

NVFEL Fuel Analysis Report

26781

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 6/22/2017.

Season:

Tier 3-Reg tank 31C

FTAG: 26781

Comments: Matt's 5769, Haltermann Batch FD1121LT10, Paragon

Test Code	Test Method	Results	Units	Fuel_ 74 Code:	Analyst	Analysis Date
5900	Oxidation Stability by D525	1440.0	minutes		Paragon	9/20/2017
5808	Total Oxygenate Weight Percent by D5599	10.32	Weight Percent		HS	7/5/2017
428	Sulfur in Gasoline by D5453	9.61	Parts Per Million		NS	6/28/2017
552	Oxygen in MTBE by D5599	0.00	Oxygen Weight Percent		HS	7/5/2017
562	Oxygen in ETBE by D5599	0.00	Oxygen Weight Percent		HS	7/5/2017
534	Oxygen in Ethanol by D5599	3.58	Oxygen Weight Percent		HS	7/5/2017
572	Oxygen in TAME by D5599	0.00	Oxygen Weight Percent		HS	7/5/2017
62	Vapor Pressure by D5191 (Modified)	8.98	PS I		NST	6/22/2017
62	Vapor Pressure by D5191 (Modified)	8.96	PS I		NST	6/22/2017
65	Percent Evaporated at 200 Degrees F D86	50.0	Volume Percent		RG	6/26/2017
66	Percent Evaporated at 300 Degrees F D86	85.2	Volume Percent		RG	6/26/2017
48	Aromatics in Gasoline MSD D5769	23.14	Volume Percent		MP	7/17/2017
49	Olefins in by FIA D1319	5.4	Volume Percent		RCG	7/18/2017
532	Ethanol in Fuel by D5599	9.66	Volume Percent		HS	7/5/2017
593	Total Oxygenates Volume Percent from D5599	9.66	Volume Percent		HS	7/5/2017
55	MTBE in Fuel by D5599	0.00	Volume Percent		HS	7/5/2017
57	TAME in Fuel by D5599	0.00	Volume Percent		HS	7/5/2017
59	Total Oxygen Weight Percent by D5599	3.58	Oxygen Weight Percent		HS	7/5/2017
56	ETBE in Fuel by D5599	0.00	Volume Percent		HS	7/5/2017
630	Toluene in gasoline by MSD D5769	5.86	Volume Percent		MP	7/17/2017
63	Benzene in Gasoline by GC/MSD D5769	0.49	Volume Percent		MP	7/17/2017
46	Aromatics by FIA D1319	21.7	Volume Percent		RCG	7/18/2017
69	Specific Gravity @ 60 deg F D4052	0.74400	60/60F		NT	6/22/2017
692	Degrees API D4052	58.69	Degrees API		NT	6/22/2017
691	Density @ 60 deg F D4052	0.74326	g/cm-03 @ 60 deg F		NT	6/22/2017
101	Initial Boiling Point D86	97.9	Degrees F		RG	6/26/2017
110	10 Percent D86	128.1	Degrees F		RG	6/26/2017
150	50 Percent D86	199.9	Degrees F		RG	6/26/2017
190	90 Percent D86	318.9	Degrees F		RG	6/26/2017
200	End Point D86	382.6	Degrees F		RG	6/26/2017

201	Residue	D86	1.0 mL	RG	6/26/2017
202	Total Recovery	D86	97.9 mL	RG	6/26/2017
203	Loss	D86	1.1 mL	RG	6/26/2017
543	Methanol in Fuel by D5599		0.00 Volume Percent	HS	7/5/2017
584	Iso-Propanol in Fuel by D5599		0.00 Volume Percent	HS	7/5/2017
585	t-Butanol in Fuel by D5599		0.00 Volume Percent	HS	7/5/2017
586	n-Propanol in Fuel by D5599		0.00 Volume Percent	HS	7/5/2017
587	sec-Butanol in Fuel by D5599		0.00 Volume Percent	HS	7/5/2017
588	DIPE in Fuel by D5599		0.00 Volume Percent	HS	7/5/2017
589	Iso-Butanol in Fuel by D5599		0.00 Volume Percent	HS	7/5/2017
5801	t-Amyl Alcohol in Fuel by D5599		0.00 Volume Percent	HS	7/5/2017
5802	n-Butanol in Fuel by D5599		0.00 Volume Percent	HS	7/5/2017
30	Lead in Gasoline by D3237		0.00 Gram Pb per Gallon	Paragon	9/20/2017
227	Gum Content Washed		2.0 mg/100ml	Paragon	9/20/2017
228	Gum Content Unwashed		2.2 mg/100ml	Paragon	9/20/2017
991	Phosphorus in Gasoline by D3231		0.0008 Grams per Gallon	Paragon	9/20/2017
221	Motor Octane		84.0 Motor Octane Number	Paragon	9/20/2017
218	Sensitivity		8.0 RON-MON	CPU	9/20/2017
219	Antiknock		88.00 (RON+MON)/2	CPU	9/20/2017
220	Research Octane		92.0 Research Octane Number	Paragon	9/20/2017
225	Copper Corrosion D130		1a Designation	Paragon	9/20/2017
230	Net Heating Value D240		18037.00 BTU/lb	Paragon	9/20/2017
231	Carbon Content D5291		82.99 Weight Percent	Paragon	9/20/2017
232	Hydrogen Content D5291		13.43 Weight Percent	Paragon	9/20/2017
492	Olefins by D6550		5.3 Weight Percent	WRC	6/30/2017
492	Olefins by D6550		5.4 Weight Percent	WRC	6/30/2017

SUGGESTED CITATION: 2016 Mazda 2.5L Turbo Skyactiv-G Engine Tier 3 Fuel – Test Data Package. Version 2019-02.

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