure 3-8 show the distribution of repaired indications, which is a plot of the information shown in Table 3-1 through Table 3-4. Figure 3-9 through Figure 3-12 show the distribution of indications that remain in service for the next operating cycle (also a plot of the information provided in Table 3-1 through Table 3-4).

As mentioned previously, the data includes five imputed voltages; these were cases where a bobbin indication was not identified, but a +Point™ indication was found. The bobbin voltage, in these cases, was imputed by a comparison of bobbin and +Point™ voltages in intersections where a dent was not present. This comparison is provided in Figure 3-13. The upper 95% confidence bound on the mean was used to impute bobbin voltages from SAI +Point™ voltages. There were no cases where there were two SAIs in the same TSP region that didn't have a bobbin indication. The five cases were all from SG2. All had imputed bobbin voltages between 1.10 V and 1.38 V.

Table 3-1: Inspection Results for SG1 EOC-16

Voltage Bin	Number of Indications	MRPC Confirmed	MRPC Tested But Not Confirmed	Not MRPC Tested	Plugged	Returned to Service	In-Service, MRPC Confirmed or Not Tested
0.1	1	0	0	1	0	1	1
0.2	19	0	1	18	0	19	18
0.3	58	0	2	56	0	58	56
0.4	72	0	0	72	0	72	72
0.5	88	2	0	86	0	88	88
0.6	87	3	0	84	2	85	87
0.7	82	4	1	77	2	80	81
0.8	56	1	1	54	2	54	55
0.9	58	1	1	56	0	58	57
1	33	4	2	27	1	32	31
1.1	24	21	3	0	0	24	21
1.2	30	27	3	0	1	29	27
1.3	9	8	1	0	0	9	8
1.4	16	14	2	0	0	16	14
1.5	7	7	0	0	0	7	7
1.6	5	2	3	0	0	5	2
1.7	4	3	1	0	1	3	3
1.8	1	1	0	0	0	1	1
1.9	2	2	0	0	0	2	2
2	2	2	0	0	0	2	2
2.9	1	1	0	0	1	0	1
Total	655	103	21	531	10	645	634

Average voltage = 0.671 volts

Table 3-2: Inspection Results for SG2 EOC-16

Voltage Bin	Number of Indications	MRPC Confirmed	MRPC Tested But Not Confirmed	Not MRPC Tested	Plugged	Returned to Service	In-Service, MRPC Confirmed or Not Tested
0.1	1	0	0	1	0	1	1
0.2	26	0	3	23	0	26	23
0.3	50	2	4	44	0	50	46
0.4	85	2	1	82	0	85	84
0.5	120	1	5	114	1	119	115
0.6	89	7	3	79	2	87	86
0.7	80	1	3	76	0	80	77
0.8	66	2	1	63	0	66	65
0.9	43	2	1	40	0	43	42
1	43	3	2	38	0	43	41
1.1	27	23	4	0	1	26	23
1.2	27	22	5	0	3	24	22
1.3	16	14	2	0	1	15	14
1.4	9	8	1	0	1	8	8
1.5	9	9	0	0	0	9	9
1.6	4	3	1	0	1	3	3
1.7	5	4	1	0	0	5	4
1.8	5	5	0	0	0	5	5
1.9	2	2	0	0	0	2	2
2	1	1	0	0	0	1	1
2.1	1	1	0	0	1	0	1
2.2	1	1	0	0	1	0	1
2.8	1	1	0	0	1	0	1
Total	711	114	37	560	13	698	674

Average voltage = 0.663 volts

Table 3-3: Inspection Results for SG3 EOC-16

Voltage Bin	Number of Indications	MRPC Confirmed	MRPC Tested But Not Confirmed	Not MRPC Tested	Plugged	Returned to Service	In-Service, MRPC Confirmed or Not Tested
0.2	9	0	0	9	0	9	9
0.3	43	0	0	43	1	42	43
0.4	88	1	1	86	2	86	87
0.5	101	0	1	100	0	101	100
0.6	102	0	0	102	0	102	102
0.7	103	1	0	102	2	101	103
0.8	100	0	0	100	3	97	100
0.9	82	3	2	77	0	82	80
1	46	3	2	41	1	45	44
1.1	57	41	16	0	0	57	41
1.2	44	40	4	0	2	42	40
1.3	32	28	4	0	0	32	28
1.4	27	24	3	0	0	27	24
1.5	20	16	4	0	0	20	16
1.6	4	4	0	0	0	4	4
1.7	6	6	0	0	0	6	6
1.8	2	2	0	0	0	2	2
1.9	3	3	0	0	0	3	3
2	3	3	0	0	0	3	3
2.1	1	0	1	0	1	0	0
2.2	2	1	1	0	2	0	1
4.2	1	1	0	0	1	0	1
Total	876	177	39	660	15	861	837

Average voltage = 0.756 volts

Table 3-4: Inspection Results for SG4 EOC-16

Voltage Bin	Number of Indications	MRPC Confirmed	MRPC Tested But Not Confirmed	Not MRPC Tested	Plugged	Returned to Service	In-Service, MRPC Confirmed or Not Tested
0.2	26	0	0	26	0	26	26
0.3	92	0	3	89	2	90	89
0.4	178	1	5	172	3	175	173
0.5	205	1	1	203	7	198	204
0.6	209	3	3	203	3	206	206
0.7	174	1	2	171	5	169	172
0.8	142	1	0	141	2	140	142
0.9	119	1	0	118	6	113	119
1	103	12	0	91	1	102	103
1.1	61	56	5	0	2	59	56
1.2	54	50	4	0	2	52	50
1.3	36	33	3	0	1	35	33
1.4	34	31	3	0	3	31	31
1.5	20	18	2	0	3	17	18
1.6	12	12	0	0	0	12	12
1.7	17	17	0	0	1	16	17
1.8	8	8	0	0	0	8	8
1.9	1	1	0	0	0	1	1
2	2	2	0	0	0	2	2
2.1	4	4	0	0	4	0	4
2.2	1	1	0	0	1	0	1
2.3	3	3	0	0	3	0	3
2.4	2	2	0	0	2	0	2
2.9	1	1	0	0	1	0	1
6.6	1	1	0	0	1	0	1
Total	1505	260	31	1214	53	1452	1474

Average voltage = 0.707 volts

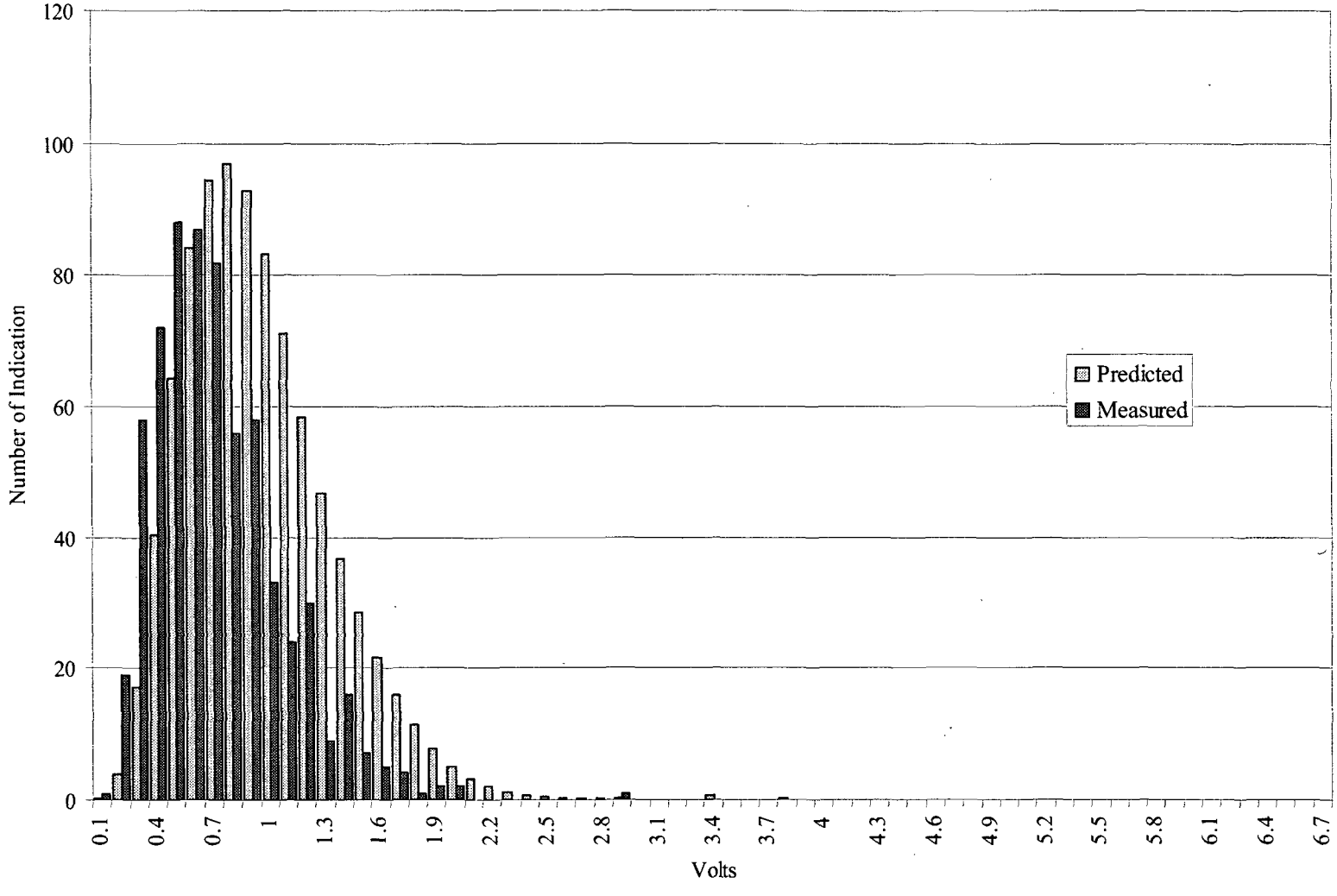

Figure 3-1: Sequoyah-2 EOC-16 Voltage Distribution, SG1

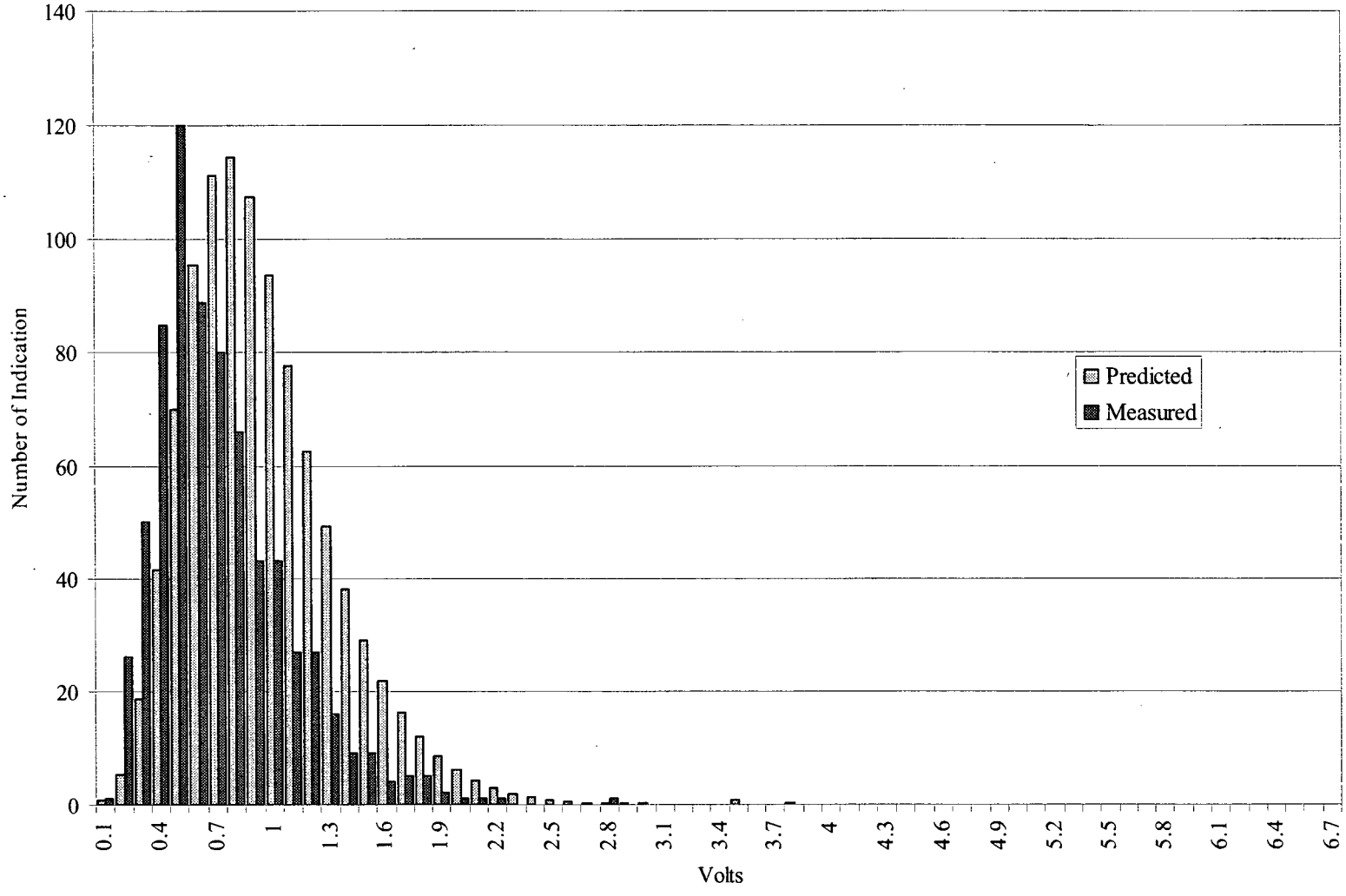

Figure 3-2: Sequoyah-2 EOC-16 Voltage Distribution, SG2

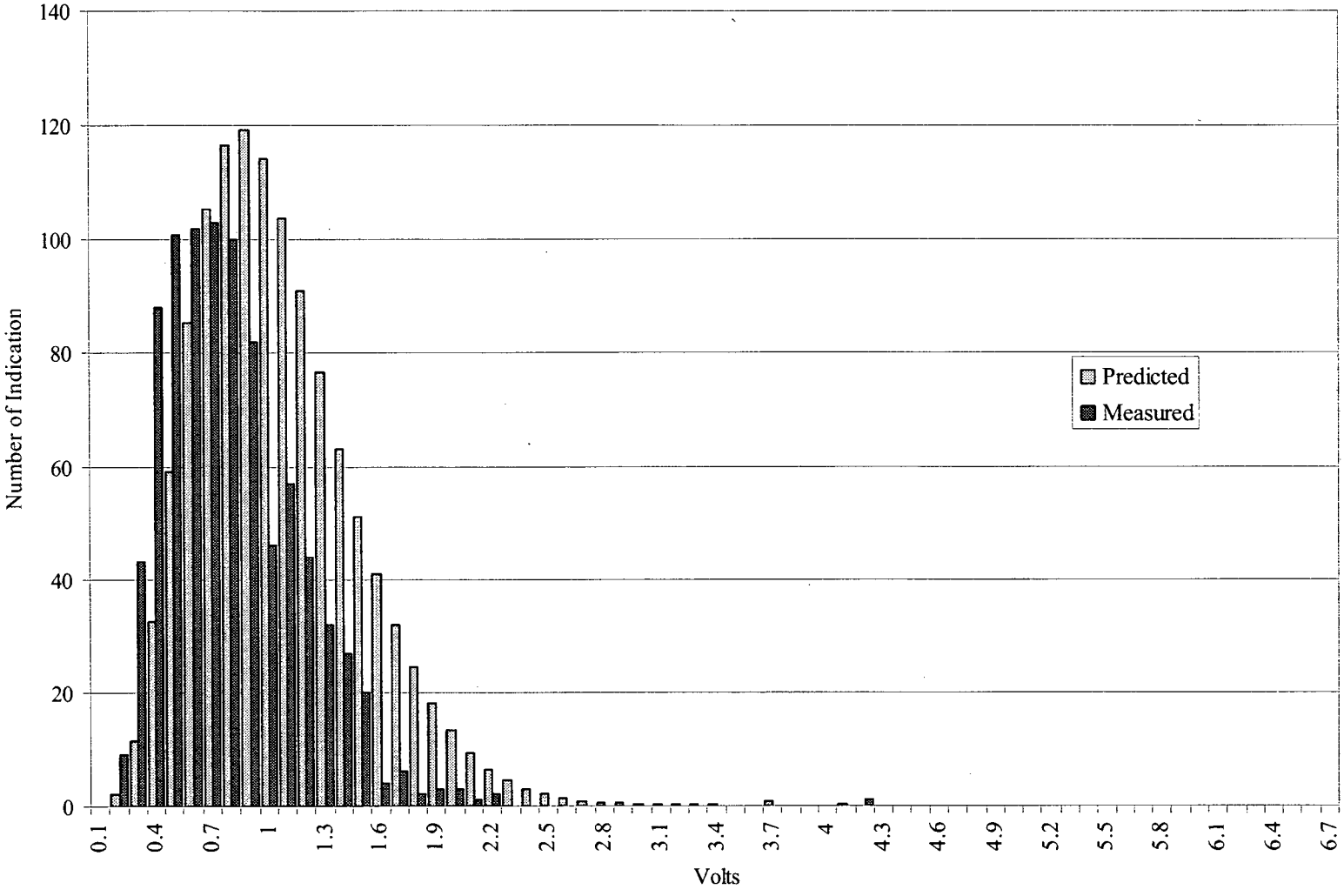

Figure 3-3: Sequoyah-2 EOC-16 Voltage Distribution, SG3

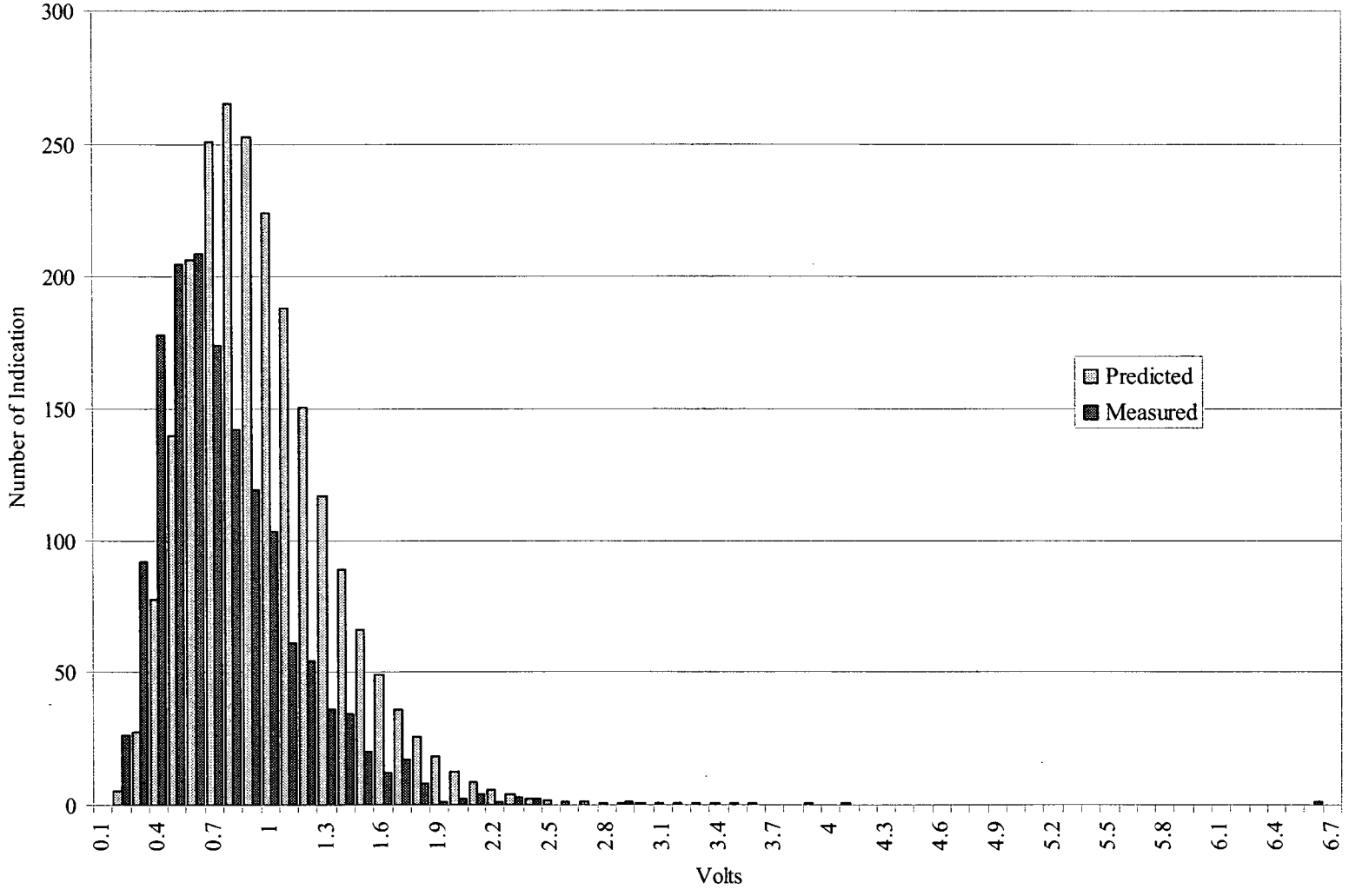

Figure 3-4: Sequoyah-2 EOC-16 Voltage Distribution, SG4

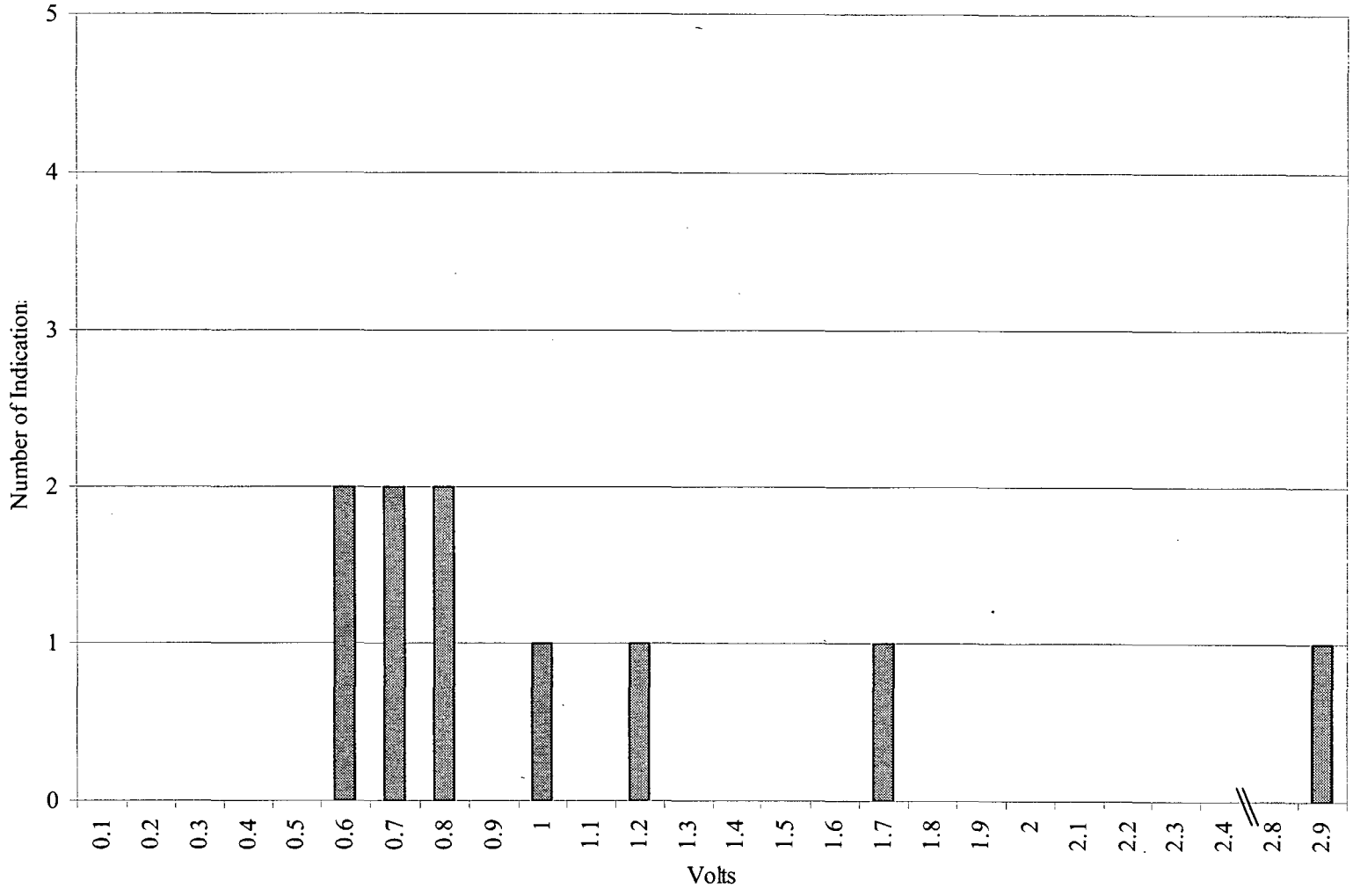

Figure 3-5: Sequoyah-2 EOC-16 Repaired Indications, SG1

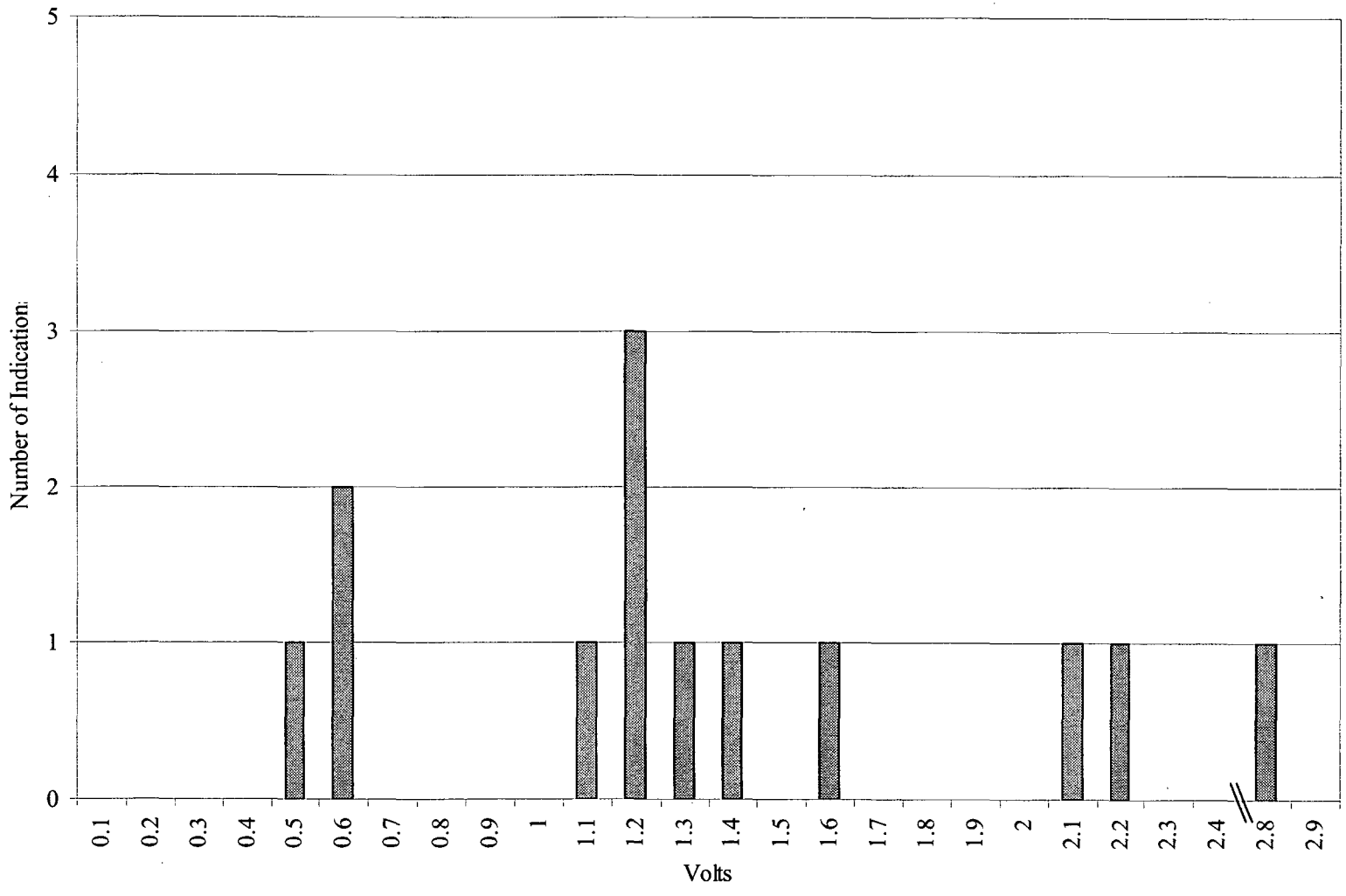

Figure 3-6: Sequoyah-2 EOC-16 Repaired Indications, SG2

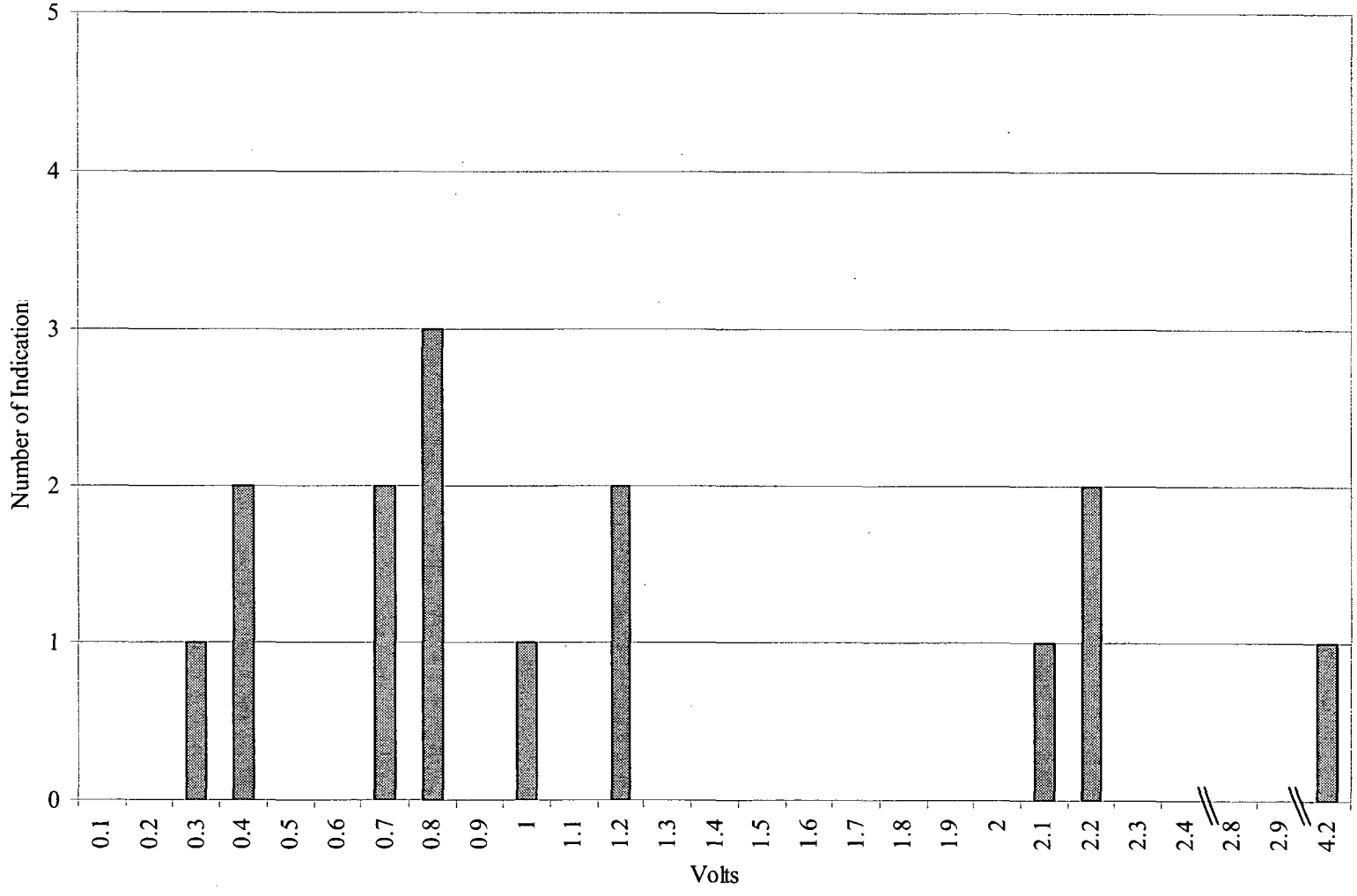

Figure 3-7: Sequoyah-2 EOC-16 Repaired Indications, SG3

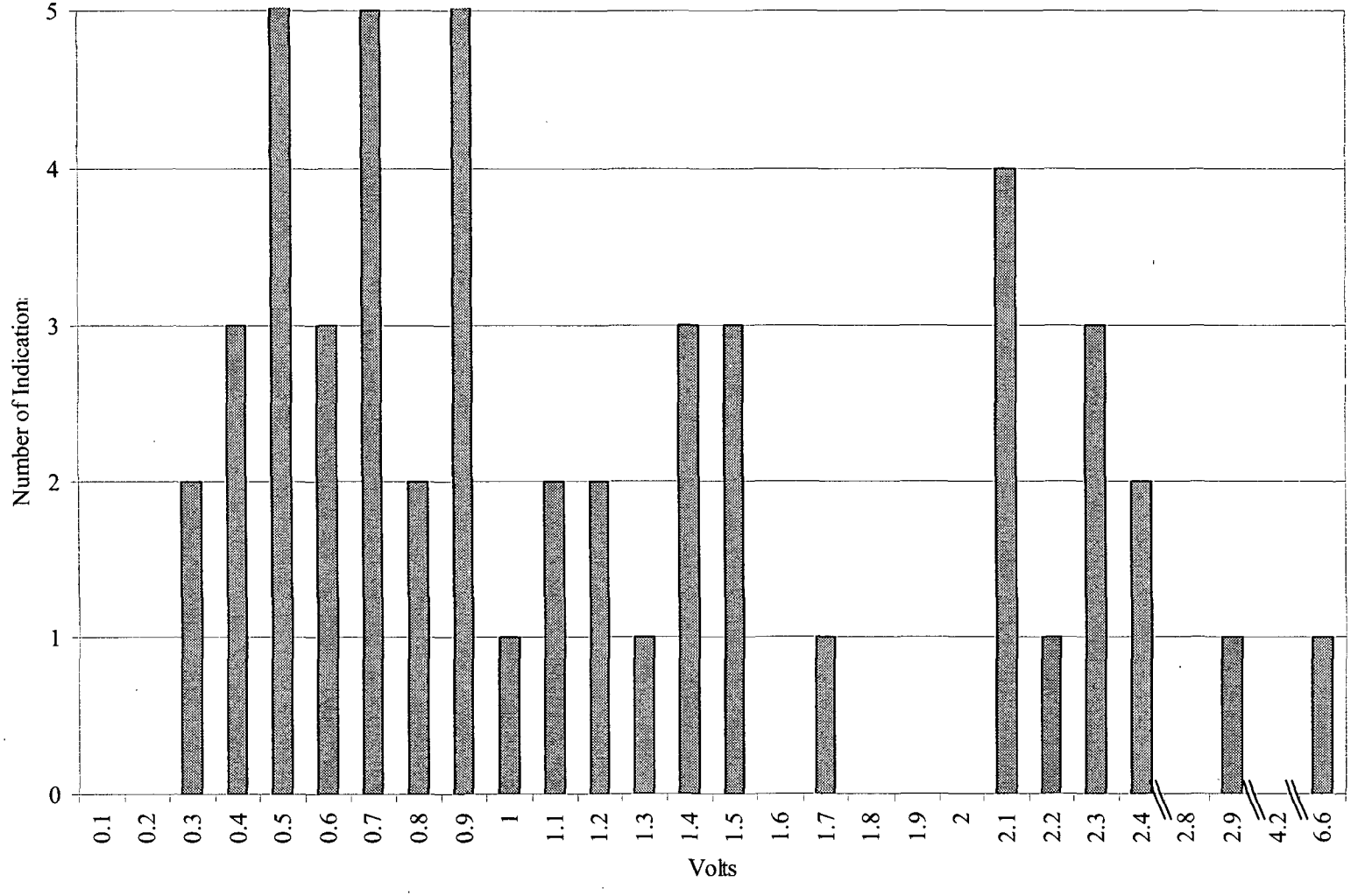

Figure 3-8: Sequoyah-2 EOC-16 Repaired Indications, SG4

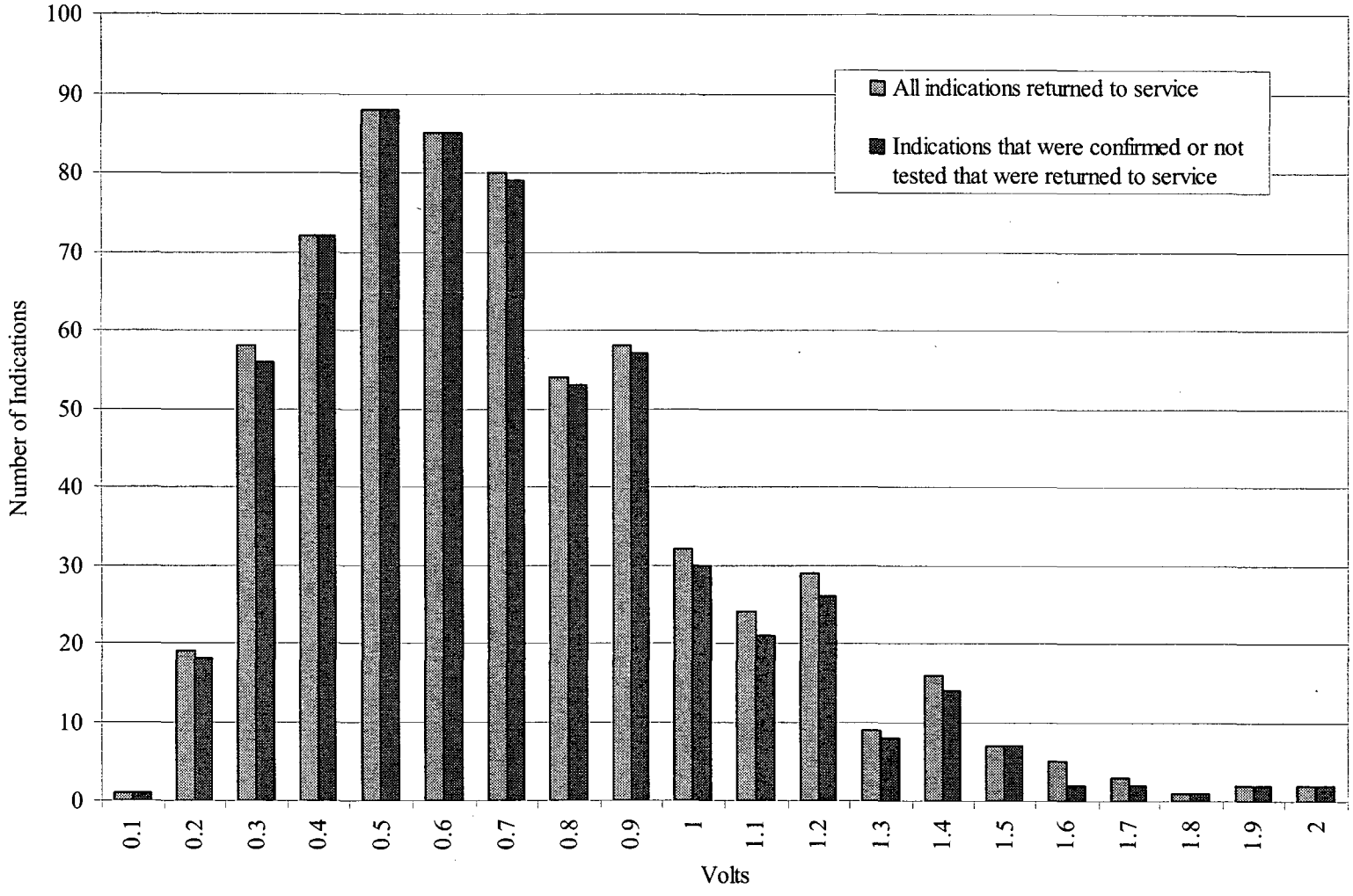

Figure 3-9: Sequoyah-2 EOC-16 Indications Returned to Service, SG1

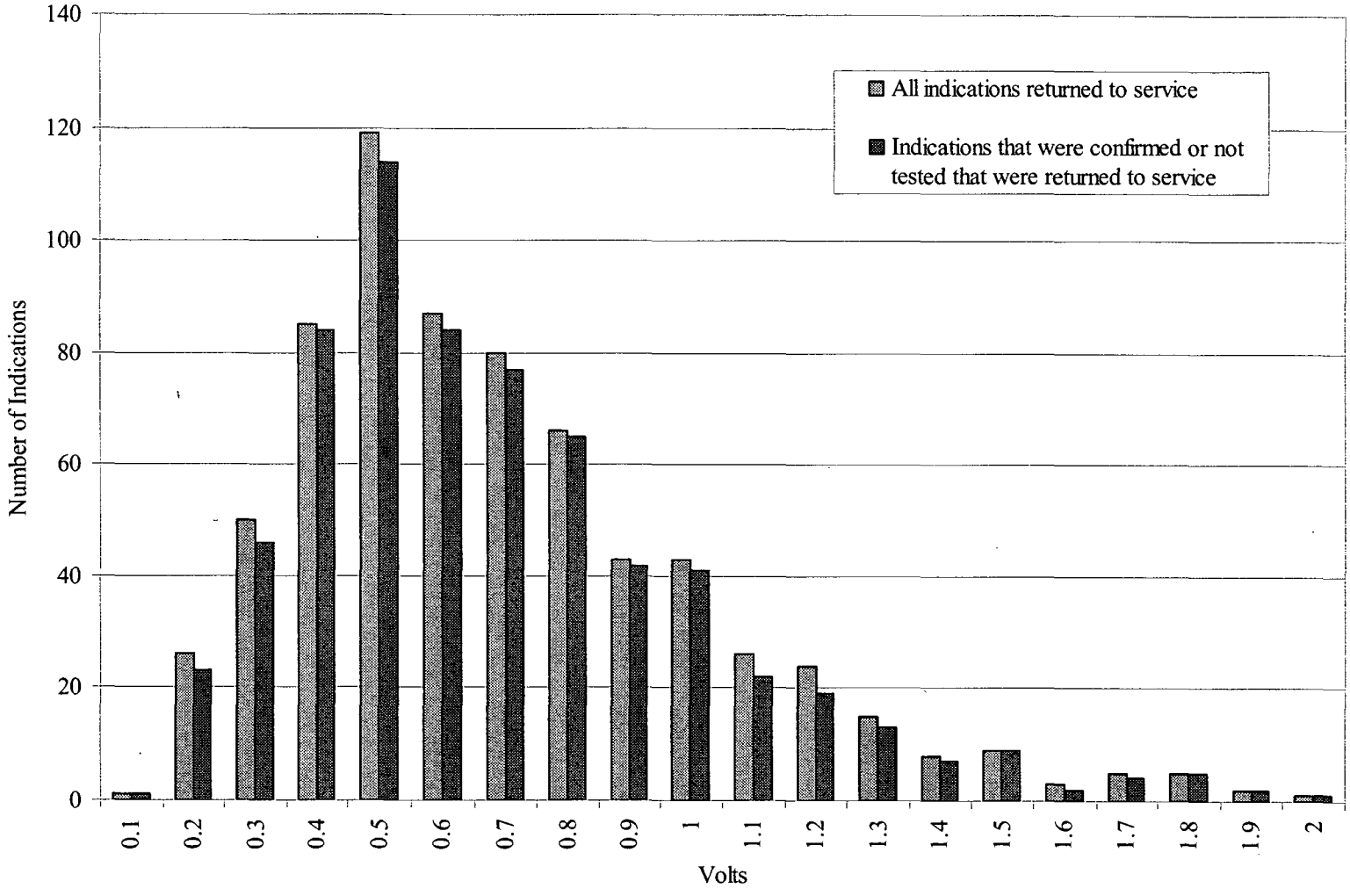

Figure 3-10: Sequoyah-2 EOC-16 Indications Returned to Service, SG2

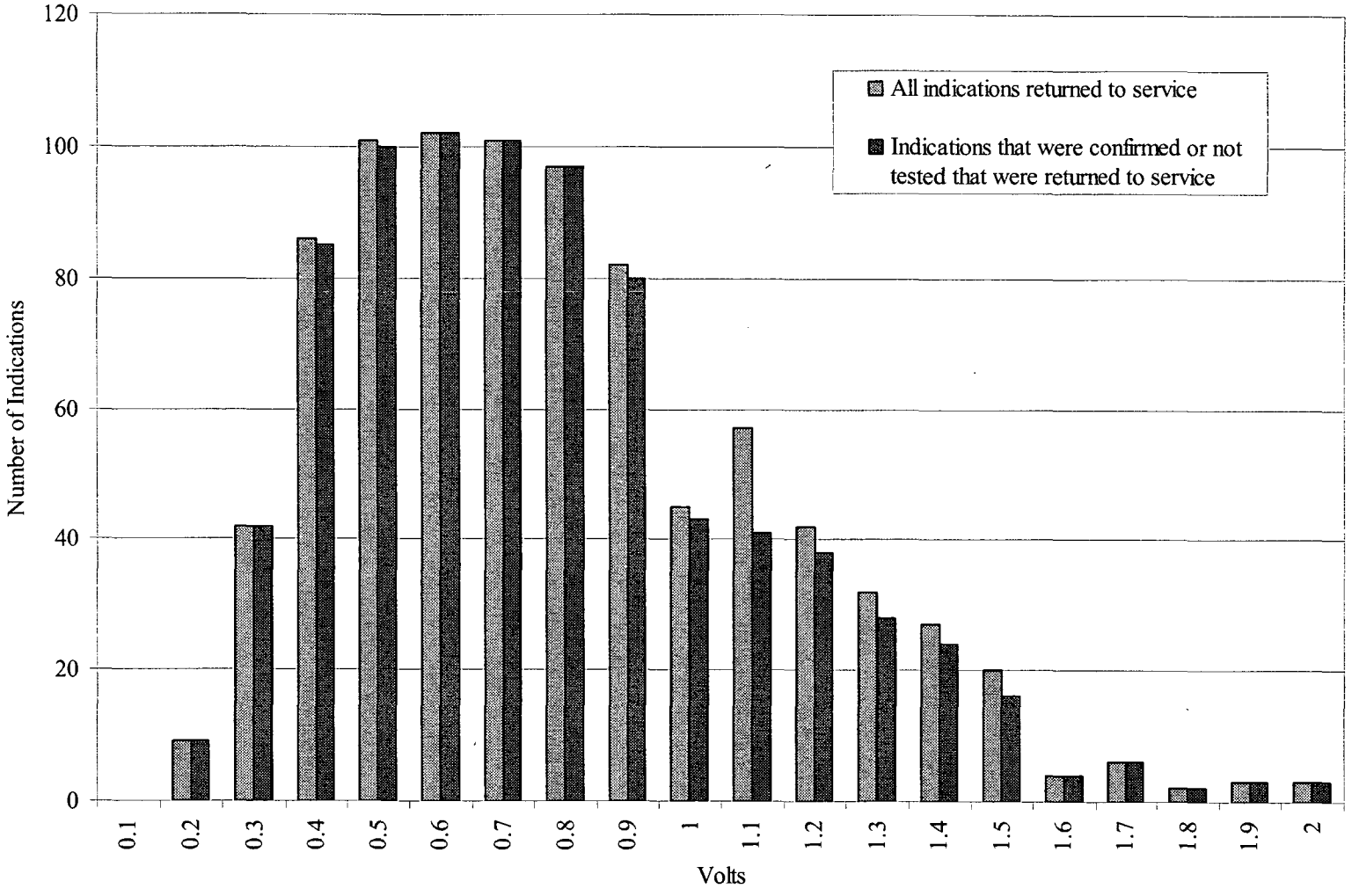

Figure 3-11: Sequoyah-2 EOC-16 Indications Returned to Service, SG3

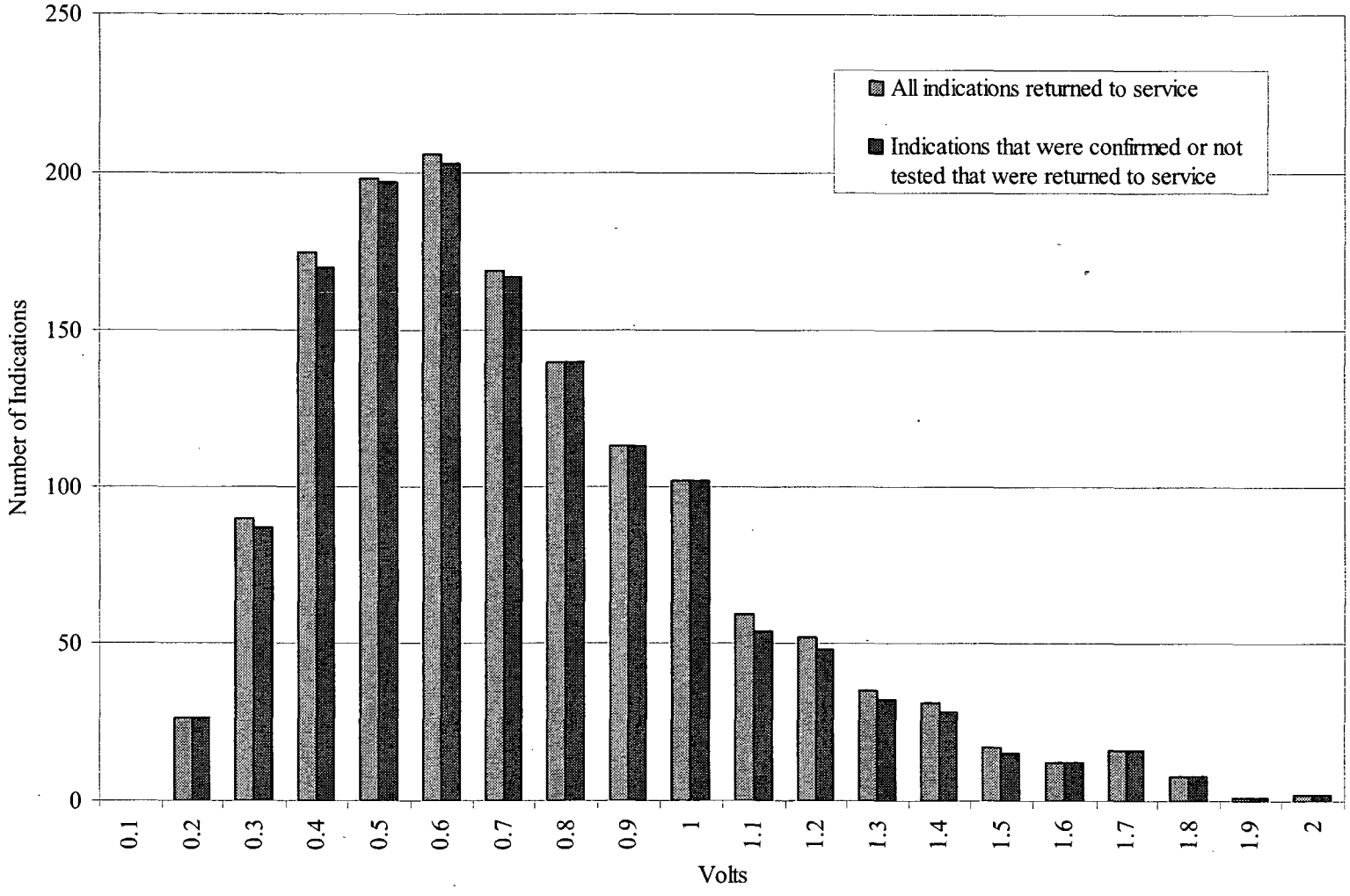

Figure 3-12: Sequoyah-2 EOC-16 Indications Returned to Service, SG4

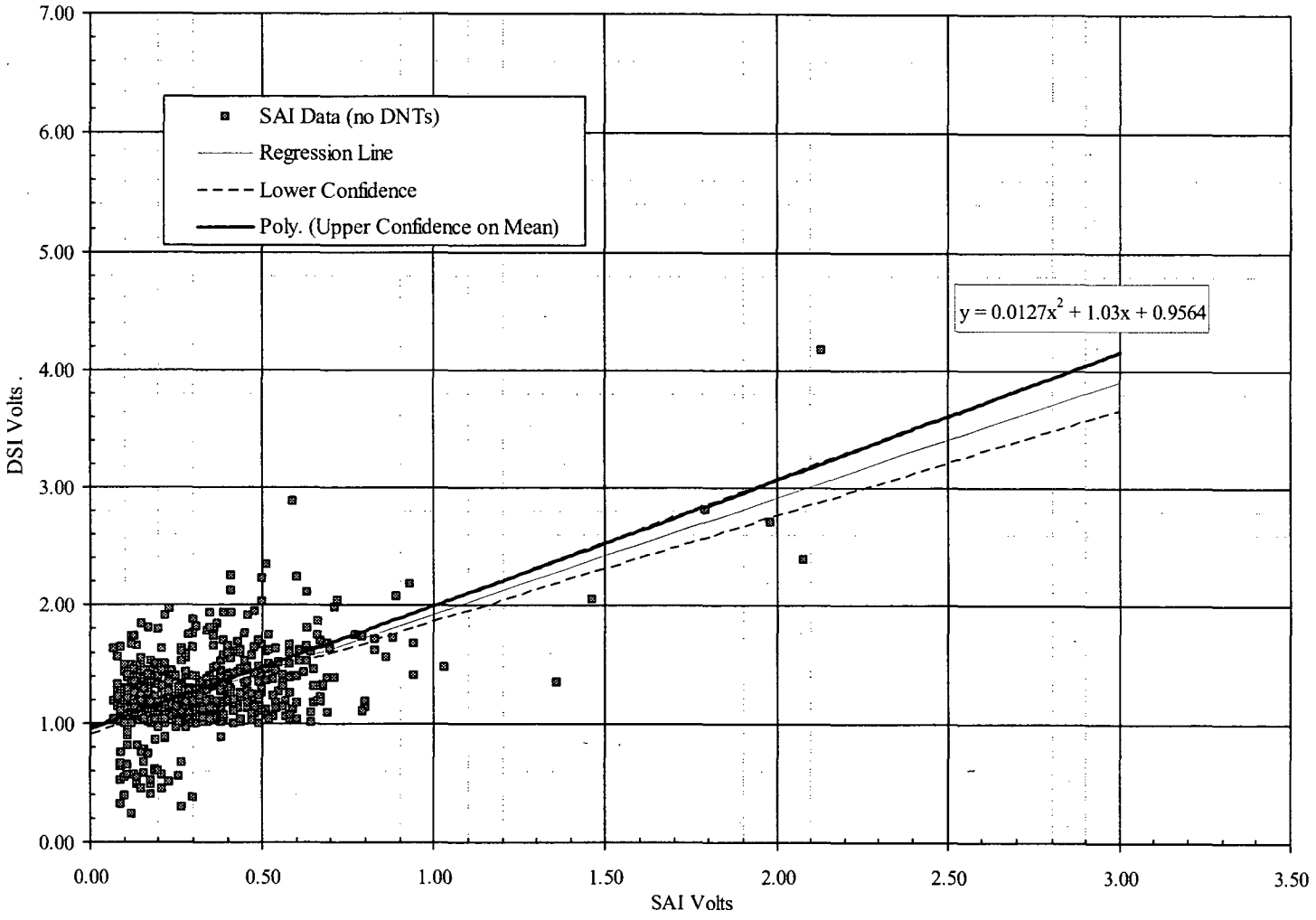

Figure 3-13: Imputed Bobbin Voltage Basis

3.2 VOLTAGE GROWTH RATES FOR CYCLE 16

Voltage growth was determined by the difference between the EOC-16 and EOC-15 voltages for each indication. The EOC-15 voltages were determined by historical reviews of the prior cycle data base and were established using the same techniques as used to analyze the EOC-16 data. The voltage change is for the 485.0 EFPD cycle length of Cycle 16. The voltage at EOC-15 is provided for indications detected at EOC-16 in Appendix A.

