

# DIRECT FUELS BIODIESEL

12485 Calloway Cemetery Road  
Euless, TX 76040  
(817)-354-2780

## CERTIFICATE OF ANALYSIS

LOT NUMBER: 06030110

SAMPLE DATE: 3/1/2010

SAMPLE TYPE: Biodiesel

Test	Test Method	Min.	Max	Results	Units
Acid Number	ASTM D-664		0.50	0.36	mg KOH/g
Appearance	Visual	Report		Clear and Free	
Carbon Residue	ASTM D-4530		0.050%	< 0.001	mass %
Cetane	ASTM D-613	47		52*	
Cloud Point	ASTM D-2500	Report °C		14	°C
Cold Soak Filtration	ASTM D-6751 Annex		200	99	seconds
Copper Corrosion	ASTM D-130		3	1A	
Distillation	ASTM D-1160		360 °C	324*	°C
Flash Point	ASTM D-93A	130 °C		142.5	°C
Haze Rating	ASTM D-4176		2	1	
Glycerine, Free	ASTM D-6584		0.020%	0.014	mass %
Glycerine, Total	ASTM D-6584		0.240%	0.109	mass %
-Glycerine, monoglycerides	ASTM D-6584		0.400%**	0.287	mass %
-Glycerine, diglycerides	ASTM D-6584		0.200%**	0.131	mass %
-Glycerine, triglycerides	ASTM D-6584		0.200%**	0.013	mass %
Metals: Calcium & Magnesium	EN-14538		5 ppm	< 1***	ppm
Metals: Phosphorus	ASTM D-4951		0.001%	< 0.0001***	mass %
Metals: Potassium & Sodium	EN-14538		5 ppm	< 1***	ppm
Moisture Content by K.F.	ASTM D-6304	Report		0.006	volume %
Oxidation Stability	EN 14112	3 Hours		> 6	Hours
Sulfated Ash	ASTM D-874		0.020%	0.004***	mass %
Sulfur	ASTM D-5453		15 ppm	6.2	ppm
Viscosity	ASTM D-445	1.9 mm <sup>2</sup> /s	6.0 mm <sup>2</sup> /s	4.7	mm <sup>2</sup> /s
Water & Sediment	ASTM D-2709		0.050	< 0.005	%

\*Denotes typical test results from outside lab analysis performed by LCS LLP on Feb. 1, 2010 on lot 09020110.

\*\* Not an official ASTM specification. Direct Fuels corporate specification.

\*\*\*Denotes typical test result from last lot with that analysis performed on Feb. 23rd, 2010: lot # 08022310.

Approved by Quality Assurance Specialist Jacob McClernon:



# DIRECT FUELS BIODIESEL

12485 Calloway Cemetery Road  
 Euless, TX 76040  
 (817)-354-2780

## CERTIFICATE OF ANALYSIS

LOT NUMBER: 08030910

SAMPLE DATE: 3/9/2010

SAMPLE TYPE: Biodiesel

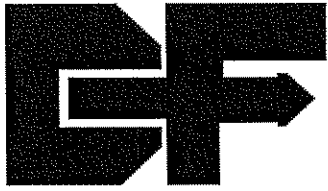
Test	Test Method	Min.	Max	Results	Units
Acid Number	ASTM D-664		0.50	0.39	mg KOH/g
Appearance	Visual	Report		Clear and Free	
Carbon Residue	ASTM D-4530		0.050%	0.003	mass %
Cetane	ASTM D-613	47		52 <sup>1</sup>	
Cloud Point	ASTM D-2500	Report °C		14	°C
Cold Soak Filtration	ASTM D-6751 Annex		200	80	seconds
Copper Corrosion	ASTM D-130		3	1A <sup>3</sup>	
Distillation	ASTM D-1160		360 °C	324 <sup>1</sup>	°C
Flash Point	ASTM D-93A	130 °C		155.0	°C
Haze Rating	ASTM D-4176		2	1	
Glycerine, Free	ASTM D-6584		0.020%	0.006	mass %
Glycerine, Total	ASTM D-6584		0.240%	0.128	mass %
-Glycerine, monoglycerides	ASTM D-6584		0.400% <sup>2</sup>	0.352	mass %
-Glycerine, diglycerides	ASTM D-6584		0.200% <sup>2</sup>	0.199	mass %
-Glycerine, triglycerides	ASTM D-6584		0.200% <sup>2</sup>	0.007	mass %
Metals: Calcium & Magnesium	EN-14538		5 ppm	< 1 <sup>3</sup>	ppm
Metals: Phosphorus	ASTM D-4951		0.001%	< 0.0001 <sup>3</sup>	mass %
Metals: Potassium & Sodium	EN-14538		5 ppm	< 1 <sup>3</sup>	ppm
Moisture Content by K.F.	ASTM D-6304	Report		0.005	volume %
Oxidation Stability	EN 14112	3 Hours		> 12	Hours
Sulfated Ash	ASTM D-874		0.020%	0.004 <sup>3</sup>	mass %
Sulfur	ASTM D-5453		15 ppm	5.7	ppm
Viscosity	ASTM D-445	1.9 mm <sup>2</sup> /s	6.0 mm <sup>2</sup> /s	4.6	mm <sup>2</sup> /s
Water & Sediment	ASTM D-2709		0.050	< 0.005	%

<sup>1</sup> Denotes typical test results from outside lab analysis performed by LCS LLP on Feb. 1, 2010 on lot 09020110.

<sup>2</sup> Not an official ASTM specification. Direct Fuels corporate specification.

<sup>3</sup> Denotes typical test result from last lot with that analysis performed on Feb. 23rd, 2010: lot # 08022310.

Approved by Quality Assurance Specialist Jacob McClernon:



# DIRECT FUELS BIODIESEL

12485 Calloway Cemetery Road  
 Euless, TX 76040  
 (817)-354-2780

## CERTIFICATE OF ANALYSIS

LOT NUMBER: 07031510

SAMPLE DATE: 3/15/2010

SAMPLE TYPE: Biodiesel

Test	Test Method	Min.	Max	Results	Units
Acid Number	ASTM D-664		0.50	0.39	mg KOH/g
Appearance	Visual	Report		Clear and Free	
Carbon Residue	ASTM D-4530		0.050%	0.020	mass %
Cetane	ASTM D-613	47		52 <sup>1</sup>	
Cloud Point	ASTM D-2500	Report °C		12	°C
Cold Soak Filtration	ASTM D-6751 Annex		200	90	seconds
Copper Corrosion	ASTM D-130		3	1A	
Distillation	ASTM D-1160		360 °C	324 <sup>1</sup>	°C
Flash Point	ASTM D-93A	130 °C		160.5	°C
Haze Rating	ASTM D-4176		2	1	
Glycerine, Free	ASTM D-6584		0.020%	0.016	mass %
Glycerine, Total	ASTM D-6584		0.240%	0.126	mass %
-Glycerine, monoglycerides	ASTM D-6584		0.400% <sup>2</sup>	0.346	mass %
-Glycerine, diglycerides	ASTM D-6584		0.200% <sup>2</sup>	0.120	mass %
-Glycerine, triglycerides	ASTM D-6584		0.200% <sup>2</sup>	0.023	mass %
Metals: Calcium & Magnesium	EN-14538		5 ppm	< 1 <sup>3</sup>	ppm
Metals: Phosphorus	ASTM D-4951		0.001%	< 0.0001 <sup>3</sup>	mass %
Metals: Potassium & Sodium	EN-14538		5 ppm	< 1 <sup>3</sup>	ppm
Moisture Content by K.F.	ASTM D-6304	Report		0.023	volume %
Oxidation Stability	EN 14112	3 Hours		11.9	Hours
Sulfated Ash	ASTM D-874		0.020%	0.004 <sup>3</sup>	mass %
Sulfur	ASTM D-5453		15 ppm	6.0	ppm
Viscosity	ASTM D-445	1.9 mm <sup>2</sup> /s	6.0 mm <sup>2</sup> /s	4.4	mm <sup>2</sup> /s
Water & Sediment	ASTM D-2709		0.050	< 0.005	%

<sup>1</sup> Denotes typical test results from outside lab analysis performed by LCS LLP on Feb. 1, 2010 on lot 09020110.

<sup>2</sup> Not an official ASTM specification. Direct Fuels corporate specification.

<sup>3</sup> Denotes typical test result from last lot with that analysis performed on Feb. 23rd, 2010: lot # 08022310.

Approved by Quality Assurance Specialist Jacob McClernon:



# DIRECT FUELS BIODIESEL

12485 Calloway Cemetery Road  
Eules, TX 76040  
(817)-354-2780

## CERTIFICATE OF ANALYSIS

LOT NUMBER: 08032210

SAMPLE DATE: 3/22/2010

SAMPLE TYPE: Biodiesel

Test	Test Method	Min.	Max	Results	Units
Acid Number	ASTM D-664		0.50	0.44	mg KOH/g
Appearance	Visual	Report		Clear and Free	
Carbon Residue	ASTM D-4530		0.050%	0.008	mass %
Cetane	ASTM D-613	47		52 <sup>1</sup>	
Cloud Point	ASTM D-2500	Report °C		17	°C
Cold Soak Filtration	ASTM D-6751 Annex		200	95	seconds
Copper Corrosion	ASTM D-130		3	1A	
Distillation	ASTM D-1160		360 °C	324 <sup>1</sup>	°C
Flash Point	ASTM D-93A	130 °C		156.5	°C
Haze Rating	ASTM D-4176		2	1	
Glycerine, Free	ASTM D-6584		0.020%	0.015	mass %
Glycerine, Total	ASTM D-6584		0.240%	0.159	mass %
-Glycerine, monoglycerides	ASTM D-6584	Report %		0.452	mass %
-Glycerine, diglycerides	ASTM D-6584	Report %		0.168	mass %
-Glycerine, triglycerides	ASTM D-6584	Report %		0.020	mass %
Metals: Calcium & Magnesium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Metals: Phosphorus	ASTM D-4951		0.001%	< 0.0001 <sup>2</sup>	mass %
Metals: Potassium & Sodium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Moisture Content by K.F.	ASTM D-6304	Report		0.006	volume %
Oxidation Stability	EN 14112	3 Hours		> 6	Hours
Sulfated Ash	ASTM D-874		0.020%	.004 <sup>2</sup>	mass %
Sulfur	ASTM D-5453		15 ppm	4.4	ppm
Viscosity	ASTM D-445	1.9 mm <sup>2</sup> /s	6.0 mm <sup>2</sup> /s	4.7	mm <sup>2</sup> /s
Water & Sediment	ASTM D-2709		0.050	< 0.005	%

<sup>1</sup> Denotes typical test results from outside lab analysis performed by LCS LLP on Feb. 1, 2010 on lot 09020110.

