

# English Brown Ale No2-20190303.xlsx

Category: 19. Amber and Brown American Beer  
 Style: 19C. American Brown Ale

Brewer: BEER-N-BBQ by Larry  
 Brew Date: March 3, 2019

Support my work by donating on PayPal:  
[PayPal Donation for BEER-N-BBQ by Larry](#)

| Grain Bill, Adjuncts, & Sugars            |        |           |
|---|--------|-----------|
| Type                                      | Qty lb | % of Bill |
| Pale Malt: Brewers Malt, 2-row (Briess)   | 9.00   | 80.0%     |
| Caramel Malt: Caramel Malt 60L (Briess)   | 1.00   | 8.9%      |
| Biscuit Malt: Special Roast Malt (Briess) | 1.00   | 8.9%      |
| Roasted Malt: Chocolate Malt (Briess)     | 0.25   | 2.2%      |
|   |        |           |
|   |        |           |
|   |        |           |
|   |        |           |

| Recipe Outputs  |        |        |
|-----------------|--------|--------|
|                 | Design | Actual |
| Extract Eff.:   | 78.6%  | 85.0%  |
| Brewhouse Eff.: | 70.7%  | 75.6%  |
| Pre-Boil SG:    | 1.047  | 1.050  |
| O.G.:           | 1.053  | 1.052  |
| F.G.:           | 1.013  | 1.020  |
| Ferm Vol:       | 22.0   | 24.0   |
| Batch Vol:      | 20.0   | 20.0   |
| App Atten:      | 75.0%  | 61.0%  |
| IBUs:           | 25     | 23     |
| ABV:            | 5.2%   | 4.1%   |
| SRM:            | 16.5   | 15.0   |

| Water Information        |       |                |
|--------------------------|-------|----------------|
| Chicago (Lake Michigan)  |       |                |
| ppm (mg/L)               | Orig. | Adj.           |
| Calcium                  | 37    | 71             |
| Magnesium                | 12    | 18             |
| Sodium                   | 9     | 9              |
| Chloride                 | 16    | 76             |
| Sulfate                  | 25    | 52             |
| Alkalinity               | 102   | <del>102</del> |
| Cl/SO <sub>4</sub> Ratio | 0.64  | 1.47           |

| Brewing Process Parameters       |            |                         |               |
|----------------------------------|------------|-------------------------|---------------|
| Name                             | Design     | Actual                  | Units         |
| Total Water Req'd                | 33.05      | 33.00                   | qt            |
| Ambient Grain Temp               | 68.0       | 62.2                    | °F            |
| Desired Mash Temp                | 152.0      | 152.0                   | °F            |
| Strike Water Volume              | 16.88      | 17.00                   | qt            |
| Strike Water Temp                | 164.0      | 163                     | °F            |
| Estimated Mash pH                | 5.7        | 4.4                     | <del>°F</del> |
| Sparge Water Req'd               | 16.18      | 16.00                   | qt            |
| Fly Sparge                       | -          | -                       | -             |
|                                  | -          | -                       | -             |
|                                  | Time Req'd | 16.18                   | 17.00 min     |
| Flow Rate                        | 1.00       | 0.94                    | qt/min        |
| Pre-Boil Volume                  | 27.43      | 28.25                   | qt            |
| Preferred SG Tool                | Hydrometer |                         |               |
| Pre-Boil S.G.                    | Hydro.     | 1.047                   | 1.049 Temp    |
|                                  | Corr SG    | 1.047                   | 1.050 66.7    |
|                                  | Refract.   | 1.047                   | 12.0 ° Brix   |
| Corr SG                          | 1.047      | 1.048 <del>° Brix</del> |               |
| Extract Efficiency (Grains Only) | 78.6%      | 85.0%                   | Hydro.        |
|                                  |            | 82.8%                   | Refrac        |
| Boil Time                        | 60         | 60                      | min           |
| Post-Boil Volume                 | 24.45      | 27.00                   | qt            |
| Original Gravity                 | Hydro.     | 1.053                   | 1.052 Temp    |
|                                  | Corr SG    | 1.053                   | 1.052 60.0    |
|                                  | Refract.   | 1.053                   | 12.8 ° Brix   |
| Corr SG                          | 1.053      | 1.052 <del>° Brix</del> |               |
| Fermenter Volume                 | 22.0       | 24.0                    | qt            |
| Final Gravity                    | Hydro.     | 1.013                   | 1.020 Temp    |
|                                  | Corr SG    | 1.013                   | 1.020 63.0    |
|                                  | Refract.   | 1.013                   | ° Brix        |
| Corr SG                          | 1.013      | <del>° Brix</del>       |               |
| Target Batch Size                | 20.0       | 20.0                    | qt            |

| Hop Bill & Schedule |        |           |        |     |            |
|---------------------|--------|-----------|--------|-----|------------|
| Species             | Type   | Alpha (%) | Qty oz | AAU | Time (min) |
| Challenger (U.K.)   | Pellet | 5.1       | 1.50   | 7.7 | 60         |
| Challenger (U.K.)   | Pellet | 5.1       | 0.50   | 2.6 | 5          |
|                     |        |           |        |     |            |
|                     |        |           |        |     |            |
|                     |        |           |        |     |            |
|                     |        |           |        |     |            |
|                     |        |           |        |     |            |

| Water Additions (grams) |      |        |
|-------------------------|------|--------|
|                         | Mash | Sparge |
| Gypsum                  | 0.0  | 0.0    |
| Cal Chloride            | 2.0  | 1.9    |
| Epson Salt              | 1.1  | 1.1    |
| Slaked Lime             | 0.0  | 0.0    |
| Baking Soda             | 0.0  | 0.0    |
| Chalk                   | 0.0  | 0.0    |

| Yeast Information     |          |
|-----------------------|----------|
| Lallemand             |          |
| Windsor (British Ale) |          |
| Ferm Temp:            | 64-70 °F |

| Forced Carbonation |      |                |
|--------------------|------|----------------|
| CO2 Volume         | 2.3  | <del>PSI</del> |
| Temperature        | 38.0 | °F             |
| Pressure           | 9.1  | PSI            |

| Other Ingredients/Additions | Amount | When   |
|-----------------------------|--------|--------|
| whirlfloc tablet            | 1      | 15 min |
|                             |        |        |
|                             |        |        |
|                             |        |        |

NOTES: Yeast strains to use: English. High FG reading was likely due to carbonation from pressure fermentation; is likely closer to 1.014.