

NVFEL Fuel Analysis Report**25402****Tier 3**

Batch#

Facility Name: US EPA NVFEL Testing Fuel Group Facility Type: In House

Owner: USEPA Phone: (734) 214-4448

2565 Plymouth Road

Ann Arbor MI 48105-2425 Washtenaw County

US

Inspector: Hilda Sola-Soto Inspection Date : 11/1/2017

Time In: 00:00 Time Out: 00:00

Samples Type: Test Fuel

VOC

Inspection information logged in by RG on 11/17/2015.

Season:

Tier 3-Tote 11-17

FTAG: 25402

Comments: Premium mixed drums 1, 3 & 4 into tote 66113, sent to Paragon

Test Code	Test Method	Results	Units	Fuel_ 76 Code:	Analyst	Analysis Date
428	Sulfur in Gasoline by D5453	8.86	Parts Per Million		NS	12/15/2015
5808	Total Oxygenate Weight Percent by D5599	10.41	Weight Percent		HS	12/15/2015
5808	Total Oxygenate Weight Percent by D5599	10.45	Weight Percent		HS	11/25/2015
427	Sulfur in Gasoline by D7039	8.9	Parts Per Million		NST	12/15/2015
428	Sulfur in Gasoline by D5453	8.86	Parts Per Million		NS	12/15/2015
552	Oxygen in MTBE by D5599	0.00	Oxygen Weight Percent		HS	12/15/2015
552	Oxygen in MTBE by D5599	0.00	Oxygen Weight Percent		HS	11/25/2015
562	Oxygen in ETBE by D5599	0.00	Oxygen Weight Percent		HS	11/25/2015
562	Oxygen in ETBE by D5599	0.00	Oxygen Weight Percent		HS	12/15/2015
534	Oxygen in Ethanol by D5599	3.62	Oxygen Weight Percent		HS	12/15/2015
534	Oxygen in Ethanol by D5599	3.63	Oxygen Weight Percent		HS	11/25/2015
572	Oxygen in TAME by D5599	0.00	Oxygen Weight Percent		HS	12/15/2015
572	Oxygen in TAME by D5599	0.00	Oxygen Weight Percent		HS	11/25/2015
62	Vapor Pressure by D5191 (Modified)	8.77	PS I		NST	11/18/2015
62	Vapor Pressure by D5191 (Modified)	8.77	PS I		NST	11/18/2015
65	Percent Evaporated at 200 Degrees F D86	47.2	Volume Percent		RG	11/18/2015
66	Percent Evaporated at 300 Degrees F D86	84.1	Volume Percent		RG	11/18/2015
48	Aromatics in Gasoline MSD D5769	23.94	Volume Percent		MP	1/12/2016
59	Total Oxygen Weight Percent by D5599	3.62	Oxygen Weight Percent		HS	12/15/2015
59	Total Oxygen Weight Percent by D5599	3.63	Oxygen Weight Percent		HS	11/25/2015
57	TAME in Fuel by D5599	0.00	Volume Percent		HS	12/15/2015
532	Ethanol in Fuel by D5599	9.80	Volume Percent		HS	11/25/2015
593	Total Oxygenates Volume Percent from D5599	9.80	Volume Percent		HS	11/25/2015
532	Ethanol in Fuel by D5599	9.77	Volume Percent		HS	12/15/2015
55	MTBE in Fuel by D5599	0.00	Volume Percent		HS	11/25/2015
55	MTBE in Fuel by D5599	0.00	Volume Percent		HS	12/15/2015
593	Total Oxygenates Volume Percent from D5599	9.77	Volume Percent		HS	12/15/2015
57	TAME in Fuel by D5599	0.00	Volume Percent		HS	11/25/2015
56	ETBE in Fuel by D5599	0.00	Volume Percent		HS	12/15/2015
56	ETBE in Fuel by D5599	0.00	Volume Percent		HS	11/25/2015

