

MAL-1B

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

1/31/2014

| <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         | 4.0                 | 79.8                                  | 79.0                                    | *                                 | 0.8                          |                                 | 2.34                                   | 174                                      | 63.6                            | 5.57                   | 12.5                      | 44.6                                |
| B 30         | 3.8                 | 79.1                                  | * 77.9                                  | 1.2                               |                              | SL HAZY                         | 2.39                                   | 229                                      | 67.3                            | 5.80                   | 13.2                      | 44.1                                |
| B 32         | 4.1                 | 79.9                                  | 78.8                                    | 1.1                               |                              | HAZY                            | 2.09                                   | 198                                      | 62.5                            | 5.37                   | 12.2                      | 42.5                                |
| B 43         | 4.1                 | 80.3                                  | 79.2                                    | 1.1                               | 5                            | HAZY                            | 1.95                                   | 173                                      | 57.9                            | 5.45                   | 12.8                      | 42.7                                |
| B 54         | 4.1                 | 80.0                                  | 78.8                                    | 1.2                               | 5                            | HAZY                            | 2.05                                   | 203                                      | 62.4                            | 5.63                   | 12.7                      | 44.3                                |
| B 129        | 4.1                 | 79.9                                  | 78.8                                    | 1.2                               | 5                            | HAZY                            | 2.13                                   | 188                                      | 61.0                            | 5.37                   | 13.4                      | 40.1                                |
| B 180        | 4.3                 | 79.7                                  | 78.6                                    | 1.1                               | 5                            | HAZY                            | 1.94                                   | 186                                      | 61.7                            | 5.38                   | 12.7                      | 42.5                                |
| B 189        | 4.3                 | 79.9                                  | 78.9                                    | 1.1                               | 5                            | HAZY                            | 2.45                                   | 198                                      | 67.7                            | 5.44                   | 13.5                      | 40.3                                |
| <b>N</b>     | <b>8</b>            | <b>8</b>                              | <b>7</b>                                | <b>7</b>                          |                              |                                 | <b>8</b>                               | <b>8</b>                                 | <b>8</b>                        | <b>8</b>               | <b>8</b>                  | <b>8</b>                            |
| <b>Mean</b>  | <b>4.1</b>          | <b>79.8</b>                           | <b>78.9</b>                             | <b>1.1</b>                        |                              |                                 | <b>2.17</b>                            | <b>193.6</b>                             | <b>63.0</b>                     | <b>5.50</b>            | <b>12.9</b>               | <b>42.6</b>                         |
| <b>Min</b>   | <b>3.8</b>          | <b>79.1</b>                           | <b>78.6</b>                             | <b>1.1</b>                        |                              |                                 | <b>1.94</b>                            | <b>173</b>                               | <b>57.9</b>                     | <b>5.37</b>            | <b>12.2</b>               | <b>40.1</b>                         |
| <b>Max</b>   | <b>4.3</b>          | <b>80.3</b>                           | <b>79.2</b>                             | <b>1.2</b>                        |                              |                                 | <b>2.45</b>                            | <b>229</b>                               | <b>67.7</b>                     | <b>5.80</b>            | <b>13.5</b>               | <b>44.6</b>                         |
| <b>Std</b>   | <b>0.2</b>          | <b>0.3</b>                            | <b>0.2</b>                              | <b>0.1</b>                        |                              |                                 | <b>0.20</b>                            | <b>18.0</b>                              | <b>3.2</b>                      | <b>0.15</b>            | <b>0.5</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  | 4                    | 6       | 2       | 80    | 8         | 53.7              | 36.2     | 9.0      | 1.2        | 218.0        | 1.47                  | 18.0               | 91                         |
| B 30  | 0                    | 1       | 3       | 89    | 7         | 56.0              | 31.8     | 11.0     | 1.2        | 221.0        | 1.47                  | 23.7               | 97                         |
| B 32  |                      |         |         |       |           | 45.6              | 40.2     | 13.8     | 0.4        | 203.0        |                       | 37.0               | 84                         |
| B 43  | 3                    | 4       | 4       | 87    | 2         | 57.0              | 34.0     | 8.2      | 0.8        | 206.0        | 1.45                  | 30.6               | 89                         |
| B 54  |                      |         |         |       |           |                   |          |          |            | 211.0        | 1.44                  | 29.1               | 102                        |
| B 129 | 1                    | 2       | 3       | 88    | 6         | 52.8              | 35.6     | 10.4     | 1.2        | 223.0        | 1.47                  | 26.0               | 105                        |
| B 180 | 4                    | 5       | 6       | 83    | 2         | 57.5              | 34.2     | 7.0      | 1.3        | 222.0        | 1.42                  | 13.5               | 95                         |
| B 189 |                      |         |         |       |           |                   |          |          |            | 193.0        | 1.46                  | 37.9               | 86                         |
| N     | 5                    | 5       | 5       | 5     | 5         | 6                 | 6        | 6        | 6          | 8            | 7                     | 8                  | 8                          |
| Mean  | 2.4                  | 3.6     | 3.6     | 85.4  | 5.0       | 53.8              | 35.3     | 9.9      | 1.0        | 212.1        | 1.45                  | 27.0               | 93.6                       |
| Min   | 0.0                  | 1.0     | 2.0     | 80.0  | 2.0       | 45.6              | 31.8     | 7.0      | 0.4        | 193.0        | 1.42                  | 13.5               | 84.0                       |
| Max   | 4.0                  | 6.0     | 6.0     | 89.0  | 8.0       | 57.5              | 40.2     | 13.8     | 1.3        | 223.0        | 1.47                  | 37.9               | 105.0                      |
| Std   | 1.8                  | 2.1     | 1.5     | 3.8   | 2.8       | 4.4               | 2.8      | 2.4      | 0.3        | 10.8         | 0.02                  | 8.5                | 7.5                        |

\* Not Included in Mean

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