

MAL-10B

*American Society of Brewing Chemists*  
**MALT CHECK SERVICE**

10/31/2014

| <i>Sub #</i> | <i>Moisture (%)</i> | <i>% Extract - Fine Ground (D.B.)</i> | <i>% Extract - Coarse Ground (D.B.)</i> | <i>% Fine - Coarse Difference</i> | <i>Conversion Time (min)</i> | <i>Clarity of Wort (visual)</i> | <i>Color of Wort, 1/2" cell (ASBC)</i> | <i>Diastatic Power, Salt Ext. (Deg.)</i> | <i>Alpha-amylase, Salt Ext.</i> | <i>Soluble Protein</i> | <i>Total Malt Protein</i> | <i>Soluble/Total Protein (D.B.)</i> |
|--------------|---------------------|---------------------------------------|-----------------------------------------|-----------------------------------|------------------------------|---------------------------------|----------------------------------------|------------------------------------------|---------------------------------|------------------------|---------------------------|-------------------------------------|
| B 25         | 4.7                 | 80.9                                  | 80.2                                    | 0.6                               |                              |                                 | 2.28                                   | 176                                      | 62.5                            | 5.45                   | 12.1                      | 45.2                                |
| B 30         | 4.6                 | 80.0                                  |                                         | 0.1                               |                              | CLEAR                           | 2.31                                   | 165                                      | 56.9                            | 5.70                   | 11.8                      | 53.0                                |
| B 32         | 4.7                 | 80.0                                  | 79.1                                    | 0.9                               |                              |                                 | 2.26                                   | * 131                                    | 72.2                            | * 4.85                 | 12.1                      | 40.1                                |
| B 54         | 4.8                 | 81.2                                  | 80.1                                    | 1.2                               | 5                            | SL HAZY                         | 1.95                                   | 178                                      | 64.7                            | 5.63                   | 12.6                      | 44.6                                |
| B 55         | 4.2                 | 80.7                                  | 80.2                                    | 0.5                               | 5-7                          | CLEAR                           | 2.44                                   | 173                                      | 72.8                            | 5.50                   | 11.0                      | 50.4                                |
| B 109        | 4.5                 | 80.9                                  |                                         |                                   |                              | CLEAR                           | 2.14                                   | 169                                      | 74.1                            | 5.52                   | 12.5                      | 44.0                                |
| B 129        | 4.5                 | 80.9                                  | 79.8                                    | 1.1                               | 5                            |                                 | 2.17                                   | 167                                      | 58.2                            | 5.27                   | 11.7                      | 45.2                                |
| B 180        | 4.6                 | 81.3                                  | 80.1                                    | 1.2                               | 5                            | CLEAR                           | 2.11                                   | 160                                      | 61.3                            | 5.54                   | 12.0                      | 46.1                                |
| B 189        | 4.3                 | 80.6                                  | 79.4                                    | 1.2                               | 5                            | HAZY                            | 2.20                                   | 171                                      | 68.1                            | 5.36                   | 12.4                      | 43.4                                |
| <b>N</b>     | <b>9</b>            | <b>9</b>                              | <b>7</b>                                | <b>8</b>                          |                              |                                 | <b>9</b>                               | <b>8</b>                                 | <b>9</b>                        | <b>8</b>               | <b>9</b>                  | <b>9</b>                            |
| <b>Mean</b>  | <b>4.5</b>          | <b>80.7</b>                           | <b>79.8</b>                             | <b>0.9</b>                        |                              |                                 | <b>2.21</b>                            | <b>169.9</b>                             | <b>65.6</b>                     | <b>5.50</b>            | <b>12.0</b>               | <b>45.8</b>                         |
| <b>Min</b>   | <b>4.2</b>          | <b>80.0</b>                           | <b>79.1</b>                             | <b>0.1</b>                        |                              |                                 | <b>1.95</b>                            | <b>160</b>                               | <b>56.9</b>                     | <b>5.27</b>            | <b>11.0</b>               | <b>40.1</b>                         |
| <b>Max</b>   | <b>4.8</b>          | <b>81.3</b>                           | <b>80.2</b>                             | <b>1.2</b>                        |                              |                                 | <b>2.44</b>                            | <b>178</b>                               | <b>74.1</b>                     | <b>5.70</b>            | <b>12.6</b>               | <b>53.0</b>                         |
| <b>Std</b>   | <b>0.2</b>          | <b>0.5</b>                            | <b>0.4</b>                              | <b>0.4</b>                        |                              |                                 | <b>0.14</b>                            | <b>5.9</b>                               | <b>6.5</b>                      | <b>0.14</b>            | <b>0.5</b>                | <b>3.8</b>                          |

