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October 30, 2015

Darrell Nitschke  
Director of Administration/Executive Secretary  
North Dakota Public Service Commission  
State Capitol  
600 East Boulevard, Dept. 408  
Bismarck, ND 58505-0408

**RE: Otter Tail Power Company's 2015 Sample Meter Test Performance Report**

Dear Mr. Nitschke:

Pursuant to North Dakota Rule 69-09-02-28(3), enclosed as Attachment 1 are the results from the 2015 single-phase kWh sample meter test program for Otter Tail Power Company (Otter Tail). There were six groups of meters selected for the 2015 sample test. Criteria for selecting the groups were based on the time period the meters were purchased, manufacturer and model of meters. The meters were grouped as follows:

1. GE Solid State Meters
2. Itron solid State Meters
3. GE Electromechanical Meters
4. SI Electromechanical Meters
5. LG Electromechanical Meters
6. GE Model I50S Meters

All groups had a valid statistical sample and all passed the test and are performing satisfactorily. In 2013 the ABB meters manufactured from 1975 to 1982 failed the sample test. Removal of these meters will be complete by the end of the year 2018, as part of the tariff. All other meters that failed the sample test in past years have been removed from service.

Darrell Nitschke  
October 30, 2015  
Page 2

An electronic copy of this filing is being sent to you at [dnitschk@nd.gov](mailto:dnitschk@nd.gov) and to [ndpsc@nd.gov](mailto:ndpsc@nd.gov).  
These items are filed for your information. If you have any questions, please contact me at  
(218) 739-8890 or [tmortenson@otpc.com](mailto:tmortenson@otpc.com)

Sincerely,

*/s/ TAMMY MORTENSON*  
Tammy Mortenson  
Load Researcher, Regulatory Administration

wao  
Enclosures  
By electronic filing



**OTTER TAIL POWER CO.**  
**SAMPLE TEST METER CALCULATION FORM**  
**METERS IN SERVICE AT OTTER TAIL POWER CO.**

8/5/2015

REFERENCE - TABLES A-2, B-3, B-4, B-5, AND EXAMPLE B-3 OF MIL-STD-414.

**TYPE OF METERS IN THIS SAMPLE:** **2015 Sample #1 = GE, I210 and I210+ meters**

LOT SIZE **14048**                      SAMPLE SIZE n= **130**                      AQL **2.5**

**FL BAR X** **99.990**                      **FL SIGMA** **0.080**  
**LL BAR X** **99.984**                      **LL SIGMA** **0.081**

ESTIMATE OF LOT ABOVE 102.0%

					Table B5 Calculations							
FL QU = $\frac{102 - FL\ BAR\ X}{FL\ SIGMA}$	$\frac{102 - 99.99}{0.08}$	=	$\frac{2.010}{0.080}$	=	<b>25.13</b>	<table border="1"> <tr><td>QU=</td><td>25.13</td></tr> <tr><td>n=</td><td>130</td></tr> <tr><td>P=</td><td><b>0.00000</b></td></tr> </table>	QU=	25.13	n=	130	P=	<b>0.00000</b>
QU=	25.13											
n=	130											
P=	<b>0.00000</b>											
LL QU = $\frac{102 - LL\ BAR\ X}{LL\ SIGMA}$	$\frac{102 - 99.984}{0.081}$	=	$\frac{2.016}{0.081}$	=	<b>24.89</b>	<table border="1"> <tr><td>QU=</td><td>24.89</td></tr> <tr><td>n=</td><td>130</td></tr> <tr><td>P=</td><td><b>0.00000</b></td></tr> </table>	QU=	24.89	n=	130	P=	<b>0.00000</b>
QU=	24.89											
n=	130											
P=	<b>0.00000</b>											
From Table B-5 =		<b>0.000</b>	% PU FL above 102.0%									
Calculations		<b>0.000</b>	% PU LL above 102.0 %									

