BREWSHEET v2.0 (2010-06-17)

Batch			
Brew Name:	**Firestone Walker Union Jack IPA clone**		
Bottle Top Code:		Calories per Pint:	
Estimated OG:	1.070	Actual OG:	
Estimated FG:	1.023	Actual FG:	
Estimated IBU:	55	Actual IBU:	
Estimated SRM:	7	Actual SRM:	
Brew Date:		Collected (gal):	
Rack Date:		Racked (gal):	
Bottle Date:		Bottled (gal):	

BJCP Style Guidelines	
Style:	American IPA
Code:	14B
OG:	1.056-1.075
FG:	1.010-1.018
IBU:	40.0-70.0
SRM:	6.0-15.0
ABV:	5.5-7.5%
CO2:	1.5-2.3

Inventory	
Bottles:	
Gallons:	
Date Checked:	

Efficiency	
Brewhouse:	73%
Batch Size:	
Into Boiler:	
Into Fermenter:	

Yeast Strain	
Yeast Strain:	White Labs WLP002 (English Ale)
Type:	English Ale
Attenuation (%):	63-70%
Actual Attenuation (%):	
Fermentation Temp (F):	65-68F
Flocculation:	very high

Yeast Amounts	
Cell Count (billions):	263
Vials (White Labs/Wyeast):	2.2
Dry Yeast (g):	13
Starter Volume (mL):	3250
DME Required (oz)	11.38
Vials Required (w/ Starter):	1.0

Grain	Pounds	Potential	SG Share	Color	% Bill
Pale Malt (2-Row) US	12.00	1.036	0.057	2.0	81.70%
British carastan	0.19	1.035	0.001	34.0	1.28%
Munich Malt 10L	1.75	1.035	0.008	10.0	11.91%
Carapils/Dextrine	0.75	1.033	0.003	2.0	5.11%

Hop	Alpha %	Ounces	Boil Time	IBU	% Bill
Warrior	15.8%	0.75	90	33.4	6.38%
Cascade	5.4%	0.75	30	8.2	6.38%
Centennial	9.1%	0.75	30	13.8	6.38%
Cascade	5.4%	1.75	0	0.0	14.89%
Centennial	9.1%	1.75	0	0.0	14.89%
Cascade	5.4%	1.50	dry #1	0.0	12.77%
Centennial	9.1%	1.50	dry #1	0.0	12.77%
Amarillo	8.6%	1.00	dry #2	0.0	8.51%
Cascade	5.4%	1.00	dry #2	0.0	8.51%
Centennial	9.1%	0.50	dry #2	0.0	4.26%
Simcoe	12.2%	0.50	dry #2	0.0	4.26%

Brewing			
Batch Size (gal):	5.50	Estimated First Runnings (gal):	
Total Grain Weight (lbs):	14.69	Desired Sparge Temperature (F):	170
Grain Temperature (F):		Sparge Water (gal):	
Mash Ratio (qts/lb):	1.30	Sparge Water Temperature (F):	
Mash/Lauter Deadspace (gal):	0.25	Estimated Preboil Volume (gal):	7.76
Total Water Needed (gal):	9.85	Boil Time (min):	90
Desired Mash Temperature (F):	145	Evaporation Rate (%):	13%
Strike Water (gal):	4.77	Estimated Evaporation Loss (gal):	1.51
Strike Temperature (F):		Trub Loss (gal):	0.75
Grain Absorption (gal):	1.84	Volume Left in Kettle (gal):	
Mash-out Temperature (F):		Actual Evaporation Rate (%):	
Mash-out Water (gal):		Actual Evaporation Loss (gal):	

Gravity		Collections	
Potential OG:	1.095	First Runnings (gal):	
OG:		SG of First Runnings:	
OG Temperature (F):		SG Temperature (F):	
Corrected OG:		Corrected SG:	
SG at Racking:		Second Runnings (gal):	
SG Temperature (F):		SG of Second Runnings:	
Corrected SG:		SG Temperature (F):	
FG:		Corrected SG:	
FG Temperature (F):		Estimated Preboil SG:	
Corrected FG:		Preboil Volume (gal):	
Potential ABV (%):	9.1%	SG of Preboil Volume:	
Actual ABV (%):		SG Temperature (F):	
IBU to Gravity Ratio:	0.80	Corrected SG:	

Diacetyl Rest		Carbonation	
Target Fermentation Completion:	95%	CO2 Volume:	1.90
Target SG for Diacetyl Rest:		Bottling Temperature (F):	
		Priming Sugar (oz):	
Fermentation		DME (oz):	
CO2 Released During Fermentation (g):		Forced Carbonation (lbs):	

ON BREW DAY

Notes
Dry hop #1 in primary for 3 days when fermentation is 95% finished.
Dry hop #2 in secondary for 7 days.
Mash at 145F for 60 mins., 155F for 10 mins., then mash out.
Pitch at 62F and raise to 66F after 24 hours.
OG: 1.070; FG: 1.016.
Might consider substituting dextrose for pale malt for better attenuation.
Let flame-out hops steep for ~30 mins. prior to cooling.

Extra Variables	
12 oz. Bottles Required:	

Summary

Firestone Walker Union Jack IPA clone

Batch Size: 5.50 gal (7.76 gal preboil)
Estimated OG: 1.070 SG
Estimated FG: 1.023 SG
Estimated IBUs: 55 (Tinseth)
Estimated Color: 7 SRM
Brewhouse Efficiency: 73%
Boil Time: 90 minutes

Grains:

12.00# Pale Malt (2-Row) US (81.70%)
0.19# British carastan (1.28%)
1.75# Munich Malt 10L (11.91%)
0.75# Carapils/Dextrine (5.11%)

Hops:

0.75 oz Warrior (15.8%) @90 min
0.75 oz Cascade (5.4%) @30 min
0.75 oz Centennial (9.1%) @30 min
1.75 oz Cascade (5.4%) @0 min
1.75 oz Centennial (9.1%) @0 min
1.50 oz Cascade (5.4%) @dry #1 min
1.50 oz Centennial (9.1%) @dry #1 min
1.00 oz Amarillo (8.6%) @dry #2 min
1.00 oz Cascade (5.4%) @dry #2 min
0.50 oz Centennial (9.1%) @dry #2 min
0.50 oz Simcoe (12.2%) @dry #2 min

Yeast:

White Labs WLP002 (English Ale) (English Ale)

Mash/Sparge Schedule:

Single Infusion, 145F; Batch Sparge