Palo Verde Nuclear Generating Station

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September 30, 2011

ATTN: Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Palo Verde Nuclear Generating Station (PVNGS) Unit 2
Docket No. STN 50-529
License No. NPF-51
Steam Generator Tube Inspection Report

Enclosed please find the PVNGS Unit 2 Steam Generator Tube Inspection Report prepared and submitted by Arizona Public Service Company (APS) pursuant to Technical Specification (TS) Reporting Requirement 5.6.8. This report describes steam generator tube inspection and plugging results from the Unit 2 sixteenth refueling outage.

By copy of this letter, this submittal is being provided to the NRC Region IV Regional Administrator and the PVNGS Senior Resident Inspector. No commitments are being made to the NRC by this letter.

Should you have questions regarding this submittal, please contact Russell A. Stroud, Licensing Section Leader, at (623) 393-5111.

Sincerely,

Thomas N. Weber

TNW/RAS/CJS/gat

Enclosure: Unit 2 – 16th Refueling Outage Steam Generator Tube Inspection Report

cc: (with enclosure)

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L. K. Gibson	NRC NRR Project Manager for PVNGS
J. R. Hall	NRC NRR Senior Project Manager
M. A. Brown	NRC Senior Resident Inspector for PVNGS

A001
NRR

Palo Verde Nuclear Generating Station

UNIT 2
U2R16

ARIZONA PUBLIC SERVICE
P. O. BOX 52034
PHOENIX, AZ 85072

Prepared by: Douglas B Hansen Leaverton, Warren L(V59783) Date: 5-25-11

Reviewed by: _____ Date: _____

Approved by: Radspinner, Mark A(Z76778) Digitally signed by Radspinner, Mark A(Z76778) DN: cn=Radspinner, Mark A(Z76778) Reason: System Engineering Primary Systems Section Leader Date: 2011.05.23 09:10:30 -07'00' Report Date: _____

Commercial Service Date: 9-19-86

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UNIT 2

STEAM GENERATOR EDDY CURRENT

R16 Refueling Outage

1.0 Summary

This report is intended to satisfy the requirements of PVNGS Technical Specifications 5.6.8 for the submittal of a Steam Generator Tube Inspection Report. The steam generator (SG) eddy current examination for the 16th refueling outage in Unit 2 (U2R16) was conducted during April 2011. Mode 4 entry of Unit 2 Cycle 17 was entered on May 1, 2011. The initial examination plan for both steam generators is listed in Table 1. This table summarizes the examinations performed for each of the various categories, examination types, extents, and the number of tubes or tube locations completed. This was the fifth examination performed in Unit 2 following steam generator replacement in U2R11.

The examinations resulted in a total of **41** tubes being plugged in SG 21, and **42** tubes being plugged in SG 22. A description of the previous plugging history for these replacement steam generators is contained in Appendix E.

2.0 Scope of Examinations Performed

The original examination plan was developed based on the "PVNGS U2R16 Steam Generator Degradation Assessment" (Westinghouse document SG-SGMP-11-07, dated March 2011) developed per PVNGS Procedure 81DP-9RC01 as required by NEI 97-06. In addition, possible damage mechanisms were reviewed along with the specific requirements set forth in Procedure 73TI-9RC01 and the PVNGS Technical Specifications.

This original plan, along with the examinations performed as a result of bobbin indications noted, is summarized in Table 1 of this report.

3.0 Active Degradation Mechanisms

The only degradation noted during the examinations was determined to be wear. Section 8.0 contains further discussions relating to this mechanism. Table 2 summarizes the results into categories and sections B and C itemizes all indications reported.

4.0 NDE Techniques Utilized

The following table documents the site qualified techniques utilized during this outage:

BOBBIN Examination								
Damage Mechanism	Location	ETSS NO	QUAL STATUS	ORIENTATION	BC DET	BC SIZE	TECH	Comment
Wear	BWs, VSs, ECs,	96004.1 Rev. 13 4-2010	SITE QUALIFIED	NA	Y	Y	Volt DIFF	None
Wear	Loose Part	27091.2 Rev. 0 8-2007	SITE QUALIFIED	NA	Y	N	Volt DIFF	None

Rotating Coil Examinations								
Damage Mechanism	Location	ETSS NO	QUAL STATUS	ORIENTATION	RC DET	RC SIZE	TECH	Comment
Wear	BWs, ECs, VSs	96910.1 Rev. 10 8-2006	SITE QUALIFIED	NA	Y	Y	+POINT	None

The eddy current examinations were performed by Westinghouse Electric Company using the Core Star OMNI 200 eddy current instrument. Westinghouse Anser software was utilized to acquire the data along with the Pegasys robotic manipulator. This robot was configured with a dual guide tube in each of the hot and cold legs.

The tubing was examined with Zetec manufactured bobbin coil probes and Zetec rotating coil (RC) style probes. Probe diameters were 0.590" to 0.610". Plus Point RC probes were used for the hotleg tubesheet examination program and to characterize non-quantifiable or distorted bobbin indications.

Fiber optic cable was used from containment to the data acquisition room located at the PVNGS North Annex. Primary and secondary analysis was all performed on site. The Primary and Secondary Resolution Analysts, Independent Review Analysts, and data management were also located at PVNGS in the North Annex. Westinghouse provided the data acquisition and primary data analysis. Anatec International, Inc. provided the secondary data analysis.

Each individual from Westinghouse and Anatec International, Inc. who performed data analysis was required to complete and pass a PVNGS site specific Eddy Current Data Analysis Course as well as an associated performance and written examination. All individuals performing data analysis were also required to have Qualified Data Analyst (QDA) certification. Per 73TI-9RC01, all certification records are maintained in the Nuclear Information Records Management System.

5.0 Indication Summary

A detailed listing of the location and measured sizes of all service induced indications recorded is included in Appendix B and C. A summary of these indication results is located in Table 2. In addition, Appendix A contains a reference drawing of steam generator support locations and report legend.

Appendix D contains a listing of the possible loose part (PLP) indications that were confirmed with rotating coil examinations. Note Section 8.0 for further discussion on the PLPs.

There were no indications that were identified as linear during this outage.

6.0 Tubes Plugged

A summary of the tubes plugged is located in Table 2. Appendix E contains a map that details the plugged tube location along with the previously plugged tubes.

7.0 Plug History

A summary of the number and percentage of tubes plugged is also located in Table 2.

8.0 Condition Monitoring

Per the Steam Generator Program, as defined in PVNGS Procedure 81DP-9RC01, a condition monitoring evaluation was conducted by PVNGS Engineering. The results of the eddy current examinations are provided in Section 5.0. An engineering evaluation of the as-found condition of inservice tubes did not reveal any degradation exceeding the threshold values for structural and leakage integrity. As such, all steam generator performance criteria were satisfied for Unit 2 Cycle 16. No tube pulls or insitu pressure testing were required based on the results of the examinations.

Sludge Lancing was performed in both SGs. 21 lbs. of sludge was removed in SG21 and 30 lbs. of sludge was removed in SG22. The sludge was a very fine sludge with no flakes present. This would indicate that a high level of tube scaling in the tube bundle does not exist at this time. A sufficient amount of sludge was removed to obtain a representative sludge sample for each SG. These samples will be sent to be analyzed.

Tubesheet Annulus and Blowdown Lane FOSAR was conducted using a power cart mounted with a remotely operated camera and retrieval tooling. The applicable requirements of Revision 3 of the EPRI Steam Generator Integrity Assessment Guidelines Section 10.5, Secondary Side Visual Inspections, were applied for the FOSAR inspections. The only loose part observed in SG21 during U2R16 was a sludge rock, which was retrieved. No loose parts were observed in SG22 during U2R16.

No tubes were reported to contain new PLP signals in either SG21 or SG22 during U2R16. PVNGS has historically taken the position that if a loose part is detected by ECT or FOSAR without the presence of wear, it is reasonable to conclude that the required conditions to promote wear do not exist. Per the PVNGS SG Program, trending of these locations will continue in future outages.

An inspection was performed on the blowdown patch plate welds that were found to be cracked in Unit 2 during U2R15. The inspection confirmed that the weld material in the vicinity of the cracked weld on all 4 patch plates is intact, and a loose parts concern is not being created. A previous evaluation concluded that, with the presence of the cracked welds, the patch plates in the Unit 2 SGs will continue to perform their design function and that the probability of loose parts being formed is remote. Thus, there is a very low risk that the cracked welds will affect the structural or leakage integrity of tubes in these steam generators.

An inspection was also performed on the feedwater box set screws. Due to issues that were encountered in the Original Steam Generators, a commitment was made to inspect these set screws after five cycles of operation in each RSG. The inspection revealed that all set screws are in good condition and free of erosion.

Finally, PVNGS Procedure 81DP-9RC01 requires, per the EPRI *PWR Steam Generator Examination Guidelines*, that a visual inspection of the previously installed steam generator plugs be performed to assess plug integrity. Additionally, the Examination Guidelines Section 6.9.1 states – "Verify the location and presence of existing in-service plugs." The conduct of the plug location and integrity verification was performed in U2R16 per procedure 81CP-9RC40. A review of the inspection results indicated that all plugs were accounted for and no evidence of potential plug leakage was identified.

TABLE 1

EXAMINATION SUMMARY

SCOPE DESCRIPTION		SG 21	SG 22
Exam Description	Extents	Scope	Scope
COLD LEG BOBBIN	TEC-VS3 TEC-BW1	12176 278	12171 278
HOT LEG BOBBIN	TEH-VS3 TEH-BW1	12176 278	12171 278
HOT LEG *RC	TSH-TSH	6254	6251
** HOT STRAIGHT RC	VARIOUS	24	16
** HOT U & SQUARE BEND RC	VARIOUS	154	136
** COLD STRAIGHT RC	VARIOUS	49	50
** COLD U & SQUARE BEND RC	VARIOUS	35	60

Notes:

1. * RC examinations performed for TSH examination program
2. ** These RC examinations were performed to evaluate bobbin coil indications.

TABLE 2

INDICATION SUMMARY

DAMAGE MECHANISM	STEAM GENERATOR 21	STEAM GENERATOR 22
WEAR		
0% - 19%	322	451
20% - 29%	25	51
30% - 39%	8	6
≥ 40%	0	0
PLUGGED	(36)	(35)
Possible Loose Parts (RC)		
PLI	0	0
PLP	16	9
PLUGGED	(0)	(0)
Volumetric Indications		
SVI/MVI	0	1
PLUGGED	(0)	(0)
PREVENTATIVE	(5)*	(7)*
PLUGGED	**(41)**	**(42)**
TOTAL PLUGGED / %	**(167 / 1.0%)**	**(173 / 1.0%)**

NOTES

1. Numbers in (X) are tubes numbers plugged in each category
2. The above represent the numbers of tubes; not indications
3. * the preventative plugs were required in the CCWA per the SG Program Engineer

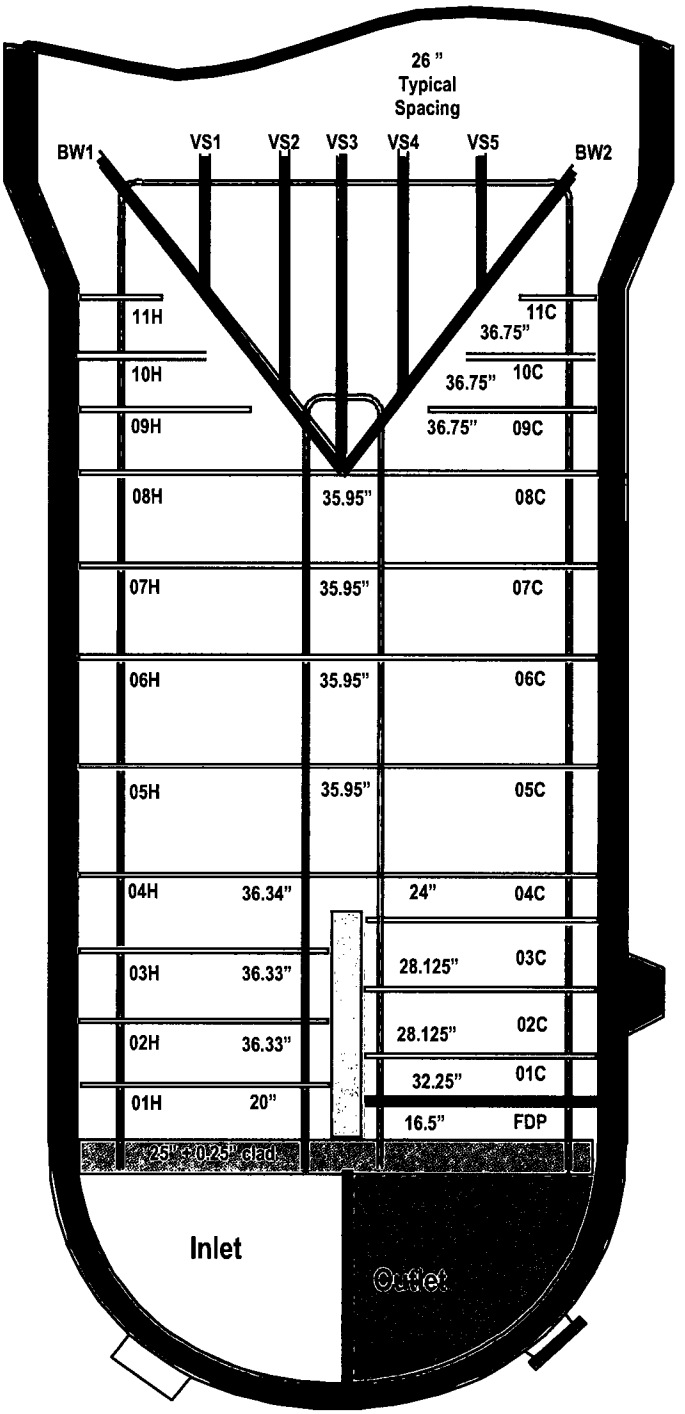
APPENDIX A

TUBE SUPPORT DIAGRAM,

LEGEND, and ANALYSIS CODES

PVNGS Steam Generator

REPLACEMENTS



Center of 08H to 08C
Row 1 - 17.415
Row 2 - 19.736
Row 3 - 22.056
Row 4 - 24.377
Row 5 - 26.698
Row 6 - 29.019

LEGEND

ROW:	Indicates the row number of a given tube.
COL:	Indicates the column number of a given tube.
VOLTS:	Indicates the peak-to-peak voltage of a given indication response.
DEG:	The measured phase angle of a given indication response.
IND:	Indicates the analysis code or PCT for percent
PER or PCT:	The percent through the tube wall of a given indication
CHN:	Indicates the channel used to make the call
LOCN:	Gives indication location at INCH1 to INCH2 relative to known landmarks such as supports, vertical straps, and batwings. Typical location codes are as follows:

#1 Vertical Strap VS1
#1 Batwing BW1
#1 Support Plate in Hot Leg 01H
#7 Support Plate in Cold Leg.....07C
Top Tube Sheet Cold Leg .....TSC
Tube End Hot Leg.....TEH
Tube End Cold Leg.....TEC

CRLEN:	Indicates the flaw length, used to identify the length of a wear indication
CRWID:	Indicates the flaw width, typically used for cracks only
CEG:	Indicates the flaw length, typically used for cracks only
BEGT and ENDT:	Indicates the beginning and of the test; together they document the examination extent
PDIA:	Documents the probe diameter
PTYPE:	Documents the probe type
CAL:	Indicates calibration number
L:	Indicates the leg the examination was conducted from
COM:	This comment field is utilized to document comments

Analysis CODES:

Absolute Drift	ADI
Bulge	BLG
Dented Buff Mark	DBM
Deposit	DEP
Dent	DNT
Data Quality Acceptance	DQA
Distorted Support Signal With Indication	DSI
Distorted Top of Tubesheet With Indication	DTI
Geometric Indication	GEO
ID Chatter	IDC
Indication Not Found	INF
Indication Not Reportable	INR
Multiple Axial Indication	MAI
Manufacturer Burnishing Mark	MBM
Mixed Mode Indication	MMI
Multiple Circumferential Indication	MCI
Multiple Volumetric Indication	MVI
No Detectable Defect	NDD
No Discontinuity Found	NDF
Non-Quantifiable Indication	NQI
No Tube Sheet Expansion	NTE
Obstructed	OBS
Over Expanded	OXP
Previous Bobbin Call	PBC
Possible Deposit	PDP
Positive Identification	PID
Positive Identification Verified	PIV
Possible Loose Part with Indication	PLI
Possible Loose Part	PLP
Previous RC Call	PRC
Possible Support Anomaly	PSA
Possible Support Indication	PSI
Permeability Variation Noise	PVN
Retest Bad Data	RBD
Retest Identification Check	RIC
Retest with Magnetic Bias RC Probe	RMB
Single Axial Indication	SAI
Single Circumferential Indication	SCI
Single Volumetric Indication	SVI
Senior (Lead) Analysis Review	SR
Sludge	SLG
To Be Plugged	TBP
Volumetric Indication	VOL

APPENDIX B

STEAM GENERATOR 21

SUMMARY DATA SHEETS

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2
45	14	.24	121	PCT	9	P2	BW2	-.88			VS3	TEC	.610	NBAZ1	16	C		
63	14	.30	73	PCT	10	P2	BW2	-.76			VS3	TEC	.610	NBAZ1	17	C		
22	17	.31	35	PCT	10	P2	BW2	.83			VS3	TEC	.610	NBAZ1	17	C		
67	20	.43	148	PCT	14	P2	BW2	.94			VS3	TEC	.610	NBAZ1	16	C		
74	21	.35	33	PCT	12	P2	BW2	-.89			VS3	TEC	.610	NBAZ1	16	C		
76	21	.30	44	PCT	11	P2	BW2	-.68			VS3	TEC	.610	NBAZ1	16	C		
80	21	.26	47	PCT	10	P2	BW2	-.93			VS3	TEC	.610	NBAZ1	16	C		
82	21	.25	64	PCT	10	P2	BW2	-.97			VS3	TEC	.610	NBAZ1	16	C		
103	22	.60	91	PCT	15	P2	10C	.82			VS3	TEC	.610	NBAZ1	19	C		
103	22	.89	94	PCT	17	P3	10C	.89		.41	09C	VS4	.580	NPUFZ	68	C		
35	24	.36	71	PCT	11	P2	BW2	-.88			VS3	TEC	.610	NBAZ1	15	C		
80	25	.24	137	PCT	11	P2	VS3	.44			VS3	TEH	.610	NBAZ1	102	H		
87	30	.53	112	PCT	14	P2	BW2	.75			VS3	TEC	.610	NBAZ1	19	C		
44	31	.45	23	PCT	14	P2	VS3	-.08			VS3	TEC	.610	NBAZ1	14	C		
52	31	.32	22	PCT	11	P2	VS3	-.84			VS3	TEC	.610	NBAZ1	14	C		
46	35	.31	70	PCT	11	P2	VS3	.62			VS3	TEC	.610	NBAZ1	14	C		
49	36	.40	80	PCT	11	P2	BW2	.29			VS3	TEC	.610	NBAZ1	15	C		
33	38	.31	139	PCT	11	P2	VS3	.18			VS3	TEH	.610	NBAZ1	57	H		
37	38	.44	62	PCT	14	P2	BW2	-.43			VS3	TEC	.610	NBAZ1	14	C		
73	38	.41	66	PCT	11	P2	BW2	-.94			VS3	TEC	.610	NBAZ1	19	C		
12	41	.26	66	PCT	10	P2	08C	-1.05			VS3	TEC	.610	NBAZ1	48	C		
26	41	.29	125	PCT	10	P2	BW1	.56			VS3	TEH	.610	NBAZ1	57	H		
28	41	.31	160	PCT	10	P2	BW1	.64			VS3	TEH	.610	NBAZ1	57	H		
35	44	.28	148	PCT	10	P2	VS3	.50			VS3	TEC	.610	NBAZ1	14	C		
45	44	.25	22	PCT	9	P2	BW2	-.58			VS3	TEC	.610	NBAZ1	14	C		
59	44	.29	74	PCT	9	P2	BW2	.80			VS3	TEC	.610	NBAZ1	21	C		
40	51	.33	98	PCT	10	P2	VS3	.62			VS3	TEC	.610	NBAZ1	15	C		
116	53	.30	116	PCT	11	P2	VS2	.70			VS3	TEH	.610	NBAZ1	97	H		
116	55	.33	92	PCT	10	P2	VS3	.76			VS3	TEC	.610	NBAZ1	29	C		
39	58	.29	28	PCT	9	P2	VS3	.49			VS3	TEC	.610	NBAZ1	2	C		
51	58	.21	33	PCT	7	P2	BW2	-.99			VS3	TEC	.610	NBAZ1	2	C		
89	60	.29	134	PCT	13	P2	VS2	.66			VS3	TEH	.610	NBAZ1	73	H		
44	61	.18	56	PCT	7	P2	VS3	-.78			VS3	TEH	.610	NBAZ1	1	H		
30	63	.32	121	PCT	10	P2	VS3	.77			VS3	TEC	.610	NBAZ1	2	C		
80	63	.14	15	PCT	5	P2	BW2	-.77			VS3	TEC	.610	NBAZ1	20	C		
36	65	.19	62	PCT	8	P2	VS3	-.64			VS3	TEH	.610	NBAZ1	1	H		
44	65	.16	70	PCT	7	P2	VS3	-.51			VS3	TEC	.610	NBAZ1	1	C		
90	65	.25	167	PCT	8	P2	VS3	.39			VS3	TEC	.610	NBAZ1	21	C		
37	66	.26	121	PCT	12	P2	VS3	.72			VS3	TEH	.610	NBAZ1	2	H		
45	66	.50	109	PCT	14	P2	BW2	-.88			VS3	TEC	.610	NBAZ1	2	C		
42	67	.24	103	PCT	9	P2	VS3	.76			VS3	TEH	.610	NBAZ1	1	H		
44	67	.29	133	PCT	11	P2	VS3	.75			VS3	TEH	.610	NBAZ1	1	H		
37	68	.20	65	PCT	10	P2	BW1	-.86			VS3	TEH	.610	NBAZ1	2	H		

| ROW | COL | VOLTS | DEG | IND | PER | CHN | LOCN | INCH1 | INCH2 | CRLEN | BEGT | ENDT | PDIA | PTYPE | CAL | L | UTIL1 | UTIL2 |

