

Client: Utah Biodiesel Supply Sample Matrix: B100

Contact Name: Graydon Blair Feedstock: Waste Vegetable Oil (WVO)

Client Sample ID: Joe's Valley Biofuel Lot Number: JVB20130816-1

Date/Time Received: 8/27/2013 08:00 Sample Collection Date/Time: 8/25/2013 18:00

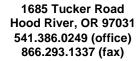
GA Sample ID: 1322013239101 Lot Volume (gal): 530

## **Summary of Analytical Results**

Analysis Performed	Analytical Method	Date Analyzed	Result	fn	Reporting Units	Reporting Criterion	Acceptable
Distillation Temperature, vacuum	ASTM D1160	8/27/2013	353		° C	360 max	Pass
Copper Strip Corrosion Rating	ASTM D130	8/27/2013	1a		n/a	No. 3 max	Pass
Cloud Point	ASTM D2500	8/27/2013	4		° C	n/a	n/a
Water and Sediment of Middle Distillate Fuels by Centrifuge	ASTM D2709	8/27/2013	0.005		% Volume	0.05 max	Pass
Visual Inspection - Part 1	ASTM D4176 - Part 1	8/27/2013	1	1	Haze Rating	n/a	n/a
Visual Inspection - Part 2	ASTM D4176 - Part 2	8/27/2013	Free of Particulate	1	n/a	Free of Particulate	Pass
Kinematic Viscosity @ 40° C	ASTM D445-40	8/27/2013	4.658		mm²/s	1.9 - 6.0	Pass
Micro-Carbon Residue	ASTM D4530	8/27/2013	0.004	2	% Mass	0.050 max	Pass
Phosphorus by ICP-OES	ASTM D4951	8/27/2013	< 0.0001		% Mass	0.0010 max	Pass
Sulfur by UVF	ASTM D5453 - Distillates/BD	8/27/2013	8.6		ppm (wt/wt)	15 max	Pass
Karl Fischer Moisture - Coulometric	ASTM D6304	8/27/2013	0.0490		% Mass	n/a	n/a
Total Glycerin (Free and Bound)	ASTM D6584 - 0 Total Glycerin	8/27/2013	0.113		% Mass	0.240 max	Pass
Free Glycerin	ASTM D6584 - 00 Free Glycerin	8/27/2013	0.002		% Mass	0.020 max	Pass
Total Monoglycerides	ASTM D6584 - 1 Monoglycerides, Total	8/27/2013	0.282		% Mass	n/a	n/a
Total Diglycerides	ASTM D6584 - 2 Diglycerides, Total	8/27/2013	0.149		% Mass	n/a	n/a
Total Triglycerides	ASTM D6584 - 3 Triglycerides, Total	8/27/2013	0.155		% Mass	n/a	n/a
Total Acid Number	ASTM D664	8/27/2013	0.52		mg KOH/g	0.50 max	Fail
Derived Cetane Number of Diesel Fuel Oils	ASTM D6890	8/27/2013	53.5	3	n/a	47 min	Pass
Cold Soak Filtration Test	ASTM D7501	8/27/2013	130		Seconds	360 max	Pass
Sulfated Ash	ASTM D874	8/27/2013	0.002		% Mass	0.020 max	Pass

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These results pertain only to the representative sample submitted for analysis.





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## **Summary of Analytical Results**

Analysis Performed	Analytical Method	Date Analyzed	Result	fn	Reporting Units	Reporting Criterion	Acceptable
Flash Point, Pensky Martens	ASTM D93	8/27/2013	120.5		° C	93 min	Pass
Methanol Content	EN 14110:2003	8/27/2013	0.12		% Mass	0.2 max	Pass
Ca, Mg by ICP-OES	EN 14538:2006 - Ca, Mg	8/27/2013	< 2.0	4	ppm (wt/wt)	5 max	Pass
Na, K by ICP-OES	EN 14538:2006 - Na, K	8/27/2013	4.5	5	ppm (wt/wt)	5 max	Pass
Oxidation Stability (Accelerated Method) at 110° C	EN 15751:2009	8/27/2013	4.6		Hours	3 min	Pass

## Footnotes:

Acceptance criteria for B100 biodiesel are found in ASTM D6751. ASTM analyses are performed in accordance with the most current methods.

- 1. Visual Inspection was performed at 24° C.
- 2. Sample was analyzed for Micro-Carbon Residue in accordance with (IAW) ASTM D4530 and reported IAW ASTM D6751 Appendix X1.9.
- 3. The test's average charge air temperature was 552.7°C.
- 4. Calcium and Magnesium are reported as a combined value.
- 5. Sodium and Potassium are reported as a combined value.

Reviewed By:	M. Fetkenhour, Laboratory Director	Date:	8/27/2013