<sup>2</sup> Denotes typical test result from last lot with that analysis performed on March 17th, 2010; lot # 09031710.

Approved by Quality Assurance Specialist Jacob McClernon:



# DIRECT FUELS BIODIESEL

12485 Calloway Cemetery Road  
Euless, TX 76040  
(817)-354-2780

## CERTIFICATE OF ANALYSIS

LOT NUMBER: 09032910

SAMPLE DATE: 3/29/2010

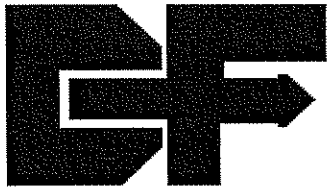
SAMPLE TYPE: Biodiesel

Test	Test Method	Min.	Max	Results	Units
Acid Number	ASTM D-664		0.50	0.48	mg KOH/g
Appearance	Visual	Report		Clear and Free	
Carbon Residue	ASTM D-4530		0.050%	< 0.001	mass %
Cetane	ASTM D-613	47		52 <sup>1</sup>	
Cloud Point	ASTM D-2500	Report °C		18	°C
Cold Soak Filtration	ASTM D-6751 Annex		200	83	seconds
Copper Corrosion	ASTM D-130		3	1A	
Distillation	ASTM D-1160		360 °C	324 <sup>1</sup>	°C
Flash Point	ASTM D-93A	130 °C		142.5	°C
Haze Rating	ASTM D-4176		2	1	
Glycerine, Free	ASTM D-6584		0.020%	0.008	mass %
Glycerine, Total	ASTM D-6584		0.240%	0.145	mass %
-Glycerine, monoglycerides	ASTM D-6584	Report %		0.436	mass %
-Glycerine, diglycerides	ASTM D-6584	Report %		0.147	mass %
-Glycerine, triglycerides	ASTM D-6584	Report %		0.022	mass %
Metals: Calcium & Magnesium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Metals: Phosphorus	ASTM D-4951		0.001%	< 0.0001 <sup>2</sup>	mass %
Metals: Potassium & Sodium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Moisture Content by K.F.	ASTM D-6304	Report		0.010	volume %
Oxidation Stability	EN 14112	3 Hours		> 12	Hours
Sulfated Ash	ASTM D-874		0.020%	.004 <sup>2</sup>	mass %
Sulfur	ASTM D-5453		15 ppm	5.2	ppm
Viscosity	ASTM D-445	1.9 mm <sup>2</sup> /s	6.0 mm <sup>2</sup> /s	4.8	mm <sup>2</sup> /s
Water & Sediment	ASTM D-2709		0.050	< 0.005	%

<sup>1</sup> Denotes typical test results from outside lab analysis performed by LCS LLP on Feb. 1, 2010 on lot 09020110.

<sup>2</sup> Denotes typical test result from last lot with that analysis performed on March 17th, 2010; lot # 09031710.

Approved by Quality Assurance Specialist Jacob McClernon:



# DIRECT FUELS BIODIESEL

12485 Calloway Cemetery Road  
 Euless, TX 76040  
 (817)-354-2780

## CERTIFICATE OF ANALYSIS

LOT NUMBER: 07040510

SAMPLE DATE: 4/6/2010

SAMPLE TYPE: Biodiesel

Test	Test Method	Min.	Max	Results	Units
Acid Number	ASTM D-664		0.50	0.48	mg KOH/g
Appearance	Visual	Report		Clear and Free	
Carbon Residue	ASTM D-4530		0.050%	< 0.001	mass %
Cetane	ASTM D-613	47		52 <sup>1</sup>	
Cloud Point	ASTM D-2500	Report °C		16	°C
Cold Soak Filtration	ASTM D-6751 Annex		200	81	seconds
Copper Corrosion	ASTM D-130		3	1A	
Distillation	ASTM D-1160		360 °C	324 <sup>1</sup>	°C
Flash Point	ASTM D-93A	130 °C		140.5	°C
Haze Rating	ASTM D-4176		2	1	
Glycerine, Free	ASTM D-6584		0.020%	0.013	mass %
Glycerine, Total	ASTM D-6584		0.240%	0.134	mass %
-Glycerine, monoglycerides	ASTM D-6584	Report %		0.385	mass %
-Glycerine, diglycerides	ASTM D-6584	Report %		0.139	mass %
-Glycerine, triglycerides	ASTM D-6584	Report %		0.006	mass %
Metals: Calcium & Magnesium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Metals: Phosphorus	ASTM D-4951		0.001%	< 0.0001 <sup>2</sup>	mass %
Metals: Potassium & Sodium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Moisture Content by K.F.	ASTM D-6304	Report		0.012	volume %
Oxidation Stability	EN 14112	3 Hours		> 12	Hours
Sulfated Ash	ASTM D-874		0.020%	.004 <sup>2</sup>	mass %
Sulfur	ASTM D-5453		15 ppm	5.2	ppm
Viscosity	ASTM D-445	1.9 mm <sup>2</sup> /s	6.0 mm <sup>2</sup> /s	4.7	mm <sup>2</sup> /s
Water & Sediment	ASTM D-2709		0.050	< 0.005	%

<sup>1</sup> Denotes typical test results from outside lab analysis performed by LCS LLP on Feb. 1, 2010 on lot 09020110.

<sup>2</sup> Denotes typical test result from last lot with that analysis performed on March 17th, 2010; lot # 09031710.

Approved by Quality Assurance Specialist Jacob McClernon:



# DIRECT FUELS BIODIESEL

12485 Calloway Cemetery Road  
 Euless, TX 76040  
 (817)-354-2780

## CERTIFICATE OF ANALYSIS

LOT NUMBER: 06041210

SAMPLE DATE: 4/12/2010

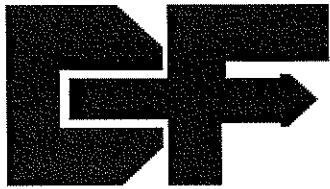
SAMPLE TYPE: Biodiesel

Test	Test Method	Min.	Max	Results	Units
Acid Number	ASTM D-664		0.50	0.42	mg KOH/g
Appearance	Visual	Report		Clear and Free	
Carbon Residue	ASTM D-4530		0.050%	0.047	mass %
Cetane	ASTM D-613	47		52 <sup>1</sup>	
Cloud Point	ASTM D-2500	Report °C		16	°C
Cold Soak Filtration	ASTM D-6751 Annex		200	87	seconds
Copper Corrosion	ASTM D-130		3	1A	
Distillation	ASTM D-1160		360 °C	324 <sup>1</sup>	°C
Flash Point	ASTM D-93A	130 °C		152.5	°C
Haze Rating	ASTM D-4176		2	1	
Glycerine, Free	ASTM D-6584		0.020%	0.016	mass %
Glycerine, Total	ASTM D-6584		0.240%	0.137	mass %
-Glycerine, monoglycerides	ASTM D-6584	Report %		0.373	mass %
-Glycerine, diglycerides	ASTM D-6584	Report %		0.150	mass %
-Glycerine, triglycerides	ASTM D-6584	Report %		0.021	mass %
Metals: Calcium & Magnesium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Metals: Phosphorus	ASTM D-4951		0.001%	< 0.0001 <sup>2</sup>	mass %
Metals: Potassium & Sodium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Moisture Content by K.F.	ASTM D-6304	Report		0.009	volume %
Oxidation Stability	EN 14112	3 Hours		10.2	Hours
Sulfated Ash	ASTM D-874		0.020%	.004 <sup>2</sup>	mass %
Sulfur	ASTM D-5453		15 ppm	4.7	ppm
Viscosity	ASTM D-445	1.9 mm <sup>2</sup> /s	6.0 mm <sup>2</sup> /s	4.7	mm <sup>2</sup> /s
Water & Sediment	ASTM D-2709		0.050	< 0.005	%

<sup>1</sup> Denotes typical test results from outside lab analysis performed by LCS LLP on Feb. 1, 2010 on lot 09020110.

<sup>2</sup> Denotes typical test result from last lot with that analysis performed on March 17th, 2010; lot # 09031710.

Approved by Quality Assurance Specialist Jacob McClernon:



# DIRECT FUELS BIODIESEL

12485 Calloway Cemetery Road  
 Euless, TX 76040  
 (817)-354-2780

## CERTIFICATE OF ANALYSIS

LOT NUMBER: 08042110

SAMPLE DATE: 4/21/2010

SAMPLE TYPE: Biodiesel

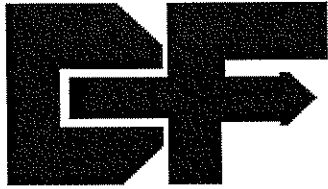
Test	Test Method	Min.	Max	Results	Units
Acid Number	ASTM D-664		0.50	0.40	mg KOH/g
Appearance	Visual	Report		Clear and Free	
Carbon Residue	ASTM D-4530		0.050%	< 0.001	mass %
Cetane	ASTM D-613	47		52 <sup>1</sup>	
Cloud Point	ASTM D-2500	Report °C		17	°C
Cold Soak Filtration	ASTM D-6751 Annex		200	83	seconds
Copper Corrosion	ASTM D-130		3	1A	
Distillation	ASTM D-1160		360 °C	324 <sup>1</sup>	°C
Flash Point	ASTM D-93A	130 °C		144.5	°C
Haze Rating	ASTM D-4176		2	1	
Glycerine, Free	ASTM D-6584		0.020%	0.005	mass %
Glycerine, Total	ASTM D-6584		0.240%	0.106	mass %
-Glycerine, monoglycerides	ASTM D-6584	Report %		0.310	mass %
-Glycerine, diglycerides	ASTM D-6584	Report %		0.142	mass %
-Glycerine, triglycerides	ASTM D-6584	Report %		0.000	mass %
Metals: Calcium & Magnesium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Metals: Phosphorus	ASTM D-4951		0.001%	< 0.0001 <sup>2</sup>	mass %
Metals: Potassium & Sodium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Moisture Content by K.F.	ASTM D-6304	Report		0.008	volume %
Oxidation Stability	EN 14112	3 Hours		12.3	Hours
Sulfated Ash	ASTM D-874		0.020%	.001 <sup>2</sup>	mass %
Sulfur	ASTM D-5453		15 ppm	5.3	ppm
Viscosity	ASTM D-445	1.9 mm <sup>2</sup> /s	6.0 mm <sup>2</sup> /s	4.7	mm <sup>2</sup> /s
Water & Sediment	ASTM D-2709		0.050	< 0.005	%

<sup>1</sup> Denotes typical test results from outside lab analysis performed by LCS LLP on Feb. 1, 2010 on lot 09020110.