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2
39	68	.19	130	PCT	9	P2	VS3	-.60			VS3	TEH	.610	NBAZ1	2	H		
41	68	.28	140	PCT	11	P2	VS3	-.84			VS3	TEH	.610	NBAZ1	1	H		
45	68	.17	39	PCT	9	P2	08H	.59			VS3	TEH	.610	NBAZ1	2	H		
159	68	.19	143	PCT	8	P2	BW2	.78			VS3	TEC	.610	NBAZ1	40	C		
58	69	.48	122	PCT	17	P2	BW1	.86			VS3	TEH	.610	NBAZ1	66	H		
58	69	.83	84	PCT	15	P3	BW1	.86		.29	08H	VS3	.580	NPUFZ	120	H		DQA
47	70	.26	82	PCT	8	P2	VS3	-.60			VS3	TEC	.610	NBAZ1	2	C		
58	71	.26	111	PCT	8	P2	VS3	.49			VS3	TEC	.610	NBAZ1	22	C		
64	71	.60	88	PCT	17	P2	VS3	.46			VS3	TEC	.610	NBAZ1	22	C		
64	71	1.36	91	PCT	24	P3	VS3	.42		.31	VS3	VS3	.580	NPUFZ	71	C		DQA
37	72	.24	143	PCT	11	P2	BW1	1.00			VS3	TEH	.610	NBAZ1	4	H		
83	72	.25	155	PCT	8	P2	VS4	-.78			VS3	TEC	.610	NBAZ1	22	C		
38	73	.19	102	PCT	8	P2	BW2	.82			VS3	TEC	.610	NBAZ1	1	C		
160	73	.40	123	PCT	11	P2	BW2	.52			VS3	TEC	.610	NBAZ1	41	C		
17	74	.32	126	PCT	11	P2	BW1	.62			VS3	TEH	.610	NBAZ1	109	H		
25	74	.32	106	PCT	10	P2	BW2	-.85			VS3	TEC	.610	NBAZ1	2	C		
31	74	.25	72	PCT	8	P2	BW2	-.92			VS3	TEC	.610	NBAZ1	2	C		
33	74	.23	141	PCT	9	P2	BW1	1.16			VS3	TEH	.610	NBAZ1	3	H		
45	74	.56	126	PCT	17	P2	BW1	-.99			VS3	TEH	.610	NBAZ1	1	H		
45	74	.81	118	PCT	15	P3	BW1	-.92		.18	07H	VS3	.580	NPUFZ	120	H		DQA
16	75	.43	134	PCT	12	P2	BW2	.93			VS3	TEC	.610	NBAZ1	2	C		
48	75	.21	37	PCT	7	P2	VS3	.73			VS3	TEC	.610	NBAZ1	4	C		
56	75	.28	34	PCT	12	P2	BW1	-1.37			VS3	TEH	.610	NBAZ1	66	H		
116	75	.16	149	PCT	7	P2	VS2	.85			VS3	TEH	.610	NBAZ1	90	H		
45	76	.18	129	PCT	7	P2	BW2	-.80			VS3	TEC	.610	NBAZ1	1	C		
47	76	.13	120	PCT	6	P2	BW2	-.77			VS3	TEC	.610	NBAZ1	1	C		
49	76	.27	81	PCT	10	P2	BW2	-.80			VS3	TEC	.610	NBAZ1	1	C		
59	76	.21	74	PCT	6	P2	BW2	.79			VS3	TEC	.610	NBAZ1	22	C		
59	76	.27	153	PCT	10	P2	BW1	.80			VS3	TEH	.610	NBAZ1	69	H		
26	77	.20	107	PCT	10	P2	VS3	-.52			VS3	TEH	.610	NBAZ1	2	H		
26	77	.27	128	PCT	12	P2	VS3	.43			VS3	TEH	.610	NBAZ1	2	H		
38	77	.30	124	PCT	12	P2	BW1	1.44			VS3	TEH	.610	NBAZ1	3	H		
25	78	.21	152	PCT	10	P2	BW1	.61			VS3	TEH	.610	NBAZ1	2	H		
25	78	.19	133	PCT	9	P2	VS3	.83			VS3	TEH	.610	NBAZ1	2	H		
33	78	.36	65	PCT	11	P2	BW2	-.63			VS3	TEC	.610	NBAZ1	4	C		
35	78	.27	99	PCT	8	P2	VS3	.41			VS3	TEC	.610	NBAZ1	4	C		
45	78	.20	44	PCT	7	P2	BW2	.82			VS3	TEC	.610	NBAZ1	4	C		
47	78	.45	80	PCT	13	P2	BW2	.81			VS3	TEC	.610	NBAZ1	4	C		
47	78	.75	102	PCT	16	P3	BW2	.86		.32	07C	VS3	.580	NPUFZ	71	C		DQA
51	78	.21	127	PCT	7	P2	BW2	-.84			VS3	TEC	.610	NBAZ1	4	C		
55	78	.30	139	PCT	13	P2	BW1	1.09			VS3	TEH	.610	NBAZ1	4	H		
59	78	.22	157	PCT	10	P2	BW1	.47			VS3	TEH	.610	NBAZ1	66	H		
56	79	.33	73	PCT	14	P2	BW1	-1.53			VS3	TEH	.610	NBAZ1	66	H		
162	79	.22	12	PCT	7	P2	BW2	.75			VS3	TEC	.610	NBAZ1	41	C		
164	79	.48	120	PCT	13	P2	BW2	.66			VS3	TEC	.610	NBAZ1	41	C		
33	80	.76	109	PCT	22	P2	BW1	-1.73			VS3	TEH	.610	NBAZ1	3	H		
33	80	.30	145	PCT	12	P2	BW1	-.64			VS3	TEH	.610	NBAZ1	3	H		

| ROW | COL | VOLTS | DEG | IND | PER | CHN | LOCN | INCH1 | INCH2 | CRLEN | BEGT | ENDT | PDIA | PTYPE | CAL | L | UTIL1 | UTIL2 |

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2
33	80	1.10	90	PCT	19	P3	BW1	-.85		.38	07H	VS3	.580	NPUFZ	120	H		
33	80	.81	98	PCT	15	P3	BW1	-.15		.23	07H	VS3	.580	NPUFZ	120	H		DQA
37	80	1.17	107	PCT	26	P2	BW2	-.82				VS3	TEC	.610	NBAZ1	13	C	
37	80	1.69	86	PCT	27	P3	BW2	-.85		.47	07C	VS3	.580	NPUFZ	68	C		
39	80	.41	107	PCT	14	P2	BW2	-.75				VS3	TEC	.610	NBAZ1	13	C	
43	80	.43	119	PCT	17	P2	VS3	-1.05				VS3	TEH	.610	NBAZ1	2	H	
43	80	1.10	89	PCT	20	P3	VS3	-.84		.73	VS3	VS3	.580	NPUFZ	68	C		
45	80	.26	111	PCT	10	P2	VS3	.28				VS3	TEC	.610	NBAZ1	13	C	
75	80	.28	46	PCT	11	P2	BW1	.75				VS3	TEH	.610	NBAZ1	7	H	
30	81	.15	117	PCT	8	P2	05H	-.17				VS3	TEH	.610	NBAZ1	4	H	
36	81	.16	156	PCT	8	P2	BW1	1.37				VS3	TEH	.610	NBAZ1	4	H	
42	81	.34	56	PCT	12	P2	BW2	.84				VS3	TEC	.610	NBAZ1	13	C	
39	82	.60	100	PCT	18	P2	VS3	-.63				VS3	TEH	.610	NBAZ1	1	H	
39	82	1.12	79	PCT	21	P3	VS3	-.95		.53	VS3	VS3	.580	NPUFZ	68	C		DQA
45	82	.85	78	PCT	23	P2	BW1	-.90				VS3	TEH	.610	NBAZ1	3	H	
45	82	.38	128	PCT	11	P2	VS3	-.91				VS3	TEC	.610	NBAZ1	4	C	
45	82	1.33	95	PCT	22	P3	BW1	-1.00		.15	07H	VS3	.580	NPUFZ	120	H		
45	82	.76	79	PCT	14	P3	VS3	-.97		.23	07H	VS3	.580	NPUFZ	120	H		DQA
47	82	.47	118	PCT	16	P2	BW1	-.95				VS3	TEH	.610	NBAZ1	3	H	
47	82	.20	75	PCT	9	P2	VS3	-.77				VS3	TEH	.610	NBAZ1	3	H	
47	82	.64	105	PCT	12	P3	BW1	-.75		.20	07H	VS3	.580	NPUFZ	120	H		
47	82	.68	81	PCT	13	P3	VS3	-.75		.14	07H	VS3	.580	NPUFZ	120	H		DQA
107	82	.23	114	PCT	10	P2	BW1	-1.32				VS3	TEH	.610	NBAZ1	86	H	
36	83	.22	154	PCT	9	P2	VS3	.66				VS3	TEH	.610	NBAZ1	1	H	
164	83	.42	62	PCT	12	P2	BW2	.68				VS3	TEC	.610	NBAZ1	41	C	
45	84	.16	36	PCT	7	P2	BW2	.63				VS3	TEC	.610	NBAZ1	13	C	
47	84	.44	43	PCT	14	P2	BW2	.73				VS3	TEC	.610	NBAZ1	13	C	
55	84	.18	145	PCT	9	P2	BW1	.77				VS3	TEH	.610	NBAZ1	4	H	
107	84	.33	130	PCT	12	P2	BW1	-1.30				VS3	TEH	.610	NBAZ1	84	H	
111	84	1.09	102	PCT	24	P2	VS3	-.62				VS3	TEC	.610	NBAZ1	27	C	
111	84	1.82	87	PCT	28	P3	VS3	-1.00		.44	VS3	VS3	.580	NPUFZ	71	C		DQA
48	85	1.07	102	PCT	25	P2	VS3	.93				VS3	TEC	.610	NBAZ1	13	C	
48	85	1.48	85	PCT	25	P3	VS3	.88		.33	VS3	VS3	.580	NPUFZ	71	C		DQA
56	85	.28	136	PCT	12	P2	BW1	-1.12				VS3	TEH	.610	NBAZ1	66	H	
37	86	.20	110	PCT	10	P2	VS3	.57				VS3	TEH	.610	NBAZ1	2	H	
39	86	.32	88	PCT	14	P2	BW1	-1.76				VS3	TEH	.610	NBAZ1	2	H	
45	86	.83	101	PCT	20	P2	VS3	.83				VS3	TEC	.610	NBAZ1	4	C	
45	86	1.29	96	PCT	23	P3	VS3	1.00		.67	VS3	VS3	.580	NPUFZ	68	C		DQA
165	86	.31	121	PCT	11	P2	BW2	.74				VS3	TEC	.610	NBAZ1	42	C	
167	86	.71	102	PCT	19	P2	BW2	.67				VS3	TEC	.610	NBAZ1	42	C	
167	86	1.21	91	PCT	22	P3	BW2	.95		.83	10C	VS5	.580	NPUFZ	71	C		DQA
46	87	1.07	108	PCT	24	P2	VS3	.42				VS3	TEC	.610	NBAZ1	4	C	
46	87	1.15	97	PCT	21	P3	VS3	.59		.40	VS3	VS3	.580	NPUFZ	71	C		DQA
48	87	.42	88	PCT	12	P2	VS3	.76				VS3	TEC	.610	NBAZ1	4	C	
48	87	.41	43	PCT	12	P2	BW2	.95				VS3	TEC	.610	NBAZ1	4	C	
48	87	.90	85	PCT	18	P3	VS3	.79		.35	08C	VS3	.580	NPUFZ	71	C		
48	87	1.05	92	PCT	20	P3	BW2	1.00		.49	08C	VS3	.580	NPUFZ	71	C		DQA
56	87	.29	45	PCT	12	P2	BW1	-1.77				VS3	TEH	.610	NBAZ1	15	H	
56	87	.23	121	PCT	10	P2	VS3	.70				VS3	TEH	.610	NBAZ1	15	H	
164	87	.47	57	PCT	13	P2	BW2	.52				VS3	TEC	.610	NBAZ1	43	C	
166	87	.25	67	PCT	8	P2	BW2	.76				VS3	TEC	.610	NBAZ1	43	C	
45	88	.65	82	PCT	21	P2	BW1	.71				VS3	TEH	.610	NBAZ1	4	H	
45	88	.22	55	PCT	10	P2	VS3	.66				VS3	TEH	.610	NBAZ1	4	H	

| ROW | COL | VOLTS | DEG | IND | PER | CHN | LOCN | INCH1 | INCH2 | CRLEN | BEGT | ENDT | PDIA | PTYPE | CAL | L | UTIL1 | UTIL2 |

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2
45	88	1.23	87	PCT	20	P3	BW1	.58		.28	07H	VS3	.580	NPUFZ	120	H		
45	88	.75	95	PCT	14	P3	VS3	.73		.20	07H	VS3	.580	NPUFZ	120	H		
49	88	.25	116	PCT	10	P2	BW1	-.62			VS3	TEH	.610	NBAZ1	3	H		
49	88	.63	292	PCT	18	P2	BW2	-.73			VS3	TEC	.610	NBAZ1	13	C		
49	88	.97	90	PCT	19	P3	BW2	-.93		.16	08C	VS3	.580	NPUFZ	71	C		
55	88	.20	45	PCT	8	P2	BW1	1.38			VS3	TEH	.610	NBAZ1	3	H		
55	88	.21	94	PCT	8	P2	VS3	-.78			VS3	TEC	.610	NBAZ1	13	C		
59	88	.40	121	PCT	13	P2	VS3	-.80			VS3	TEC	.610	NBAZ1	22	C		
163	88	.59	101	PCT	16	P2	BW2	.69			VS3	TEC	.610	NBAZ1	43	C		
163	88	1.08	98	PCT	20	P3	BW2	.97		.23	10C	VS5	.580	NPUFZ	71	C		
165	88	.75	119	PCT	19	P2	BW2	.54			VS3	TEC	.610	NBAZ1	43	C		
165	88	1.29	91	PCT	23	P3	BW2	1.00		.47	10C	VS5	.580	NPUFZ	71	C		
167	88	.69	122	PCT	18	P2	BW2	.51			VS3	TEC	.610	NBAZ1	43	C		
167	88	1.09	85	PCT	20	P3	BW2	.92		.44	10C	VS5	.580	NPUFZ	71	C		DQA
48	89	.27	83	PCT	9	P2	VS3	-.62			VS3	TEC	.610	NBAZ1	13	C		
48	89	.28	80	PCT	10	P2	VS3	.53			VS3	TEC	.610	NBAZ1	13	C		
64	89	.55	104	PCT	17	P2	VS3	.61			VS3	TEH	.610	NBAZ1	14	H		
64	89	.81	96	PCT	17	P3	VS3	.78		.32	VS3	VS3	.580	NPUFZ	71	C		DQA
116	89	.33	129	PCT	14	P2	VS2	.68			VS3	TEH	.610	NBAZ1	78	H		
166	89	.26	93	PCT	10	P2	BW2	-.15			VS3	TEC	.610	NBAZ1	42	C		
166	89	.86	75	PCT	22	P2	BW2	.60			VS3	TEC	.610	NBAZ1	42	C		
166	89	1.28	94	PCT	23	P3	BW2	.79		.31	10C	VS5	.580	NPUFZ	71	C		
168	89	.25	94	PCT	10	P2	BW2	-.88			VS3	TEC	.610	NBAZ1	42	C		
49	90	.41	109	PCT	12	P2	VS3	-.71			VS3	TEC	.610	NBAZ1	4	C		
97	90	.17	52	PCT	9	P2	BW1	-1.00			VS3	TEH	.610	NBAZ1	78	H		
165	90	.27	118	PCT	10	P2	BW2	.64			VS3	TEC	.610	NBAZ1	42	C		
44	91	.35	72	PCT	13	P2	BW1	-.85			VS3	TEH	.610	NBAZ1	3	H		
44	91	.17	149	PCT	7	P2	BW1	.84			VS3	TEH	.610	NBAZ1	3	H		
44	91	.34	74	PCT	10	P2	VS3	-.80			VS3	TEC	.610	NBAZ1	4	C		
48	91	.23	36	PCT	8	P2	BW1	-1.19			VS3	TEH	.610	NBAZ1	4	H		
48	91	.38	104	PCT	11	P2	VS3	.79			VS3	TEC	.610	NBAZ1	4	C		
52	91	.20	71	PCT	7	P2	VS3	-.72			VS3	TEC	.610	NBAZ1	4	C		
80	91	.29	52	PCT	12	P2	VS2	-.70			VS3	TEH	.610	NBAZ1	15	H		
104	91	.32	100	PCT	11	P2	BW1	-.73			VS3	TEH	.610	NBAZ1	77	H		
168	91	.32	39	PCT	10	P2	BW2	.54			VS3	TEC	.610	NBAZ1	43	C		
170	91	.35	95	PCT	11	P2	BW2	.73			VS3	TEC	.610	NBAZ1	43	C		
49	92	.23	73	PCT	11	P2	BW1	-.79			VS3	TEH	.610	NBAZ1	4	H		
49	92	.32	103	PCT	13	P2	BW1	1.19			VS3	TEH	.610	NBAZ1	4	H		
59	92	.13	96	PCT	5	P2	BW1	-1.29			VS3	TEH	.610	NBAZ1	14	H		
59	92	.29	84	PCT	10	P2	BW1	1.25			VS3	TEH	.610	NBAZ1	14	H		
71	92	.19	87	PCT	7	P2	BW1	.86			VS3	TEH	.610	NBAZ1	14	H		
50	93	.14	26	PCT	6	P2	BW1	-1.11			VS3	TEH	.610	NBAZ1	3	H		
100	93	.38	96	PCT	12	P2	VS4	-.92			VS3	TEC	.610	NBAZ1	27	C		
164	93	.90	102	PCT	23	P2	VS1	.72			VS3	TEH	.610	NBAZ1	77	H		
164	93	1.55	90	PCT	24	P3	VS1	.90		.25	VS1	VS1	.580	NPUFZ	120	H		
107	94	.20	89	PCT	10	P2	BW1	-.59			VS3	TEH	.610	NBAZ1	78	H		
109	94	.20	108	PCT	10	P2	BW1	-.76			VS3	TEH	.610	NBAZ1	78	H		
169	94	.28	73	PCT	10	P2	BW2	.75			VS3	TEC	.610	NBAZ1	42	C		
46	95	.43	69	PCT	12	P2	VS3	.82			VS3	TEC	.610	NBAZ1	4	C		
48	95	.28	57	PCT	9	P2	VS3	.58			VS3	TEC	.610	NBAZ1	4	C		
108	95	.27	44	PCT	10	P2	VS3	-.98			VS3	TEC	.610	NBAZ1	26	C		

| ROW | COL | VOLTS | DEG | IND | PER | CHN | LOCN | INCH1 | INCH2 | CRLEN | BEGT | ENDT | PDIA | PTYPE | CAL | L | UTIL1 | UTIL2 |

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2
47	96	.17	104	PCT	8	P2	BW1	.71			VS3	TEH	.610	NBAZ1	3	H		
47	96	.22	33	PCT	9	P2	BW2	-.91			VS3	TEC	.610	NBAZ1	13	C		
59	96	.32	90	PCT	10	P2	BW2	-.83			VS3	TEC	.610	NBAZ1	22	C		
102	97	.46	61	PCT	13	P2	VS3	.90			VS3	TEC	.610	NBAZ1	27	C		
51	98	.32	124	PCT	14	P2	BW1	-.93			VS3	TEH	.610	NBAZ1	4	H		
48	99	.36	83	PCT	15	P2	BW1	-1.00			VS3	TEH	.610	NBAZ1	4	H		
48	99	.30	148	PCT	13	P2	BW1	1.04			VS3	TEH	.610	NBAZ1	4	H		
48	99	.32	103	PCT	12	P2	VS3	.05			VS3	TEC	.610	NBAZ1	13	C		
48	99	.80	103	PCT	14	P3	BW1	-.99		.22	08H	VS3	.580	NPUFZ	120	H		
48	99	1.17	85	PCT	20	P3	BW1	1.00		.28	08H	VS3	.580	NPUFZ	120	H		
48	99	.89	83	PCT	16	P3	VS3	.32		.25	08H	VS3	.580	NPUFZ	120	H		DQA
52	99	.26	54	PCT	10	P2	BW1	-.92			VS3	TEH	.610	NBAZ1	3	H		
54	99	.16	132	PCT	7	P2	BW1	-1.26			VS3	TEH	.610	NBAZ1	3	H		
55	100	.24	154	PCT	11	P2	BW1	-1.11			VS3	TEH	.610	NBAZ1	4	H		
61	100	.30	112	PCT	11	P2	BW1	.75			VS3	TEH	.610	NBAZ1	14	H		
85	100	.23	155	PCT	7	P2	VS4	-.60			VS3	TEC	.610	NBAZ1	22	C		
52	101	.28	156	PCT	11	P2	BW1	.48			VS3	TEH	.610	NBAZ1	3	H		
54	101	.37	149	PCT	14	P2	BW1	-1.15			VS3	TEH	.610	NBAZ1	3	H		
64	101	2.47	109	PCT	39	P2	VS3	-.83			VS3	TEH	.610	NBAZ1	12	H		
64	101	2.67	84	PCT	35	P3	VS3	-.83		.33	VS3	VS3	.580	NPUFZ	73	C		
64	101	.82	78	PCT	16	P3	VS3	-.76		.22	VS3	VS3	.580	NPUFZ	73	C		
66	101	.67	124	PCT	20	P2	VS3	-.77			VS3	TEH	.610	NBAZ1	12	H		
66	101	1.38	86	PCT	22	P3	VS3	-.88		.25	VS3	VS3	.580	NPUFZ	70	C		DQA
68	101	.24	123	PCT	10	P2	VS3	.72			VS3	TEH	.610	NBAZ1	12	H		
70	101	.20	130	PCT	7	P2	BW2	-.79			VS3	TEC	.610	NBAZ1	25	C		
59	102	.46	133	PCT	17	P2	VS3	-.72			VS3	TEH	.610	NBAZ1	13	H		
59	102	.91	113	PCT	26	P2	VS3	.57			VS3	TEH	.610	NBAZ1	13	H		
59	102	1.14	88	PCT	20	P3	VS3	-.98		.40	VS3	VS3	.580	NPUFZ	70	C		
59	102	2.24	83	PCT	31	P3	VS3	.78		.32	VS3	VS3	.580	NPUFZ	70	C		
101	102	.59	98	PCT	16	P2	VS4	1.10			VS3	TEC	.610	NBAZ1	25	C		
101	102	1.15	86	PCT	21	P3	VS4	.78		.24	VS4	VS4	.580	NPUFZ	71	C		DQA
103	102	.23	46	PCT	8	P2	VS4	.99			VS3	TEC	.610	NBAZ1	25	C		
97	104	.18	84	PCT	8	P2	VS4	-.75			VS3	TEC	.610	NBAZ1	24	C		
115	104	.40	60	PCT	14	P2	VS4	.70			VS3	TEC	.610	NBAZ1	26	C		
46	105	.56	145	PCT	18	P2	BW1	.54			VS3	TEH	.610	NBAZ1	3	H		
46	105	1.00	93	PCT	17	P3	BW1	.66		.28	07H	VS3	.580	NPUFZ	120	H		DQA
150	105	.24	152	PCT	11	P2	VS1	.81			VS3	TEH	.610	NBAZ1	27	H		
49	106	.18	119	PCT	8	P2	VS3	-.88			VS3	TEC	.610	NBAZ1	5	C		
55	106	.71	68	PCT	21	P2	BW1	1.27			VS3	TEH	.610	NBAZ1	3	H		
55	106	.79	85	PCT	14	P3	BW1	.89		.22	08H	VS3	.580	NPUFZ	120	H		
59	106	.14	152	PCT	7	P2	VS3	-.81			VS3	TEH	.610	NBAZ1	13	H		
59	106	.59	106	PCT	16	P2	BW2	.86			VS3	TEC	.610	NBAZ1	25	C		
59	106	1.14	90	PCT	20	P3	BW2	.95		.29	08C	VS4	.580	NPUFZ	70	C		DQA
63	106	.16	161	PCT	8	P2	BW1	.77			VS3	TEH	.610	NBAZ1	13	H		
66	107	.20	138	PCT	9	P2	BW1	.90			VS3	TEH	.610	NBAZ1	13	H		
74	107	.19	165	PCT	9	P2	VS2	-.82			VS3	TEH	.610	NBAZ1	13	H		
170	107	.25	102	PCT	9	P2	VS3	-.57			VS3	TEH	.610	NBAZ1	30	H		
170	107	.30	74	PCT	10	P2	VS3	.62			VS3	TEH	.610	NBAZ1	30	H		
170	107	.67	84	PCT	17	P2	BW2	.58			VS3	TEC	.610	NBAZ1	45	C		
170	107	1.21	98	PCT	21	P3	BW2	.92		.41	10C	VS5	.580	NPUFZ	72	C		
47	108	.31	213	PCT	12	P2	BW1	-.03			VS3	TEH	.610	NBAZ1	3	H		
47	108	.47	82	PCT	16	P2	VS3	-.66			VS3	TEH	.610	NBAZ1	3	H		
47	108	.24	51	PCT	10	P2	BW2	-.87			VS3	TEC	.610	NBAZ1	5	C		
47	108	.62	84	PCT	12	P3	VS3	-.85		.32	VS3	VS3	.580	NPUFZ	70	C		DQA