The procedure for computing the voltage change and binning the values is described in Reference 3. Negative voltage changes are included in the 0 change bin. Voltage change distributions for each steam generator are included in Table 3-5 through Table 3-8. These tables also include the average percent change in voltage, obtained for each steam generator by dividing the average change in volts (from EOC-15 to EOC-16) by the average EOC-15 voltage; for the average change in volts, negative voltage changes were retained as negative voltages rather than zero volts. An EOC-16 specific growth rate distribution that bound all four steam generators was used as considered; the EOC-16 bounding growth rate distribution is shown in Table 3-9. A comparison of the steam generator specific growth rates and the EOC-16 bounding growth rate is shown in Figure 3-14 and the tail end is shown in detail in Figure 3-15.

Figure 3-16 presents a comparison of the bounding growth rates from Cycle 15 with that from Cycle 16. The data has been normalized to a 1 EFPY basis (365.25 EFPD). Figure 3-17 provides a detailed view of the tail of the curve. From these figures it is shown that the growth rate in Cycle 16 bounds that from Cycle 15, thus the Cycle 16 growth rate is used in the projections.

Figure 3-18 presents a plot of the voltage growth as a function of the BOC voltage for the composite of all steam generators. Figure 3-19 through Figure 3-22 present plots of the voltage growth as a function of the BOC voltage for each of the individual steam generators. A regression line of the data is also included with each.

A condition for considering the use of BOC voltage dependent growth (VDG) in the operational assessment, in combination with POPCD, was suggested in Reference 11 as:

"If the slope is greater than about 0.1, then VDG should be considered in the operational assessment projection for the next cycle..... If the slope is only slightly positive, then engineering judgment should be used to determine if VDG needs to be included in the analyses"

The slopes of the voltage growth were negative for all four steam generators (thus less than the +0.1 criteria), indicating that VDG was not observed in any of the four steam generators at Sequoyah Unit 2. The negative slopes indicate that VDG will not have a significant effect on the operational assessment results, especially considering the conservatism inherent in the use of the traditional POD = 0.6.

Table 3-5: Voltage Changes from EOC-15 to EOC-16, SG1

SG1		
Change in Volts	Number of Indications	Cumulative Distribution
0	252	0.3847
0.1	212	0.7084
0.2	114	0.8824
0.3	37	0.9389
0.4	19	0.9679
0.5	11	0.9847
0.6	4	0.9908
0.7	1	0.9924
0.8	2	0.9954
1.1	1	0.9969
1.4	1	0.9985
2	1	1
Total	655	

Average change = growth / EOC-15 volts = 8.5%

Table 3-6: Voltage Changes from EOC-15 to EOC-16, SG2

SG2		
Change in Volts	Number of Indications	Cumulative Distribution
0	298	0.4215
0.1	189	0.6888
0.2	119	0.8571
0.3	45	0.9208
0.4	29	0.9618
0.5	12	0.9788
0.6	5	0.9859
0.7	3	0.9901
0.8	1	0.9915
0.9	3	0.9958
1	1	0.9972
1.1	1	0.9986
1.4	1	1
Total	707	

Average change = growth / EOC-15 volts = 5.0%

Table 3-7: Voltage Changes from EOC-15 to EOC-16, SG3

SG3		
Change in Volts	Number of Indications	Cumulative Distribution
0	341	0.3893
0.1	267	0.6941
0.2	151	0.8664
0.3	65	0.9406
0.4	23	0.9669
0.5	17	0.9863
0.6	6	0.9932
0.7	1	0.9943
0.8	2	0.9966
0.9	1	0.9977
1.3	1	0.9989
3	1	1
Total	876	

Average change = growth / EOC-15 volts = 4.9%

Table 3-8: Voltage Changes from EOC-15 to EOC-16, SG4

SG4		
Change in Volts	Number of Indications	Cumulative Distribution
0	518	0.3442
0.1	501	0.6771
0.2	251	0.8439
0.3	129	0.9296
0.4	44	0.9588
0.5	27	0.9767
0.6	14	0.9860
0.7	5	0.9894
0.8	4	0.9920
0.9	4	0.9947
1	2	0.9960
1.1	1	0.9967
1.2	2	0.9980
1.3	1	0.9987
1.7	1	0.9993
6.2	1	1
Total	1505	

Average change = growth / EOC-15 volts = 8.0%

Table 3-9: Voltage Changes from EOC-15 to EOC-16, Bound of All SGs

Change in Volts	Bounding Cumulative Distribution
0	0.3442
0.1	0.6771
0.2	0.8439
0.3	0.9208
0.4	0.9588
0.5	0.9767
0.6	0.9859
0.7	0.9894
0.8	0.9915
0.9	0.9947
1	0.9954
1.1	0.9967
1.2	0.9969
1.3	0.9969
1.4	0.9985
1.7	0.9985
2	0.9989
3	0.9993
6.2	1

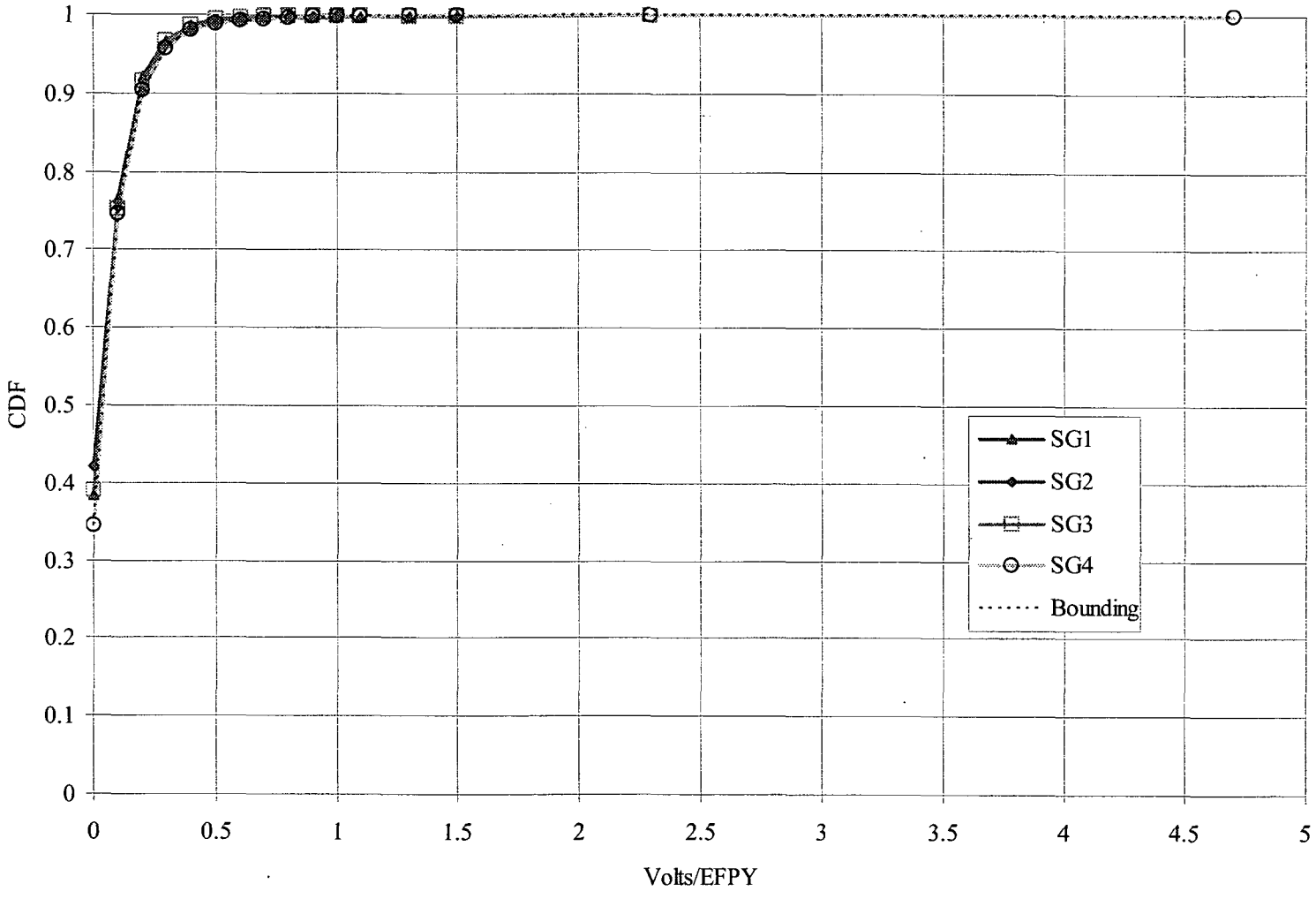

Figure 3-14: Sequoyah-2 Voltage Growth Rate for Cycle 16

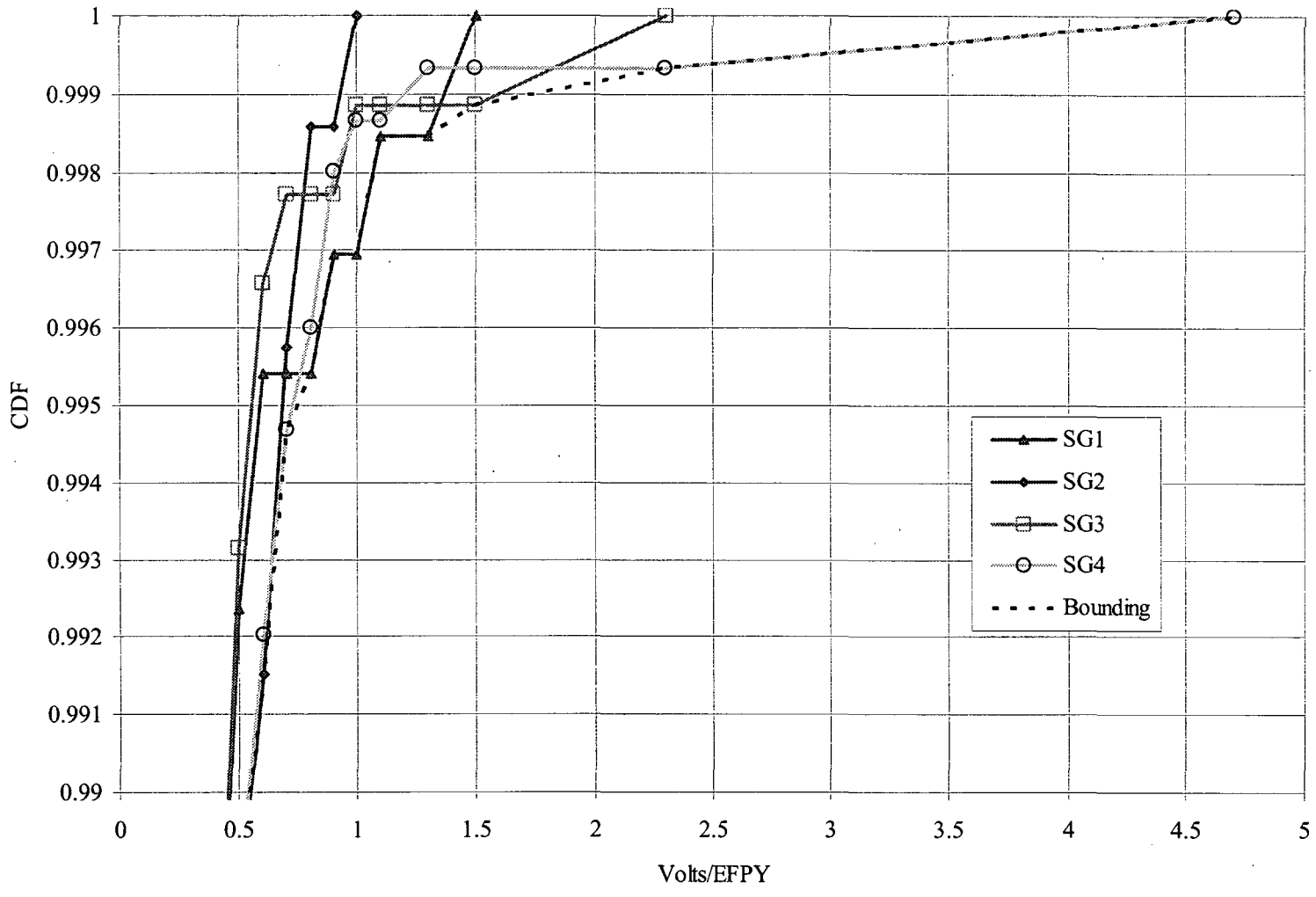

Figure 3-15: Sequoyah-2 Voltage Growth Detail

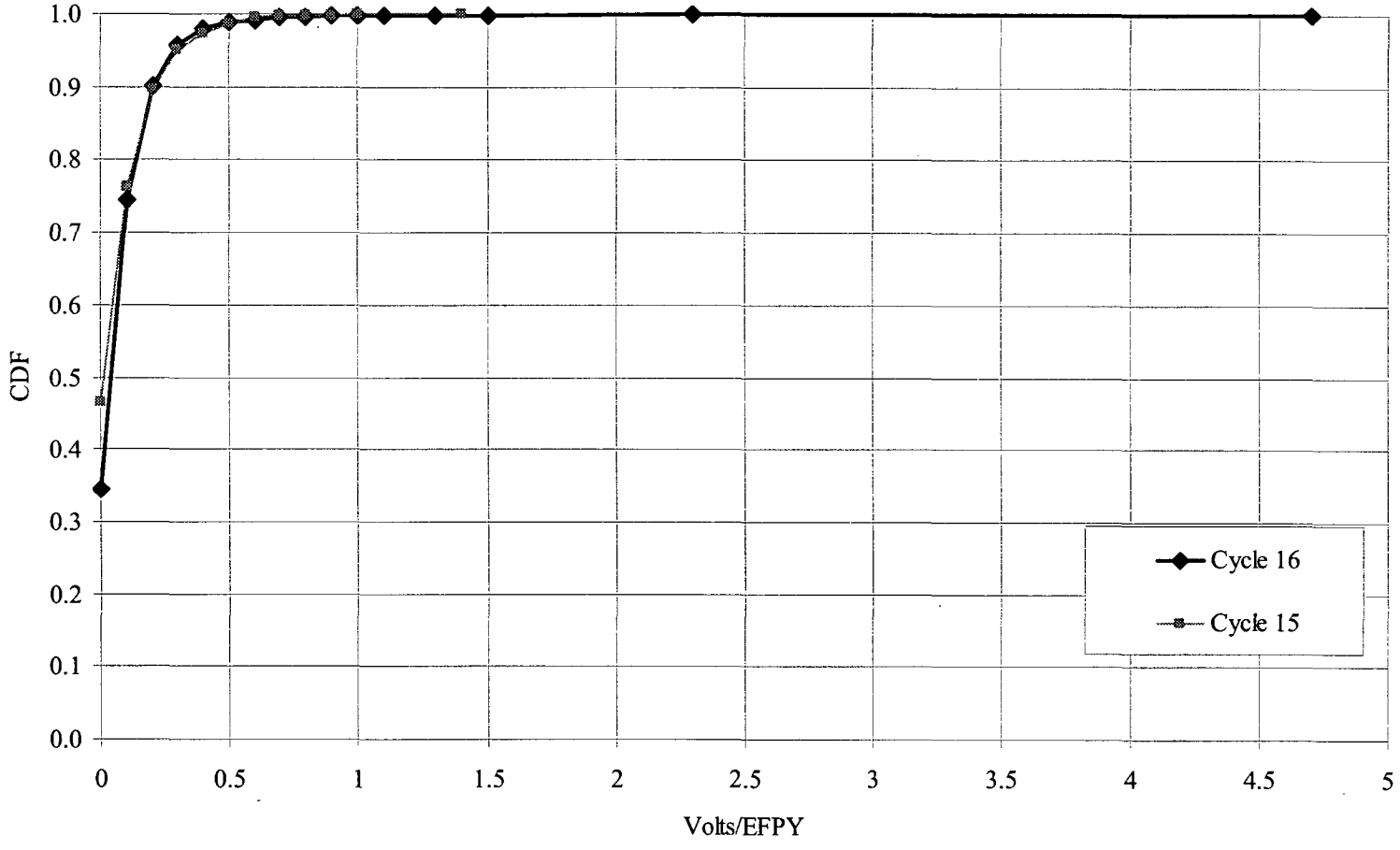

Figure 3-16: Cycle 15 and Cycle 16 Bounding Growth Rates, per EFPY

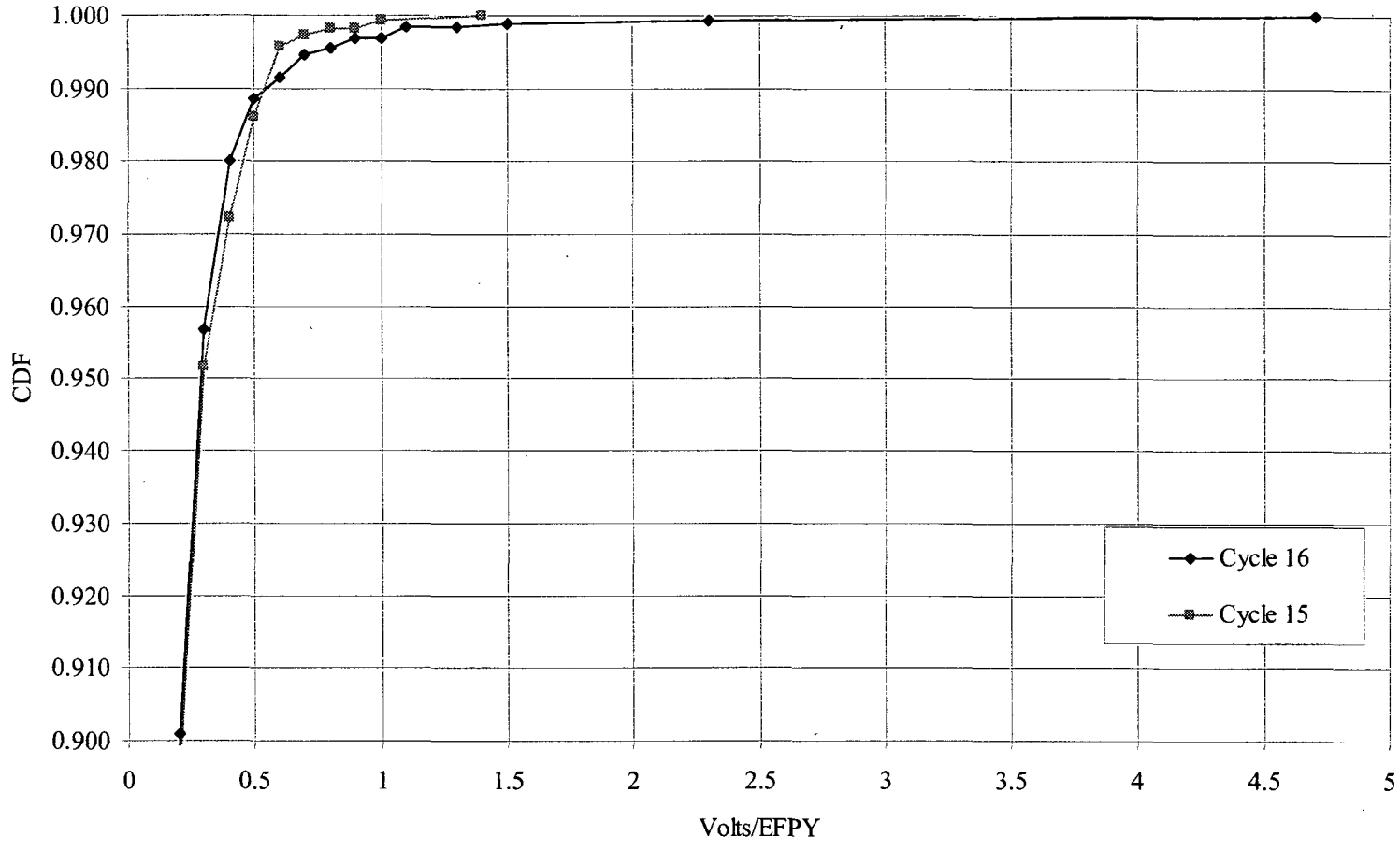

Figure 3-17: Cycle 15 and Cycle 16 Bounding Growth Rates, per EFPY, Detail View

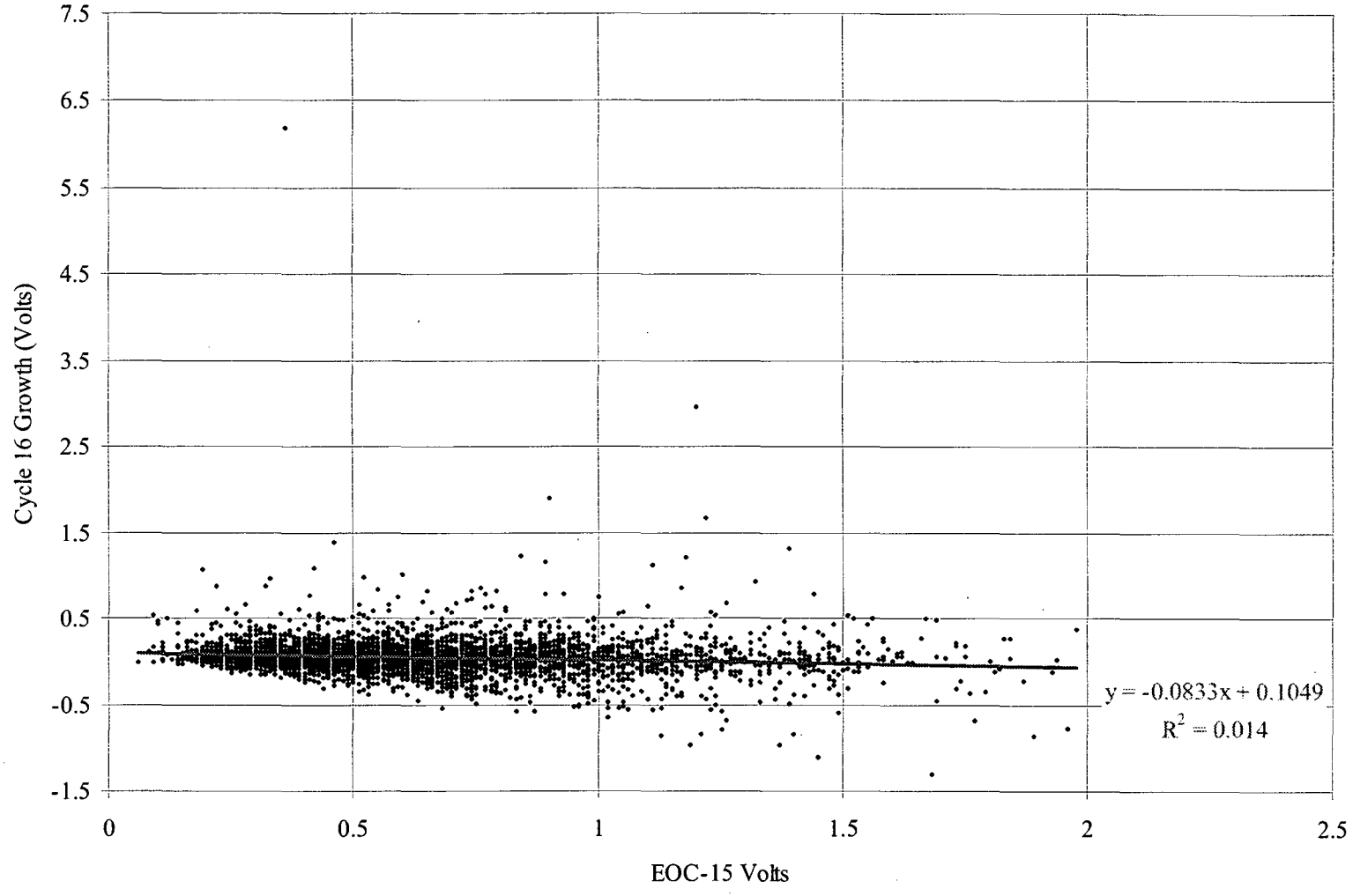

Figure 3-18: Growth as a Function of BOC Voltage for All SGs

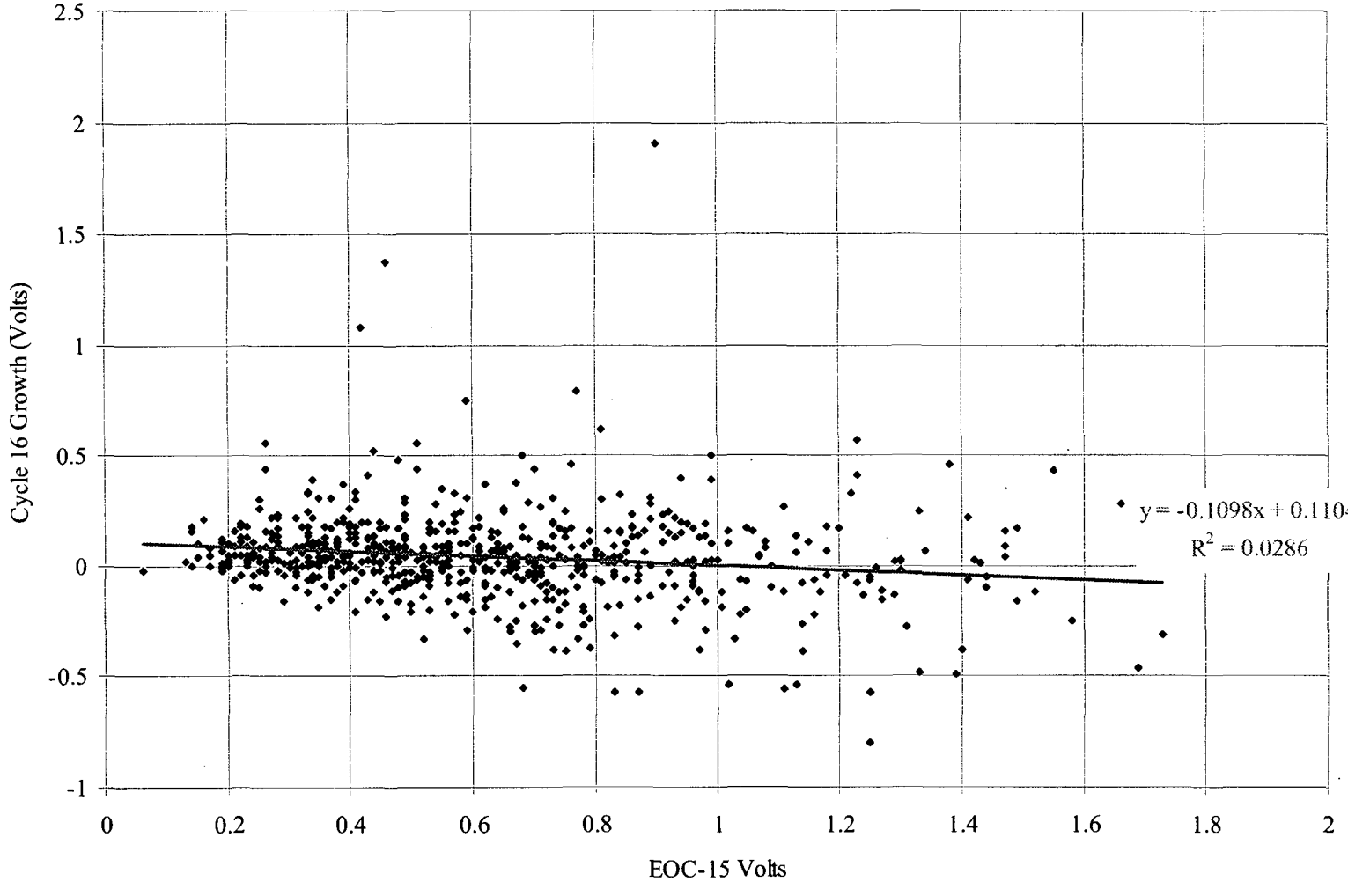

Figure 3-19: Growth as a Function of BOC Voltage for SG1

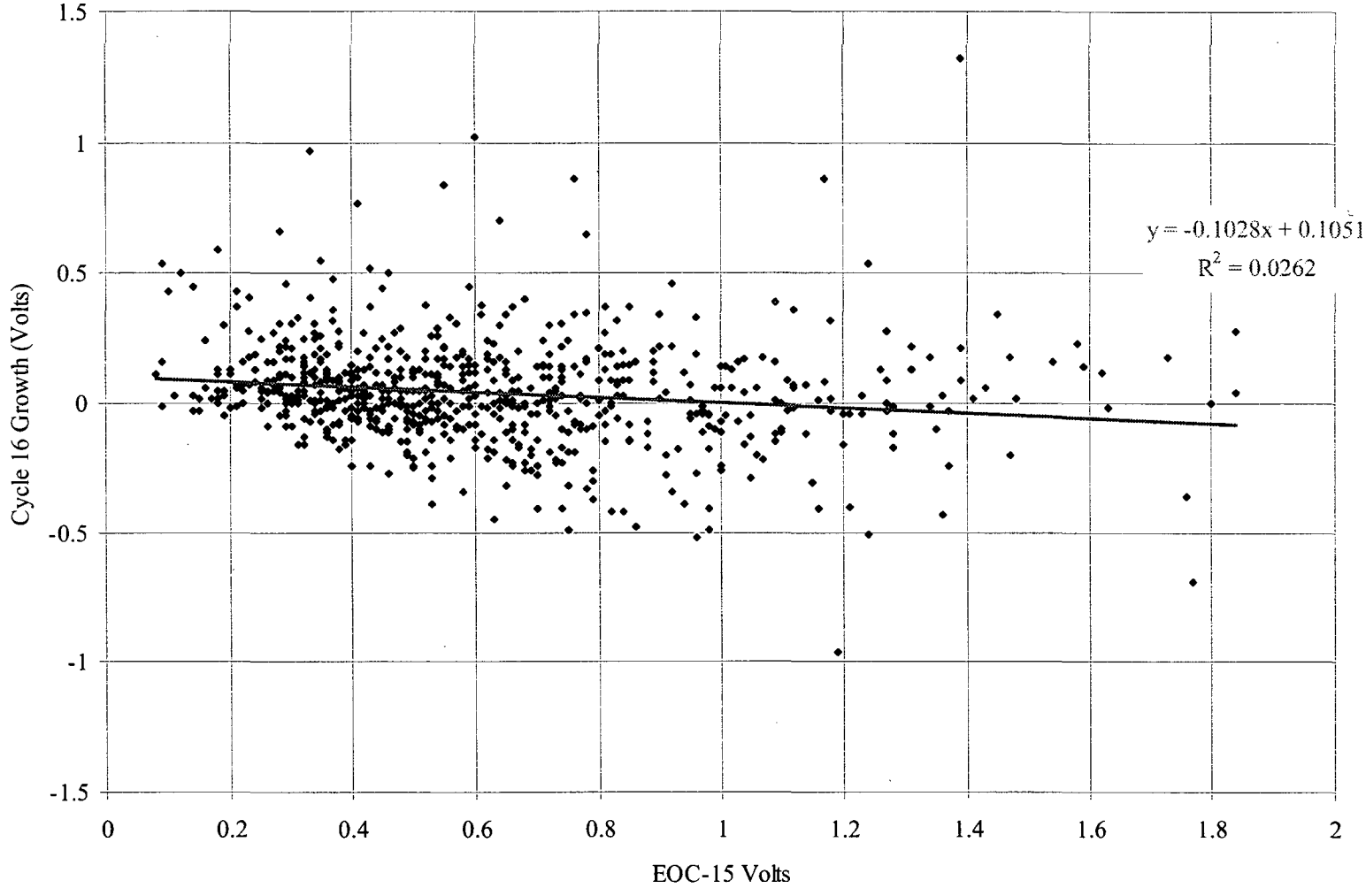

Figure 3-20: Growth as a Function of BOC Voltage for SG2

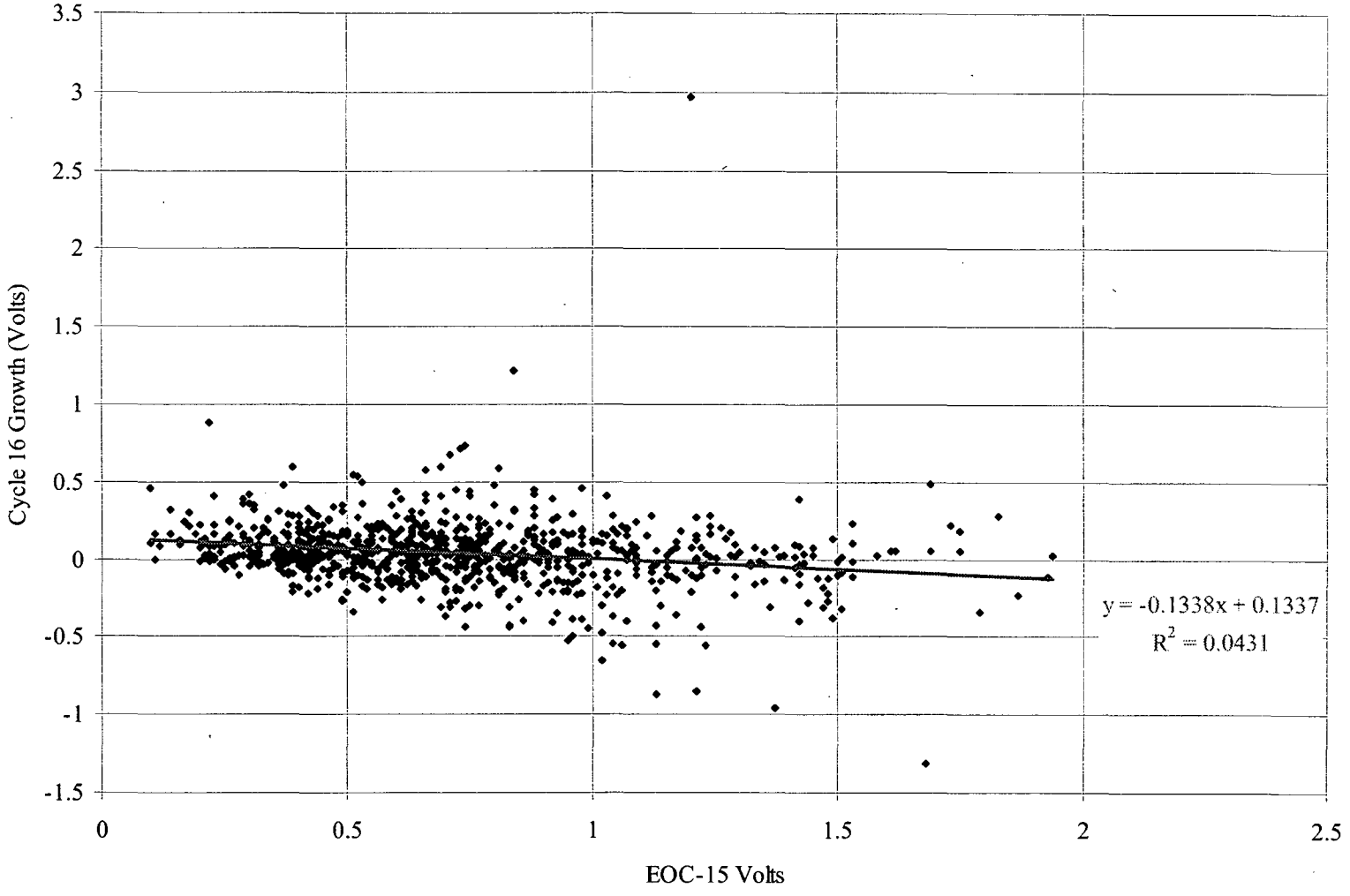

Figure 3-21: Growth as a Function of BOC Voltage for SG3

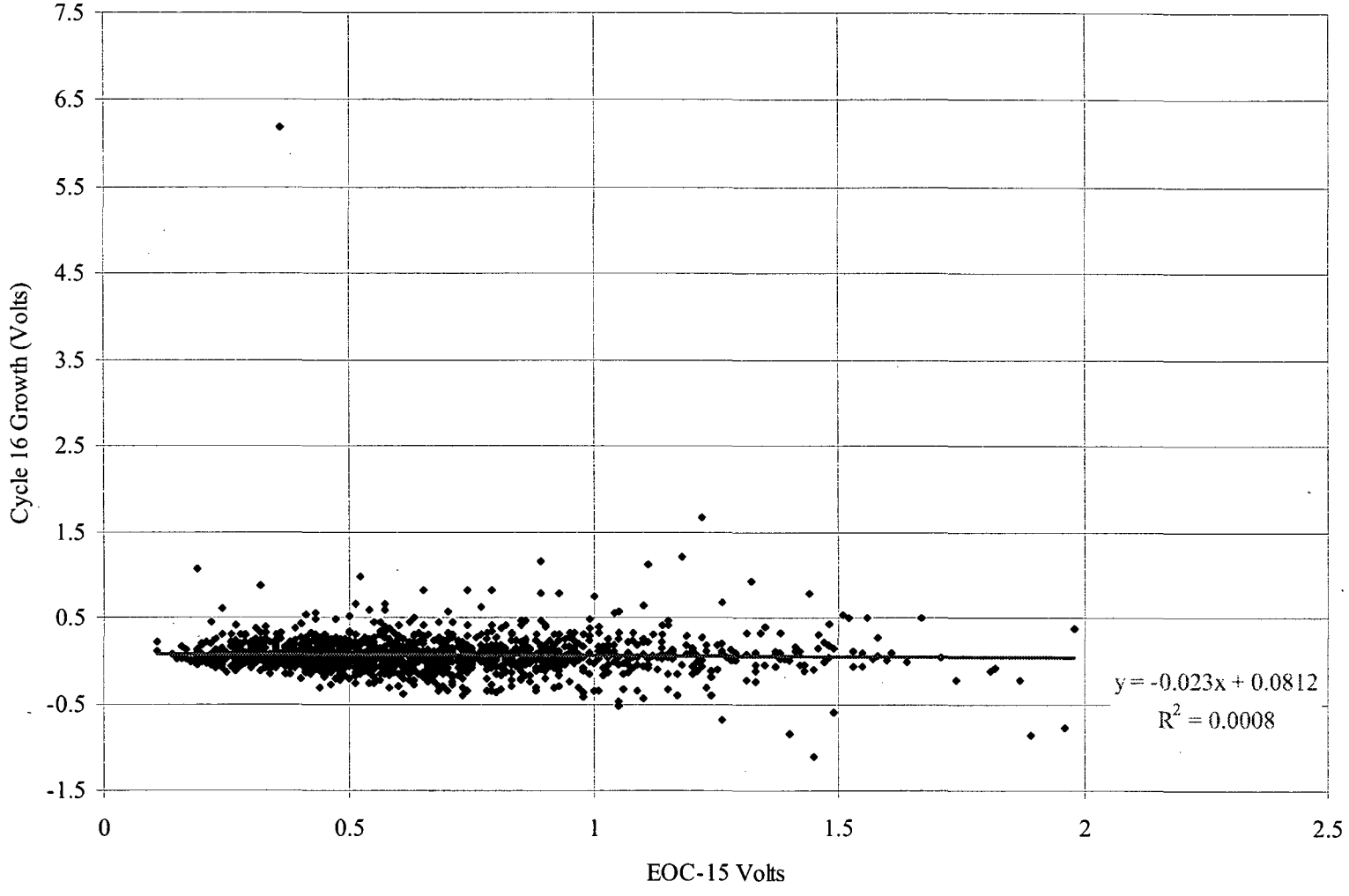

Figure 3-22: Growth as a Function of BOC Voltage for SG4

4.0 ANALYSIS METHODS AND DATA BASE FOR ARC CORRELATIONS

A Monte Carlo based computer program was used to perform the calculations prescribed in GL 95-05 (Reference 1). The methodology for predicting the EOC voltage distribution and computing the probability of burst and leakage at accident conditions is based on the Westinghouse Topical Report, WCAP-14277, Revision 1 (Reference 3) supplemented by the changes in the leakage computation process that are discussed in Reference 8, as amended in Reference 9. The EOC voltage distribution, probability of burst and the leakage are computed using the Cyclesim3.2 program, Reference 10.

The predictions for EOC-16 recorded in Reference 5 used the tube burst and leakage correlations of Addendum 7 to EPRI Report NP-7480-L modified according to References 8 and 9. Both the condition monitoring assessment for EOC-16 and the operational assessment predicting the EOC-17 voltage distribution are also performed using the Addendum 7 database (Reference 6). Since Sequoyah Unit 2 can take credit for PORV actuation, the condition monitoring and operational assessments are performed using the leakage correlation for 2405 psi (Reference 2). The specific parameters used in the correlations are provided in Sections 4.1 through 4.4.

4.1 TUBE MATERIAL PROPERTIES

The tube material properties are provided in Table 4-1 of Reference 3 for 7/8-inch diameter tubes at 650°F. The parameters used in the analysis are the flow stress mean of 68.78 ksi and the flow stress standard deviation of 3.1725 ksi.

4.2 BURST CORRELATION

The burst pressure, P_b, is normalized to a material with a flow stress of 68.78 ksi, which is the mean of the 7/8-inch tube data appropriate for Sequoyah Unit 2. The correlation parameters shown in Table 4-1 below are taken from Reference 6.

Table 4-1: 7/8" Tube Burst Pressure vs. Bobbin Amplitude Correlation Parameters

$P_B = a_0 + a_1 \log(Volts)$	
Parameter	Addendum 7 Database Value
Intercept, a_0	7.4801
Slope, a_1	-2.4002
Index of Deter., r^2	79.67%
Std. Deviation, σ_{Error}	0.8802
Mean of Log(V)	0.3111
SS of Log(V)	51.6595
N (data pairs)	100
Str. Limit (2560 psi) (1)	7.51V
Str. Limit (2405 psi)	9.40V
p Value for a_1 (2)	$5.60 \cdot 10^{-36}$
Reference σ_f	68.78 ksi (3)

Notes: (1) Values reported correspond to applying a safety factor of 1.4 on the differential pressure associated with a postulated SLB event.

(2) Numerical values are reported only to demonstrate compliance with the requirement that the value be less than 0.05.

(3) This is the flow stress value to which all data were normalized prior to performing the regression analysis. This affects the coefficient and standard error values. The corresponding values for a flow stress of 75.0 ksi can be obtained from the above values by multiplying by 1.0904.

4.3 LEAK RATE CORRELATION

The leak rate correlation as a function of indication voltage is taken from Reference 6. The steam line break pressure is given as 2405 psi in Reference 2. Therefore the leak correlation for pressure of 2405 psi from Reference 6 is used for the leakage predictions. The parameters are shown in Table 4-2.