<sup>2</sup> Denotes typical test result from last lot with that analysis performed on April 16th, 2010: lot # 06041510.

Approved by Quality Assurance Specialist Jacob McClernon:





# DIRECT FUELS BIODIESEL

12485 Calloway Cemetery Road  
 Euless, TX 76040  
 (817)-354-2780

## CERTIFICATE OF ANALYSIS

LOT NUMBER: 06042610

SAMPLE DATE: 4/26/2010

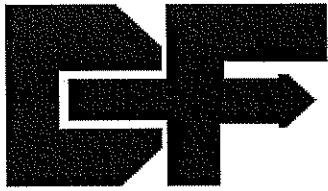
SAMPLE TYPE: Biodiesel

Test	Test Method	Min.	Max	Results	Units
Acid Number	ASTM D-664		0.50	0.38	mg KOH/g
Appearance	Visual	Report		Clear and Free	
Carbon Residue	ASTM D-4530		0.050%	0.011	mass %
Cetane	ASTM D-613	47		52 <sup>1</sup>	
Cloud Point	ASTM D-2500	Report °C		18	°C
Cold Soak Filtration	ASTM D-6751 Annex		200	86	seconds
Copper Corrosion	ASTM D-130		3	1A	
Distillation	ASTM D-1160		360 °C	324 <sup>1</sup>	°C
Flash Point	ASTM D-93A	130 °C		136.5	°C
Haze Rating	ASTM D-4176		2	1	
Glycerine, Free	ASTM D-6584		0.020%	0.014	mass %
Glycerine, Total	ASTM D-6584		0.240%	0.128	mass %
-Glycerine, monoglycerides	ASTM D-6584	Report %		0.359	mass %
-Glycerine, diglycerides	ASTM D-6584	Report %		0.143	mass %
-Glycerine, triglycerides	ASTM D-6584	Report %		0.000	mass %
Metals: Calcium & Magnesium	EN-14538		5 ppm	< 1	ppm
Metals: Phosphorus	ASTM D-4951		0.001%	< 0.0001	mass %
Metals: Potassium & Sodium	EN-14538		5 ppm	< 1	ppm
Moisture Content by K.F.	ASTM D-6304	Report		0.010	volume %
Oxidation Stability	EN 14112	3 Hours		> 12	Hours
Sulfated Ash	ASTM D-874		0.020%	.001 <sup>2</sup>	mass %
Sulfur	ASTM D-5453		15 ppm	4.7	ppm
Viscosity	ASTM D-445	1.9 mm <sup>2</sup> /s	6.0 mm <sup>2</sup> /s	4.7	mm <sup>2</sup> /s
Water & Sediment	ASTM D-2709		0.050	< 0.005	%

<sup>1</sup> Denotes typical test results from outside lab analysis performed by LCS LLP on Feb. 1, 2010 on lot 09020110.

<sup>2</sup> Denotes typical test result from last lot with that analysis performed on April 16th, 2010: lot # 06041510.

Approved by Quality Assurance Specialist Jacob McClernon:



# DIRECT FUELS BIODIESEL

12485 Calloway Cemetery Road  
Euless, TX 76040  
(817)-354-2780

## CERTIFICATE OF ANALYSIS

LOT NUMBER: 09050410

SAMPLE DATE: 5/4/2010

SAMPLE TYPE: Biodiesel

Test	Test Method	Min.	Max	Results	Units
Acid Number	ASTM D-664		0.50	0.46	mg KOH/g
Appearance	Visual	Report		Clear and Free	
Carbon Residue	ASTM D-4530		0.050%	0.006	mass %
Cetane	ASTM D-613	47		52 <sup>1</sup>	
Cloud Point	ASTM D-2500	Report °C		17	°C
Cold Soak Filtration	ASTM D-6751 Annex		200	85	seconds
Copper Corrosion	ASTM D-130		3	1A	
Distillation	ASTM D-1160		360 °C	324 <sup>1</sup>	°C
Flash Point	ASTM D-93A	130 °C		140.5	°C
Haze Rating	ASTM D-4176		2	1	
Glycerine, Free	ASTM D-6584		0.020%	0.020	mass %
Glycerine, Total	ASTM D-6584		0.240%	0.149	mass %
-Glycerine, monoglycerides	ASTM D-6584	Report %		0.401	mass %
-Glycerine, diglycerides	ASTM D-6584	Report %		0.153	mass %
-Glycerine, triglycerides	ASTM D-6584	Report %		0.023	mass %
Metals: Calcium & Magnesium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Metals: Phosphorus	ASTM D-4951		0.001%	< 0.0001 <sup>2</sup>	mass %
Metals: Potassium & Sodium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Moisture Content by K.F.	ASTM D-6304	Report		0.014	volume %
Oxidation Stability	EN 14112	3 Hours		> 12	Hours
Sulfated Ash	ASTM D-874		0.020%	.004 <sup>3</sup>	mass %
Sulfur	ASTM D-5453		15 ppm	5.0	ppm
Viscosity	ASTM D-445	1.9 mm <sup>2</sup> /s	6.0 mm <sup>2</sup> /s	4.7	mm <sup>2</sup> /s
Water & Sediment	ASTM D-2709		0.050	< 0.005	%

<sup>1</sup> Denotes typical test results from outside lab analysis performed by LCS LLP on Feb. 1, 2010 on lot 09020110.

<sup>2</sup> Denotes typical test result from last lot with that analysis performed: lot # 06042610.

<sup>3</sup> Denotes typical test result from last lot with that analysis performed: lot # 06041510.

Approved by Quality Assurance Specialist Jacob McClernon:



# DIRECT FUELS BIODIESEL

12485 Calloway Cemetery Road  
 Euless, TX 76040  
 (817)-354-2780

## CERTIFICATE OF ANALYSIS

LOT NUMBER: 07051010

SAMPLE DATE: 5/10/2010

SAMPLE TYPE: Biodiesel

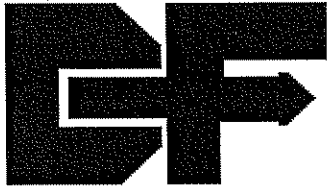
Test	Test Method	Min.	Max	Results	Units
Acid Number	ASTM D-664		0.50	0.39	mg KOH/g
Appearance	Visual	Report		Clear and Free	
Carbon Residue	ASTM D-4530		0.050%	0.011	mass %
Cetane	ASTM D-613	47		52 <sup>1</sup>	
Cloud Point	ASTM D-2500	Report °C		14	°C
Cold Soak Filtration	ASTM D-6751 Annex		200	84	seconds
Copper Corrosion	ASTM D-130		3	1A	
Distillation	ASTM D-1160		360 °C	324 <sup>1</sup>	°C
Flash Point	ASTM D-93A	130 °C		156.5	°C
Haze Rating	ASTM D-4176		2	1	
Glycerine, Free	ASTM D-6584		0.020%	0.010	mass %
Glycerine, Total	ASTM D-6584		0.240%	0.113	mass %
-Glycerine, monoglycerides	ASTM D-6584	Report %		0.330	mass %
-Glycerine, diglycerides	ASTM D-6584	Report %		0.101	mass %
-Glycerine, triglycerides	ASTM D-6584	Report %		0.017	mass %
Metals: Calcium & Magnesium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Metals: Phosphorus	ASTM D-4951		0.001%	< 0.0001 <sup>2</sup>	mass %
Metals: Potassium & Sodium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Moisture Content by K.F.	ASTM D-6304	Report		0.013	volume %
Oxidation Stability	EN 14112	3 Hours		8.7	Hours
Sulfated Ash	ASTM D-874		0.020%	.004 <sup>3</sup>	mass %
Sulfur	ASTM D-5453		15 ppm	3.5	ppm
Viscosity	ASTM D-445	1.9 mm <sup>2</sup> /s	6.0 mm <sup>2</sup> /s	4.7	mm <sup>2</sup> /s
Water & Sediment	ASTM D-2709		0.050	< 0.005	%

<sup>1</sup> Denotes typical test results from outside lab analysis performed by LCS LLP on Feb. 1, 2010 on lot 09020110.

<sup>2</sup> Denotes typical test result from last lot with that analysis performed: lot # 06042610.

<sup>3</sup> Denotes typical test result from last lot with that analysis performed: lot # 06041510.