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2
59	108	.30	133	PCT	11	P2	BW1	-.56			VS3	TEH	.610	NBAZ1	12	H		
87	108	.25	140	PCT	10	P2	BW1	-.73			VS3	TEH	.610	NBAZ1	12	H		
159	108	.23	73	PCT	11	P2	VS3	.51			VS3	TEH	.610	NBAZ1	31	H		
46	109	.24	143	PCT	10	P2	BW1	-.91			VS3	TEH	.610	NBAZ1	3	H		
52	109	.24	104	PCT	10	P2	VS3	.55			VS3	TEH	.610	NBAZ1	3	H		
86	109	.25	136	PCT	10	P2	BW1	-.70			VS3	TEH	.610	NBAZ1	12	H		
88	109	.38	140	PCT	13	P2	BW1	-.65			VS3	TEH	.610	NBAZ1	12	H		
90	109	.38	145	PCT	15	P2	BW1	-.58			VS3	TEH	.610	NBAZ1	23	H		
90	109	1.27	84	PCT	21	P3	BW1	-1.00		.59	09H	VS2	.580	NPUFZ	119	H		DQA
110	109	.83	116	PCT	25	P2	VS3	.60			VS3	TEH	.610	NBAZ1	23	H		
110	109	1.35	84	PCT	24	P3	VS3	1.00		.17	VS3	VS3	.580	NPUFZ	71	C		DQA
57	110	.31	137	PCT	10	P2	BW2	-.82			VS3	TEC	.610	NBAZ1	25	C		
59	110	.35	73	PCT	11	P2	BW2	-.98			VS3	TEC	.610	NBAZ1	25	C		
79	110	.89	132	PCT	23	P2	BW1	1.03			VS3	TEH	.610	NBAZ1	7	H		
79	110	1.52	89	PCT	24	P3	BW1	1.00		.15	08H	VS2	.580	NPUFZ	119	H		DQA
81	110	.35	95	PCT	11	P2	VS3	1.13			VS3	TEC	.610	NBAZ1	25	C		
89	110	.48	53	PCT	16	P2	BW1	.99			VS3	TEH	.610	NBAZ1	7	H		
89	110	1.04	70	PCT	18	P3	BW1	1.00		.24	08H	VS2	.580	NPUFZ	119	H		DQA
165	110	.36	153	PCT	11	P2	VS4	.80			VS3	TEC	.610	NBAZ1	47	C		
86	111	.27	109	PCT	11	P2	VS3	.45			VS3	TEH	.610	NBAZ1	9	H		
86	111	.22	52	PCT	9	P2	VS4	-.89			VS3	TEC	.610	NBAZ1	24	C		
51	112	.50	124	PCT	17	P2	BW1	.71			VS3	TEH	.610	NBAZ1	3	H		
51	112	.70	101	PCT	13	P3	BW1	1.00		.21	08H	VS3	.580	NPUFZ	119	H		DQA
57	112	.38	136	PCT	13	P2	VS2	1.00			VS3	TEH	.610	NBAZ1	8	H		
59	112	.30	78	PCT	11	P2	BW1	.94			VS3	TEH	.610	NBAZ1	8	H		
81	112	.26	111	PCT	10	P2	VS3	-.71			VS3	TEC	.610	NBAZ1	24	C		
113	112	.43	108	PCT	15	P2	VS4	-.97			VS3	TEC	.610	NBAZ1	24	C		
113	112	.84	87	PCT	17	P3	VS4	-.90		.29	VS4	VS4	.580	NPUFZ	71	C		DQA
125	112	.28	37	PCT	11	P2	VS4	-.90			VS3	TEC	.610	NBAZ1	24	C		
50	113	.22	52	PCT	9	P2	05H	-.98			VS3	TEH	.610	NBAZ1	3	H		
50	113	.45	156	PCT	15	P2	BW1	.68			VS3	TEH	.610	NBAZ1	3	H		
50	113	1.18	85	PCT	20	P3	BW1	1.00		.53	08H	VS3	.580	NPUFZ	119	H		DQA
49	114	.24	120	PCT	9	P2	BW2	.88			VS3	TEC	.610	NBAZ1	5	C		
91	114	.58	123	PCT	16	P2	VS4	.82			VS3	TEC	.610	NBAZ1	25	C		
91	114	.37	74	PCT	12	P2	10C	-.26			VS3	TEC	.610	NBAZ1	25	C		
91	114	.97	103	PCT	19	P3	VS4	.82		.23	VS4	VS4	.580	NPUFZ	71	C		DQA
119	114	.46	116	PCT	15	P2	VS3	-.64			VS3	TEH	.610	NBAZ1	22	H		
119	114	1.02	91	PCT	19	P3	VS3	-.84		.45	VS3	VS3	.580	NPUFZ	71	C		DQA
137	114	.93	103	PCT	23	P2	VS4	-.98			VS3	TEC	.610	NBAZ1	44	C		
137	114	1.04	90	PCT	20	P3	VS4	-.99		.14	VS4	VS4	.580	NPUFZ	71	C		
48	115	.33	61	PCT	12	P2	VS3	.58			VS3	TEH	.610	NBAZ1	3	H		
58	115	.31	133	PCT	13	P2	VS3	-.85			VS3	TEH	.610	NBAZ1	9	H		
60	115	.20	130	PCT	9	P2	BW1	.44			VS3	TEH	.610	NBAZ1	9	H		
62	115	.31	105	PCT	13	P2	BW1	.51			VS3	TEH	.610	NBAZ1	9	H		
68	115	.22	154	PCT	10	P2	BW1	.82			VS3	TEH	.610	NBAZ1	9	H		
47	116	.99	94	PCT	25	P2	BW1	-.71			VS3	TEH	.610	NBAZ1	3	H		
47	116	.46	111	PCT	16	P2	BW1	-.25			VS3	TEH	.610	NBAZ1	3	H		
47	116	1.52	94	PCT	24	P3	BW1	-1.00		.34	07H	VS3	.580	NPUFZ	119	H		DQA
47	116	1.10	90	PCT	19	P3	BW1	-.17		.20	07H	VS3	.580	NPUFZ	119	H		
59	116	.36	44	PCT	13	P2	BW1	-.82			VS3	TEH	.610	NBAZ1	8	H		
121	116	.26	145	PCT	12	P2	BW1	-.81			VS3	TEH	.610	NBAZ1	23	H		
ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2
40	117	1.46	108	PCT	30	P2	BW1	.86			VS3	TEH	.610	NBAZ1	5	H		
40	117	.55	119	PCT	17	P2	VS3	-.58			VS3	TEH	.610	NBAZ1	5	H		
40	117	.33	56	PCT	12	P2	BW2	-.80			VS3	TEC	.610	NBAZ1	5	C		
40	117	2.09	90	PCT	30	P3	BW1	1.00		.55	07H	VS3	.580	NPUFZ	119	H		DQA
40	117	.89	89	PCT	16	P3	VS3	-.69		.99	07H	VS3	.580	NPUFZ	119	H		
42	117	.59	110	PCT	20	P2	BW1	.78			VS3	TEH	.610	NBAZ1	6	H		
42	117	1.48	96	PCT	24	P3	BW1	1.00		.43	07H	VS3	.580	NPUFZ	119	H		DQA
44	117	.17	106	PCT	8	P2	BW1	-.97			VS3	TEH	.610	NBAZ1	6	H		
46	117	.70	118	PCT	21	P2	BW1	-.65			VS3	TEH	.610	NBAZ1	3	H		
46	117	1.25	90	PCT	21	P3	BW1	-1.00		1.58	07H	VS3	.580	NPUFZ	119	H		DQA
48	117	.32	128	PCT	11	P2	VS3	-.76			VS3	TEH	.610	NBAZ1	5	H		
162	117	.39	101	PCT	14	P2	BW2	-.99			VS3	TEC	.610	NBAZ1	46	C		
47	118	1.69	114	PCT	32	P2	BW1	.59			VS3	TEH	.610	NBAZ1	5	H		
47	118	1.82	88	PCT	27	P3	BW1	1.00		.77	07H	VS3	.580	NPUFZ	119	H		DQA
49	118	1.43	126	PCT	33	P2	BW1	.64			VS3	TEH	.610	NBAZ1	4	H		
49	118	.22	66	PCT	9	P2	VS3	.69			VS3	TEC	.610	NBAZ1	5	C		
49	118	1.84	84	PCT	28	P3	BW1	1.00		.59	08H	VS3	.580	NPUFZ	119	H		DQA
51	118	.26	47	PCT	10	P2	BW1	-.79			VS3	TEH	.610	NBAZ1	3	H		
65	118	.38	154	PCT	14	P2	BW1	.76			VS3	TEH	.610	NBAZ1	9	H		
87	118	.25	49	PCT	11	P2	BW1	.91			VS3	TEH	.610	NBAZ1	9	H		
89	118	.29	126	PCT	12	P2	BW1	.87			VS3	TEH	.610	NBAZ1	9	H		
105	118	.36	103	PCT	11	P2	VS4	.68			VS3	TEC	.610	NBAZ1	25	C		
42	119	.34	132	PCT	14	P2	BW1	-1.07			VS3	TEH	.610	NBAZ1	6	H		
44	119	.46	107	PCT	16	P2	VS3	-.60			VS3	TEH	.610	NBAZ1	3	H		
44	119	.25	67	PCT	10	P2	BW2	1.06			VS3	TEC	.610	NBAZ1	5	C		
44	119	1.02	94	PCT	18	P3	VS3	-.64		.37	VS3	VS3	.580	NPUFZ	70	C		
46	119	.26	121	PCT	10	P2	BW1	-.85			VS3	TEH	.610	NBAZ1	5	H		
48	119	.21	142	PCT	10	P2	BW1	.62			VS3	TEH	.610	NBAZ1	4	H		
48	119	.58	124	PCT	15	P2	VS3	-.86			VS3	TEC	.610	NBAZ1	6	C		
48	119	1.03	97	PCT	18	P3	VS3	-.86		.28	VS3	VS3	.580	NPUFZ	70	C		DQA
54	119	.20	115	PCT	9	P2	BW1	1.10			VS3	TEH	.610	NBAZ1	4	H		
39	120	.24	65	PCT	11	P2	BW1	-1.50			VS3	TEH	.610	NBAZ1	6	H		
39	120	.23	135	PCT	10	P2	VS3	-.53			VS3	TEH	.610	NBAZ1	6	H		
41	120	.20	84	PCT	9	P2	BW1	-1.37			VS3	TEH	.610	NBAZ1	6	H		
41	120	.28	145	PCT	12	P2	VS3	-.56			VS3	TEH	.610	NBAZ1	6	H		
43	120	.43	113	PCT	15	P2	BW1	-.78			VS3	TEH	.610	NBAZ1	3	H		
43	120	.77	137	PCT	22	P2	VS3	-.65			VS3	TEH	.610	NBAZ1	3	H		
43	120	.71	105	PCT	13	P3	BW1	-1.00		.19	07H	VS3	.580	NPUFZ	119	H		DQA
43	120	1.42	74	PCT	23	P3	VS3	-.85		.47	07H	VS3	.580	NPUFZ	119	H		
45	120	1.30	115	PCT	28	P2	BW1	-.78			VS3	TEH	.610	NBAZ1	5	H		
45	120	1.73	102	PCT	31	P2	VS3	-.77			VS3	TEC	.610	NBAZ1	6	C		
45	120	1.98	93	PCT	29	P3	BW1	-1.00		.42	07H	VS3	.580	NPUFZ	119	H		DQA
45	120	2.08	84	PCT	30	P3	VS3	-.71		.27	07H	VS3	.580	NPUFZ	119	H		
47	120	1.34	113	PCT	31	P2	VS3	-.73			VS3	TEH	.610	NBAZ1	4	H		
47	120	2.27	87	PCT	31	P3	VS3	-.66		.51	VS3	VS3	.580	NPUFZ	70	C		DQA
67	120	.19	142	PCT	8	P2	BW1	.53			VS3	TEH	.610	NBAZ1	8	H		
79	120	.45	86	PCT	15	P2	VS3	-.66			VS3	TEH	.610	NBAZ1	8	H		
79	120	.94	101	PCT	18	P3	VS3	-.66		.34	VS3	VS3	.580	NPUFZ	71	C		DQA
91	120	.19	54	PCT	9	P2	07H	.92			VS3	TEH	.610	NBAZ1	23	H		
167	120	.30	105	PCT	11	P2	BW2	.74			VS3	TEC	.610	NBAZ1	46	C		
169	120	.24	68	PCT	10	P2	BW2	.78			VS3	TEC	.610	NBAZ1	46	C		
36	121	.23	100	PCT	9	P2	BW1	.91			VS3	TEH	.610	NBAZ1	5	H		
40	121	.21	144	PCT	10	P2	BW1	1.07			VS3	TEH	.610	NBAZ1	6	H		
40	121	.44	115	PCT	16	P2	VS3	-.58			VS3	TEH	.610	NBAZ1	6	H		
40	121	.67	107	PCT	13	P3	VS3	-.58		.39	VS3	VS3	.580	NPUFZ	70	C		
ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2
46	121	.18	75	PCT	8	P2	VS3	-.80			VS3	TEC	.610	NBAZ1	5	C		
48	121	.32	91	PCT	12	P2	BW2	1.02			VS3	TEC	.610	NBAZ1	5	C		
62	121	.17	37	PCT	7	P2	BW1	.54			VS3	TEH	.610	NBAZ1	8	H		
64	121	.17	111	PCT	7	P2	BW1	.42			VS3	TEH	.610	NBAZ1	8	H		
68	121	.24	74	PCT	9	P2	BW1	.42			VS3	TEH	.610	NBAZ1	8	H		
80	121	.31	52	PCT	11	P2	BW1	-.76			VS3	TEH	.610	NBAZ1	8	H		
154	121	.40	121	PCT	13	P2	VS2	.66			VS3	TEH	.610	NBAZ1	26	H		
166	121	.67	98	PCT	19	P2	BW2	-.97			VS3	TEC	.610	NBAZ1	46	C		
166	121	1.38	89	PCT	23	P3	BW2	-.96		.36	10C	VS5	.580	NPUFZ	72	C		DQA
43	122	.44	98	PCT	15	P2	BW1	-1.04			VS3	TEH	.610	NBAZ1	5	H		
43	122	1.04	91	PCT	18	P3	BW1	-1.00		.25	07H	VS3	.580	NPUFZ	119	H		DQA
47	122	.23	52	PCT	9	P2	BW2	-.85			VS3	TEC	.610	NBAZ1	5	C		
47	122	.17	125	PCT	8	P2	BW1	-.91			VS3	TEH	.610	NBAZ1	6	H		
49	122	.44	133	PCT	15	P2	BW1	-.78			VS3	TEH	.610	NBAZ1	3	H		
49	122	1.17	80	PCT	20	P3	BW1	-1.00		.46	08H	VS3	.580	NPUFZ	119	H		DQA
167	122	.59	145	PCT	16	P2	BW2	.80			VS3	TEC	.610	NBAZ1	45	C		
167	122	1.06	95	PCT	19	P3	BW2	.67		.42	10C	VS5	.580	NPUFZ	72	C		DQA
30	123	.58	104	PCT	20	P2	BW1	-1.01			VS3	TEH	.610	NBAZ1	6	H		
30	123	1.26	96	PCT	21	P3	BW1	-1.00		.36	07H	VS3	.580	NPUFZ	119	H		DQA
40	123	.17	36	PCT	6	P2	VS3	-.56			VS3	TEC	.610	NBAZ1	6	C		
48	123	.18	81	PCT	8	P2	BW1	-.85			VS3	TEH	.610	NBAZ1	3	H		
56	123	.39	147	PCT	15	P2	BW1	-1.47			VS3	TEH	.610	NBAZ1	9	H		
56	123	1.22	90	PCT	20	P3	BW1	-1.00		.32	08H	VS3	.580	NPUFZ	119	H		DQA
43	124	.28	126	PCT	12	P2	BW1	.91			VS3	TEH	.610	NBAZ1	6	H		
45	124	.30	109	PCT	13	P2	BW1	-.97			VS3	TEH	.610	NBAZ1	6	H		
47	124	.26	137	PCT	10	P2	BW1	.29			VS3	TEH	.610	NBAZ1	3	H		
59	124	.31	142	PCT	11	P2	BW1	.75			VS3	TEH	.610	NBAZ1	8	H		
59	124	.35	123	PCT	13	P2	VS3	-.45			VS3	TEH	.610	NBAZ1	8	H		
63	124	.24	46	PCT	9	P2	BW1	.56			VS3	TEH	.610	NBAZ1	8	H		
85	124	.25	95	PCT	10	P2	BW1	1.01			VS3	TEH	.610	NBAZ1	8	H		
167	124	.47	106	PCT	15	P2	BW2	-.92			VS3	TEC	.610	NBAZ1	44	C		
167	124	1.10	87	PCT	20	P3	BW2	-.75		.28	10C	VS5	.580	NPUFZ	72	C		DQA
36	125	.18	35	PCT	8	P2	VS3	-.67			VS3	TEC	.610	NBAZ1	5	C		
160	125	.51	95	PCT	16	P2	VS1	.85			VS3	TEH	.610	NBAZ1	26	H		
160	125	1.02	90	PCT	18	P3	VS1	.85		.33	VS1	VS1	.580	NPUFZ	120	H		
162	125	.29	87	PCT	11	P2	VS4	-.94			VS3	TEC	.610	NBAZ1	44	C		
166	125	1.58	96	PCT	30	P2	BW2	.80			VS3	TEC	.610	NBAZ1	44	C		
166	125	2.01	89	PCT	30	P3	BW2	.96		.36	10C	VS5	.580	NPUFZ	72	C		
31	126	.76	128	PCT	21	P2	BW1	-1.24			VS3	TEH	.610	NBAZ1	5	H		
31	126	.32	124	PCT	12	P2	BW1	.91			VS3	TEH	.610	NBAZ1	5	H		
31	126	1.58	94	PCT	25	P3	BW1	-1.00		.20	07H	VS3	.580	NPUFZ	119	H		DQA
31	126	.82	104	PCT	15	P3	BW1	.90		.19	07H	VS3	.580	NPUFZ	119	H		
33	126	.25	145	PCT	11	P2	BW1	-1.15			VS3	TEH	.610	NBAZ1	6	H		
33	126	.24	139	PCT	11	P2	BW1	1.15			VS3	TEH	.610	NBAZ1	6	H		
33	126	.16	150	PCT	8	P2	VS3	.40			VS3	TEH	.610	NBAZ1	6	H		
37	126	.85	135	PCT	22	P2	BW1	-1.19			VS3	TEH	.610	NBAZ1	5	H		
37	126	1.22	91	PCT	20	P3	BW1	-1.00		.15	07H	VS3	.580	NPUFZ	119	H		DQA
39	126	.39	90	PCT	13	P2	BW1	-1.28			VS3	TEH	.610	NBAZ1	5	H		
41	126	.34	141	PCT	14	P2	BW1	-1.09			VS3	TEH	.610	NBAZ1	6	H		
43	126	.35	126	PCT	14	P2	BW1	-1.05			VS3	TEH	.610	NBAZ1	6	H		
45	126	.28	79	PCT	9	P2	BW2	-.85			VS3	TEC	.610	NBAZ1	6	C		

| ROW | COL | VOLTS | DEG | IND | PER | CHN | LOCN | INCH1 | INCH2 | CRLEN | BEGT | ENDT | PDIA | PTYPE | CAL | L | UTIL1 | UTIL2 |

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2
47	126	.49	39	PCT	16	P2	BW1	-.94			VS3	TEH	.610	NBAZ1	3	H		
47	126	.92	102	PCT	16	P3	BW1	-1.00		.17	07H	VS3	.580	NPUFZ	119	H		DQA
55	126	.75	116	PCT	21	P2	BW1	.74			VS3	TEH	.610	NBAZ1	3	H		
55	126	1.13	98	PCT	19	P3	BW1	1.00		.19	08H	VS3	.580	NPUFZ	119	H		DQA
44	127	.25	113	PCT	8	P2	VS3	-.63			VS3	TEC	.610	NBAZ1	6	C		
102	127	.34	83	PCT	13	P2	VS4	.94			VS3	TEC	.610	NBAZ1	30	C		
21	128	.25	76	PCT	9	P2	VS3	.49			VS3	TEH	.610	NBAZ1	5	H		
25	128	.46	139	PCT	17	P2	BW1	-1.07			VS3	TEH	.610	NBAZ1	6	H		
25	128	.87	91	PCT	16	P3	BW1	-1.00		.18	07H	VS3	.580	NPUFZ	119	H		DQA
31	128	.19	151	PCT	9	P2	BW1	.80			VS3	TEH	.610	NBAZ1	6	H		
33	128	.19	151	PCT	9	P2	VS3	.56			VS3	TEH	.610	NBAZ1	6	H		
39	128	.23	64	PCT	10	P2	BW1	-1.83			VS3	TEH	.610	NBAZ1	6	H		
43	128	.22	131	PCT	9	P2	VS3	-.64			VS3	TEH	.610	NBAZ1	3	H		
43	128	.18	282	PCT	8	P2	VS3	.73			VS3	TEH	.610	NBAZ1	3	H		
45	128	.33	144	PCT	12	P2	BW1	.87			VS3	TEH	.610	NBAZ1	3	H		
49	128	.23	107	PCT	11	P2	BW1	.82			VS3	TEH	.610	NBAZ1	4	H		
79	128	.32	58	PCT	12	P2	BW1	-.61			VS3	TEH	.610	NBAZ1	8	H		
22	129	.34	24	PCT	12	P2	BW1	.89			VS3	TEH	.610	NBAZ1	5	H		
24	129	.19	142	PCT	9	P2	BW1	1.45			VS3	TEH	.610	NBAZ1	6	H		
28	129	.50	61	PCT	14	P2	VS3	-.71			VS3	TEC	.610	NBAZ1	6	C		
30	129	.22	60	PCT	10	P2	BW1	1.28			VS3	TEH	.610	NBAZ1	6	H		
34	129	.26	115	PCT	10	P2	BW1	-1.21			VS3	TEH	.610	NBAZ1	5	H		
62	129	.63	114	PCT	19	P2	VS3	.58			VS3	TEH	.610	NBAZ1	8	H		
62	129	.95	93	PCT	19	P3	VS3	.66		.42	VS3	VS3	.580	NPUFZ	71	C		DQA
164	129	.25	103	PCT	10	P2	BW2	.68			VS3	TEC	.610	NBAZ1	44	C		
29	130	.49	110	PCT	18	P2	BW1	-.99			VS3	TEH	.610	NBAZ1	6	H		
29	130	.24	137	PCT	11	P2	VS3	-.62			VS3	TEH	.610	NBAZ1	6	H		
29	130	1.11	90	PCT	19	P3	BW1	-1.00		.18	07H	VS3	.580	NPUFZ	119	H		DQA
29	130	.92	94	PCT	16	P3	VS3	-.81		.49	07H	VS3	.580	NPUFZ	119	H		
37	130	.20	140	PCT	9	P2	VS3	.64			VS3	TEH	.610	NBAZ1	6	H		
115	130	.24	130	PCT	9	P2	VS3	-.60			VS3	TEH	.610	NBAZ1	18	H		
163	130	.22	132	PCT	11	P2	VS3	-.72			VS3	TEH	.610	NBAZ1	35	H		
46	131	.24	119	PCT	9	P2	08H	.83			VS3	TEH	.610	NBAZ1	4	H		
164	131	.29	47	PCT	11	P2	BW2	.58			VS3	TEC	.610	NBAZ1	36	C		
23	132	.24	134	PCT	11	P2	BW1	.90			VS3	TEH	.610	NBAZ1	6	H		
37	132	.21	124	PCT	10	P2	BW1	-1.35			VS3	TEH	.610	NBAZ1	6	H		
39	132	.49	121	PCT	16	P2	BW1	-1.68			VS3	TEH	.610	NBAZ1	3	H		
39	132	.70	80	PCT	13	P3	BW1	-1.00		.23	07H	VS3	.580	NPUFZ	119	H		DQA
55	132	.34	146	PCT	12	P2	BW1	1.47			VS3	TEH	.610	NBAZ1	5	H		
161	132	.67	112	PCT	19	P2	VS1	.75			VS3	TEH	.610	NBAZ1	34	H		
161	132	2.19	98	PCT	35	P2	VS4	.81			VS3	TEC	.610	NBAZ1	44	C		
161	132	2.78	80	PCT	36	P3	VS4	.91		.66	VS4	VS4	.580	NPUFZ	72	C		
161	132	1.46	92	PCT	23	P3	VS1	.88		.41	VS1	VS1	.580	NPUFZ	120	H		DQA
54	133	.23	92	PCT	9	P2	BW1	-1.40			VS3	TEH	.610	NBAZ1	5	H		
76	133	.25	116	PCT	10	P2	BW1	-.72			VS3	TEH	.610	NBAZ1	8	H		
162	133	.53	102	PCT	16	P2	VS2	-.88			VS3	TEH	.610	NBAZ1	34	H		
162	133	.51	113	PCT	16	P2	BW2	.58			VS3	TEC	.610	NBAZ1	36	C		
162	133	.83	101	PCT	16	P3	BW2	-.94		.28	10C	VS5	.580	NPUFZ	72	C		
162	133	.88	102	PCT	17	P3	BW2	1.00		.47	10C	VS5	.580	NPUFZ	72	C		
162	133	1.24	84	PCT	21	P3	VS2	-.77		.34	VS2	VS2	.580	NPUFZ	120	H		

| ROW | COL | VOLTS | DEG | IND | PER | CHN | LOCN | INCH1 | INCH2 | CRLEN | BEGT | ENDT | PDIA | PTYPE | CAL | L | UTIL1 | UTIL2 |