ESTIMATE OF LOT BELOW 98.0%

					Table B5 Calculations							
FL QL = $\frac{FL\ BAR\ X - 98}{FL\ SIGMA}$	$\frac{99.99 - 98}{0.08}$	=	$\frac{1.990}{0.080}$	=	<b>24.87</b>	<table border="1"> <tr><td>QL=</td><td>24.87</td></tr> <tr><td>n=</td><td>130</td></tr> <tr><td>P=</td><td><b>0.00000</b></td></tr> </table>	QL=	24.87	n=	130	P=	<b>0.00000</b>
QL=	24.87											
n=	130											
P=	<b>0.00000</b>											
LL QL = $\frac{LL\ BAR\ X - 98}{LL\ SIGMA}$	$\frac{99.984 - 98}{0.081}$	=	$\frac{1.984}{0.081}$	=	<b>24.49</b>	<table border="1"> <tr><td>QL=</td><td>24.49</td></tr> <tr><td>n=</td><td>130</td></tr> <tr><td>P=</td><td><b>0.00000</b></td></tr> </table>	QL=	24.49	n=	130	P=	<b>0.00000</b>
QL=	24.49											
n=	130											
P=	<b>0.00000</b>											
From table B-5 =		<b>0.000</b>	% PL FL below 98.0 %									
Calculations		<b>0.000</b>	% PL LL below 98.0 %									

TOTAL PERCENT DEFECTIVE

Full Load P = PU FL + PL FL                      0.000                      +                      0.000                      =                      **0.000**  
Light Load P = PU LL + PL LL                      0.000                      +                      0.000                      =                      **0.000**  
ALLOWABLE PERCENT DEFECTIVE: TABLE B-3                      **4.87**

OUTLIERS

UFL = FL BAR X + (4 x FL Sigma)                      99.990 + 0.32                      UFL = **100.310**  
LFL = FL BAR X - (4 x FL Sigma)                      99.990 - 0.32                      LFL = **99.670**  
ULL = LL BAR X + (4 x LL Sigma)                      99.984 + 0.324                      ULL = **100.308**  
LLL = LL BAR X - (4 x LL Sigma)                      99.984 - 0.324                      LLL = **99.660**

Lot is acceptable                        X                        Lot is unacceptable                      \_\_\_\_\_

Tested & Reported by: Steve Ness                      Approved: \_\_\_\_\_



**OTTER TAIL POWER CO.**  
**SAMPLE TEST METER CALCULATION FORM**  
**METERS IN SERVICE AT OTTER TAIL POWER CO.**

8/5/2015

REFERENCE - TABLES A-2, B-3, B-4, B-5, AND EXAMPLE B-3 OF MIL-STD-414.

**TYPE OF METERS IN THIS SAMPLE: 2015 Sample #2 = Itron and Schlumberger, model C1S meters**

LOT SIZE **26163**                      SAMPLE SIZE n= **128**                      AQL **2.5**

**FL BAR X 100.003**                      **FL SIGMA 0.152**

**LL BAR X 99.889**                      **LL SIGMA 0.128**

ESTIMATE OF LOT ABOVE 102.0%

					Table B5 Calculations							
FL QU = $\frac{102 - FL\ BAR\ X}{FL\ SIGMA}$	$\frac{102 - 100.003}{0.152}$	=	$\frac{1.997}{0.152}$	=	<b>13.14</b>	<table border="1" style="border-collapse: collapse; width: 100px;"> <tr><td>QU=</td><td>13.14</td></tr> <tr><td>n=</td><td>128</td></tr> <tr><td>P=</td><td><b>0.00000</b></td></tr> </table>	QU=	13.14	n=	128	P=	<b>0.00000</b>
QU=	13.14											
n=	128											
P=	<b>0.00000</b>											
LL QU = $\frac{102 - LL\ BAR\ X}{LL\ SIGMA}$	$\frac{102 - 99.889}{0.128}$	=	$\frac{2.111}{0.128}$	=	<b>16.49</b>	<table border="1" style="border-collapse: collapse; width: 100px;"> <tr><td>QU=</td><td>16.49</td></tr> <tr><td>n=</td><td>128</td></tr> <tr><td>P=</td><td><b>0.00000</b></td></tr> </table>	QU=	16.49	n=	128	P=	<b>0.00000</b>
QU=	16.49											
n=	128											
P=	<b>0.00000</b>											
From Table B-5 =		<b>0.000</b>	% PU FL above 102.0%									
Calculations		<b>0.000</b>	% PU LL above 102.0 %									