Approved by Quality Assurance Specialist Jacob McClernon:



# DIRECT FUELS BIODIESEL

12485 Calloway Cemetery Road  
 Euless, TX 76040  
 (817)-354-2780

## CERTIFICATE OF ANALYSIS

LOT NUMBER: 09051810

SAMPLE DATE: 5/18/2010

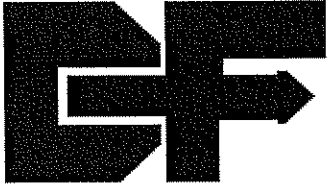
SAMPLE TYPE: Biodiesel

Test	Test Method	Min.	Max	Results	Units
Acid Number	ASTM D-664		0.50	0.32	mg KOH/g
Appearance	Visual	Report		Clear and Free	
Carbon Residue	ASTM D-4530		0.050%	0.013	mass %
Cetane	ASTM D-613	47		52 <sup>1</sup>	
Cloud Point	ASTM D-2500	Report °C		17	°C
Cold Soak Filtration	ASTM D-6751 Annex		200	87	seconds
Copper Corrosion	ASTM D-130		3	1A	
Distillation	ASTM D-1160		360 °C	324 <sup>1</sup>	°C
Flash Point	ASTM D-93A	130 °C		150.5	°C
Haze Rating	ASTM D-4176		2	1	
Glycerine, Free	ASTM D-6584		0.020%	0.002	mass %
Glycerine, Total	ASTM D-6584		0.240%	0.100	mass %
-Glycerine, monoglycerides	ASTM D-6584	Report %		0.318	mass %
-Glycerine, diglycerides	ASTM D-6584	Report %		0.099	mass %
-Glycerine, triglycerides	ASTM D-6584	Report %		0.009	mass %
Metals: Calcium & Magnesium	EN-14538		5 ppm	< 1	ppm
Metals: Phosphorus	ASTM D-4951		0.001%	< 0.0001	mass %
Metals: Potassium & Sodium	EN-14538		5 ppm	< 1	ppm
Moisture Content by K.F.	ASTM D-6304	Report		0.016	volume %
Oxidation Stability	EN 14112	3 Hours		10.3	Hours
Sulfated Ash	ASTM D-874		0.020%	0.001	mass %
Sulfur	ASTM D-5453		15 ppm	4.8	ppm
Viscosity	ASTM D-445	1.9 mm <sup>2</sup> /s	6.0 mm <sup>2</sup> /s	4.7	mm <sup>2</sup> /s
Water & Sediment	ASTM D-2709		0.050	< 0.005	%

<sup>1</sup> Denotes typical test results from outside lab analysis performed by LCS LLP on Feb. 1, 2010 on lot 09020110.

Approved by Quality Assurance Specialist Jacob McClernon:

REC 8.4, Approved by QMR: Effective 10/3/08



# DIRECT FUELS BIODIESEL

12485 Calloway Cemetery Road  
 Euless, TX 76040  
 (817)-354-2780

## CERTIFICATE OF ANALYSIS

LOT NUMBER: 08052410

SAMPLE DATE: 5/24/2010

SAMPLE TYPE: Biodiesel

Test	Test Method	Min.	Max	Results	Units
Acid Number	ASTM D-664		0.50	0.48	mg KOH/g
Appearance	Visual	Report		Clear and Free	
Carbon Residue	ASTM D-4530		0.050%	0.005	mass %
Cetane	ASTM D-613	47		52 <sup>1</sup>	
Cloud Point	ASTM D-2500	Report °C		18	°C
Cold Soak Filtration	ASTM D-6751 Annex		200	86	seconds
Copper Corrosion	ASTM D-130		3	1A	
Distillation	ASTM D-1160		360 °C	324 <sup>1</sup>	°C
Flash Point	ASTM D-93A	130 °C		148.5	°C
Haze Rating	ASTM D-4176		2	1	
Glycerine, Free	ASTM D-6584		0.020%	0.007	mass %
Glycerine, Total	ASTM D-6584		0.240%	0.116	mass %
-Glycerine, monoglycerides	ASTM D-6584	Report %		0.336	mass %
-Glycerine, diglycerides	ASTM D-6584	Report %		0.131	mass %
-Glycerine, triglycerides	ASTM D-6584	Report %		0.025	mass %
Metals: Calcium & Magnesium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Metals: Phosphorus	ASTM D-4951		0.001%	< 0.0001 <sup>2</sup>	mass %
Metals: Potassium & Sodium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Moisture Content by K.F.	ASTM D-6304	Report		0.014	volume %
Oxidation Stability	EN 14112	3 Hours		9.0	Hours
Sulfated Ash	ASTM D-874		0.020%	.001 <sup>2</sup>	mass %
Sulfur	ASTM D-5453		15 ppm	4.1	ppm
Viscosity	ASTM D-445	1.9 mm <sup>2</sup> /s	6.0 mm <sup>2</sup> /s	4.7	mm <sup>2</sup> /s
Water & Sediment	ASTM D-2709		0.050	< 0.005	%

<sup>1</sup> Denotes typical test results from outside lab analysis performed by LCS LLP on Feb. 1, 2010 on lot 09020110.

<sup>2</sup> Denotes typical test result from last lot with that analysis performed: lot # 09051810.

Approved by Quality Assurance Specialist Jacob McClernon:



# DIRECT FUELS BIODIESEL

12485 Calloway Cemetery Road  
 Euless, TX 76040  
 (817)-354-2780

## CERTIFICATE OF ANALYSIS

LOT NUMBER: 08060110

SAMPLE DATE: 6/1/2010

SAMPLE TYPE: Biodiesel

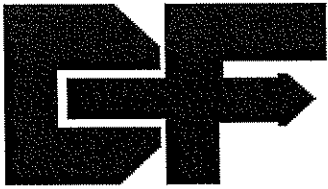
Test	Test Method	Min.	Max	Results	Units
Acid Number	ASTM D-664		0.50	0.48	mg KOH/g
Appearance	Visual	Report		Clear and Free	
Carbon Residue	ASTM D-4530		0.050%	0.008	mass %
Cetane	ASTM D-613	47		52 <sup>1</sup>	
Cloud Point	ASTM D-2500	Report °C		17	°C
Cold Soak Filtration	ASTM D-6751 Annex		200	85	seconds
Copper Corrosion	ASTM D-130		3	1A	
Distillation	ASTM D-1160		360 °C	324 <sup>1</sup>	°C
Flash Point	ASTM D-93A	130 °C		154.5	°C
Haze Rating	ASTM D-4176		2	1	
Glycerine, Free	ASTM D-6584		0.020%	0.008	mass %
Glycerine, Total	ASTM D-6584		0.240%	0.114	mass %
-Glycerine, monoglycerides	ASTM D-6584	Report %		0.346	mass %
-Glycerine, diglycerides	ASTM D-6584	Report %		0.106	mass %
-Glycerine, triglycerides	ASTM D-6584	Report %		0.008	mass %
Metals: Calcium & Magnesium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Metals: Phosphorus	ASTM D-4951		0.001%	< 0.0001 <sup>2</sup>	mass %
Metals: Potassium & Sodium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Moisture Content by K.F.	ASTM D-6304	Report		0.022	volume %
Oxidation Stability	EN 14112	3 Hours		> 12	Hours
Sulfated Ash	ASTM D-874		0.020%	.001 <sup>3</sup>	mass %
Sulfur	ASTM D-5453		15 ppm	4.0	ppm
Viscosity	ASTM D-445	1.9 mm <sup>2</sup> /s	6.0 mm <sup>2</sup> /s	4.7	mm <sup>2</sup> /s
Water & Sediment	ASTM D-2709		0.050	< 0.005	%

<sup>1</sup> Denotes typical test results from outside lab analysis performed by LCS LLP on Feb. 1, 2010 on lot 09020110.

<sup>2</sup> Denotes typical test result from last lot with that analysis performed: lot # 09052610.

<sup>3</sup> Denotes typical test result from last lot with that analysis performed: lot # 09051810.

Approved by Quality Assurance Specialist Jacob McClernon:



# DIRECT FUELS BIODIESEL

12485 Calloway Cemetery Road  
Euless, TX 76040  
(817)-354-2780

## CERTIFICATE OF ANALYSIS

LOT NUMBER: 07060710

SAMPLE DATE: 6/7/2010

SAMPLE TYPE: Biodiesel

Test	Test Method	Min.	Max	Results	Units
Acid Number	ASTM D-664		0.50	0.45	mg KOH/g
Appearance	Visual	Report		Clear and Free	
Carbon Residue	ASTM D-4530		0.050%	0.025	mass %
Cetane	ASTM D-613	47		52 <sup>1</sup>	
Cloud Point	ASTM D-2500	Report °C		18	°C
Cold Soak Filtration	ASTM D-6751 Annex		200	82	seconds
Copper Corrosion	ASTM D-130		3	1A	
Distillation	ASTM D-1160		360 °C	324 <sup>1</sup>	°C
Flash Point	ASTM D-93A	130 °C		148.5	°C
Haze Rating	ASTM D-4176		2	1	
Glycerine, Free	ASTM D-6584		0.020%	0.007	mass %
Glycerine, Total	ASTM D-6584		0.240%	0.110	mass %
-Glycerine, monoglycerides	ASTM D-6584	Report %		0.334	mass %
-Glycerine, diglycerides	ASTM D-6584	Report %		0.112	mass %
-Glycerine, triglycerides	ASTM D-6584	Report %		0.000	mass %
Metals: Calcium & Magnesium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Metals: Phosphorus	ASTM D-4951		0.001%	< 0.0001 <sup>2</sup>	mass %
Metals: Potassium & Sodium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Moisture Content by K.F.	ASTM D-6304	Report		0.015	volume %
Oxidation Stability	EN 14112	3 Hours		> 12	Hours
Sulfated Ash	ASTM D-874		0.020%	0.001 <sup>3</sup>	mass %
Sulfur	ASTM D-5453		15 ppm	4.5	ppm
Viscosity	ASTM D-445	1.9 mm <sup>2</sup> /s	6.0 mm <sup>2</sup> /s	4.6	mm <sup>2</sup> /s
Water & Sediment	ASTM D-2709		0.050	< 0.005	%

<sup>1</sup> Denotes typical test results from outside lab analysis performed by LCS LLP on Feb. 1, 2010 on lot 09020110.

<sup>2</sup> Denotes typical test result from last lot with that analysis performed: lot # 09052610.

<sup>3</sup> Denotes typical test result from last lot with that analysis performed: lot # 09051810.