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2
39	134	.25	94	PCT	10	P2	BW1	-1.64			VS3	TEH	.610	NBAZ1	3	H		
47	134	.45	125	PCT	15	P2	BW1	.58			VS3	TEH	.610	NBAZ1	3	H		
47	134	.89	100	PCT	16	P3	BW1	1.00		.34	07H	VS3	.580	NPUFZ	119	H		DQA
161	134	.49	127	PCT	19	P2	VS1	.70			VS3	TEH	.610	NBAZ1	35	H		
161	134	.27	152	PCT	10	P2	VS4	.66			VS3	TEC	.610	NBAZ1	36	C		
161	134	1.12	104	PCT	25	P2	VS5	.98			VS3	TEC	.610	NBAZ1	36	C		
161	134	.48	127	PCT	15	P2	BW2	.61			VS3	TEC	.610	NBAZ1	36	C		
161	134	.28	133	PCT	11	P2	11C	.77			VS3	TEC	.610	NBAZ1	36	C		
161	134	2.03	84	PCT	30	P3	VS5	.74		.52	10C	VS5	.580	NPUFZ	72	C		DQA
161	134	.85	90	PCT	17	P3	BW2	.84		.14	10C	VS5	.580	NPUFZ	72	C		DQA
161	134	1.34	85	PCT	22	P3	VS1	.90		.25	VS1	VS1	.580	NPUFZ	120	H		
28	135	.32	50	PCT	10	P2	VS3	-.68			VS3	TEC	.610	NBAZ1	6	C		
32	135	.20	100	PCT	8	P2	VS3	-.61			VS3	TEC	.610	NBAZ1	5	C		
44	135	.34	114	PCT	10	P2	07C	-1.18			VS3	TEC	.610	NBAZ1	6	C		
112	135	.40	90	PCT	12	P2	VS4	.82			VS3	TEC	.610	NBAZ1	37	C		
160	135	.32	66	PCT	11	P2	VS5	-.53			VS3	TEC	.610	NBAZ1	36	C		
160	135	.29	94	PCT	11	P2	BW2	-1.00			VS3	TEC	.610	NBAZ1	36	C		
162	135	.36	36	PCT	13	P2	BW2	-.96			VS3	TEC	.610	NBAZ1	36	C		
33	136	.21	150	PCT	10	P2	BW1	-1.20			VS3	TEH	.610	NBAZ1	6	H		
79	136	.24	122	PCT	10	P2	VS4	-.56			VS3	TEC	.610	NBAZ1	30	C		
34	137	.36	86	PCT	13	P2	06H	-.91			VS3	TEH	.610	NBAZ1	3	H		
114	137	.22	55	PCT	10	P2	VS1	1.00			VS3	TEH	.610	NBAZ1	19	H		
25	138	.27	89	PCT	8	P2	VS3	-.68			VS3	TEC	.610	NBAZ1	6	C		
157	138	.21	149	PCT	10	P2	VS3	-.77			VS3	TEH	.610	NBAZ1	35	H		
30	139	.17	123	PCT	8	P2	BW1	1.18			VS3	TEH	.610	NBAZ1	6	H		
118	139	.31	68	PCT	10	P2	VS4	-.64			VS3	TEC	.610	NBAZ1	37	C		
31	140	.26	130	PCT	10	P2	BW1	.64			VS3	TEH	.610	NBAZ1	3	H		
43	140	.24	63	PCT	10	P2	BW2	-1.19			VS3	TEC	.610	NBAZ1	5	C		
155	140	.37	123	PCT	11	P2	VS4	.91			VS3	TEC	.610	NBAZ1	37	C		
28	141	.18	147	PCT	7	P2	VS3	-.69			VS3	TEC	.610	NBAZ1	5	C		
32	141	.18	84	PCT	6	P2	VS3	.52			VS3	TEC	.610	NBAZ1	6	C		
156	141	.19	94	PCT	8	P2	11C	-1.00			VS3	TEC	.610	NBAZ1	36	C		
145	142	.27	105	PCT	11	P2	02C	.67			VS3	TEC	.610	NBAZ1	39	C		
23	144	.19	94	PCT	8	P2	VS3	-1.07			VS3	TEC	.610	NBAZ1	5	C		
113	144	.25	126	PCT	11	P2	VS2	.80			VS3	TEH	.610	NBAZ1	19	H		
131	144	.25	63	PCT	10	P2	VS5	-.97			VS3	TEC	.610	NBAZ1	38	C		
125	146	.18	143	PCT	9	P2	VS3	-.67			VS3	TEH	.610	NBAZ1	35	H		
116	147	.25	136	PCT	12	P2	VS2	.56			VS3	TEH	.610	NBAZ1	35	H		
1	148	.26	84	PCT	10	P2	03C	-1.07			BW1	TEC	.590	SBUCC	58	C		
149	148	.31	119	PCT	10	P2	VS3	-.83			VS3	TEC	.610	NBAZ1	37	C		
131	150	.30	116	PCT	13	P2	VS3	-.58			VS3	TEH	.610	NBAZ1	35	H		
39	152	.16	25	PCT	7	P2	VS3	.65			VS3	TEC	.610	NBAZ1	7	C		
38	153	.29	69	PCT	11	P2	VS3	.72			VS3	TEC	.610	NBAZ1	7	C		
84	153	.30	57	PCT	10	P2	VS3	1.17			VS3	TEC	.610	NBAZ1	33	C		
131	156	.24	122	PCT	10	P2	VS3	-.52			VS3	TEC	.610	NBAZ1	38	C		
48	157	.32	117	PCT	11	P2	06H	-.12			VS3	TEH	.610	NBAZ1	44	H		
129	164	.46	78	PCT	15	P2	VS3	-.73			VS3	TEH	.610	NBAZ1	40	H		
129	164	1.03	94	PCT	19	P3	VS3	-.86		.30	VS3	VS3	.580	NPUFZ	72	C		

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2
129	164	1.03	94	PCT	19	P3	VS3	.86		.30	VS3	VS3	.580	NPUFZ	72	C		
114	165	.26	122	PCT	9	P2	VS2	.61			VS3	TEH	.610	NBAZ1	40	H		
122	171	.32	94	PCT	10	P2	10C	.51			VS3	TEC	.610	NBAZ1	35	C		
116	173	.23	96	PCT	9	P2	VS2	-1.00			VS3	TEH	.610	NBAZ1	40	H		
111	174	.32	133	PCT	11	P2	BW2	-.96			VS3	TEC	.610	NBAZ1	34	C		
33	178	.26	103	PCT	8	P2	VS3	.49			VS3	TEC	.610	NBAZ1	10	C		
113	178	.25	103	PCT	9	P2	VS3	.75			VS3	TEH	.610	NBAZ1	40	H		
27	202	.32	149	PCT	12	P2	VS3	.56			VS3	TEH	.610	NBAZ1	51	H		
ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2

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ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2
36	3	.52	132	PCT	16	P2	06H	.65			VS3	TEH	.610	NBAZ1	50	H		
36	3	.89	78	PCT	14	P3	06H	.80		.32	06H	06H	.600	NPAHZ	103	H		
81	16	.39	112	PCT	12	P2	VS2	-.99			VS3	TEH	.610	NBAZ1	52	H		
90	23	.35	130	PCT	11	P2	VS2	.74			VS3	TEH	.610	NBAZ1	38	H		
90	23	.27	130	PCT	9	P2	VS3	.62			VS3	TEH	.610	NBAZ1	38	H		
35	26	.30	51	PCT	10	P2	BW1	-.73			VS3	TEH	.610	NBAZ1	47	H		
48	29	.38	138	PCT	10	P2	BW2	-.90			VS3	TEC	.610	NBAZ1	55	C		
84	29	.78	131	PCT	20	P2	VS2	1.08			VS3	TEH	.610	NBAZ1	52	H		
84	29	.48	134	PCT	14	P2	VS3	.76			VS3	TEH	.610	NBAZ1	52	H		
84	29	.78	107	PCT	14	P3	VS2	1.07		.26	VS2	VS2	.580	NPUFZ	106	H		
23	30	.26	123	PCT	8	P2	BW2	-.64			VS3	TEC	.610	NBAZ1	55	C		
35	30	.22	110	PCT	7	P2	08C	-.86			VS3	TEC	.610	NBAZ1	55	C		
84	33	.34	114	PCT	12	P2	BW2	-.76			VS3	TEC	.610	NBAZ1	58	C		
108	33	.21	91	PCT	8	P2	10C	.93			VS3	TEC	.610	NBAZ1	58	C		
89	34	.31	141	PCT	9	P2	BW2	-.81			VS3	TEC	.610	NBAZ1	57	C		
83	36	.28	129	PCT	10	P2	BW2	-.77			VS3	TEC	.610	NBAZ1	58	C		
87	36	.30	113	PCT	11	P2	BW2	-.89			VS3	TEC	.610	NBAZ1	58	C		
86	37	.28	148	PCT	10	P2	BW2	-.94			VS3	TEC	.610	NBAZ1	58	C		
128	37	.35	95	PCT	12	P2	VS3	.60			VS3	TEH	.610	NBAZ1	33	H		
77	38	.31	128	PCT	10	P2	09C	.75			VS3	TEC	.610	NBAZ1	10	C		
79	38	.25	130	PCT	9	P2	VS2	-1.02			VS3	TEH	.610	NBAZ1	47	H		
83	38	.36	105	PCT	12	P2	BW2	-.51			VS3	TEC	.610	NBAZ1	10	C		
87	38	.37	153	PCT	12	P2	BW2	-.87			VS3	TEC	.610	NBAZ1	10	C		
89	38	.39	61	PCT	12	P2	BW2	-.88			VS3	TEC	.610	NBAZ1	10	C		
129	38	.29	96	PCT	10	P2	VS2	.95			VS3	TEH	.610	NBAZ1	33	H		
129	38	.39	135	PCT	11	P2	VS4	-.80			VS3	TEC	.610	NBAZ1	55	C		
129	38	.48	131	PCT	13	P2	VS4	1.08			VS3	TEC	.610	NBAZ1	55	C		
129	38	.39	126	PCT	11	P2	VS5	.68			VS3	TEC	.610	NBAZ1	55	C		
34	39	.28	152	PCT	10	P2	VS3	-.75			VS3	TEC	.610	NBAZ1	10	C		
90	39	.27	141	PCT	9	P2	VS2	.84			VS3	TEH	.610	NBAZ1	40	H		
126	39	.28	92	PCT	9	P2	VS3	.67			VS3	TEH	.610	NBAZ1	34	H		
90	41	.37	80	PCT	12	P2	10H	-1.25			VS3	TEH	.610	NBAZ1	39	H		
75	42	.27	121	PCT	9	P2	09C	.89			VS3	TEC	.610	NBAZ1	10	C		
83	42	.23	137	PCT	8	P2	09C	.80			VS3	TEC	.610	NBAZ1	10	C		
82	43	.24	144	PCT	9	P2	09C	.63			VS3	TEC	.610	NBAZ1	10	C		
88	43	.20	139	PCT	7	P2	09C	.93			VS3	TEC	.610	NBAZ1	10	C		
79	44	.33	96	PCT	11	P2	VS2	1.10			VS3	TEH	.610	NBAZ1	46	H		
125	44	.50	144	PCT	15	P2	VS3	.68			VS3	TEH	.610	NBAZ1	40	H		
125	44	.80	132	PCT	21	P2	VS5	.76			VS3	TEC	.610	NBAZ1	58	C		
125	44	.99	101	PCT	15	P3	VS3	.67		.56	VS3	VS3	.580	NPUFZ	73	C		DQA
125	44	1.64	90	PCT	23	P3	VS5	.82		.54	VS5	VS5	.580	NPUFZ	73	C		
4	45	.33	41	PCT	11	P2	BW2	-.71			BW1	TEC	.590	SBUCC	66	C		
118	45	.21	102	PCT	7	P2	VS3	1.00			VS3	TEH	.610	NBAZ1	35	H		
145	50	.22	96	PCT	8	P2	09H	-.12			VS3	TEH	.610	NBAZ1	33	H		
48	51	.23	70	PCT	8	P2	VS3	.89			VS3	TEC	.610	NBAZ1	8	C		
80	51	.20	136	PCT	7	P2	09C	.77			VS3	TEC	.610	NBAZ1	8	C		
152	55	.44	132	PCT	12	P2	11C	-.90			VS3	TEC	.610	NBAZ1	41	C		
113	56	.54	125	PCT	15	P2	VS3	-.93			VS3	TEH	.610	NBAZ1	36	H		
ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2
113	56	1.20	100	PCT	18	P3	VS3	-.92		.79	VS3	VS3	.580	NPUFZ	73	C		
114	57	.33	104	PCT	11	P2	VS3	.40			VS3	TEH	.610	NBAZ1	35	H		
118	57	.53	106	PCT	15	P2	VS2	1.02			VS3	TEH	.610	NBAZ1	35	H		
118	57	1.30	88	PCT	21	P3	VS2	1.02		.43	VS2	VS2	.580	NPUFZ	104	H		DQA
126	57	.40	129	PCT	13	P2	VS3	-.58			VS3	TEH	.610	NBAZ1	35	H		
152	57	.24	129	PCT	7	P2	11C	-.25			VS3	TEC	.610	NBAZ1	41	C		
11	58	.25	167	PCT	9	P2	BW1	1.02			VS3	TEH	.610	NBAZ1	61	H		
79	58	.28	115	PCT	10	P2	VS2	-1.03			VS3	TEH	.610	NBAZ1	43	H		
119	58	.38	114	PCT	12	P2	VS3	-.86			VS3	TEH	.610	NBAZ1	35	H		
129	60	.60	125	PCT	16	P2	VS3	.44			VS3	TEH	.610	NBAZ1	36	H		
129	60	1.19	85	PCT	18	P3	VS3	.83		.47	VS3	VS3	.580	NPUFZ	73	C		
34	61	.23	106	PCT	8	P2	BW1	.98			VS3	TEH	.610	NBAZ1	1	H		
152	61	.27	150	PCT	9	P2	VS3	.64			VS3	TEH	.610	NBAZ1	34	H		
44	63	.22	158	PCT	8	P2	VS3	-.83			VS3	TEH	.610	NBAZ1	2	H		
48	63	.15	98	PCT	6	P2	VS3	-.75			VS3	TEC	.610	NBAZ1	6	C		
106	63	.30	134	PCT	10	P2	BW1	-1.38			VS3	TEH	.610	NBAZ1	36	H		
132	63	.28	138	PCT	10	P2	VS3	.68			VS3	TEH	.610	NBAZ1	34	H		
132	63	.26	72	PCT	8	P2	BW2	-.72			VS3	TEC	.610	NBAZ1	43	C		
154	63	.25	135	PCT	9	P2	BW2	-.85			VS3	TEC	.610	NBAZ1	42	C		
47	64	.37	128	PCT	12	P2	BW1	-.85			VS3	TEH	.610	NBAZ1	1	H		
53	64	.20	111	PCT	7	P2	VS3	1.01			VS3	TEH	.610	NBAZ1	1	H		
107	64	.30	163	PCT	10	P2	VS2	.86			VS3	TEH	.610	NBAZ1	32	H		
125	64	.58	124	PCT	16	P2	VS3	-.36			VS3	TEH	.610	NBAZ1	32	H		
125	64	1.01	87	PCT	16	P3	VS3	-.98		.69	VS3	VS3	.580	NPUFZ	73	C		
22	65	.22	69	PCT	7	P2	VS3	1.03			VS3	TEH	.610	NBAZ1	1	H		
24	65	.65	98	PCT	18	P2	VS3	.76			VS3	TEH	.610	NBAZ1	1	H		
24	65	1.12	90	PCT	17	P3	VS3	.87		.67	VS3	VS3	.580	NPUFZ	73	C		DQA
30	65	.41	138	PCT	13	P2	VS3	.64			VS3	TEH	.610	NBAZ1	1	H		
32	65	.25	103	PCT	8	P2	VS3	-.89			VS3	TEH	.610	NBAZ1	1	H		
34	65	.28	91	PCT	9	P2	VS3	.92			VS3	TEH	.610	NBAZ1	1	H		
31	66	.25	145	PCT	9	P2	VS3	.86			VS3	TEH	.610	NBAZ1	2	H		
113	66	.33	137	PCT	11	P2	VS1	1.17			VS3	TEH	.610	NBAZ1	31	H		
119	66	.29	81	PCT	10	P2	VS3	.55			VS3	TEH	.610	NBAZ1	31	H		
151	66	.35	95	PCT	10	P2	BW2	.82			VS3	TEC	.610	NBAZ1	43	C		
155	66	.58	137	PCT	17	P2	BW2	.86			VS3	TEC	.610	NBAZ1	42	C		
155	66	1.53	96	PCT	21	P3	BW2	.86		.55	10C	VS4	.580	NPUFZ	74	C		
159	66	.75	115	PCT	17	P2	BW2	.75			VS3	TEC	.610	NBAZ1	41	C		
159	66	1.60	95	PCT	21	P3	BW2	.98		.41	10C	VS4	.580	NPUFZ	74	C		
132	67	.35	114	PCT	11	P2	VS1	-.74			VS3	TEH	.610	NBAZ1	32	H		
132	67	.37	157	PCT	10	P2	VS5	.82			VS3	TEC	.610	NBAZ1	41	C		
158	67	1.13	138	PCT	22	P2	BW2	-.85			VS3	TEC	.610	NBAZ1	41	C		
158	67	1.99	97	PCT	25	P3	BW2	-.80		.39	10C	VS4	.580	NPUFZ	74	C		
160	67	.52	128	PCT	13	P2	BW2	-.90			VS3	TEC	.610	NBAZ1	41	C		
13	68	.33	78	PCT	11	P2	BW1	-.97			VS3	TEH	.610	NBAZ1	60	H		
23	68	.29	97	PCT	10	P2	BW1	-.60			VS3	TEH	.610	NBAZ1	1	H		
125	68	.35	157	PCT	11	P2	VS3	-.44			VS3	TEH	.610	NBAZ1	32	H		
159	68	.54	84	PCT	14	P2	BW2	.65			VS3	TEC	.610	NBAZ1	41	C		

| ROW | COL | VOLTS | DEG | IND | PER | CHN | LOCN | INCH1 | INCH2 | CRLEN | BEGT | ENDT | PDIA | PTYPE | CAL | L | UTIL1 | UTIL2 |

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2
161	68	.23	88	PCT	7	P2	BW2	.83			VS3	TEC	.610	NBAZ1	41	C		
156	69	.56	83	PCT	16	P2	VS1	.92			VS3	TEH	.610	NBAZ1	31	H		
156	69	1.41	94	PCT	22	P3	VS1	.92		.34	VS1	VS1	.580	NPUFZ	104	H		DQA
107	70	.30	102	PCT	10	P2	VS3	-.67			VS3	TEH	.610	NBAZ1	31	H		
115	70	.26	32	PCT	9	P2	VS2	-.88			VS3	TEH	.610	NBAZ1	31	H		
28	71	.23	131	PCT	8	P2	BW1	-.56			VS3	TEH	.610	NBAZ1	2	H		
50	71	.27	78	PCT	9	P2	BW1	1.56			VS3	TEH	.610	NBAZ1	2	H		
100	71	.31	160	PCT	10	P2	BW1	-.95			VS3	TEH	.610	NBAZ1	32	H		
102	71	.31	158	PCT	10	P2	BW1	-1.00			VS3	TEH	.610	NBAZ1	32	H		
160	71	.29	154	PCT	10	P2	BW2	-.85			VS3	TEC	.610	NBAZ1	42	C		
45	72	.44	144	PCT	13	P2	BW1	-.72			VS3	TEH	.610	NBAZ1	1	H		
161	72	.68	136	PCT	18	P2	VS3	.54			VS3	TEH	.610	NBAZ1	32	H		
161	72	1.35	93	PCT	19	P3	VS3	.55		.38	VS3	VS3	.580	NPUFZ	74	C		DQA
160	73	.35	107	PCT	12	P2	VS1	.92			VS3	TEH	.610	NBAZ1	31	H		
164	73	.90	109	PCT	20	P2	BW2	-.78			VS3	TEC	.610	NBAZ1	41	C		
164	73	.83	115	PCT	19	P2	BW2	.68			VS3	TEC	.610	NBAZ1	41	C		
164	73	1.81	96	PCT	23	P3	BW2	-.78		.43	10C	VS5	.580	NPUFZ	74	C		
164	73	1.54	97	PCT	21	P3	BW2	.88		.46	10C	VS5	.580	NPUFZ	74	C		
19	74	.25	79	PCT	8	P2	BW2	.47			VS3	TEC	.610	NBAZ1	3	C		
47	74	.60	119	PCT	17	P2	BW1	-.93			VS3	TEH	.610	NBAZ1	2	H		
47	74	1.51	95	PCT	22	P3	BW1	-.87		.65	07H	VS3	.580	NPUFZ	105	H		
51	74	.39	40	PCT	12	P2	VS3	.43			VS3	TEH	.610	NBAZ1	2	H		
163	74	.94	134	PCT	20	P2	BW2	-.78			VS3	TEC	.610	NBAZ1	41	C		
163	74	1.71	94	PCT	23	P3	BW2	-1.01		.54	10C	VS5	.580	NPUFZ	73	C		
163	74	.80	100	PCT	13	P3	BW2	-.23		.75	10C	VS5	.580	NPUFZ	73	C		
165	74	.29	117	PCT	9	P2	BW2	.83			VS3	TEC	.610	NBAZ1	41	C		
36	75	.19	100	PCT	7	P2	VS3	.77			VS3	TEH	.610	NBAZ1	2	H		
88	75	.37	153	PCT	12	P2	BW1	-1.01			VS3	TEH	.610	NBAZ1	32	H		
120	75	.54	132	PCT	15	P2	VS3	.79			VS3	TEH	.610	NBAZ1	32	H		
120	75	1.05	87	PCT	16	P3	VS3	.85		.39	VS3	VS3	.580	NPUFZ	73	C		
25	76	.24	148	PCT	9	P2	BW1	-.65			VS3	TEH	.610	NBAZ1	1	H		
25	76	.27	108	PCT	10	P2	VS3	-1.04			VS3	TEH	.610	NBAZ1	1	H		
25	76	.32	96	PCT	12	P2	BW2	.57			VS3	TEC	.610	NBAZ1	4	C		
33	76	.24	67	PCT	8	P2	BW1	-.61			VS3	TEH	.610	NBAZ1	1	H		
161	76	.86	89	PCT	21	P2	VS1	-1.00			VS3	TEH	.610	NBAZ1	30	H		
161	76	1.05	95	PCT	24	P2	VS1	.97			VS3	TEH	.610	NBAZ1	30	H		
161	76	1.87	88	PCT	27	P3	VS1	-1.00		.40	VS1	VS1	.580	NPUFZ	104	H		
161	76	1.59	90	PCT	24	P3	VS1	.97		.46	VS1	VS1	.580	NPUFZ	104	H		DQA
84	77	.63	106	PCT	18	P2	VS2	1.25			VS3	TEH	.610	NBAZ1	39	H		
84	77	.81	100	PCT	14	P3	VS2	.90		.59	VS2	VS2	.580	NPUFZ	106	H		
84	77	.56	103	PCT	11	P3	VS2	.97		.54	VS2	VS2	.580	NPUFZ	106	H		DQA
132	77	.21	119	PCT	8	P2	VS2	1.16			VS3	TEH	.610	NBAZ1	29	H		
132	77	.43	91	PCT	14	P2	VS3	.60			VS3	TEH	.610	NBAZ1	29	H		
154	77	.22	120	PCT	9	P2	VS4	-.57			VS3	TEC	.610	NBAZ1	44	C		
29	78	.21	131	PCT	8	P2	08C	-1.11			VS3	TEC	.610	NBAZ1	3	C		
35	78	.20	156	PCT	7	P2	VS3	.80			VS3	TEH	.610	NBAZ1	2	H		
49	78	.62	121	PCT	17	P2	BW1	-.76			VS3	TEH	.610	NBAZ1	2	H		
49	78	1.55	76	PCT	22	P3	BW1	-1.02		.18	08H	VS3	.580	NPUFZ	105	H		DQA
91	78	.58	115	PCT	17	P2	VS3	-.15			VS3	TEC	.610	NBAZ1	12	C		
91	78	1.02	91	PCT	16	P3	VS3	-.81		.62	VS3	VS3	.580	NPUFZ	73	C		
26	79	.26	158	PCT	9	P2	BW1	.53			VS3	TEH	.610	NBAZ1	2	H		
26	79	.24	89	PCT	8	P2	VS3	.82			VS3	TEH	.610	NBAZ1	2	H		
34	79	.19	116	PCT	7	P2	BW1	-.73			VS3	TEH	.610	NBAZ1	2	H		

| ROW | COL | VOLTS | DEG | IND | PER | CHN | LOCN | INCH1 | INCH2 | CRLEN | BEGT | ENDT | PDIA | PTYPE | CAL | L | UTIL1 | UTIL2 |

