

0	1	2	3	4
NORMAL	ABNORMAL	ABNORMAL	ABNORMAL	CRITICAL

Overall report severity based on comments.

Account Information		Component Information		Sample Information	
Account Number:	[REDACTED]	Component ID: 2020 ECODIESEL E		Tracking Number: 20150T24560	
Company Name:	[REDACTED]	Secondary ID:		Lab Number: I-083060	
Contact:	[REDACTED]	Component Type: DIESEL ENGINE		Lab Location: Indianapolis	
Address:	[REDACTED]	Manufacturer: VM MOTORI		Data Analyst: RTF	
Phone Number:	[REDACTED]	Model: 3.0 TURBO		Sampled: 19-Jun-2021	
		Application: AUTOMOTIVE		Received: 25-Jun-2021	
		Sump Capacity: 9 qt		Completed: 29-Jun-2021	
Filter Information		Miscellaneous Information		Product Information	
Filter Type: FULLFLOW				Product Manufacturer: FACTORY FILL	
Micron Rating: 0				Product Name: Information Requested	
				Viscosity Grade: <a href="#">Information Requested</a>	
Comments	Flagged data may be 'wear-in' or contamination from overhauled or new unit; Silicon/Dirt may be present due to new unit contamination; POTASSIUM in new engines may be from protective coatings from bearings or heads, and/or SOLDER FLUX from oil cooler; Aluminum is at a MINOR LEVEL; ALUMINUM sources in ENGINES include pistons, block and components (intake manifold, head, bearing caps), thrust bearings, main/rod bearing overlay or backing, alumina silica, or contamination from grease. Suspect most of the copper may be coming from the lubricant cooler and/or EGR cooler (as applicable), COPPER is at a MINOR LEVEL; We are unable to evaluate lube properties (Additives, Viscosity) due to missing information (Manufacturer, Type & Grade). Lubricant and filter change acknowledged.				

Sample #	Wear Metals (ppm)										Contaminant Metals (ppm)			Multi-Source Metals (ppm)					Additive Metals (ppm)					
	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
1	19	1	0	13	14	0	0	0	0	0	36	4	24	0	47	0	5	1	72	21	2505	0	803	920

Sample Information									Contaminants			Fluid Properties				
Sample #	Date Sampled	Date Received	Lube Time	Unit Time	Lube Change	Lube Added	Filter Change	Fuel Dilution	Soot	Water	Viscosity 40°C	Viscosity 100 °C	Acid Number	Base No. D4739	Oxidation	Nitration
			mi	mi	Yes	qt	Yes	%	%	%	cSt	cSt	mg KOH/g	mg KOH/g	abs/cm	abs/0.1 mm
1	19-Jun-2021	25-Jun-2021	4133	4133	Yes	9	Yes	0.6 - GC	<.1	<.1 - FTIR		13.0		8.32	9	10

Particle Count (particles/mL)										Additional Testing		
Sample #	ISO Code	Based On 4/6/14	> 4 µm	> 6 µm	> 10 µm	> 14 µm	> 21 µm	> 38 µm	> 70 µm	> 100 µm	Test Method	
1	//											

Comments are advisory only and are based on the assumption that the sample and data submitted are valid. Results relate only to the items tested. Missing fluid or component information limits the evaluation. No warranty is expressed or implied. Measurement uncertainty available upon request.