Approved by Quality Assurance Specialist Jacob McClernon:



# DIRECT FUELS BIODIESEL

12485 Calloway Cemetery Road  
Euless, TX 76040  
(817)-354-2780

## CERTIFICATE OF ANALYSIS

LOT NUMBER: 09061410

SAMPLE DATE: 6/14/2010

SAMPLE TYPE: Biodiesel

Test	Test Method	Min.	Max	Results	Units
Acid Number	ASTM D-664		0.50	0.39	mg KOH/g
Appearance	Visual	Report		Clear and Free	
Carbon Residue	ASTM D-4530		0.050%	< 0.001 <sup>4</sup>	mass %
Cetane	ASTM D-613	47		52 <sup>1</sup>	
Cloud Point	ASTM D-2500	Report °C		16	°C
Cold Soak Filtration	ASTM D-6751 Annex		200	90	seconds
Copper Corrosion	ASTM D-130		3	1A	
Distillation	ASTM D-1160		360 °C	324 <sup>1</sup>	°C
Flash Point	ASTM D-93A	130 °C		163.5	°C
Haze Rating	ASTM D-4176		2	1	
Glycerine, Free	ASTM D-6584		0.020%	0.008	mass %
Glycerine, Total	ASTM D-6584		0.240%	0.117	mass %
-Glycerine, monoglycerides	ASTM D-6584	Report %		0.388	mass %
-Glycerine, diglycerides	ASTM D-6584	Report %		0.059	mass %
-Glycerine, triglycerides	ASTM D-6584	Report %		0.000	mass %
Metals: Calcium & Magnesium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Metals: Phosphorus	ASTM D-4951		0.001%	< 0.0001 <sup>2</sup>	mass %
Metals: Potassium & Sodium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Moisture Content by K.F.	ASTM D-6304	Report		0.020	volume %
Oxidation Stability	EN 14112	3 Hours		> 12	Hours
Sulfated Ash	ASTM D-874		0.020%	0.001 <sup>3</sup>	mass %
Sulfur	ASTM D-5453		15 ppm	4.8	ppm
Viscosity	ASTM D-445	1.9 mm <sup>2</sup> /s	6.0 mm <sup>2</sup> /s	4.7	mm <sup>2</sup> /s
Water & Sediment	ASTM D-2709		0.050	< 0.005	%

<sup>1</sup> Denotes typical test results from outside lab analysis performed by LCS LLP on Feb. 1, 2010 on lot 09020110.

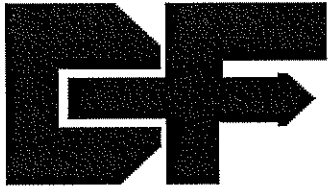
<sup>2</sup> Denotes typical test result from last lot with that analysis performed: lot # 09052610.

<sup>3</sup> Denotes typical test result from last lot with that analysis performed: lot # 09051810.

<sup>4</sup> Denotes typical test result from last lot with that analysis performed: lot # 08061010.

Approved by Director of Biodiesel Operations Mark Farrer:





# DIRECT FUELS BIODIESEL

12485 Calloway Cemetery Road  
Euless, TX 76040  
(817)-354-2780

## CERTIFICATE OF ANALYSIS

LOT NUMBER: 08062110

SAMPLE DATE: 6/21/2010

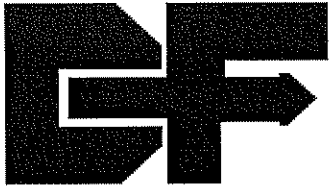
SAMPLE TYPE: Biodiesel

Test	Test Method	Min.	Max	Results	Units
Acid Number	ASTM D-664		0.50	0.47	mg KOH/g
Appearance	Visual	Report		Clear and Free	
Carbon Residue	ASTM D-4530		0.050%	< 0.001	mass %
Cetane	ASTM D-613	47		52 <sup>1</sup>	
Cloud Point	ASTM D-2500	Report °C		18	°C
Cold Soak Filtration	ASTM D-6751 Annex		200	81	seconds
Copper Corrosion	ASTM D-130		3	1A	
Distillation	ASTM D-1160		360 °C	323 <sup>1</sup>	°C
Flash Point	ASTM D-93A	130 °C		162.5	°C
Haze Rating	ASTM D-4176		2	1	
Glycerine, Free	ASTM D-6584		0.020%	0.010	mass %
Glycerine, Total	ASTM D-6584		0.240%	0.117	mass %
-Glycerine, monoglycerides	ASTM D-6584	Report %		0.350	mass %
-Glycerine, diglycerides	ASTM D-6584	Report %		0.103	mass %
-Glycerine, triglycerides	ASTM D-6584	Report %		0.005	mass %
Metals: Calcium & Magnesium	EN-14538		5 ppm	< 1	ppm
Metals: Phosphorus	ASTM D-4951		0.001%	< 0.0001	mass %
Metals: Potassium & Sodium	EN-14538		5 ppm	< 1	ppm
Moisture Content by K.F.	ASTM D-6304	Report		0.018	volume %
Oxidation Stability	EN 14112	3 Hours		> 12	Hours
Sulfated Ash	ASTM D-874		0.020%	< 0.001	mass %
Sulfur	ASTM D-5453		15 ppm	3.8	ppm
Viscosity	ASTM D-445	1.9 mm <sup>2</sup> /s	6.0 mm <sup>2</sup> /s	4.7	mm <sup>2</sup> /s
Water & Sediment	ASTM D-2709		0.050	< 0.005	%

<sup>1</sup> Denotes typical test results from outside lab analysis performed by LCS LLP.

Approved by Quality Assurance Specialist Jacob McClernon:

REC 8.4, Approved by QMR: Effective 10/3/08



# DIRECT FUELS BIODIESEL

12485 Calloway Cemetery Road  
 Euless, TX 76040  
 (817)-354-2780

## CERTIFICATE OF ANALYSIS

LOT NUMBER: 07062810

SAMPLE DATE: 6/28/2010

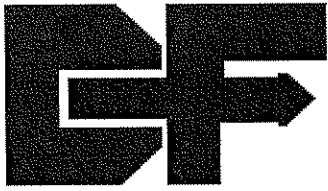
SAMPLE TYPE: Biodiesel

Test	Test Method	Min.	Max	Results	Units
Acid Number	ASTM D-664		0.50	0.40	mg KOH/g
Appearance	Visual	Report		Clear and Free	
Carbon Residue	ASTM D-4530		0.050%	< 0.001	mass %
Cetane	ASTM D-613	47		52 <sup>1</sup>	
Cloud Point	ASTM D-2500	Report °C		15	°C
Cold Soak Filtration	ASTM D-6751 Annex		200	82	seconds
Copper Corrosion	ASTM D-130		3	1A	
Distillation	ASTM D-1160		360 °C	323 <sup>1</sup>	°C
Flash Point	ASTM D-93A	130 °C		158.5	°C
Haze Rating	ASTM D-4176		2	1	
Glycerine, Free	ASTM D-6584		0.020%	0.002	mass %
Glycerine, Total	ASTM D-6584		0.240%	0.134	mass %
-Glycerine, monoglycerides	ASTM D-6584	Report %		0.419	mass %
-Glycerine, diglycerides	ASTM D-6584	Report %		0.147	mass %
-Glycerine, triglycerides	ASTM D-6584	Report %		0.010	mass %
Metals: Calcium & Magnesium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Metals: Phosphorus	ASTM D-4951		0.001%	< 0.0001 <sup>2</sup>	mass %
Metals: Potassium & Sodium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Moisture Content by K.F.	ASTM D-6304	Report		0.026	volume %
Oxidation Stability	EN 14112	3 Hours		> 12	Hours
Sulfated Ash	ASTM D-874		0.020%	< 0.001 <sup>2</sup>	mass %
Sulfur	ASTM D-5453		15 ppm	4.8	ppm
Viscosity	ASTM D-445	1.9 mm <sup>2</sup> /s	6.0 mm <sup>2</sup> /s	4.7	mm <sup>2</sup> /s
Water & Sediment	ASTM D-2709		0.050	< 0.005	%

<sup>1</sup> Denotes typical test results from outside lab analysis performed by LCS LLP on lot 08062110.

<sup>2</sup> Denotes typical test result from last lot with that analysis performed: lot # 08062110.

Approved by Quality Assurance Specialist Jacob McClernon:



# DIRECT FUELS BIODIESEL

12485 Calloway Cemetery Road  
Euleless, TX 76040  
(817)-354-2780

## CERTIFICATE OF ANALYSIS

LOT NUMBER: 09070510

SAMPLE DATE: 7/5/2010

SAMPLE TYPE: Biodiesel

Test	Test Method	Min.	Max	Results	Units
Acid Number	ASTM D-664		0.50	0.38	mg KOH/g
Appearance	Visual	Report		Clear and Free	
Carbon Residue	ASTM D-4530		0.050%	0.006	mass %
Cetane	ASTM D-613	47		52 <sup>1</sup>	
Cloud Point	ASTM D-2500	Report °C		15	°C
Cold Soak Filtration	ASTM D-6751 Annex		200	83	seconds
Copper Corrosion	ASTM D-130		3	1A	
Distillation	ASTM D-1160		360 °C	323 <sup>1</sup>	°C
Flash Point	ASTM D-93A	130 °C		156.5	°C
Haze Rating	ASTM D-4176		2	1	
Glycerine, Free	ASTM D-6584		0.020%	0.008	mass %
Glycerine, Total	ASTM D-6584		0.240%	0.131	mass %
-Glycerine, monoglycerides	ASTM D-6584	Report %		0.384	mass %
-Glycerine, diglycerides	ASTM D-6584	Report %		0.141	mass %
-Glycerine, triglycerides	ASTM D-6584	Report %		0.021	mass %
Metals: Calcium & Magnesium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Metals: Phosphorus	ASTM D-4951		0.001%	< 0.0001 <sup>2</sup>	mass %
Metals: Potassium & Sodium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Moisture Content by K.F.	ASTM D-6304	Report		0.008	volume %
Oxidation Stability	EN 14112	3 Hours		> 12	Hours
Sulfated Ash	ASTM D-874		0.020%	< 0.001 <sup>2</sup>	mass %
Sulfur	ASTM D-5453		15 ppm	2.8	ppm
Viscosity	ASTM D-445	1.9 mm <sup>2</sup> /s	6.0 mm <sup>2</sup> /s	4.7	mm <sup>2</sup> /s
Water & Sediment	ASTM D-2709		0.050	< 0.005	%

<sup>1</sup> Denotes typical test results from outside lab analysis performed by LCS LLP on lot 08062110.

<sup>2</sup> Denotes typical test result from last lot with that analysis performed: lot # 08062110.