The leak rate criterion is given in terms of gallons per minute condensed at room temperature.

Table 4-2: 7/8" Tube Leak Rate vs. Bobbin Amplitude Correlation Parameters

$Q = 10^{[b_3 + b_4 \log(Volts)]}$	
Parameter	Addendum 7 Database Value
SLB ΔP = 2560 psi	
Intercept, b_3	-0.33476
Slope, b_4	0.95311
Index of Determination, r^2	12.4%
Residuals, σ_{Error} (b_5)	0.8175
Mean of Log(Q)	0.7014
SS of Log(Q)	22.8754
p Value for b_4	2.4%
SLB ΔP = 2405 psi	
Intercept, b_3	-0.8039
Slope, b_4	1.2077
Index of Determination, r^2	20.0%
Residuals, σ_{Error} (b_5)	0.7774
Mean of Log(Q)	0.5090
SS of Log(Q)	22.6667
p Value for b_4	0.5%
Common Data	
Data Pairs, N	32
Mean of Log(V)	1.0871
SS of Log(V)	3.1116

4.4 PROBABILITY OF LEAK CORRELATION

The probability of leak as a function of indication voltage is taken from Reference 6. The parameters are shown in Table 4-3. In the Monte Carlo analysis leakage is quantified only if the indication is computed to be a leaker, based on the probability of leak correlation.

Table 4-3: 7/8" Tube Probability of Leak Correlation Parameters

$$\Pr(\ Leak\ ) = \frac{1}{1 + e^{-[b_1 + b_2 \log(Volts)]}}$$

Parameter	Addendum 7 Database Value
Logistic Intercept, b_1	-4.9847
Logistic Slope, b_2	7.6110
Intercept Variance, V_{11} (1)	1.2904
Covariance, V_{12}	-1.7499
Slope Variance, V_{22}	2.8181
Number of Data, N	120
Deviance	33.66
Pearson SD	62.9%
MSE	0.285

Note: (1) Parameters V_{ij} are the elements of the covariance matrix of the coefficients, β_i, of the regression equation.

4.5 NDE UNCERTAINTIES

The NDE uncertainties applied for the EOC-16 and EOC-17 voltage projections are the same as used in the previous 90-day report, Reference 5, and described in Reference 3. The probe wear uncertainty has a standard deviation of 7% about a mean of zero and has a cutoff at 15% based on implementation of the probe wear standard. The analyst variability uncertainty has a standard deviation of 10.3% about a mean of zero with no cutoff. These NDE uncertainty distributions are used in the Monte Carlo analysis to predict the burst probabilities and accident leak rates at EOC-16, and EOC-17. The voltages reported were adjusted to account for differences between the laboratory standard and the standard used in the field.

4.6 UPPER VOLTAGE REPAIR LIMIT

The upper voltage repair limit is based on the structural limit in Table 4-1 of 7.51 volts for an accident pressure of 2560 psi. It must be reduced by considering the projected voltage growth during the next cycle and NDE uncertainty. The maximum average percentage growth rate for any steam generator is seen from Table 3-5 (SG3) to be 8.5% for the 485.0 EFPD Cycle 16, which would project to 8.5% x (499.9/485.0) = 8.76% for the anticipated 499.9 EFPD Cycle 17. According to Reference 1, the minimum growth adjustment is 30% per EFPY (41.1% per cycle for the anticipated 499.9 EFPD Cycle 17). Therefore the specific maximum growth value of 41.1% and 20% for NDE uncertainty was used to estimate the voltage repair limit. This results in an upper voltage repair limit of 7.51 / (1 + 0.411 + 0.20) = 4.66 volts. No indications equal to or greater than this voltage were left in service.

4.7 PROBE WEAR

An alternate probe wear criteria, approved by the NRC (Reference 7), was applied during the EOC-16 inspection. When a probe does not satisfy the ±15% voltage variability criteria for wear, this alternate criteria requires that all tubes that have indications above 75% of the repair limit inspected since the last successful probe wear check be re-inspected with a good probe. All probes that failed the wear check were immediately replaced with a new probe. In accordance with this alternate probe wear criteria, the whole tube was re-inspected with a good probe when any indication in the tube exceeded 75% of the repair limit. As the repair limit for Sequoyah-2 is 2 volts, all tubes that contained worn probe indications above 1.5 volts were re-inspected with a new probe. In all retests, the signal amplitude obtained with the new probe was used to define the DSI voltage for EOC-16 for all indications in the retested tube.

A total of 50 indications with a bobbin DSI voltage above 1.5 volts were found in the calibration groups that failed the probe wear check (these indications were called as 'RPW'), and the tubes containing those indications were re-inspected with a new probe. Some of the probes used in the re-inspection were also found to be out of calibration and in those cases a second (or third) RPW was called and another re-inspection was performed. The tubes and the RPW and subsequent DSI voltage are shown in Table 4-4. Some of these retested tubes also had indications with DSI volts less than 1.5; the DSI voltage call from the good probe was used for those indications. Three new indications were detected on retest with DSI voltage of less than 0.6 volts as shown in Table 4-5.

Figure 4-1 shows the good probe voltages plotted against the worn probe voltages for all four SGs. Figure 4-2 and Figure 4-3 show different regions of Figure 4-1 in greater detail. From Figure 4-2 it is seen that several indications with an RPW voltage less than the repair criterion of 2 volts upon retest had DSI indications near or slightly exceeding 2 volts. From Figure 4-3, it is seen that no indications with RPW voltage less than 1.5 volts had final DSI indications exceeding 2 volts. This comparison indicates that the retest criterion of 1.5 volts is reasonable.

The indications found in the current inspection that were tested with a worn probe in the previous (EOC-15) inspection were identified. A summary of these results are given in Table 4-6 through Table 4-10. The distribution of DSI voltages for new indications in EOC-16 in tubes tested with worn probes in EOC-15 and new indications in EOC-16 in tubes tested with good probes in EOC-15 are shown in Figure 4-4 through Figure 4-7. The figures show a slight increase in the voltages of new DSIs previously tested with a worn probe, but this difference is sufficiently small that it is concluded that these two groups of indications are from the same population.

Table 4-4: Re-Tested Tubes Due to Probe Calibration

SG	Row	Col	Support	RPW Volts	Second RPW Volts	Third RPW Volts	Final DSI Volts
1	22	48	H01	1.7			1.45
	27	48	H01	1.35			0.58
			H02	1.84			1.34
	27	52	H01	1.5			1.05
	29	52	H02	2.05			1.8
	10	77	H01	1.89			1.84
			H02	0.61			1.5
			H03	0.7			0.86
			H04	1.62			1.34
2	41	34	H02	1.73			1.62
	23	49	H01	1.52			1.48
	11	67	H02	1.67			1.73
			H03	1.01			1.21
	27	68	H01	1.58			2.12
			H02	0.57			1.08
	23	73	H02	1.58			1.74
	30	74	H02	1.57			1.91
3	26	14	H01	1.65			1.44
	21	24	H01	1.6			1.4
	36	24	H01	1.8			1.82
	31	28	H01	1.65			1.52
			H04	0.99			1.0
	23	30	H01	1.6			1.4
	20	32	H01	1.87	1.66		1.45
			H05	0.58	0.77		0.65
	26	35	H01	1.58			1.42
	43	36	H01	1.79			1.42
	18	37	H01	1.53			1.01
			H02	0.95			0.35
	14	39	H01	2.04	2.21		2.11
			H03	0.54	0.57		0.69
			H04	0.99	0.79		0.62
	17	87	H01	0.39			0.36
			H02	1.65			1.16
			H04	0.54			0.66

(continued on next page)

Table 4-4: Re-Tested Tubes Due to Probe Calibration (continued)

SG	Row	Col	Support	RPW Volts	Second RPW Volts	Third RPW Volts	Final DSI Volts
4	17	27	H01	1.63			1.74
			H03	0.32			0.33
	5	28	H01	1.53			1.38
			H02	0.99			0.97
	20	29	H02	1.84			1.94
			H04	0.6			0.53
	12	30	H01	1.6	1.76	1.84	1.61
	20	30	H02	1.59	1.79		1.74
	28	30	H02	1.83	2.25	1.87	2.04
	29	30	H02	2.2	1.86		2.07
	12	32	H01	2.12	1.61		1.91
	20	32	H01	1.94	1.62		1.69
	18	33	H01	1.77			1.75
			H02	1.14			1.11
			H05	0.59			0.66
	22	33	H01	1.26			1.3
			H02	1.8			1.75
	8	34	H01	2.11			1.86
	20	34	H01	0.98			0.77
			H02	1.66			1.55
	5	35	H01	1.57			1.31
	9	35	H01	1.5			1.41
	12	36	H01	1.82	1.53		0.77
			H02	0.89	0.42		0.67
	20	37	H01	1.78			1.57
			H04	0.64			0.54
	9	38	H01	1.56			1.31
	12	38	H01	0.59	0.54		0.59
			H05	2.31	1.92		2.05

(continued on next page)

Table 4-4: Re-Tested Tubes Due to Probe Calibration (continued)

SG	Row	Col	Support	RPW Volts	Second RPW Volts	Third RPW Volts	Final DSI Volts
	8	41	H01	1.73			1.48
			H04	0.56			0.5
			H05	0.27			0.67
	9	42	H01	1.58			1.46
	7	48	H01	1.97			1.65
			H02	0.86			0.29
	23	54	H01	1.33			1.38
			H02	0.57			0.61
			H06	5.8			6.55
	2	67	H01	1.56			1.37
	2	76	H01	1.74			1.71
	4	82	H01	1.55			1.45
			H02	0.86			0.63
	8	83	H01	1.69			1.48
	8	85	H01	1.1			1.3
			H02	1.79			1.62
	8	92	H01	1.86			1.51
			H02	1.43			1.28
			H03	0.77			0.54
			H04	1.11			0.8

Table 4-5: New DSI Indications Identified by Re-Test with Good Probe

SG	Row	Col	Support	DSI Volts
4	20	30	H04	0.3
	12	32	H03	0.19
	20	32	H04	0.57

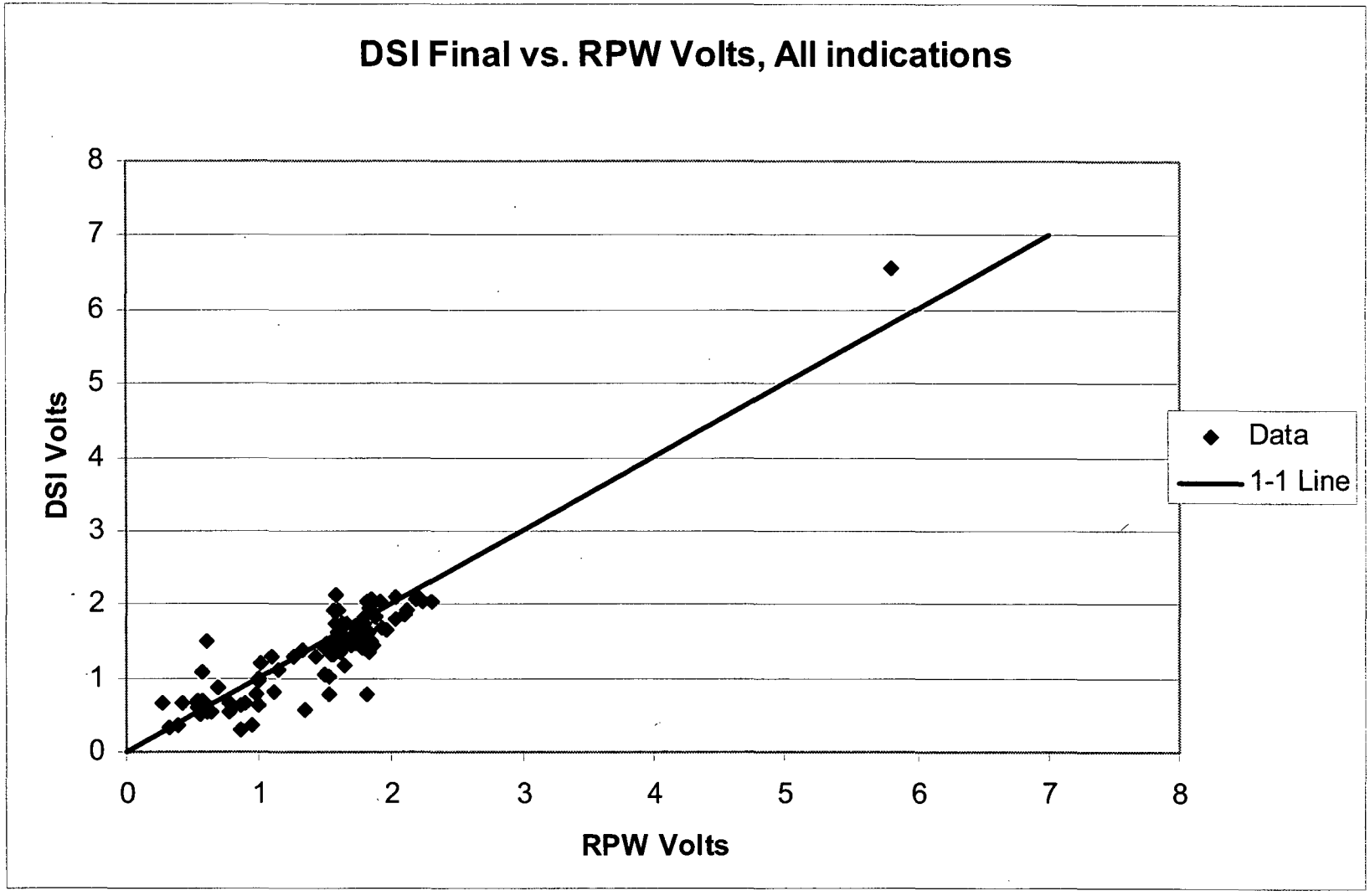

Figure 4-1: Retest DSI Voltage vs. First Test Voltage (RPW) of Indications Originally Measured with Worn Probe

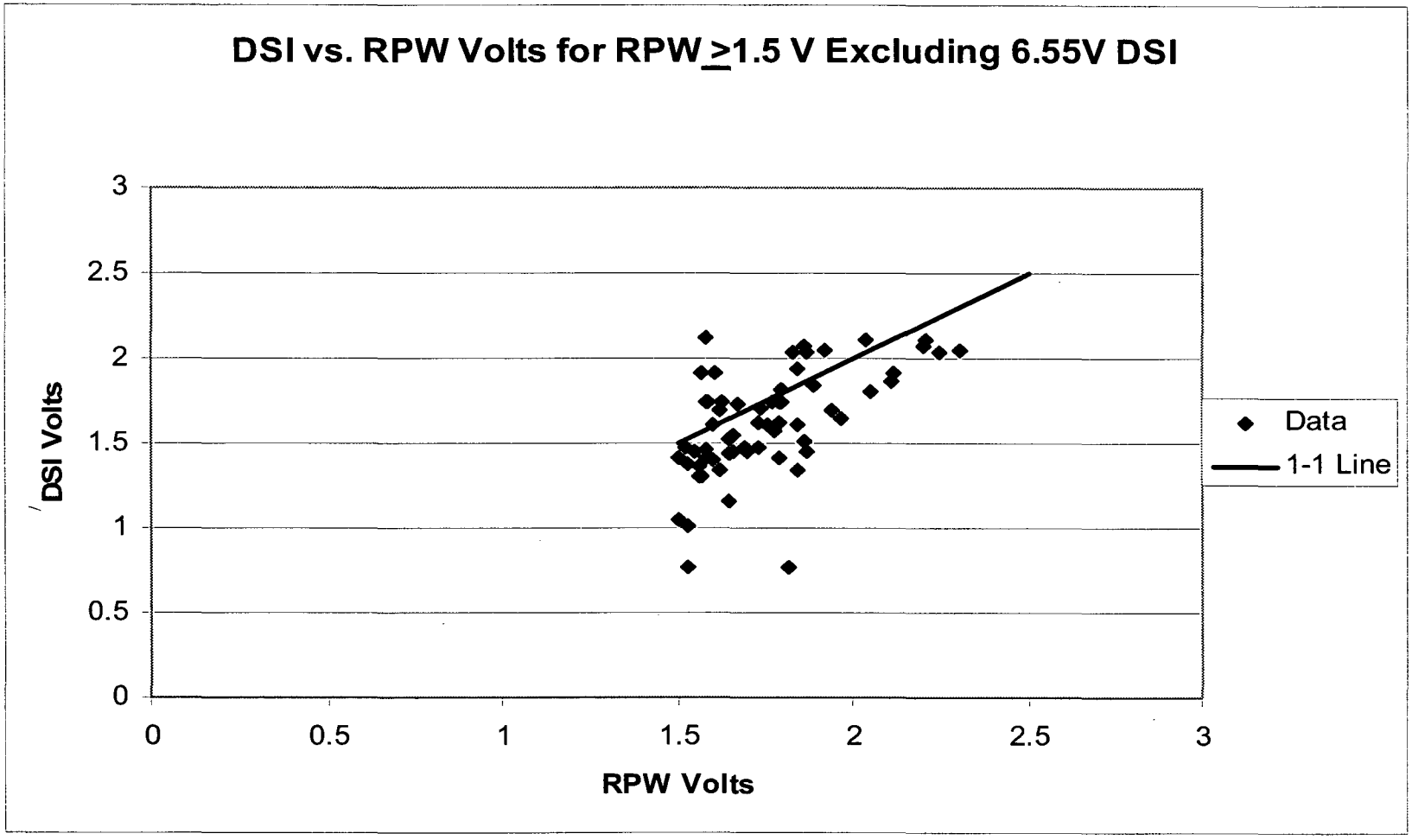

Figure 4-2: Retest DSI Voltage vs. RPW Voltage of Indications Originally Measured with Worn Probe (RPW ≥ 1.5V)

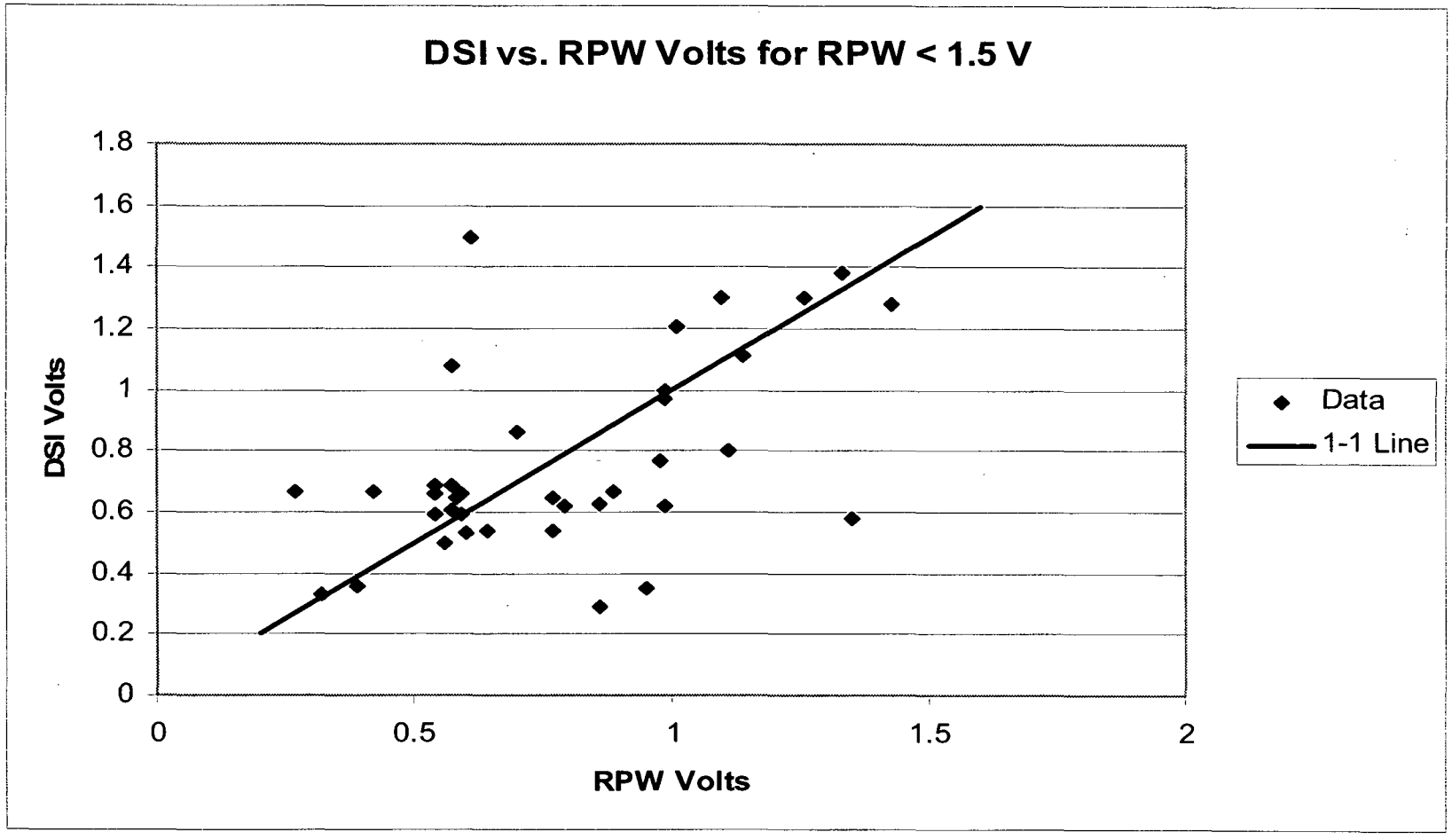

Figure 4-3: Retest DSI Voltage vs. RPW Voltage of Indications Originally Measured with Worn Probe (RPW < 1.5 V)

Table 4-6: Summary of SG1 Indications Found in the Current Inspection that were Tested with a Worn Probe in the Previous Inspection

Steam Generator 1		
Number of new indications in EOC-16		125
Worn Probe in EOC-15	Number of new indications tested with worn probe in EOC-15	25
	Number of these equal to or greater than 0.5 V in EOC-16	15
	Number of tubes tested with worn probe HL and CL	896
	Number of tubes tested with worn probe CL only	413 (no new)
Good Probe in EOC-15	Number of new indications tested with good probe in EOC-15	100
	Number of these equal to or greater than 0.5 V in EOC-16	52
	Number of tubes tested with good probe HL	2400
	Number of tubes tested with good probe CL	1987
Ratio of new indications in tubes tested with worn probe to number of tubes tested with a worn probe		25/896 = 0.028
Ratio of new indications in tubes tested with good probe to number of tubes tested with a good probe		100/2400= 0.042
Percentage of new indications equal to or greater than 0.5 V in tubes tested with worn probe		15/25 =60%
Percentage of new indications equal to or greater than 0.5 V in tubes tested with good probe		52/100 = 52%

Steam Generator 1		
Number of previous indications in EOC-16		530
Worn Probe in EOC-15	Number of previous indications tested with worn probe in EOC-15	132
	Number of these exceeding 2.0 V in EOC-16	0
	Highest voltage indication of these in EOC-16	1.8V

The distribution of DSI volts for new indications in tubes previously tested with good probes and worn probes respectively for SG1 are shown in Figure 4-4.

Table 4-7: Summary of SG2 Indications Found in the Current Inspection that were Tested with a Worn Probe in the Previous Inspection

Steam Generator 2		
Number of new indications in EOC-16		122
Worn Probe in EOC-15	Number of new indications tested with worn probe in EOC-15	77
	Number of these equal to or greater than 0.5 V in EOC-16	42
	Number of tubes tested with worn probe HL and CL	1074
	Number of tubes tested with worn probe CL only	77 (one new)
	Number of tubes tested with worn probe HL only	505
Good Probe in EOC-15	Number of new indications tested with good probe in EOC-15	45
	Number of these equal to or greater than 0.5 V in EOC-16	29
	Number of tubes tested with good probe HL	1612
	Number of tubes tested with good probe CL	2038
Ratio of new indications in tubes tested with worn probe to number of tubes tested with a worn probe (HL only)		76/1579 = 0.048
Ratio of new indications in tubes tested with good probe to number of tubes tested with a good probe (HL only)		45/1612= 0.028
Percentage of new indications equal to or greater than 0.5 V in tubes tested with worn probe		42/77 =54.5%%
Percentage of new indications equal to or greater than 0.5 V in tubes tested with good probe		52/100 = 64.4%

Steam Generator 2		
Number of previous indications in EOC-16		589
Worn Probe in EOC-15	Number of previous indications tested with worn probe in EOC-15	322
	Number of these exceeding 2.0 V in EOC-16	0
	Highest voltage indication of these in EOC-16	1.79V

The distribution of DSI volts for new indications in tubes previously tested with good probes and worn probes respectively for SG2 are shown in Figure 4-5.

Table 4-8: Summary of SG3 Indications Found in the Current Inspection that were Tested with a Worn Probe in the Previous Inspection

Steam Generator 3		
Number of new indications in EOC-16		173
Worn Probe in EOC-15	Number of new indications tested with worn probe in EOC-15	73
	Number of these equal to or greater than 0.5 V in EOC-16	47
	Number of tubes tested with worn probe HL and CL	930
	Number of tubes tested with worn probe CL only	165 (0 new)
	Number of tubes tested with worn probe HL only	137
Good Probe in EOC-15	Number of new indications tested with good probe in EOC-15	100
	Number of these equal to or greater than 0.5 V in EOC-16	64
	Number of tubes tested with good probe HL	2159
	Number of tubes tested with good probe CL	2131
Ratio of new indications in tubes tested with worn probe to number of tubes tested with a worn probe (HL only)		73/1067 = 0.068
Ratio of new indications in tubes tested with good probe to number of tubes tested with a good probe (HL only)		100/2159= 0.046
Percentage of new indications equal to or greater than 0.5 V in tubes tested with worn probe		47/73 =64.4%%
Percentage of new indications equal to or greater than 0.5 V in tubes tested with good probe		64/100 = 64.0%

Steam Generator 3		
Number of previous indications in EOC-16		703
Worn Probe in EOC-15	Number of previous indications tested with worn probe in EOC-15	170
	Number of these exceeding 2.0 V in EOC-16	0
	Highest voltage indication of these in EOC-16	1.48V

The distribution of DSI volts for new indications in tubes previously tested with good probes and worn probes respectively for SG3 are shown in Figure 4-6.

Table 4-9: Summary of SG4 Indications Found in the Current Inspection that were Tested with a Worn Probe in the Previous Inspection

Steam Generator 4		
Number of new indications in EOC-16		175
Worn Probe in EOC-15	Number of new indications tested with worn probe in EOC-15	63
	Number of these equal to or greater than 0.5 V in EOC-16	33
	Number of tubes tested with worn probe HL and CL	1376
	Number of tubes tested with worn probe CL only	195 (1 new)
	Number of tubes tested with worn probe HL only	0
Good Probe in EOC-15	Number of new indications tested with good probe in EOC-15	112
	Number of these equal to or greater than 0.5 V in EOC-16	51
	Number of tubes tested with good probe HL	1859
	Number of tubes tested with good probe CL	1664
Ratio of new indications in tubes tested with worn probe to number of tubes tested with a worn probe (HL only)		63/1376 = 0.046
Ratio of new indications in tubes tested with good probe to number of tubes tested with a good probe (HL only)		112/1859= 0.060
Percentage of new indications equal to or greater than 0.5 V in tubes tested with worn probe		33/63 =52.4%%
Percentage of new indications equal to or greater than 0.5 V in tubes tested with good probe		51/112 = 45.50%

Steam Generator 4		
Number of previous indications in EOC-16		1330
Worn Probe in EOC-15	Number of previous indications tested with worn probe in EOC-15	583
	Number of these exceeding 2.0 V in EOC-16	3
	Highest voltage indication of these in EOC-16	6.55V

The distribution of DSI volts for new indications in tubes previously tested with good probes and worn probes respectively for SG4 are shown in Figure 4-7.

Table 4-10: Summary of All Indications Found in the Current Inspection that were Tested with a Worn Probe in the Previous Inspection

All Steam Generators Combined		
Number of new indications in EOC-16		595
Worn Probe in EOC-15	Number of new indications tested with worn probe in EOC-15	238
	Number of these equal to or greater than 0.5 V in EOC-16	137
	Number of tubes tested with worn probe (HL)	4918
Good Probe in EOC-15	Number of new indications tested with good probe in EOC-15	357
	Number of these equal to or greater than 0.5 V in EOC-16	196
	Number of tubes tested with good probe (HL)	8030
Ratio of new indications in tubes tested with worn probe to number of tubes tested with a worn probe		238/4918 = 0.048
Ratio of new indications in tubes tested with good probe to number of tubes tested with a good probe		357/8030 = 0.044
Percentage of new indications equal to or greater than 0.5 V in tubes tested with worn probe		137/238 = 57.6%
Percentage of new indications equal to or greater than 0.5 V in tubes tested with good probe		196/357 = 54.9%

All Steam Generators Combined		
Number of previous indications in EOC-16		3152
Worn Probe in EOC-15	Number of previous indications tested with worn probe in EOC-15	1207
	Number of these exceeding 2.0 V in EOC-16	3
	Highest voltage indication of these in EOC-16	6.55V

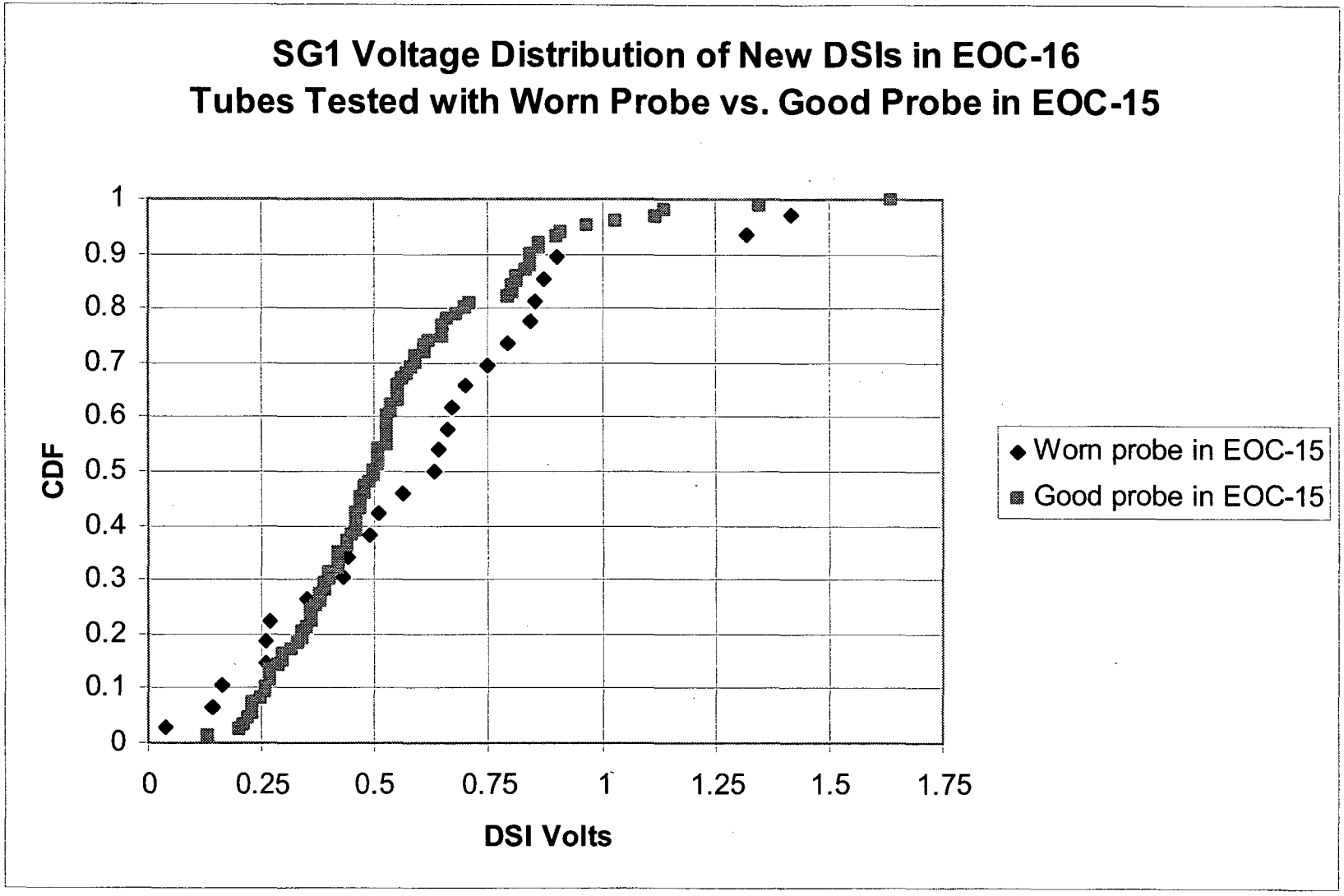

Figure 4-4: Voltage Distribution of New DSIs in SG1

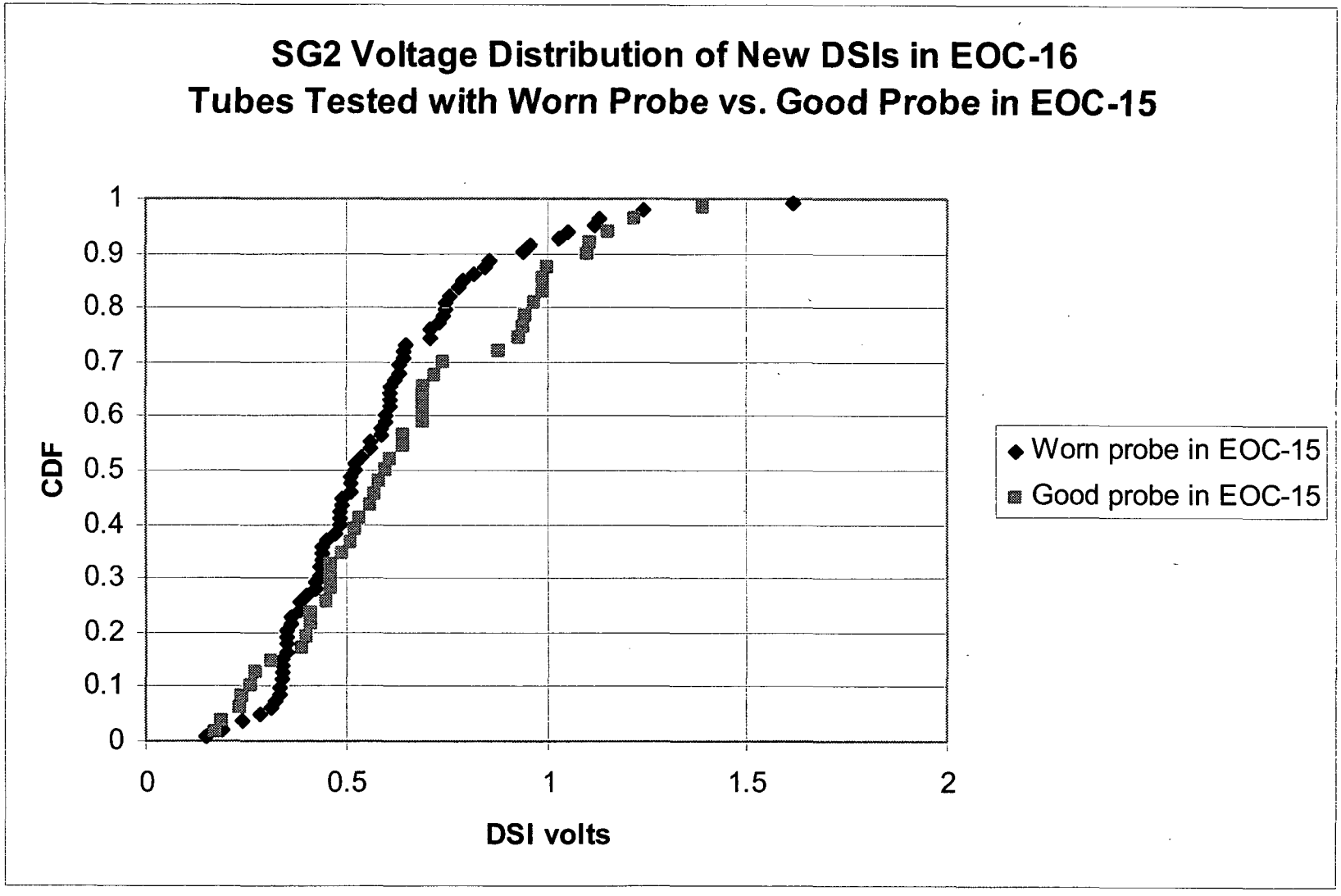

Figure 4-5: Voltage Distribution of New DSIs in SG2

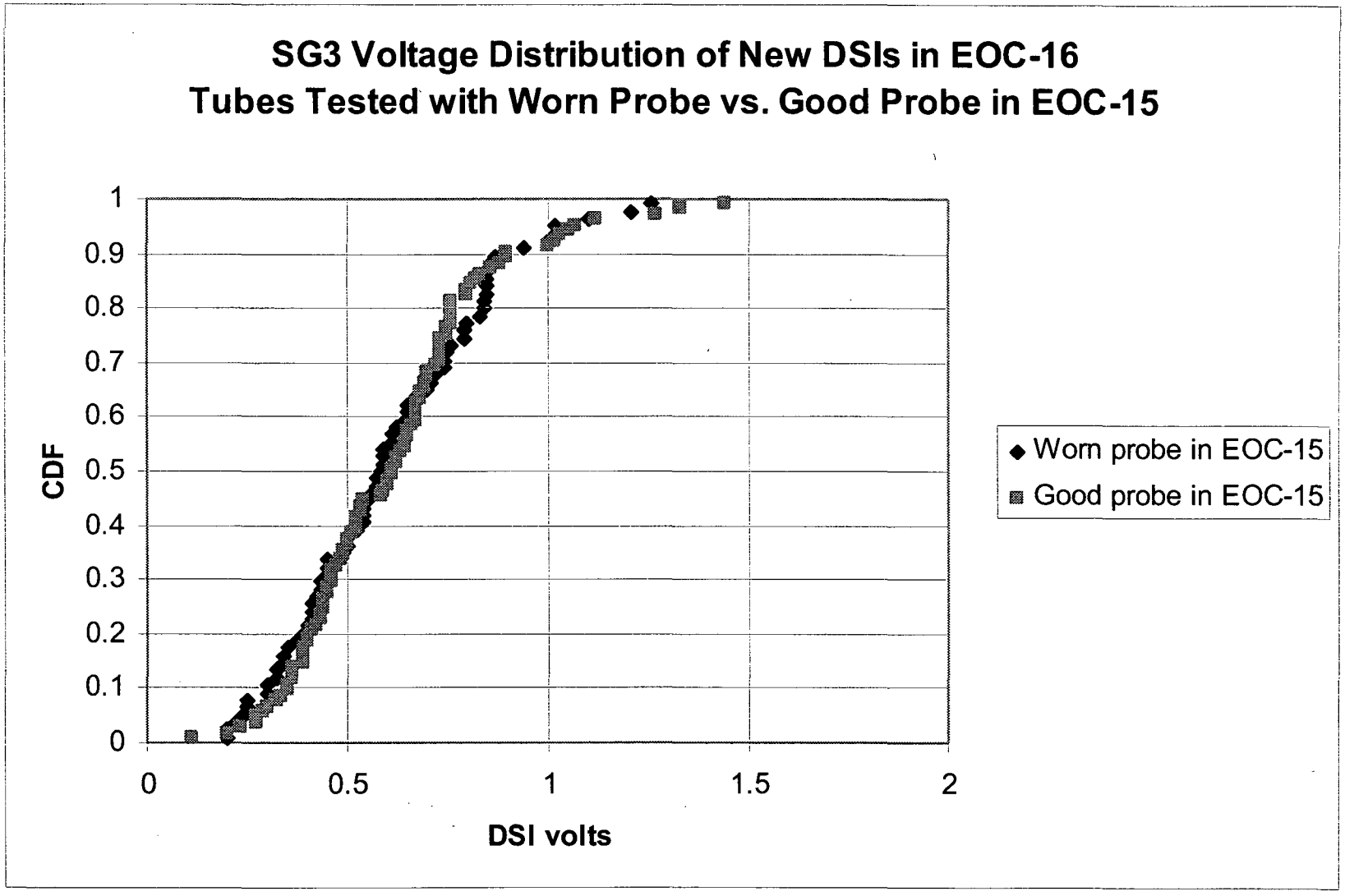

Figure 4-6: Voltage Distribution of New DSIs in SG3

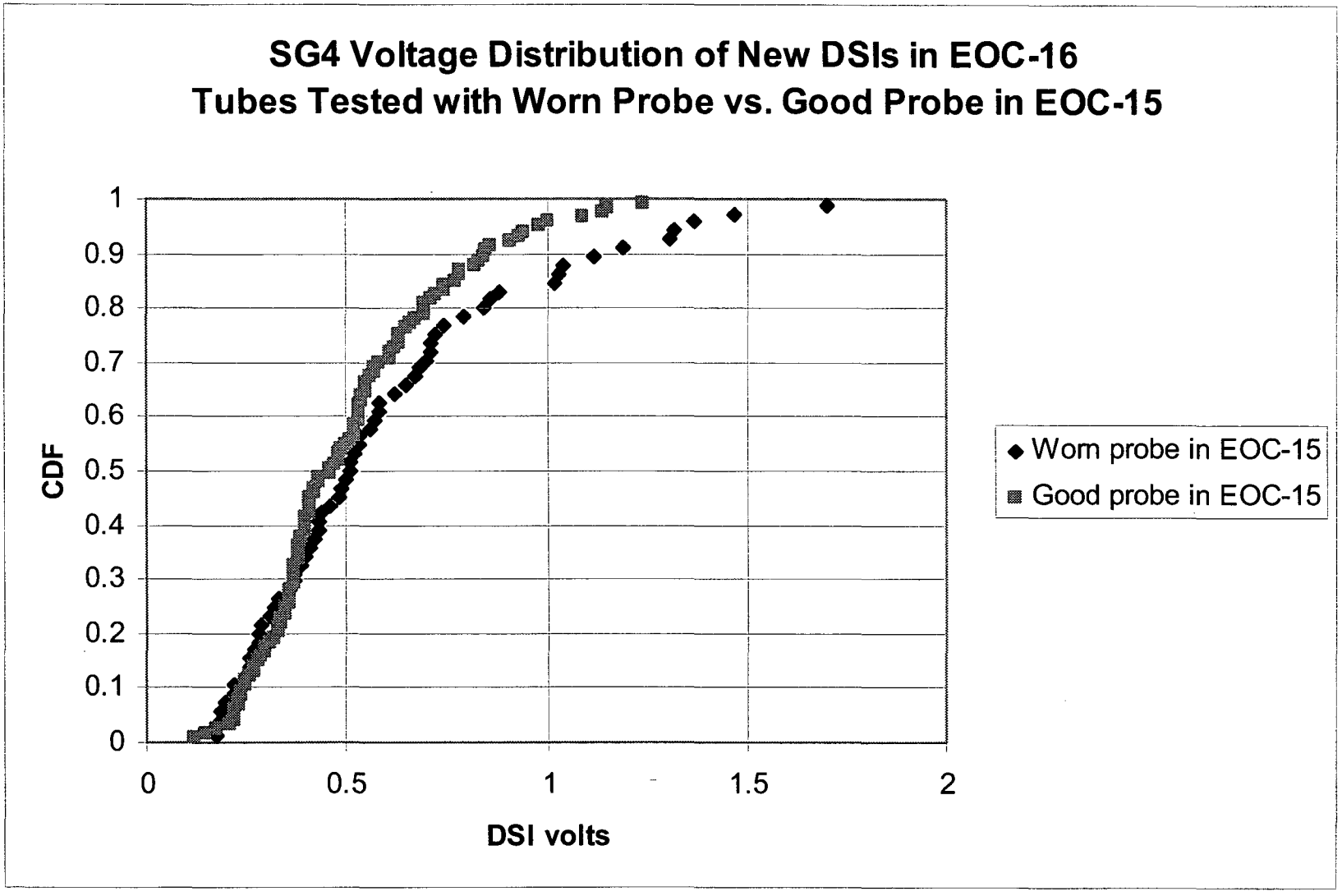

Figure 4-7: Voltage Distribution of New DSIs in SG4

The indications found in the current inspection (EOC-16) that were tested with a worn probe in the previous (EOC-15) inspection were identified as seen in the tables above. Of the 1207 indications found in the current inspection that were tested with a worn probe in the previous inspection, three were 2 volts or greater. Of the 1944 indications found in the current inspection that were tested with a good probe in the previous inspection, seventeen were 2 volts or greater. Therefore there are not a greater proportion of repairable indications for tubes previously tested with a worn probe.

As required by the NRC letter to the Nuclear Energy Institute dated February 9, 1996 (Reference 7), the number of new indications detected in the present inspection in tubes that were inspected with a worn probe in the last inspection was also determined. This is summarized in Table 4-10. Out of a total of 595 new indications reported in the current inspection, 238 were in tubes inspected with a worn probe during the last inspection. In all SGs combined the ratio of new indications that were identified in tubes tested with a worn probe in EOC-15 to the number of tubes tested with a worn probe in EOC-15 is 0.048. The ratio of new indications that were identified in tubes tested with a good probe in EOC-15 to the number of tubes tested with a good probe in EOC-15 for all SGs combined is 0.044. The percentage of new indications equal to or greater than 0.5 V in tubes tested with a worn probe in all SGs is 57.6%, and the percentage of new indications equal to or greater than 0.5 V in tubes tested with good probe in all SGs is 55.9%. The similarity of these ratios and percentages indicate that there is no significant difference in the rate of occurrence or magnitude of new indications found in the EOC-16 inspection due to testing with a worn probe in the EOC-15 inspection. Thus, the requirements specified for applying the alternate probe wear criteria are met.

5.0 CONDITION MONITORING: TUBE LEAK RATE AND BURST PROBABILITIES AT EOC-16

5.1 ANALYSIS APPROACH

The measured EOC-16 voltage distributions of Table 3-1 through Table 3-4 for each steam generator are used as the basis for the leak rate and burst probability predictions for EOC-16. The voltage distributions developed for the computation of POB and leakage consider NDE uncertainty on the measured values, but consider no voltage growth. The resulting voltage distributions used for computation of the probability of burst and leakage are given in Figure 5-1 through Figure 5-4.