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2
34	79	.40	139	PCT	13	P2	BW1	.91			VS3	TEH	.610	NBAZ1	2	H		
34	79	.23	82	PCT	7	P2	BW2	1.56			VS3	TEC	.610	NBAZ1	4	C		
36	79	.54	116	PCT	16	P2	BW1	.81			VS3	TEH	.610	NBAZ1	2	H		
36	79	1.62	94	PCT	23	P3	BW1	1.16		.54	07H	VS3	.580	NPUFZ	105	H		
38	79	.26	43	PCT	9	P2	BW1	.61			VS3	TEH	.610	NBAZ1	2	H		
52	79	.24	142	PCT	8	P2	BW1	.61			VS3	TEH	.610	NBAZ1	2	H		
88	79	.26	138	PCT	9	P2	VS4	.73			VS3	TEC	.610	NBAZ1	12	C		
134	79	.26	130	PCT	10	P2	BW2	-.80			VS3	TEC	.610	NBAZ1	40	C		
166	79	.42	133	PCT	12	P2	BW2	.72			VS3	TEC	.610	NBAZ1	41	C		
51	80	.56	123	PCT	16	P2	BW1	-.96			VS3	TEH	.610	NBAZ1	1	H		
51	80	1.11	98	PCT	17	P3	BW1	-1.04		.15	08H	VS3	.580	NPUFZ	105	H		
63	80	.28	97	PCT	10	P2	BW1	-.90			VS3	TEH	.610	NBAZ1	40	H		
117	80	.35	130	PCT	10	P2	BW2	-.68			VS3	TEC	.610	NBAZ1	39	C		
125	80	.36	146	PCT	12	P2	VS3	.53			VS3	TEH	.610	NBAZ1	30	H		
165	80	.54	132	PCT	14	P2	BW2	-.89			VS3	TEC	.610	NBAZ1	41	C		
167	80	.64	128	PCT	16	P2	BW2	-1.00			VS3	TEC	.610	NBAZ1	41	C		
167	80	.70	119	PCT	17	P2	BW2	.77			VS3	TEC	.610	NBAZ1	41	C		
167	80	1.42	94	PCT	20	P3	BW2	-1.01		.54	10C	VS5	.580	NPUFZ	73	C		
167	80	1.24	95	PCT	18	P3	BW2	.82		.52	10C	VS5	.580	NPUFZ	73	C		
32	81	.88	99	PCT	22	P2	BW1	-.74			VS3	TEH	.610	NBAZ1	1	H		
32	81	.33	136	PCT	11	P2	VS3	.57			VS3	TEH	.610	NBAZ1	1	H		
32	81	.39	135	PCT	11	P2	BW2	-1.21			VS3	TEC	.610	NBAZ1	3	C		
32	81	.23	95	PCT	7	P2	08C	-.17			VS3	TEC	.610	NBAZ1	3	C		
32	81	2.15	92	PCT	28	P3	BW1	-.11		.45	07H	VS3	.580	NPUFZ	105	H		
42	81	.37	95	PCT	12	P2	VS3	.55			VS3	TEH	.610	NBAZ1	1	H		
56	81	.28	65	PCT	10	P2	BW1	1.89			VS3	TEH	.610	NBAZ1	39	H		
90	81	.41	76	PCT	13	P2	VS3	-.73			VS3	TEH	.610	NBAZ1	29	H		
162	81	.57	112	PCT	17	P2	BW2	-.83			VS3	TEC	.610	NBAZ1	46	C		
162	81	1.18	92	PCT	18	P3	BW2	-.83		.40	10C	VS5	.580	NPUFZ	73	C		
49	82	.32	144	PCT	11	P2	BW1	-1.65			VS3	TEH	.610	NBAZ1	2	H		
53	82	.47	144	PCT	14	P2	BW1	-.72			VS3	TEH	.610	NBAZ1	2	H		
67	82	.61	124	PCT	17	P2	VS2	-1.29			VS3	TEH	.610	NBAZ1	39	H		
67	82	1.28	112	PCT	19	P3	VS2	-.89		.32	BW1	VS2	.580	NPUFZ	105	H		
163	82	.32	106	PCT	11	P2	BW2	-.82			VS3	TEC	.610	NBAZ1	42	C		
165	82	.33	92	PCT	11	P2	BW2	.85			VS3	TEC	.610	NBAZ1	42	C		
167	82	.65	137	PCT	16	P2	BW2	-.94			VS3	TEC	.610	NBAZ1	41	C		
167	82	1.51	94	PCT	21	P3	BW2	-.87		.47	10C	VS5	.580	NPUFZ	73	C		
167	82	.68	97	PCT	11	P3	BW2	1.12		.28	10C	VS5	.580	NPUFZ	73	C		
36	83	.37	54	PCT	13	P2	BW2	.97			VS3	TEC	.610	NBAZ1	4	C		
38	83	.61	106	PCT	17	P2	VS3	-.53			VS3	TEH	.610	NBAZ1	2	H		
38	83	.29	155	PCT	10	P2	VS3	.48			VS3	TEH	.610	NBAZ1	2	H		
38	83	.75	87	PCT	12	P3	VS3	-.77		.34	VS3	VS3	.580	NPUFZ	73	C		
38	83	.67	82	PCT	11	P3	VS3	.64		.60	VS3	VS3	.580	NPUFZ	73	C		
40	83	.79	142	PCT	20	P2	VS3	-.82			VS3	TEH	.610	NBAZ1	2	H		
40	83	.71	98	PCT	12	P3	VS3	-.82		.53	VS3	VS3	.580	NPUFZ	73	C		
42	83	.29	142	PCT	10	P2	VS3	-.60			VS3	TEH	.610	NBAZ1	2	H		
46	83	.26	129	PCT	10	P2	BW2	1.30			VS3	TEC	.610	NBAZ1	4	C		
166	83	.44	92	PCT	14	P2	BW2	.83			VS3	TEC	.610	NBAZ1	42	C		
168	83	.65	128	PCT	16	P2	BW2	-.83			VS3	TEC	.610	NBAZ1	41	C		
168	83	.33	102	PCT	10	P2	BW2	.85			VS3	TEC	.610	NBAZ1	41	C		
168	83	1.48	101	PCT	21	P3	BW2	-.90		.49	10C	VS5	.580	NPUFZ	73	C		DQA
39	84	.34	124	PCT	12	P2	BW2	-1.86			VS3	TEC	.610	NBAZ1	4	C		
43	84	.30	111	PCT	10	P2	VS3	.56			VS3	TEH	.610	NBAZ1	1	H		

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2
43	84	.26	142	PCT	10	P2	BW2	-1.53			VS3	TEC	.610	NBAZ1	4	C		
45	84	.53	75	PCT	15	P2	BW1	-.77			VS3	TEH	.610	NBAZ1	1	H		
45	84	.25	50	PCT	8	P2	BW2	1.60			VS3	TEC	.610	NBAZ1	4	C		
45	84	1.15	89	PCT	18	P3	BW1	-.88		.32	07H	VS3	.580	NPUFZ	105	H		DQA
47	84	.74	130	PCT	19	P2	BW1	-1.45			VS3	TEH	.610	NBAZ1	1	H		
47	84	1.67	91	PCT	23	P3	BW1	-.93		.41	07H	VS3	.580	NPUFZ	105	H		DQA
51	84	.46	147	PCT	15	P2	BW2	-1.30			VS3	TEC	.610	NBAZ1	4	C		
51	84	.68	81	PCT	11	P3	BW2	-.85		.44	08C	VS3	.580	NPUFZ	73	C		
91	84	.49	50	PCT	15	P2	VS2	.59			VS3	TEH	.610	NBAZ1	30	H		
91	84	1.03	88	PCT	18	P3	VS2	.59		.46	VS2	VS2	.580	NPUFZ	104	H		DQA
121	84	.33	88	PCT	11	P2	VS2	.62			VS3	TEH	.610	NBAZ1	30	H		
157	84	.28	81	PCT	10	P2	VS2	-.93			VS3	TEH	.610	NBAZ1	30	H		
167	84	.98	125	PCT	21	P2	BW2	.76			VS3	TEC	.610	NBAZ1	41	C		
167	84	1.46	91	PCT	21	P3	BW2	.90		.51	10C	VS5	.580	NPUFZ	73	C		DQA
169	84	.53	56	PCT	14	P2	BW2	.85			VS3	TEC	.610	NBAZ1	41	C		
42	85	.38	97	PCT	12	P2	BW1	.96			VS3	TEH	.610	NBAZ1	1	H		
44	85	.72	85	PCT	19	P2	BW1	-.83			VS3	TEH	.610	NBAZ1	1	H		
44	85	1.56	96	PCT	22	P3	BW1	-.69		.56	07H	VS3	.580	NPUFZ	105	H		
52	85	.69	124	PCT	19	P2	VS3	-.56			VS3	TEH	.610	NBAZ1	1	H		
52	85	1.28	91	PCT	19	P3	VS3	-.93		.59	VS3	VS3	.580	NPUFZ	73	C		
43	86	.39	47	PCT	11	P2	BW2	.74			VS3	TEC	.610	NBAZ1	3	C		
47	86	.77	121	PCT	20	P2	BW1	.66			VS3	TEH	.610	NBAZ1	2	H		
47	86	.74	109	PCT	19	P2	VS3	-1.00			VS3	TEH	.610	NBAZ1	2	H		
47	86	1.69	96	PCT	24	P3	BW1	.79		.50	07H	VS3	.580	NPUFZ	105	H		DQA
47	86	1.51	89	PCT	22	P3	VS3	-1.13		.21	07H	VS3	.580	NPUFZ	105	H		
161	86	.29	89	PCT	10	P2	VS1	.66			VS3	TEH	.610	NBAZ1	29	H		
48	87	.55	149	PCT	16	P2	BW1	.69			VS3	TEH	.610	NBAZ1	2	H		
48	87	1.62	86	PCT	23	P3	BW1	.86		.62	08H	VS3	.580	NPUFZ	105	H		DQA
80	87	.45	103	PCT	14	P2	VS2	-.54			VS3	TEH	.610	NBAZ1	8	H		
41	88	.75	122	PCT	20	P2	BW1	-.80			VS3	TEH	.610	NBAZ1	1	H		
41	88	1.89	92	PCT	25	P3	BW1	-.80		.90	07H	VS3	.580	NPUFZ	105	H		
47	88	.39	126	PCT	12	P2	BW1	-1.79			VS3	TEH	.610	NBAZ1	1	H		
47	88	.22	158	PCT	8	P2	BW1	1.44			VS3	TEH	.610	NBAZ1	1	H		
79	88	.25	89	PCT	7	P2	VS4	-.73			VS3	TEC	.610	NBAZ1	11	C		
91	88	.36	35	PCT	11	P2	VS2	.24			VS3	TEH	.610	NBAZ1	8	H		
163	88	.51	126	PCT	16	P2	BW2	-.93			VS3	TEC	.610	NBAZ1	46	C		
163	88	1.05	95	PCT	16	P3	BW2	-.95		.46	10C	VS5	.580	NPUFZ	73	C		
169	88	.97	119	PCT	21	P2	BW2	-.85			VS3	TEC	.610	NBAZ1	41	C		
169	88	1.82	93	PCT	24	P3	BW2	-.90		.43	10C	VS5	.580	NPUFZ	73	C		DQA
44	89	.27	78	PCT	10	P2	BW1	-1.30			VS3	TEH	.610	NBAZ1	1	H		
44	89	.27	118	PCT	10	P2	BW1	1.68			VS3	TEH	.610	NBAZ1	1	H		
44	89	.33	77	PCT	10	P2	BW2	-.88			VS3	TEC	.610	NBAZ1	3	C		
50	89	.97	113	PCT	23	P2	BW1	-1.00			VS3	TEH	.610	NBAZ1	1	H		
50	89	.30	126	PCT	10	P2	BW1	1.82			VS3	TEH	.610	NBAZ1	1	H		
50	89	1.69	96	PCT	23	P3	BW1	-.84		.63	08H	VS3	.580	NPUFZ	105	H		
106	89	.27	128	PCT	10	P2	BW1	-1.88			VS3	TEH	.610	NBAZ1	29	H		
132	89	.69	106	PCT	19	P2	VS3	-.98			VS3	TEH	.610	NBAZ1	29	H		
132	89	.49	133	PCT	15	P2	VS4	-.91			VS3	TEC	.610	NBAZ1	37	C		
132	89	.20	101	PCT	8	P2	VS5	.82			VS3	TEC	.610	NBAZ1	37	C		
132	89	1.52	86	PCT	21	P3	VS3	-.80		.63	VS3	VS3	.580	NPUFZ	73	C		
132	89	1.03	92	PCT	16	P3	VS4	-.77		.56	VS4	VS4	.580	NPUFZ	73	C		
162	89	.49	118	PCT	15	P2	VS2	.72			VS3	TEH	.610	NBAZ1	27	H		
162	89	1.16	98	PCT	19	P3	VS2	.72		.46	VS2	VS2	.580	NPUFZ	104	H		
168	89	.86	117	PCT	22	P2	BW2	.80			VS3	TEC	.610	NBAZ1	46	C		
168	89	1.54	91	PCT	22	P3	BW2	.80		.29	10C	VS5	.580	NPUFZ	73	C		
170	89	.77	114	PCT	18	P2	BW2	.75			VS3	TEC	.610	NBAZ1	41	C		

| ROW | COL | VOLTS | DEG | IND | PER | CHN | LOCN | INCH1 | INCH2 | CRLEN | BEGT | ENDT | PDIA | PTYPE | CAL | L | UTIL1 | UTIL2 |

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2
170	89	1.23	93	PCT	18	P3	BW2	.72		.40	10C	VS5	.580	NPUFZ	73	C		
49	90	1.23	112	PCT	26	P2	BW1	.73			VS3	TEH	.610	NBAZ1	2	H		
49	90	1.21	86	PCT	19	P3	BW1	.91		.21	08H	VS3	.580	NPUFZ	105	H		DQA
55	90	.49	93	PCT	13	P2	BW2	.82			VS3	TEC	.610	NBAZ1	3	C		
169	90	.67	91	PCT	16	P2	BW2	.76			VS3	TEC	.610	NBAZ1	45	C		
169	90	1.33	105	PCT	19	P3	BW2	.75		.41	10C	VS5	.580	NPUFZ	72	C		
50	91	.32	132	PCT	11	P2	BW1	-1.64			VS3	TEH	.610	NBAZ1	2	H		
51	92	.71	123	PCT	19	P2	BW1	.78			VS3	TEH	.610	NBAZ1	1	H		
51	92	.21	106	PCT	7	P2	VS3	.52			VS3	TEH	.610	NBAZ1	1	H		
51	92	1.49	94	PCT	22	P3	BW1	1.06		.24	08H	VS3	.580	NPUFZ	105	H		
53	92	.45	129	PCT	14	P2	BW1	-1.38			VS3	TEH	.610	NBAZ1	1	H		
73	92	.75	114	PCT	17	P2	VS4	.87			VS3	TEC	.610	NBAZ1	11	C		
73	92	1.07	90	PCT	16	P3	VS4	1.00		.30	VS4	VS4	.580	NPUFZ	72	C		
119	92	.82	99	PCT	20	P2	VS3	-.32			VS3	TEH	.610	NBAZ1	28	H		
119	92	.61	87	PCT	17	P2	VS4	.94			VS3	TEC	.610	NBAZ1	37	C		
119	92	1.23	96	PCT	18	P3	VS3	-.74		.59	VS3	VS3	.580	NPUFZ	73	C		
119	92	1.03	82	PCT	16	P3	VS4	.83		.39	VS4	VS4	.580	NPUFZ	73	C		DQA
137	92	.30	146	PCT	9	P2	VS1	-.97			VS3	TEH	.610	NBAZ1	28	H		
169	92	.41	125	PCT	14	P2	VS5	-.60			VS3	TEC	.610	NBAZ1	46	C		
58	93	.25	111	PCT	9	P2	BW1	-1.27			VS3	TEH	.610	NBAZ1	12	H		
80	93	1.30	114	PCT	24	P2	VS4	-.65			VS3	TEC	.610	NBAZ1	11	C		
80	93	2.15	86	PCT	27	P3	VS4	-.63		.46	VS4	VS4	.580	NPUFZ	72	C		
130	93	.23	106	PCT	8	P2	BW1	1.35			VS3	TEH	.610	NBAZ1	27	H		
130	93	.32	132	PCT	11	P2	BW2	-.73			VS3	TEC	.610	NBAZ1	37	C		
150	93	.33	108	PCT	11	P2	VS2	1.18			VS3	TEH	.610	NBAZ1	27	H		
152	93	.56	100	PCT	16	P2	VS2	.34			VS3	TEH	.610	NBAZ1	27	H		
152	93	1.19	88	PCT	20	P3	VS2	.34		.34	VS2	VS2	.580	NPUFZ	104	H		
162	93	.26	101	PCT	10	P2	VS5	-.89			VS3	TEC	.610	NBAZ1	46	C		
166	93	.32	143	PCT	11	P2	BW2	.64			VS3	TEC	.610	NBAZ1	46	C		
170	93	.34	131	PCT	12	P2	BW2	-.82			VS3	TEC	.610	NBAZ1	46	C		
79	94	.49	129	PCT	15	P2	VS2	.57			VS3	TEH	.610	NBAZ1	11	H		
79	94	1.69	77	PCT	24	P3	VS2	.88		.49	VS2	VS2	.580	NPUFZ	105	H		
161	94	.32	103	PCT	11	P2	VS2	-1.48			VS3	TEH	.610	NBAZ1	27	H		
169	94	.62	115	PCT	15	P2	BW2	.80			VS3	TEC	.610	NBAZ1	45	C		
169	94	1.09	104	PCT	16	P3	BW2	1.00		.31	10C	VS5	.580	NPUFZ	72	C		
46	95	.45	139	PCT	14	P2	BW1	1.81			VS3	TEH	.610	NBAZ1	2	H		
46	95	.29	103	PCT	10	P2	VS3	-.66			VS3	TEH	.610	NBAZ1	2	H		
60	95	.41	122	PCT	13	P2	BW1	1.02			VS3	TEH	.610	NBAZ1	11	H		
62	95	.42	144	PCT	13	P2	BW1	.87			VS3	TEH	.610	NBAZ1	11	H		
86	95	.34	141	PCT	11	P2	VS2	.68			VS3	TEH	.610	NBAZ1	11	H		
86	95	.88	120	PCT	21	P2	VS3	.70			VS3	TEH	.610	NBAZ1	11	H		
86	95	.34	141	PCT	11	P2	VS3	.77			VS3	TEH	.610	NBAZ1	11	H		
86	95	.75	95	PCT	20	P2	VS4	-.91			VS3	TEC	.610	NBAZ1	14	C		
86	95	1.01	88	PCT	16	P3	VS3	.67		.43	VS3	VS3	.580	NPUFZ	73	C		
86	95	1.10	93	PCT	17	P3	VS3	.78		.48	VS3	VS3	.580	NPUFZ	73	C		DQA
86	95	1.67	87	PCT	23	P3	VS4	-.90		.55	VS4	VS4	.580	NPUFZ	73	C		
90	95	.36	147	PCT	11	P2	BW1	-.63			VS3	TEH	.610	NBAZ1	11	H		
114	95	1.07	121	PCT	23	P2	VS2	-1.00			VS3	TEH	.610	NBAZ1	28	H		
114	95	1.80	91	PCT	27	P3	VS2	-.72		.72	VS2	VS2	.580	NPUFZ	104	H		DQA
168	95	.34	134	PCT	10	P2	BW2	.75			VS3	TEC	.610	NBAZ1	45	C		
61	96	.42	111	PCT	13	P2	VS2	.60			VS3	TEH	.610	NBAZ1	12	H		
67	96	.31	150	PCT	11	P2	BW1	-1.23			VS3	TEH	.610	NBAZ1	12	H		
87	96	.30	119	PCT	10	P2	VS2	-.48			VS3	TEH	.610	NBAZ1	12	H		

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2
99	96	.30	98	PCT	9	P2	BW1	-.57			VS3	TEH	.610	NBAZ1	28	H		
133	96	.22	122	PCT	9	P2	11C	-.85			VS3	TEC	.610	NBAZ1	37	C		
153	96	.33	57	PCT	10	P2	BW1	-1.06			VS3	TEH	.610	NBAZ1	28	H		
46	97	1.41	103	PCT	28	P2	BW1	-1.77			VS3	TEH	.610	NBAZ1	1	H		
46	97	.57	126	PCT	16	P2	VS3	-.02			VS3	TEH	.610	NBAZ1	1	H		
46	97	1.86	109	PCT	33	P2	VS3	.58			VS3	TEH	.610	NBAZ1	1	H		
46	97	2.21	99	PCT	28	P3	BW1	-1.03		.27	07H	VS3	.580	NPUFZ	105	H		
46	97	1.62	79	PCT	23	P3	VS3	.14		.68	07H	VS3	.580	NPUFZ	105	H		
46	97	2.80	88	PCT	33	P3	VS3	.90		.65	07H	VS3	.580	NPUFZ	105	H		
48	97	.63	101	PCT	17	P2	VS3	.68			VS3	TEH	.610	NBAZ1	1	H		
48	97	1.52	88	PCT	21	P3	VS3	.75		.31	VS3	VS3	.580	NPUFZ	72	C		
50	97	.35	122	PCT	11	P2	BW1	-.64			VS3	TEH	.610	NBAZ1	1	H		
150	97	.30	117	PCT	11	P2	BW2	-.82			VS3	TEC	.610	NBAZ1	46	C		
158	97	.21	127	PCT	8	P2	BW2	-.95			VS3	TEC	.610	NBAZ1	46	C		
170	97	.30	132	PCT	11	P2	BW2	-.88			VS3	TEC	.610	NBAZ1	46	C		
45	98	.23	96	PCT	7	P2	BW2	-.85			VS3	TEC	.610	NBAZ1	3	C		
45	98	.20	97	PCT	6	P2	BW2	.96			VS3	TEC	.610	NBAZ1	3	C		
103	98	.27	66	PCT	10	P2	BW1	1.11			VS3	TEH	.610	NBAZ1	27	H		
161	98	.22	83	PCT	8	P2	VS2	-1.00			VS3	TEH	.610	NBAZ1	27	H		
169	98	1.14	122	PCT	23	P2	BW2	.69			VS3	TEC	.610	NBAZ1	45	C		
169	98	.29	72	PCT	9	P2	01C	-.93			VS3	TEC	.610	NBAZ1	45	C		
169	98	1.55	91	PCT	21	P3	BW2	.88		.36	10C	VS5	.580	NPUFZ	72	C		
171	98	.34	147	PCT	10	P2	BW2	-.82			VS3	TEC	.610	NBAZ1	45	C		
48	99	.17	104	PCT	6	P2	BW2	-.98			VS3	TEC	.610	NBAZ1	3	C		
48	99	.64	106	PCT	17	P2	BW1	-1.41			VS3	TEH	.610	NBAZ1	4	H		
48	99	.97	131	PCT	23	P2	BW1	.46			VS3	TEH	.610	NBAZ1	4	H		
48	99	.34	142	PCT	11	P2	VS3	-.63			VS3	TEH	.610	NBAZ1	4	H		
48	99	.16	130	PCT	6	P2	VS3	.69			VS3	TEH	.610	NBAZ1	4	H		
48	99	1.96	93	PCT	26	P3	BW1	-.99			08H	VS3	.580	NPUFZ	105	H		DQA
48	99	2.34	91	PCT	29	P3	BW1	.85		1.97	08H	VS3	.580	NPUFZ	105	H		
68	99	.20	66	PCT	7	P2	09H	.82			VS3	TEH	.610	NBAZ1	11	H		
84	99	.55	137	PCT	16	P2	VS2	-.80			VS3	TEH	.610	NBAZ1	11	H		
84	99	.98	99	PCT	16	P3	VS2	-.72		.20	VS2	VS2	.580	NPUFZ	105	H		
100	99	.33	152	PCT	10	P2	BW1	-.62			VS3	TEH	.610	NBAZ1	28	H		
106	99	.33	125	PCT	10	P2	VS3	.12			VS3	TEH	.610	NBAZ1	28	H		
53	100	.37	134	PCT	12	P2	BW1	-.80			VS3	TEH	.610	NBAZ1	1	H		
109	100	.27	136	PCT	9	P2	VS2	-.56			VS3	TEH	.610	NBAZ1	28	H		
123	100	.18	158	PCT	6	P2	VS1	.72			VS3	TEH	.610	NBAZ1	28	H		
133	100	.28	136	PCT	8	P2	11C	-.92			VS3	TEC	.610	NBAZ1	35	C		
169	100	.47	81	PCT	15	P2	BW2	-.86			VS3	TEC	.610	NBAZ1	46	C		
169	100	.94	93	PCT	14	P3	BW2	-.91		.22	10C	VS5	.580	NPUFZ	74	C		DQA
171	100	.89	114	PCT	19	P2	BW2	.85			VS3	TEC	.610	NBAZ1	47	C		
171	100	.64	122	PCT	15	P2	02C	.62			VS3	TEC	.610	NBAZ1	47	C		
171	100	.30	109	PCT	9	P2	01C	-.96			VS3	TEC	.610	NBAZ1	47	C		
171	100	1.35	277	PCT	19	P3	02C	.94		.80	02C	02C	.600	NPAHZ	70	C		
171	100	1.38	98	PCT	20	P3	BW2	1.00		.28	10C	VS5	.580	NPUFZ	72	C		
62	101	.42	120	PCT	13	P2	BW1	.92			VS3	TEH	.610	NBAZ1	12	H		
62	101	.57	139	PCT	16	P2	VS3	.81			VS3	TEH	.610	NBAZ1	12	H		
62	101	1.04	94	PCT	16	P3	VS3	.96		.43	VS3	VS3	.580	NPUFZ	72	C		
84	101	.75	118	PCT	19	P2	VS2	-.86			VS3	TEH	.610	NBAZ1	12	H		
84	101	.47	142	PCT	14	P2	VS3	.44			VS3	TEH	.610	NBAZ1	12	H		
84	101	1.18	95	PCT	18	P3	VS2	-.70		.32	VS2	VS2	.580	NPUFZ	105	H		
166	101	.35	65	PCT	12	P2	BW2	.82			VS3	TEC	.610	NBAZ1	46	C		
168	101	.51	98	PCT	16	P2	BW2	.82			VS3	TEC	.610	NBAZ1	46	C		
168	101	.28	58	PCT	10	P2	01C	-1.08			VS3	TEC	.610	NBAZ1	46	C		
168	101	1.00	91	PCT	16	P3	BW2	1.00		.19	10C	VS5	.580	NPUFZ	72	C		