ESTIMATE OF LOT BELOW 98.0%

					Table B5 Calculations							
FL QL = $\frac{FL\ BAR\ X - 98}{FL\ SIGMA}$	$\frac{100.003 - 98}{0.152}$	=	$\frac{2.003}{0.152}$	=	<b>13.18</b>	<table border="1" style="border-collapse: collapse; width: 100px;"> <tr><td>QL=</td><td>13.18</td></tr> <tr><td>n=</td><td>128</td></tr> <tr><td>P=</td><td><b>0.00000</b></td></tr> </table>	QL=	13.18	n=	128	P=	<b>0.00000</b>
QL=	13.18											
n=	128											
P=	<b>0.00000</b>											
LL QL = $\frac{LL\ BAR\ X - 98}{LL\ SIGMA}$	$\frac{99.889 - 98}{0.128}$	=	$\frac{1.889}{0.128}$	=	<b>14.76</b>	<table border="1" style="border-collapse: collapse; width: 100px;"> <tr><td>QL=</td><td>14.76</td></tr> <tr><td>n=</td><td>128</td></tr> <tr><td>P=</td><td><b>0.00000</b></td></tr> </table>	QL=	14.76	n=	128	P=	<b>0.00000</b>
QL=	14.76											
n=	128											
P=	<b>0.00000</b>											
From table B-5 =		<b>0.000</b>	% PL FL below 98.0 %									
Calculations		<b>0.000</b>	% PL LL below 98.0 %									

TOTAL PERCENT DEFECTIVE

Full Load P = PU FL + PL FL                      0.000                      +                      0.000                      =                      **0.000**

Light Load P = PU LL + PL LL                      0.000                      +                      0.000                      =                      **0.000**

ALLOWABLE PERCENT DEFECTIVE: TABLE B-3                      **4.69**

OUTLIERS

UFL = FL BAR X + (4 x FL Sigma)                      100.003 + 0.608                      UFL = **100.611**

LFL = FL BAR X - (4 x FL Sigma)                      100.003 - 0.608                      LFL = **99.395**

ULL = LL BAR X + (4 x LL Sigma)                      99.889 + 0.512                      ULL = **100.401**

LLL = LL BAR X - (4 x LL Sigma)                      99.889 - 0.512                      LLL = **99.377**

Lot is acceptable                      **X**                      Lot is unacceptable                      \_\_\_\_\_

Tested & Reported by: Steve Ness                      Approved: \_\_\_\_\_



**OTTER TAIL POWER CO.**  
**SAMPLE TEST METER CALCULATION FORM**  
**METERS IN SERVICE AT OTTER TAIL POWER CO.**

8/5/2015

REFERENCE - TABLES A-2, B-3, B-4, B-5, AND EXAMPLE B-3 OF MIL-STD-414.