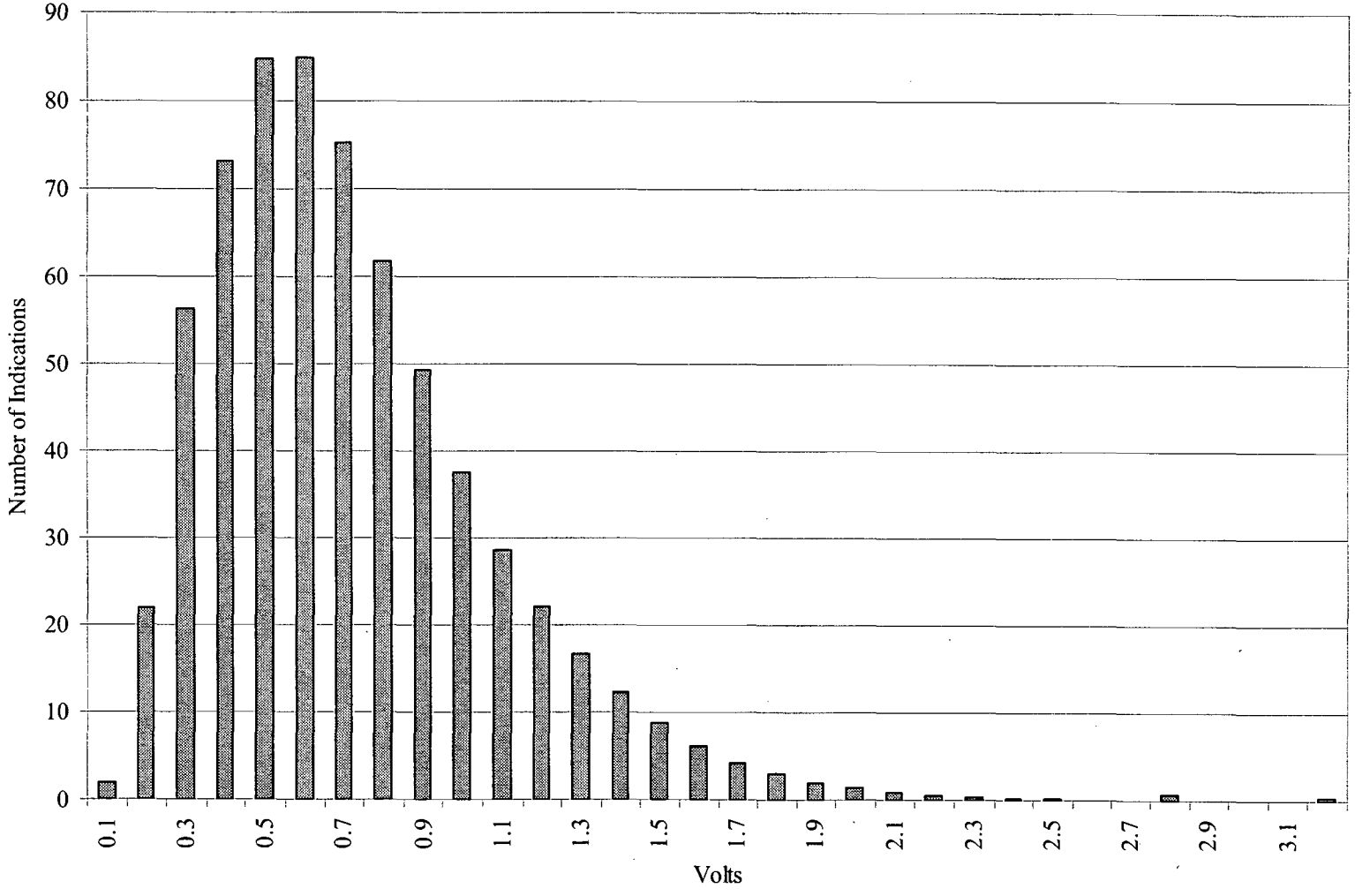

Figure 5-1: Voltage Distribution with NDE Uncertainty, SG1

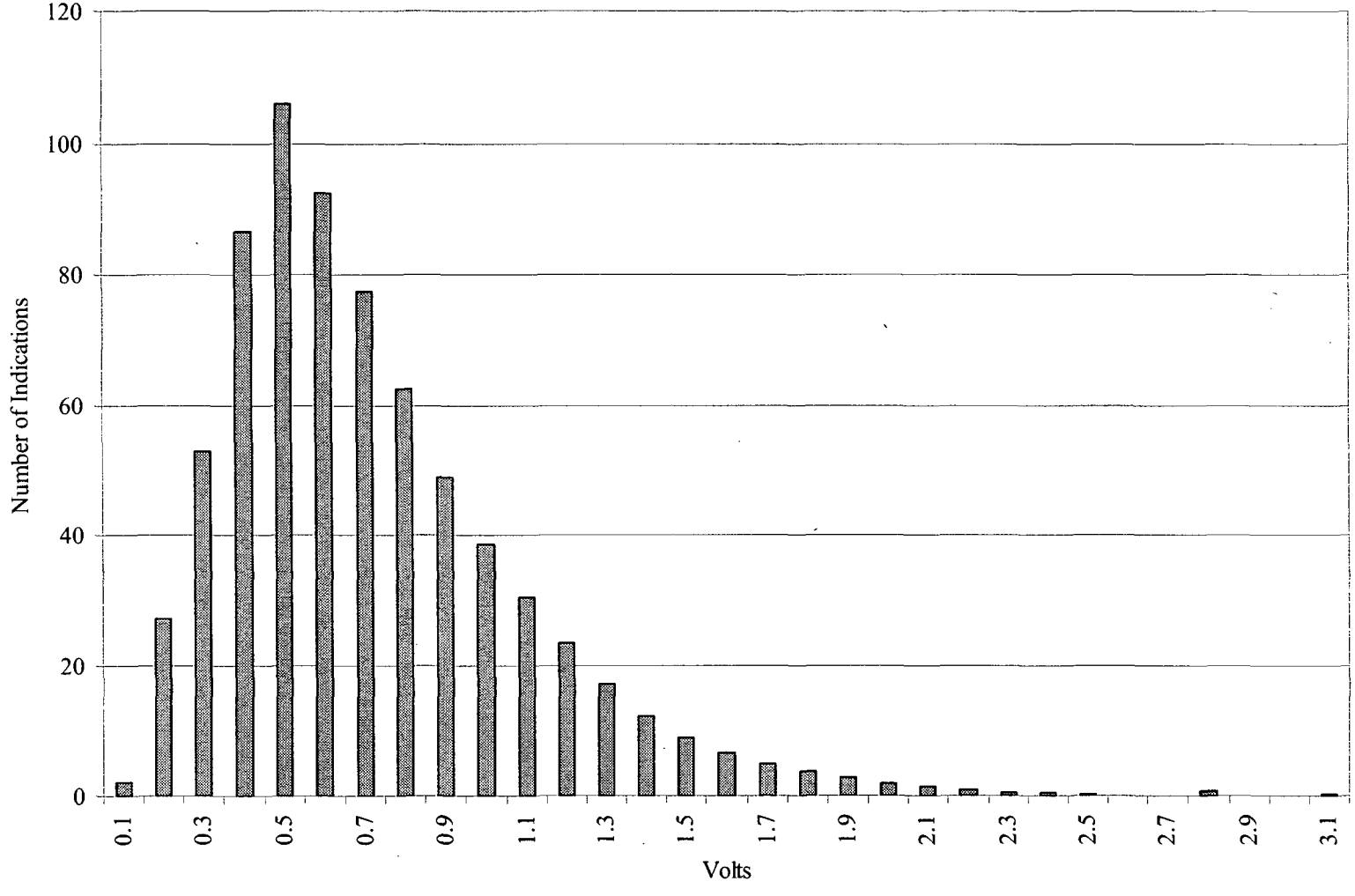

Figure 5-2: Voltage Distribution with NDE Uncertainty, SG2

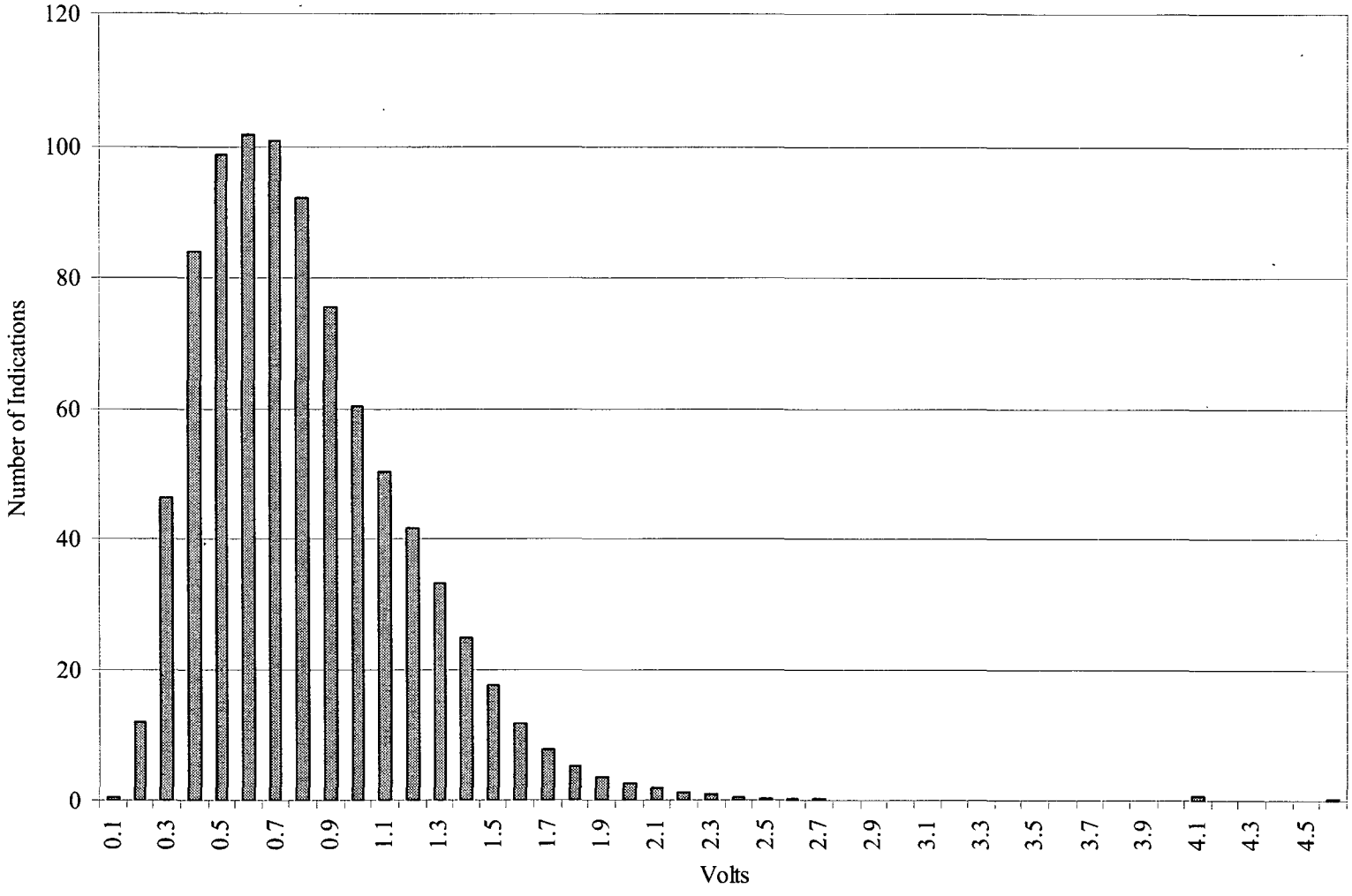

Figure 5-3: Voltage Distribution with NDE Uncertainty, SG3

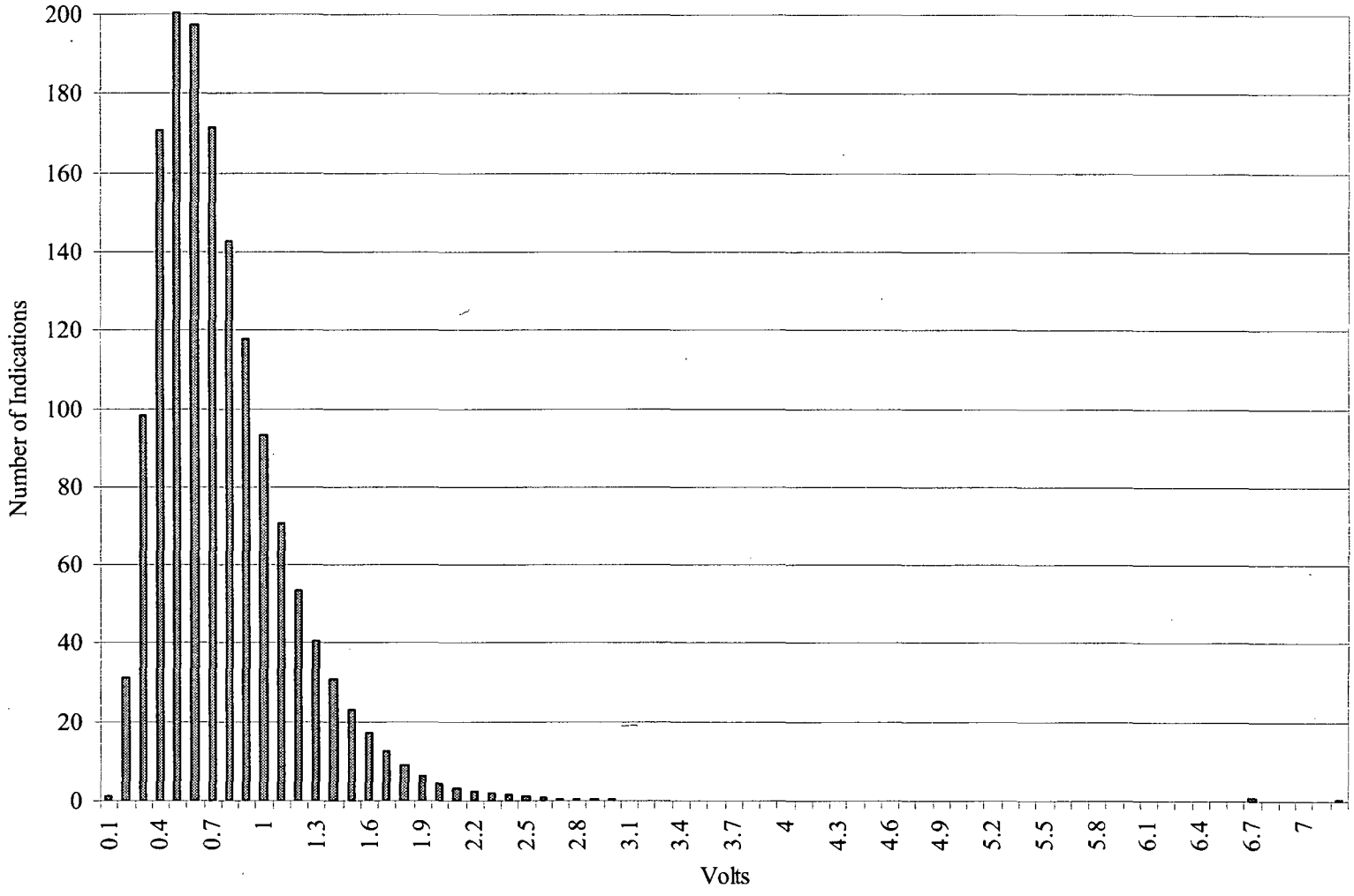

Figure 5-4: Voltage Distribution with NDE Uncertainty, SG4

5.2 EOC-16 BURST PROBABILITIES AND LEAK RATES

The Monte Carlo analysis results for each of the steam generators based on the measured voltage distribution at EOC-16 are shown in Table 5-1. One-quarter-million Monte Carlo trials were performed for each steam generator. The leakage rate is the 95th percentile evaluated at 95% confidence. The burst probability is 95% confidence based on the number of trials. Table 5-2 presents the predicted results from Appendix B of Reference 5, using Addendum 7 (Reference 6) parameters.

Table 5-1: Analysis Results for EOC-16 Voltage Distributions with NDE Uncertainty

SG	Number of Monte Carlo Trials	Number of Indications	Maximum Volts Measured	Burst Probability 95% conf.	95/95 SLB Leak Rate, gpm
1	250,000	655	2.81	1.115×10^{-4}	0.191
2	250,000	711	2.71	1.210×10^{-4}	0.213
3	250,000	876	4.17	1.628×10^{-4}	0.377
4	250,000	1505	6.55	7.041×10^{-4}	0.667

Table 5-2: Predicted Results

SG	Number of Monte Carlo Trials	Number of Indications	Maximum Volts Predicted	Burst Probability 95% conf.	95/95 SLB Leak Rate, gpm
1	250,000	890	3.8	2.22×10^{-4}	0.535
2	250,000	994.33	3.8	2.04×10^{-4}	0.603
3	250,000	1191	4.1	4.90×10^{-4}	1.030
4	250,000	2231.33	4.1	5.11×10^{-4}	1.410

5.3 COMPARISON WITH ACCEPTANCE CRITERIA AND PREDICTION

All steam generators are well below the burst acceptance criterion of 1.0×10^{-2}, and the Sequoyah Unit 2 leakage criterion of 3.7 gpm per steam generator (Reference 2). The acceptance criteria on POB and leakage are satisfied with significant margin.

The predicted values for the number of indications and leakage were conservative. They are based on the conservative 0.6 POD that was used to develop the predictions and the database provided in Reference 6.

The burst probability, 7.041×10^{-4}, exceeded the predicted value in SG4; however, it was still far below the burst acceptance criterion of 1.0×10^{-2}. The difference between the burst probability and the predicted burst probability is less than 2% of the burst acceptance criterion. The burst probability is a very small value, and being a small value, is influenced by the combination of two unusual aspects, namely the large single indication in SG4 (6.55 V) during the most recent outage and the relatively small size of largest indication from the previous outage (2.77 V).

Two indications, one in SG3 and one in SG4, were larger than the largest predicted voltage. In SG3, the largest DSI voltage was 4.17 V while the largest predicted voltage was 4.1 V. In SG4, the largest DSI voltage was 6.55 V while the largest predicted voltage was 4.1 V. These differences are attributable to favorable inspection results during the last inspection and how the largest voltage is predicted. At EOC-15, the largest DSI was only 2.77 V, which resulted in a predicted EOC-16 voltage distribution with a reduced upper voltage tail. The prediction of the maximum voltage is not a requirement of GL95-05, nor is any methodology established for its determination; the maximum voltage was arbitrarily chosen as the part of the tail where there is a 0.3 fractional indication. The choice of 0.3 indications as the predicted maximum DSI voltage was conservative for inspections conducted at EOC-13, EOC-14 and EOC-15.

6.0 OPERATIONAL ASSESSMENT: TUBE LEAK RATE AND BURST PROBABILITIES AT EOC-17

6.1 ANALYSIS APPROACH

The BOC-17 voltage distributions are developed, within the Cyclesim3.2 program, from the measured EOC-16 distribution by considering the POD and the indications that are removed from service. The EOC-17 voltage distribution is developed considering the NDE uncertainties and voltage growth during the cycle. The Cycle 16 growth rate was used in these projections, since it bound the Cycle 15 growth rate. The latest burst and leakage correlations, Reference 6, are used for the EOC-17 predictions. The burst probabilities and leak rates are computed using the computed EOC-17 voltage predictions to address the acceptance criteria at the end of the cycle.

6.2 *POD*

The POD used is the NRC accepted value of 0.6 for all voltages (Reference 1). The beginning of Cycle 17 (BOC-17) voltage distributions are shown in Table 6-1.

Table 6-1: BOC-17 Voltage Distributions

Volts	BOC-17 Voltage Distributions			
	SG1	SG2	SG3	SG4
0.1	1.67	1.67	0	0
0.2	31.67	43.33	15	43.33
0.3	96.67	83.33	70.67	151.33
0.4	120	141.67	144.67	293.67
0.5	146.67	199	168.33	334.67
0.6	143	146.33	170	345.33
0.7	134.67	133.33	169.67	285
0.8	91.33	110	163.67	234.67
0.9	96.67	71.67	136.67	192.33
1	54	71.67	75.67	170.67
1.1	40	44	95	99.67
1.2	49	42	71.33	88
1.3	15	25.67	53.33	59
1.4	26.67	14	45	53.67
1.5	11.67	15	33.33	30.33
1.6	8.33	5.67	6.67	20
1.7	5.67	8.33	10	27.33
1.8	1.67	8.33	3.33	13.33
1.9	3.33	5	5	1.67
2	3.33	0.67	5	3.33
2.1	0	0.67	1.33	2.67
2.2	0	0	0.67	0.67
2.3	0	0	0	2
2.4	0	0	0	1.33
2.5	0	0	0	0
2.6	0	0	0	0
2.7	0	0.67	0	0
2.8	0.67	0	0	0
2.9	0	0	0	0.67
3	0	0	0	0
3.1	0	0	0	0
3.2	0	0	0	0
3.3	0	0	0	0
3.4	0	0	0	0
3.5	0	0	0	0
3.6	0	0	0	0
3.7	0	0	0	0
3.8	0	0	0	0
3.9	0	0	0	0
4	0	0	0	0
4.1	0	0	0	0

Table 6-1: BOC-17 Voltage Distributions

Volts	BOC-17 Voltage Distributions			
	SG1	SG2	SG3	SG4
4.2	0	0	0.67	0
4.3	0	0	0	0
4.4	0	0	0	0
4.5	0	0	0	0
4.6	0	0	0	0
4.7	0	0	0	0
4.8	0	0	0	0
4.9	0	0	0	0
5	0	0	0	0
5.1	0	0	0	0
5.2	0	0	0	0
5.3	0	0	0	0
5.4	0	0	0	0
5.5	0	0	0	0
5.6	0	0	0	0
5.7	0	0	0	0
5.8	0	0	0	0
5.9	0	0	0	0
6	0	0	0	0
6.1	0	0	0	0
6.2	0	0	0	0
6.3	0	0	0	0
6.4	0	0	0	0
6.5	0	0	0	0
6.6	0	0	0	0.67
6.7	0	0	0	0
Total	1081.69	1172.01	1445.01	2455.34

6.3 VOLTAGE GROWTH RATES FOR CYCLE 17

The Cycle 15 and Cycle 16 bounding voltage growth rates, shown in Figure 3-16 and Figure 3-17, indicate that the Cycle 16 growth rate is the more conservative. The Cycle 16 growth rate was used in the projections.

6.4 PREDICTION OF VOLTAGE DISTRIBUTIONS AT EOC-17

The prediction of the EOC-17 voltage distributions is based on the BOC-17 indications and the composite growth rate. The length of Cycle 17 is estimated at 499.9 effective full power days (EFPD), Reference 2. The EOC-17 predicted voltage distributions (using the Cycle 16 growth rate) are shown in Table 6-2 and in Figure 6-1 through Figure 6-4.

Table 6-2: EOC-17 Voltage Distributions

Volts	EOC-17 Voltage Distributions			
	SG1	SG2	SG3	SG4
0.1	1.07	1.27	0.25	0.72
0.2	12.99	15.98	6.76	17.79
0.3	40.69	41.6	30.04	66.72
0.4	72.74	79.6	69.08	144.53
0.5	101.48	118.23	108.63	221.71
0.6	120.37	139.43	137.15	271.89
0.7	124.9	139.53	151.99	285.56
0.8	118	126.92	154.15	270.1
0.9	103.95	109.01	144.91	240.17
1	87.19	90.23	128.06	204.72
1.1	70.54	73.02	109.25	168.23
1.2	55.87	57.96	91.99	134.08
1.3	43.75	44.96	76.46	104.83
1.4	33.77	34.19	61.9	81.05
1.5	25.62	25.61	48.36	62.18
1.6	19.07	19.1	36.27	47.42
1.7	13.95	14.41	26.31	35.82
1.8	10.12	10.9	18.61	26.77
1.9	7.25	8.24	13.06	19.72
2	5.17	6.14	9.11	14.21
2.1	3.63	4.42	6.37	10.03
2.2	2.52	3.08	4.43	7
2.3	1.73	2.11	3.08	4.86
2.4	1.18	1.43	2.12	3.42
2.5	0.8	0.98	1.45	2.43
2.6	0.55	0.68	0.98	1.72
2.7	0.39	0.47	0.66	1.22
2.8	0.29	0.33	0.45	0.87
2.9	0.22	0.24	0.3	0.62
3	0.17	0.18	0.2	0.45
3.1	0.13	0.13	0.13	0.32
3.2	0.1	0.1	0.09	0.23
3.3	0.08	0.08	0.07	0.18
3.4	0.08	0.08	0.06	0.16
3.5	0.09	0.08	0.08	0.18
3.6	0.08	0.09	0.1	0.18
3.7	0.08	0.08	0.1	0.17
3.8	0.05	0.07	0.1	0.15
3.9	0	0.04	0.11	0.12
4	0	0	0.1	0.1

Table 6-2: EOC-17 Voltage Distributions

Volts	EOC-17 Voltage Distributions			
	SG1	SG2	SG3	SG4
4.1	0	0	0.09	0.08
4.2	0	0	0.09	0.06
4.3	0	0	0.08	0.04
4.4	0	0	0.07	0.03
4.5	0	0	0.07	0.02
4.6	0	0	0.06	0.02
4.7	0	0	0.05	0.01
4.8	0	0	0.04	0.01
4.9	0	0	0.03	0.01
5	0	0	0.03	0
5.1	0	0	0.02	0
5.2	0	0	0.02	0
5.3	0	0	0.01	0
5.4	0	0	0.01	0
5.5	0	0	0.01	0
5.6	0	0	0.01	0
5.7	0	0	0	0
5.8	0	0	0	0
5.9	0	0	0	0
6	0	0	0	0
6.1	0	0	0	0
6.2	0	0	0	0
6.3	0	0	0	0
6.4	0	0	0	0
6.5	0	0	0	0
6.6	0	0	0.01	0.14
6.7	0	0	0	0.23
6.8	0.7	0	0	0.2
6.9	0	0.7	0	0.3
7	0	0	0	0.28
7.1	0	0	0.7	0.24
7.2	0	0	0	0
7.3	0.3	0.3	0	0
7.4	0	0	0	0.7
7.5	0	0	0.3	0
7.6	0	0	0	0
7.7	0	0	0	0.3
7.8	0	0	0	0
Total	1081.66	1172.00	1445.02	2455.30

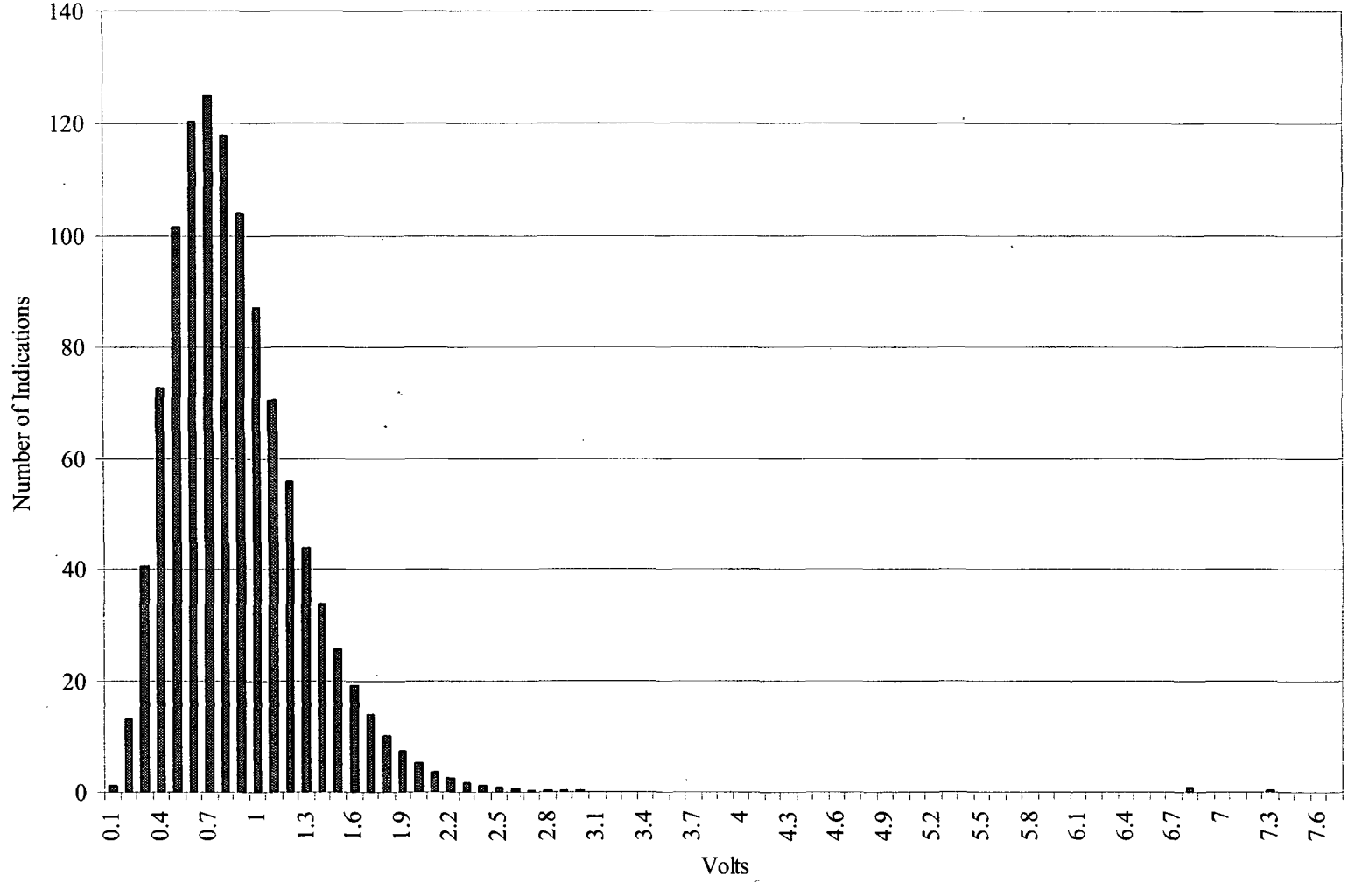

Figure 6-1: Predicted Voltage Distribution, SG1

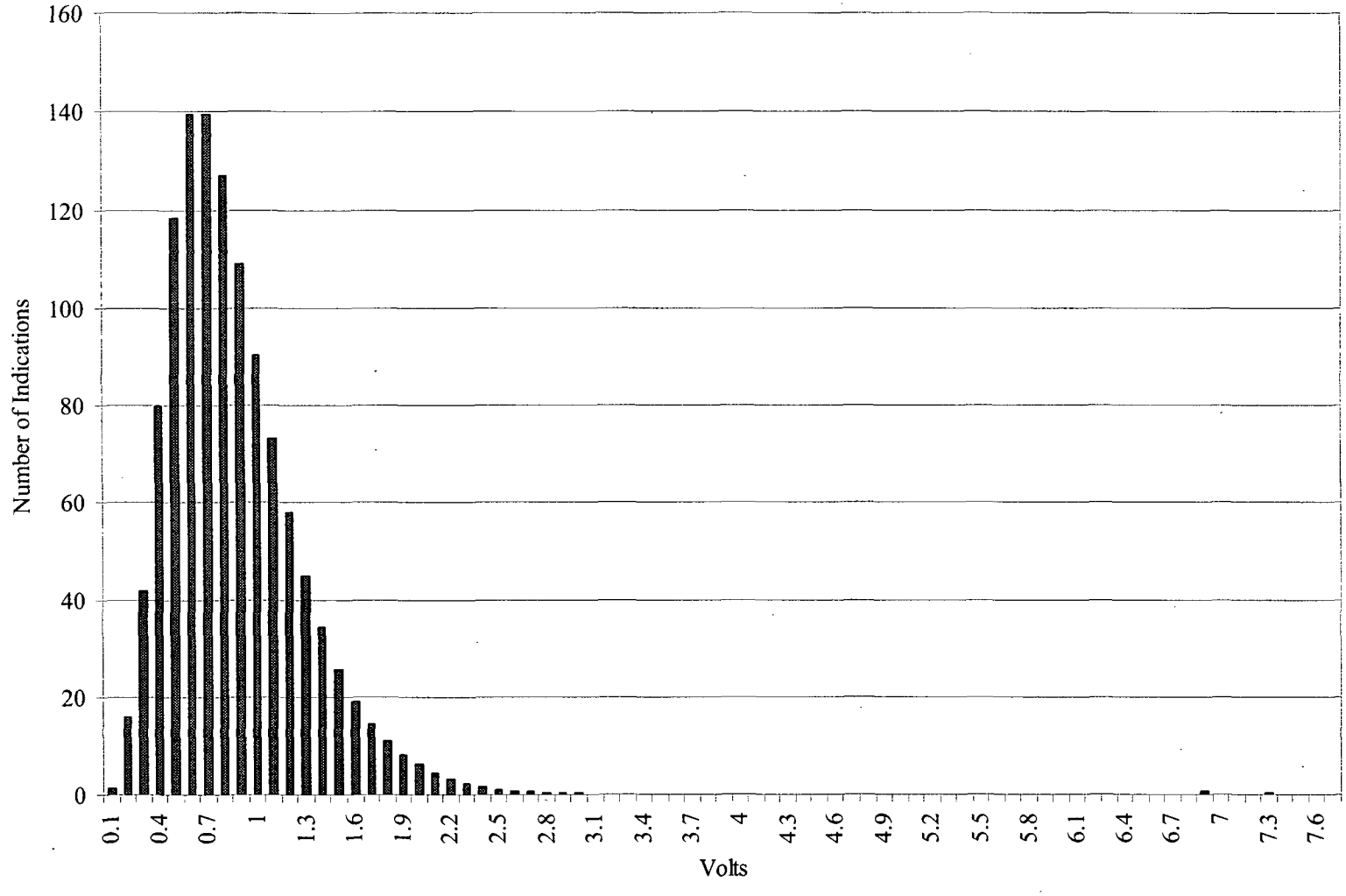

Figure 6-2: Predicted Voltage Distribution, SG2

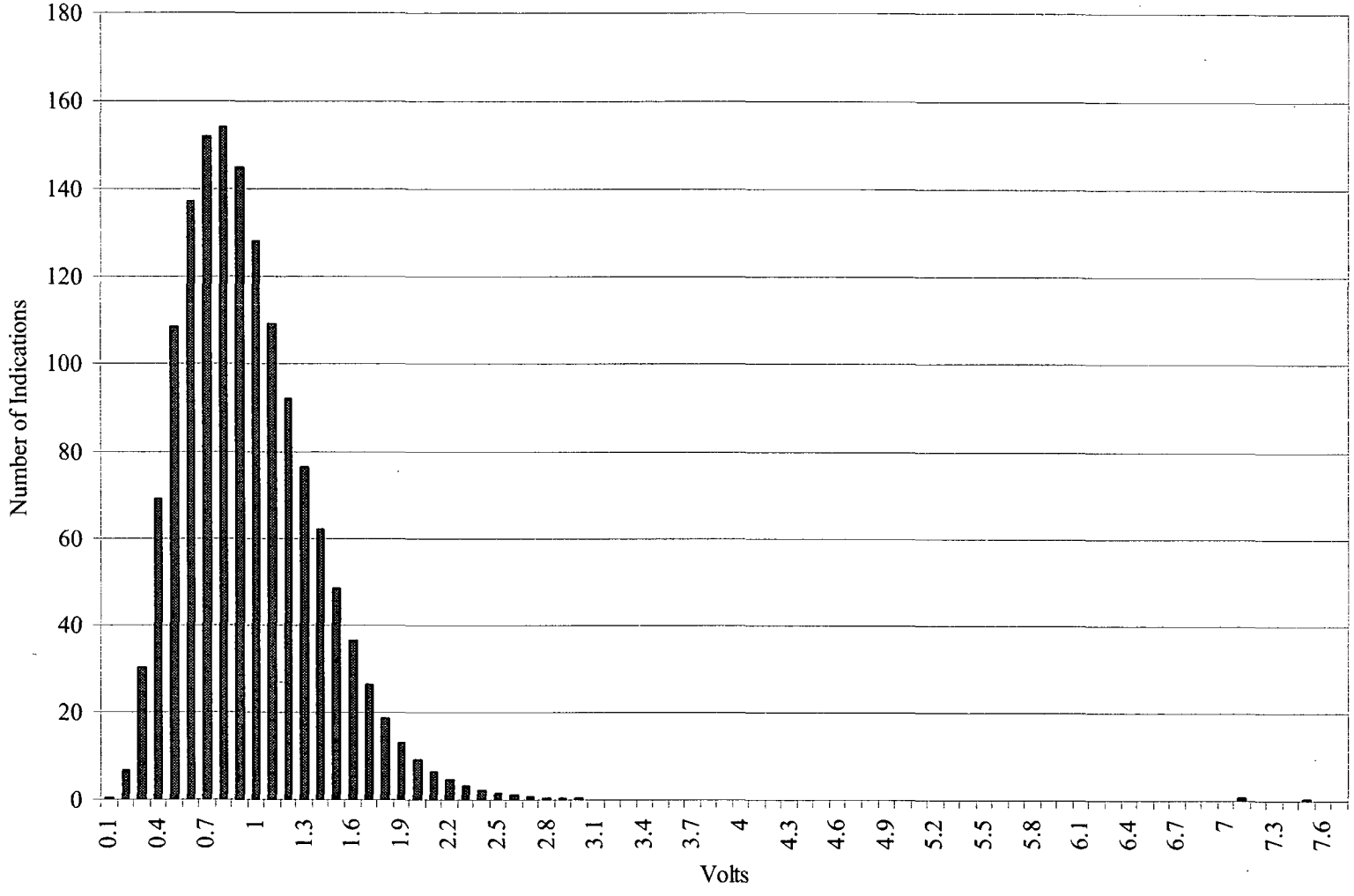

Figure 6-3: Predicted Voltage Distribution, SG3

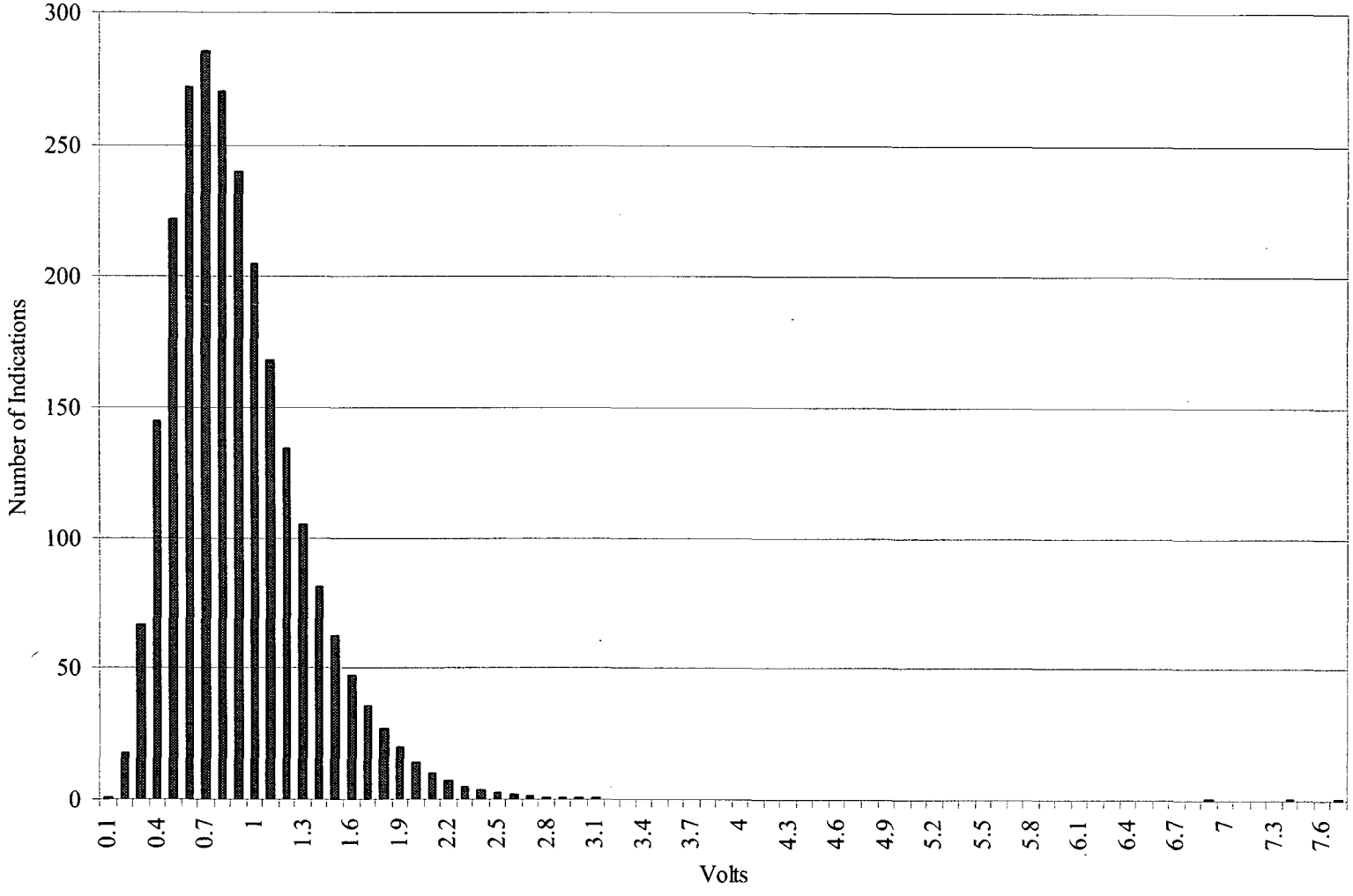

Figure 6-4: Predicted Voltage Distribution, SG4

6.5 PREDICTION OF TUBE LEAK RATES AND BURST PROBABILITIES AT EOC-17

The Monte Carlo analysis results for predicted EOC-17 voltage distributions are shown in Table 6-3. One-quarter-million Monte Carlo trials were performed for each steam generator in this operational assessment. The Cycle 16 growth rate was used for these predictions. The leakage rate is the 95th percentile evaluated at 95% confidence. The burst probability is 95% confidence based on the number of trials.

Table 6-3: EOC-17 Predicted Results

SG	Number of Monte Carlo Trials	Number of Indications	Maximum Volts*	Burst Probability 95% Confidence	95/95 SLB Leak Rate (gpm)
1	250,000	1081.7	7.3	6.529×10^{-4}	0.654
2	250,000	1172.0	7.3	7.254×10^{-4}	0.694
3	250,000	1445.0	7.5	1.009×10^{-3}	1.07
4	250,000	2455.3	7.7	1.796×10^{-3}	1.67

* Voltage where tail is accumulated to 0.3 indications

6.6 COMPARISON WITH ACCEPTANCE CRITERIA

All steam generators are below the burst acceptance criterion of 1.0×10^{-2}, and the Sequoyah Unit 2 leakage criterion of 3.7 gpm (Reference 2).

7.0 REFERENCES

1. NRC Generic Letter 95-05, "Voltage-Based Repair Criteria for Westinghouse Steam Generator Tubes Affected by Outside Diameter Stress Corrosion Cracking," USNRC Office of Nuclear Reactor Regulation, August 3, 1995.

2. TVA Letter, D.M. Lafever to E.D. Camp, "Sequoyah Nuclear Plant –U2C16 Steam Generator Tube Integrity Inspection," B38 091027 800, October 27, 2009.

3. WCAP-14277, Revision 1, "SLB Leak Rate and Tube Burst Probability Analysis Methods for ODSCC at TSP Intersections," Westinghouse Nuclear Services Division, December 1996.

4. WCAP-13990, "Sequoyah Units 1 and 2 Steam Generator Tube Plugging Criteria for Indications at Tube Support Plates," May 1994 – Section 4.1 - Refers to WCAP-12871, "J.M. Farley Units 1 and 2 SG Tube Plugging Criteria for ODSCC at Tube Support Plates," Revision 2, February 1992.

5. Westinghouse Report SG-CDME-08-24, Rev.0, "Condition Monitoring and Operational Assessment: GL 95-05 Alternate Repair Criterion End of Cycle 15, 90 Day Report, Sequoyah Unit 2," July 2008.

6. EPRI Report 1018047, Addendum 7 to NP-7480-L Database, "Steam Generator Tubing Outside Diameter Stress Corrosion Cracking at Tube Support Plates Database for Alternate Repair Limits," September 2008.

7. Letter from B.W. Sheron, Nuclear Regulatory Commission, to A. Marion, Nuclear Energy Research Institute, February 9, 1996.

8. Letter from A. Marion, Nuclear Energy Research Institute, to B. Sheron, Nuclear Regulatory Commission, "Refining the Leak Rate Sampling Methodology for ODSCC ARC Applications (Generic Letter 95-05)," March 15, 2002.

9. Letter from W. Bateman, Nuclear Regulatory Commission, to A. Marion, Nuclear Energy Research Institute, "Refining the Leak Rate Sampling Methodology for Generic Letter 95-05 Voltage-Based Alternate Repair Criteria Application," March 27, 2002.

10. Westinghouse Letter LTR-CDME-08-167, "Software Release Letter for CycleSim Version 3.2," July 30, 2008.

11. PG&E Letter DCL-04-104, "Response to NRC Request for Additional Information Regarding License Amendment Request 04-01," August 18, 2004.

Appendix A
DSI Indications

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
1	2	1	DSI	H03		0.54	0.41
1	2	7	DSI	H03		0.65	0.64
1	2	8	DSI	H02		0.75	0.72
1	2	8	DSI	H04		0.3	0.29
1	2	10	DSI	H01		0.92	0.73
1	2	11	DSI	H01		0.53	0.59
1	2	12	DSI	H02		0.58	0.54
1	2	12	DSI	H03		0.2	0.19
1	2	13	DSI	H01		0.59	0.41
1	2	17	DSI	H07		0.55	0.4
1	2	18	DSI	H01		0.47	0.38
1	2	35	DSI	H01		0.86	0.97
1	2	35	DSI	H02		0.36	0.47
1	3	1	DSI	H05		0.55	0.53
1	3	6	DSI	H01		1.12	1.07
1	3	15	DSI	H01	Y	1.66	1.49
1	3	15	DSI	H05	Y	0.79	0.83
1	3	17	DSI	H01		1.19	1.08
1	3	17	DSI	H02		1.98	1.55
1	3	25	DSI	H02		0.77	0.78
1	3	26	DSI	H01		0.78	0.78
1	3	27	DSI	H01		0.69	0.67
1	3	30	DSI	H03		0.61	0.55
1	3	34	DSI	H01		0.82	1.04
1	3	42	DSI	H01		0.43	0.33
1	3	46	DSI	H01		1.33	1.49
1	3	46	DSI	H02		0.28	0.43
1	3	47	DSI	H01		0.58	0.52
1	3	47	DSI	H02		0.35	0.41
1	3	52	DSI	H01		0.79	0.74
1	3	56	DSI	H06		0.4	0.38
1	3	58	DSI	H02		0.61	0.56
1	3	63	DSI	H07		0.42	0.44
1	3	70	DSI	H04		0.13	0.68
1	3	71	DSI	H02		0.46	0.45
1	3	86	DSI	H04		0.55	0.43
1	3	94	DSI	H01		0.4	0.7
1	4	6	DSI	H02		1.12	1.02
1	4	7	DSI	H01		0.6	0.72
1	4	7	DSI	H02		0.95	0.79
1	4	8	DSI	H01		0.41	0.44
1	4	8	DSI	H03		0.38	0.52
1	4	9	DSI	H02		0.35	0.35
1	4	9	DSI	H03		0.3	0.39

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
1	4	11	DSI	H01		1.09	0.91
1	4	15	DSI	H01		0.8	0.95
1	4	17	DSI	H04		0.18	0.22
1	4	32	DSI	H01		0.44	0.58
1	4	38	DSI	H02		0.81	0.71
1	4	39	DSI	H01		0.83	0.81
1	4	40	DSI	H01		0.47	0.5
1	4	40	DSI	H02		0.63	0.49
1	4	40	DSI	H03		0.29	0.3
1	4	48	DSI	H01		0.68	0.71
1	4	78	DSI	H02		0.93	0.76
1	4	81	DSI	H02		0.94	1.16
1	4	88	DSI	H02		0.59	0.54
1	5	3	DSI	H03		0.66	0.84
1	5	7	DSI	H01		0.37	0.39
1	5	7	DSI	H02		0.55	1.11
1	5	11	DSI	H01		0.43	0.45
1	5	13	DSI	H02		0.3	0.35
1	5	17	DSI	H02		0.88	0.84
1	5	24	DSI	H03		0.44	0.37
1	5	26	DSI	H01		0.57	0.48
1	5	26	DSI	H02		0.74	0.64
1	5	31	DSI	H01		0.72	0.65
1	5	31	DSI	H02		0.85	0.82
1	5	32	DSI	H01	Y	2.81	0.9
1	5	32	DSI	H02	Y	0.64	0.66
1	5	33	DSI	H01		0.62	0.65
1	5	34	DSI	H01		0.79	0.63
1	5	35	DSI	H01		0.6	0.72
1	5	35	DSI	H03		0.77	0.6
1	5	36	DSI	H02		0.4	0.49
1	5	38	DSI	H02		0.34	0.37
1	5	43	DSI	H02		0.5	0.58
1	5	44	DSI	H02		0.5	0.53
1	5	45	DSI	H02		0.65	0.61
1	5	46	DSI	H01		0.89	0.96
1	5	50	DSI	H02		0.45	0.4
1	5	51	DSI	H01		0.29	0.45
1	5	54	DSI	H03		0.73	0.73
1	5	56	DSI	H02		0.65	0.56
1	5	56	DSI	H03		0.91	0.85
1	5	72	DSI	H02		0.56	0.47
1	5	72	DSI	H03		0.48	0.72
1	5	80	DSI	H02		0.85	0.8
1	5	93	DSI	H03		0.42	0.67
1	6	1	DSI	H03		0.64	0.72
1	6	2	DSI	H01		0.65	0.7
1	6	2	DSI	H02		1.09	1.09

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
1	6	2	DSI	H03		0.79	0.85
1	6	3	DSI	H01		0.65	0.69
1	6	3	DSI	H06		0.54	0.64
1	6	4	DSI	H01		0.98	0.82
1	6	9	DSI	H01		0.81	0.68
1	6	14	DSI	H01		0.8	0.57
1	6	14	DSI	H02		0.4	0.22
1	6	15	DSI	H01		0.74	0.78
1	6	15	DSI	H02		1.06	0.93
1	6	19	DSI	H01		0.95	0.85
1	6	19	DSI	H03		1.07	0.92
1	6	21	DSI	H01		1.26	1.15
1	6	24	DSI	H01		0.28	0.26
1	6	24	DSI	H03		0.25	0.29
1	6	25	DSI	H01		1.14	0.91
1	6	26	DSI	H01		0.77	0.57
1	6	26	DSI	H02		0.46	0.36
1	6	27	DSI	H02		0.61	0.39
1	6	28	DSI	H04		0.27	0.25
1	6	29	DSI	H01		0.6	0.52
1	6	33	DSI	C02		0.25	0.17
1	6	34	DSI	H01		0.65	0.45
1	6	34	DSI	H04		0.23	0.25
1	6	35	DSI	H01		0.45	0.34
1	6	35	DSI	H03		0.55	0.58
1	6	38	DSI	H01		0.29	0.24
1	6	43	DSI	H01		0.46	0.36
1	6	45	DSI	H01		0.43	0.47
1	6	46	DSI	H01		0.7	0.61
1	6	49	DSI	H07		0.53	0.59
1	6	54	DSI	H02		0.76	0.39
1	6	73	DSI	C04		0.4	0.36
1	6	91	DSI	H02		1.09	0.99
1	6	93	DSI	H02		0.81	0.69
1	6	94	DSI	H03		0.92	0.83
1	7	2	DSI	H02		0.97	0.95
1	7	3	DSI	H05		0.61	0.62
1	7	10	DSI	H02		0.54	0.41
1	7	20	DSI	H01		0.54	0.62
1	7	30	DSI	H01		0.79	0.77
1	7	49	DSI	H01		0.51	0.56
1	7	65	DSI	H03		0.8	0.87
1	8	3	DSI	H01		0.87	0.8
1	8	3	DSI	H02		1.44	1.43
1	8	3	DSI	H03		1.1	0.97
1	8	4	DSI	H02		1	0.98
1	8	6	DSI	H01		1.04	0.73
1	8	12	DSI	H01		0.87	0.78