Approved by Quality Assurance Specialist Jacob McClernon:

REC 8.4, Approved by QMR: Effective 10/3/08



# DIRECT FUELS BIODIESEL

12485 Calloway Cemetery Road  
 Euless, TX 76040  
 (817)-354-2780

## CERTIFICATE OF ANALYSIS

LOT NUMBER: 06071310

SAMPLE DATE: 7/13/2010

SAMPLE TYPE: Biodiesel

Test	Test Method	Min.	Max	Results	Units
Acid Number	ASTM D-664		0.50	0.47	mg KOH/g
Appearance	Visual	Report		Clear and Free	
Carbon Residue	ASTM D-4530		0.050%	< 0.001	mass %
Cetane	ASTM D-613	47		52 <sup>1</sup>	
Cloud Point	ASTM D-2500	Report °C		14	°C
Cold Soak Filtration	ASTM D-6751 Annex		200	78	seconds
Copper Corrosion	ASTM D-130		3	1A	
Distillation	ASTM D-1160		360 °C	323 <sup>1</sup>	°C
Flash Point	ASTM D-93A	130 °C		158.5	°C
Haze Rating	ASTM D-4176		2	1	
Glycerine, Free	ASTM D-6584		0.020%	0.013	mass %
Glycerine, Total	ASTM D-6584		0.240%	0.128	mass %
-Glycerine, monoglycerides	ASTM D-6584	Report %		0.380	mass %
-Glycerine, diglycerides	ASTM D-6584	Report %		0.116	mass %
-Glycerine, triglycerides	ASTM D-6584	Report %		0.000	mass %
Metals: Calcium & Magnesium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Metals: Phosphorus	ASTM D-4951		0.001%	< 0.0001 <sup>2</sup>	mass %
Metals: Potassium & Sodium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Moisture Content by K.F.	ASTM D-6304	Report		0.012	volume %
Oxidation Stability	EN 14112	3 Hours		> 12	Hours
Sulfated Ash	ASTM D-874		0.020%	< 0.001 <sup>2</sup>	mass %
Sulfur	ASTM D-5453		15 ppm	3.6	ppm
Viscosity	ASTM D-445	1.9 mm <sup>2</sup> /s	6.0 mm <sup>2</sup> /s	4.7	mm <sup>2</sup> /s
Water & Sediment	ASTM D-2709		0.050	< 0.005	%

<sup>1</sup> Denotes typical test results from outside lab analysis performed by LCS LLP on lot 08062110.

<sup>2</sup> Denotes typical test result from last lot with that analysis performed: lot # 08062110.

Approved by Quality Assurance Specialist Jacob McClernon:



# DIRECT FUELS BIODIESEL

12485 Calloway Cemetery Road  
 Euless, TX 76040  
 (817)-354-2780

## CERTIFICATE OF ANALYSIS

LOT NUMBER: 08071910

SAMPLE DATE: 7/19/2010

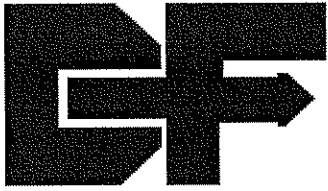
SAMPLE TYPE: Biodiesel

Test	Test Method	Min.	Max	Results	Units
Acid Number	ASTM D-664		0.50	0.49	mg KOH/g
Appearance	Visual	Report		Clear and Free	
Carbon Residue	ASTM D-4530		0.050%	< 0.001%	mass %
Cetane	ASTM D-613	47		52 <sup>1</sup>	
Cloud Point	ASTM D-2500	Report °C		14	°C
Cold Soak Filtration	ASTM D-6751 Annex		360	226	seconds
Copper Corrosion	ASTM D-130		3	1A	
Distillation	ASTM D-1160		360 °C	323 <sup>1</sup>	°C
Flash Point	ASTM D-93A	130 °C		158.5	°C
Haze Rating	ASTM D-4176		2	1	
Glycerine, Free	ASTM D-6584		0.020%	0.008	mass %
Glycerine, Total	ASTM D-6584		0.240%	0.131	mass %
-Glycerine, monoglycerides	ASTM D-6584	Report %		0.418	mass %
-Glycerine, diglycerides	ASTM D-6584	Report %		0.101	mass %
-Glycerine, triglycerides	ASTM D-6584	Report %		0.000	mass %
Metals: Calcium & Magnesium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Metals: Phosphorus	ASTM D-4951		0.001%	< 0.0002 <sup>2</sup>	mass %
Metals: Potassium & Sodium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Moisture Content by K.F.	ASTM D-6304	Report		0.025	volume %
Oxidation Stability	EN 14112	3 Hours		> 12	Hours
Sulfated Ash	ASTM D-874		0.020%	< 0.001 <sup>2</sup>	mass %
Sulfur	ASTM D-5453		15 ppm	2.4	ppm
Viscosity	ASTM D-445	1.9 mm <sup>2</sup> /s	6.0 mm <sup>2</sup> /s	4.7	mm <sup>2</sup> /s
Water & Sediment	ASTM D-2709		0.050	< 0.005	%

<sup>1</sup> Denotes typical test results from outside lab analysis performed by LCS LLP on lot 08062110.

<sup>2</sup> Denotes typical test result from last lot with that analysis performed: lot # 09071510.

Approved by Quality Assurance Specialist Jacob McClernon:



# DIRECT FUELS BIODIESEL

12485 Calloway Cemetery Road  
 Euless, TX 76040  
 (817)-354-2780

## CERTIFICATE OF ANALYSIS

LOT NUMBER: 06072710

SAMPLE DATE: 7/27/2010

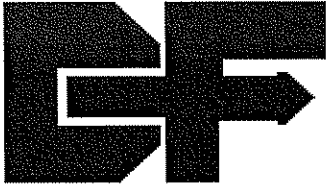
SAMPLE TYPE: Biodiesel

Test	Test Method	Min.	Max	Results	Units
Acid Number	ASTM D-664		0.50	0.43	mg KOH/g
Appearance	Visual	Report		Clear and Free	
Carbon Residue	ASTM D-4530		0.050%	0.003	mass %
Cetane	ASTM D-613	47		52 <sup>1</sup>	
Cloud Point	ASTM D-2500	Report °C		15	°C
Cold Soak Filtration	ASTM D-6751 Annex		360	82	seconds
Copper Corrosion	ASTM D-130		3	1A	
Distillation	ASTM D-1160		360 °C	323 <sup>1</sup>	°C
Flash Point	ASTM D-93A	130 °C		156.5	°C
Haze Rating	ASTM D-4176		2	1	
Glycerine, Free	ASTM D-6584		0.020%	0.019	mass %
Glycerine, Total	ASTM D-6584		0.240%	0.160	mass %
-Glycerine, monoglycerides	ASTM D-6584	Report %		0.445	mass %
-Glycerine, diglycerides	ASTM D-6584	Report %		0.169	mass %
-Glycerine, triglycerides	ASTM D-6584	Report %		0.000	mass %
Metals: Calcium & Magnesium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Metals: Phosphorus	ASTM D-4951		0.001%	< 0.0002 <sup>2</sup>	mass %
Metals: Potassium & Sodium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Moisture Content by K.F.	ASTM D-6304	Report		0.012	volume %
Oxidation Stability	EN 14112	3 Hours		> 5	Hours
Sulfated Ash	ASTM D-874		0.020%	< 0.001 <sup>2</sup>	mass %
Sulfur	ASTM D-5453		15 ppm	4.4	ppm
Viscosity	ASTM D-445	1.9 mm <sup>2</sup> /s	6.0 mm <sup>2</sup> /s	4.7	mm <sup>2</sup> /s
Water & Sediment	ASTM D-2709		0.050	< 0.005	%

<sup>1</sup> Denotes typical test results from outside lab analysis performed by LCS LLP on lot 08062110.

<sup>2</sup> Denotes typical test result from last lot with that analysis performed: lot # 09071510.

Approved by Quality Assurance Specialist Jacob McClernon:



# DIRECT FUELS BIODIESEL

12485 Calloway Cemetery Road  
Euleless, TX 76040  
(817)-354-2780

## CERTIFICATE OF ANALYSIS

LOT NUMBER: 09080410

SAMPLE DATE: 8/4/2010

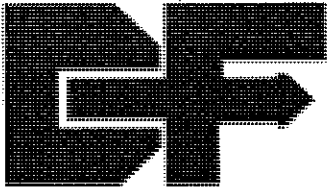
SAMPLE TYPE: Biodiesel

Test	Test Method	Min.	Max	Results	Units
Acid Number	ASTM D-664		0.50	0.47	mg KOH/g
Appearance	Visual	Report		Clear and Free	
Carbon Residue	ASTM D-4530		0.050%	< 0.001	mass %
Cetane	ASTM D-613	47		52 <sup>1</sup>	
Cloud Point	ASTM D-2500	Report °C		15	°C
Cold Soak Filtration	ASTM D-6751 Annex		360	87	seconds
Copper Corrosion	ASTM D-130		3	1A	
Distillation	ASTM D-1160		360 °C	323 <sup>1</sup>	°C
Flash Point	ASTM D-93A	130 °C		152.5	°C
Haze Rating	ASTM D-4176		2	1	
Glycerine, Free	ASTM D-6584		0.020%	0.015	mass %
Glycerine, Total	ASTM D-6584		0.240%	0.152	mass %
-Glycerine, monoglycerides	ASTM D-6584	Report %		0.462	mass %
-Glycerine, diglycerides	ASTM D-6584	Report %		0.121	mass %
-Glycerine, triglycerides	ASTM D-6584	Report %		0.000	mass %
Metals: Calcium & Magnesium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Metals: Phosphorus	ASTM D-4951		0.001%	< 0.0002 <sup>2</sup>	mass %
Metals: Potassium & Sodium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Moisture Content by K.F.	ASTM D-6304	Report		0.010	volume %
Oxidation Stability	EN 14112	3 Hours		> 12	Hours
Sulfated Ash	ASTM D-874		0.020%	< 0.001 <sup>2</sup>	mass %
Sulfur	ASTM D-5453		15 ppm	5.4	ppm
Viscosity	ASTM D-445	1.9 mm <sup>2</sup> /s	6.0 mm <sup>2</sup> /s	4.7	mm <sup>2</sup> /s
Water & Sediment	ASTM D-2709		0.050	< 0.005	%

<sup>1</sup> Denotes typical test results from outside lab analysis performed by LCS LLP on lot 08062110.

<sup>2</sup> Denotes typical test result from last lot with that analysis performed: lot # 09071510.