TYPE OF METERS IN THIS SAMPLE: **2015 Sample #3 =GE, model I70S meters**

LOT SIZE **30200**                      SAMPLE SIZE n= **129**                      AQL **2.5**

**FL BAR X 99.979**                      **FL SIGMA 0.245**

**LL BAR X 99.653**                      **LL SIGMA 0.493**

ESTIMATE OF LOT ABOVE 102.0%

					Table B5 Calculations							
FL QU = $\frac{102 - FL\ BAR\ X}{FL\ SIGMA}$	$\frac{102 - 99.979}{0.245}$	=	$\frac{2.021}{0.245}$	=	<b>8.25</b>	<table border="1" style="border-collapse: collapse;"> <tr><td>QU=</td><td>8.25</td></tr> <tr><td>n=</td><td>129</td></tr> <tr><td>P=</td><td><b>0.00000</b></td></tr> </table>	QU=	8.25	n=	129	P=	<b>0.00000</b>
QU=	8.25											
n=	129											
P=	<b>0.00000</b>											
LL QU = $\frac{102 - LL\ BAR\ X}{LL\ SIGMA}$	$\frac{102 - 99.653}{0.493}$	=	$\frac{2.347}{0.493}$	=	<b>4.76</b>	<table border="1" style="border-collapse: collapse;"> <tr><td>QU=</td><td>4.76</td></tr> <tr><td>n=</td><td>129</td></tr> <tr><td>P=</td><td><b>0.00000</b></td></tr> </table>	QU=	4.76	n=	129	P=	<b>0.00000</b>
QU=	4.76											
n=	129											
P=	<b>0.00000</b>											
From Table B-5 =		<b>0.000</b>	% PU FL above 102.0%									
Calculations		<b>0.000</b>	% PU LL above 102.0 %									

ESTIMATE OF LOT BELOW 98.0%

					Table B5 Calculations							
FL QL = $\frac{FL\ BAR\ X - 98}{FL\ SIGMA}$	$\frac{99.979 - 98}{0.245}$	=	$\frac{1.979}{0.245}$	=	<b>8.08</b>	<table border="1" style="border-collapse: collapse;"> <tr><td>QL=</td><td>8.08</td></tr> <tr><td>n=</td><td>129</td></tr> <tr><td>P=</td><td><b>0.00000</b></td></tr> </table>	QL=	8.08	n=	129	P=	<b>0.00000</b>
QL=	8.08											
n=	129											
P=	<b>0.00000</b>											
LL QL = $\frac{LL\ BAR\ X - 98}{LL\ SIGMA}$	$\frac{99.653 - 98}{0.493}$	=	$\frac{1.653}{0.493}$	=	<b>3.35</b>	<table border="1" style="border-collapse: collapse;"> <tr><td>QL=</td><td>3.35</td></tr> <tr><td>n=</td><td>129</td></tr> <tr><td>P=</td><td><b>0.00000</b></td></tr> </table>	QL=	3.35	n=	129	P=	<b>0.00000</b>
QL=	3.35											
n=	129											
P=	<b>0.00000</b>											
From table B-5 =		<b>0.000</b>	% PL FL below 98.0 %									
Calculations		<b>0.032</b>	% PL LL below 98.0 %									

TOTAL PERCENT DEFECTIVE

Full Load P = PU FL + PL FL                      0.000                      +                      0.000                      =                      **0.000**

Light Load P = PU LL + PL LL                      0.000                      +                      0.032                      =                      **0.032**

ALLOWABLE PERCENT DEFECTIVE: TABLE B-3                      **4.69**

OUTLIERS

UFL = FL BAR X + (4 x FL Sigma)                      99.979 + 0.98                      UFL = **100.959**

LFL = FL BAR X - (4 x FL Sigma)                      99.979 - 0.98                      LFL = **98.999**

ULL = LL BAR X + (4 x LL Sigma)                      99.653 + 1.972                      ULL = **101.625**

LLL = LL BAR X - (4 x LL Sigma)                      99.653 - 1.972                      LLL = **97.681**

Lot is acceptable                      **X**                      Lot is unacceptable                      \_\_\_\_\_

Tested & Reported by: Steve Ness                      Approved: \_\_\_\_\_



**OTTER TAIL POWER CO.**  
**SAMPLE TEST METER CALCULATION FORM**  
**METERS IN SERVICE AT OTTER TAIL POWER CO.**

8/5/2015

REFERENCE - TABLES A-2, B-3, B-4, B-5, AND EXAMPLE B-3 OF MIL-STD-414.