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
1	8	21	DSI	H01		0.47	0.45
1	8	21	DSI	H02		0.68	0.58
1	8	21	DSI	H04		0.38	0.32
1	8	33	DSI	H01		0.31	0.3
1	8	50	DSI	H01		0.72	0.6
1	8	51	DSI	H01		0.8	0.83
1	8	56	DSI	H02		0.3	0.24
1	8	63	DSI	H04		0.33	0.33
1	9	3	DSI	H03		0.83	0.61
1	9	14	DSI	H01		0.84	0.76
1	9	19	DSI	H01		0.7	0.64
1	9	23	DSI	C04		0.24	0.23
1	9	25	DSI	H02		0.5	0.68
1	9	28	DSI	H04		0.39	0.36
1	9	30	DSI	H01		0.81	0.77
1	9	30	DSI	H02		0.9	0.59
1	9	32	DSI	H01		0.29	0.25
1	9	34	DSI	H04		0.59	0.6
1	9	39	DSI	H01		0.92	0.96
1	9	41	DSI	H02		0.84	0.83
1	9	42	DSI	H01		0.29	0.5
1	9	43	DSI	H03		0.6	0.62
1	9	44	DSI	H03		0.38	0.66
1	9	52	DSI	H02		0.53	0.46
1	9	65	DSI	H06		0.13	0.29
1	9	86	DSI	H04		0.3	0.87
1	9	87	DSI	H04		0.51	0.78
1	9	92	DSI	H01		1.55	1.22
1	10	3	DSI	H06		0.95	0.51
1	10	34	DSI	H01		0.87	0.73
1	10	37	DSI	H01		0.75	0.41
1	10	70	DSI	H01		0.89	0.89
1	10	70	DSI	H03		1.18	1.02
1	10	75	DSI	H01		0.82	0.91
1	10	75	DSI	H02		1.14	0.95
1	10	75	DSI	H06		0.42	0.49
1	10	77	DSI	H01		1.84	0.46
1	10	77	DSI	H02		1.5	0.42
1	10	77	DSI	H03		0.86	0.68
1	10	77	DSI	H04		1.34	0.94
1	10	78	DSI	H02		0.54	0.74
1	10	84	DSI	H02		0.33	0.53
1	11	3	DSI	H05		0.61	0.49
1	11	3	DSI	H06		1.01	0.87
1	11	4	DSI	H06		0.39	0.46
1	11	5	DSI	H01		0.32	0.37
1	11	18	DSI	H02		0.28	0.31
1	11	58	DSI	H02		0.82	0.98

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
1	11	61	DSI	H02		0.57	0.49
1	11	88	DSI	H04		0.9	0.55
1	11	93	DSI	H02		1.37	1.2
1	12	3	DSI	H01		0.54	0.37
1	12	3	DSI	H03		0.59	0.56
1	12	3	DSI	H05		1.58	1.33
1	12	3	DSI	H06		0.99	0.62
1	12	4	DSI	C03		0.46	0.47
1	12	5	DSI	H04		0.73	0.57
1	12	5	DSI	H06		0.55	0.25
1	12	6	DSI	H04		0.31	0.28
1	12	10	DSI	H01		0.39	0.27
1	12	24	DSI	H01		0.66	0.35
1	12	43	DSI	H02		0.7	0.26
1	12	44	DSI	H02		0.36	0.23
1	12	46	DSI	H02		0.73	0.34
1	12	48	DSI	H02		0.22	0.17
1	13	6	DSI	H01		0.48	0.38
1	13	9	DSI	H01		0.95	0.93
1	13	10	DSI	H01		0.59	0.56
1	13	16	DSI	H01		0.53	0.49
1	13	42	DSI	H07		0.3	0.27
1	13	54	DSI	H03		0.59	0.87
1	13	56	DSI	H02		0.75	0.89
1	13	62	DSI	H05		0.37	0.35
1	13	62	DSI	H06		0.35	0.24
1	13	89	DSI	H02		0.54	0.7
1	14	4	DSI	H01		0.46	0.51
1	14	4	DSI	H03		0.46	0.44
1	14	5	DSI	H01		0.96	0.44
1	14	5	DSI	H02		1.11	1.07
1	14	10	DSI	H01		0.33	0.25
1	14	30	DSI	H04		0.04	0.06
1	14	42	DSI	H01		0.43	0.62
1	15	3	DSI	H06		0.71	0.76
1	15	5	DSI	H02		0.7	0.65
1	15	14	DSI	H03		0.2	0.2
1	15	18	DSI	H01	Y	0.99	0.96
1	15	31	DSI	H01		1.4	1.52
1	15	82	DSI	C04		0.29	0.3
1	16	5	DSI	H04		0.62	0.42
1	16	24	DSI	H01		0.55	0.49
1	16	29	DSI	H02		1.14	1.18
1	16	30	DSI	H01	Y	0.52	0.48
1	16	86	DSI	H04		0.66	0.67
1	17	4	DSI	H01		0.9	1.39
1	17	4	DSI	H02		0.46	0.43
1	17	4	DSI	H03		1.41	1.34

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
1	17	4	DSI	H04		0.79	0.64
1	17	4	DSI	H06		0.56	0.54
1	17	16	DSI	H01		0.47	0.38
1	17	20	DSI	H01		0.75	0.66
1	17	21	DSI	H02		0.15	0.24
1	17	24	DSI	H01		0.64	0.7
1	17	28	DSI	H04		0.14	0.14
1	17	33	DSI	H02		1.31	1.29
1	17	77	DSI	H05		0.71	0.7
1	17	82	DSI	H05		0.26	0.26
1	18	6	DSI	H01		0.84	0.82
1	18	6	DSI	H07		0.15	0.21
1	18	7	DSI	H03		0.39	0.28
1	18	8	DSI	H02		0.69	0.59
1	18	8	DSI	H04		0.23	0.46
1	18	17	DSI	H01		0.72	0.49
1	18	19	DSI	H02		1.63	1.41
1	18	21	DSI	H01		0.54	0.47
1	18	21	DSI	H02		0.26	0.28
1	18	24	DSI	H01		0.98	1.05
1	18	35	DSI	H05		0.37	0.16
1	18	57	DSI	H01		0.35	0.73
1	18	58	DSI	H01		0.9	0.79
1	18	82	DSI	H02		0.23	0.23
1	18	89	DSI	H05		0.74	0.8
1	19	8	DSI	H02		0.36	0.75
1	19	8	DSI	H05		0.36	0.66
1	19	10	DSI	H01		0.44	0.39
1	19	13	DSI	H01		0.54	0.44
1	19	29	DSI	H01		0.84	0.43
1	19	37	DSI	H02		0.63	0.61
1	19	45	DSI	H01		0.66	0.62
1	19	45	DSI	H02		0.74	0.55
1	19	51	DSI	H01		0.81	0.68
1	19	56	DSI	H04		0.87	0.83
1	19	66	DSI	H01		0.89	0.92
1	19	67	DSI	H01		0.44	0.48
1	19	68	DSI	H02		0.5	0.32
1	19	74	DSI	H02		0.3	0.59
1	19	77	DSI	H02		0.99	0.84
1	19	77	DSI	H03		0.41	0.4
1	20	9	DSI	H02		0.63	0.58
1	20	10	DSI	H01		0.26	0.23
1	20	12	DSI	H01		0.56	0.41
1	20	12	DSI	H02		0.43	0.39
1	20	12	DSI	H04		0.26	0.21
1	20	32	DSI	H01		0.3	0.27
1	20	32	DSI	H02		0.4	0.64

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
1	20	51	DSI	H01		0.62	0.68
1	20	58	DSI	H01		0.46	0.49
1	20	65	DSI	H02		1.27	1.13
1	20	67	DSI	H01		0.39	0.42
1	21	7	DSI	H01		1.17	1.21
1	21	7	DSI	H02		1.11	0.81
1	21	8	DSI	H01		1	0.84
1	21	8	DSI	H02		0.98	1.04
1	21	8	DSI	H04		0.19	0.15
1	21	10	DSI	H01		0.5	0.28
1	21	14	DSI	H01		0.52	0.52
1	21	32	DSI	H02		0.26	0.38
1	21	71	DSI	H02		0.7	0.7
1	21	73	DSI	H01		0.36	0.3
1	21	74	DSI	H04		0.32	0.48
1	21	76	DSI	H03		0.41	0.37
1	21	78	DSI	H02		0.73	0.81
1	21	83	DSI	H02		0.59	0.97
1	21	83	DSI	H03		0.39	0.4
1	21	87	DSI	H02		1.25	1.18
1	21	88	DSI	H02		1.17	0.92
1	22	9	DSI	H01		1.14	0.94
1	22	10	DSI	H02		0.68	0.67
1	22	11	DSI	H02		0.9	0.57
1	22	11	DSI	H03		1.43	0.81
1	22	12	DSI	H01		0.28	0.23
1	22	12	DSI	H04		0.21	0.2
1	22	14	DSI	H01		0.54	0.51
1	22	14	DSI	H02		0.5	0.38
1	22	17	DSI	H01		1.12	0.98
1	22	19	DSI	H01		0.83	0.61
1	22	21	DSI	H01		0.41	0.39
1	22	25	DSI	H01		1.38	1.11
1	22	28	DSI	H01		0.58	0.49
1	22	31	DSI	H01		0.46	0.43
1	22	33	DSI	H02		1.05	0.67
1	22	46	DSI	H04		0.32	0.67
1	22	47	DSI	H02		0.35	0.57
1	22	48	DSI	H01		1.45	1.42
1	22	50	DSI	H02		1.04	0.86
1	22	67	DSI	H01		0.79	0.61
1	22	68	DSI	H02		0.3	0.31
1	22	72	DSI	H02		0.41	0.23
1	23	7	DSI	H01		1.84	1.38
1	23	7	DSI	H02		1.64	1.23
1	23	7	DSI	H04		0.56	0.34
1	23	9	DSI	H01		0.3	0.24
1	23	9	DSI	H02		0.57	0.49

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
1	23	10	DSI	H01		0.61	0.63
1	23	10	DSI	H02		1.51	1.47
1	23	10	DSI	H03		1.35	1.41
1	23	11	DSI	H02		0.78	0.75
1	23	12	DSI	H01		0.3	0.34
1	23	12	DSI	H02		0.4	0.56
1	23	14	DSI	H02		0.5	0.38
1	23	14	DSI	H03		0.51	0.43
1	23	15	DSI	H01		0.58	0.53
1	23	20	DSI	H02		0.47	0.62
1	23	23	DSI	H01		1.11	1.24
1	23	31	DSI	H01		0.63	0.61
1	23	32	DSI	H04		0.28	0.24
1	23	34	DSI	H02		0.51	0.28
1	23	48	DSI	H03		0.32	0.23
1	23	64	DSI	H03		0.7	0.54
1	24	9	DSI	H01		1.49	0.99
1	24	12	DSI	H01		0.99	1.09
1	24	15	DSI	H01		0.44	0.42
1	24	17	DSI	H02		1.56	0.77
1	24	18	DSI	H02		0.38	0.48
1	24	18	DSI	H04		0.27	0.33
1	24	21	DSI	H01		1.94	1.66
1	24	21	DSI	H02		1.33	1.58
1	24	21	DSI	H03		0.83	0.87
1	24	21	DSI	H04		0.58	0.44
1	24	22	DSI	H01		0.62	0.74
1	24	25	DSI	H01		1.22	0.76
1	24	29	DSI	H01		0.86	0.81
1	24	29	DSI	H02		1.38	0.99
1	24	34	DSI	H01		0.87	0.83
1	24	35	DSI	H02		0.41	0.32
1	24	37	DSI	H01		1.32	1.3
1	24	46	DSI	H01		0.58	0.33
1	24	60	DSI	H01		0.86	0.87
1	24	73	DSI	H03		0.73	0.53
1	25	8	DSI	H01		0.75	0.77
1	25	8	DSI	H02		0.85	1.05
1	25	8	DSI	H03		0.81	0.72
1	25	12	DSI	H03		0.45	0.51
1	25	14	DSI	H01		0.3	0.19
1	25	14	DSI	H02		0.47	0.33
1	25	22	DSI	H01		0.51	0.25
1	25	25	DSI	H01		0.62	0.71
1	25	32	DSI	H01		0.4	0.41
1	25	32	DSI	H03		0.84	0.82
1	25	37	DSI	H01		0.54	0.45
1	25	38	DSI	H02		0.85	0.97

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
1	25	45	DSI	H01		0.85	1.33
1	25	77	DSI	H02		0.7	0.61
1	26	11	DSI	H01		0.68	0.53
1	26	14	DSI	H04		0.25	0.2
1	26	17	DSI	H01		0.82	0.54
1	26	20	DSI	H02		0.34	0.41
1	26	22	DSI	H01		0.43	0.7
1	26	25	DSI	H04		0.23	0.2
1	26	28	DSI	H02		0.44	0.53
1	26	30	DSI	H02		0.67	0.7
1	26	49	DSI	H02		1.12	1.27
1	26	54	DSI	H01		0.75	1.14
1	26	63	DSI	C03		0.27	0.31
1	26	64	DSI	H01		1.09	0.94
1	26	68	DSI	H03		0.85	0.8
1	26	81	DSI	H02		0.58	0.47
1	26	86	DSI	H03		0.35	0.22
1	27	12	DSI	H03		0.84	0.93
1	27	13	DSI	H02		0.83	0.58
1	27	14	DSI	H03		0.49	0.63
1	27	16	DSI	H02		0.64	0.61
1	27	18	DSI	H01		0.17	0.19
1	27	18	DSI	H02		0.54	0.66
1	27	19	DSI	H03		0.49	0.53
1	27	21	DSI	H01		0.58	0.38
1	27	21	DSI	H02		0.18	0.19
1	27	24	DSI	H02		0.59	0.39
1	27	25	DSI	H02		0.63	0.82
1	27	25	DSI	H03		0.42	0.79
1	27	31	DSI	H03		0.53	0.55
1	27	48	DSI	H01		0.58	0.4
1	27	48	DSI	H02		1.34	1.44
1	27	50	DSI	H02		1.42	1.73
1	27	52	DSI	H01		1.05	1.17
1	27	55	DSI	H03		0.68	1.25
1	27	58	DSI	H01		0.37	0.33
1	27	60	DSI	H01		1.03	1
1	27	77	DSI	H02		0.22	0.17
1	27	77	DSI	H03		0.39	0.6
1	27	82	DSI	H02		0.45	0.38
1	28	10	DSI	H01		0.66	0.62
1	28	10	DSI	H02		0.81	0.73
1	28	10	DSI	H05		0.3	0.21
1	28	11	DSI	H01		1.38	1.11
1	28	12	DSI	H01		0.73	0.69
1	28	12	DSI	H02		0.45	0.35
1	28	16	DSI	H01		0.68	0.66
1	28	17	DSI	H04		0.65	0.7

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
1	28	21	DSI	H01		1.2	1.25
1	28	21	DSI	H03		0.39	0.35
1	28	22	DSI	H03		0.27	0.36
1	28	26	DSI	H02		0.64	0.56
1	28	27	DSI	H02		0.42	0.5
1	28	28	DSI	H04		0.57	0.72
1	28	28	DSI	H06		0.37	0.21
1	28	31	DSI	H02		0.63	0.73
1	28	40	DSI	H05		0.37	0.28
1	28	43	DSI	H02		1.23	1.69
1	28	45	DSI	H02		1.1	0.89
1	28	46	DSI	H02		1.16	1.08
1	28	46	DSI	H06		0.78	0.83
1	28	50	DSI	H02		1.02	0.91
1	28	56	DSI	H02		0.59	1.13
1	28	57	DSI	H02		0.49	0.44
1	28	77	DSI	H02		1.09	0.86
1	28	79	DSI	H01		0.54	0.37
1	28	79	DSI	H02		0.4	0.31
1	29	34	DSI	H04		0.26	0.19
1	29	39	DSI	H02		0.66	0.62
1	29	50	DSI	H02		0.91	0.74
1	29	51	DSI	H02		1.07	0.51
1	29	52	DSI	H02		1.8	1.23
1	29	55	DSI	H02		0.45	1.25
1	29	56	DSI	H03		0.66	0.69
1	29	74	DSI	H05		0.37	0.28
1	30	19	DSI	H03		0.84	0.76
1	30	24	DSI	H06		0.54	0.36
1	30	41	DSI	H02		0.33	0.5
1	30	49	DSI	H02		0.55	0.79
1	30	50	DSI	H01		0.66	0.33
1	30	50	DSI	H03		1.04	0.88
1	30	62	DSI	H02		0.42	0.28
1	30	75	DSI	H03		0.82	0.26
1	30	82	DSI	H01		0.98	0.69
1	30	82	DSI	H02		0.7	1.03
1	30	82	DSI	H03		0.56	0.5
1	31	19	DSI	H02		1.18	0.68
1	31	19	DSI	H03		0.62	0.67
1	31	21	DSI	H02		1.16	0.84
1	31	26	DSI	H02		0.35	0.26
1	31	33	DSI	H02		0.44	0.36
1	31	49	DSI	H04		0.49	0.63
1	31	54	DSI	H02		1.1	1.16
1	31	56	DSI	H04		0.42	0.35
1	31	59	DSI	H04		0.35	0.34
1	31	62	DSI	H03		0.37	0.28

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
1	31	64	DSI	H03		0.5	0.46
1	31	68	DSI	H04		0.46	0.59
1	31	70	DSI	H04		0.44	0.59
1	31	77	DSI	H02		0.53	0.31
1	31	82	DSI	H01		0.32	0.37
1	32	34	DSI	H04		0.56	0.55
1	32	40	DSI	H03		0.31	0.27
1	32	42	DSI	H01		0.72	0.56
1	32	42	DSI	H02		0.75	0.71
1	32	44	DSI	H04		0.55	0.53
1	32	45	DSI	H02		0.5	0.52
1	32	48	DSI	H02		0.91	0.75
1	32	49	DSI	H01		0.57	0.46
1	32	52	DSI	H02		0.96	0.96
1	32	53	DSI	H01		0.82	1.01
1	32	53	DSI	H02		0.79	0.71
1	32	53	DSI	H03		0.73	0.7
1	32	54	DSI	H02		0.69	0.98
1	32	57	DSI	H02		1.14	0.7
1	32	59	DSI	H03		0.56	0.52
1	32	63	DSI	H03		0.41	0.22
1	32	65	DSI	H04		0.45	0.28
1	32	71	DSI	H03		0.68	0.93
1	32	73	DSI	H02		0.72	0.87
1	32	74	DSI	H03		1.25	1.26
1	32	77	DSI	H05		0.22	0.37
1	32	79	DSI	H01		0.48	0.56
1	33	27	DSI	H04		0.96	0.48
1	33	30	DSI	H01		0.67	0.77
1	33	42	DSI	H02		0.49	0.27
1	33	43	DSI	H01		0.56	0.48
1	33	50	DSI	H02		1.33	1.3
1	33	61	DSI	H02		0.35	0.33
1	33	67	DSI	H02		0.47	0.52
1	33	67	DSI	H03		0.59	0.78
1	33	67	DSI	H04		0.32	0.44
1	33	71	DSI	H02		0.99	0.86
1	33	72	DSI	H02		0.47	0.74
1	33	75	DSI	H05		0.51	0.33
1	33	76	DSI	H01		0.21	0.31
1	34	22	DSI	H02		0.94	0.88
1	34	23	DSI	H01		0.4	0.41
1	34	23	DSI	H03		0.63	0.75
1	34	23	DSI	H04		0.51	0.83
1	34	28	DSI	H01		0.15	0.25
1	34	30	DSI	H01		0.27	0.22
1	34	30	DSI	H03		0.19	0.52
1	34	35	DSI	H02		0.53	0.44

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
1	34	74	DSI	H04		0.56	0.56
1	35	17	DSI	H02		1.28	1.3
1	35	17	DSI	H03		0.73	0.6
1	35	17	DSI	H06		0.41	0.46
1	35	19	DSI	H01	Y	1.13	0.96
1	35	19	DSI	H02	Y	0.68	0.61
1	35	19	DSI	H03	Y	0.75	0.77
1	35	19	DSI	H04	Y	0.53	0.62
1	35	21	DSI	H01		0.67	0.71
1	35	21	DSI	H02		0.63	0.58
1	35	21	DSI	H04		0.63	0.54
1	35	22	DSI	H01		1.36	1.18
1	35	22	DSI	H02		0.54	0.55
1	35	22	DSI	H03		0.87	0.96
1	35	23	DSI	H01		1.39	1.44
1	35	26	DSI	H01		0.7	0.71
1	35	30	DSI	H01		1.2	0.89
1	35	30	DSI	H02		0.87	0.73
1	35	30	DSI	H03		0.78	0.49
1	35	32	DSI	H01		0.7	0.49
1	35	32	DSI	H03		0.45	0.35
1	35	32	DSI	H04		0.31	0.19
1	35	33	DSI	H02		1.17	0.89
1	35	33	DSI	H03		0.59	0.4
1	35	35	DSI	H04		0.35	0.35
1	35	42	DSI	H02		1.16	1.29
1	35	42	DSI	H04		0.42	0.71
1	35	44	DSI	H06		0.49	0.47
1	35	45	DSI	H03		0.26	0.38
1	35	46	DSI	H04		0.48	0.33
1	35	47	DSI	H02		0.48	1.02
1	35	78	DSI	H01		0.63	0.43
1	36	18	DSI	H02		0.21	0.33
1	36	21	DSI	H03		1.16	1.27
1	36	25	DSI	H04		0.63	0.56
1	36	35	DSI	H04		0.88	0.75
1	36	36	DSI	H01		1.03	0.86
1	36	42	DSI	H02		0.56	0.43
1	36	47	DSI	H01		0.44	0.77
1	36	47	DSI	H02		0.68	0.37
1	36	49	DSI	H04		0.5	0.48
1	36	54	DSI	H02		0.38	0.38
1	36	62	DSI	H02		0.81	0.72
1	36	62	DSI	H03		0.9	0.65
1	36	62	DSI	H04		0.86	0.85
1	37	23	DSI	H03		0.23	0.26
1	37	32	DSI	H02		0.3	0.2
1	37	32	DSI	H05		0.15	0.13

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
1	37	40	DSI	H01		0.77	0.77
1	37	48	DSI	C03		0.2	0.41
1	37	60	DSI	H05		0.29	0.25
1	37	61	DSI	H02		0.99	1.11
1	37	61	DSI	H03		0.5	0.43
1	37	63	DSI	C02		0.43	0.34
1	38	24	DSI	H02		0.51	0.41
1	38	40	DSI	H01		0.71	0.69
1	38	46	DSI	H04		1	0.75
1	38	47	DSI	H04		0.33	0.22
1	38	51	DSI	H02		0.46	0.4
1	38	53	DSI	H03		0.66	0.66
1	38	63	DSI	H02		0.7	0.53
1	38	64	DSI	H03		0.52	0.4
1	38	65	DSI	H02		0.53	0.45
1	38	65	DSI	H04		0.58	0.75
1	38	72	DSI	H02		0.39	0.28
1	39	27	DSI	H04		0.71	0.41
1	39	30	DSI	H03		0.46	0.35
1	39	30	DSI	H05		0.3	0.14
1	39	32	DSI	H02		0.66	0.66
1	39	36	DSI	H05		0.61	0.52
1	39	40	DSI	H01		0.2	0.24
1	39	46	DSI	H01		1.15	0.93
1	39	48	DSI	H02		0.72	0.67
1	39	55	DSI	C04		0.25	0.15
1	39	57	DSI	H04		0.34	0.31
1	39	70	DSI	H03		0.37	0.33
1	40	25	DSI	H01		0.89	1.01
1	40	25	DSI	H02		1.03	1.31
1	40	25	DSI	H04		0.7	0.63
1	40	26	DSI	H01		0.75	0.94
1	40	26	DSI	H04		0.72	0.64
1	40	26	DSI	H05		0.58	0.73
1	40	27	DSI	H02		0.62	0.67
1	40	32	DSI	H04		0.42	0.28
1	40	32	DSI	H05		0.42	0.26
1	40	34	DSI	H06		0.32	0.23
1	40	36	DSI	H03		0.66	0.56
1	40	38	DSI	H02		0.32	0.14
1	40	48	DSI	H03		1.15	1.23
1	40	51	DSI	H03		1.02	1.4
1	40	70	DSI	H03		0.76	0.63
1	41	31	DSI	H02		0.36	0.35
1	41	32	DSI	H03		0.28	0.34
1	41	36	DSI	H04		0.36	0.37
1	41	37	DSI	H02		1.56	1.47
1	42	33	DSI	H02		0.67	0.33

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
1	42	40	DSI	H01		0.17	0.17
1	42	40	DSI	H02		0.98	0.71
1	42	40	DSI	H05		0.16	0.35
1	42	40	DSI	H07		0.49	0.36
1	42	49	DSI	H02		0.73	0.65
1	42	62	DSI	H01		0.63	0.6
1	43	38	DSI	H01		0.8	0.49
1	43	40	DSI	H02		0.19	0.19
1	43	41	DSI	H02		0.26	0.83
1	43	45	DSI	H02		1.17	0.98
1	43	46	DSI	H04		0.58	0.6
1	43	59	DSI	H01		1.63	1.47
1	44	33	DSI	H01		0.32	0.32
1	44	37	DSI	H02		1.22	1.06
1	44	39	DSI	H06		0.57	0.78
1	44	40	DSI	H02		0.66	0.4
1	44	40	DSI	H03		0.64	0.46
1	44	40	DSI	H04		0.42	0.27
1	44	42	DSI	H02		0.88	1.14
1	44	42	DSI	H05		0.47	0.53
1	44	45	DSI	H02		1.22	1.05
1	44	50	DSI	H02		0.65	0.48
1	44	56	DSI	H03		1.34	0.59
1	44	57	DSI	H01		1.06	1.14
1	45	37	DSI	H02		0.91	0.65
1	45	44	DSI	H03		1.19	1.25
1	45	47	DSI	H02		0.64	0.55
1	45	47	DSI	H03		1.19	1.13
1	45	47	DSI	H04		1.02	0.99
1	45	49	DSI	H02		0.49	0.38
1	45	51	DSI	H02		0.93	0.73
1	45	54	DSI	H03		0.33	0.27
1	45	55	DSI	H03		0.25	0.23
1	46	41	DSI	H03		0.62	0.45
1	46	50	DSI	H03		0.83	0.82

(1) All indications greater than or equal to 2 volts at EOC-16 were subject to a +Point™ inspection. All DSI indications greater than 2 volts, confirmed by +Point™ inspection, were repaired by plugging.

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
2	1	26	DSI	H01		0.75	0.73
2	1	76	DSI	H01		0.93	0.84
2	2	2	DSI	H02		0.53	0.29
2	2	2	DSI	H05		0.2	0.18
2	2	14	DSI	H02		0.44	0.34
2	2	22	DSI	H02		0.39	0.38
2	2	28	DSI	H02		0.6	0.62
2	2	30	DSI	H02		0.31	0.26
2	2	37	DSI	H02		0.49	0.52
2	2	42	DSI	H01		0.31	0.26
2	2	43	DSI	H02		1.24	0.9
2	2	45	DSI	H02		1.17	1.16
2	2	46	DSI	H02		0.66	0.66
2	2	47	DSI	H02		1.06	1
2	2	47	DSI	H05		0.5	0.28
2	2	48	DSI	H01		0.51	0.51
2	2	49	DSI	H01		0.2	0.21
2	2	49	DSI	H02		1.18	0.41
2	2	50	DSI	H02		0.75	0.69
2	2	55	DSI	H01		0.37	0.44
2	2	55	DSI	H02		0.66	0.7
2	2	56	DSI	H01		0.66	0.81
2	2	57	DSI	H02		0.58	0.48
2	2	58	DSI	H01		0.94	0.97
2	2	58	DSI	H02		1.7	1.54
2	2	61	DSI	H01		0.84	0.74
2	2	61	DSI	H02		1.09	0.89
2	2	62	DSI	H02		0.8	0.43
2	2	63	DSI	H04		0.72	0.63
2	2	66	DSI	H02		1.17	1.21
2	2	70	DSI	H02		0.59	0.28
2	2	73	DSI	H01		0.75	0.6
2	2	73	DSI	H02		1.06	0.94
2	2	76	DSI	H02		0.86	0.83
2	2	77	DSI	H01		0.35	0.37
2	2	82	DSI	H04		1.39	1.26
2	2	83	DSI	H01		0.7	0.7
2	2	83	DSI	H02		0.3	0.38
2	2	83	DSI	H04		0.77	0.83
2	2	84	DSI	H01		0.62	0.56
2	2	85	DSI	H01		0.95	0.91
2	2	85	DSI	H02		0.89	0.56
2	2	85	DSI	H04		0.46	0.38
2	2	87	DSI	H01		1.14	1
2	2	88	DSI	H01		0.94	0.64
2	2	88	DSI	H02		1.22	0.85

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
2	2	88	DSI	H03		0.45	0.52
2	2	88	DSI	H06		0.64	0.31
2	2	90	DSI	H01		0.29	0.37
2	2	90	DSI	H02		0.82	0.64
2	2	94	DSI	H01		0.78	0.65
2	2	94	DSI	H02		0.9	0.76
2	2	94	DSI	H03		0.72	0.52
2	3	12	DSI	H04		0.17	0.15
2	3	16	DSI	H02		0.63	0.46
2	3	17	DSI	H02		0.32	0.24
2	3	30	DSI	H02		0.58	0.59
2	3	31	DSI	H01		0.33	0.3
2	3	31	DSI	H02		0.42	0.84
2	3	37	DSI	H02		0.91	0.72
2	3	38	DSI	H05		0.25	0.09
2	3	42	DSI	H02		1.88	1.84
2	3	42	DSI	H04		0.63	0.58
2	3	49	DSI	H01		0.47	0.34
2	3	49	DSI	H02		0.46	0.7
2	3	51	DSI	H02		1.27	1.28
2	3	61	DSI	H02		1.8	1.8
2	3	62	DSI	H02		0.43	0.38
2	3	66	DSI	H02		0.38	0.86
2	3	72	DSI	H01		1.15	0.83
2	3	72	DSI	H03		0.68	0.65
2	3	76	DSI	H02		1.38	0.92
2	3	86	DSI	H01		0.52	0.4
2	3	86	DSI	H03		0.5	0.25
2	3	88	DSI	H02		0.95	0.61
2	3	91	DSI	H03		0.67	0.66
2	3	92	DSI	H01		0.74	0.33
2	3	92	DSI	H02		0.42	0.42
2	4	1	DSI	H02		0.46	0.37
2	4	1	DSI	H04		0.31	0.29
2	4	2	DSI	H04		0.64	0.21
2	4	22	DSI	H02		0.26	0.26
2	4	26	DSI	H02		0.89	1
2	4	27	DSI	H02		0.35	0.56
2	4	29	DSI	H04		0.14	0.11
2	4	36	DSI	H01		1.25	1.35
2	4	45	DSI	C05		0.45	0.39
2	4	45	DSI	H02		0.91	0.82
2	4	45	DSI	H04		0.43	0.69
2	4	50	DSI	H01		0.68	0.73
2	4	50	DSI	H02		0.19	0.32
2	4	51	DSI	H02		0.22	0.22
2	4	54	DSI	H02		0.44	0.96
2	4	56	DSI	H02		1.2	1.11

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
2	4	57	DSI	H01		0.62	0.12
2	4	57	DSI	H04		0.31	0.2
2	4	58	DSI	H02		0.74	1
2	4	59	DSI	H01		1.43	0.78
2	4	59	DSI	H02		1.49	1.43
2	4	61	DSI	H04		0.72	0.6
2	4	64	DSI	H01		0.87	0.67
2	4	66	DSI	H01		0.61	0.35
2	4	77	DSI	H06		0.17	0.14
2	4	86	DSI	H06		0.51	0.29
2	4	88	DSI	H01		0.48	0.46
2	4	90	DSI	H01		0.28	0.21
2	4	91	DSI	H01		1.08	1.11
2	4	92	DSI	H01		0.65	0.34
2	4	92	DSI	H02		1.01	0.82
2	4	92	DSI	H03		0.34	0.49
2	4	92	DSI	H04		0.99	0.65
2	4	92	DSI	H05		1.04	0.59
2	4	94	DSI	H01		0.43	0.6
2	4	94	DSI	H02		1.01	0.89
2	5	1	DSI	H02		0.23	0.39
2	5	4	DSI	H02		0.58	0.21
2	5	5	DSI	H04		0.37	0.37
2	5	6	DSI	H02		0.65	0.64
2	5	27	DSI	H01		0.42	0.26
2	5	28	DSI	C04		0.26	0.32
2	5	38	DSI	H02		0.33	0.2
2	5	44	DSI	H04		0.34	0.44
2	5	50	DSI	H03		0.24	0.53
2	5	59	DSI	H02		0.44	0.62
2	5	60	DSI	H01		0.51	0.74
2	5	60	DSI	H04		0.29	0.18
2	5	65	DSI	H01		0.49	0.5
2	5	65	DSI	H02		0.93	0.98
2	5	66	DSI	H02		0.7	0.45
2	5	81	DSI	H01		0.51	0.59
2	5	88	DSI	H01		0.94	0.28
2	5	88	DSI	H03		0.59	0.14
2	5	91	DSI	H01		1.02	0.72
2	5	92	DSI	H01		1.12	0.9
2	5	92	DSI	H02		0.4	0.29
2	5	93	DSI	H01		1.25	1.09
2	5	93	DSI	H02		1.18	0.81
2	5	94	DSI	C04		0.49	0.36
2	5	94	DSI	H01		0.9	0.52
2	6	1	DSI	H02		0.54	0.49
2	6	3	DSI	H02		0.43	0.66
2	6	4	DSI	H01		0.31	0.34

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
2	6	4	DSI	H04		0.94	0.85
2	6	12	DSI	H06		0.08	0.09
2	6	13	DSI	H04		0.34	0.27
2	6	16	DSI	H02		0.47	0.55
2	6	17	DSI	H02		0.52	0.66
2	6	18	DSI	H02		0.44	0.42
2	6	21	DSI	H02		0.68	0.65
2	6	24	DSI	H02		0.32	0.3
2	6	29	DSI	H06		0.15	0.31
2	6	32	DSI	H02		0.49	0.4
2	6	32	DSI	H04		0.58	0.46
2	6	38	DSI	H02		0.75	0.62
2	6	39	DSI	H02		0.81	0.65
2	6	40	DSI	H01		0.56	0.53
2	6	40	DSI	H05		0.38	0.22
2	6	41	DSI	H01		0.58	0.66
2	6	43	DSI	C01		0.48	0.42
2	6	43	DSI	H02		1.5	1.48
2	6	48	DSI	H01		0.76	1
2	6	55	DSI	C02		0.31	0.25
2	6	57	DSI	H02		0.46	0.4
2	6	68	DSI	H06		0.21	0.3
2	6	70	DSI	H02		0.38	0.41
2	6	79	DSI	H02		1.13	0.78
2	6	84	DSI	H02		0.86	0.62
2	6	90	DSI	H02		0.51	0.69
2	6	90	DSI	H04		0.53	0.1
2	6	94	DSI	H01		0.69	0.77
2	7	1	DSI	H05		0.36	0.35
2	7	2	DSI	H04		0.85	0.71
2	7	4	DSI	H01		0.6	0.68
2	7	4	DSI	H02		0.78	0.73
2	7	7	DSI	H04		0.29	0.5
2	7	8	DSI	H01		0.63	0.91
2	7	9	DSI	H02		0.4	0.51
2	7	9	DSI	H04		0.46	0.29
2	7	10	DSI	H02		0.25	0.5
2	7	12	DSI	H04		0.4	0.43
2	7	13	DSI	H01		0.25	0.39
2	7	13	DSI	H02		0.68	0.48
2	7	13	DSI	H05		0.23	0.37
2	7	17	DSI	H01		0.55	0.47
2	7	21	DSI	H01		0.67	0.58
2	7	21	DSI	H04		0.16	0.32
2	7	21	DSI	H05		0.27	0.22
2	7	27	DSI	H01		0.64	0.51
2	7	32	DSI	H03		0.86	0.72
2	7	38	DSI	H02		0.19	0.17

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
2	7	42	DSI	H04		0.11	0.14
2	7	43	DSI	H02		0.7	0.85
2	7	44	DSI	H01		1.08	1.02
2	7	47	DSI	H01		0.56	0.66
2	7	48	DSI	H01		1.18	1.12
2	7	49	DSI	H02		0.61	0.48
2	7	57	DSI	H02		1.19	1.12
2	7	58	DSI	H01		1	1.1
2	7	61	DSI	H02		0.34	0.33
2	7	67	DSI	H02		0.38	0.44
2	7	68	DSI	H01		0.9	0.35
2	7	68	DSI	H02		0.41	0.34
2	7	71	DSI	H02		0.36	0.46
2	7	72	DSI	H01		0.43	0.35
2	7	72	DSI	H02		0.19	0.08
2	7	76	DSI	H02		0.96	0.46
2	7	79	DSI	H02		0.43	0.27
2	7	88	DSI	H02		0.63	0.09
2	7	89	DSI	H02		0.94	0.78
2	7	91	DSI	H01		0.43	0.55
2	7	91	DSI	H02		0.57	0.76
2	8	11	DSI	H02		0.43	0.49
2	8	13	DSI	H02		0.49	0.4
2	8	34	DSI	H03		0.22	0.16
2	8	35	DSI	H02		0.79	0.53
2	8	38	DSI	H02		0.46	0.6
2	8	42	DSI	H02		0.29	0.29
2	8	44	DSI	H01		1.15	1.18
2	8	45	DSI	H02		1.02	0.95
2	8	47	DSI	C03		0.62	0.54
2	8	47	DSI	H02		0.55	0.94
2	8	51	DSI	H01		1.02	1.14
2	8	51	DSI	H02		0.57	0.68
2	8	60	DSI	H01		0.56	0.53
2	8	61	DSI	H02		0.7	0.79
2	8	61	DSI	H04		0.33	0.48
2	8	62	DSI	H07		0.23	0.36
2	8	64	DSI	H02		0.82	0.72
2	8	68	DSI	H02		0.32	0.27
2	8	69	DSI	H01	Y	0.56	0.75
2	8	70	DSI	H03		0.29	0.49
2	8	71	DSI	H01		0.67	0.77
2	8	80	DSI	H01		0.86	0.71
2	8	82	DSI	H04		0.47	0.3
2	8	87	DSI	H01		0.6	0.5
2	8	88	DSI	H01		1.04	1.2
2	8	90	DSI	H01		0.79	0.63
2	8	90	DSI	H02		0.39	0.49

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
2	8	91	DSI	H01		0.95	0.71
2	8	93	DSI	H01		0.26	0.29
2	9	4	DSI	H04		0.35	0.32
2	9	14	DSI	H02		0.46	0.42
2	9	22	DSI	H02		0.47	0.38
2	9	23	DSI	H02		0.2	0.29
2	9	24	DSI	H06		0.48	0.49
2	9	29	DSI	H04		0.4	0.16
2	9	32	DSI	H01		0.14	0.53
2	9	33	DSI	H01		1.48	1.09
2	9	34	DSI	H02		0.51	0.44
2	9	36	DSI	H02		0.56	0.44
2	9	40	DSI	H02		0.18	0.63
2	9	41	DSI	H02		0.51	0.73
2	9	41	DSI	H05		0.68	0.76
2	9	48	DSI	H02		0.44	0.63
2	9	50	DSI	H04		0.23	0.28
2	9	53	DSI	H01		0.76	0.65
2	9	55	DSI	H02		0.45	0.42
2	9	57	DSI	H01		0.63	0.6
2	9	57	DSI	H02		0.51	0.35
2	9	62	DSI	H01		0.42	0.44
2	9	69	DSI	H02		0.28	0.35
2	9	72	DSI	H01		0.3	0.26
2	9	72	DSI	H02		0.33	0.74
2	9	91	DSI	H01		1.65	1.47
2	9	91	DSI	H02		0.64	0.31
2	10	4	DSI	H02		0.92	0.96
2	10	13	DSI	H02		0.31	0.31
2	10	18	DSI	C05		1.08	1.77
2	10	32	DSI	H05		0.2	0.38
2	10	46	DSI	H01		0.63	0.52
2	10	71	DSI	H02		0.97	0.89
2	10	71	DSI	H04		0.72	0.75
2	10	71	DSI	H05		0.24	0.29
2	10	89	DSI	H02		0.96	0.95
2	11	19	DSI	H06		0.41	0.23
2	11	21	DSI	H01		1.02	0.86
2	11	25	DSI	H01		0.55	0.36
2	11	25	DSI	H02		0.18	0.18
2	11	57	DSI	H01	Y	0.55	0.5
2	11	61	DSI	H01		0.93	1
2	11	63	DSI	H02		0.33	0.65
2	11	67	DSI	H02		1.73	1.59
2	11	67	DSI	H03		1.21	1.14
2	11	71	DSI	C05		0.57	0.32
2	11	72	DSI	H03		0.85	0.37
2	11	74	DSI	H05		0.62	0.55

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
2	11	75	DSI	H02		0.86	1.06
2	11	88	DSI	H02		0.74	0.59
2	12	3	DSI(I)	C07	Y	1.12	INR
2	12	6	DSI	H02		1.15	1.01
2	12	38	DSI	H02		0.76	1.05
2	12	44	DSI	H01		0.35	0.46
2	12	44	DSI	H02		1.05	0.89
2	12	51	DSI	C03		0.23	0.25
2	12	55	DSI	H01		0.49	0.98
2	12	59	DSI	H01		0.19	0.43
2	12	59	DSI	H02		0.45	0.52
2	12	60	DSI	C02		0.25	0.36
2	12	78	DSI	H03		0.97	0.83
2	12	85	DSI	H02		0.71	0.72
2	12	90	DSI	H02		0.61	0.43
2	13	9	DSI	C05		0.27	0.25
2	13	15	DSI	H04		0.34	0.31
2	13	21	DSI	H02		0.56	0.51
2	13	78	DSI	H03		0.45	0.68
2	13	89	DSI	H01		0.58	0.92
2	13	90	DSI	H01		0.99	0.75
2	13	92	DSI(I)	H07	Y	1.11	INR
2	14	11	DSI	H02		0.46	0.43
2	14	18	DSI	H02		0.31	0.38
2	14	23	DSI	H02		0.23	0.18
2	14	47	DSI	H02		0.76	0.55
2	14	51	DSI	H01		0.56	0.56
2	14	84	DSI	H01		0.75	0.93
2	14	86	DSI	H01	Y	2.71	1.39
2	14	90	DSI	H01		0.66	0.62
2	14	90	DSI	H02		0.81	0.62
2	15	5	DSI	H01		1.12	1.06
2	15	5	DSI	H04		0.59	0.34
2	15	32	DSI	H04		0.24	0.58
2	15	36	DSI	H01		0.91	0.95
2	15	40	DSI	H02		1.36	1.27
2	15	48	DSI	H01		0.64	0.74
2	15	48	DSI	H02		0.39	0.35
2	15	49	DSI	H01		0.73	0.72
2	15	49	DSI	H02		0.79	0.73
2	15	84	DSI	H02		0.74	0.47
2	15	87	DSI	H01		1.25	1.07
2	15	87	DSI	H02		0.81	0.82
2	15	89	DSI	H01		1.81	1.58
2	16	11	DSI	H02		0.92	1.05
2	16	27	DSI	H03		0.61	0.34
2	16	33	DSI	H03		0.55	0.4
2	16	48	DSI	H05		0.89	0.45

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
2	16	59	DSI	H01		0.33	0.52
2	16	60	DSI	H01		0.49	0.69
2	16	80	DSI	H03		0.45	0.52
2	16	89	DSI	H01		0.32	0.3
2	16	90	DSI	H01		0.99	0.84
2	17	41	DSI	H01		0.5	0.67
2	17	49	DSI	H01		0.57	0.58
2	17	70	DSI	H05		0.31	0.25
2	17	77	DSI	C04		1.3	0.33
2	17	86	DSI	H03		0.42	0.79
2	17	88	DSI	H01		1	0.85
2	18	7	DSI	H02		1.48	1.12
2	18	11	DSI	H01	Y	1.55	1.27
2	18	14	DSI	H02		0.45	0.38
2	18	22	DSI	H01		0.66	0.65
2	18	52	DSI	H01		1.08	0.81
2	18	56	DSI	H02		0.68	0.78
2	18	65	DSI	H01		0.5	0.73
2	18	78	DSI	H02		0.69	0.72
2	19	15	DSI	H02		0.66	0.38
2	19	22	DSI	H01		0.46	0.49
2	19	22	DSI	H02		0.71	0.85
2	19	61	DSI	H01	Y	0.42	0.45
2	19	63	DSI	H02		0.41	0.51
2	19	68	DSI	H02		0.14	0.19
2	19	69	DSI	H01		0.66	0.65
2	19	70	DSI	H02		0.17	0.14
2	19	78	DSI	H01		0.46	0.52
2	19	88	DSI	H01		0.95	0.43
2	20	10	DSI	H03		0.42	0.49
2	20	22	DSI	H03		0.19	0.46
2	20	27	DSI	C02		0.27	0.21
2	20	33	DSI	H03		0.71	0.88
2	20	33	DSI	H04		0.45	0.36
2	20	43	DSI	H01		0.31	0.31
2	20	43	DSI	H05		0.81	0.8
2	20	44	DSI	H02		0.43	0.5
2	20	48	DSI	H02		0.94	1.09
2	20	49	DSI	H01		0.42	0.68
2	20	49	DSI	H02		0.77	0.83
2	20	52	DSI	H01	Y	2.03	1.17
2	20	56	DSI	H02		1.14	0.92
2	20	57	DSI	H01		0.49	0.63
2	20	58	DSI	H01		0.51	0.59
2	20	58	DSI	H02		1.03	0.66
2	20	62	DSI	H01		0.59	0.63
2	20	65	DSI	H01		0.5	0.55
2	20	66	DSI	H03		0.78	0.78

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
2	20	89	DSI	H02		0.51	0.53
2	21	9	DSI	H02		1.1	0.76
2	21	20	DSI	H01		0.23	1.19
2	21	20	DSI	H02		0.37	0.43
2	21	27	DSI	C04		0.17	0.26
2	21	57	DSI	H01		0.69	0.52
2	21	61	DSI	H01		0.83	0.54
2	21	64	DSI	H01		0.48	0.54
2	21	69	DSI	H01		0.51	0.67
2	21	87	DSI	H01		1.04	0.84
2	22	16	DSI	H02		0.78	0.81
2	22	30	DSI	H02		0.45	0.78
2	22	34	DSI	H01		0.3	0.49
2	22	36	DSI	H04		0.46	0.46
2	22	37	DSI	H05		0.54	0.27
2	22	58	DSI	H01		1.19	1.23
2	22	58	DSI	H06		0.35	0.4
2	22	64	DSI	H02		0.64	0.23
2	22	68	DSI	H02		0.29	0.29
2	22	69	DSI	H01		0.43	0.65
2	22	73	DSI	H04		0.53	0.72
2	23	11	DSI	C03		0.68	0.46
2	23	17	DSI	H02		0.8	0.77
2	23	22	DSI	H02		0.49	0.69
2	23	25	DSI	H01		0.45	0.33
2	23	44	DSI	H01		1.33	1.34
2	23	44	DSI	H05		0.47	0.57
2	23	49	DSI	H01		1.48	1.39
2	23	55	DSI	H01		0.5	0.48
2	23	70	DSI	H03		0.48	0.46
2	23	72	DSI	H02		0.22	0.19
2	23	73	DSI	H02		1.74	1.62
2	23	74	DSI	H03		0.36	0.31
2	23	85	DSI	H01		0.51	0.45
2	23	85	DSI	H02		0.53	0.79
2	23	86	DSI	H02		1.16	1.28
2	24	8	DSI	H01		0.51	0.41
2	24	12	DSI	C04		0.28	0.21
2	24	13	DSI	H02		0.61	0.38
2	24	37	DSI	H02		0.68	0.64
2	24	37	DSI	H04		1.11	1.28
2	24	38	DSI	H02		0.42	0.56
2	24	43	DSI	H02		1.1	1.12
2	24	43	DSI	H03		1.1	1.09
2	24	45	DSI	H02		0.46	0.37
2	24	50	DSI	H01		0.71	0.66
2	24	56	DSI	H02		0.38	0.4
2	24	60	DSI	H02		0.81	0.71

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
2	24	65	DSI	H02		1	0.81
2	24	87	DSI	H01		1.53	1.31
2	24	87	DSI	H04		0.57	0.55
2	25	9	DSI	H07		0.43	0.24
2	25	22	DSI	H02		0.43	0.51
2	25	43	DSI	H02		0.65	0.65
2	25	56	DSI	H03		0.8	0.98
2	25	66	DSI	H03		0.76	0.73
2	25	68	DSI	H03		0.51	0.3
2	25	70	DSI	H02		0.48	0.57
2	25	72	DSI	H02		0.77	0.58
2	25	72	DSI	H04		0.52	0.6
2	25	73	DSI	H04		0.32	0.35
2	25	75	DSI	H02		0.54	0.65
2	26	11	DSI	C04		0.32	0.31
2	26	15	DSI	H02		1.05	0.74
2	26	17	DSI	H02		0.71	0.59
2	26	18	DSI	H01		0.89	0.95
2	26	45	DSI	H01		1.62	0.76
2	26	59	DSI	H01		0.97	1.09
2	26	59	DSI	H02		0.58	0.64
2	26	59	DSI	H03		0.44	0.41
2	26	59	DSI	H06		0.46	0.5
2	27	53	DSI	H02		0.91	0.83
2	27	68	DSI	H01	Y	2.12	1.84
2	27	68	DSI	H02	Y	1.08	0.68
2	27	84	DSI	H01		1.16	1.2
2	27	84	DSI	H02		0.96	0.97
2	28	12	DSI	H01		0.54	0.57
2	28	12	DSI	H02		0.64	0.75
2	28	14	DSI	H01		0.67	0.49
2	28	17	DSI	H02		1.15	1.02
2	28	25	DSI	H02		0.34	0.41
2	28	60	DSI	H02		0.41	0.47
2	28	66	DSI	H03		0.46	0.51
2	28	69	DSI	H02		0.51	0.53
2	28	73	DSI	H03		0.94	0.98
2	28	79	DSI	H01		0.71	0.91
2	28	79	DSI	H02		0.82	0.74
2	29	11	DSI	C01		0.57	0.43
2	29	12	DSI	H01		0.62	0.54
2	29	16	DSI	H01		0.84	0.7
2	29	16	DSI	H02		0.86	0.97
2	29	16	DSI	H05		0.52	0.6
2	29	17	DSI	H02		0.88	0.77
2	29	20	DSI	H02		0.77	0.85
2	29	21	DSI	H02		0.96	1.01
2	29	45	DSI	H02		0.31	0.2

