

MAL-10B

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

10/31/2015

| <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         | 4.3                 | 80.8                                  | 79.7                                    | 1.1                               |                              |                                 | 1.95                                   | 191                                      | 58.1                            | 5.17                   | 12.5                      | 41.5                                |
| B 30         | 3.8                 | 80.2                                  | 79.3                                    | * 0.8                             |                              |                                 | 1.83                                   | 195                                      | 62.1                            | 5.87                   | 12.1                      | 48.7                                |
| B 32         | 4.2                 | 80.9                                  | 79.7                                    | 1.2                               |                              |                                 | 1.34                                   | 215                                      | 56.9                            | 5.45                   | 12.7                      | 42.9                                |
| B 43         | 4.0                 | 80.0                                  | 78.7                                    | 1.3                               | 5                            | VERY HAZY                       | 1.51                                   | 196                                      | 55.4                            | 5.43                   | 12.4                      | 43.1                                |
| B 54         | 4.3                 | 81.3                                  | 80.0                                    | 1.3                               | 5                            | HAZY                            | 1.44                                   | 201                                      | 60.5                            | 5.66                   | 12.4                      | 45.5                                |
| B 55         | 4.0                 | 80.5                                  | 80.0                                    | * 0.5                             |                              |                                 | 2.04                                   | * 125                                    | 57.0                            | 5.60                   | 12.2                      | 45.9                                |
| B 109        | 4.3                 | 80.9                                  |                                         |                                   |                              |                                 | 2.12                                   | 178                                      | 67.2                            | 5.67                   | 12.9                      | 43.8                                |
| B 129        | 4.7                 | 80.6                                  | 79.5                                    | 1.1                               | 5                            | HAZY                            | 1.65                                   | 204                                      | 57.3                            | 5.41                   | 12.5                      | 43.8                                |
| B 180        | 4.3                 | 81.3                                  | 79.9                                    | 1.3                               | 5                            | HAZY                            | 1.56                                   | 193                                      | 58.8                            | * 3.92                 | 12.4                      | 43.6                                |
| B 189        | 4.1                 | 80.5                                  | 79.1                                    | 1.3                               | 5                            | VERY HAZY                       | 1.64                                   | 202                                      | 64.3                            | 5.28                   | 12.4                      | 42.7                                |
| <b>N</b>     | <b>17</b>           | <b>17</b>                             | <b>16</b>                               | <b>7</b>                          |                              |                                 | <b>10</b>                              | <b>9</b>                                 | <b>17</b>                       | <b>16</b>              | <b>17</b>                 | <b>17</b>                           |
| <b>Mean</b>  | <b>4.2</b>          | <b>80.8</b>                           | <b>79.6</b>                             | <b>1.2</b>                        |                              |                                 | <b>1.71</b>                            | <b>197.2</b>                             | <b>58.6</b>                     | <b>5.48</b>            | <b>12.5</b>               | <b>43.6</b>                         |
| <b>Min</b>   | <b>3.8</b>          | <b>80.0</b>                           | <b>78.7</b>                             | <b>1.1</b>                        |                              |                                 | <b>1.34</b>                            | <b>178</b>                               | <b>55.4</b>                     | <b>5.17</b>            | <b>12.1</b>               | <b>41.5</b>                         |
| <b>Max</b>   | <b>4.7</b>          | <b>81.3</b>                           | <b>80.0</b>                             | <b>1.3</b>                        |                              |                                 | <b>2.12</b>                            | <b>215</b>                               | <b>67.2</b>                     | <b>5.87</b>            | <b>12.9</b>               | <b>48.7</b>                         |
| <b>Std</b>   | <b>0.2</b>          | <b>0.3</b>                            | <b>0.3</b>                              | <b>0.1</b>                        |                              |                                 | <b>0.26</b>                            | <b>10.2</b>                              | <b>3.2</b>                      | <b>0.16</b>            | <b>0.2</b>                | <b>1.7</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                    | 0       | 4       | 68    | 28        | 75.3              | 21.4     | 2.9      | 0.4        | 220.0        | 1.58                  | 25.0               | 182                        |
| B 30  | 0                    | 1       | 0       | 93    | 6         | 72.7              | 21.1     | 5.5      | 0.7        | 228.0        | 1.57                  | 15.3               | 122                        |
| B 32  |                      |         |         |       |           | 66.6              | 28.3     | 4.7      | 0.4        | 226.0        |                       | 21.3               | 160                        |
| B 43  | 1                    | 3       | 8       | 84    | 4         | 76.5              | 19.7     | 3.3      | 0.6        | 206.0        | 1.56                  | 31.6               | 146                        |
| B 54  |                      |         |         |       |           |                   |          |          |            | 225.0        | 1.53                  | 17.5               | 154                        |
| B 55  |                      |         |         |       |           |                   |          |          |            | 216.0        | 1.53                  |                    | 126                        |
| B 109 | 0                    | 14      | 4       | 66    | 16        | 71.0              | 25.3     | 3.2      | 0.5        | 218.0        | *                     | 34.7               | 234                        |
| B 129 | 1                    | 4       | 5       | 86    | 4         | 74.1              | 21.8     | 3.4      | 0.7        | 239.0        | 1.57                  | 23.9               | 136                        |
| B 180 | 0                    | 8       | 3       | 85    | 4         | 75.3              | 21.0     | 3.4      | 0.4        | 229.0        | 1.55                  | 14.5               | 177                        |
| B 189 |                      |         |         |       |           |                   |          |          |            | 200.0        | 1.57                  | 30.5               | 177                        |
| N     | 6                    | 6       | 6       | 6     | 6         | 14                | 14       | 14       | 14         | 17           | 8                     | 16                 | 17                         |
| Mean  | 0.3                  | 5.0     | 4.0     | 80.3  | 10.3      | 69.8              | 25.5     | 4.2      | 0.5        | 222.9        | 1.56                  | 22.7               | 160.8                      |
| Min   | 0.0                  | 0.0     | 0.0     | 66.0  | 4.0       | 66.6              | 19.7     | 2.9      | 0.4        | 200.0        | 1.53                  | 14.5               | 122.0                      |
| Max   | 1.0                  | 14.0    | 8.0     | 93.0  | 28.0      | 76.5              | 28.3     | 5.5      | 0.7        | 239.0        | 1.58                  | 34.7               | 234.0                      |
| Std   | 0.5                  | 5.2     | 2.6     | 10.8  | 9.8       | 4.1               | 3.6      | 0.8      | 0.1        | 9.0          | 0.02                  | 5.5                | 24.9                       |

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