**TYPE OF METERS IN THIS SAMPLE: 2015 Sample #4 =Schlumberger, model J4S and J5S meters outliers removed**

32766 **32766**

SAMPLE SIZE n= **128**

AQL **2.5**

**FL BAR X 99.940**

**FL SIGMA 0.540**

**LL BAR X 99.927**

**LL SIGMA 0.869**

ESTIMATE OF LOT ABOVE 102.0%

$$FL\ QU = \frac{102 - FL\ BAR\ X}{FL\ SIGMA} = \frac{102 - 99.94}{0.54} = \frac{2.060}{0.54} = \underline{\underline{3.81}}$$

Table B5 Calculations

QU=	3.81
n=	128
P=	<b>0.00005</b>

$$LL\ QU = \frac{102 - LL\ BAR\ X}{LL\ SIGMA} = \frac{102 - 99.927}{0.869} = \frac{2.073}{0.869} = \underline{\underline{2.39}}$$

QU=	2.39
n=	128
P=	<b>0.00799</b>

From Table B-5 = **0.005** % PU FL above 102.0%  
 Calculations

**0.799** % PU LL above 102.0 %

ESTIMATE OF LOT BELOW 98.0%

$$FL\ QL = \frac{FL\ BAR\ X - 98}{FL\ SIGMA} = \frac{99.94 - 98}{0.54} = \frac{1.940}{0.54} = \underline{\underline{3.59}}$$

Table B5 Calculations

QL=	3.59
n=	128
P=	<b>0.00012</b>

$$LL\ QL = \frac{LL\ BAR\ X - 98}{LL\ SIGMA} = \frac{99.927 - 98}{0.869} = \frac{1.927}{0.869} = \underline{\underline{2.22}}$$

QL=	2.22
n=	128
P=	<b>0.01271</b>

From table B-5 = **0.012** % PL FL below 98.0 %  
 Calculations

**1.271** % PL LL below 98.0 %

TOTAL PERCENT DEFECTIVE

Full Load P = PU FL + PL FL      0.005      +      0.012      =      **0.017**

Light Load P = PU LL + PL LL      0.799      +      1.271      =      **2.070**

ALLOWABLE PERCENT DEFECTIVE: TABLE B-3      **4.69**

OUTLIERS

UFL = FL BAR X + (4 x FL Sigma)      99.940 + 2.16      UFL = **102.100**

LFL = FL BAR X - (4 x FL Sigma)      99.940 - 2.16      LFL = **97.780**

ULL = LL BAR X + (4 x LL Sigma)      99.927 + 3.476      ULL = **103.403**

LLL = LL BAR X - (4 x LL Sigma)      99.927 - 3.476      LLL = **96.451**

Lot is acceptable      **X**      Lot is unacceptable      \_\_\_\_\_

Tested & Reported by: Steve Ness      Approved: \_\_\_\_\_



**OTTER TAIL POWER CO.**  
**SAMPLE TEST METER CALCULATION FORM**  
**METERS IN SERVICE AT OTTER TAIL POWER CO.**

8/5/2015

REFERENCE - TABLES A-2, B-3, B-4, B-5, AND EXAMPLE B-3 OF MIL-STD-414.

TYPE OF METERS IN THIS SAMPLE: **2015 Sample #5 = L&G, model MS and MX meters, outliers removed**

