

Bells Two Hearted Clone-20181208-Corrected4ActualExtEfficiency_onV302.xlsx

Category: 21. IPA
 Style: 21A. American IPA

Brewer: BEER-N-BBQ by Larry
 Brew Date:

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Grain Bill, Adjuncts, & Sugars		
Type	Qty lb	% of Bill
Pale Malt: Brewers Malt, 2-row (Briess)	10.25	74.5%
Pale Ale Malt: Pale Ale Malt (Rahr)	3.00	21.8%
Caramel Malt: Caramel Malt 40L (Briess)	0.50	3.6%

Recipe Outputs		
	Design	Actual
Extract Eff.:	78.6%	
Brewhouse Eff.:	69.6%	
Pre-Boil SG:	1.057	
O.G.:	1.065	
F.G.:	1.012	
Ferm Vol:	22.0	
Batch Vol:	20.0	
App Atten:	81.0%	
IBUs:	59	
ABV:	6.8%	
SRM:	6.1	

Water Information		
Chicago (Lake Michigan)		
ppm (mg/L)	Orig.	Adj.
Calcium	37	37
Magnesium	12	12
Sodium	9	9
Chloride	16	16
Sulfate	25	25
Alkalinity	102	
Cl/SO ₄ Ratio	0.64	0.64

Brewing Process Parameters			
Name	Design	Actual	Units
Total Water Req'd	35.91	0.00	qt
Ambient Grain Temp	68.0		°F
Desired Mash Temp	150.0		°F
Strike Water Volume	20.63		qt
Strike Water Temp	160.9		°F
Estimated Mash pH	5.7		
Sparge Water Req'd	15.28		qt
Batch Sparge	Add	1.11	qt
	Drain	14.17	qt
	Add/Drain	14.17	qt
	Add/Drain	0.00	qt
Pre-Boil Volume	28.34		qt
Preferred SG Tool	Hydrometer		
Pre-Boil S.G.	Hydro.		Temp
	Corr SG	1.057	
	Refract. Corr SG		° Brix
Extract Efficiency (Grains Only)	78.6%		Hydro. Refrac
Boil Time	75		min
Post-Boil Volume	24.85		qt
Original Gravity	Hydro.		Temp
	Corr SG	1.065	
	Refract. Corr SG		° Brix
Fermenter Volume	22.0		qt
Final Gravity	Hydro.		Temp
	Corr SG	1.012	
	Refract. Corr SG		° Brix
Target Batch Size	20.0		qt

Hop Bill & Schedule					
Species	Type	Alpha (%)	Qty oz	AAU	Time (min)
Centennial	Pellet	10.8	1.16	12.5	45
Centennial	Pellet	10.8	1.16	12.5	30
Centennial	Pellet	10.8	3.69	39.9	Dry Hop

Water Additions (grams)		
	Mash	Sparge
Gypsum	0.0	0.0
Cal Chloride	0.0	0.0
Epson Salt	0.0	0.0
Slaked Lime	0.0	0.0
Baking Soda	0.0	0.0
Chalk	0.0	0.0

Yeast Information		
Fermentis		
SafAle US-05		
Ferm Temp:	64-82	°F

Forced Carbonation		
CO2 Volume	2.5	
Temperature	38.0	°F
Pressure	11.2	PSI

Other Ingredients/Additions	Amount	When
yeast nutrient	1 tsp	boil

NOTES: Recipe adapted from BYO Magazine recipe, modified for my Grainfather, and scaled up to provide 5.5 gallons into the fermenter. 60 min mash. Mash out at 168 for 10 min. Dry hop on day 5.

YouTube Channel: BEERNBBQBYLARRY
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