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2
170	101	.29	138	PCT	10	P2	BW2	.85			VS3	TEC	.610	NBAZ1	48	C		
75	102	.31	117	PCT	11	P2	VS2	.71			VS3	TEH	.610	NBAZ1	11	H		
83	102	.33	125	PCT	11	P2	VS2	-.76			VS3	TEH	.610	NBAZ1	11	H		
111	102	.23	128	PCT	8	P2	BW1	1.13			VS3	TEH	.610	NBAZ1	27	H		
161	102	.36	44	PCT	12	P2	BW1	1.09			VS3	TEH	.610	NBAZ1	27	H		
169	102	.42	98	PCT	12	P2	BW2	.75			VS3	TEC	.610	NBAZ1	47	C		
171	102	.34	97	PCT	12	P2	01C	-.91			VS3	TEC	.610	NBAZ1	48	C		
128	103	.21	97	PCT	6	P2	VS4	.71			VS3	TEC	.610	NBAZ1	36	C		
170	103	.28	52	PCT	8	P2	01C	-1.00			VS3	TEC	.610	NBAZ1	47	C		
51	104	.43	123	PCT	14	P2	BW1	1.11			VS3	TEH	.610	NBAZ1	3	H		
53	104	.41	125	PCT	13	P2	BW1	.67			VS3	TEH	.610	NBAZ1	3	H		
77	104	.35	102	PCT	11	P2	VS2	.26			VS3	TEH	.610	NBAZ1	12	H		
133	104	.27	104	PCT	8	P2	11C	-.94			VS3	TEC	.610	NBAZ1	35	C		
48	105	.79	133	PCT	20	P2	BW1	.93			VS3	TEH	.610	NBAZ1	3	H		
48	105	.47	123	PCT	15	P2	BW2	-1.56			VS3	TEC	.610	NBAZ1	4	C		
48	105	.81	110	PCT	13	P3	BW2	-.81		.28	08C	VS3	.580	NPUFZ	72	C		
48	105	1.43	82	PCT	21	P3	BW1	.78		.35	08H	VS3	.580	NPUFZ	105	H		DQA
67	106	.31	109	PCT	11	P2	VS3	.79			VS3	TEH	.610	NBAZ1	9	H		
119	106	.30	122	PCT	11	P2	VS2	.57			VS3	TEH	.610	NBAZ1	25	H		
161	106	.32	96	PCT	11	P2	VS1	.60			VS3	TEH	.610	NBAZ1	25	H		
84	107	.25	157	PCT	10	P2	VS2	-.79			VS3	TEH	.610	NBAZ1	9	H		
112	107	.50	135	PCT	14	P2	VS2	-.94			VS3	TEH	.610	NBAZ1	28	H		
118	107	.96	99	PCT	22	P2	BW1	.98			VS3	TEH	.610	NBAZ1	28	H		
118	107	1.57	85	PCT	24	P3	BW1	.98		.38	09H	VS1	.580	NPUFZ	104	H		DQA
164	107	.38	117	PCT	11	P2	BW2	-.92			VS3	TEC	.610	NBAZ1	47	C		
170	107	.60	99	PCT	15	P2	BW2	-.81			VS3	TEC	.610	NBAZ1	47	C		
170	107	1.20	98	PCT	18	P3	BW2	-1.00		.35	10C	VS5	.580	NPUFZ	72	C		
55	108	.21	85	PCT	7	P2	BW1	-1.81			VS3	TEH	.610	NBAZ1	3	H		
59	108	1.01	63	PCT	23	P2	BW1	-.96			VS3	TEH	.610	NBAZ1	10	H		
59	108	1.56	103	PCT	22	P3	BW1	-.77		.29	08H	VS2	.580	NPUFZ	105	H		DQA
61	108	.28	128	PCT	10	P2	BW1	-1.14			VS3	TEH	.610	NBAZ1	10	H		
75	108	.24	75	PCT	8	P2	VS2	.75			VS3	TEH	.610	NBAZ1	10	H		
83	108	.64	121	PCT	18	P2	VS2	-.56			VS3	TEH	.610	NBAZ1	10	H		
83	108	.28	91	PCT	10	P2	VS3	-.65			VS3	TEH	.610	NBAZ1	10	H		
83	108	1.41	79	PCT	21	P3	VS2	-.56		.29	VS2	VS2	.580	NPUFZ	105	H		
111	108	.45	102	PCT	12	P2	VS4	.83			VS3	TEC	.610	NBAZ1	35	C		
117	108	.27	117	PCT	9	P2	BW1	-1.08			VS3	TEH	.610	NBAZ1	26	H		
121	108	.52	112	PCT	15	P2	BW1	-.91			VS3	TEH	.610	NBAZ1	26	H		
121	108	.89	118	PCT	16	P3	BW1	-.91		.26	09H	VS1	.580	NPUFZ	104	H		DQA
133	108	.17	104	PCT	6	P2	11H	-1.00			VS3	TEH	.610	NBAZ1	26	H		
167	108	.43	151	PCT	14	P2	BW2	.90			VS3	TEC	.610	NBAZ1	48	C		
169	108	.32	94	PCT	11	P2	BW2	.89			VS3	TEC	.610	NBAZ1	48	C		
171	108	.25	46	PCT	9	P2	BW1	1.09			VS3	TEH	.610	NBAZ1	26	H		
171	108	.19	93	PCT	7	P2	VS3	.50			VS3	TEH	.610	NBAZ1	26	H		
171	108	.28	76	PCT	10	P2	BW2	.95			VS3	TEC	.610	NBAZ1	48	C		
50	109	.37	158	PCT	12	P2	BW1	-1.10			VS3	TEH	.610	NBAZ1	3	H		
58	109	.38	107	PCT	12	P2	BW1	-.97			VS3	TEH	.610	NBAZ1	10	H		
166	109	.33	123	PCT	11	P2	VS1	.89			VS3	TEH	.610	NBAZ1	26	H		
166	109	.63	141	PCT	17	P2	VS2	1.24			VS3	TEH	.610	NBAZ1	26	H		
ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2
166	109	1.03	98	PCT	18	P3	VS2	1.24		.46	VS2	VS2	.580	NPUFZ	104	H		
57	110	.40	160	PCT	13	P2	BW1	1.75			VS3	TEH	.610	NBAZ1	9	H		
50	111	.35	57	PCT	11	P2	BW1	-1.21			VS3	TEH	.610	NBAZ1	4	H		
84	111	.49	132	PCT	15	P2	VS2	.85			VS3	TEH	.610	NBAZ1	9	H		
84	111	.32	134	PCT	11	P2	VS3	.62			VS3	TEH	.610	NBAZ1	9	H		
84	111	1.50	83	PCT	22	P3	VS2	.85		.41	VS2	VS2	.580	NPUFZ	105	H		
146	111	1.57	107	PCT	30	P2	VS2	.86			VS3	TEH	.610	NBAZ1	25	H		
146	111	1.74	85	PCT	26	P3	VS2	.86		.35	VS2	VS2	.580	NPUFZ	104	H		DQA
49	112	.32	142	PCT	11	P2	BW1	1.14			VS3	TEH	.610	NBAZ1	3	H		
51	112	.25	129	PCT	10	P2	BW2	1.12			VS3	TEC	.610	NBAZ1	4	C		
67	112	1.07	122	PCT	24	P2	BW1	.92			VS3	TEH	.610	NBAZ1	10	H		
67	112	.30	139	PCT	10	P2	VS3	.58			VS3	TEH	.610	NBAZ1	10	H		
67	112	2.29	95	PCT	29	P3	BW1	.77		.23	08H	VS2	.580	NPUFZ	105	H		DQA
69	112	.25	119	PCT	9	P2	BW1	.69			VS3	TEH	.610	NBAZ1	10	H		
117	112	.37	137	PCT	10	P2	VS4	-.75			VS3	TEC	.610	NBAZ1	35	C		
161	112	.21	104	PCT	7	P2	BW2	-.72			VS3	TEC	.610	NBAZ1	48	C		
42	113	.32	150	PCT	11	P2	BW2	-1.77			VS3	TEC	.610	NBAZ1	4	C		
56	113	.42	102	PCT	13	P2	BW1	-1.74			VS3	TEH	.610	NBAZ1	10	H		
84	113	.55	141	PCT	16	P2	BW1	-.93			VS3	TEH	.610	NBAZ1	10	H		
84	113	1.32	90	PCT	20	P3	BW1	-.35		.50	08H	VS2	.580	NPUFZ	105	H		
106	113	.23	124	PCT	7	P2	VS4	.80			VS3	TEC	.610	NBAZ1	35	C		
108	113	.29	147	PCT	9	P2	VS4	.84			VS3	TEC	.610	NBAZ1	35	C		
110	113	.82	134	PCT	21	P2	VS2	.79			VS3	TEH	.610	NBAZ1	24	H		
110	113	1.61	116	PCT	27	P2	VS4	-.46			VS3	TEC	.610	NBAZ1	35	C		
110	113	2.47	90	PCT	30	P3	VS4	-.91		.48	VS4	VS4	.580	NPUFZ	72	C		
110	113	1.40	94	PCT	22	P3	VS2	.79		.49	VS2	VS2	.580	NPUFZ	104	H		
112	113	.59	117	PCT	15	P2	VS4	.99			VS3	TEC	.610	NBAZ1	35	C		
112	113	1.15	79	PCT	17	P3	VS4	.83		.35	VS4	VS4	.580	NPUFZ	72	C		
116	113	.22	166	PCT	8	P2	VS3	-.64			VS3	TEH	.610	NBAZ1	24	H		
49	114	2.19	111	PCT	32	P2	BW2	-.88			VS3	TEC	.610	NBAZ1	3	C		
49	114	3.19	113	PCT	38	P2	BW2	.78			VS3	TEC	.610	NBAZ1	3	C		
49	114	2.43	93	PCT	30	P3	BW2	-.72		.39	08C	VS3	.580	NPUFZ	72	C		
49	114	2.99	85	PCT	34	P3	BW2	.79		.37	08C	VS3	.580	NPUFZ	72	C		
51	114	.52	113	PCT	14	P2	BW2	.63			VS3	TEC	.610	NBAZ1	3	C		
113	114	.47	110	PCT	13	P2	VS4	1.17			VS3	TEC	.610	NBAZ1	36	C		
117	114	.48	144	PCT	14	P2	VS2	.77			VS3	TEH	.610	NBAZ1	24	H		
117	114	.25	155	PCT	9	P2	VS3	.91			VS3	TEH	.610	NBAZ1	24	H		
117	114	.50	132	PCT	14	P2	VS4	-.47			VS3	TEC	.610	NBAZ1	36	C		
139	114	.31	144	PCT	10	P2	VS1	.81			VS3	TEH	.610	NBAZ1	24	H		
161	114	.40	86	PCT	12	P2	VS2	-1.00			VS3	TEH	.610	NBAZ1	24	H		
48	115	.67	114	PCT	18	P2	BW1	-1.11			VS3	TEH	.610	NBAZ1	4	H		
48	115	1.51	88	PCT	24	P3	BW1	-1.11		.94	08H	VS3	.580	NPUFZ	107	H		DQA
50	115	.39	123	PCT	11	P2	BW2	.65			VS3	TEC	.610	NBAZ1	3	C		
60	115	.34	137	PCT	12	P2	VS3	-.66			VS3	TEH	.610	NBAZ1	9	H		
66	115	.75	92	PCT	20	P2	VS3	-.82			VS3	TEH	.610	NBAZ1	9	H		
66	115	1.16	96	PCT	18	P3	VS3	-.80		.25	VS3	VS3	.580	NPUFZ	72	C		DQA
100	115	.26	129	PCT	7	P2	VS4	-.77			VS3	TEC	.610	NBAZ1	36	C		
106	115	.26	129	PCT	9	P2	BW1	-1.00			VS3	TEH	.610	NBAZ1	23	H		
168	115	.36	129	PCT	10	P2	BW2	-.91			VS3	TEC	.610	NBAZ1	47	C		
168	115	.62	121	PCT	15	P2	BW2	.74			VS3	TEC	.610	NBAZ1	47	C		
168	115	.65	100	PCT	11	P3	BW2	-.84		.31	10C	VS5	.580	NPUFZ	72	C		
168	115	.93	117	PCT	15	P3	BW2	.72		.21	10C	VS5	.580	NPUFZ	72	C		
41	116	.76	135	PCT	20	P2	BW1	-1.10			VS3	TEH	.610	NBAZ1	3	H		

| ROW | COL | VOLTS | DEG | IND | PER | CHN | LOCN | INCH1 | INCH2 | CRLEN | BEGT | ENDT | PDIA | PTYPE | CAL | L | UTIL1 | UTIL2 |

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2
41	116	.32	119	PCT	11	P2	BW1	1.41			VS3	TEH	.610	NBAZ1	3	H		
41	116	1.03	97	PCT	18	P3	BW1	-1.10		.22	07H	VS3	.580	NPUFZ	107	H		DQA
47	116	.25	128	PCT	10	P2	BW2	-1.36			VS3	TEC	.610	NBAZ1	4	C		
49	116	.26	99	PCT	9	P2	09H	1.00			VS3	TEH	.610	NBAZ1	3	H		
67	116	1.07	129	PCT	24	P2	VS3	.87			VS3	TEH	.610	NBAZ1	10	H		
67	116	1.80	88	PCT	24	P3	VS3	.84		.38	VS3	VS3	.580	NPUFZ	72	C		DQA
48	117	.52	124	PCT	15	P2	BW1	1.09			VS3	TEH	.610	NBAZ1	3	H		
48	117	.35	115	PCT	12	P2	VS3	.53			VS3	TEH	.610	NBAZ1	3	H		
48	117	1.02	90	PCT	18	P3	BW1	1.09		.22	08H	VS3	.580	NPUFZ	107	H		DQA
48	117	.84	84	PCT	16	P3	VS3	.53		.24	08H	VS3	.580	NPUFZ	107	H		
90	117	.21	75	PCT	6	P2	10C	-.86			VS3	TEC	.610	NBAZ1	35	C		
116	117	.49	127	PCT	15	P2	VS2	.55			VS3	TEH	.610	NBAZ1	22	H		
116	117	.79	133	PCT	20	P2	VS3	.62			VS3	TEH	.610	NBAZ1	22	H		
116	117	1.23	114	PCT	24	P2	VS4	-.76			VS3	TEC	.610	NBAZ1	35	C		
116	117	1.29	98	PCT	19	P3	VS3	.75		.45	VS3	VS3	.580	NPUFZ	72	C		
116	117	1.95	88	PCT	26	P3	VS4	-.83		.43	VS4	VS4	.580	NPUFZ	72	C		DQA
116	117	.90	88	PCT	16	P3	VS2	.87		.40	VS2	VS2	.580	NPUFZ	104	H		
118	117	.22	110	PCT	8	P2	VS2	-.41			VS3	TEH	.610	NBAZ1	22	H		
118	117	.29	135	PCT	10	P2	VS3	-.19			VS3	TEH	.610	NBAZ1	22	H		
118	117	.24	86	PCT	8	P2	VS3	.93			VS3	TEH	.610	NBAZ1	22	H		
164	117	.57	149	PCT	14	P2	BW2	-.99			VS3	TEC	.610	NBAZ1	47	C		
45	118	.30	70	PCT	10	P2	BW1	-.82			VS3	TEH	.610	NBAZ1	3	H		
47	118	.35	126	PCT	12	P2	BW1	1.18			VS3	TEH	.610	NBAZ1	3	H		
47	118	.20	142	PCT	6	P2	BW2	-.77			VS3	TEC	.610	NBAZ1	3	C		
51	118	.31	94	PCT	10	P2	BW1	1.17			VS3	TEH	.610	NBAZ1	3	H		
53	118	.15	77	PCT	5	P2	BW2	-.97			VS3	TEC	.610	NBAZ1	3	C		
85	118	.38	137	PCT	13	P2	BW1	-.90			VS3	TEH	.610	NBAZ1	9	H		
87	118	.25	125	PCT	10	P2	BW1	-.83			VS3	TEH	.610	NBAZ1	9	H		
87	118	.30	113	PCT	11	P2	VS2	-.99			VS3	TEH	.610	NBAZ1	9	H		
89	118	.61	82	PCT	18	P2	BW1	.55			VS3	TEH	.610	NBAZ1	9	H		
89	118	1.32	108	PCT	21	P3	BW1	.90		.41	08H	VS2	.580	NPUFZ	106	H		DQA
107	118	.41	120	PCT	12	P2	VS4	.80			VS3	TEC	.610	NBAZ1	36	C		
115	118	.16	80	PCT	3	P2	BW2	-.95			VS3	TEC	.610	NBAZ1	36	C		
44	119	.82	118	PCT	21	P2	BW1	-.99			VS3	TEH	.610	NBAZ1	3	H		
44	119	1.38	88	PCT	23	P3	BW1	-.99		.49	07H	VS3	.580	NPUFZ	107	H		DQA
46	119	.40	143	PCT	13	P2	BW1	.89			VS3	TEH	.610	NBAZ1	3	H		
48	119	.75	142	PCT	20	P2	BW1	.70			VS3	TEH	.610	NBAZ1	3	H		
48	119	.98	79	PCT	17	P3	BW1	.70		.17	08H	VS3	.580	NPUFZ	107	H		DQA
88	119	.25	88	PCT	9	P2	BW1	-.87			VS3	TEH	.610	NBAZ1	9	H		
110	119	.28	102	PCT	10	P2	VS2	.79			VS3	TEH	.610	NBAZ1	21	H		
142	119	.28	135	PCT	8	P2	VS4	-.38			VS3	TEC	.610	NBAZ1	36	C		
37	120	.32	90	PCT	11	P2	BW1	.98			VS3	TEH	.610	NBAZ1	4	H		
39	120	.32	108	PCT	11	P2	BW1	1.16			VS3	TEH	.610	NBAZ1	4	H		
43	120	.96	94	PCT	22	P2	BW1	.92			VS3	TEH	.610	NBAZ1	4	H		
43	120	1.47	83	PCT	24	P3	BW1	.92		.24	07H	VS3	.580	NPUFZ	107	H		DQA
45	120	1.67	110	PCT	31	P2	BW1	.85			VS3	TEH	.610	NBAZ1	4	H		
45	120	.57	111	PCT	16	P2	VS3	-.91			VS3	TEH	.610	NBAZ1	4	H		
45	120	1.69	92	PCT	26	P3	BW1	.85		.48	07H	VS3	.580	NPUFZ	107	H		DQA
45	120	1.17	81	PCT	20	P3	VS3	-.91		.19	07H	VS3	.580	NPUFZ	107	H		
67	120	.67	124	PCT	18	P2	BW1	.57			VS3	TEH	.610	NBAZ1	10	H		
67	120	1.25	86	PCT	21	P3	BW1	.57		.12	08H	VS2	.580	NPUFZ	107	H		DQA
69	120	.54	137	PCT	16	P2	BW1	.50			VS3	TEH	.610	NBAZ1	10	H		
69	120	1.09	118	PCT	18	P3	BW1	.97		.36	08H	VS2	.580	NPUFZ	106	H		
71	120	.35	139	PCT	11	P2	BW1	.53			VS3	TEH	.610	NBAZ1	10	H		

| ROW | COL | VOLTS | DEG | IND | PER | CHN | LOCN | INCH1 | INCH2 | CRLEN | BEGT | ENDT | PDIA | PTYPE | CAL | L | UTIL1 | UTIL2 |