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
2	29	61	DSI	H02		0.42	0.66
2	29	61	DSI	H03		0.47	0.42
2	29	67	DSI	H01		0.63	0.63
2	29	79	DSI	H01		0.3	0.3
2	29	79	DSI	H02		0.48	0.58
2	30	16	DSI	H02		0.76	0.59
2	30	17	DSI	H02		0.79	0.77
2	30	19	DSI	H04		0.79	0.62
2	30	20	DSI	H01		0.29	0.53
2	30	21	DSI	H02		0.94	0.81
2	30	22	DSI	H02		0.57	0.74
2	30	27	DSI	H02		0.69	0.37
2	30	38	DSI	H02		0.65	0.67
2	30	45	DSI	H03		0.55	0.42
2	30	46	DSI	C02		0.3	0.34
2	30	54	DSI	H01		1.61	1.63
2	30	54	DSI	H02		0.26	0.75
2	30	55	DSI	H01		1.6	1.39
2	30	55	DSI	H02		1.5	1.18
2	30	55	DSI	H05		0.34	0.4
2	30	62	DSI	H01		0.43	0.4
2	30	68	DSI	H02		1.79	1.45
2	30	70	DSI	H01		0.4	0.42
2	30	74	DSI	H02		1.91	1.73
2	30	76	DSI	H02		1.1	1.1
2	30	77	DSI	H02		0.65	0.66
2	30	77	DSI	H03		0.51	0.69
2	30	79	DSI	H02		0.57	0.98
2	30	81	DSI	H01		1.27	1.47
2	30	81	DSI	H04		0.69	0.96
2	30	82	DSI	H02		0.57	0.47
2	30	83	DSI	H01		0.81	0.88
2	30	83	DSI	H02		0.82	0.82
2	31	16	DSI	H02		0.49	0.42
2	31	25	DSI	H02		0.8	0.54
2	31	39	DSI	H02		0.4	0.51
2	31	43	DSI	H03		0.79	0.77
2	31	45	DSI	H03		0.36	0.27
2	31	47	DSI	H02		0.76	0.72
2	31	48	DSI	H01		0.73	0.81
2	31	58	DSI	H02		0.35	0.26
2	31	66	DSI	H02		0.68	0.68
2	31	67	DSI	H02		0.86	0.63
2	31	67	DSI	H03		0.48	0.48
2	31	70	DSI	H01		1.34	1.37
2	31	70	DSI	H02		1.27	1.27
2	31	74	DSI	H01		0.26	0.33
2	31	74	DSI	H02		0.95	0.78

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
2	32	17	DSI	H05		1.29	0.96
2	32	19	DSI	C01		0.32	0.29
2	32	20	DSI	H01		1.26	1.23
2	32	20	DSI	H02		0.75	1.16
2	32	20	DSI	H05		0.49	0.61
2	32	20	DSI	H06		0.53	0.53
2	32	21	DSI	H02		0.64	0.53
2	32	23	DSI	H02		0.78	0.81
2	32	26	DSI	H01		0.47	0.45
2	32	32	DSI	H01		0.72	0.58
2	32	60	DSI	H02		0.44	0.32
2	32	61	DSI	H02		0.65	0.69
2	32	63	DSI	H01		0.61	0.3
2	32	74	DSI	H02		1.24	1.27
2	33	17	DSI	C01		0.18	0.2
2	33	31	DSI	H02		1.44	1.31
2	33	31	DSI	H04		0.31	0.38
2	33	50	DSI	H07		0.24	0.19
2	33	52	DSI	H03		0.6	0.62
2	33	77	DSI(I)	H02	Y	1.15	INR
2	34	72	DSI	H01		0.29	0.22
2	34	73	DSI	H01		0.35	0.36
2	35	22	DSI	H01		0.69	0.76
2	35	42	DSI	H02		0.47	0.32
2	35	44	DSI	H02		0.62	0.64
2	35	45	DSI	H01		0.36	0.39
2	35	45	DSI	H02		0.51	0.4
2	35	47	DSI	H02		0.47	0.41
2	35	51	DSI	H02		0.48	0.28
2	35	53	DSI	H01		0.46	0.36
2	35	58	DSI	H01		0.71	0.54
2	35	58	DSI	H03		0.34	0.36
2	35	58	DSI	H04		0.58	0.52
2	35	59	DSI	H02		0.77	0.48
2	35	61	DSI	H03		0.5	0.56
2	35	64	DSI	H02		0.52	0.45
2	35	72	DSI	H03		0.31	0.3
2	35	75	DSI	H01		0.16	0.4
2	36	21	DSI	H02		0.41	0.39
2	36	31	DSI	H02		0.47	0.48
2	36	33	DSI	H02		0.7	0.55
2	36	42	DSI	H01		0.34	0.34
2	36	42	DSI	H02		1.08	1.04
2	36	63	DSI	H02		0.52	0.35
2	36	64	DSI	H01		1.2	1.18
2	36	64	DSI	H03		0.61	0.41
2	36	71	DSI	H01		0.93	1.36
2	36	71	DSI	H02		0.89	0.99

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
2	36	74	DSI	H02		0.67	0.6
2	36	75	DSI	H02		0.88	1.04
2	37	20	DSI	H01		1.19	1.03
2	37	26	DSI	H02		0.51	0.54
2	37	43	DSI	H02		0.9	0.83
2	37	54	DSI	H02		0.35	0.41
2	37	55	DSI	H02		0.77	0.74
2	37	58	DSI	H02		0.31	0.18
2	37	63	DSI(I)	H03	Y	1.22	INR
2	37	66	DSI	H01		0.32	0.28
2	38	25	DSI	H02		0.53	0.47
2	38	26	DSI	H01		0.57	0.52
2	38	26	DSI	H02		0.81	1.21
2	38	27	DSI	H02		0.88	0.57
2	38	28	DSI	H02		0.37	0.46
2	38	32	DSI	H02		0.39	0.53
2	38	32	DSI	H03		0.87	0.84
2	38	33	DSI	H02		0.87	0.74
2	38	33	DSI	H03		0.75	0.57
2	38	33	DSI	H04		0.53	0.47
2	38	45	DSI	H02		1.78	1.24
2	38	45	DSI	H03		0.89	0.8
2	38	49	DSI	H02		0.93	0.97
2	38	53	DSI	H02		0.46	0.32
2	38	54	DSI	H03		0.38	0.28
2	38	59	DSI	H02		0.73	0.37
2	38	60	DSI	H03		0.64	0.51
2	38	60	DSI	H04		0.48	0.32
2	38	66	DSI	H01		0.5	0.32
2	38	74	DSI	H04		0.48	0.36
2	39	25	DSI	H01		0.48	0.38
2	39	25	DSI	H02		0.63	0.52
2	39	31	DSI	H02		0.47	0.36
2	39	37	DSI	H02		0.54	0.52
2	39	38	DSI	H02		0.84	1.15
2	39	40	DSI	H02		0.3	0.25
2	39	55	DSI	H02		0.78	0.58
2	39	58	DSI	H04		0.72	0.67
2	39	59	DSI	H02		0.39	0.43
2	39	60	DSI	H04		0.51	0.46
2	39	62	DSI	H02		0.96	0.74
2	39	70	DSI	H02		0.56	0.66
2	39	70	DSI	H04		0.22	0.22
2	40	29	DSI	H02		0.56	0.7
2	40	31	DSI	H02		0.39	0.28
2	40	33	DSI	H02		0.4	0.32
2	40	37	DSI	H02		0.69	0.58
2	40	40	DSI	H03		0.72	0.71

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
2	40	41	DSI	H03		1.15	0.96
2	40	42	DSI	C02		0.77	0.18
2	40	48	DSI	H05		0.5	0.48
2	40	55	DSI	C02		0.12	0.15
2	40	57	DSI	H02		0.47	0.45
2	40	60	DSI	H02		0.41	0.41
2	40	64	DSI	H01		0.53	0.29
2	40	64	DSI	H02		0.41	0.62
2	41	26	DSI	C01		0.19	0.17
2	41	29	DSI	C04		0.26	0.36
2	41	30	DSI(I)	H01	Y	1.39	0.55
2	41	34	DSI	H02		1.62	0.6
2	41	36	DSI	H03		0.26	0.4
2	41	37	DSI	H01		0.72	0.55
2	41	37	DSI	H02		1.25	1.17
2	41	37	DSI	H04		0.37	0.24
2	41	39	DSI	H02		0.35	0.34
2	41	41	DSI	H01		0.53	0.48
2	41	41	DSI	H02		1.13	1.37
2	41	41	DSI	H04		0.77	0.67
2	41	41	DSI	H05		0.43	0.75
2	41	43	DSI	H02		1.21	1.04
2	41	43	DSI	H03		0.65	0.54
2	41	50	DSI	H01		1.39	1.36
2	41	50	DSI	H02		0.99	0.61
2	41	54	DSI	H01		0.37	0.36
2	41	54	DSI	H02		0.85	1.07
2	41	54	DSI	H03		1.05	0.99
2	41	55	DSI	H03		0.88	0.74
2	41	65	DSI	H05		0.89	0.98
2	41	67	DSI	H01		0.49	0.79
2	41	69	DSI	H01		0.47	0.48
2	42	28	DSI	H05		0.49	0.19
2	42	34	DSI	H02		0.29	0.7
2	42	37	DSI	H05		0.47	0.47
2	42	43	DSI	H03		0.65	0.44
2	42	50	DSI	H02		0.77	0.55
2	42	51	DSI	H02		0.69	0.42
2	42	54	DSI	H02		0.34	0.43
2	42	54	DSI	H05		0.44	0.45
2	42	61	DSI	H01		1.34	0.64
2	42	64	DSI	H06		0.73	1.24
2	42	66	DSI	H02		0.76	0.88
2	42	66	DSI	H06		1.52	1.34
2	42	67	DSI	H06		1.4	1.76
2	43	38	DSI	H02		0.42	0.7
2	43	43	DSI	H02		0.99	1.1
2	43	43	DSI	H03		0.37	0.36

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
2	43	44	DSI	H03		0.5	0.45
2	43	47	DSI	H02		0.62	0.5
2	43	49	DSI	H02		0.45	0.4
2	43	50	DSI	H01		0.92	0.9
2	43	50	DSI	H02		0.46	0.42
2	43	52	DSI	H01		0.67	0.68
2	43	52	DSI	H02		0.4	0.82
2	43	52	DSI	H03		0.4	0.3
2	43	53	DSI	H04		0.61	0.54
2	43	54	DSI	H02		0.34	0.28
2	43	54	DSI	H03		0.51	0.23
2	43	54	DSI	H04		0.75	0.66
2	43	56	DSI	H03		0.32	0.24
2	43	58	DSI	H01		0.54	0.54
2	43	65	DSI	C01		0.7	0.56
2	44	35	DSI	H03		0.96	1.03
2	44	37	DSI	H02		0.56	0.35
2	44	39	DSI	H02		0.64	0.54
2	44	40	DSI	C01		0.42	0.5
2	44	44	DSI	H02		1	1.05
2	44	45	DSI	H02		0.39	0.35
2	44	46	DSI	H02		0.6	0.38
2	44	48	DSI	H02		0.53	0.34
2	44	52	DSI	H02		1.43	1.41
2	44	61	DSI	C02		0.51	0.39
2	45	39	DSI	H03		0.37	0.32
2	45	39	DSI	H04		0.26	0.5
2	45	42	DSI	H02		0.65	0.59
2	45	43	DSI	C01		0.61	0.59
2	45	43	DSI	H02		0.75	0.29
2	45	48	DSI	H02		0.63	0.5
2	45	49	DSI	H03		0.17	0.15
2	45	51	DSI	H02		0.75	0.8
2	45	52	DSI	H01		0.42	0.32
2	45	52	DSI	H02		1.01	0.8
2	45	54	DSI	H02		0.6	0.61
2	45	55	DSI	C01		0.34	0.45
2	45	56	DSI	C01		0.46	0.53
2	45	57	DSI	H02		0.56	0.6
2	46	50	DSI	H02		0.3	0.23
2	46	50	DSI	H04		0.54	0.41

(1) All indications greater than or equal to 2 volts at EOC-16 were subject to a +Point™ inspection. All DSI indications greater than 2 volts, confirmed by +Point™ inspection, were repaired by plugging.
(I) Imputed voltage. The TSP intersection did not have a DSI, but did have a SAI. The EOC-16 DSI voltage was imputed from a statistical evaluation of DSI-SAI voltages.
INR = Indication Not Reportable

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
3	1	74	DSI	H04		1.1	1.07
3	1	76	DSI	H03		0.54	0.57
3	1	79	DSI	H02		0.95	1.03
3	1	79	DSI	H03		1.5	1.41
3	1	82	DSI	C01		0.36	0.4
3	1	84	DSI	H03		0.92	0.77
3	2	1	DSI	H02		0.51	0.34
3	2	2	DSI	H01		0.26	0.22
3	2	16	DSI	H01		0.49	0.43
3	2	25	DSI	H02		0.48	0.56
3	2	25	DSI	H03		0.69	0.66
3	2	25	DSI	H06		0.36	0.42
3	2	26	DSI	H06		0.52	0.58
3	2	30	DSI	H01		1.16	0.75
3	2	31	DSI	H01		0.4	0.36
3	2	31	DSI	H03		0.54	0.37
3	2	32	DSI	H01		0.5	0.26
3	2	33	DSI	H01		0.36	0.37
3	2	35	DSI	H01		1.12	1.06
3	2	38	DSI	H02		0.23	0.21
3	2	38	DSI	H04		0.21	0.22
3	2	39	DSI	H02		0.94	0.9
3	2	39	DSI	H03		0.89	0.81
3	2	56	DSI	H02		0.45	0.42
3	2	58	DSI	C01		0.5	0.46
3	2	58	DSI	H01		0.5	0.44
3	2	66	DSI	H06		0.4	0.32
3	2	73	DSI	H02		0.51	0.52
3	2	79	DSI	H01		0.6	0.64
3	2	89	DSI	H02		0.44	0.48
3	3	1	DSI	H01		0.89	0.78
3	3	1	DSI	H02		0.6	0.52
3	3	2	DSI	H01		0.84	0.49
3	3	2	DSI	H03		0.75	0.56
3	3	2	DSI	H05		0.73	0.63
3	3	3	DSI	H05		0.32	0.29
3	3	3	DSI	H06		0.64	0.52
3	3	5	DSI	H01		1.4	1.24
3	3	5	DSI	H05		0.83	0.77
3	3	7	DSI	H05		0.29	0.24
3	3	10	DSI	H01		1.34	1.46
3	3	16	DSI	H03		0.83	0.67
3	3	19	DSI	H01		0.49	0.63
3	3	19	DSI	H06		0.6	0.67
3	3	23	DSI	H01		0.73	0.94
3	3	24	DSI	H01		0.29	0.32
3	3	24	DSI	H02		0.38	0.37

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
3	3	29	DSI	H01		1.38	1.29
3	3	29	DSI	H02		0.49	0.56
3	3	34	DSI	H01		0.86	0.8
3	3	34	DSI	H05		0.35	0.32
3	3	49	DSI	H01		0.46	0.32
3	3	49	DSI	H02		0.61	0.52
3	3	51	DSI	H02		0.56	0.63
3	3	53	DSI	H01		0.62	0.51
3	3	54	DSI	H01		0.49	0.53
3	3	58	DSI	H05		0.23	0.23
3	3	68	DSI	H06		0.39	0.65
3	3	82	DSI	H01		0.5	0.4
3	3	94	DSI	H02		0.84	0.86
3	3	94	DSI	H04		0.52	0.47
3	4	13	DSI	H01		0.53	0.73
3	4	15	DSI	H05		0.53	0.33
3	4	25	DSI	H02		1.22	1.21
3	4	26	DSI	H01		0.58	0.54
3	4	26	DSI	H02		0.6	0.52
3	4	27	DSI	H01		0.4	0.4
3	4	30	DSI	H03		0.8	0.79
3	4	34	DSI	H01		1.15	0.8
3	4	39	DSI	H01		1.03	0.93
3	4	46	DSI	H01		1.17	1.33
3	4	48	DSI	H01		0.42	0.36
3	4	50	DSI	H01		0.99	0.77
3	4	50	DSI	H05		0.17	0.51
3	4	51	DSI	H01		0.92	0.82
3	4	54	DSI	H01		0.62	0.43
3	4	55	DSI	H01		0.25	0.44
3	4	55	DSI	H02		0.91	0.91
3	4	60	DSI	H02		1.19	1.13
3	4	74	DSI	H06		0.54	0.47
3	4	82	DSI	H06		0.49	0.44
3	4	83	DSI	H02		1.05	0.93
3	4	84	DSI	H02		0.9	0.96
3	4	85	DSI	C03		0.56	0.58
3	5	1	DSI	H01		1.36	1.18
3	5	1	DSI	H02		1.67	1.61
3	5	4	DSI	H01	Y	1.14	1.15
3	5	4	DSI	H02	Y	0.39	0.3
3	5	4	DSI	H03	Y	0.78	0.75
3	5	4	DSI	H06	Y	0.79	0.52
3	5	5	DSI	H02		1.04	0.6
3	5	5	DSI	H03		0.35	0.36
3	5	8	DSI	H03		0.3	0.22
3	5	10	DSI	H01		1.12	0.96
3	5	12	DSI	H01		0.73	0.74

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
3	5	13	DSI	H02		0.39	0.39
3	5	13	DSI	H05		0.54	0.38
3	5	17	DSI	H02		0.59	0.67
3	5	18	DSI	H01		0.32	0.3
3	5	22	DSI	H01		1	0.95
3	5	55	DSI	H01		0.29	0.5
3	5	85	DSI	C01		0.57	0.7
3	5	91	DSI	H03		0.46	0.6
3	6	1	DSI	H01		1.05	1.01
3	6	3	DSI	H04		0.27	0.2
3	6	3	DSI	H05		0.66	0.5
3	6	5	DSI	H01		0.64	0.72
3	6	10	DSI	H01		1.44	0.98
3	6	11	DSI	H01		0.46	0.44
3	6	30	DSI	H01		1.44	1.03
3	6	33	DSI	H03		0.32	0.31
3	6	37	DSI	H01		0.87	0.75
3	6	37	DSI	H02		0.87	0.86
3	6	37	DSI	H05		0.41	0.32
3	6	38	DSI	H01		1.21	1.05
3	6	38	DSI	H02		0.44	0.36
3	6	38	DSI	H03		0.64	0.59
3	6	38	DSI	H04		0.62	0.56
3	6	40	DSI	H05		0.32	0.24
3	6	50	DSI	H01		0.37	0.32
3	6	75	DSI	H02		0.24	0.25
3	6	77	DSI	H02		0.29	0.24
3	6	79	DSI	H02		0.43	0.5
3	6	79	DSI	H03		0.18	0.28
3	6	87	DSI	H02		0.62	0.59
3	6	94	DSI	H02		0.42	0.4
3	7	1	DSI	H02		1.11	1.05
3	7	6	DSI	H01		0.69	0.61
3	7	6	DSI	H03		0.53	0.5
3	7	14	DSI	H01		0.93	1.13
3	7	14	DSI	H02		0.54	0.46
3	7	18	DSI	H01		0.4	0.42
3	7	19	DSI	H03		0.83	0.75
3	7	21	DSI	H01		0.48	0.56
3	7	21	DSI	H05		0.73	0.66
3	7	24	DSI	H02		0.63	0.63
3	7	25	DSI	H01		0.68	0.79
3	7	25	DSI	H02		0.51	0.55
3	7	25	DSI	H03		0.36	0.46
3	7	29	DSI	H01		0.6	0.68
3	7	35	DSI	H03		0.38	0.29
3	7	38	DSI	H02		0.28	0.27
3	7	39	DSI	H01		0.45	0.61

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
3	7	42	DSI	H04		0.82	0.82
3	7	56	DSI	H01		0.67	0.63
3	7	56	DSI	H02		0.85	0.86
3	7	58	DSI	H02		0.69	0.73
3	7	60	DSI	H01		0.77	0.72
3	7	61	DSI	H01		0.46	0.51
3	7	61	DSI	H03		0.44	0.43
3	7	64	DSI	H01		0.81	0.9
3	7	67	DSI	H02		0.74	0.55
3	7	70	DSI	H01		1.1	1.07
3	7	71	DSI	H01		0.88	0.88
3	7	71	DSI	H02		1.76	1.53
3	7	71	DSI	H03		0.66	0.67
3	7	72	DSI	H01		0.76	0.73
3	7	72	DSI	H02		1.2	1.23
3	7	78	DSI	C06		0.42	0.53
3	7	81	DSI	H06		0.49	0.41
3	7	85	DSI	C02		0.44	0.43
3	7	85	DSI	H02		0.51	0.41
3	7	91	DSI	H01		1.03	0.87
3	7	91	DSI	H02		0.96	0.9
3	7	92	DSI	H01		0.61	0.62
3	7	92	DSI	H03		1.23	1.04
3	7	93	DSI	H01		0.74	0.71
3	7	93	DSI	H02		1.63	1.53
3	7	93	DSI	H03		1.17	0.98
3	7	94	DSI	H03		0.54	0.57
3	8	6	DSI	H01		0.66	0.3
3	8	6	DSI	H03		0.62	0.47
3	8	7	DSI	H01		0.72	0.72
3	8	7	DSI	H03		1.18	1.02
3	8	13	DSI	H06		0.45	0.23
3	8	15	DSI	H02		0.55	0.66
3	8	18	DSI	H03		0.83	0.85
3	8	18	DSI	H05		0.83	0.63
3	8	19	DSI	H01		0.58	0.69
3	8	19	DSI	H02		0.93	0.78
3	8	19	DSI	H05		0.44	0.44
3	8	20	DSI	H06		0.41	0.26
3	8	22	DSI	H03		0.83	0.67
3	8	24	DSI	H03		0.81	0.65
3	8	28	DSI	H01		0.81	0.66
3	8	42	DSI	H01		0.48	0.46
3	8	49	DSI	H01		0.89	0.87
3	8	50	DSI	H01		1.02	0.93
3	8	50	DSI	H02		0.67	0.68
3	8	51	DSI	H01		0.47	0.38
3	8	52	DSI	H01		0.67	0.72

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
3	8	52	DSI	H02		0.57	0.62
3	8	55	DSI	H02		0.43	0.41
3	8	57	DSI	H01		0.46	0.35
3	8	57	DSI	H04		0.4	0.36
3	8	59	DSI	H01		0.68	0.63
3	8	64	DSI	H01		0.6	0.53
3	8	67	DSI	H02		0.6	0.54
3	8	68	DSI	H02		0.34	0.37
3	8	69	DSI	H01		0.79	0.75
3	8	70	DSI	H03		0.72	0.44
3	8	70	DSI	H05		0.19	0.25
3	8	70	DSI	H06		0.37	0.32
3	9	3	DSI	H01		0.31	0.21
3	9	4	DSI	H01		0.79	0.66
3	9	5	DSI	H01	Y	4.17	1.2
3	9	6	DSI	H01		0.66	0.31
3	9	7	DSI	H01		0.79	0.69
3	9	8	DSI	H01		1.16	1.09
3	9	10	DSI	H03		0.67	0.45
3	9	11	DSI	H01		1.02	0.88
3	9	11	DSI	H05		0.52	0.38
3	9	12	DSI	H01		0.72	0.76
3	9	13	DSI	H02		0.88	0.6
3	9	13	DSI	H05		0.79	0.69
3	9	14	DSI	H01		1.05	0.87
3	9	15	DSI	H03		1.02	0.92
3	9	16	DSI	H01		0.9	0.63
3	9	20	DSI	H02		0.68	0.5
3	9	21	DSI	H02		1.01	0.97
3	9	23	DSI	H03		0.81	0.78
3	9	23	DSI	H04		0.11	0.11
3	9	40	DSI	H02		0.37	0.29
3	9	41	DSI	H01		0.89	0.91
3	9	48	DSI	H01		1.61	1.58
3	9	48	DSI	H02		1.17	1.08
3	9	50	DSI	H01		0.93	0.7
3	9	51	DSI	H01		1.39	1.42
3	9	52	DSI	H01		0.62	0.46
3	9	62	DSI	H01		0.3	0.31
3	10	5	DSI	H01		0.94	0.63
3	10	5	DSI	H05		0.73	0.7
3	10	6	DSI	H03		0.41	0.41
3	10	13	DSI	H02		0.44	0.43
3	10	14	DSI	H01		0.58	1.13
3	10	33	DSI	H04		0.27	0.11
3	10	42	DSI	C03		0.45	0.39
3	10	58	DSI	H01		0.2	0.1
3	10	60	DSI	H01		0.67	0.52

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
3	11	4	DSI	H01		0.64	0.66
3	11	5	DSI	H01		0.41	0.49
3	11	5	DSI	H02		0.56	0.65
3	11	5	DSI	H03		0.56	0.45
3	11	6	DSI	H01		0.79	0.83
3	11	6	DSI	H03		0.82	0.67
3	11	7	DSI	H01		0.76	0.59
3	11	7	DSI	H02		0.76	0.73
3	11	11	DSI	H01		1.45	1.28
3	11	16	DSI	H03		0.48	0.35
3	11	16	DSI	H06		0.3	0.14
3	11	17	DSI	H02		1.4	1.38
3	11	17	DSI	H06		0.47	0.45
3	11	27	DSI	H01		0.67	0.5
3	11	29	DSI	H01		0.67	0.38
3	11	36	DSI	H01		1.52	1.45
3	11	37	DSI	H01		1.31	1.29
3	11	46	DSI	H02		0.77	0.74
3	11	52	DSI	H01		1.06	0.51
3	11	57	DSI	H01		1.26	1.07
3	12	7	DSI	H06		0.43	0.36
3	12	11	DSI	H01		1.02	0.96
3	12	13	DSI	H04		0.4	0.56
3	12	22	DSI	H02		0.43	0.59
3	12	23	DSI	H01		0.6	0.54
3	12	27	DSI	H01		0.6	0.4
3	12	35	DSI	H01		1.01	0.95
3	12	35	DSI	H02		1.15	0.84
3	12	35	DSI	H03		0.92	0.86
3	12	38	DSI	H01		0.48	0.59
3	12	58	DSI	H05		0.49	0.44
3	13	3	DSI	H01		1.12	0.98
3	13	3	DSI	H02		0.78	0.73
3	13	3	DSI	H05		0.58	0.58
3	13	4	DSI	H01		0.43	0.71
3	13	5	DSI	H03		0.4	0.3
3	13	7	DSI	C02		0.34	0.25
3	13	7	DSI	H01		1.27	1.2
3	13	7	DSI	H03		0.59	0.67
3	13	9	DSI	H01		0.79	0.57
3	13	10	DSI	H02		0.6	0.54
3	13	11	DSI	H01		0.79	0.68
3	13	11	DSI	H03		0.54	0.47
3	13	12	DSI	H01		0.72	1.02
3	13	13	DSI	H06		0.39	0.37
3	13	17	DSI	H02		0.67	0.52
3	13	17	DSI	H06		0.32	0.24
3	13	24	DSI	H01		1.19	1.51

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
3	13	24	DSI	H02		0.97	0.77
3	13	29	DSI	H01		0.89	0.63
3	13	29	DSI	H02		0.26	1.13
3	13	29	DSI	H03		0.53	0.47
3	13	30	DSI	H01		0.89	0.86
3	13	34	DSI	H01		0.73	0.84
3	13	36	DSI	H01		1.12	1
3	13	40	DSI	H02		0.38	0.49
3	13	44	DSI	H01		0.67	0.49
3	13	44	DSI	H02		0.59	0.45
3	13	47	DSI	H01		0.63	0.4
3	13	47	DSI	H02		1.41	1.43
3	13	52	DSI	H01		0.46	0.62
3	13	53	DSI	H01		1.29	0.69
3	13	54	DSI	H01		0.99	0.72
3	13	55	DSI	H02		0.37	1.02
3	14	3	DSI	H01		0.62	0.51
3	14	3	DSI	H03		0.57	0.44
3	14	4	DSI	H01		0.79	0.84
3	14	4	DSI	H03		0.7	0.65
3	14	5	DSI	H03		0.5	0.42
3	14	6	DSI	H03		0.53	0.54
3	14	9	DSI	H01		1	0.92
3	14	9	DSI	H05		0.75	0.69
3	14	11	DSI	H03		0.57	0.42
3	14	13	DSI	H02		0.39	0.39
3	14	14	DSI	H01		0.67	0.64
3	14	15	DSI	H03		0.85	0.73
3	14	16	DSI	H05		0.3	0.74
3	14	18	DSI	H01		1.04	1.12
3	14	18	DSI	H04		0.36	0.35
3	14	20	DSI	H02		0.88	0.6
3	14	21	DSI	H02		0.86	0.75
3	14	26	DSI	H06		0.45	0.75
3	14	27	DSI	H06		0.39	0.23
3	14	39	DSI	H01	Y	2.11	1.83
3	14	39	DSI	H03	Y	0.69	0.66
3	14	39	DSI	H04	Y	0.62	0.74
3	14	41	DSI	H01		0.79	0.76
3	14	41	DSI	H02		0.38	0.42
3	14	52	DSI	H01		0.63	0.77
3	14	79	DSI	H02		0.51	0.31
3	14	79	DSI	H03		0.25	0.16
3	15	3	DSI	H01		1.48	1.45
3	15	3	DSI	H02		1.12	1.02
3	15	3	DSI	H03		0.86	0.75
3	15	5	DSI	H02		0.85	0.72
3	15	7	DSI	H02		0.76	0.6

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
3	15	7	DSI	H03		0.67	0.72
3	15	8	DSI	H01		0.87	0.66
3	15	9	DSI	H01		0.61	0.63
3	15	13	DSI	H02		0.61	0.64
3	15	15	DSI	H01		1.31	1.28
3	15	16	DSI	H01		1.08	0.88
3	15	18	DSI	H02		1.18	1.03
3	15	20	DSI	H01		0.68	0.4
3	15	26	DSI	H01		0.77	0.86
3	15	29	DSI	H01		1.02	1.42
3	15	29	DSI	H02		0.8	1.03
3	15	30	DSI	H01		1.18	1.25
3	15	33	DSI	H03		0.95	0.95
3	15	33	DSI	H04		0.66	0.44
3	15	35	DSI	H03		1.49	1.5
3	15	36	DSI	H02		0.3	0.36
3	15	37	DSI	H01		0.41	0.41
3	15	39	DSI	H01		0.51	0.4
3	15	41	DSI	H02		1.33	1.42
3	15	43	DSI	H01		1.14	1.04
3	15	43	DSI	H02		0.66	0.61
3	15	61	DSI	H03		0.79	0.56
3	15	71	DSI	H05		0.23	0.27
3	15	82	DSI	H01		0.36	1.21
3	16	4	DSI	H01		1.07	1.12
3	16	4	DSI	H02		0.74	0.83
3	16	5	DSI	H04		0.42	0.4
3	16	14	DSI	H01		0.49	0.42
3	16	16	DSI	H01		0.33	0.36
3	16	18	DSI	H05		0.65	0.49
3	16	21	DSI	H01		1.36	1.21
3	16	21	DSI	H02		0.83	0.74
3	16	22	DSI	H01		0.93	0.91
3	16	24	DSI	H01		0.65	0.6
3	16	25	DSI	H01		1.19	0.75
3	16	25	DSI	H03		0.68	0.29
3	16	27	DSI	H02		0.76	0.56
3	16	29	DSI	H01		0.67	0.36
3	16	40	DSI	H01		1.4	1.12
3	16	41	DSI	H01		0.54	1.02
3	16	44	DSI	H01		0.64	0.6
3	16	54	DSI	H01		0.88	0.96
3	17	6	DSI	H02		1.09	1.21
3	17	11	DSI	H01		1.01	0.7
3	17	12	DSI	H01		0.72	0.68
3	17	13	DSI	H01		0.77	0.75
3	17	15	DSI	H01		0.88	0.81
3	17	15	DSI	H02		0.52	0.63

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
3	17	15	DSI	H04		0.45	0.72
3	17	20	DSI	H01		0.73	0.55
3	17	22	DSI	H01		0.98	0.79
3	17	37	DSI	H01		0.93	0.89
3	17	39	DSI	H02		0.77	0.56
3	17	40	DSI	H01		0.72	0.64
3	17	47	DSI	H01		1.17	0.92
3	17	47	DSI	H03		0.67	0.38
3	17	49	DSI	C01		0.51	0.26
3	17	50	DSI	H01		0.68	0.66
3	17	53	DSI	H01		1.1	1.13
3	17	82	DSI	H05		0.31	0.32
3	17	87	DSI	H01		0.36	0.36
3	17	87	DSI	H02		1.16	1.47
3	17	87	DSI	H04		0.66	0.64
3	18	6	DSI	H01		0.74	0.65
3	18	8	DSI	H01		0.38	0.4
3	18	18	DSI	H01		1.01	0.78
3	18	21	DSI	H01		0.73	0.79
3	18	28	DSI	H01		0.66	0.62
3	18	32	DSI	H01		1.04	0.81
3	18	35	DSI	H01		1.01	0.99
3	18	35	DSI	H03		0.64	0.59
3	18	37	DSI	H01		1.01	0.9
3	18	37	DSI	H02		0.35	0.42
3	18	38	DSI	H01		0.99	0.96
3	18	53	DSI	H05		0.28	0.38
3	18	81	DSI	H03		0.39	0.32
3	18	89	DSI	H01		0.6	0.52
3	19	5	DSI	H02		0.72	0.74
3	19	5	DSI	H03		0.85	0.76
3	19	6	DSI	H01		0.54	0.48
3	19	10	DSI	H01		0.8	0.96
3	19	11	DSI	H01		1.08	0.66
3	19	12	DSI	H02		0.95	0.91
3	19	13	DSI	H01		1.22	1.16
3	19	13	DSI	H02		0.35	0.31
3	19	13	DSI	H03		0.91	0.95
3	19	17	DSI	H01		0.71	0.67
3	19	22	DSI	H01		1.26	1.11
3	19	22	DSI	H02		0.61	0.67
3	19	22	DSI	H05		0.65	0.8
3	19	34	DSI	H02		1.27	1.06
3	19	37	DSI	H01		0.81	0.73
3	19	39	DSI	H01		0.74	0.77
3	19	40	DSI	H01		0.73	0.59
3	19	47	DSI	H01		0.31	0.23
3	19	47	DSI	H02		0.73	0.67

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
3	19	69	DSI	H07		0.36	0.53
3	20	6	DSI	H01		1.04	0.83
3	20	7	DSI	H01		0.94	0.73
3	20	12	DSI	H01		1.47	1.43
3	20	14	DSI	H04		1.48	1.21
3	20	19	DSI	H01		1.33	1.34
3	20	19	DSI	H05		0.54	0.52
3	20	26	DSI	H02		1.21	1.35
3	20	29	DSI	H01		1.95	1.73
3	20	29	DSI	H02		0.88	0.77
3	20	29	DSI	H03		0.37	0.27
3	20	30	DSI	H01		1.16	1.44
3	20	31	DSI	H01		1.81	1.42
3	20	31	DSI	H02		0.28	0.32
3	20	31	DSI	H03		0.53	0.33
3	20	32	DSI	H01		1.45	1.79
3	20	32	DSI	H05		0.65	0.54
3	20	37	DSI	H01		0.93	0.74
3	20	39	DSI	H01		1.27	1.07
3	20	47	DSI	H01		1.26	1.39
3	20	50	DSI	H02		0.32	0.44
3	20	60	DSI	H06		0.39	0.51
3	20	68	DSI	H03		0.39	0.83
3	20	71	DSI	H03		0.83	0.74
3	20	79	DSI	H02		0.26	0.3
3	20	80	DSI	H03		1.07	1.07
3	20	80	DSI	H06		0.38	0.42
3	20	85	DSI	H03		0.41	1.37
3	20	86	DSI	H01		1.18	1.15
3	20	87	DSI	H02		0.9	0.72
3	20	88	DSI	H01		0.18	0.39
3	20	89	DSI	H01		0.52	0.72
3	21	6	DSI	H02		0.7	0.62
3	21	6	DSI	H04		0.41	0.42
3	21	7	DSI	H01		0.71	0.62
3	21	11	DSI	H01		0.55	0.49
3	21	15	DSI	H02		0.41	0.38
3	21	20	DSI	H01		0.57	0.49
3	21	20	DSI	H02		0.97	0.99
3	21	20	DSI	H03		0.87	0.75
3	21	24	DSI	H01		1.4	1.5
3	21	29	DSI	H02		0.42	0.3
3	21	33	DSI	H01		1.27	1.07
3	21	37	DSI	H01		0.7	0.73
3	21	41	DSI	H01		0.31	0.23
3	21	81	DSI	H02		1.12	0.96
3	21	81	DSI	H03		0.4	0.51
3	21	82	DSI	H02		0.7	0.55

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
3	21	84	DSI	H02		0.82	1.05
3	21	84	DSI	H04		0.55	0.63
3	21	88	DSI	H01		0.46	0.96
3	21	89	DSI	H03		0.94	0.98
3	22	7	DSI	H01		0.85	0.65
3	22	7	DSI	H05		0.25	0.23
3	22	15	DSI	H01		0.74	0.82
3	22	15	DSI	H03		0.41	0.3
3	22	15	DSI	H04		0.57	0.45
3	22	15	DSI	H05		0.32	0.31
3	22	20	DSI	H01		1.46	1.26
3	22	21	DSI	H01		0.55	0.65
3	22	23	DSI	H01		0.94	0.59
3	22	26	DSI	H02		1.36	1.41
3	22	28	DSI	H01		0.69	0.74
3	22	28	DSI	H02		1.29	1.47
3	22	29	DSI	H01		1.16	0.88
3	22	38	DSI	H01		1.29	1.22
3	22	40	DSI	H01		0.95	0.65
3	22	52	DSI	H01		1.26	1.42
3	22	53	DSI	H02		1	0.61
3	22	61	DSI	H03		1.47	0.74
3	22	62	DSI	H01		0.32	0.3
3	22	68	DSI	H02		0.64	0.67
3	23	9	DSI	H01		1.32	1.04
3	23	13	DSI	H01		1.68	1.62
3	23	14	DSI	H03		0.68	0.61
3	23	22	DSI	H01		0.62	0.45
3	23	26	DSI	H02		0.79	0.94
3	23	30	DSI	H01		1.4	1.33
3	23	32	DSI	H01		0.54	0.99
3	23	32	DSI	H02		0.74	0.86
3	23	32	DSI	H06		0.76	0.98
3	23	34	DSI	H03		0.75	0.68
3	23	38	DSI	H01		1.5	1.42
3	23	41	DSI	H01		0.2	0.42
3	23	44	DSI	H01		0.3	0.39
3	23	49	DSI	H02		0.28	0.37
3	23	60	DSI	H02		0.33	0.7
3	23	75	DSI	H03		0.22	0.49
3	24	10	DSI	H01		0.66	0.7
3	24	10	DSI	H05		0.47	0.64
3	24	12	DSI	H01		1.35	1.3
3	24	12	DSI	H02		0.8	0.57
3	24	13	DSI	H01		0.51	0.31
3	24	13	DSI	H02		0.69	0.77
3	24	15	DSI	H02		0.63	0.52
3	24	16	DSI	H01		1.93	1.75

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
3	24	16	DSI	H02		1.39	0.71
3	24	19	DSI	H01		0.81	1.17
3	24	21	DSI	H01		1.07	1.09
3	24	21	DSI	H03		1.52	1.24
3	24	21	DSI	H04		1.12	1.01
3	24	21	DSI	H05		0.84	1.14
3	24	22	DSI	H05		1	0.88
3	24	23	DSI	H01		0.84	0.67
3	24	23	DSI	H02		0.71	0.46
3	24	23	DSI	H03		0.79	0.93
3	24	25	DSI	H01		1.2	0.93
3	24	27	DSI	H02		0.78	0.58
3	24	29	DSI	H01		1.43	1.51
3	24	29	DSI	H03		0.62	0.42
3	24	35	DSI	H01		1.11	1.04
3	24	63	DSI	H02		1.33	0.88
3	25	8	DSI	H01		1.75	1.69
3	25	14	DSI	H04		0.75	0.83
3	25	14	DSI	H06		0.61	0.68
3	25	18	DSI	H01		1.62	1.49
3	25	18	DSI	H03		0.76	0.81
3	25	19	DSI	H02		0.77	0.81
3	25	21	DSI	H01		0.64	0.75
3	25	23	DSI	H03		0.76	0.82
3	25	24	DSI	H01		0.55	0.46
3	25	24	DSI	H02		0.29	0.27
3	25	26	DSI	H02		1.43	1.41
3	25	27	DSI	H02		0.69	0.6
3	25	30	DSI	H03		0.71	0.92
3	25	33	DSI	H03		1.25	0.96
3	25	35	DSI	H01		0.62	0.46
3	25	49	DSI	H01		0.89	0.89
3	25	49	DSI	H03		0.39	0.45
3	25	52	DSI	H02		1.03	0.53
3	25	60	DSI	H01		0.35	0.19
3	25	61	DSI	H02		0.43	0.37
3	25	72	DSI	H02		0.54	0.53
3	25	81	DSI	H02		0.42	0.74
3	26	9	DSI	H01		1.4	1.27
3	26	10	DSI	H01		0.42	0.95
3	26	11	DSI	H03		1.02	0.87
3	26	12	DSI	H01		0.82	0.65
3	26	12	DSI	H03		0.91	1.03
3	26	14	DSI	H01		1.44	1.37
3	26	16	DSI	H02		0.99	1.2
3	26	17	DSI	H02		1.09	1.21
3	26	19	DSI	H01		0.85	0.37
3	26	20	DSI	H02		0.88	0.98

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
3	26	21	DSI	H01		0.68	0.76
3	26	22	DSI	H04		1.1	1
3	26	22	DSI	H05		0.45	0.39
3	26	22	DSI	H06		0.57	0.48
3	26	23	DSI	H01		0.87	0.83
3	26	24	DSI	H01		0.86	1.06
3	26	25	DSI	H02		0.93	0.69
3	26	25	DSI	H03		0.53	0.65
3	26	27	DSI	H01		0.72	0.3
3	26	28	DSI	H01		1.26-	1.48
3	26	28	DSI	H03		1.14	1.08
3	26	29	DSI	H01		0.56	0.46
3	26	29	DSI	H02		0.42	0.61
3	26	29	DSI	H03		0.53	0.61
3	26	30	DSI	H02		0.22	0.4
3	26	33	DSI	H01		0.67	1.23
3	26	35	DSI	H01		1.42	1.39
3	26	38	DSI	H02		1.02	0.98
3	26	63	DSI	H02		0.81	0.63
3	26	81	DSI	H02		1.21	1.21
3	27	12	DSI	H01		0.31	0.2
3	27	13	DSI	H01		0.61	0.63
3	27	15	DSI	H01		1.05	1.16
3	27	18	DSI	H01		0.82	0.76
3	27	18	DSI	H03		0.53	0.51
3	27	24	DSI	H02		0.88	0.85
3	27	26	DSI	H01		0.48	0.61
3	27	26	DSI	H02		1.4	1.35
3	27	26	DSI	H03		0.52	0.83
3	27	27	DSI	H01		0.97	0.88
3	27	29	DSI	H01		0.87	0.64
3	27	29	DSI	H02		0.58	0.41
3	27	30	DSI	H02		1.05	1.36
3	27	35	DSI	H01		1.04	1.17
3	27	36	DSI	H02		0.8	0.93
3	27	60	DSI	H02		0.76	0.84
3	27	63	DSI	H02		0.71	0.76
3	27	63	DSI	H03		1.31	0.92
3	27	67	DSI	H02		0.42	0.2
3	27	68	DSI	H02		0.6	0.34
3	27	68	DSI	H05		0.4	0.37
3	27	68	DSI	H06		0.23	0.49
3	27	69	DSI	H04		0.5	1.06
3	27	79	DSI	H02		0.4	0.83
3	27	79	DSI	H06		0.49	0.7
3	27	85	DSI	H01		0.75	0.42
3	27	85	DSI	H02		0.4	0.71
3	28	14	DSI	H01		0.39	0.42

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
3	28	17	DSI	H01		0.37	1.68
3	28	26	DSI	H01		1.19	1.51
3	28	27	DSI	H03		1.01	0.97
3	28	28	DSI	H01		0.84	0.83
3	28	32	DSI	H02		0.75	0.95
3	28	50	DSI	H03		0.46	0.14
3	28	82	DSI	H03		0.42	0.52
3	28	84	DSI	H01		1.3	0.88
3	29	14	DSI	H01		1.45	1.24
3	29	15	DSI	H01		0.35	0.54
3	29	15	DSI	H03		0.59	0.55
3	29	16	DSI	H01		0.63	0.31
3	29	23	DSI	H05		0.46	0.43
3	29	30	DSI	H03		0.31	0.57
3	29	34	DSI	H02		0.92	0.93
3	29	35	DSI	H01		0.88	0.93
3	29	50	DSI	H03		0.63	0.56
3	29	71	DSI	H02		0.21	0.24
3	29	79	DSI	C03		0.49	0.28
3	30	13	DSI	H01		0.83	1.01
3	30	13	DSI	H03		0.59	0.61
3	30	16	DSI	H03		0.45	0.58
3	30	18	DSI	H01		0.65	0.5
3	30	19	DSI	H01		1.1	1.09
3	30	21	DSI	H01		0.6	0.74
3	30	23	DSI	H01		1.81	1.75
3	30	26	DSI	H02		0.42	0.51
3	30	33	DSI	H03		1.28	1.17
3	30	42	DSI	H02		0.77	0.77
3	30	42	DSI	H03		0.58	0.81
3	30	46	DSI	H02		1.17	1.22
3	30	46	DSI	H03		1.22	1.07
3	30	50	DSI	H01		1.1	1.2
3	30	50	DSI	H03		0.43	0.29
3	30	63	DSI	H02		0.86	0.69
3	30	72	DSI	H02		0.59	0.98
3	30	80	DSI	H02		0.39	0.57
3	31	14	DSI	H03		0.58	0.93
3	31	15	DSI	H03		0.34	0.21
3	31	15	DSI	H04		0.74	0.62
3	31	17	DSI	H03		0.83	0.7
3	31	20	DSI	H01		0.51	0.7
3	31	25	DSI	H02		0.62	0.48
3	31	26	DSI	H02		0.7	0.57
3	31	26	DSI	H03		0.8	0.74
3	31	28	DSI	H01		1.52	1.53
3	31	28	DSI	H04		1	1.14
3	31	30	DSI	H01		0.67	0.79

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
3	31	32	DSI	H01		1.26	1.25
3	31	32	DSI	H02		1.12	1.22
3	31	42	DSI	H02		0.22	0.39
3	31	46	DSI	H02		0.73	0.43
3	31	65	DSI	H02		0.85	0.81
3	31	76	DSI	H01		1.26	1.24
3	31	76	DSI	H02		0.74	0.97
3	31	76	DSI	H03		0.41	0.39
3	31	77	DSI	H01		0.65	0.55
3	32	20	DSI	H01		0.65	0.62
3	32	21	DSI	H01		0.56	0.49
3	32	23	DSI	H01		1.97	1.94
3	32	25	DSI	H02		0.71	0.59
3	32	27	DSI	H01		0.36	0.38
3	32	28	DSI	H01		1.18	1.29
3	32	29	DSI	H01		0.91	0.78
3	32	32	DSI	H02		0.84	0.76
3	32	32	DSI	H04		1.21	1.48
3	32	33	DSI	H02		1.4	0.81
3	32	34	DSI	H01		0.67	1.07
3	32	34	DSI	H02		0.63	0.82
3	32	34	DSI	H03		1.27	1.23
3	32	42	DSI	H02		1.05	1.15
3	32	42	DSI	H03		0.85	0.74
3	32	45	DSI	H01		0.64	0.59
3	32	48	DSI	H02		0.45	0.29
3	32	54	DSI	H01		1.02	0.75
3	32	54	DSI	H02		0.67	0.6
3	32	56	DSI	H04		0.25	0.26
3	32	57	DSI	H03		0.57	0.4
3	32	75	DSI	C05		0.19	0.2
3	32	76	DSI	H03		0.32	0.34
3	32	77	DSI	H01		0.51	0.92
3	32	77	DSI	H02		0.37	0.26
3	32	78	DSI	H01		0.74	0.95
3	33	21	DSI	H02		0.73	0.82
3	33	25	DSI	H01		0.59	0.85
3	33	25	DSI	H04		0.88	0.86
3	33	27	DSI	H01		0.78	0.63
3	33	31	DSI	H03		0.67	0.39
3	33	36	DSI	H02		0.96	1.05
3	33	36	DSI	H03		0.73	0.9
3	33	40	DSI	H01		0.9	1
3	33	41	DSI	H02		0.52	0.4
3	33	44	DSI	H01		0.36	0.41
3	33	45	DSI	H02		1.24	0.66
3	33	49	DSI	H01		0.7	1.13
3	33	49	DSI	H02		0.57	0.64

