

Customer Information

Customer: Char-EM ISD
 Attention: Tim
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Component Information

Unit Name: 7.1
 Manufacturer: Navistar-International (IHC)
 Unit Type: Engine - Diesel
 Fluid Name: Dexos UNKN SAE 5w30

Element Key

Cu Copper	Fe Iron	Cr Chromium	Al Aluminum	Pb Lead	Sn Tin	Ca Calcium	Mg Magnesium
Zn Zinc	P Phosphorus	Mo Molybdenum	B Boron	Ag Silver	Ni Nickel	Na Sodium	K Potassium

Sample Information

Lab ID	Quarts/Miles	Meter	Date Received	Date Sampled	Cu	Fe	Cr	Al	Pb	Sn	Si	Ca	Mg	Zn	P	Mo	B	Ag	Ni	Na	K
1765342	1	5949	2025-05-15	2025-05-05	2	65	2	28	0	0	5	1381	455	1120	895	37	43	0	0	1	0

Comments: Aluminum appears high. This shows possible cylinder wear. Check the engine for excessive crankcase pressure. Check for oil consumption. Recommend changing the oil/filters and resampling at a short interval. NOTE: The higher Aluminum can also be elevated from a Charge Air Cooler leaching, if the unit has one. NOTE: Oil Changed

ASTM D5185 Wear Metals by ICP-OES (ppm)

Lab ID	Oxidation (A/cm)	Nitration (A/cm)	Sulfation (A/cm)	Glycol (P/N)	Fuel (%)	Soot (%)	Water (%)	Water (ppm)	ASTM 6304	ASTM D2896	ASTM D4739	ASTM D664	Viscosity (cSt) (ASTM D445)	Sulfur (ppm)	Chlorine (ppm)	MPC
1765342	29	4	29	No	0.0	0.97	0.20						100c 10.2	40c		

FT-IR Analysis (ASTM D7418)

Lab ID	ISO Class Code	> 4 (µ)	> 6 (µ)	> 10 (µ)	> 14 (µ)	> 25 (µ)	> 50 (µ)	> 100 (µ)
1765342								

Particle Count (Particles per 1mL) (ISO 4406/ISO 11500)

Lab ID	ISO Class Code	> 4 (µ)	> 6 (µ)	> 10 (µ)	> 14 (µ)	> 25 (µ)	> 50 (µ)	> 100 (µ)
1765342								