LOT SIZE **17549**                      SAMPLE SIZE n= **126**                      AQL **2.5**

**FL BAR X 99.930**                      **FL SIGMA 0.333**

**LL BAR X 99.423**                      **LL SIGMA 0.808**

ESTIMATE OF LOT ABOVE 102.0%

					Table B5 Calculations							
FL QU = $\frac{102 - FL\ BAR\ X}{FL\ SIGMA}$	$\frac{102 - 99.93}{0.333}$	=	$\frac{2.070}{0.333}$	=	<b>6.22</b>	<table border="1" style="border-collapse: collapse;"> <tr><td>QU=</td><td>6.22</td></tr> <tr><td>n=</td><td>126</td></tr> <tr><td>P=</td><td><b>0.00000</b></td></tr> </table>	QU=	6.22	n=	126	P=	<b>0.00000</b>
QU=	6.22											
n=	126											
P=	<b>0.00000</b>											
LL QU = $\frac{102 - LL\ BAR\ X}{LL\ SIGMA}$	$\frac{102 - 99.423}{0.808}$	=	$\frac{2.577}{0.808}$	=	<b>3.19</b>	<table border="1" style="border-collapse: collapse;"> <tr><td>QU=</td><td>3.19</td></tr> <tr><td>n=</td><td>126</td></tr> <tr><td>P=</td><td><b>0.00059</b></td></tr> </table>	QU=	3.19	n=	126	P=	<b>0.00059</b>
QU=	3.19											
n=	126											
P=	<b>0.00059</b>											
From Table B-5 =		<b>0.000</b>	% PU FL above 102.0%									
Calculations												
		<b>0.059</b>	% PU LL above 102.0 %									

ESTIMATE OF LOT BELOW 98.0%

					Table B5 Calculations							
FL QL = $\frac{FL\ BAR\ X - 98}{FL\ SIGMA}$	$\frac{99.93 - 98}{0.333}$	=	$\frac{1.930}{0.333}$	=	<b>5.80</b>	<table border="1" style="border-collapse: collapse;"> <tr><td>QL=</td><td>5.80</td></tr> <tr><td>n=</td><td>126</td></tr> <tr><td>P=</td><td><b>0.00000</b></td></tr> </table>	QL=	5.80	n=	126	P=	<b>0.00000</b>
QL=	5.80											
n=	126											
P=	<b>0.00000</b>											
LL QL = $\frac{LL\ BAR\ X - 98}{LL\ SIGMA}$	$\frac{99.423 - 98}{0.808}$	=	$\frac{1.423}{0.808}$	=	<b>1.76</b>	<table border="1" style="border-collapse: collapse;"> <tr><td>QL=</td><td>1.76</td></tr> <tr><td>n=</td><td>126</td></tr> <tr><td>P=</td><td><b>0.03870</b></td></tr> </table>	QL=	1.76	n=	126	P=	<b>0.03870</b>
QL=	1.76											
n=	126											
P=	<b>0.03870</b>											
From table B-5 =		<b>0.000</b>	% PL FL below 98.0 %									
Calculations												
		<b>3.870</b>	% PL LL below 98.0 %									

TOTAL PERCENT DEFECTIVE

Full Load P = PU FL + PL FL	<u>0.000</u>	+	<u>0.000</u>	=	<u><b>0.000</b></u>
Light Load P = PU LL + PL LL	<u>0.059</u>	+	<u>3.870</u>	=	<u><b>3.929</b></u>
ALLOWABLE PERCENT DEFECTIVE: TABLE B-3					<b>4.87</b>

OUTLIERS

UFL = FL BAR X + (4 x FL Sigma)	99.930 + 1.332	UFL =	<u><b>101.262</b></u>
LFL = FL BAR X - (4 x FL Sigma)	99.930 - 1.332	LFL =	<u><b>98.598</b></u>
ULL = LL BAR X + (4 x LL Sigma)	99.423 + 3.232	ULL =	<u><b>102.655</b></u>
LLL = LL BAR X - (4 x LL Sigma)	99.423 - 3.232	LLL =	<u><b>96.191</b></u>

Lot is acceptable     **X**                          Lot is unacceptable \_\_\_\_\_

Tested & Reported by:     Steve Ness                          Approved: \_\_\_\_\_



**OTTER TAIL POWER CO.**  
**SAMPLE TEST METER CALCULATION FORM**  
**METERS IN SERVICE AT OTTER TAIL POWER CO.**

8/5/2015

REFERENCE - TABLES A-2, B-3, B-4, B-5, AND EXAMPLE B-3 OF MIL-STD-414.