\* Not Included in Mean

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| Sub # | Growth of Acrospires |         |         |       |           | Screen Assortment |          |          |            | FAN<br>(ppm) | Absolute<br>Viscosity | Turbidity<br>(NTU) | Beta Glucan<br>wort (mg/L) |
|-------|----------------------|---------|---------|-------|-----------|-------------------|----------|----------|------------|--------------|-----------------------|--------------------|----------------------------|
|       | 0-1/4                | 1/4-1/2 | 1/2-3/4 | 3/4-1 | Overgrown | On 7/64"          | On 6/64" | On 5/64" | Thru 5/64" |              |                       |                    |                            |
| B 25  | 0                    | 2       | 16      | 74    | 8         | 63.6              | 30.0     | 5.7      | 0.7        | 217.0        | 1.51                  | 10.0               | 113                        |
| B 30  | 1                    | 1       | 2       | 85    | 11        | 66.6              | 24.4     | 8.4      | 0.5        | 218.0        | 1.52                  | 8.3                | 105                        |
| B 32  |                      |         |         |       |           | 67.3              | 33.8     | 8.1      | 0.2        | * 175.0      |                       | 5.9                | 62                         |
| B 54  |                      |         |         |       |           |                   |          |          |            | 228.0        | 1.50                  | 13.5               | 104                        |
| B 55  |                      |         |         |       |           |                   |          |          |            | 222.1        | 1.51                  |                    | 75                         |
| B 109 | 0                    | 6       | 12      | 68    | 14        | 63.6              | 30.3     | 5.5      | 0.5        | 234.0        | 1.52                  |                    | 100                        |
| B 129 | 6                    | 7       | 7       | 80    | 0         | 60.0              | 30.4     | 8.7      | 0.9        | 217.0        | 1.52                  | 16.7               | 120                        |
| B 180 |                      |         |         |       |           |                   |          |          |            | 219.0        | 1.51                  | 18.0               | 110                        |
| B 189 |                      |         |         |       |           |                   |          |          |            | 219.0        | 1.51                  | 18.0               | 110                        |
| N     | 4                    | 4       | 4       | 4     | 4         | 5                 | 5        | 5        | 5          | 8            | 8                     | 7                  | 9                          |
| Mean  | 1.8                  | 4.0     | 9.3     | 76.8  | 8.3       | 64.2              | 29.8     | 7.3      | 0.6        | 221.8        | 1.51                  | 12.9               | 99.9                       |
| Min   | 0.0                  | 1.0     | 2.0     | 68.0  | 0.0       | 60.0              | 24.4     | 5.5      | 0.2        | 217.0        | 1.50                  | 5.9                | 62.0                       |
| Max   | 6.0                  | 7.0     | 16.0    | 85.0  | 14.0      | 67.3              | 33.8     | 8.7      | 0.9        | 234.0        | 1.52                  | 18.0               | 120.0                      |
| Std   | 2.9                  | 2.9     | 6.1     | 7.4   | 6.0       | 2.9               | 3.4      | 1.5      | 0.3        | 6.1          | 0.01                  | 4.9                | 18.9                       |

\* Not Included in Mean

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