Approved by Quality Assurance Specialist Jacob McClernon:



# DIRECT FUELS BIODIESEL

12485 Calloway Cemetery Road  
 Euless, TX 76040  
 (817)-354-2780

## CERTIFICATE OF ANALYSIS

LOT NUMBER: 09081110

SAMPLE DATE: 8/11/2010

SAMPLE TYPE: Biodiesel

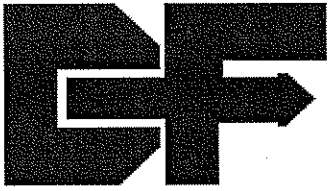
Test	Test Method	Min.	Max	Results	Units
Acid Number	ASTM D-664		0.50	0.34	mg KOH/g
Appearance	Visual	Report		Clear and Free	
Carbon Residue	ASTM D-4530		0.050%	0.003	mass %
Cetane	ASTM D-613	47		52 <sup>1</sup>	
Cloud Point	ASTM D-2500	Report °C		14	°C
Cold Soak Filtration	ASTM D-6751 Annex		360	79	seconds
Copper Corrosion	ASTM D-130		3	1A	
Distillation	ASTM D-1160		360 °C	323 <sup>1</sup>	°C
Flash Point	ASTM D-93A	130 °C		152.5	°C
Haze Rating	ASTM D-4176		2	1	
Glycerine, Free	ASTM D-6584		0.020%	0.014	mass %
Glycerine, Total	ASTM D-6584		0.240%	0.144	mass %
-Glycerine, monoglycerides	ASTM D-6584	Report %		0.432	mass %
-Glycerine, diglycerides	ASTM D-6584	Report %		0.125	mass %
-Glycerine, triglycerides	ASTM D-6584	Report %		0.000	mass %
Metals: Calcium & Magnesium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Metals: Phosphorus	ASTM D-4951		0.001%	< 0.0002 <sup>2</sup>	mass %
Metals: Potassium & Sodium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Moisture Content by K.F.	ASTM D-6304	Report		0.009	volume %
Oxidation Stability	EN 14112	3 Hours		> 12	Hours
Sulfated Ash	ASTM D-874		0.020%	< 0.001 <sup>2</sup>	mass %
Sulfur	ASTM D-5453		15 ppm	5.0	ppm
Viscosity	ASTM D-445	1.9 mm <sup>2</sup> /s	6.0 mm <sup>2</sup> /s	4.7	mm <sup>2</sup> /s
Water & Sediment	ASTM D-2709		0.050	< 0.005	%

<sup>1</sup> Denotes typical test results from outside lab analysis performed by LCS LLP on lot 08062110.

<sup>2</sup> Denotes typical test result from last lot with that analysis performed: lot # 09071510.

Approved by Quality Assurance Specialist Jacob McClernon:





# DIRECT FUELS BIODIESEL

12485 Calloway Cemetery Road  
 Euless, TX 76040  
 (817)-354-2780

## CERTIFICATE OF ANALYSIS

LOT NUMBER: 06081910

SAMPLE DATE: 8/19/2010

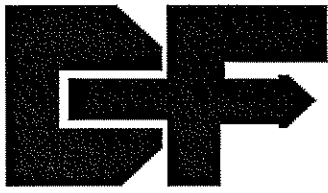
SAMPLE TYPE: Biodiesel

Test	Test Method	Min.	Max	Results	Units
Acid Number	ASTM D-664		0.50	0.41	mg KOH/g
Appearance	Visual	Report		Clear and Free	
Carbon Residue	ASTM D-4530		0.050%	< 0.001	mass %
Cetane	ASTM D-613	47		52 <sup>1</sup>	
Cloud Point	ASTM D-2500	Report °C		14	°C
Cold Soak Filtration	ASTM D-6751 Annex		360	79	seconds
Copper Corrosion	ASTM D-130		3	1A	
Distillation	ASTM D-1160		360 °C	323 <sup>1</sup>	°C
Flash Point	ASTM D-93A	130 °C		146.5	°C
Haze Rating	ASTM D-4176		2	1	
Glycerine, Free	ASTM D-6584		0.020%	0.011	mass %
Glycerine, Total	ASTM D-6584		0.240%	0.125	mass %
-Glycerine, monoglycerides	ASTM D-6584	Report %		0.370	mass %
-Glycerine, diglycerides	ASTM D-6584	Report %		0.120	mass %
-Glycerine, triglycerides	ASTM D-6584	Report %		0.000	mass %
Metals: Calcium & Magnesium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Metals: Phosphorus	ASTM D-4951		0.001%	< 0.0003 <sup>2</sup>	mass %
Metals: Potassium & Sodium	EN-14538		5 ppm	< 2 <sup>2</sup>	ppm
Moisture Content by K.F.	ASTM D-6304	Report		0.012	volume %
Oxidation Stability	EN 14112	3 Hours		> 12	Hours
Sulfated Ash	ASTM D-874		0.020%	0.009 <sup>2</sup>	mass %
Sulfur	ASTM D-5453		15 ppm	4.5	ppm
Viscosity	ASTM D-445	1.9 mm <sup>2</sup> /s	6.0 mm <sup>2</sup> /s	4.7	mm <sup>2</sup> /s
Water & Sediment	ASTM D-2709		0.050	< 0.005	%

<sup>1</sup> Denotes typical test results from outside lab analysis performed by LCS LLP on lot 08062110.

<sup>2</sup> Denotes typical test result from last lot with that analysis performed: lot 07081510.

Approved by Quality Assurance Specialist Jacob McClernon:



# DIRECT FUELS BIODIESEL

12485 Calloway Cemetery Road  
 Euless, TX 76040  
 (817)-354-2780

## CERTIFICATE OF ANALYSIS

LOT NUMBER: 06090110

SAMPLE DATE: 9/1/2010

SAMPLE TYPE: Biodiesel

Test	Test Method	Min.	Max	Results	Units
Acid Number	ASTM D-664		0.50	0.31	mg KOH/g
Appearance	Visual	Report		Clear and Free	
Carbon Residue	ASTM D-4530		0.050%	< 0.001	mass %
Cetane	ASTM D-613	47		52 <sup>1</sup>	
Cloud Point	ASTM D-2500	Report °C		15	°C
Cold Soak Filtration	ASTM D-6751 Annex		360	79	seconds
Copper Corrosion	ASTM D-130		3	1A	
Distillation	ASTM D-1160		360 °C	323 <sup>1</sup>	°C
Flash Point	ASTM D-93A	130 °C		154.5	°C
Haze Rating	ASTM D-4176		2	1	
Glycerine, Free	ASTM D-6584		0.020%	0.004	mass %
Glycerine, Total	ASTM D-6584		0.240%	0.121	mass %
-Glycerine, monoglycerides	ASTM D-6584	Report %		0.378	mass %
-Glycerine, diglycerides	ASTM D-6584	Report %		0.128	mass %
-Glycerine, triglycerides	ASTM D-6584	Report %		0.000	mass %
Metals: Calcium & Magnesium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Metals: Phosphorus	ASTM D-4951		0.001%	< 0.0003 <sup>2</sup>	mass %
Metals: Potassium & Sodium	EN-14538		5 ppm	< 2 <sup>2</sup>	ppm
Moisture Content by K.F.	ASTM D-6304	Report		0.066	volume %
Oxidation Stability	EN 14112	3 Hours		> 12	Hours
Sulfated Ash	ASTM D-874		0.020%	0.009 <sup>2</sup>	mass %
Sulfur	ASTM D-5453		15 ppm	6.2	ppm
Viscosity	ASTM D-445	1.9 mm <sup>2</sup> /s	6.0 mm <sup>2</sup> /s	4.7	mm <sup>2</sup> /s
Water & Sediment	ASTM D-2709		0.050	< 0.005	%

<sup>1</sup> Denotes typical test results from outside lab analysis performed by LCS LLP on lot 08062110.

<sup>2</sup> Denotes typical test result from last lot with that analysis performed: lot 07081510.

Approved by Quality Assurance Specialist Jacob McClernon:



# DIRECT FUELS BIODIESEL

12485 Calloway Cemetery Road  
 Euless, TX 76040  
 (817)-354-2780

## CERTIFICATE OF ANALYSIS

LOT NUMBER: 09110210  
 SAMPLE DATE: 11/2/2010  
 SAMPLE TYPE: Biodiesel

Test	Test Method	Min.	Max	Results	Units
Acid Number	ASTM D-664		0.50	0.48	mg KOH/g
Appearance	Visual	Report		Clear and Free	
Carbon Residue	ASTM D-4530		0.050%	< 0.001	mass %
Cetane	ASTM D-613	47		52 <sup>1</sup>	
Cloud Point	ASTM D-2500	Report °C		15	°C
Cold Soak Filtration	ASTM D-6751 Annex		360	86	seconds
Copper Corrosion	ASTM D-130		3	1A	
Distillation	ASTM D-1160		360 °C	323 <sup>1</sup>	°C
Flash Point	ASTM D-93A	130 °C		142.5	°C
Haze Rating	ASTM D-4176		2	1	
Glycerine, Free	ASTM D-6584		0.020%	0.015	mass %
Glycerine, Total	ASTM D-6584		0.240%	0.121	mass %
-Glycerine, monoglycerides	ASTM D-6584	Report %		0.343	mass %
-Glycerine, diglycerides	ASTM D-6584	Report %		0.115	mass %
-Glycerine, triglycerides	ASTM D-6584	Report %		0.000	mass %
Metals: Calcium & Magnesium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Metals: Phosphorus	ASTM D-4951		0.001%	< 0.0001 <sup>2</sup>	mass %
Metals: Potassium & Sodium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Moisture Content by K.F.	ASTM D-6304	Report		0.006	volume %
Oxidation Stability	EN 14112	3 Hours		> 12	Hours
Sulfated Ash	ASTM D-874		0.020%	< 0.001 <sup>2</sup>	mass %
Sulfur	ASTM D-5453		15 ppm	6.3	ppm
Viscosity	ASTM D-445	1.9 mm <sup>2</sup> /s	6.0 mm <sup>2</sup> /s	4.8	mm <sup>2</sup> /s
Water & Sediment	ASTM D-2709		0.050	< 0.005	%

<sup>1</sup> Denotes typical test results from outside lab analysis performed by LCS LLP on lot 08062110.