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630	Toluene in gasoline by MSD D5769	5.77 Volumn Percent	MP	1/12/2016
63	Benzene in Gasoline by GC/MSD D5769	0.59 Volume Percent	MP	1/12/2016
69	Specific Gravity @ 60 deg F D4052	0.74580 60/60F	NT	11/18/2015
692	Degrees API D4052	58.23 Degrees API	NT	11/18/2015
691	Density @ 60 deg F D4052	0.74506 g/cm-03 @ 60 deg F	NT	11/18/2015
101	Initial Boiling Point D86	103.3 Degrees F	RG	11/18/2015
110	10 Percent D86	132.6 Degrees F	RG	11/18/2015
150	50 Percent D86	208.4 Degrees F	RG	11/18/2015
190	90 Percent D86	325.0 Degrees F	RG	11/18/2015
200	End Point D86	385.0 Degrees F	RG	11/18/2015
201	Residue D86	1.0 mL	RG	11/18/2015
202	Total Recovery D86	97.5 mL	RG	11/18/2015
203	Loss D86	1.5 mL	RG	11/18/2015
543	Methanol in Fuel by D5599	0.00 Volume Percent	HS	12/15/2015
543	Methanol in Fuel by D5599	0.00 Volume Percent	HS	11/25/2015
584	Iso-Propanol in Fuel by D5599	0.00 Volume Percent	HS	12/15/2015
584	Iso-Propanol in Fuel by D5599	0.00 Volume Percent	HS	11/25/2015
585	t-Butanol in Fuel by D5599	0.00 Volume Percent	HS	12/15/2015
585	t-Butanol in Fuel by D5599	0.00 Volume Percent	HS	11/25/2015
586	n-Propanol in Fuel by D5599	0.00 Volume Percent	HS	12/15/2015
586	n-Propanol in Fuel by D5599	0.00 Volume Percent	HS	11/25/2015
587	sec-Butanol in Fuel by D5599	0.00 Volume Percent	HS	12/15/2015
587	sec-Butanol in Fuel by D5599	0.00 Volume Percent	HS	11/25/2015
588	DIPE in Fuel by D5599	0.00 Volume Percent	HS	11/25/2015
588	DIPE in Fuel by D5599	0.00 Volume Percent	HS	12/15/2015
589	Iso-Butanol in Fuel by D5599	0.00 Volume Percent	HS	11/25/2015
589	Iso-Butanol in Fuel by D5599	0.00 Volume Percent	HS	12/15/2015
5801	t-Amyl Alcohol in Fuel by D5599	0.00 Volume Percent	HS	12/15/2015
5801	t-Amyl Alcohol in Fuel by D5599	0.00 Volume Percent	HS	11/25/2015
5802	n-Butanol in Fuel by D5599	0.00 Volume Percent	HS	11/25/2015
5802	n-Butanol in Fuel by D5599	0.00 Volume Percent	HS	12/15/2015
30	Lead in Gasoline by D3237	0.00 Gram Pb per Gallon	Paragon	12/7/2015
227	Gum Content Washed	0.5 mg/100ml	Paragon	12/7/2015
228	Gum Content Unwashed	1.6 mg/100ml	Paragon	12/7/2015
991	Phosphorus in Gasoline by D3231	0.0002 Grams per Gallon	Paragon	12/4/2015
221	Motor Octane	88.4 Motor Octane Number	Paragon	12/7/2015
218	Sensitivity	9.4 RON-MON	CPU	12/7/2015
219	Antiknock	93.10 (RON+MON)/2	CPU	12/7/2015
220	Research Octane	97.8 Research Octane Number	Paragon	12/7/2015
230	Net Heating Value D240	17967.00 BTU/lb	Paragon	12/10/2015
231	Carbon Content D5291	82.67 Weight Percent	Paragon	12/4/2015

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232 Hydrogen Content D5291

13.70 Weight Percent

Paragon 12/4/2015

492 Olefins by D6550

5.1 Weight Percent

LS 12/10/2015

492 Olefins by D6550

5.2 Weight Percent

LS 12/10/2015

SUGGESTED CITATION: 2015 Ford 2.7L EcoBoost V6 Engine Tier 3 Fuel HD1 – Test Data Package. Version 2019-11.

Ann Arbor, MI: US EPA, National Vehicle and Fuel Emissions Laboratory, National Center for Advanced Technology, 2019.