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
3	33	49	DSI	H03		0.77	0.78
3	33	67	DSI	H04		0.49	1.04
3	33	70	DSI	H02		0.77	0.56
3	34	19	DSI	H02		1.1	0.69
3	34	19	DSI	H03		0.81	0.47
3	34	25	DSI	H01		1.64	1.87
3	34	25	DSI	H02		1.44	0.73
3	34	25	DSI	H03		0.48	0.6
3	34	25	DSI	H04		0.46	0.86
3	34	27	DSI	H01		0.8	0.66
3	34	27	DSI	H03		0.8	0.95
3	34	28	DSI	H04		0.54	0.72
3	34	29	DSI	H01		0.75	0.54
3	34	29	DSI	H03		0.48	0.18
3	34	34	DSI	H02		1.32	1.35
3	34	36	DSI	H03		0.79	0.7
3	34	51	DSI	H02		0.84	0.69
3	34	60	DSI	H04		0.39	0.38
3	34	61	DSI	H01		1.17	0.72
3	34	61	DSI	H03		1.09	0.92
3	34	61	DSI	H04		1.12	1.19
3	34	63	DSI	H02		0.64	0.23
3	34	72	DSI	H01		0.41	0.17
3	34	72	DSI	H02		1.53	1.51
3	34	72	DSI	H03		1.07	1.12
3	35	18	DSI	H04		1.12	1.09
3	35	20	DSI	H01		0.36	0.3
3	35	21	DSI	H01		1.11	1.49
3	35	21	DSI	H03		0.35	0.41
3	35	23	DSI	H01		0.42	0.47
3	35	24	DSI	H03		0.38	0.35
3	35	27	DSI	H01		0.55	0.49
3	35	30	DSI	H04		0.22	0.21
3	35	43	DSI	H03		0.76	0.7
3	35	44	DSI	H02		0.47	0.77
3	35	44	DSI	H03		0.4	0.49
3	35	47	DSI	H02		1.03	1.09
3	35	47	DSI	H03		0.71	0.84
3	35	47	DSI	H04		0.41	0.37
3	35	55	DSI	H02		1.06	0.52
3	35	58	DSI	H02		1.33	1.09
3	35	58	DSI	H04		0.25	0.26
3	35	58	DSI	H05		0.41	0.54
3	36	21	DSI	C02		0.41	0.36
3	36	24	DSI	H01		1.82	1.93
3	36	25	DSI	H02	Y	2.18	1.69
3	36	28	DSI	H03		0.84	0.82
3	36	29	DSI	H02		0.3	0.33

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
3	36	31	DSI	H02		0.52	0.44
3	36	31	DSI	H03		1.07	0.98
3	36	31	DSI	H05		1.28	0.8
3	36	33	DSI	H03		1.28	1.32
3	36	35	DSI	H04		0.33	0.21
3	36	38	DSI	H02		0.83	0.97
3	36	38	DSI	H04		0.65	0.29
3	36	40	DSI	H04		0.69	0.76
3	36	42	DSI	H04		1.16	0.84
3	36	48	DSI	H02		0.38	0.69
3	36	48	DSI	H03		0.59	0.34
3	36	53	DSI	H03		0.6	0.81
3	36	61	DSI	H04		0.49	0.51
3	36	63	DSI	H03		0.24	0.21
3	36	63	DSI	H04		0.2	0.12
3	36	68	DSI	H02		0.37	0.25
3	36	74	DSI	H03		0.34	0.31
3	37	23	DSI	H01		1.04	0.66
3	37	26	DSI	H02		0.87	0.89
3	37	27	DSI	H02		0.7	0.61
3	37	28	DSI	H02		0.78	1.22
3	37	28	DSI	H03		0.5	0.33
3	37	31	DSI	H01		1.16	0.98
3	37	31	DSI	H03		1.06	0.9
3	37	32	DSI	H02		0.71	0.87
3	37	42	DSI	H03		0.76	0.91
3	37	43	DSI	H03		0.3	0.42
3	37	57	DSI	H05		0.43	0.56
3	37	66	DSI	H04		0.31	0.28
3	37	67	DSI	H02		0.58	0.76
3	37	68	DSI	H02		0.5	0.56
3	37	76	DSI	H03		0.3	0.38
3	38	25	DSI	H01	Y	0.98	1.12
3	38	25	DSI	H03	Y	1.17	1.08
3	38	27	DSI	H01		0.39	0.46
3	38	27	DSI	H02		0.48	0.6
3	38	27	DSI	H04		0.39	0.32
3	38	29	DSI	H01		1.21	0.88
3	38	29	DSI	H02		0.55	0.5
3	38	32	DSI	H01		0.8	0.63
3	38	32	DSI	H03		0.99	1.09
3	38	32	DSI	H06		1.03	0.77
3	38	33	DSI	H01		0.78	0.57
3	38	36	DSI	H02		0.87	0.74
3	38	36	DSI	H03		0.67	0.89
3	38	40	DSI	H03		1.11	0.94
3	38	42	DSI	H03		0.97	0.86
3	38	44	DSI	H02		0.57	0.96

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
3	38	44	DSI	H03		0.66	0.42
3	38	45	DSI	H02		0.7	0.59
3	38	46	DSI	H02		0.76	0.55
3	38	55	DSI	H04		0.3	0.46
3	38	58	DSI	H02	Y	2.06	0.84
3	38	58	DSI	H03	Y	0.72	0.46
3	38	58	DSI	H04	Y	0.28	0.16
3	38	58	DSI	H05	Y	0.38	0.37
3	38	62	DSI	H02		1.1	0.95
3	39	28	DSI	H03		0.88	0.62
3	39	30	DSI	H01		0.67	1.04
3	39	48	DSI	H02		1.06	1.29
3	39	68	DSI	H04		0.6	0.67
3	39	71	DSI	H02		1.33	1.21
3	40	24	DSI	H02		0.91	0.84
3	40	24	DSI	H03		0.68	0.68
3	40	25	DSI	H01		0.59	0.53
3	40	25	DSI	H02		1.24	1.17
3	40	25	DSI	H03		0.74	0.74
3	40	27	DSI	H03		1.02	0.87
3	40	29	DSI	H01		0.61	0.54
3	40	41	DSI	H03		0.46	0.32
3	40	43	DSI	H02		0.48	0.4
3	40	60	DSI	H03		0.69	0.61
3	40	62	DSI	H03		0.45	0.47
3	40	67	DSI	H02		0.89	0.53
3	40	69	DSI	H02		0.52	0.42
3	41	30	DSI	H01		0.95	0.79
3	41	30	DSI	H03		0.48	0.45
3	41	33	DSI	H02		0.56	0.43
3	41	36	DSI	H04		0.66	0.71
3	41	36	DSI	H06		1.1	1.15
3	41	39	DSI	H02		0.89	0.66
3	41	59	DSI	H03		0.45	0.4
3	41	68	DSI	H02		0.6	0.38
3	42	33	DSI	H01		1.1	0.22
3	42	43	DSI	H04		0.39	0.18
3	42	50	DSI	H06		0.43	0.59
3	42	52	DSI	H03		0.53	0.44
3	42	63	DSI	H01		0.27	0.26
3	43	36	DSI	H01		1.42	1.53
3	43	38	DSI	H04		0.86	0.77
3	43	44	DSI	H04		0.8	0.61
3	43	47	DSI	H05		0.56	0.65
3	43	50	DSI	H04		0.53	0.55
3	43	54	DSI	H03		0.99	0.39
3	43	59	DSI	H01		0.96	0.89
3	44	33	DSI	H01		1.36	1.48

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
3	44	52	DSI	H02		0.84	1.14
3	44	55	DSI	H02		0.56	0.1
3	44	55	DSI	H04		0.42	0.39
3	44	58	DSI	H01		1.3	1.32
3	44	58	DSI	H02		0.67	0.55
3	44	58	DSI	H03		0.86	1.04
3	45	39	DSI	C04		0.86	0.91
3	45	42	DSI	H02		0.8	0.49
3	45	49	DSI	H01		0.41	0.43
3	45	53	DSI	C03		0.31	0.42
3	46	52	DSI	H01		0.81	0.68
3	46	52	DSI	H02		0.38	0.41
3	46	52	DSI	H03		0.45	0.75

(1) All indications greater than or equal to 2 volts at EOC-16 were subject to a +Point™ inspection. All DSI indications greater than 2 volts, confirmed by +Point™ inspection, were repaired by plugging.

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
4	1	82	DSI	H01		0.93	0.88
4	1	85	DSI	H01		1.41	1.38
4	2	9	DSI	C04		0.36	0.29
4	2	9	DSI	H03		0.92	0.78
4	2	14	DSI	H03		0.86	0.9
4	2	15	DSI	H02		0.88	0.74
4	2	15	DSI	H03		0.91	0.87
4	2	25	DSI	H01		0.82	0.74
4	2	26	DSI	H01		0.26	0.45
4	2	32	DSI	C03		0.54	0.48
4	2	38	DSI	H02		0.71	0.63
4	2	38	DSI	H03		0.86	0.98
4	2	47	DSI	H01		0.62	0.6
4	2	53	DSI	H01		0.95	0.72
4	2	53	DSI	H02		0.74	1.09
4	2	54	DSI	H02		0.48	0.39
4	2	54	DSI	H05		0.46	0.42
4	2	55	DSI	H01		1.13	1.24
4	2	55	DSI	H02		0.55	1.4
4	2	55	DSI	H03		0.48	0.61
4	2	56	DSI	H03		0.5	0.49
4	2	57	DSI	H01		0.44	0.6
4	2	57	DSI	H03		0.38	0.68
4	2	58	DSI	H01		0.53	0.41
4	2	58	DSI	H02		0.63	0.72
4	2	59	DSI	H01		0.34	1.45
4	2	62	DSI	H02		0.38	0.31
4	2	64	DSI	H02		0.76	0.68
4	2	65	DSI	H02		0.46	0.71
4	2	65	DSI	H05		0.53	0.66
4	2	66	DSI	H05		0.37	0.42
4	2	67	DSI	H01		1.37	1.42
4	2	72	DSI	H02		1.11	0.94
4	2	74	DSI	H01		0.65	0.66
4	2	74	DSI	H02		1.38	1.26
4	2	75	DSI	H01		0.74	0.5
4	2	76	DSI	H01		1.71	1.61
4	2	84	DSI	H01		0.41	0.4
4	2	84	DSI	H02		0.36	0.29
4	2	85	DSI	H01		0.48	0.37
4	2	85	DSI	H02		0.4	0.35
4	2	86	DSI	H02		0.98	0.85
4	2	86	DSI	H03		0.25	0.22
4	2	88	DSI	H03		0.84	0.7
4	2	90	DSI	H01		0.72	0.61
4	2	92	DSI	H01		0.41	0.43

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
4	2	94	DSI	H01	Y	0.5	0.42
4	3	4	DSI	H02		0.39	0.43
4	3	15	DSI	H05		0.23	0.19
4	3	16	DSI	H02		0.71	0.68
4	3	16	DSI	H04		0.52	0.47
4	3	18	DSI	H01	Y	0.4	0.61
4	3	18	DSI	H02	Y	1.19	1.02
4	3	19	DSI	H02		0.43	0.38
4	3	21	DSI	H02		0.82	0.85
4	3	22	DSI	H02		0.74	0.45
4	3	23	DSI	H02		0.78	0.58
4	3	25	DSI	H01		0.75	0.79
4	3	25	DSI	H02		1.07	1.01
4	3	25	DSI	H03		0.87	0.78
4	3	28	DSI	H01		0.5	0.5
4	3	28	DSI	H03		0.95	0.87
4	3	30	DSI	H01		0.4	0.54
4	3	32	DSI	H03		0.25	0.28
4	3	34	DSI	H02		0.44	0.42
4	3	35	DSI	C03		0.26	0.3
4	3	35	DSI	H01		0.54	0.57
4	3	71	DSI	H01		1.19	1.15
4	3	71	DSI	H02		0.27	0.41
4	3	81	DSI	H02		0.53	0.55
4	3	82	DSI	H01		0.36	0.32
4	3	87	DSI	H01		0.43	0.4
4	3	87	DSI	H02		0.98	0.8
4	3	88	DSI	H01		0.9	0.79
4	3	88	DSI	H02		1.13	0.79
4	3	89	DSI	H01		0.67	0.55
4	3	89	DSI	H02		0.93	0.84
4	3	90	DSI	H01		0.91	0.68
4	3	90	DSI	H02		0.75	0.45
4	3	91	DSI	H01		0.75	0.81
4	3	92	DSI	H01		0.68	0.63
4	3	93	DSI	H02		0.7	0.9
4	3	94	DSI	H01		0.9	0.89
4	4	3	DSI	H02		0.71	0.59
4	4	8	DSI	H02		0.51	0.48
4	4	8	DSI	H03		0.48	0.44
4	4	8	DSI	H05		0.43	0.43
4	4	8	DSI	H06		0.5	0.46
4	4	12	DSI	H02		0.51	0.65
4	4	13	DSI	H02		0.88	0.8
4	4	13	DSI	H03		0.29	0.55
4	4	14	DSI	H03		0.26	0.48
4	4	14	DSI	H06		0.43	0.67
4	4	16	DSI	H02		0.48	0.5

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
4	4	18	DSI	H01		0.56	0.61
4	4	18	DSI	H02		0.3	0.29
4	4	19	DSI	H02		0.59	0.62
4	4	22	DSI	H02		0.32	0.45
4	4	22	DSI	H04		0.55	0.35
4	4	23	DSI	H01		0.73	1.06
4	4	27	DSI	H01		0.59	0.55
4	4	27	DSI	H03		0.51	0.58
4	4	28	DSI	H01		0.89	0.75
4	4	28	DSI	H02		0.21	0.2
4	4	28	DSI	H03		0.54	0.42
4	4	28	DSI	H04		0.53	0.62
4	4	28	DSI	H06		0.35	0.36
4	4	30	DSI	H03		0.49	0.37
4	4	40	DSI	H01		1.22	1.14
4	4	41	DSI	H01		0.63	0.45
4	4	47	DSI	H02		1.07	0.62
4	4	57	DSI	H02		0.41	0.38
4	4	74	DSI	H01		0.32	0.25
4	4	74	DSI	H03		0.95	0.87
4	4	77	DSI	H01		0.53	0.52
4	4	77	DSI	H03		0.52	0.47
4	4	78	DSI	H01		0.67	0.67
4	4	78	DSI	H02		0.34	0.41
4	4	80	DSI	H04		0.79	0.82
4	4	82	DSI	H01		1.45	1.47
4	4	82	DSI	H02		0.63	0.87
4	4	84	DSI	H02		0.59	0.58
4	4	84	DSI	H03		0.69	0.5
4	4	86	DSI	H03		0.98	1.03
4	4	87	DSI	H01		1.23	1.16
4	4	87	DSI	H03		0.88	0.88
4	4	87	DSI	H05		0.75	0.73
4	4	88	DSI	H02		0.97	1
4	4	88	DSI	H03		0.43	0.71
4	4	89	DSI	H03		1.14	1.09
4	4	89	DSI	H06		0.43	0.53
4	4	90	DSI	H01		1.31	1.2
4	4	90	DSI	H02		0.88	0.92
4	4	90	DSI	H03		0.86	0.82
4	4	90	DSI	H06		0.62	0.6
4	4	91	DSI	H01		0.98	0.43
4	4	91	DSI	H02		0.89	0.83
4	4	92	DSI	H03		1.06	1.11
4	4	92	DSI	H05		1.09	1.33
4	4	93	DSI	H02		0.64	0.63
4	4	94	DSI	H01		1.18	1.16
4	4	94	DSI	H04		0.4	0.2

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
4	5	1	DSI	H01		0.42	0.31
4	5	1	DSI	H02		0.67	0.56
4	5	1	DSI	H04		0.23	0.22
4	5	1	DSI	H05		0.42	0.4
4	5	9	DSI	H01		0.67	0.51
4	5	25	DSI	H01		0.38	0.29
4	5	26	DSI	H01		0.73	0.7
4	5	28	DSI	H01		1.38	1.43
4	5	28	DSI	H02		0.97	0.92
4	5	29	DSI	H01		0.53	0.46
4	5	29	DSI	H02		0.43	0.45
4	5	29	DSI	H04		0.58	0.39
4	5	30	DSI	H01		1.18	1.1
4	5	30	DSI	H02		0.34	0.51
4	5	31	DSI	H02		0.68	0.41
4	5	32	DSI	H01		0.61	0.46
4	5	32	DSI	H03		0.56	0.62
4	5	33	DSI	H01		0.83	0.75
4	5	35	DSI	H01		1.31	1.27
4	5	36	DSI	H01		0.65	0.65
4	5	37	DSI	H01		0.58	0.58
4	5	37	DSI	H02		0.27	0.29
4	5	37	DSI	H05		0.39	0.37
4	5	38	DSI	H01		1.13	1.11
4	5	39	DSI	H01		1.35	1.26
4	5	41	DSI	H01		0.46	0.54
4	5	42	DSI	H01		1.39	1.31
4	5	43	DSI	H01		0.82	0.77
4	5	43	DSI	H02		1.12	1.07
4	5	43	DSI	H03		0.49	0.64
4	5	44	DSI	H01		0.68	0.65
4	5	44	DSI	H02		0.31	0.37
4	5	46	DSI	H01		0.55	0.43
4	5	46	DSI	H03		0.56	0.43
4	5	47	DSI	H01		0.8	0.79
4	5	47	DSI	H02		0.69	0.62
4	5	53	DSI	H01		0.83	0.71
4	5	63	DSI	H01		0.74	0.55
4	5	69	DSI	H01		0.62	0.45
4	5	71	DSI	H01		1.28	1.09
4	5	72	DSI	H01		1.06	0.65
4	5	73	DSI	H01		0.66	0.57
4	5	74	DSI	H01		0.94	0.79
4	5	75	DSI	H03		0.53	0.43
4	5	76	DSI	H01		0.66	0.56
4	5	77	DSI	H01		0.7	0.43
4	5	78	DSI	H01	Y	0.91	0.8
4	5	78	DSI	H02	Y	1.35	0.89

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
4	5	79	DSI	H01		0.67	0.55
4	5	80	DSI	H01		1.35	1.23
4	5	82	DSI	H01		0.71	0.67
4	5	83	DSI	H01		1.01	0.87
4	5	84	DSI	H02		0.85	0.64
4	5	84	DSI	H03		0.25	0.21
4	5	87	DSI	H01		1	0.86
4	5	87	DSI	H04		0.23	0.11
4	5	88	DSI	H01		1.14	0.63
4	5	88	DSI	H02		1.37	0.99
4	5	89	DSI	H01		1.32	1.11
4	5	91	DSI	H01		1.22	0.99
4	5	91	DSI	H03		0.68	0.48
4	5	91	DSI	H04		0.36	0.3
4	5	92	DSI	H01		0.92	0.65
4	5	92	DSI	H03		0.6	0.58
4	5	93	DSI	H01		0.93	0.87
4	6	2	DSI	H02		0.73	0.72
4	6	7	DSI	H03		0.38	0.4
4	6	8	DSI	H01		0.52	0.73
4	6	13	DSI	H02		0.79	0.54
4	6	13	DSI	H03		0.17	0.18
4	6	21	DSI	H01		0.33	0.48
4	6	21	DSI	H02		0.37	0.52
4	6	21	DSI	H03		0.58	0.44
4	6	22	DSI	H02		0.36	0.39
4	6	23	DSI	H02		0.98	0.84
4	6	24	DSI	H01		0.53	0.61
4	6	25	DSI	H02		0.45	0.5
4	6	28	DSI	H01		0.88	0.77
4	6	29	DSI	H01		0.39	0.39
4	6	30	DSI	H01		0.73	0.81
4	6	32	DSI	H02		0.39	0.43
4	6	38	DSI	H02		0.86	0.64
4	6	39	DSI	H02		1.2	0.94
4	6	42	DSI	H01		1.07	0.84
4	6	45	DSI	H01	Y	0.89	0.74
4	6	47	DSI	H01		0.57	0.44
4	6	48	DSI	H04		0.42	0.21
4	6	50	DSI	H02		0.64	0.59
4	6	66	DSI	H01	Y	0.75	0.77
4	6	68	DSI	H01		0.82	0.69
4	6	69	DSI	H01		0.28	0.22
4	6	72	DSI	H01		0.94	0.78
4	6	73	DSI	H01		0.57	0.57
4	6	74	DSI	H01		1.05	0.97
4	6	75	DSI	H01		0.94	0.91
4	6	76	DSI	H01		1	0.81

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
4	6	78	DSI	H01		0.73	0.7
4	6	80	DSI	H01		1.11	1.04
4	6	81	DSI	H02		0.85	0.79
4	6	84	DSI	H01		0.58	0.54
4	6	87	DSI	H02		0.69	0.82
4	6	87	DSI	H03		0.35	0.43
4	6	88	DSI	H01		0.99	1.15
4	6	88	DSI	H02		0.68	0.64
4	6	88	DSI	H03		0.84	0.57
4	6	90	DSI	H01		0.82	0.93
4	6	90	DSI	H02		1.01	0.86
4	6	90	DSI	H03		0.7	0.72
4	6	90	DSI	H04		0.8	0.79
4	6	91	DSI	H01		1.1	0.96
4	6	91	DSI	H02		0.93	0.7
4	6	92	DSI	H01		0.53	0.51
4	6	94	DSI	H03		0.49	0.45
4	7	18	DSI	H02		0.63	0.69
4	7	20	DSI	H02		0.63	0.57
4	7	22	DSI	H02		0.77	0.71
4	7	22	DSI	H03		0.4	0.3
4	7	33	DSI	H03		0.32	0.25
4	7	41	DSI	H02		0.71	0.56
4	7	46	DSI	H01	Y	0.84	0.77
4	7	46	DSI	H02	Y	0.53	0.59
4	7	47	DSI	H01		0.54	0.45
4	7	48	DSI	H01		1.65	1.87
4	7	48	DSI	H02		0.29	0.5
4	7	54	DSI	H01		1.34	1.2
4	7	55	DSI	H01		1.53	1.41
4	7	56	DSI	H01		0.65	0.63
4	7	57	DSI	H01		0.95	0.7
4	7	59	DSI	H01		1.01	0.91
4	7	61	DSI	H03		0.7	0.57
4	7	62	DSI	H01		0.27	0.25
4	7	64	DSI	H01		0.57	0.52
4	7	68	DSI	H01		0.45	0.37
4	7	90	DSI	H01		0.52	1.05
4	8	2	DSI	H02		1.08	0.99
4	8	4	DSI	H02		0.32	0.44
4	8	5	DSI	H02		0.77	0.62
4	8	6	DSI	H03		0.4	0.33
4	8	7	DSI	H02		0.33	0.27
4	8	8	DSI	H02		0.3	0.31
4	8	12	DSI	H01		0.58	0.55
4	8	12	DSI	H03		0.84	0.69
4	8	13	DSI	H01		0.42	0.58
4	8	13	DSI	H05		0.39	0.34

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
4	8	14	DSI	H02		0.59	0.35
4	8	16	DSI	H03		0.32	0.3
4	8	17	DSI	H02		0.84	0.93
4	8	18	DSI	H03		0.21	0.28
4	8	19	DSI	H01		0.57	0.69
4	8	21	DSI	H02		0.99	0.86
4	8	22	DSI	H01		0.37	0.44
4	8	25	DSI	H01		0.51	0.67
4	8	25	DSI	H02		0.37	0.31
4	8	25	DSI	H03		0.41	0.3
4	8	25	DSI	H04		0.57	0.42
4	8	27	DSI	H01		0.72	0.75
4	8	27	DSI	H02		0.83	0.62
4	8	27	DSI	H03		0.92	0.85
4	8	27	DSI	H04		0.32	0.25
4	8	28	DSI	H01		0.71	0.72
4	8	29	DSI	H01		0.97	0.81
4	8	29	DSI	H02		0.58	0.67
4	8	30	DSI	H01		0.68	0.69
4	8	31	DSI	H01		0.95	0.91
4	8	31	DSI	H03		0.54	0.57
4	8	33	DSI	H01		0.59	0.53
4	8	34	DSI	H01		1.86	1.58
4	8	35	DSI	H01		0.55	0.57
4	8	35	DSI	H04		0.28	0.31
4	8	36	DSI	H01		0.8	0.69
4	8	36	DSI	H02		0.35	0.25
4	8	36	DSI	H03		0.66	0.33
4	8	38	DSI	H01		0.79	0.78
4	8	39	DSI	H01		1.17	0.97
4	8	39	DSI	H02		0.72	0.62
4	8	39	DSI	H03		0.36	0.37
4	8	40	DSI	H01		0.56	0.38
4	8	41	DSI	H01	Y	1.48	1.37
4	8	41	DSI	H04	Y	0.5	0.46
4	8	41	DSI	H05	Y	0.67	0.22
4	8	42	DSI	H01		0.98	0.71
4	8	42	DSI	H03		0.65	0.49
4	8	44	DSI	H02		0.33	0.34
4	8	44	DSI	H03		0.35	0.3
4	8	45	DSI	H01		0.84	0.5
4	8	45	DSI	H02		0.78	0.75
4	8	45	DSI	H03		0.37	0.35
4	8	47	DSI	H01		0.86	0.74
4	8	48	DSI	H01		1	0.87
4	8	48	DSI	H03		1.04	0.95
4	8	49	DSI	H01		0.2	0.24
4	8	50	DSI	H01		1.11	0.95

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
4	8	50	DSI	H03		0.2	0.15
4	8	51	DSI	H04		0.18	0.16
4	8	52	DSI	H01		1.13	1.18
4	8	55	DSI	H01		0.74	0.72
4	8	56	DSI	H01		0.67	0.7
4	8	56	DSI	H03		0.27	0.42
4	8	58	DSI	H01		0.73	0.67
4	8	59	DSI	H01		1.17	1.14
4	8	60	DSI	H01		1.59	1.57
4	8	62	DSI	H01		0.38	0.35
4	8	67	DSI	H03		0.36	0.63
4	8	70	DSI	H01		0.58	0.6
4	8	73	DSI	H03		0.92	0.9
4	8	76	DSI	H03		0.32	0.46
4	8	77	DSI	H02		1.07	1.07
4	8	78	DSI	H01		0.97	0.93
4	8	78	DSI	H03		0.61	0.66
4	8	79	DSI	H05		0.25	0.22
4	8	80	DSI	H01		0.83	0.83
4	8	80	DSI	H02		0.54	0.5
4	8	81	DSI	H01		0.69	0.68
4	8	81	DSI	H02		0.62	0.73
4	8	82	DSI	H01		1	1.05
4	8	83	DSI	H01		1.48	1.55
4	8	84	DSI	H02		0.71	0.69
4	8	85	DSI	H01		1.3	0.9
4	8	85	DSI	H02		1.62	1.64
4	8	86	DSI	H01		0.69	0.7
4	8	86	DSI	H02		0.61	0.74
4	8	89	DSI	H01		1.14	1.03
4	8	89	DSI	H02		0.87	0.86
4	8	89	DSI	H03		0.86	0.79
4	8	90	DSI	H02		1.08	0.86
4	8	91	DSI	H02		0.7	0.68
4	8	91	DSI	H03		0.82	0.86
4	8	91	DSI	H05		0.47	0.62
4	8	92	DSI	H01		1.51	1.74
4	8	92	DSI	H02		1.28	1.33
4	8	92	DSI	H03		0.54	0.72
4	8	92	DSI	H04		0.8	0.88
4	8	93	DSI	H03		0.66	0.57
4	9	2	DSI	H02		1.29	1.16
4	9	10	DSI	H02		0.37	0.41
4	9	11	DSI	H01		0.59	0.5
4	9	11	DSI	H03		0.5	0.47
4	9	12	DSI	H01		0.46	0.41
4	9	13	DSI	H01		0.48	0.44
4	9	15	DSI	H01		0.3	0.27

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
4	9	15	DSI	H06		0.24	0.28
4	9	16	DSI	H01		0.83	0.74
4	9	16	DSI	H02		0.5	0.51
4	9	16	DSI	H03		0.37	0.4
4	9	18	DSI	H02		0.56	0.51
4	9	19	DSI	H02		0.85	0.73
4	9	21	DSI	H02		0.98	0.97
4	9	21	DSI	H05		0.26	0.21
4	9	22	DSI	H02		1.18	1.12
4	9	23	DSI	H01		1	0.94
4	9	23	DSI	H02		0.74	0.69
4	9	24	DSI	H01		0.76	0.74
4	9	25	DSI	H01		0.54	0.5
4	9	26	DSI	H05		0.53	0.37
4	9	28	DSI	H02		0.69	0.87
4	9	29	DSI	H01		0.63	0.55
4	9	29	DSI	H03		0.24	0.33
4	9	31	DSI	H01		0.37	0.3
4	9	33	DSI	H01		0.75	0.68
4	9	33	DSI	H02		0.15	0.19
4	9	34	DSI	H01		0.36	0.44
4	9	35	DSI	H01		1.41	1.39
4	9	36	DSI	H01		0.53	0.43
4	9	36	DSI	H02		0.73	0.73
4	9	37	DSI	H01		0.76	0.68
4	9	37	DSI	H02		0.97	0.82
4	9	38	DSI	H01		1.31	1.43
4	9	39	DSI	H01		0.54	0.55
4	9	40	DSI	H02		0.57	0.6
4	9	42	DSI	H01		1.46	1.53
4	9	43	DSI	H01		1.22	1.15
4	9	43	DSI	H02		0.86	0.71
4	9	44	DSI	H01		1.28	1.16
4	9	47	DSI	H01		0.64	0.56
4	9	47	DSI	H03		0.63	0.56
4	9	48	DSI	H01		1.14	1.2
4	9	48	DSI	H03		0.71	0.73
4	9	48	DSI	H05		0.63	0.41
4	9	50	DSI	H01		0.37	0.36
4	9	52	DSI	H01		0.52	0.42
4	9	53	DSI	H01		0.86	0.92
4	9	57	DSI	H01		1.29	1.14
4	9	61	DSI	H01		0.68	0.59
4	9	63	DSI	H01		0.91	0.81
4	9	64	DSI	H03		0.45	0.59
4	9	70	DSI	H01	Y	0.88	0.72
4	9	73	DSI	H01		1.08	0.86
4	9	74	DSI	H04		0.45	0.42

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
4	9	74	DSI	H05		0.24	0.33
4	9	77	DSI	C04		0.38	0.35
4	9	82	DSI	H01		0.86	0.77
4	9	83	DSI	H01		0.66	0.51
4	9	89	DSI	H01		0.29	0.27
4	9	89	DSI	H02		1.05	0.89
4	9	93	DSI	H01		0.35	0.31
4	9	93	DSI	H02		0.65	0.58
4	10	3	DSI	H02		0.85	0.69
4	10	12	DSI	H02		1.07	0.85
4	10	20	DSI	H02		0.44	0.58
4	10	29	DSI	H01		0.42	0.47
4	10	31	DSI	H01		0.53	0.67
4	10	34	DSI	H01		0.49	0.45
4	10	35	DSI	H01		0.75	0.77
4	10	36	DSI	H01		0.4	0.56
4	10	39	DSI	H01		0.74	0.62
4	10	42	DSI	H01		0.73	0.65
4	10	42	DSI	H03		0.57	0.5
4	10	45	DSI	H01		0.4	0.35
4	10	52	DSI	H01		0.88	0.77
4	10	68	DSI	H03		0.51	0.55
4	11	8	DSI	H05		0.21	0.23
4	11	42	DSI	H01		0.75	0.72
4	11	67	DSI	H03		0.19	0.19
4	11	68	DSI	H07		0.4	0.46
4	11	69	DSI	H01		0.26	0.23
4	11	69	DSI	H03		0.32	0.24
4	11	69	DSI	H04		0.29	0.38
4	11	75	DSI	H02		0.59	0.63
4	11	84	DSI	H04		0.46	0.43
4	11	86	DSI	H01		0.71	0.45
4	12	2	DSI	H02		1.34	1.01
4	12	10	DSI	H03		0.78	0.61
4	12	11	DSI	H03		0.36	0.33
4	12	15	DSI	H04		0.39	0.41
4	12	18	DSI	H02		0.85	0.92
4	12	20	DSI	H02		0.51	0.49
4	12	23	DSI	H01		0.74	0.75
4	12	24	DSI	H01		1.22	0.92
4	12	24	DSI	H02		0.6	0.51
4	12	25	DSI	H03		0.62	0.7
4	12	26	DSI	H01		0.51	0.58
4	12	26	DSI	H02		0.35	0.34
4	12	27	DSI	H01		0.54	0.5
4	12	28	DSI	H01		0.9	0.9
4	12	30	DSI	H01		1.61	0.79
4	12	31	DSI	H02		0.38	0.46

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
4	12	31	DSI	H03		0.61	0.63
4	12	32	DSI	H01		1.91	1.48
4	12	32	DSI	H03		0.19	0.23
4	12	35	DSI	H01		0.86	0.83
4	12	36	DSI	H01		0.77	0.63
4	12	36	DSI	H02		0.67	0.47
4	12	37	DSI	H02	Y	2.03	1.52
4	12	38	DSI	H01	Y	0.59	0.48
4	12	38	DSI	H05	Y	2.05	0.89
4	12	39	DSI	H01		0.44	0.41
4	12	39	DSI	H04		0.35	0.34
4	12	39	DSI	H06		0.72	0.67
4	12	40	DSI	H01		0.82	0.76
4	12	40	DSI	H03		0.59	0.54
4	12	41	DSI	H01		1.4	1.01
4	12	41	DSI	H03		0.55	0.53
4	12	42	DSI	H01		0.81	0.53
4	12	43	DSI	H01	Y	2.18	1.67
4	12	43	DSI	H03	Y	0.76	0.73
4	12	43	DSI	H04	Y	0.83	0.74
4	12	44	DSI	H01		0.77	0.84
4	12	59	DSI	H01		0.91	0.57
4	12	59	DSI	H05		0.55	0.33
4	12	61	DSI	H01		1.13	0.83
4	12	62	DSI	H01		0.76	1.17
4	12	63	DSI	H01		0.92	0.8
4	12	71	DSI	H01		1.02	0.7
4	12	74	DSI	H01		0.68	0.46
4	12	74	DSI	H02		0.27	0.29
4	12	75	DSI	H01		0.6	0.62
4	12	75	DSI	H02		0.3	0.28
4	12	76	DSI	H01		1.19	1.03
4	12	76	DSI	H05		0.87	0.56
4	12	81	DSI	H01		0.52	0.62
4	12	81	DSI	H02		1.04	0.78
4	12	81	DSI	H03		0.61	0.51
4	12	82	DSI	H01		0.54	0.69
4	12	83	DSI	H01		1.38	1.19
4	12	85	DSI	H01		1.43	1.25
4	13	14	DSI	H02		0.54	0.55
4	13	17	DSI	H01		0.79	0.78
4	13	17	DSI	H02		0.78	0.78
4	13	17	DSI	H03		0.28	0.29
4	13	22	DSI	H01		0.63	0.63
4	13	29	DSI	H02		0.43	0.51
4	13	30	DSI	H02		0.84	0.99
4	13	31	DSI	H02		0.67	0.75
4	13	33	DSI	H01		0.46	0.44

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
4	13	34	DSI	H01		0.94	1.02
4	13	35	DSI	H02		0.81	0.71
4	13	36	DSI	H01		0.56	0.58
4	13	36	DSI	H02		0.21	0.21
4	13	39	DSI	H02		0.56	0.57
4	13	41	DSI	H03		1.53	1.48
4	13	42	DSI	H01		0.8	0.69
4	13	43	DSI	H03		0.35	0.39
4	13	44	DSI	H01		0.74	0.68
4	13	44	DSI	H02		0.63	0.56
4	13	45	DSI	H01		1.32	1.1
4	13	46	DSI	H01		0.64	0.72
4	13	46	DSI	H02		0.47	0.41
4	13	46	DSI	H03		0.41	0.38
4	13	47	DSI	H01		1.19	0.96
4	13	47	DSI	H04		0.56	0.68
4	13	48	DSI	H01		1.7	1.81
4	13	48	DSI	H04		0.52	0.39
4	13	49	DSI	H01		1.48	1.19
4	13	49	DSI	H03		0.38	0.29
4	13	50	DSI	H03		1.13	1.01
4	13	51	DSI	H01		0.38	0.3
4	13	52	DSI	H01		0.64	0.54
4	13	53	DSI	H01		0.93	1.07
4	13	54	DSI	H01		0.51	0.59
4	13	57	DSI	H01		0.85	0.57
4	13	57	DSI	H05		0.54	0.72
4	13	58	DSI	H01		0.18	0.46
4	13	59	DSI	H02		0.44	0.32
4	13	62	DSI	H01		0.42	0.37
4	13	68	DSI	H02		0.36	0.4
4	13	70	DSI	H01		0.44	0.78
4	13	77	DSI	H01		0.43	0.51
4	13	79	DSI	H01		0.26	0.19
4	13	81	DSI	H03		0.55	0.57
4	13	82	DSI	H02		0.65	0.8
4	13	83	DSI	H02		0.62	0.48
4	13	84	DSI	H01		0.91	1.23
4	13	84	DSI	H02		1.28	0.99
4	13	86	DSI	H01		1.41	1.23
4	13	86	DSI	H03		1.37	1.19
4	14	13	DSI	H02		0.32	0.19
4	14	22	DSI	H01		1.67	1.48
4	14	22	DSI	H02		1.19	0.88
4	14	23	DSI	H02		0.57	0.53
4	14	24	DSI	H01		0.9	0.86
4	14	24	DSI	H02		1.31	1.05
4	14	57	DSI	H01		1.57	1.41

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
4	14	59	DSI	H01		1.15	0.74
4	14	60	DSI	H01		0.52	0.46
4	14	75	DSI	H02		0.9	0.82
4	14	77	DSI	H01		1.23	1.22
4	14	77	DSI	H02		0.5	0.67
4	14	78	DSI	H02		0.45	0.55
4	14	79	DSI	H02		0.95	0.86
4	14	81	DSI	H01		0.18	0.21
4	14	81	DSI	H02		0.41	0.46
4	14	82	DSI	H01		1.58	1.41
4	14	83	DSI	H01		1.28	0.96
4	14	85	DSI	H01		0.56	0.44
4	14	86	DSI	H01		1.61	1.46
4	14	86	DSI	H02		0.96	0.72
4	14	86	DSI	H04		1.13	0.68
4	14	88	DSI	H01		1.27	0.95
4	14	88	DSI	H03		0.9	0.56
4	14	89	DSI	H01		0.98	0.93
4	14	90	DSI	H01		1.37	1.05
4	14	90	DSI	H02		1.32	0.86
4	14	91	DSI	H01		0.76	0.59
4	14	92	DSI	H01		1.4	1.4
4	15	4	DSI	H02		0.68	0.61
4	15	22	DSI	C05		0.33	0.24
4	15	38	DSI	H02		0.46	0.65
4	15	39	DSI	H01		1.63	1.05
4	15	48	DSI	H01		1.07	0.85
4	15	48	DSI	H03		0.79	0.59
4	15	50	DSI	H01		0.66	0.48
4	15	50	DSI	H02		0.53	0.4
4	15	51	DSI	H01		0.54	0.58
4	15	52	DSI	H01		1.53	1.42
4	15	53	DSI	H01		1.17	1.07
4	15	54	DSI	H01		0.74	0.7
4	15	54	DSI	H02		0.4	0.62
4	15	55	DSI	H01		0.37	0.34
4	15	55	DSI	H05		1	0.56
4	15	61	DSI	H01		0.69	0.27
4	15	62	DSI	H01		0.47	0.71
4	15	63	DSI	H01		0.62	0.52
4	15	63	DSI	H05		0.74	0.53
4	15	64	DSI	H01		0.61	0.92
4	15	65	DSI	H01		0.74	0.52
4	15	65	DSI	H03		0.53	0.51
4	15	65	DSI	H05		0.56	0.59
4	15	66	DSI	H01		0.6	0.44
4	15	67	DSI	H01		0.76	0.66
4	15	69	DSI	H01		0.46	0.48

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
4	15	78	DSI	H01		0.85	0.65
4	16	23	DSI	H05		0.56	0.58
4	16	35	DSI	H01		0.32	0.24
4	16	43	DSI	H01		0.4	0.46
4	16	45	DSI	H01		0.63	0.52
4	16	50	DSI	H01		0.92	0.83
4	16	59	DSI	H01		1.06	0.9
4	16	61	DSI	H01		0.91	0.73
4	16	80	DSI	H03		0.91	0.59
4	16	82	DSI	H01		0.88	0.65
4	16	83	DSI	H01		0.62	0.48
4	16	89	DSI	H01		1.02	1.17
4	16	90	DSI	H01		0.39	0.2
4	16	90	DSI	H04		1.12	0.88
4	16	91	DSI	H01		0.95	0.95
4	17	9	DSI	H02		0.19	0.4
4	17	13	DSI	H02		0.88	0.83
4	17	13	DSI	H04		0.45	0.4
4	17	15	DSI	H02		0.96	0.94
4	17	21	DSI	H01		1.3	1.29
4	17	21	DSI	H04		0.72	0.73
4	17	21	DSI	H05		0.25	0.21
4	17	26	DSI	H02		1.76	1.46
4	17	27	DSI	H01		1.74	1.82
4	17	27	DSI	H03		0.33	0.34
4	17	29	DSI	H01	Y	0.67	0.62
4	17	29	DSI	H02	Y	1.31	1.05
4	17	30	DSI	H01		0.77	0.71
4	17	30	DSI	H02		1.07	0.89
4	17	31	DSI	H04		0.47	0.61
4	17	32	DSI	H01		0.43	0.48
4	17	34	DSI	H01		0.77	0.7
4	17	55	DSI	H01	Y	0.48	0.45
4	17	55	DSI	H05	Y	0.64	0.64
4	17	56	DSI	H01		0.81	0.89
4	17	56	DSI	H02		0.21	0.21
4	17	57	DSI	H01		0.75	0.72
4	17	61	DSI	H01		1.02	0.6
4	17	62	DSI	H01		0.58	0.63
4	17	72	DSI	H01		0.53	0.45
4	17	75	DSI	H01		0.6	0.55
4	17	76	DSI	H01		0.85	0.6
4	17	78	DSI	H01		0.46	0.38
4	17	80	DSI	H01		0.33	0.73
4	17	81	DSI	H01		0.51	0.53
4	17	82	DSI	H01		1.63	1.49
4	17	83	DSI	H01		0.18	0.16
4	17	84	DSI	H01		1.12	0.86

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
4	17	85	DSI	H01		0.52	0.4
4	17	87	DSI	H01		1.42	1.33
4	17	88	DSI	H01		1.03	0.74
4	17	88	DSI	H02		0.53	0.51
4	17	90	DSI	H01		0.5	0.32
4	17	91	DSI	H01		0.52	0.71
4	18	11	DSI	H04		0.2	0.17
4	18	13	DSI	C05		0.53	0.59
4	18	13	DSI	H04		0.36	0.37
4	18	14	DSI	H02	Y	2.89	1.22
4	18	15	DSI	H01		0.7	0.56
4	18	15	DSI	H02		0.56	0.69
4	18	15	DSI	H03		0.54	0.32
4	18	15	DSI	H04		0.34	0.23
4	18	16	DSI	H03		0.5	0.27
4	18	16	DSI	H05		0.41	0.4
4	18	16	DSI	H06		0.42	0.32
4	18	17	DSI	H01		0.47	0.41
4	18	18	DSI	H01		1.02	1.89
4	18	20	DSI	H01		0.82	0.71
4	18	21	DSI	H01		0.77	0.67
4	18	21	DSI	H02		0.48	0.44
4	18	21	DSI	H04		0.68	0.64
4	18	24	DSI	H02		0.58	0.52
4	18	25	DSI	H01		0.42	0.44
4	18	27	DSI	H01		0.54	0.59
4	18	29	DSI	H01		0.59	0.63
4	18	32	DSI	H03		0.61	0.46
4	18	33	DSI	H01		1.75	1.35
4	18	33	DSI	H02		1.11	0.92
4	18	33	DSI	H05		0.66	0.58
4	18	36	DSI	H01		1.24	0.93
4	18	36	DSI	H03		1.2	0.32
4	18	36	DSI	H04		1.16	0.57
4	18	36	DSI	H06		0.49	0.51
4	18	37	DSI	H02		0.42	0.45
4	18	38	DSI	H03		0.34	0.29
4	18	40	DSI	H01		1.22	1.03
4	18	40	DSI	H05		0.84	0.24
4	18	41	DSI	H01		0.39	0.37
4	18	42	DSI	H01		0.21	0.37
4	18	42	DSI	H04		0.69	0.36
4	18	43	DSI	H02		0.93	0.63
4	18	46	DSI	H01		0.63	0.6
4	18	48	DSI	H01		0.73	0.43
4	18	49	DSI	H01		1.43	1.12
4	18	50	DSI	H01		0.86	0.61
4	18	51	DSI	H05		0.6	0.41

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
4	18	57	DSI	H01		0.89	0.98
4	18	57	DSI	H02		1.16	0.71
4	18	58	DSI	H01		0.94	0.91
4	18	59	DSI	H01		0.86	0.75
4	18	61	DSI	H01		0.97	0.66
4	18	62	DSI	H01		0.95	0.94
4	18	64	DSI	H01		0.47	0.5
4	18	67	DSI	H01		0.84	0.82
4	18	69	DSI	H02		0.5	0.43
4	18	85	DSI	H01		0.53	0.48
4	19	8	DSI	H01		0.54	0.51
4	19	12	DSI	H01		0.41	0.36
4	19	29	DSI	H01		0.55	0.59
4	19	31	DSI	H04		0.52	0.79
4	19	33	DSI	H02		0.4	0.44
4	19	34	DSI	H01		0.49	0.47
4	19	35	DSI	H01		0.63	0.64
4	19	37	DSI	H01		0.79	0.63
4	19	42	DSI	H01		0.95	0.85
4	19	43	DSI	H02	Y	2.39	1.18
4	19	43	DSI	H04	Y	0.42	0.43
4	19	50	DSI	H01		0.54	0.44
4	19	51	DSI	H01		1.29	1.28
4	19	53	DSI	H04		0.28	0.25
4	19	56	DSI	H01		0.37	0.38
4	19	58	DSI	H01		0.22	0.38
4	19	58	DSI	H07		0.19	0.2
4	19	60	DSI	H01		0.53	0.67
4	19	63	DSI	H01		0.93	0.9
4	19	71	DSI	H01		0.94	0.73
4	19	72	DSI	H02		0.7	0.63
4	19	75	DSI	H01		0.82	0.69
4	19	75	DSI	H02		0.3	0.6
4	19	76	DSI	H02		0.33	0.43
4	19	77	DSI	H01		1.09	0.96
4	19	77	DSI	H02		0.59	0.66
4	19	81	DSI	H03		0.79	0.71
4	19	84	DSI	H01		1.15	1.25
4	19	87	DSI	H03		0.12	0.25
4	19	89	DSI	H01		0.84	0.7
4	19	89	DSI	H03		0.4	0.3
4	19	90	DSI	H02		0.47	0.57
4	20	7	DSI	C05		0.23	0.21
4	20	12	DSI	H02		0.85	0.78
4	20	15	DSI	H02		0.58	1.26
4	20	17	DSI	H06		0.24	0.24
4	20	19	DSI	H02		0.21	0.24
4	20	20	DSI	H04		0.5	0.39

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
4	20	25	DSI	H01		1.64	1.58
4	20	25	DSI	H02		0.48	0.45
4	20	25	DSI	H04		0.94	0.65
4	20	25	DSI	H06		0.43	0.35
4	20	25	DSI	H07		0.22	0.23
4	20	26	DSI	H02		0.74	0.8
4	20	27	DSI	H06		0.47	0.52
4	20	29	DSI	H02		1.94	1.26
4	20	29	DSI	H04		0.53	0.63
4	20	30	DSI	H02		1.74	1.1
4	20	30	DSI	H04		0.3	0.17
4	20	31	DSI	H01		0.69	0.71
4	20	31	DSI	H03		0.41	0.45
4	20	31	DSI	H04		0.59	0.56
4	20	31	DSI	H05		0.8	0.68
4	20	32	DSI	H01		1.69	1.47
4	20	32	DSI	H04		0.57	0.42
4	20	34	DSI	H01		0.77	0.73
4	20	34	DSI	H02		1.55	1.14
4	20	36	DSI	H02		0.27	0.2
4	20	37	DSI	H01		1.57	1.15
4	20	37	DSI	H04		0.54	0.35
4	20	38	DSI	H01		0.39	0.47
4	20	38	DSI	H04		0.84	0.71
4	20	38	DSI	H06		0.53	0.41
4	20	39	DSI	H01		0.99	1.08
4	20	39	DSI	H03		0.51	0.37
4	20	39	DSI	H05		1.68	0.89
4	20	43	DSI	H02		1.24	0.82
4	20	44	DSI	H02		0.69	0.71
4	20	44	DSI	H03		0.74	0.72
4	20	46	DSI	H01		0.71	0.75
4	20	46	DSI	H02		1.48	1.38
4	20	46	DSI	H03		1.23	0.57
4	20	46	DSI	H06		0.78	0.62
4	20	47	DSI	H01	Y	0.83	0.5
4	20	47	DSI	H02	Y	1.5	0.52
4	20	47	DSI	H03	Y	0.61	0.6
4	20	47	DSI	H06	Y	0.31	0.24
4	20	48	DSI	H01		1.36	1.1
4	20	48	DSI	H02		1.14	1.09
4	20	49	DSI	H01		0.46	0.38
4	20	49	DSI	H02		0.43	0.8
4	20	49	DSI	H03		0.99	1.03
4	20	49	DSI	H04		1.56	0.74
4	20	50	DSI	H01		0.87	0.78
4	20	51	DSI	H01		0.79	0.9
4	20	51	DSI	H03		0.56	0.26