<sup>2</sup> Denotes typical test result from last lot with that analysis performed: lot 08101410.

Approved by Quality Assurance Specialist Jacob McClernon:



# DIRECT FUELS BIODIESEL

12485 Calloway Cemetery Road  
Eules, TX 76040  
(817)-354-2780

## CERTIFICATE OF ANALYSIS

LOT NUMBER: 07120110  
SAMPLE DATE: 12/1/2010  
SAMPLE TYPE: Biodiesel

Test	Test Method	Min.	Max	Results	Units
Acid Number	ASTM D-664		0.50	0.41	mg KOH/g
Appearance	Visual	Report		Clear and Free	
Carbon Residue	ASTM D-4530		0.050%	< 0.001	mass %
Cetane	ASTM D-613	47		52 <sup>1</sup>	
Cloud Point	ASTM D-2500	Report °C		14	°C
Cold Soak Filtration	ASTM D-6751 Annex		360	77	seconds
Copper Corrosion	ASTM D-130		3	1A	
Distillation	ASTM D-1160		360 °C	323 <sup>1</sup>	°C
Flash Point	ASTM D-93A	130 °C		146.5	°C
Haze Rating	ASTM D-4176		2	1	
Glycerine, Free	ASTM D-6584		0.020%	0.002	mass %
Glycerine, Total	ASTM D-6584		0.240%	0.139	mass %
-Glycerine, monoglycerides	ASTM D-6584	Report %		0.455	mass %
-Glycerine, diglycerides	ASTM D-6584	Report %		0.126	mass %
-Glycerine, triglycerides	ASTM D-6584	Report %		0.000	mass %
Metals: Calcium & Magnesium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Metals: Phosphorus	ASTM D-4951		0.001%	< 0.0001 <sup>2</sup>	mass %
Metals: Potassium & Sodium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Moisture Content by K.F.	ASTM D-6304	Report		0.008	volume %
Oxidation Stability	EN 14112	3 Hours		> 12	Hours
Sulfated Ash	ASTM D-874		0.020%	< 0.001 <sup>2</sup>	mass %
Sulfur	ASTM D-5453		15 ppm	7.2	ppm
Viscosity	ASTM D-445	1.9 mm <sup>2</sup> /s	6.0 mm <sup>2</sup> /s	4.7	mm <sup>2</sup> /s
Water & Sediment	ASTM D-2709		0.050	< 0.005	%

<sup>1</sup> Denotes typical test results from outside lab analysis performed by LCS LLP on lot 08062110.

<sup>2</sup> Denotes typical test result from last lot with that analysis performed: lot 06111510.

Approved by Quality Assurance Specialist Jacob McClernon:



# DIRECT FUELS BIODIESEL

12485 Calloway Cemetery Road  
 Euless, TX 76040  
 (817)-354-2780

## CERTIFICATE OF ANALYSIS

LOT NUMBER: 07010811

SAMPLE DATE: 1/8/2011

SAMPLE TYPE: Biodiesel

Test	Test Method	Min.	Max	Results	Units
Acid Number	ASTM D-664		0.50	0.43	mg KOH/g
Appearance	Visual	Report		Clear and Free	
Carbon Residue	ASTM D-4530		0.050%	< 0.001 <sup>3</sup>	mass %
Cetane	ASTM D-613	47		53 <sup>1</sup>	
Cloud Point	ASTM D-2500	Report °C		15	°C
Cold Soak Filtration	ASTM D-6751 Annex		200	82	seconds
Copper Corrosion	ASTM D-130		3	1A <sup>3</sup>	
Distillation	ASTM D-1160		360 °C	324 <sup>1</sup>	°C
Flash Point	ASTM D-93A	130 °C		148.5	°C
Haze Rating	ASTM D-4176		2	1	
Glycerine, Free	ASTM D-6584		0.020%	0.010	mass %
Glycerine, Total	ASTM D-6584		0.240%	0.124	mass %
-Glycerine, monoglycerides	ASTM D-6584	Report %		0.396	mass %
-Glycerine, diglycerides	ASTM D-6584	Report %		0.073	mass %
-Glycerine, triglycerides	ASTM D-6584	Report %		0.007	mass %
Metals: Calcium & Magnesium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Metals: Phosphorus	ASTM D-4951		0.001%	< 0.0001 <sup>2</sup>	mass %
Metals: Potassium & Sodium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Moisture Content by K.F.	ASTM D-6304	Report		0.003	volume %
Oxidation Stability	EN 14112	3 Hours		>9	Hours
Sulfated Ash	ASTM D-874		0.020%	0.001 <sup>2</sup>	mass %
Sulfur	ASTM D-5453		15 ppm	9.5	ppm
Viscosity	ASTM D-445	1.9 mm <sup>2</sup> /s	6.0 mm <sup>2</sup> /s	4.8 <sup>3</sup>	mm <sup>2</sup> /s
Water & Sediment	ASTM D-2709		0.050	< 0.005	%

<sup>1</sup> Denotes typical test results from outside lab analysis performed by LCS LLP on lot 08120310.

<sup>2</sup> Denotes typical test result from last lot with that analysis performed: lot # 08121510.

<sup>3</sup> Denotes typical test result from last lot with that analysis performed: lot # 08010611.

Approved by Director of Biodiesel Operations Mark Farrer:



# DIRECT FUELS BIODIESEL

12485 Calloway Cemetery Road  
Eules, TX 76040  
(817)-354-2780

## CERTIFICATE OF ANALYSIS

LOT NUMBER: 09020311

SAMPLE DATE: 2/3/2011

SAMPLE TYPE: Biodiesel

Test	Test Method	Min.	Max	Results	Units
Acid Number	ASTM D-664		0.50	0.43	mg KOH/g
Appearance	Visual	Report		Clear and Free	
Carbon Residue	ASTM D-4530		0.050%	< 0.001	mass %
Cetane	ASTM D-613	47		53 <sup>1</sup>	
Cloud Point	ASTM D-2500	Report °C		15	°C
Cold Soak Filtration	ASTM D-6751 Annex		200	84	seconds
Copper Corrosion	ASTM D-130		3	1A	
Distillation	ASTM D-1160		360 °C	324 <sup>1</sup>	°C
Flash Point	ASTM D-93A	130 °C		140.0	°C
Haze Rating	ASTM D-4176		2	1	
Glycerine, Free	ASTM D-6584		0.020%	0.008	mass %
Glycerine, Total	ASTM D-6584		0.240%	0.127	mass %
Glycerine, monoglycerides	ASTM D-6584	Report %		0.389	mass %
Glycerine, diglycerides	ASTM D-6584	Report %		0.121	mass %
Glycerine, triglycerides	ASTM D-6584	Report %		0.000	mass %
Metals: Calcium & Magnesium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Metals: Phosphorus	ASTM D-4951		0.001%	< 0.0001 <sup>2</sup>	mass %
Metals: Potassium & Sodium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Moisture Content by K.F.	ASTM D-6304	Report		0.005	volume %
Oxidation Stability	EN 14112	3 Hours		>12	Hours
Sulfated Ash	ASTM D-874		0.020%	< 0.001 <sup>2</sup>	mass %
Sulfur	ASTM D-5453		15 ppm	7.9	ppm
Viscosity	ASTM D-445	1.9 mm <sup>2</sup> /s	6.0 mm <sup>2</sup> /s	4.8	mm <sup>2</sup> /s
Water & Sediment	ASTM D-2709		0.050	< 0.005	%

<sup>1</sup> Denotes typical test results from outside lab analysis performed by LCS LLP on lot 08120310.

<sup>2</sup> Denotes typical test result from last lot with that analysis performed: lot # 06011711.

COA approved by Jacob McClernon, QMR.

REC 8.4, Approved by QMR: Effective 10/3/08



# DIRECT FUELS BIODIESEL

12485 Calloway Cemetery Road  
 Euless, TX 76040  
 (817)-354-2780

## CERTIFICATE OF ANALYSIS

LOT NUMBER: 07030311

SAMPLE DATE: 3/3/2011

SAMPLE TYPE: Biodiesel

Test	Test Method	Min.	Max	Results	Units
Acid Number	ASTM D-664		0.50	0.47	mg KOH/g
Appearance	Visual	Report		Clear and Free	
Carbon Residue	ASTM D-4530		0.050%	< 0.001	mass %
Cetane	ASTM D-613	47		53 <sup>1</sup>	
Cloud Point	ASTM D-2500	Report °C		15	°C
Cold Soak Filtration	ASTM D-6751 Annex		200	89	seconds
Copper Corrosion	ASTM D-130		3	1A	
Distillation	ASTM D-1160		360 °C	324 <sup>1</sup>	°C
Flash Point	ASTM D-93A	130 °C		162.5	°C
Haze Rating	ASTM D-4176		2	1	
Glycerine, Free	ASTM D-6584		0.020%	0.002	mass %
Glycerine, Total	ASTM D-6584		0.240%	0.101	mass %
-Glycerine, monoglycerides	ASTM D-6584	Report %		0.326	mass %
-Glycerine, diglycerides	ASTM D-6584	Report %		0.097	mass %
-Glycerine, triglycerides	ASTM D-6584	Report %		0.000	mass %
Metals: Calcium & Magnesium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Metals: Phosphorus	ASTM D-4951		0.001%	< 0.0001 <sup>2</sup>	mass %
Metals: Potassium & Sodium	EN-14538		5 ppm	< 1 <sup>2</sup>	ppm
Moisture Content by K.F.	ASTM D-6304	Report		0.006	volume %
Oxidation Stability	EN 14112	3 Hours		9.7	Hours
Sulfated Ash	ASTM D-874		0.020%	< 0.001 <sup>2</sup>	mass %
Sulfur	ASTM D-5453		15 ppm	6.2	ppm
Viscosity	ASTM D-445	1.9 mm <sup>2</sup> /s	6.0 mm <sup>2</sup> /s	4.8	mm <sup>2</sup> /s
Water & Sediment	ASTM D-2709		0.050	< 0.005	%

<sup>1</sup> Denotes typical test results from outside lab analysis performed by LCS LLP on lot 08120310.

<sup>2</sup> Denotes typical test result from last lot with that analysis performed: lot # 09021711.

COA approved by Jacob McClernon, QMR.

REC 8.4, Approved by QMR: Effective 10/3/08