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2
161	120	.36	81	PCT	12	P2	BW1	-.72			VS3	TEH	.610	NBAZ1	23	H		
36	121	.30	149	PCT	10	P2	BW1	-1.30			VS3	TEH	.610	NBAZ1	4	H		
38	121	.72	122	PCT	19	P2	VS3	.75			VS3	TEH	.610	NBAZ1	4	H		
38	121	1.36	88	PCT	20	P3	VS3	.82		.34	VS3	VS3	.580	NPUFZ	72	C		DQA
40	121	.22	136	PCT	8	P2	BW1	1.27			VS3	TEH	.610	NBAZ1	4	H		
40	121	.89	124	PCT	21	P2	VS3	.68			VS3	TEH	.610	NBAZ1	4	H		
40	121	1.17	88	PCT	18	P3	VS3	.97		.40	VS3	VS3	.580	NPUFZ	72	C		
48	121	.25	67	PCT	9	P2	BW1	-1.16			VS3	TEH	.610	NBAZ1	4	H		
62	121	.36	133	PCT	12	P2	BW1	-1.09			VS3	TEH	.610	NBAZ1	10	H		
108	121	.58	122	PCT	14	P2	VS4	-.76			VS3	TEC	.610	NBAZ1	35	C		
110	121	.47	132	PCT	12	P2	VS4	-.73			VS3	TEC	.610	NBAZ1	35	C		
120	121	.61	137	PCT	17	P2	VS2	.86			VS3	TEH	.610	NBAZ1	22	H		
120	121	1.61	90	PCT	25	P3	VS2	.86		.75	VS2	VS2	.580	NPUFZ	104	H		
162	121	.42	124	PCT	11	P2	BW2	-.91			VS3	TEC	.610	NBAZ1	47	C		
168	121	.37	105	PCT	10	P2	BW2	-.96			VS3	TEC	.610	NBAZ1	47	C		
168	121	.38	71	PCT	11	P2	BW2	.78			VS3	TEC	.610	NBAZ1	47	C		
37	122	.31	26	PCT	10	P2	BW1	.99			VS3	TEH	.610	NBAZ1	3	H		
39	122	.66	141	PCT	18	P2	BW1	.99			VS3	TEH	.610	NBAZ1	3	H		
39	122	.79	74	PCT	15	P3	BW1	.99		.17	07H	VS3	.580	NPUFZ	107	H		
41	122	.53	137	PCT	16	P2	BW1	.69			VS3	TEH	.610	NBAZ1	3	H		
47	122	.62	115	PCT	17	P2	BW1	.86			VS3	TEH	.610	NBAZ1	3	H		
47	122	.95	97	PCT	17	P3	BW1	.86		.31	07H	VS3	.580	NPUFZ	107	H		DQA
165	122	.50	143	PCT	13	P2	BW2	.98			VS3	TEC	.610	NBAZ1	49	C		
167	122	.52	103	PCT	13	P2	BW2	.82			VS3	TEC	.610	NBAZ1	49	C		
166	123	.66	118	PCT	19	P2	BW2	.68			VS3	TEC	.610	NBAZ1	50	C		
166	123	1.25	91	PCT	19	P3	BW2	.88		.46	10C	VS5	.580	NPUFZ	72	C		
168	123	.30	140	PCT	9	P2	BW2	-.99			VS3	TEC	.610	NBAZ1	49	C		
168	123	.30	147	PCT	9	P2	BW2	.98			VS3	TEC	.610	NBAZ1	49	C		
159	124	.32	68	PCT	11	P2	VS2	-.97			VS3	TEH	.610	NBAZ1	23	H		
159	124	.67	103	PCT	18	P2	VS3	.75			VS3	TEH	.610	NBAZ1	23	H		
159	124	1.33	90	PCT	20	P3	VS3	.92		.30	VS3	VS3	.580	NPUFZ	72	C		
163	124	.23	143	PCT	9	P2	BW2	.97			VS3	TEC	.610	NBAZ1	50	C		
118	125	.28	106	PCT	10	P2	VS2	.95			VS3	TEH	.610	NBAZ1	22	H		
120	125	.77	127	PCT	20	P2	VS3	-.68			VS3	TEH	.610	NBAZ1	22	H		
120	125	1.23	97	PCT	18	P3	VS3	-.67		.50	VS3	VS3	.580	NPUFZ	72	C		
132	125	.28	155	PCT	10	P2	VS1	.99			VS3	TEH	.610	NBAZ1	22	H		
160	125	.51	113	PCT	13	P2	BW2	-.96			VS3	TEC	.610	NBAZ1	49	C		
162	125	.34	134	PCT	10	P2	BW2	.91			VS3	TEC	.610	NBAZ1	49	C		
164	125	1.08	121	PCT	22	P2	BW2	.83			VS3	TEC	.610	NBAZ1	49	C		
164	125	1.81	87	PCT	24	P3	BW2	.96		.48	10C	VS5	.580	NPUFZ	72	C		
29	126	.20	109	PCT	6	P2	VS3	.74			VS3	TEC	.610	NBAZ1	1	C		
67	126	.47	146	PCT	15	P2	BW1	1.02			VS3	TEH	.610	NBAZ1	9	H		
67	126	.75	95	PCT	14	P3	BW1	1.02		.53	08H	VS2	.580	NPUFZ	107	H		DQA
159	126	.51	137	PCT	15	P2	VS2	-.76			VS3	TEH	.610	NBAZ1	24	H		
159	126	1.04	94	PCT	18	P3	VS2	-.76		.34	VS2	VS2	.580	NPUFZ	104	H		
161	126	.52	94	PCT	15	P2	VS1	.55			VS3	TEH	.610	NBAZ1	24	H		
161	126	1.26	89	PCT	21	P3	VS1	.55		.49	VS1	VS1	.580	NPUFZ	104	H		
163	126	.38	43	PCT	10	P2	BW2	.96			VS3	TEC	.610	NBAZ1	49	C		
165	126	.81	116	PCT	13	P2	BW2	-.94			VS3	TEC	.610	NBAZ1	49	C		
165	126	.31	145	PCT	9	P2	BW2	.99			VS3	TEC	.610	NBAZ1	49	C		
165	126	1.68	91	PCT	23	P3	BW2	-.94		.40	10C	VS5	.580	NPUFZ	71	C		
165	126	.82	90	PCT	14	P3	BW2	1.00		.24	10C	VS5	.580	NPUFZ	71	C		

| ROW | COL | VOLTS | DEG | IND | PER | CHN | LOCN | INCH1 | INCH2 | CRLEN | BEGT | ENDT | PDIA | PTYPE | CAL | L | UTIL1 | UTIL2 |

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2
26	127	.23	60	PCT	7	P2	VS3	-.29			VS3	TEC	.610	NBAZ1	1	C		
28	127	.64	124	PCT	18	P2	VS3	.83			VS3	TEH	.610	NBAZ1	3	H		
28	127	1.06	95	PCT	16	P3	VS3	.88		.25	VS3	VS3	.580	NPUFZ	72	C		
118	127	.35	47	PCT	12	P2	VS2	.95			VS3	TEH	.610	NBAZ1	21	H		
162	127	.53	61	PCT	16	P2	BW2	-1.07			VS3	TEC	.610	NBAZ1	50	C		
162	127	1.09	88	PCT	17	P3	BW2	-1.00		.27	10C	VS5	.580	NPUFZ	72	C		
164	127	1.64	112	PCT	31	P2	BW2	-.93			VS3	TEC	.610	NBAZ1	50	C		
164	127	2.66	94	PCT	32	P3	BW2	-1.09		.48	10C	VS5	.580	NPUFZ	71	C		
166	127	.41	143	PCT	14	P2	BW2	-1.00			VS3	TEC	.610	NBAZ1	50	C		
166	127	.97	100	PCT	23	P2	BW2	.75			VS3	TEC	.610	NBAZ1	50	C		
166	127	1.00	103	PCT	16	P3	BW2	-1.07		.21	10C	VS5	.580	NPUFZ	71	C		
166	127	1.99	95	PCT	26	P3	BW2	.95		.39	10C	VS5	.580	NPUFZ	71	C		
157	128	.41	151	PCT	13	P2	VS3	.58			VS3	TEH	.610	NBAZ1	24	H		
165	128	1.24	115	PCT	27	P2	BW2	.87			VS3	TEC	.610	NBAZ1	50	C		
165	128	2.34	89	PCT	29	P3	BW2	.94		.50	10C	VS5	.580	NPUFZ	71	C		
114	129	.31	109	PCT	9	P2	VS4	-.64			VS3	TEC	.610	NBAZ1	33	C		
118	129	.38	126	PCT	11	P2	VS4	-.64			VS3	TEC	.610	NBAZ1	33	C		
160	129	.36	76	PCT	10	P2	BW2	-.94			VS3	TEC	.610	NBAZ1	49	C		
162	129	.78	133	PCT	18	P2	BW2	-.92			VS3	TEC	.610	NBAZ1	49	C		
162	129	1.22	102	PCT	19	P3	BW2	-.83		.37	10C	VS5	.580	NPUFZ	71	C		
164	129	2.83	113	PCT	37	P2	BW2	.76			VS3	TEC	.610	NBAZ1	49	C		
164	129	3.15	88	PCT	35	P3	BW2	.58		.48	10C	VS5	.580	NPUFZ	71	C		
111	130	.31	92	PCT	11	P2	VS4	-.50			VS3	TEC	.610	NBAZ1	34	C		
113	130	.26	164	PCT	9	P2	VS1	-.90			VS3	TEH	.610	NBAZ1	22	H		
155	130	.19	146	PCT	7	P2	VS2	-1.04			VS3	TEH	.610	NBAZ1	26	H		
163	130	1.23	103	PCT	24	P2	BW2	.74			VS3	TEC	.610	NBAZ1	49	C		
163	130	2.03	92	PCT	27	P3	BW2	1.07		.55	10C	VS5	.580	NPUFZ	71	C		
22	131	.20	126	PCT	7	P2	VS3	-.80			VS3	TEC	.610	NBAZ1	1	C		
158	131	.25	99	PCT	9	P2	BW2	-.91			VS3	TEC	.610	NBAZ1	50	C		
160	131	.26	147	PCT	10	P2	BW2	-.96			VS3	TEC	.610	NBAZ1	50	C		
164	131	1.10	110	PCT	25	P2	BW2	.73			VS3	TEC	.610	NBAZ1	50	C		
164	131	1.90	94	PCT	26	P3	BW2	.75		.46	10C	VS5	.580	NPUFZ	71	C		
27	132	.30	151	PCT	10	P2	VS3	.64			VS3	TEH	.610	NBAZ1	4	H		
151	132	.30	92	PCT	11	P2	VS1	-.94			VS3	TEH	.610	NBAZ1	25	H		
153	132	.29	91	PCT	10	P2	VS3	-.85			VS3	TEH	.610	NBAZ1	25	H		
163	132	.29	46	PCT	11	P2	BW2	-1.01			VS3	TEC	.610	NBAZ1	50	C		
163	132	.38	88	PCT	13	P2	BW2	.92			VS3	TEC	.610	NBAZ1	50	C		
118	133	.67	141	PCT	18	P2	VS3	.80			VS3	TEH	.610	NBAZ1	22	H		
118	133	1.34	95	PCT	20	P3	VS3	.83		.40	VS3	VS3	.580	NPUFZ	71	C		
126	133	.33	123	PCT	10	P2	BW2	-.65			VS3	TEC	.610	NBAZ1	33	C		
136	133	.85	128	PCT	21	P2	VS3	-.68			VS3	TEH	.610	NBAZ1	22	H		
136	133	.28	135	PCT	10	P2	VS3	.63			VS3	TEH	.610	NBAZ1	22	H		
136	133	1.21	93	PCT	18	P3	VS3	-1.00		.28	VS3	VS3	.580	NPUFZ	71	C		DQA
136	133	.59	83	PCT	10	P3	VS3	.89		.25	VS3	VS3	.580	NPUFZ	71	C		
158	133	1.51	125	PCT	27	P2	BW2	-.84			VS3	TEC	.610	NBAZ1	49	C		
158	133	2.40	94	PCT	30	P3	BW2	-.88		.48	10C	VS5	.580	NPUFZ	71	C		
162	133	.30	78	PCT	9	P2	BW2	.92			VS3	TEC	.610	NBAZ1	49	C		
21	134	.29	49	PCT	10	P2	VS3	-.57			VS3	TEH	.610	NBAZ1	3	H		
27	134	.20	114	PCT	6	P2	VS3	.66			VS3	TEC	.610	NBAZ1	1	C		
91	134	.21	128	PCT	8	P2	10H	.87			VS3	TEH	.610	NBAZ1	22	H		
119	134	.29	133	PCT	11	P2	VS4	-.80			VS3	TEC	.610	NBAZ1	34	C		

| ROW | COL | VOLTS | DEG | IND | PER | CHN | LOCN | INCH1 | INCH2 | CRLEN | BEGT | ENDT | PDIA | PTYPE | CAL | L | UTIL1 | UTIL2 |

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2
121	134	.19	132	PCT	8	P2	BW2	-.96			VS3	TEC	.610	NBAZ1	34	C		
125	134	.44	107	PCT	15	P2	VS4	-.73			VS3	TEC	.610	NBAZ1	34	C		
125	134	1.00	98	PCT	16	P3	VS4	-.76		.34	VS4	VS4	.580	NPUFZ	71	C		
129	134	.19	116	PCT	8	P2	VS4	-.60			VS3	TEC	.610	NBAZ1	34	C		
159	134	.48	82	PCT	13	P2	BW2	.99			VS3	TEC	.610	NBAZ1	49	C		
161	134	.23	116	PCT	7	P2	BW2	-1.02			VS3	TEC	.610	NBAZ1	49	C		
161	134	1.19	88	PCT	23	P2	BW2	.91			VS3	TEC	.610	NBAZ1	49	C		
161	134	.79	108	PCT	13	P3	BW2	-.94		.37	10C	VS5	.580	NPUFZ	71	C		
161	134	1.79	93	PCT	25	P3	BW2	.81		.30	10C	VS5	.580	NPUFZ	71	C		
42	135	.27	147	PCT	8	P2	VS3	.60			VS3	TEC	.610	NBAZ1	1	C		
106	135	.24	69	PCT	9	P2	VS2	.53			VS3	TEH	.610	NBAZ1	21	H		
108	135	.29	52	PCT	10	P2	VS2	.96			VS3	TEH	.610	NBAZ1	21	H		
140	135	.18	86	PCT	7	P2	BW2	-.64			VS3	TEC	.610	NBAZ1	34	C		
150	135	.50	88	PCT	16	P2	BW2	-.99			VS3	TEC	.610	NBAZ1	50	C		
150	135	1.07	103	PCT	17	P3	BW2	-.87		.26	10C	VS5	.580	NPUFZ	71	C		
152	135	.34	121	PCT	12	P2	BW2	-.90			VS3	TEC	.610	NBAZ1	34	C		
154	135	.25	135	PCT	10	P2	BW2	-1.15			VS3	TEC	.610	NBAZ1	50	C		
156	135	1.13	112	PCT	26	P2	BW2	-.91			VS3	TEC	.610	NBAZ1	50	C		
156	135	1.98	96	PCT	26	P3	BW2	-.95		.36	10C	VS5	.580	NPUFZ	71	C		
158	135	.46	110	PCT	15	P2	BW2	-.98			VS3	TEC	.610	NBAZ1	50	C		
158	135	.79	101	PCT	13	P3	BW2	-1.00		.18	10C	VS5	.580	NPUFZ	71	C		DQA
160	135	1.25	102	PCT	27	P2	BW2	-.96			VS3	TEC	.610	NBAZ1	50	C		
160	135	2.06	93	PCT	27	P3	BW2	-1.00		.25	10C	VS5	.580	NPUFZ	71	C		DQA
162	135	1.09	114	PCT	25	P2	BW2	-.99			VS3	TEC	.610	NBAZ1	50	C		
162	135	1.64	97	PCT	23	P3	BW2	-1.00		.34	10C	VS5	.580	NPUFZ	71	C		DQA
37	136	.19	150	PCT	7	P2	VS3	-.92			VS3	TEH	.610	NBAZ1	4	H		
45	136	.21	87	PCT	8	P2	VS3	-.66			VS3	TEC	.610	NBAZ1	2	C		
155	136	.53	68	PCT	14	P2	BW2	.74			VS3	TEC	.610	NBAZ1	49	C		
157	136	.40	132	PCT	11	P2	BW2	-.94			VS3	TEC	.610	NBAZ1	49	C		
159	136	.91	105	PCT	16	P2	BW2	-.97			VS3	TEC	.610	NBAZ1	49	C		
159	136	1.78	93	PCT	25	P3	BW2	-.95		.35	10C	VS5	.580	NPUFZ	71	C		
161	136	1.59	116	PCT	27	P2	BW2	.86			VS3	TEC	.610	NBAZ1	49	C		
161	136	2.15	90	PCT	28	P3	BW2	1.00		.31	10C	VS5	.580	NPUFZ	71	C		
88	137	.29	37	PCT	10	P2	BW1	-.80			VS3	TEH	.610	NBAZ1	10	H		
120	137	.28	111	PCT	9	P2	VS4	-.76			VS3	TEC	.610	NBAZ1	33	C		
122	137	.31	130	PCT	9	P2	VS4	-.63			VS3	TEC	.610	NBAZ1	33	C		
124	137	.29	126	PCT	9	P2	VS4	-.41			VS3	TEC	.610	NBAZ1	33	C		
154	137	.57	150	PCT	15	P2	BW2	-.92			VS3	TEC	.610	NBAZ1	33	C		
154	137	1.16	103	PCT	18	P3	BW2	-.95		.32	10C	VS5	.580	NPUFZ	71	C		
156	137	.43	145	PCT	12	P2	BW2	.90			VS3	TEC	.610	NBAZ1	49	C		
158	137	.56	137	PCT	14	P2	BW2	-.96			VS3	TEC	.610	NBAZ1	49	C		
160	137	.51	100	PCT	13	P2	BW2	.64			VS3	TEC	.610	NBAZ1	49	C		
129	138	.22	165	PCT	8	P2	VS1	.64			VS3	TEH	.610	NBAZ1	22	H		
84	139	.26	132	PCT	10	P2	VS3	-.75			VS3	TEH	.610	NBAZ1	9	H		
96	139	.48	115	PCT	15	P2	VS2	.89			VS3	TEH	.610	NBAZ1	21	H		
96	139	1.04	82	PCT	18	P3	VS2	.89		.37	VS2	VS2	.580	NPUFZ	104	H		
100	139	.33	72	PCT	11	P2	VS2	1.06			VS3	TEH	.610	NBAZ1	21	H		
114	139	.30	103	PCT	10	P2	VS2	1.06			VS3	TEH	.610	NBAZ1	21	H		
156	139	.29	154	PCT	10	P2	VS1	-1.09			VS3	TEH	.610	NBAZ1	26	H		

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2
99	140	.39	70	PCT	13	P2	VS2	1.00			VS3	TEH	.610	NBAZ1	21	H		
111	140	.26	66	PCT	9	P2	VS2	1.10			VS3	TEH	.610	NBAZ1	21	H		
117	140	.34	108	PCT	12	P2	VS3	-.76			VS3	TEH	.610	NBAZ1	21	H		
159	140	.29	119	PCT	9	P2	02C	-.15			VS3	TEC	.610	NBAZ1	49	C		
28	141	.24	80	PCT	9	P2	VS3	.85			VS3	TEC	.610	NBAZ1	2	C		
40	141	.20	144	PCT	8	P2	VS3	.71			VS3	TEC	.610	NBAZ1	2	C		
154	141	.28	123	PCT	10	P2	VS1	.71			VS3	TEH	.610	NBAZ1	25	H		
83	142	.72	122	PCT	20	P2	VS3	-.84			VS3	TEH	.610	NBAZ1	7	H		
83	142	1.07	97	PCT	17	P3	VS3	-.65		.35	VS3	VS3	.580	NPUFZ	71	C		
101	142	.31	144	PCT	11	P2	BW1	.84			VS3	TEH	.610	NBAZ1	20	H		
117	142	.50	35	PCT	15	P2	VS1	-.40			VS3	TEH	.610	NBAZ1	20	H		
117	142	.21	66	PCT	8	P2	VS4	-.80			VS3	TEC	.610	NBAZ1	32	C		
117	142	.99	105	PCT	17	P3	VS1	-.40		.40	VS1	VS1	.580	NPUFZ	104	H		DQA
102	143	.44	147	PCT	14	P2	VS2	1.05			VS3	TEH	.610	NBAZ1	20	H		
110	143	.27	131	PCT	10	P2	BW1	1.19			VS3	TEH	.610	NBAZ1	20	H		
120	143	1.44	124	PCT	29	P2	VS2	1.01			VS3	TEH	.610	NBAZ1	20	H		
120	143	1.07	95	PCT	18	P3	VS2	.76		.49	VS2	VS2	.580	NPUFZ	104	H		DQA
120	143	1.85	86	PCT	27	P3	VS2	1.01		.75	VS2	VS2	.580	NPUFZ	104	H		
27	144	.18	151	PCT	7	P2	VS3	.63			VS3	TEC	.610	NBAZ1	2	C		
31	144	.21	108	PCT	8	P2	VS3	.61			VS3	TEC	.610	NBAZ1	2	C		
39	144	.21	127	PCT	8	P2	VS3	.57			VS3	TEC	.610	NBAZ1	2	C		
108	145	.24	143	PCT	9	P2	VS2	.96			VS3	TEH	.610	NBAZ1	20	H		
110	145	.25	145	PCT	9	P2	BW1	-1.17			VS3	TEH	.610	NBAZ1	20	H		
65	146	.20	142	PCT	8	P2	BW1	.90			VS3	TEH	.610	NBAZ1	18	H		
73	146	.17	161	PCT	6	P2	VS3	-.61			VS3	TEH	.610	NBAZ1	18	H		
113	146	.68	143	PCT	19	P2	VS2	-.78			VS3	TEH	.610	NBAZ1	20	H		
113	146	1.57	91	PCT	24	P3	VS2	-.78		.43	VS2	VS2	.580	NPUFZ	104	H		
40	147	.33	83	PCT	11	P2	VS3	.78			VS3	TEH	.610	NBAZ1	11	H		
138	147	.23	119	PCT	7	P2	VS4	-.91			VS3	TEC	.610	NBAZ1	33	C		
140	147	.30	95	PCT	10	P2	VS2	.92			VS3	TEH	.610	NBAZ1	19	H		
63	148	.44	104	PCT	14	P2	VS3	-.96			VS3	TEH	.610	NBAZ1	17	H		
109	148	.31	70	PCT	11	P2	VS3	-.89			VS3	TEH	.610	NBAZ1	19	H		
119	148	.34	68	PCT	11	P2	VS3	-.85			VS3	TEH	.610	NBAZ1	19	H		
74	149	.29	164	PCT	10	P2	VS2	.91			VS3	TEH	.610	NBAZ1	18	H		
84	149	.45	153	PCT	14	P2	VS3	-.46			VS3	TEH	.610	NBAZ1	18	H		
112	149	.36	149	PCT	12	P2	VS2	.80			VS3	TEH	.610	NBAZ1	20	H		
112	149	.39	141	PCT	13	P2	VS3	.74			VS3	TEH	.610	NBAZ1	20	H		
114	149	.40	142	PCT	13	P2	VS3	.86			VS3	TEH	.610	NBAZ1	20	H		
118	149	.40	134	PCT	13	P2	BW1	-.76			VS3	TEH	.610	NBAZ1	20	H		
120	149	.48	144	PCT	15	P2	BW1	-.83			VS3	TEH	.610	NBAZ1	20	H		
120	149	1.11	82	PCT	19	P3	BW1	-.83		.52	09H	VS1	.580	NPUFZ	104	H		
67	150	.22	167	PCT	8	P2	BW1	1.02			VS3	TEH	.610	NBAZ1	18	H		
115	150	1.20	120	PCT	26	P2	BW1	-.81			VS3	TEH	.610	NBAZ1	20	H		
115	150	.35	144	PCT	12	P2	VS3	-.60			VS3	TEH	.610	NBAZ1	20	H		
115	150	1.87	94	PCT	27	P3	BW1	-.81		.49	09H	VS1	.580	NPUFZ	104	H		DQA
80	151	.37	46	PCT	12	P2	VS2	-1.08			VS3	TEH	.610	NBAZ1	17	H		
124	151	.28	63	PCT	10	P2	VS3	-.82			VS3	TEH	.610	NBAZ1	19	H		
56	153	.28	22	PCT	10	P2	BW1	-1.54			VS3	TEH	.610	NBAZ1	12	H		

| ROW | COL | VOLTS | DEG | IND | PER | CHN | LOCN | INCH1 | INCH2 | CRLEN | BEGT | ENDT | PDIA | PTYPE | CAL | L | UTIL1 | UTIL2 |

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2
56	153	.20	106	PCT	6	P2	BW2	-.76			VS3	TEC	.610	NBAZ1	19	C		
49	154	.31	97	PCT	11	P2	VS3	1.39			VS3	TEH	.610	NBAZ1	11	H		
59	154	.21	128	PCT	8	P2	VS3	.48			VS3	TEH	.610	NBAZ1	18	H		
41	156	.14	60	PCT	5	P2	BW1	.87			VS3	TEH	.610	NBAZ1	12	H		
56	157	.29	114	PCT	9	P2	BW2	-1.61			VS3	TEC	.610	NBAZ1	19	C		
120	157	.42	135	PCT	13	P2	VS3	-.87			VS3	TEH	.610	NBAZ1	20	H		
49	158	.19	135	PCT	7	P2	VS3	1.01			VS3	TEH	.610	NBAZ1	11	H		
113	158	.16	68	PCT	6	P2	VS5	.89			VS3	TEC	.610	NBAZ1	32	C		
120	159	.32	79	PCT	11	P2	VS2	-1.16			VS3	TEH	.610	NBAZ1	19	H		
75	162	.15	54	PCT	5	P2	09C	-1.09			VS3	TEC	.610	NBAZ1	22	C		
109	162	.18	107	PCT	7	P2	10C	.88			VS3	TEC	.610	NBAZ1	32	C		
45	164	.23	92	PCT	8	P2	VS3	.89			VS3	TEH	.610	NBAZ1	13	H		
49	164	.22	76	PCT	7	P2	09C	-.92			VS3	TEC	.610	NBAZ1	21	C		
61	164	.50	106	PCT	13	P2	BW2	.69			VS3	TEC	.610	NBAZ1	21	C		
73	164	.33	96	PCT	9	P2	BW2	.98			VS3	TEC	.610	NBAZ1	21	C		
84	165	.26	109	PCT	10	P2	VS3	-.25			VS3	TEH	.610	NBAZ1	16	H		
96	165	.25	160	PCT	8	P2	BW2	-.77			VS3	TEC	.610	NBAZ1	31	C		
104	165	.37	39	PCT	10	P2	BW2	.70			VS3	TEC	.610	NBAZ1	31	C		
112	165	.49	155	PCT	15	P2	BW1	-.94			VS3	TEH	.610	NBAZ1	18	H		
112	165	.88	107	PCT	16	P3	BW1	-.94		.35	09H	VS2	.580	NPUFZ	104	H		DQA
99	166	.24	121	PCT	9	P2	BW2	.69			VS3	TEC	.610	NBAZ1	30	C		
125	166	.35	151	PCT	11	P2	VS3	-.75			VS3	TEH	.610	NBAZ1	18	H		
128	167	.32	90	PCT	11	P2	VS2	.82			VS3	TEH	.610	NBAZ1	17	H		
128	167	.44	75	PCT	14	P2	VS3	.76			VS3	TEH	.610	NBAZ1	17	H		
88	169	.33	108	PCT	12	P2	BW2	-.89			VS3	TEC	.610	NBAZ1	30	C		
96	169	.24	74	PCT	9	P2	BW2	-.85			VS3	TEC	.610	NBAZ1	30	C		
116	169	.31	152	PCT	11	P2	VS2	-1.14			VS3	TEH	.610	NBAZ1	18	H		
77	170	.28	79	PCT	10	P2	BW2	-.77			VS3	TEC	.610	NBAZ1	24	C		
87	170	.18	158	PCT	7	P2	BW2	.77			VS3	TEC	.610	NBAZ1	24	C		
101	170	.30	137	PCT	11	P2	BW2	.30			VS3	TEC	.610	NBAZ1	30	C		
109	170	.22	137	PCT	8	P2	10C	.83			VS3	TEC	.610	NBAZ1	28	C		
124	171	.28	61	PCT	10	P2	VS3	.87			VS3	TEH	.610	NBAZ1	17	H		
44	173	.19	69	PCT	7	P2	VS3	-.73			VS3	TEH	.610	NBAZ1	13	H		
29	174	.16	47	PCT	6	P2	08C	-.96			VS3	TEC	.610	NBAZ1	24	C		
119	174	.22	28	PCT	8	P2	VS3	.79			VS3	TEH	.610	NBAZ1	17	H		
104	177	.28	141	PCT	8	P2	10C	.74			VS3	TEC	.610	NBAZ1	27	C		
90	179	.21	128	PCT	8	P2	10H	-1.46			VS3	TEH	.610	NBAZ1	15	H		
98	179	1.01	107	PCT	24	P2	VS3	.67			VS3	TEH	.610	NBAZ1	17	H		
98	179	1.80	83	PCT	25	P3	VS3	.00		.46	VS3	VS3	.580	NPUFZ	71	C		DQA
109	180	.42	64	PCT	13	P2	VS3	-.90			VS3	TEH	.610	NBAZ1	17	H		
106	181	.70	104	PCT	19	P2	VS3	-.95			VS3	TEH	.610	NBAZ1	17	H		
106	181	1.41	87	PCT	21	P3	VS3	-.73		.26	VS3	VS3	.580	NPUFZ	71	C		
8	189	.40	140	PCT	13	P2	BW2	.87			VS3	TEC	.610	NBAZ1	60	C		
43	200	.24	82	PCT	7	P2	03C	-.05			VS3	TEC	.610	NBAZ1	25	C		
ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2