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
4	20	51	DSI	H04		0.53	0.71
4	20	52	DSI	H01		1.13	1.08
4	20	53	DSI	H02		0.34	0.23
4	20	53	DSI	H03		0.4	0.69
4	20	53	DSI	H06		0.25	0.23
4	20	54	DSI	H01		0.57	0.61
4	20	55	DSI	H01		0.72	0.46
4	20	55	DSI	H02		0.77	0.66
4	20	55	DSI	H05		0.59	0.61
4	20	56	DSI	H01		0.43	0.42
4	20	56	DSI	H02		0.46	0.46
4	20	56	DSI	H03		0.36	0.28
4	20	57	DSI	H01	Y	2.25	1.32
4	20	57	DSI	H02	Y	0.38	0.29
4	20	57	DSI	H04	Y	0.43	0.26
4	20	58	DSI	H01		0.69	0.86
4	20	58	DSI	H02		0.94	0.82
4	20	58	DSI	H06		0.29	0.19
4	20	59	DSI	H01		0.84	0.87
4	20	59	DSI	H04		1.72	0.93
4	20	59	DSI	H05		0.34	0.27
4	20	60	DSI	H01		1.23	1.16
4	20	60	DSI	H03		0.41	0.31
4	20	61	DSI	H01		0.61	0.52
4	20	62	DSI	H01		0.63	0.72
4	20	63	DSI	H01		1.26	0.85
4	20	64	DSI	H01		0.87	0.78
4	20	64	DSI	H02		0.66	0.97
4	20	64	DSI	H04		0.58	0.58
4	20	65	DSI	H01		0.48	0.54
4	20	66	DSI	H02		0.34	0.29
4	20	68	DSI	H01		0.81	0.76
4	20	69	DSI	H01	Y	2.35	1.98
4	20	69	DSI	H02	Y	0.48	0.31
4	20	70	DSI	H02		1.03	1.07
4	20	71	DSI	H01		0.51	0.3
4	20	77	DSI	H01		0.71	0.44
4	21	12	DSI	H01		0.72	0.51
4	21	13	DSI	C04		0.22	0.19
4	21	13	DSI	H06		0.48	0.45
4	21	15	DSI	H06		0.43	0.53
4	21	19	DSI	C05		0.54	0.57
4	21	21	DSI	H02		0.75	0.7
4	21	23	DSI	H02		0.86	0.61
4	21	39	DSI	H01	Y	1.62	1.15
4	21	39	DSI	H02	Y	2.24	1.11
4	21	43	DSI	H01		0.35	0.31
4	21	44	DSI	H01		0.35	0.7

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
4	21	45	DSI	H01		1.07	0.77
4	21	48	DSI	H01		0.79	0.71
4	21	48	DSI	H02		1.28	1.07
4	21	48	DSI	H03		0.4	0.54
4	21	48	DSI	H05		0.41	0.63
4	21	51	DSI	H01		1.46	1.26
4	21	51	DSI	H02		0.52	0.54
4	21	60	DSI	H02		0.39	0.37
4	21	75	DSI	H01		0.64	0.63
4	21	83	DSI	H01	Y	0.82	0.62
4	21	85	DSI	H01		0.34	0.31
4	21	87	DSI	H01		0.82	0.79
4	21	88	DSI	H01		0.66	1.1
4	21	89	DSI	H01		0.73	0.59
4	22	8	DSI	H02		0.7	0.44
4	22	14	DSI	H02		1.32	0.85
4	22	17	DSI	C04		0.39	0.35
4	22	17	DSI	C05		0.56	0.38
4	22	17	DSI	H06		0.36	0.31
4	22	18	DSI	H02		0.49	0.3
4	22	23	DSI	H02		0.68	0.78
4	22	24	DSI	H03		0.55	0.47
4	22	25	DSI	H02		0.5	0.67
4	22	25	DSI	H03		0.72	0.75
4	22	27	DSI	H04		0.29	0.23
4	22	33	DSI	H01		1.3	1.35
4	22	33	DSI	H02		1.75	1.71
4	22	37	DSI	H02		0.5	0.4
4	22	41	DSI	H01	Y	1.05	1.2
4	22	41	DSI	H02	Y	2.23	1.44
4	22	41	DSI	H04	Y	1.13	0.54
4	22	45	DSI	H01		0.36	0.46
4	22	45	DSI	H02		0.71	0.95
4	22	46	DSI	H01		0.54	0.83
4	22	46	DSI	H02		0.7	0.79
4	22	46	DSI	H03		0.81	0.53
4	22	47	DSI	H01		0.87	0.77
4	22	47	DSI	H02		1.1	1.21
4	22	65	DSI	H01		0.56	0.61
4	22	67	DSI	H02		0.77	0.59
4	22	68	DSI	H01		1	0.9
4	22	71	DSI	H02		0.28	0.27
4	22	71	DSI	H03		0.65	0.45
4	23	12	DSI	H01		0.36	0.33
4	23	14	DSI	C05		0.74	0.49
4	23	40	DSI	H01		0.33	0.29
4	23	41	DSI	H01		0.58	0.28
4	23	41	DSI	H02		0.98	0.71

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
4	23	42	DSI	H01		0.65	0.44
4	23	43	DSI	H02		0.43	0.37
4	23	44	DSI	H03		0.6	0.38
4	23	45	DSI	H01		0.92	0.73
4	23	45	DSI	H03		0.75	0.42
4	23	45	DSI	H06		0.44	0.49
4	23	54	DSI	H01	Y	1.38	1.29
4	23	54	DSI	H02	Y	0.61	0.59
4	23	54	DSI	H06	Y	6.55	0.36
4	23	56	DSI	H02		0.31	0.28
4	23	60	DSI	H01		0.86	0.74
4	23	60	DSI	H02		0.68	0.58
4	23	61	DSI	H02		0.31	0.41
4	23	63	DSI	H01		1.35	1.45
4	23	63	DSI	H02		0.18	0.34
4	23	63	DSI	H05		0.65	0.45
4	23	64	DSI	H01		0.82	1.15
4	23	65	DSI	H02		0.75	0.93
4	23	66	DSI	H01	Y	1.41	1.28
4	23	66	DSI	H02	Y	0.41	0.54
4	23	67	DSI	H02		0.56	0.55
4	23	68	DSI	H01		0.83	0.8
4	23	69	DSI	H01		0.67	0.74
4	23	69	DSI	H02		1.03	0.76
4	23	70	DSI	H01	Y	1.09	1.31
4	23	70	DSI	H02	Y	0.54	0.58
4	23	71	DSI	H01		0.92	0.63
4	23	71	DSI	H02		0.83	0.58
4	23	71	DSI	H05		0.49	0.38
4	23	72	DSI	H01		0.84	0.91
4	23	73	DSI	H01		0.94	1.07
4	23	73	DSI	H02		0.81	0.86
4	23	73	DSI	H06		0.34	0.27
4	23	74	DSI	H01		0.95	0.86
4	23	75	DSI	H01		0.82	0.83
4	23	75	DSI	H02		0.84	0.71
4	23	75	DSI	H03		1.08	0.9
4	23	84	DSI	H01		0.73	0.6
4	23	85	DSI	H01		0.97	0.57
4	23	86	DSI	H01		0.66	1
4	23	86	DSI	H02		0.56	0.98
4	23	86	DSI	H03		0.36	0.4
4	23	87	DSI	H01		1.15	1.22
4	23	88	DSI	H02		0.64	0.45
4	23	88	DSI	H03		0.48	0.81
4	24	10	DSI	H02		0.49	0.23
4	24	15	DSI	C05		0.57	0.33
4	24	17	DSI	H04		0.63	0.85

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
4	24	22	DSI	H03		1.26	0.19
4	24	26	DSI	C02		0.33	0.32
4	24	46	DSI	H01		0.87	0.98
4	24	52	DSI	H02		0.68	0.67
4	24	56	DSI	H02		0.52	0.59
4	24	57	DSI	H01		0.65	0.55
4	24	62	DSI	H02		0.45	0.38
4	25	20	DSI	H02		0.69	0.62
4	25	21	DSI	H01		0.91	0.93
4	25	22	DSI	H02		0.78	0.67
4	25	34	DSI	H01		1.4	0.77
4	25	41	DSI	H01		1.17	1.01
4	25	41	DSI	H02		0.95	0.41
4	25	42	DSI	H01		1.65	1.53
4	25	43	DSI	H01		0.84	1.02
4	25	46	DSI	C05		0.43	0.35
4	25	46	DSI	H03		1.7	1.38
4	25	47	DSI	H05		0.28	0.45
4	25	49	DSI	H02		0.89	1.49
4	25	51	DSI	H01		0.7	0.62
4	25	53	DSI	H01		1.59	1.04
4	25	53	DSI	H02		0.38	0.52
4	25	54	DSI	H01		0.51	0.29
4	25	54	DSI	H02		0.39	0.74
4	25	56	DSI	H02		0.22	0.61
4	25	57	DSI	H01		1.03	1.01
4	25	57	DSI	H02		0.82	0.7
4	25	57	DSI	H04		0.64	0.68
4	25	58	DSI	H01		0.92	0.63
4	25	58	DSI	H02		1.03	1.11
4	25	60	DSI	H01		1.23	1.04
4	25	60	DSI	H02		1.19	1.03
4	25	67	DSI	H04		0.37	0.34
4	25	75	DSI	H02		0.83	0.58
4	25	75	DSI	H05		0.4	0.28
4	25	80	DSI	H01		0.69	0.45
4	25	80	DSI	H02		1	0.94
4	25	83	DSI	H01		0.95	0.81
4	25	85	DSI	H01		0.93	0.69
4	26	10	DSI	H03		0.45	0.45
4	26	14	DSI	H02		0.93	0.81
4	26	14	DSI	H03		1.1	1.05
4	26	19	DSI	H02		0.8	0.88
4	26	19	DSI	H03		0.68	0.65
4	26	20	DSI	H02		0.49	0.44
4	26	20	DSI	H03		0.38	0.28
4	26	20	DSI	H04		0.47	0.41
4	26	21	DSI	H03		0.76	0.39

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
4	26	24	DSI	H02		0.5	0.48
4	26	27	DSI	H03		0.43	0.46
4	26	27	DSI	H04		0.48	0.5
4	26	27	DSI	H06		0.34	0.31
4	26	29	DSI	H02		0.56	0.51
4	26	31	DSI	H02		0.78	0.75
4	26	31	DSI	H03		0.35	0.41
4	26	31	DSI	H06		0.26	0.3
4	26	35	DSI	H01		0.94	0.91
4	26	36	DSI	H01		0.68	0.73
4	26	43	DSI	H02		0.6	0.29
4	26	47	DSI	H03		0.34	0.24
4	26	48	DSI	H01		0.41	0.28
4	26	51	DSI	H01		0.48	0.33
4	26	57	DSI	H07		0.26	0.19
4	26	58	DSI	H02		0.98	0.99
4	26	62	DSI	H01		0.51	0.62
4	26	63	DSI	H01		0.68	0.68
4	26	64	DSI	H01		0.52	0.5
4	26	65	DSI	H02		0.68	0.6
4	26	66	DSI	H02		0.66	0.57
4	26	68	DSI	H01		1.6	1.6
4	26	69	DSI	H01		0.82	0.82
4	26	71	DSI	H01		0.91	0.67
4	26	71	DSI	H03		0.45	0.28
4	26	72	DSI	H01		0.41	0.49
4	26	73	DSI	H02		1.4	1.08
4	26	83	DSI	H02		0.53	0.48
4	26	85	DSI	H01		0.92	0.43
4	27	13	DSI	C05		0.48	0.28
4	27	14	DSI	H02		0.72	0.5
4	27	15	DSI	H02		1.2	1.21
4	27	17	DSI	H02		0.3	0.37
4	27	18	DSI	H02		0.47	0.33
4	27	18	DSI	H03		0.58	0.4
4	27	20	DSI	H01		0.51	0.48
4	27	21	DSI	H03		0.45	0.4
4	27	22	DSI	H04		0.45	0.41
4	27	26	DSI	H02		1.15	0.91
4	27	27	DSI	H02		1.3	1.37
4	27	40	DSI	H02		0.67	0.57
4	27	45	DSI	H01		1.37	1.05
4	27	46	DSI	H01		0.73	0.78
4	27	48	DSI	H01		1.09	0.86
4	27	51	DSI	H02		0.53	0.35
4	27	53	DSI	H01		0.45	0.28
4	27	55	DSI	H01		0.45	0.79
4	27	61	DSI	H01		0.21	0.32

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
4	27	62	DSI	H01		0.53	0.57
4	27	62	DSI	H06		0.24	0.27
4	27	63	DSI	H01		0.62	0.58
4	27	63	DSI	H02		0.63	0.49
4	27	63	DSI	H03		0.18	0.15
4	27	65	DSI	H01		0.64	0.56
4	27	65	DSI	H02		0.43	0.32
4	27	65	DSI	H03		0.56	0.47
4	27	66	DSI	H02		0.56	0.68
4	27	66	DSI	H04		0.37	0.33
4	27	67	DSI	H02		0.47	0.54
4	27	69	DSI	H01		0.9	1.03
4	27	71	DSI	H01		1.67	1.34
4	27	72	DSI	H02		0.59	0.63
4	27	72	DSI	H03		0.56	0.67
4	27	72	DSI	H05		0.27	0.24
4	27	74	DSI	C05		0.26	0.29
4	27	74	DSI	H01		1.04	0.93
4	27	74	DSI	H02		0.79	0.83
4	27	74	DSI	H03		0.24	0.34
4	27	75	DSI	H01		1.15	1.04
4	27	75	DSI	H02		0.91	0.91
4	27	75	DSI	H03		0.61	0.45
4	27	76	DSI	H01	Y	1.22	1.33
4	27	76	DSI	H02	Y	0.26	0.21
4	27	76	DSI	H05	Y	0.28	0.54
4	27	77	DSI	H01		1.19	0.81
4	27	77	DSI	H02		0.93	0.65
4	27	77	DSI	H03		0.9	1.06
4	27	77	DSI	H04		0.56	0.53
4	27	78	DSI	H01		0.54	0.66
4	27	78	DSI	H02		0.85	0.85
4	27	79	DSI	H01		1.27	1.19
4	27	79	DSI	H02		0.77	0.84
4	27	80	DSI	H02		0.59	0.57
4	27	80	DSI	H03		0.84	0.8
4	27	81	DSI	H02		1.29	0.98
4	27	81	DSI	H03		0.78	0.6
4	27	82	DSI	H03		1.03	1.06
4	27	82	DSI	H05		0.84	0.8
4	27	83	DSI	H02		0.96	0.47
4	27	83	DSI	H03		0.76	0.64
4	27	83	DSI	H04		0.56	0.32
4	27	84	DSI	H01		0.32	0.29
4	27	84	DSI	H02		1.03	1.11
4	27	85	DSI	H05		0.49	0.37
4	28	11	DSI	H02		0.95	0.58
4	28	14	DSI	H07		0.43	0.27

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
4	28	15	DSI	C07		0.44	0.47
4	28	17	DSI	H02		0.35	0.36
4	28	20	DSI	C07		0.46	0.48
4	28	20	DSI	H01		0.54	0.47
4	28	24	DSI	H04		0.57	0.5
4	28	24	DSI	H06		0.25	0.21
4	28	25	DSI	H02		1.47	0.65
4	28	25	DSI	H03		0.36	0.3
4	28	26	DSI	H04		0.32	0.26
4	28	28	DSI	H04		1.1	0.78
4	28	30	DSI	H02	Y	2.04	1.51
4	28	33	DSI	H03		0.32	0.38
4	28	35	DSI	H02		1.34	1.2
4	28	37	DSI	H02		0.44	0.42
4	28	40	DSI	H01		0.72	0.63
4	28	40	DSI	H02		0.72	0.33
4	28	45	DSI	H01		0.86	0.85
4	28	47	DSI	H02		0.57	0.33
4	28	48	DSI	H01		1.05	1.24
4	28	48	DSI	H03		1.32	1.08
4	28	52	DSI	H02		0.87	0.74
4	28	55	DSI	H02		0.58	0.29
4	28	58	DSI	H02		0.66	0.59
4	28	62	DSI	H02		0.52	0.54
4	28	63	DSI	H01		0.67	0.55
4	28	63	DSI	H02		0.73	0.49
4	28	63	DSI	H03		0.52	0.43
4	28	64	DSI	H02		0.48	0.45
4	28	65	DSI	H01		0.95	0.78
4	28	66	DSI	H01		0.55	0.55
4	28	66	DSI	H02		0.96	0.92
4	28	66	DSI	H03		0.47	0.61
4	28	67	DSI	H01		1.63	1.31
4	28	68	DSI	H01		0.84	1.24
4	28	68	DSI	H02		0.5	0.55
4	28	68	DSI	H05		0.64	0.59
4	28	70	DSI	H01		0.44	0.58
4	28	70	DSI	H02		0.66	1.01
4	28	71	DSI	H01		1.14	0.98
4	28	71	DSI	H02		1.5	1.22
4	28	72	DSI	H01		0.84	0.93
4	28	72	DSI	H02		1.04	1.09
4	28	72	DSI	H03		0.54	0.88
4	28	73	DSI	H01		0.64	0.85
4	28	73	DSI	H04		0.52	0.49
4	28	74	DSI	H02		0.3	0.33
4	28	74	DSI	H03		1.14	1.02
4	28	74	DSI	H05		0.57	0.7

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
4	28	75	DSI	H01		0.81	0.79
4	28	75	DSI	H02		1.03	1.04
4	28	76	DSI	H01		0.32	0.35
4	28	76	DSI	H02		0.49	0.43
4	28	76	DSI	H03		0.33	0.43
4	28	77	DSI	H01		1.15	0.83
4	28	77	DSI	H02		0.39	0.31
4	28	78	DSI	H01		0.94	0.86
4	28	78	DSI	H02		0.39	0.27
4	28	79	DSI	H02		1.02	0.71
4	28	79	DSI	H03		0.54	0.49
4	28	79	DSI	H04		0.47	0.26
4	28	80	DSI	H02		0.42	0.54
4	28	80	DSI	H03		0.71	0.82
4	28	81	DSI	H01		0.47	0.26
4	28	81	DSI	H02		0.56	0.51
4	28	81	DSI	H03		1.07	0.83
4	28	81	DSI	H05		0.57	0.45
4	28	82	DSI	H02		1.03	1.1
4	28	83	DSI	H02		0.83	0.55
4	28	84	DSI	H01		0.3	0.34
4	28	85	DSI	C01		0.42	0.53
4	28	85	DSI	H01		0.48	0.4
4	28	85	DSI	H02		0.7	0.87
4	29	14	DSI	H01		0.61	0.36
4	29	18	DSI	H07		1.47	0.99
4	29	19	DSI	H02		1	0.89
4	29	19	DSI	H06		0.67	0.67
4	29	26	DSI	H02		1.75	1
4	29	27	DSI	H02		0.42	0.44
4	29	27	DSI	H07		0.34	0.27
4	29	28	DSI	H02		0.35	0.46
4	29	30	DSI	H02	Y	2.07	1.56
4	29	33	DSI	H02		0.43	0.47
4	29	35	DSI	H01		0.46	0.42
4	29	35	DSI	H02		0.38	0.24
4	29	38	DSI	H01		0.71	0.75
4	29	38	DSI	H02		0.38	0.47
4	29	39	DSI	H01		0.62	0.56
4	29	39	DSI	H02		0.53	0.54
4	29	42	DSI	H02		1.28	1.03
4	29	43	DSI	H01		0.65	0.6
4	29	43	DSI	H02		1.32	0.9
4	29	46	DSI	H02		0.52	0.63
4	29	47	DSI	H01		0.96	0.64
4	29	48	DSI	C06		0.33	0.3
4	29	48	DSI	H01		0.87	0.69
4	29	50	DSI	H01		0.72	0.81

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
4	29	50	DSI	H02		1.2	0.79
4	29	51	DSI	H01		0.76	0.79
4	29	56	DSI	H01		0.33	0.35
4	29	56	DSI	H02		0.93	0.72
4	29	57	DSI	H01		0.5	0.45
4	29	58	DSI	H01		1.17	0.51
4	29	59	DSI	H06		0.41	0.37
4	29	60	DSI	H02		0.96	0.88
4	29	63	DSI	H01		0.51	0.38
4	29	71	DSI	H05		0.21	0.3
4	29	73	DSI	H01		0.37	0.35
4	29	73	DSI	H03		0.57	0.78
4	29	76	DSI	C05		0.38	0.33
4	30	14	DSI	C01		0.43	0.38
4	30	15	DSI	H02		0.27	0.35
4	30	17	DSI	H03		0.18	0.22
4	30	18	DSI	H02		0.41	0.49
4	30	21	DSI	H02		0.93	0.96
4	30	21	DSI	H04		0.59	0.59
4	30	25	DSI	H02		0.47	0.46
4	30	26	DSI	H04		0.28	0.28
4	30	28	DSI	H04		0.32	0.11
4	30	54	DSI	H01		0.55	0.48
4	30	54	DSI	H02		0.46	0.31
4	30	71	DSI	H01		0.51	0.38
4	30	74	DSI	C04		0.37	0.35
4	30	76	DSI	C05		0.27	0.34
4	30	76	DSI	C06		0.37	0.38
4	30	77	DSI	H01		1.23	0.95
4	30	80	DSI	H06		0.29	0.3
4	30	81	DSI	H02		0.68	0.31
4	31	34	DSI	H01		0.33	0.32
4	31	34	DSI	H02		0.81	0.8
4	31	39	DSI	H01		0.63	0.6
4	31	40	DSI	H02		0.42	0.57
4	31	40	DSI	H04		0.65	0.54
4	31	42	DSI	H02		0.92	0.78
4	31	44	DSI	H02		0.68	0.6
4	31	51	DSI	H06		0.52	0.3
4	31	53	DSI	H03		0.28	0.34
4	31	54	DSI	H01		0.39	0.38
4	31	55	DSI	H02		0.63	0.67
4	31	58	DSI	H02		1.28	0.7
4	31	58	DSI	H03		1.65	1.55
4	31	59	DSI	H02		0.62	0.44
4	31	59	DSI	H07		0.5	0.44
4	31	71	DSI	H01		1.04	0.91
4	31	71	DSI	H02		1.03	1.13

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
4	31	71	DSI	H03		0.96	0.77
4	31	72	DSI	H01		0.78	0.85
4	31	72	DSI	H02		0.93	0.87
4	31	72	DSI	H03		0.71	0.72
4	31	76	DSI	H03		0.8	0.75
4	31	78	DSI	H01		0.35	0.39
4	32	20	DSI	H02		0.25	0.51
4	32	28	DSI	H04		0.36	0.23
4	32	39	DSI	H01		0.63	0.54
4	32	44	DSI	H04		0.66	0.35
4	32	47	DSI	H01		0.18	0.15
4	32	49	DSI	H01		0.6	0.46
4	32	49	DSI	H02		0.83	0.4
4	32	55	DSI	H01		0.67	0.4
4	32	61	DSI	H02		0.61	0.58
4	32	62	DSI	H01		1.14	1.03
4	32	62	DSI	H02		0.9	0.94
4	32	63	DSI	H02		1.23	0.82
4	32	63	DSI	H04		0.55	0.24
4	32	64	DSI	H01		0.64	0.44
4	32	64	DSI	H02		0.98	0.79
4	32	65	DSI	H01		0.35	0.31
4	32	65	DSI	H02		0.56	0.48
4	32	65	DSI	H03		0.33	0.23
4	32	66	DSI	H01		0.74	0.81
4	32	66	DSI	H03		1.18	1.13
4	32	67	DSI	H02		1.27	1.21
4	32	67	DSI	H03		0.67	0.54
4	32	68	DSI	H02		0.79	0.89
4	32	69	DSI	H01		0.66	0.65
4	32	69	DSI	H02		0.61	0.83
4	32	70	DSI	H01		0.58	1.05
4	32	70	DSI	H02		0.95	0.68
4	32	70	DSI	H03		0.45	0.58
4	32	70	DSI	H04		0.65	0.5
4	32	71	DSI	H01		0.43	0.78
4	32	71	DSI	H03		0.61	0.57
4	32	73	DSI	H01		0.52	0.35
4	32	73	DSI	H02		0.7	0.83
4	32	74	DSI	H01		0.46	0.46
4	32	74	DSI	H03		0.45	0.54
4	32	75	DSI	H02		0.4	0.58
4	32	75	DSI	H04		0.7	0.66
4	32	77	DSI	H03		1.05	0.92
4	32	77	DSI	H04		0.71	0.6
4	33	16	DSI	H03		0.74	0.47
4	33	21	DSI	H02		0.42	0.51
4	33	24	DSI	H01		0.68	0.51

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
4	33	26	DSI	H04		0.51	0.52
4	33	45	DSI	H01		1.08	0.8
4	33	51	DSI	H02		0.73	0.8
4	33	54	DSI	H01		0.29	0.27
4	33	55	DSI	H01		0.67	0.41
4	33	56	DSI	H01		0.63	0.93
4	33	59	DSI	H02		0.61	0.74
4	33	65	DSI	H02		1.17	0.93
4	33	67	DSI	H02		0.71	0.51
4	33	68	DSI	H01		0.46	0.66
4	34	17	DSI	C01		0.36	0.42
4	34	24	DSI	H04		0.72	0.61
4	34	25	DSI	H02		0.74	0.85
4	34	27	DSI	H04		0.32	0.27
4	34	28	DSI	H01		0.88	0.77
4	34	30	DSI	H02		0.56	0.48
4	34	32	DSI	H02		0.42	0.32
4	34	33	DSI	H02		0.57	0.58
4	34	33	DSI	H03		0.16	0.27
4	34	40	DSI	H03		0.7	0.5
4	34	43	DSI	H01		0.45	0.43
4	34	44	DSI	H02		0.7	0.68
4	34	47	DSI	H01		0.81	0.79
4	34	47	DSI	H03		0.89	0.6
4	34	47	DSI	H04		0.76	0.55
4	34	48	DSI	H01		0.48	0.39
4	34	49	DSI	H02		0.92	0.74
4	34	50	DSI	H03		1.44	1.37
4	34	50	DSI	H04		0.41	0.45
4	34	51	DSI	H03		0.8	0.54
4	34	55	DSI	H03		0.26	0.58
4	34	56	DSI	H01		0.35	0.4
4	34	58	DSI	H02		0.67	0.67
4	34	59	DSI	H02		0.63	0.42
4	34	64	DSI	H02		0.76	0.88
4	34	65	DSI	H01		0.81	0.51
4	34	65	DSI	H02		0.67	0.57
4	34	65	DSI	H03		0.45	0.4
4	34	66	DSI	H01		0.84	0.63
4	34	67	DSI	H04		0.31	0.41
4	34	68	DSI	H02		0.74	0.48
4	34	69	DSI	H02		0.34	0.68
4	34	69	DSI	H03		0.41	0.73
4	34	70	DSI	H01		1.19	1.96
4	34	70	DSI	H03		0.63	0.81
4	34	71	DSI	H02		0.96	0.96
4	34	71	DSI	H06		0.57	0.31
4	34	72	DSI	H01		0.62	0.98

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
4	34	73	DSI	H03		0.36	0.55
4	34	76	DSI	H01		0.43	0.5
4	34	77	DSI	H02		0.44	0.4
4	34	77	DSI	H03		0.72	0.52
4	34	78	DSI	H03		0.62	0.67
4	35	20	DSI	H03		1.02	0.6
4	35	33	DSI	H03		0.29	0.22
4	35	35	DSI	H02		0.31	0.39
4	35	38	DSI	H03		0.5	0.51
4	35	39	DSI	H02		0.41	0.34
4	35	43	DSI	H04		0.26	0.3
4	35	46	DSI	H06		0.49	0.44
4	35	47	DSI	H04		0.15	0.23
4	35	62	DSI	H02		0.43	0.3
4	35	65	DSI	C03		0.26	0.24
4	35	65	DSI	H03		0.26	0.29
4	35	66	DSI	H02		0.6	0.54
4	35	69	DSI	C06		0.32	0.34
4	35	69	DSI	H01		0.31	0.35
4	35	69	DSI	H02		1.35	1.14
4	35	71	DSI	H01		1.44	1.14
4	35	72	DSI	H02		0.35	0.45
4	35	72	DSI	H03		0.2	0.21
4	35	73	DSI	H01		0.41	0.44
4	35	73	DSI	H02		0.81	0.84
4	35	74	DSI	H04		0.34	0.42
4	36	24	DSI	H04		0.87	0.7
4	36	26	DSI	H04		0.5	0.35
4	36	36	DSI	H04		0.33	0.56
4	36	44	DSI	H02		0.63	0.53
4	36	46	DSI	H02		0.31	0.28
4	36	46	DSI	H03		0.26	0.21
4	36	47	DSI	H01		0.53	0.43
4	36	47	DSI	H04		0.39	0.33
4	36	48	DSI	H02		0.75	0.6
4	36	48	DSI	H05		0.51	0.48
4	36	50	DSI	H02		0.6	0.56
4	36	52	DSI	H01		0.64	0.32
4	36	52	DSI	H02		0.77	0.67
4	36	52	DSI	H03		0.27	0.47
4	36	54	DSI	H04		0.58	0.33
4	36	56	DSI	H02		0.6	0.83
4	36	57	DSI	H02		0.48	0.43
4	36	57	DSI	H03		0.59	0.45
4	36	59	DSI	H01		0.45	0.4
4	36	60	DSI	H02		0.42	0.66
4	36	60	DSI	H03		0.33	0.36
4	36	62	DSI	H02		1.07	1.03

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
4	36	63	DSI	H02		0.78	0.59
4	36	64	DSI	H02		0.72	0.54
4	36	65	DSI	H01		0.73	0.57
4	36	65	DSI	H02		0.5	0.56
4	36	67	DSI	H06		0.15	0.24
4	36	68	DSI	H02		0.51	0.52
4	36	71	DSI	H01		1.03	0.78
4	36	72	DSI	H01		0.53	0.57
4	36	72	DSI	H02		0.48	0.4
4	37	35	DSI	H02		0.6	0.49
4	37	35	DSI	H03		0.35	0.38
4	37	36	DSI	H03		0.38	0.35
4	37	37	DSI	H04		0.28	0.28
4	37	45	DSI	H02		0.41	0.47
4	37	45	DSI	H03		0.72	0.67
4	37	46	DSI	C06		0.33	0.16
4	37	46	DSI	H02		0.37	0.3
4	37	47	DSI	H02		0.29	0.25
4	37	47	DSI	H04		0.54	0.49
4	37	51	DSI	H02		0.63	0.48
4	37	58	DSI	H03		0.65	0.67
4	37	62	DSI	H04		0.22	0.22
4	37	63	DSI	H01		0.37	0.48
4	37	63	DSI	H03		0.19	0.26
4	37	65	DSI	H02		0.35	0.29
4	37	67	DSI	C05		0.23	0.23
4	37	67	DSI	H01		1.03	1.01
4	37	71	DSI	H01		0.49	0.27
4	37	72	DSI	H01		0.48	0.53
4	37	73	DSI	H02		0.65	0.43
4	38	21	DSI	H01		0.41	0.41
4	38	24	DSI	H03		0.48	0.35
4	38	25	DSI	H02		0.55	0.54
4	38	25	DSI	H05		0.19	0.18
4	38	26	DSI	H02		0.57	0.48
4	38	26	DSI	H04		0.26	0.2
4	38	27	DSI	H01		0.5	0.46
4	38	27	DSI	H04		0.37	0.43
4	38	30	DSI	H02		1	0.55
4	38	32	DSI	H02		0.69	0.51
4	38	33	DSI	H02		0.39	0.52
4	38	34	DSI	H02		0.7	0.52
4	38	38	DSI	H04		0.29	0.27
4	38	42	DSI	H04		0.55	0.34
4	38	48	DSI	H02		0.43	0.5
4	38	49	DSI	H02		0.79	0.53
4	38	50	DSI	H03		0.41	0.33
4	38	55	DSI	H02		0.54	0.45

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
4	38	57	DSI	H02		1.04	0.86
4	38	62	DSI	H04		0.31	0.23
4	38	71	DSI	H03		0.45	0.55
4	38	72	DSI	H02		0.84	0.92
4	38	74	DSI	H03		0.29	0.29
4	38	74	DSI	H04		0.19	0.27
4	39	22	DSI	H01		0.44	0.47
4	39	27	DSI	H03		0.49	0.47
4	39	37	DSI	H03		0.4	0.41
4	39	37	DSI	H04		0.42	0.47
4	39	38	DSI	C05		0.4	0.31
4	39	41	DSI	H03		0.43	0.41
4	39	41	DSI	H04		0.35	0.31
4	39	42	DSI	H03		0.51	0.55
4	39	42	DSI	H04		0.38	0.3
4	39	44	DSI	H02		0.58	0.66
4	39	45	DSI	H02		0.53	0.52
4	39	45	DSI	H03		0.48	0.55
4	39	47	DSI	H02		0.41	0.39
4	39	47	DSI	H03		0.71	0.63
4	39	49	DSI	H02		0.95	0.81
4	39	49	DSI	H04		0.74	0.73
4	39	50	DSI	H02		0.61	0.55
4	39	58	DSI	H02		0.38	0.34
4	39	64	DSI	H02		0.61	0.6
4	39	66	DSI	H01		0.31	0.27
4	39	67	DSI	H02		0.32	0.49
4	39	68	DSI	H03		1.02	0.5
4	39	70	DSI	H03		0.56	0.88
4	39	71	DSI	H02		0.62	0.39
4	40	29	DSI	H03		0.38	0.4
4	40	33	DSI	H02		0.59	0.54
4	40	40	DSI	H03		0.37	0.51
4	40	43	DSI	H03		0.47	0.66
4	40	56	DSI	H02		0.63	0.56
4	40	57	DSI	H01		0.71	0.64
4	40	59	DSI	C03		0.31	0.31
4	40	67	DSI	H01		0.76	0.65
4	40	68	DSI	H01		1.03	0.98
4	40	69	DSI	C01		0.46	0.35
4	40	69	DSI	H02		0.58	0.4
4	40	71	DSI	H03		0.34	0.37
4	41	37	DSI	H03		0.49	0.42
4	41	52	DSI	H01		0.61	0.62
4	41	52	DSI	H02		1.01	0.93
4	41	57	DSI	H01		0.62	0.57
4	41	58	DSI	H01		0.46	0.35
4	41	58	DSI	H02		0.47	0.45

SG	Row	Col	Ind	Elev	Plugged[1]	EOC-16 Volts	EOC15 Volts
4	41	60	DSI	C06		0.22	0.24
4	41	65	DSI	C02		0.53	0.42
4	41	66	DSI	H02		0.42	0.53
4	41	67	DSI	C01		0.79	0.66
4	42	38	DSI	H02		0.45	0.44
4	42	42	DSI	H03		0.46	0.3
4	43	44	DSI	C05		0.42	0.34
4	43	45	DSI	H03		0.12	0.44
4	43	49	DSI	H04		0.22	0.14
4	43	53	DSI	C02		0.42	0.4
4	43	65	DSI	H01		0.67	0.5
4	44	55	DSI	H03		0.46	0.41
4	44	62	DSI	C02		0.8	0.79
4	45	39	DSI	H04		0.56	0.68
4	45	48	DSI	C01		0.43	0.36
4	45	49	DSI	C01		0.42	0.22
4	45	51	DSI	H04		0.61	0.74
4	45	52	DSI	H04		0.75	0.59
4	45	55	DSI	C01		0.4	0.37

(1) All indications greater than or equal to 2 volts at EOC-16 were subject to a +Point™ inspection. All DSI indications greater than 2 volts, confirmed by +Point™ inspection, were repaired by plugging.

ENCLOSURE 2

STEAM GENERATOR
W* ALTERNATE REPAIR CRITERIA
UNIT 2 CYCLE 16
90 DAY REPORT

U2C16 Calculated Main Steam Line Break (MSLB) Primary to Secondary Leakage

Table 1

Condition Monitoring	Leakage (gpm at MSLB)			
	SG1	SG2	SG3	SG4
ARC GL 95-05 Leakage	0.191	0.213	0.377	0.667
W* 0"-8" Hot Leg Leakage	0.000	0.200	0.122	0.100
W* 8"-12" Hot Leg Leakage	0.162	0.162	0.162	0.162
W* >12" Hot Leg Leakage	0.297	0.287	0.290	0.291
W* 0"-10.5" Cold Leg Leakage	0.0	0.050	0.0	0.002
W* 10.5"-12" Cold Leg Leakage	0.0	0.0	0.0	0.0
W* >12" Cold Leg Leakage	0.297	0.287	0.290	0.291
All other sources	0.000	0.000	0.000	0.000
Total Leakage	**0.946**	**1.209**	**1.242**	**1.513**

Operational Assessment	Postulated Worst SG (gpm)
ARC GL 95-05 Leakage	1.760
W* 0"-8" Hot Leg Leakage	0.221
W* 8"-12" Hot Leg Leakage	0.1744
W* >12" Hot Leg Leakage	0.296
W* 0"-10.5" Cold Leg Leakage	0.052
W* 10.5"-12" Cold Leg Leakage	0.0
W* >12" Cold Leg Leakage	0.296
All other sources	0.100
Total Leakage	**2.899**

The accident induced primary to secondary leakage for W* includes all indications at the top-of-tubesheet (TTS) for W* leakage. Outside diameter indications above the TTS were not included.

All indications of primary water stress corrosion cracking (PWSCC) at the TTS and outside diameter stress corrosion cracking (ODSCC) below the TTS were included in the condition monitoring W* leakage evaluation regardless of whether or not they were above the Bottom of the Wextex Transition (BWT). The location of upper crack tip was subtracted from the location of the BWT and then this value had the NDE uncertainty subtracted. If the value was negative, it was then assumed to be zero.

The condition monitoring hot leg postulated leakage was determined for each steam generator (SG). To determine the condition monitoring hot leg leakage assumed in the 0 inch to 8 inches below the BWT region for each of the SGs, the indications were binned into the following bins; 0 inch to 1 inch, 1 inch to 2 inches, 2 inches to 3 inches, 3 inches to 4 inches, 4 inches to 5 inches, 5 inches to 6 inches, 6 inches to 8 inches. The leakage value for each of the bins was obtained from WCAP-14797, Rev 2, Figure 6.4-3. The quantity of indications in each bin was multiplied by the greatest leakage value for the bin (i.e., the 1 inch to 2 inch bin was multiplied

by the 1 inch below the BWT leakage value from the Figure 6.4-3). The leakage value for the bins was summed to obtain the total in the 0 inch to 8 inches region below the TTS. To determine the condition monitoring assumed hot leg leakage in the 8 inches to 12 inches below the hotleg-top-of-tube Sheet (HTS) region, the total historical count of indications 0 inch to 8 inches below the TTS from all four SGs plus the number of detected indications 0 inch to 8 inches below the TTS for all four SGs for the present outage were combined and 25 percent of this total was applied to each of the four SGs to determine the assumed quantity of indications in the 8 inches to 12 inches below the TTS region. This assumed quantity of indications was multiplied by 0.0045 gallons per minute (gpm) to obtain the 8 inches to 12 inches below the TTS leakage. To determine the condition monitoring assumed leakage in the greater than 12 inches below the HTS region, the quantity of tubes in service in the specific SG was used. This quantity of tubes was multiplied by 0.00009 (gpm) to obtain the W* leakage for the greater than 12 inches below the HTS region for each SG.

The condition monitoring cold leg postulated leakage was also determined for each SG. When no cold leg indications are detected in the initial sample of the SG, assume four 0.1 inch to 1.0 inch below WEXTEX transition indications. To determine the condition monitoring cold leg leakage assumed in the 0 inch to 10.5 inches below the BWT region for each of the SGs, the indications were binned into the following bins; 0 inch to 1 inch, 1 inch to 2 inches, 2 inches to 3 inches, 3 inches to 4 inches, 4 inches to 5 inches, 5 inches to 6 inches, and 6 inches to 10.5 inches. The leakage value for each of the bins was obtained from WCAP-14797, Rev 2, Figure 6.4-3. The quantity of indications in each bin was multiplied by the greatest leakage value for the bin (i.e., the 1 inch to 2 inches bin was multiplied by the 1 inch below the BWT leakage value from the Figure 6.4-3). The leakage value for the bins was summed to obtain the total in the 0 inch to 10.5 inches below the TTS region. To determine the condition monitoring assumed cold leg leakage in the 10.5 inches to 12 inches below the cold tube sheet (CTS) region, the total count of indications 0 inch to 10.5 inches below the TTS from all four SGs for the present outage were combined and 10 percent of this total was applied to each of the four SGs to determine the assumed quantity of indications in the 10.5 inches to 12 inches below the TTS region. For Unit 2 Cycle 16 (U2C16), the total quantity of cold leg indications was 4 and therefore zero was assumed in the 10.5 inches to 12 inches region. To determine the condition monitoring assumed leakage in the greater than 12 inches below the CTS region, the quantity of tubes in service in the specific SG was used. This quantity of tubes was multiplied by 0.00009 gpm to obtain the W* leakage for the greater than 12 inches below the CTS region for each SG.

Operational assessment assumed leakage was determined for a hot leg faulted SG. To determine the operational assessment assumed leakage in the 0 inch to 8 inches below the TTS region, an assumed quantity of undetected indications was determined by utilizing the largest quantity over all four SGs of indications in each of the bins (0 inch to 1 inch, 1 inch to 2 inches, 2 inches to 3 inches, and 3 inches to 4 inches, etc) and dividing that greatest bin quantity by 0.6 (assumed probability of detection (POD)) and subtracting the quantity of tubes plugged. The leakage value for each of the bins was obtained from WCAP-14797, Rev 2, Figure 6.4-3. The quantity of indications in each bin was multiplied by the greatest leakage value for the bin (i.e., the 1 inch to 2 inches bin was multiplied by the 1 inch below the BWT leakage value from the Figure 6.4-3). The leakage value for the bins was summed to obtain the total in the 0 inch to 8 inches below the TTS region. To determine the operational assessment assumed leakage in the 8 inches to 12 inches below the HTS region, the total historical count of indications 0 inch to 8 inches below the TTS from all four SGs plus the number of projected indications 0 inch to 8 inches below the TTS for all four SGs for the upcoming fuel cycle was combined and 25 percent of this total determined the assumed quantity of indications in the 8 inches to 12 inches below the TTS region for the faulted SG. This assumed quantity of

indications was multiplied by 0.0045 gpm to obtain the 8 inches to 12 inches below the TTS leakage. To determine the operational assessment assumed leakage in the greater than 12 inches below the HTS region, the quantity of tubes in service in the least plugged SG was used. This quantity of tubes was multiplied by 0.00009 gpm to obtain the W* leakage for the greater than 12 inches below the HTS region for the faulted SG.

Operational assessment assumed leakage was determined for a cold leg faulted SG. When no cold leg indications are detected in the initial sample of the SG, assume four 0.1 inch to 1.0 inch below WEXTEX transition indications. To determine the operational assessment assumed leakage in the 0 inch to 10.5 inches below the TTS region, an assumed quantity of undetected indications was determined by utilizing the largest quantity over all four SG of indications in each of the bins (0 inch to 1 inch, 1 inch to 2 inches, 2 inches to 3 inches, and 3 inches to 4 inches, etc) and dividing that greatest bin quantity by 0.6 (assumed POD) and subtracting the quantity of tubes plugged. The leakage value for each of the bins was obtained from WCAP-14797, Rev 2, Figure 6.4-3. The quantity of indications in each bin was multiplied by the greatest leakage value for the bin (i.e., the 1 inch to 2 inch bin was multiplied by the 1 inch below the BWT leakage value from the Figure 6.4-3). The leakage value for the bins was summed to obtain the total in the 0 inch to 8 inches below the TTS region. To determine the operational assessment assumed leakage in the 10.5 inches to 12 inches below the CTS region, the total historical count of indications 0 inch to 10.5 inches below the TTS from all four SGs plus the number of projected indications 0 inch to 10.5 inches below the TTS for all four SGs for the upcoming fuel cycle was combined and 10 percent of this total determined the assumed quantity of indications in the 10.5 inches to 12 inches below the TTS region for the faulted SG. This assumed quantity of indications was multiplied by 0.0045 gpm to obtain the 10.5 inches to 12 inches below the TTS leakage. To determine the operational assessment assumed leakage in the greater than 12 inches below the CTS region, the quantity of tubes in service in the least plugged SG was used. This quantity of tubes was multiplied by 0.00009 gpm to obtain the W* leakage for the greater than 12 inches below the CTS region for the faulted SG.

The SQN Unit 2 primary to secondary leakage limit during the postulated MSLB accident is 3.7 gpm per steam generator. The Table 1 leakage value is below this limit and therefore acceptable.

W* Indications

Table 2

SG	ROW	COL	INDIC	LOC1	LOC2	INDIC	LOC1	LOC2	CHARACTERIZATION
2	11	57	SCI	HTS	-0.19	BWT	HTS	-0.39	PWSCC HTS CIRC
2	12	88	SAI	HTS	-0.81	BWT	HTS	-0.42	PWSCC HTS AXIAL
2	19	61	SCI	HTS	-0.11	BWT	HTS	-0.3	ODSCC HTS CIRC
2	20	63	SAI	HTS	-0.19	BWT	HTS	-0.3	PWSCC HTS AXIAL
3	1	24	SAI	HTS	-5.22	BWT	HTS	-0.52	PWSCC HTS AXIAL
3	1	62	SAI	HTS	-1.44	BWT	HTS	-0.48	PWSCC HTS AXIAL
3	8	17	SCI	HTS	-0.14	BWT	HTS	-0.4	PWSCC HTS CIRC
3	12	25	SAI	HTS	-0.04	BWT	HTS	-0.53	ODSCC HTS AXIAL
4	11	61	SAI	HTS	-0.47	BWT	HTS	-0.31	PWSCC HTS AXIAL
4	20	47	SAI	HTS	-0.01	BWT	HTS	-0.44	ODSCC HTS AXIAL
2	8	48	SAI	CTS	-0.6	BWT	CTS	-0.51	PWSCC CTS AXIAL
2	10	19	SVI	CTS	-2.24	BWT	CTS	-0.45	VOLUMETRIC
4	21	83	SAI	CTS	-7.2	BWT	CTS	-0.31	PWSCC CTS AXIAL
4	2	94	SAI	CTS	-10.41	BWT	CTS	-0.37	PWSCC CTS AXIAL

W* Inspection Assessment

W* Alternate Repair Criteria requires an assessment be performed to determine whether the results of the inspection were consistent with the expectations. These expectations are with respect to the number of flaws and flaw severity. The quantity of flaws found in the 4 inches to 8 inches regions below the TTS is expected to be less than 25 percent of the total number of flaws. Table 2 is a listing of the TTS indications subject to the W* assessment. One of the ten hot leg indications was in the 4 inches to 8 inches region below the TTS and therefore less than 25 percent of the total number of flaws was in the 4 inches to 8 inches region of the hot leg.

Also, an assessment is required to be performed for whether W* identified newly initiated severe indications of cracking and if so include their potential leakage rate in the assessment. The amplitude of the hot leg W* indications were equivalent to the previous outages. Fifteen W* hot leg region indications were predicted to be discovered during the U2C16 inspection. A total of ten hot leg TTS indications were detected in the W* hot leg region. One indication was 5.22 inches below the TTS. A second was 1.44 inches below the TTS. The remaining eight hot leg indications were within one inch of the TTS. TVA utilized a regression of the total quantity of indications since Unit 2 Cycle 8 and predicts that 13 W* hot leg region indications will be detected during the next inspection Unit 2 Cycle 17.

The following is an assessment of the severity of the flaws. One PWSCC HTS circumferential indication was detected U2C16 and was below the quick screen voltage value. One ODSCC circumferential crack was also included in the W* leakage evaluation. The quantity of circumferential indications (two) detected U2C16 is only one greater than the quantity of circumferential indications detected Unit 2 Cycle 15 (U2C15) and Unit 2 Cycle 14, (U2C14) equal to the two indication detected Unit 2 Cycle 13, (U2C13) less than the four circumferential indications detected Unit 2 Cycle 12 and less than the six circumferential indications detected Unit 2 Cycle 11. The quantity is steady for the last four inspections. The eight axial indications U2C16 is greater than the two detected U2C15. During the U2C14 inspection, two axial indications were detected but were located greater than eight inches below the TTS. The

quantity of axial indications U2C15 was the same as U2C14. The tubesheet would prevent axial indications from having a rupture. One U2C15 axial indication was less than the 0.5 volt quick screen and therefore inherently maintained structural and leakage integrity. During the U2C13 inspection, nine indications were detected with depths and length equal to or greater than the larger of the two detected U2C15. The severity of U2C16 indications is consistent with past inspections and therefore not out of the ordinary.

Four indications were detected in the cold leg W* inspection. One was a PWSCC CTS axial 0.6 inches below the TTS. One was volumetric and greater than two inches below the TTS. The third was greater than seven inches below the TTS and the fourth was greater than ten inches below the TTS.

Eddy current examinations of the hot leg TTS had a minimum depth of 8 inches below the TTS. The vendors examined a greater extent (typically one or two inches) in order to ensure the minimum 8 inches was achieved because the extra extent down into the tubesheet detected no additional indications, TVA believes that this provides some assurance that the methodology for predicting the quantity of indications in the 8 inches to 12 inches below the TTS is conservative.

Based on the preceding information, none of the TTS indications were categorized as severe and therefore no changes were made to include additional leakage in the leakage model for W* in the hot leg region.

Based on the above, it is concluded that the severity of flaws and quantities of flaws are consistent with the expectations for indications within the W* distance.