POLARIS Laboratories

Fuel Analysis Report

North America: +1-877-808-3750

FAIL ☒

Sample does not meet ASTM specifications for fuel type designated.

Account Information		Component Information		Sample Information	
Account Number:	642073-0000-0000	Component ID:	5 MICRON OUTLET DF	Tracking Number:	20085T54421
Company Name:	PRECISE POWER SYSTEMS	Secondary ID:		Lab Number:	I-279664
Contact:	TOM MARKHAM	Fuel Type:	DIESEL FUEL	Lab Location:	Indianapolis
Address:	10520 PLAZA DRIVE WHITMORE LAKE, MI 48189 US	Manufacturer:		Data Analyst:	CXW
		Model:		Sampled:	2020
Phone Number:		Application:	UNKNOWN	Received:	15-May-2020
		Tank Capacity:		Completed:	18-May-2020

Filter Information		Miscellaneous Information
Filter Change:	Unknown	
Filter Type:	Information Requested	
Micron Rating:	9	

Comments Particle count results exceed acceptable limits. Increased injector and fuel pump WEAR may result. PARTICLE COUNT RESULTS suggest the use of PORTABLE FILTRATION to improve SYSTEM CLEANLINESS; and/or; FILTER CHANGE suggested if not done at sampling time (as applicable). Resample at half interval.

Test Results

Test Method	Test Name	Result	Min	Max
ASTM D7220	Sulfur (ppm)			
ASTM D2709	Water and Sediment (%)			
mod. ASTM D6304	Water by Karl Fischer (%)			
mod. ASTM D6304	Water by Karl Fischer (ppm)	46		
Manufacturer	Aerobic Bacteria (Counts)			
Manufacturer	Bacteria (Counts)			
Manufacturer	Fungi (Counts)			
Manufacturer	Mold (Counts)			
mod. ASTM D6468	Thermal Stablity (%)			
mod. ASTM D445	Viscosity 40°C (cSt)			
mod. ASTM D445	Viscosity 100 °C (cSt)			
mod. ASTM D664	Acid Number (mg KOH/g)			
ASTM D7689	Cloud Point (°C)			
ASTM D7346	Pour Point (°C)			
ASTM D6371	Cold Filter Plug Point (°C)			
ASTM D3828	Closed Cup Flash Point (°C)			
ASTM D7345 "Predicted D86"	Distillation Initial Boiling Point (°C)			
ASTM D7345 "Predicted D86"	Distillation 10% Recovered (°C)			
ASTM D7345 "Predicted D86"	Distillation 50% Recovered (°C)			
ASTM D7345 "Predicted D86"	Distillation 90% Recovered (°C)			
ASTM D7345 "Predicted D86"	Distillation Final Boiling Point (°C)			
ASTM D976	Cetane Index			
ASTM D7777	API Gravity			
ASTM D7777	Density (g/mL)			
Internal Method	Specific Gravity			
ASTM D4868	BTU Per Gallon (BTU/gal)			
ASTM D4868	BTU Per Pound (BTU/lb)			
ASTM D6079	Lubricity (µm)			
ASTM D130	Copper Corrosion			
ASTM D482	Ash Content (mass %)			
ASTM D189	Carbon Residue (%)			
ASTM D7371	% Biodiesel - FAME (%)			

Elemental Analysis mod. ASTM D5185	Result	Min	Max
Iron (ppm)			
Chromium (ppm)			
Nickel (ppm)			
Aluminum (ppm)			
Copper (ppm)			
Lead (ppm)			
Tin (ppm)			
Cadmium (ppm)			
Silver (ppm)			
Vanadium (ppm)			
Silicon (ppm)			
Sodium (ppm)			
Potassium (ppm)			
Titanium (ppm)			
Molybdenum (ppm)			
Antimony (ppm)			
Manganese (ppm)			
Lithium (ppm)			
Boron (ppm)			
Magnesium (ppm)			
Calcium (ppm)			
Barium (ppm)			
Phosphorus (ppm)			
Zinc (ppm)			

Particle Count (particles/mL) ISO 4406 & mod. ISO 11500	Result	Min	Max
ISO Cleanliness Code	**23 / 22 / 17**	/ /	/ /
> 4µm	**59923**		
> 6µm	**27129**		
> 10µm	**4239**		
> 14µm	**843**		
> 21µm	**71**		
> 38µm	1		
> 70µm	0		
> 100µm	0		