Tubes: 508 Records: 766

APPENDIX D

PLI & PLP

DATA SHEETS

INSPDATE	ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2
	86	15	1.28	84	PLP		8	01C	1.00			01C	01C	.600	NPAHZ	64	C	HR	
	87	16	1.26	82	PLP		8	01C	1.00			01C	01C	.600	NPAHZ	64	C	HR	
	38	79	1.83	87	PLP		8	TSH	6.00			TSH	01H	.600	NPAHZ	117	H	HR	DQA
	39	80	1.25	81	PLP		8	TSH	6.21			TSH	01H	.600	NPAHZ	117	H	HR	DQA
	157	142	.97	68	PLP		8	07H	27.68			07H	08H	.600	NPAHZ	117	H	HR	DQA
	143	150	.30	73	PLP		8	02C	18.00			02C	03C	.600	NPAHZ	64	C	HR	
	143	150	.23	82	PLP		8	02C	19.00			02C	03C	.600	NPAHZ	64	C	HR	
	142	151	.23	70	PLP		8	02C	19.00			02C	03C	.600	NPAHZ	64	C	HR	
	144	151	.16	78	PLP		8	02C	19.00			02C	03C	.600	NPAHZ	64	C	HR	
	143	152	.39	68	PLP		8	02C	19.00			02C	03C	.600	NPAHZ	64	C	HR	
	145	152	.35	66	PLP		8	02C	19.00			02C	03C	.600	NPAHZ	64	C	HR	
	144	153	.92	66	PLP		8	02C	19.00			02C	03C	.600	NPAHZ	64	C	HR	
	146	153	.70	65	PLP		8	02C	19.00			02C	03C	.600	NPAHZ	64	C	HR	
	145	154	.81	71	PLP		8	02C	19.00			02C	03C	.600	NPAHZ	64	C	HR	
	144	155	.33	70	PLP		8	08C	25.00			08C	09C	.600	NPAHZ	64	C	HR	
	144	155	.32	66	PLP		8	02C	10.00			02C	03C	.600	NPAHZ	64	C	HR	
	143	156	.11	59	PLP		8	02C	20.00			02C	03C	.600	NPAHZ	64	C	HR	
	145	156	.33	67	PLP		8	02C	17.00			02C	03C	.600	NPAHZ	64	C	HR	
INSPDATE	ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2

INSPDATE	ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2
	17	62	2.36	86	PLP		8	TSH	1.77			TSH	TSH	.600	NPAHZ	92	H	HR	
	17	62	2.25	85	PLP		8	TSH	2.08			TSH	TSH	.600	NPAHZ	103	H	HR	
	19	62	2.36	86	PLP		8	TSH	1.81			TSH	TSH	.600	NPAHZ	92	H	HR	
	19	62	1.52	84	PLP		8	TSH	1.98			TSH	TSH	.600	NPAHZ	103	H	HR	
	53	104	2.03	82	PLP		8	FDP	.56			FDP	FDP	.600	NPAHZ	70	C	HR	
	52	105	1.62	83	PLP		8	FDP	.67			FDP	FDP	.600	NPAHZ	70	C	HR	
	34	125	2.45	91	PLP		8	FDP	.51			FDP	FDP	.600	NPAHZ	70	C	HR	
	36	125	2.33	91	PLP		8	FDP	.53			FDP	FDP	.600	NPAHZ	70	C	HR	
	35	126	.82	86	PLP		8	FDP	.55			FDP	FDP	.600	NPAHZ	70	C	HR	
	8	199	2.11	80	PLP		8	02C	.21			02C	02C	.600	NPAHZ	70	C	HR	
	7	200	2.32	85	PLP		8	02C	.02			02C	02C	.600	NPAHZ	70	C	HR	

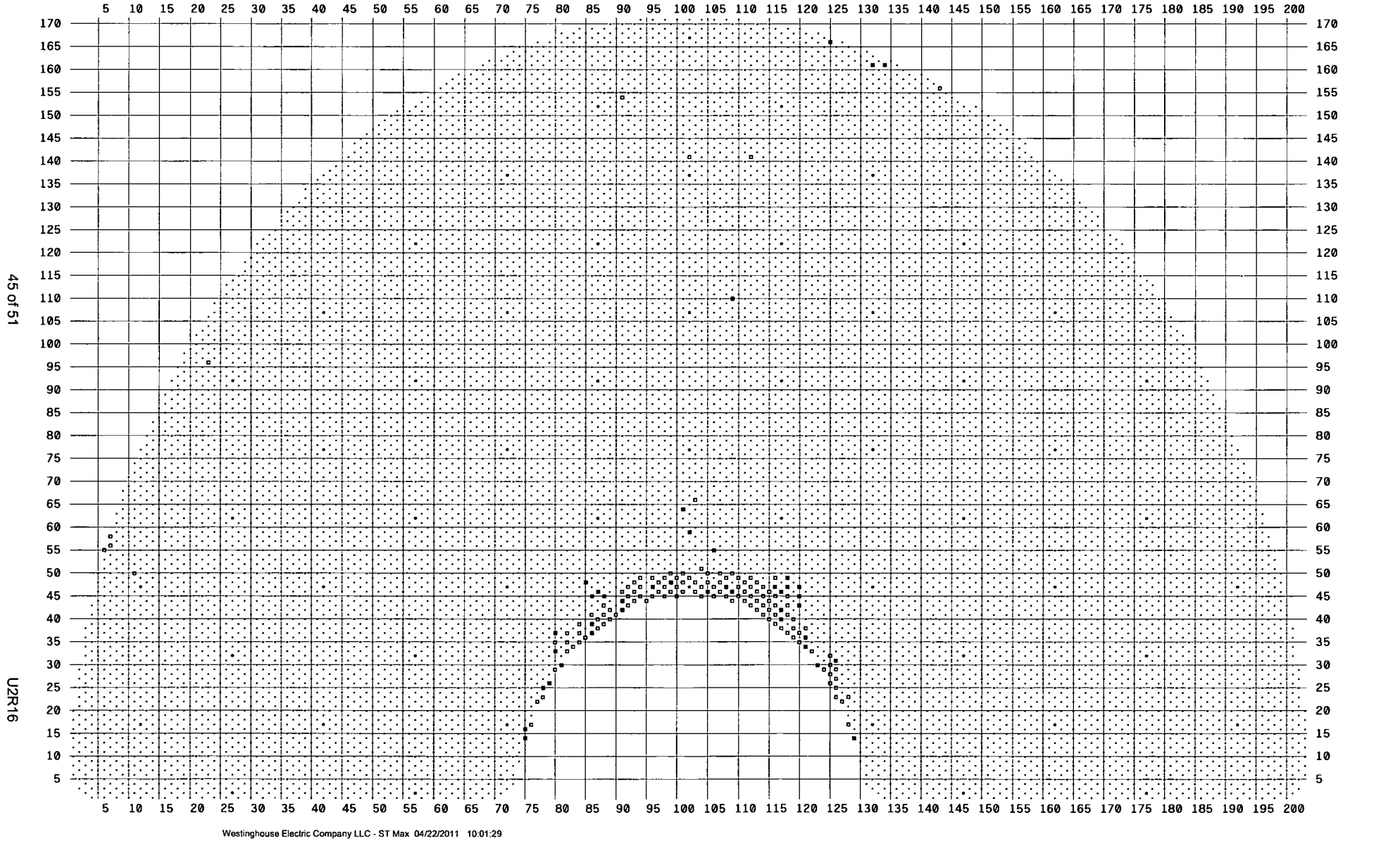
INSPDATE	ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2

APPENDIX E

PLUG MAP and LIST

SG - 21 Tubes Plugged in U2R16

Palo Verde U2R16 PVNGS2 2RSG



ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2
14	75			TBP							VS3	TEH	.610	NBAZ1	1	H		
16	75			TBP							VS3	TEC	.610	NBAZ1	63	C		
25	78			TBP							VS3	TEH	.610	NBAZ1	116	H		
26	79			TBP							VS3	TEH	.610	NBAZ1	1	H		
33	80			TBP							VS3	TEH	.610	NBAZ1	116	H		
37	80			TBP							VS3	TEC	.610	NBAZ1	63	C		
30	81			TBP							VS3	TEH	.610	NBAZ1	4	H		
48	85			TBP							VS3	TEH	.610	NBAZ1	4	H		
37	86			TBP							VS3	TEH	.610	NBAZ1	2	H		
39	86			TBP							VS3	TEH	.610	NBAZ1	116	H		
45	86			TBP							VS3	TEH	.610	NBAZ1	116	H		
46	87			TBP							VS3	TEH	.610	NBAZ1	116	H		
45	88			TBP							VS3	TEH	.610	NBAZ1	116	H		
42	91			TBP							VS3	TEH	.610	NBAZ1	4	H		
44	91			TBP							VS3	TEH	.610	NBAZ1	116	H		
47	96			TBP							VS3	TEC	.610	NBAZ1	13	C		
48	99			TBP							VS3	TEH	.610	NBAZ1	116	H		
64	101			TBP							VS3	TEH	.610	NBAZ1	116	H		
59	102			TBP							VS3	TEH	.610	NBAZ1	13	H		
46	105			TBP							VS3	TEH	.610	NBAZ1	116	H		
55	106			TBP							VS3	TEH	.610	NBAZ1	116	H		
47	108			TBP							VS3	TEC	.610	NBAZ1	63	C		
46	109			TBP							VS3	TEH	.610	NBAZ1	116	H		
110	109			TBP							VS3	TEH	.610	NBAZ1	122	H		
47	116			TBP							VS3	TEH	.610	NBAZ1	116	H		
40	117			TBP							VS3	TEC	.610	NBAZ1	63	C		
42	117			TBP							VS3	TEH	.610	NBAZ1	116	H		
46	117			TBP							VS3	TEH	.610	NBAZ1	116	H		
47	118			TBP							VS3	TEH	.610	NBAZ1	116	H		
49	118			TBP							VS3	TEH	.610	NBAZ1	116	H		
43	120			TBP							VS3	TEH	.610	NBAZ1	116	H		
45	120			TBP							VS3	TEH	.610	NBAZ1	116	H		
47	120			TBP							VS3	TEH	.610	NBAZ1	116	H		
34	121			TBP							VS3	TEH	.610	NBAZ1	5	H		
36	121			TBP							VS3	TEH	.610	NBAZ1	5	H		
30	123			TBP							VS3	TEH	.610	NBAZ1	116	H		
166	125			TBP							VS4	TEC	.610	NBAZ1	63	C		
31	126			TBP							VS3	TEH	.610	NBAZ1	116	H		
14	129			TBP							VS3	TEH	.610	NBAZ1	5	H		
161	132			TBP							VS3	TEC	.610	NBAZ1	63	C		
161	134			TBP							VS3	TEC	.610	NBAZ1	75	C		
ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2

Tubes: 41 Records: 41

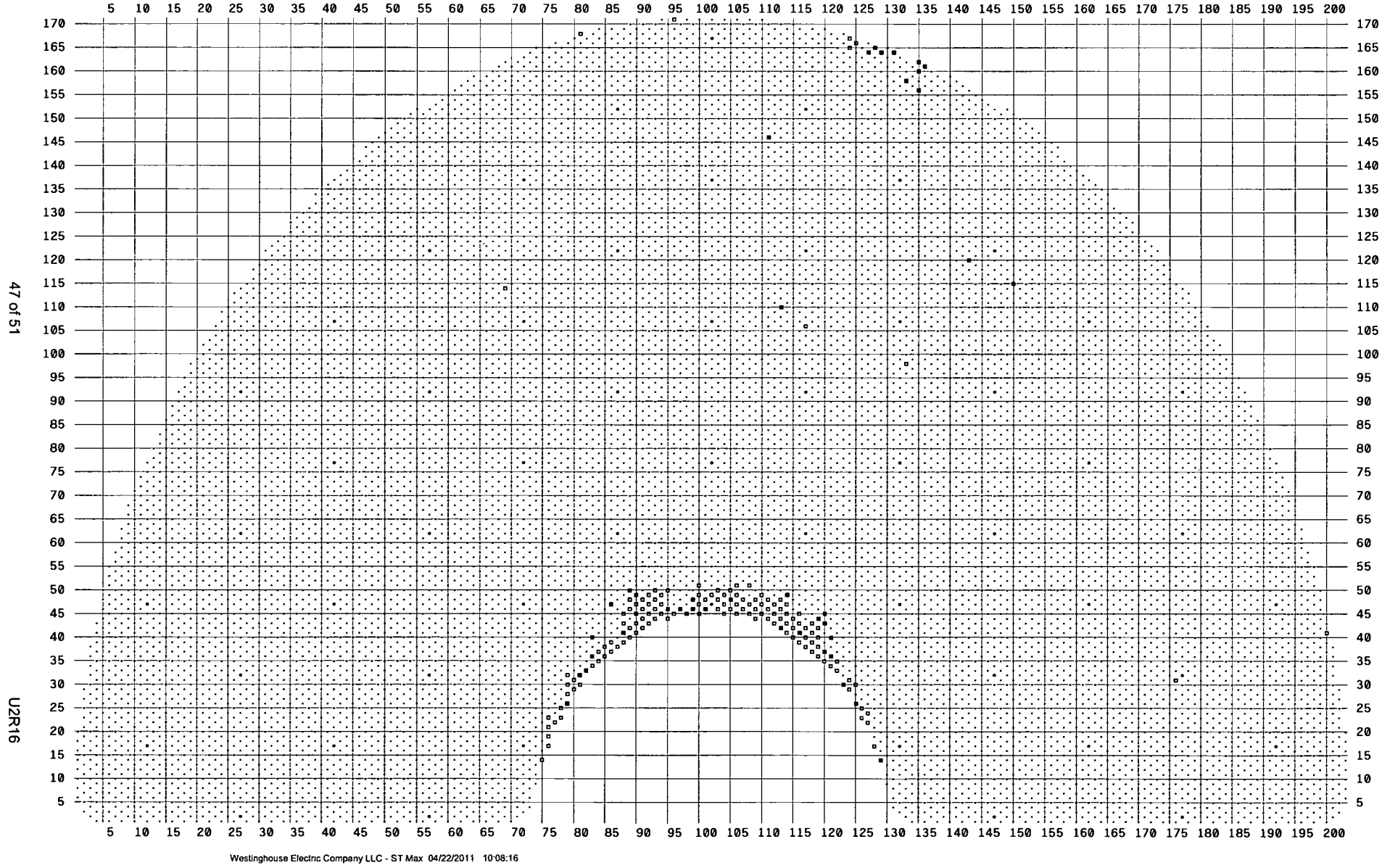
SG - 22 Tubes Plugged in U2R16

Palo Verde U2R16 PVNGS2 2RSG

* 53 Stay Rod

▫ 131 Plugged Tube

■ 42 Tube Plugged in U2R16



ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	UTIL1	UTIL2
26	79			TBP							VS3	TEH	.610	NBAZ1	2	H		
32	81			TBP							VS3	TEC	.610	NBAZ1	69	C		
33	82			TBP							VS3	TEH	.610	NBAZ1	2	H		
36	83			TBP							VS3	TEC	.610	NBAZ1	69	C		
40	83			TBP							VS3	TEH	.610	NBAZ1	80	H		
47	86			TBP							VS3	TEH	.610	NBAZ1	80	H		
41	88			TBP							VS3	TEH	.610	NBAZ1	80	H		
50	89			TBP							VS3	TEH	.610	NBAZ1	80	H		
49	90			TBP							VS3	TEH	.610	NBAZ1	80	H		
46	95			TBP							VS3	TEH	.610	NBAZ1	80	H		
46	97			TBP							VS3	TEH	.610	NBAZ1	80	H		
45	98			TBP							VS3	TEC	.610	NBAZ1	3	C		
46	99			TBP							VS3	TEC	.610	NBAZ1	3	C		
48	99			TBP							VS3	TEH	.610	NBAZ1	80	H		
45	100			TBP							VS3	TEH	.610	NBAZ1	3	H		
46	101			TBP							VS3	TEH	.610	NBAZ1	3	H		
48	105			TBP							VS3	TEC	.610	NBAZ1	69	C		
146	111			TBP							VS3	TEH	.610	NBAZ1	80	H		
42	113			TBP							VS3	TEC	.610	NBAZ1	69	C		
110	113			TBP							VS3	TEC	.610	NBAZ1	75	C		
49	114			TBP							VS3	TEC	.610	NBAZ1	69	C		
41	116			TBP							VS3	TEH	.610	NBAZ1	80	H		
44	119			TBP							VS3	TEH	.610	NBAZ1	80	H		
37	120			TBP							VS3	TEH	.610	NBAZ1	80	H		
43	120			TBP							VS3	TEH	.610	NBAZ1	80	H		
45	120			TBP							VS3	TEH	.610	NBAZ1	80	H		
36	121			TBP							VS3	TEH	.610	NBAZ1	80	H		
40	121			TBP							VS3	TEH	.610	NBAZ1	80	H		
30	123			TBP							VS3	TEH	.610	NBAZ1	3	H		
26	125			TBP							VS3	TEH	.610	NBAZ1	4	H		
164	127			TBP							VS3	TEC	.610	NBAZ1	69	C		
165	128			TBP							VS3	TEC	.610	NBAZ1	75	C		
14	129			TBP							VS3	TEH	.610	NBAZ1	4	H		
164	129			TBP							VS3	TEC	.610	NBAZ1	69	C		
164	131			TBP							VS3	TEC	.610	NBAZ1	75	C		
158	133			TBP							VS3	TEC	.610	NBAZ1	75	C		
156	135			TBP							VS3	TEC	.610	NBAZ1	75	C		
160	135			TBP							VS3	TEC	.610	NBAZ1	75	C		
162	135			TBP							VS3	TEC	.610	NBAZ1	75	C		
161	136			TBP							VS3	TEC	.610	NBAZ1	75	C		
120	143			TBP							VS3	TEH	.610	NBAZ1	108	H		
115	150			TBP							VS3	TEH	.610	NBAZ1	108	H		

| ROW | COL | VOLTS | DEG | IND | PER | CHN | LOCN | INCH1 | INCH2 | CRLEN | BEGT | ENDT | PDIA | PTYPE | CAL | L | UTIL1 | UTIL2 |

Tubes: 42 Records: 42

APPENDIX F

FORM NIS-1

APS	NIS – 1 FORM OWNERS' DATA REPORT FOR INSERVICE INSPECTIONS
1. OWNER	**ARIZONA PUBLIC SERVICE COMPANY, et al**
1a. ADDRESS	P. O. BOX 52034; PHOENIX, ARIZONA 85072
2. PLANT	PALO VERDE NUCLEAR GENERATING STATION
2a. ADDRESS	5801 SOUTH WINTERSBURG ROAD, TONOPAH, ARIZONA 85354
3. UNIT NUMBER	2
4. OWNERS CERTIFICATE OF AUTHORIZATION	NONE
5. COMMERCIAL SERVICE DATE	9-19-86
6. COMPONENTS INSPECTED:	

COMPONENT OR APPURTENANCE	MANUFACTURER OR INSTALLER	SERIAL NUMBER	STATE OR PROVINCE	NATIONAL BOARD NO
2MRCEE01A STEAM GENERATOR 21	Ansaldo	212	NA	161
2MRCEE01B STEAM GENERATOR 22	Ansaldo	211	NA	160

APS	NIS – 1 BACK OWNERS' DATA REPORT FOR INSERVICE INSPECTIONS

7. EXAM DATES	**April 2011**
8. INSPECTION INTERVAL	**3-18-07 to 3-17-17**

9. ABSTRACT OF EXAMINATIONS. INCLUDE A LIST OF EXAMINATIONS AND A STATEMENT CONCERNING STATUS OF WORK REQUIRED FOR CURRENT INTERVAL.

Table 1 in the report summary section documents the number and type of each examination performed. No . A summary of the tubes with indications of degradation is listed in Appendix B and C of this report for SG 21 and 22 respectively. The tubes identified below were plugged as a result of this examination. Appendix E provides a map and tube list for the tubes plugged. The number of tubes plugged are as follows:

SG 21 = 41 tubes SG 22 = 42 tubes

WE CERTIFY THAT THE STATEMENTS MADE IN THIS REPORT ARE CORRECT AND THE EXAMINATIONS AND CORRECTIVE MEASURES TAKEN CONFORM TO THE RULES OF THE ASME CODE, SECTION XI.

DATE 8-17-11 SIGNED: ARIZONA PUBLIC SERVICE COMPANY BY _____

CERTIFICATE OF INSERVICE INSPECTION

I, THE UNDERSIGNED, HOLDING A VALID COMMISSION ISSUED BY THE NATIONAL BOARD OF BOILER AND PRESSURE VESSEL INSPECTORS AND THE STATE OF PROVINCE OF ARIZONA EMPLOYED BY HSB CT OF HARTFORD, CONNECTICUT HAVE INSPECTED THE COMPONENTS DESCRIBED IN THIS OWNERS REPORT DURING THE PERIOD April 2011 TO 8-17-11, AND STATE THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE OWNER HAS PERFORMED EXAMINATIONS AND TAKEN CORRECTIVE MEASURES DESCRIBED IN THIS OWNERS REPORT IN ACCORDANCE WITH THE REQUIREMENTS OF THE ASME CODE, SECTION XI. BY SIGNING THIS CERTIFICATE NEITHER THE INSPECTOR NOR HIS EMPLOYER MAKES ANY WARRANTY, EXPRESSED OR IMPLIED, CONCERNING THE EXAMINATIONS AND CORRECTIVE MEASURES DESCRIBED IN THIS OWNERS REPORT. FURTHERMORE, NEITHER THE INSPECTOR NOR HIS EMPLOYER SHALL BE LIABLE IN ANY MANNER FOR ANY PERSONAL INJURY OR PROPERTY DAMAGE OR A LOSS OF ANY KIND ARISING FROM OR CONNECTED WITH THIS INSPECTION.

INSPECTOR RB Hyton COMMISSIONS NB 9685 "A,N,I,C" Az 264
NATL' BOARD, STATE, PROVINCE

DATE 8-17-11