TYPE OF METERS IN THIS SAMPLE: **2015 Sample #6 = GE, model I50S meters**

LOT SIZE **3205**                      SAMPLE SIZE n= **75**                      AQL **2.5**

**FL BAR X** **100.116**                      **FL SIGMA** **0.263**  
**LL BAR X** **100.037**                      **LL SIGMA** **0.518**

ESTIMATE OF LOT ABOVE 102.0%

					Table B5 Calculations							
FL QU = $\frac{102 - FL\ BAR\ X}{FL\ SIGMA}$	$\frac{102 - 100.116}{0.263}$	=	$\frac{1.884}{0.263}$	=	<b>7.16</b>	<table border="1"> <tr><td>QU=</td><td>7.16</td></tr> <tr><td>n=</td><td>75</td></tr> <tr><td>P=</td><td><b>0.00000</b></td></tr> </table>	QU=	7.16	n=	75	P=	<b>0.00000</b>
QU=	7.16											
n=	75											
P=	<b>0.00000</b>											
LL QU = $\frac{102 - LL\ BAR\ X}{LL\ SIGMA}$	$\frac{102 - 100.037}{0.518}$	=	$\frac{1.963}{0.518}$	=	<b>3.79</b>	<table border="1"> <tr><td>QU=</td><td>3.79</td></tr> <tr><td>n=</td><td>75</td></tr> <tr><td>P=</td><td><b>0.00003</b></td></tr> </table>	QU=	3.79	n=	75	P=	<b>0.00003</b>
QU=	3.79											
n=	75											
P=	<b>0.00003</b>											
From Table B-5 =		<b>0.000</b>	% PU FL above 102.0%									
Calculations		<b>0.003</b>	% PU LL above 102.0 %									

ESTIMATE OF LOT BELOW 98.0%

					Table B5 Calculations							
FL QL = $\frac{FL\ BAR\ X - 98}{FL\ SIGMA}$	$\frac{100.116 - 98}{0.263}$	=	$\frac{2.116}{0.263}$	=	<b>8.05</b>	<table border="1"> <tr><td>QL=</td><td>8.05</td></tr> <tr><td>n=</td><td>75</td></tr> <tr><td>P=</td><td><b>0.00000</b></td></tr> </table>	QL=	8.05	n=	75	P=	<b>0.00000</b>
QL=	8.05											
n=	75											
P=	<b>0.00000</b>											
LL QL = $\frac{LL\ BAR\ X - 98}{LL\ SIGMA}$	$\frac{100.037 - 98}{0.518}$	=	$\frac{2.037}{0.518}$	=	<b>3.93</b>	<table border="1"> <tr><td>QL=</td><td>3.93</td></tr> <tr><td>n=</td><td>75</td></tr> <tr><td>P=</td><td><b>0.00000</b></td></tr> </table>	QL=	3.93	n=	75	P=	<b>0.00000</b>
QL=	3.93											
n=	75											
P=	<b>0.00000</b>											
From table B-5 =		<b>0.000</b>	% PL FL below 98.0 %									
Calculations		<b>0.000</b>	% PL LL below 98.0 %									

TOTAL PERCENT DEFECTIVE

Full Load P = PU FL + PL FL                      0.000                      +                      0.000                      =                      **0.000**  
Light Load P = PU LL + PL LL                      0.003                      +                      0.000                      =                      **0.003**  
ALLOWABLE PERCENT DEFECTIVE: TABLE B-3                      **4.87**

OUTLIERS

UFL = FL BAR X + (4 x FL Sigma)                      100.116 + 1.052                      UFL = **101.168**  
LFL = FL BAR X - (4 x FL Sigma)                      100.116 - 1.052                      LFL = **99.064**  
ULL = LL BAR X + (4 x LL Sigma)                      100.037 + 2.072                      ULL = **102.109**  
LLL = LL BAR X - (4 x LL Sigma)                      100.037 - 2.072                      LLL = **97.965**

Lot is acceptable                      **X**                      Lot is unacceptable                      \_\_\_\_\_  
Tested & Reported by: Steve Ness                      Approved: \_\_\_\_\_