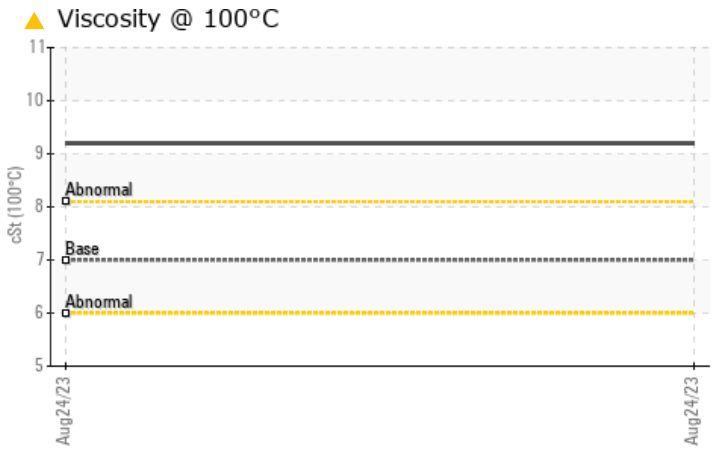
PROBLEM SUMMARY

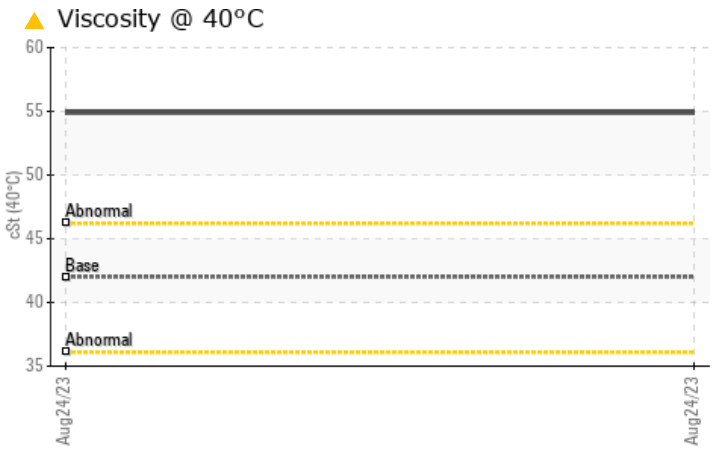
Sample Rating Trend

VISCOSITY

Machine Id
70007 T1
Component
Unknown Component
Fluid
MOBIL DELVAC 1310 (--- GAL)

COMPONENT CONDITION SUMMARY





RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. The fluid was specified as MOBIL DELVAC 1310, however, a fluid match indicates that this fluid is SAE 5W20 Diesel Engine Oil. Please confirm the sample type and grade on your next sample. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	42	▲ **54.9**	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	7.0	▲ **9.2**	---	---

Customer Id: VMEGUE
Sample No.: WC0809058
Lab Number: 02578470
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Kevin Marson +1 (289)291-4644 x4644
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To change component or sample information:
Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Alert	---	---	?	The fluid was specified as MOBIL DELVAC 1310, however, a fluid match indicates that this fluid is SAE 5W20 Diesel Engine Oil. Please confirm the sample type and grade on your next sample.
Information Required	---	---	?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.
Check Fluid Source	---	---	?	Confirm the source of the lubricant being utilized for top-up/fill.

HISTORICAL DIAGNOSIS

OIL ANALYSIS REPORT

Sample Rating Trend

VISCOSITY

Machine Id
70007 T1
Component
Unknown Component
Fluid
MOBIL DELVAC 1310 (--- GAL)

DIAGNOSIS

Recommendation

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. The fluid was specified as MOBIL DELVAC 1310, however, a fluid match indicates that this fluid is SAE 5W20 Diesel Engine Oil. Please confirm the sample type and grade on your next sample. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Fluid Condition

Viscosity of sample indicates oil is within SAE 5W20 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The AN level is acceptable for this fluid. The condition of the sample is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0809058**	---	---
Sample Date		Client Info		**24 Aug 2023**	---	---
Machine Age	hrs	Client Info		**8**	---	---
Oil Age	hrs	Client Info		**0**	---	---
Oil Changed		Client Info		**N/A**	---	---
Sample Status				**ABNORMAL**	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)		**3**	---	---
Chromium	ppm	ASTM D5185(m)		**<1**	---	---
Nickel	ppm	ASTM D5185(m)		**0**	---	---
Titanium	ppm	ASTM D5185(m)		**0**	---	---
Silver	ppm	ASTM D5185(m)		**0**	---	---
Aluminum	ppm	ASTM D5185(m)		**<1**	---	---
Lead	ppm	ASTM D5185(m)		**0**	---	---
Copper	ppm	ASTM D5185(m)		**<1**	---	---
Tin	ppm	ASTM D5185(m)		**0**	---	---
Antimony	ppm	ASTM D5185(m)		**0**	---	---
Vanadium	ppm	ASTM D5185(m)		**0**	---	---
Beryllium	ppm	ASTM D5185(m)		**0**	---	---
Cadmium	ppm	ASTM D5185(m)		**0**	---	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**1**	---	---
Barium	ppm	ASTM D5185(m)		**0**	---	---
Molybdenum	ppm	ASTM D5185(m)		**0**	---	---
Manganese	ppm	ASTM D5185(m)		**<1**	---	---
Magnesium	ppm	ASTM D5185(m)		**579**	---	---
Calcium	ppm	ASTM D5185(m)		**2799**	---	---
Phosphorus	ppm	ASTM D5185(m)		**1071**	---	---
Zinc	ppm	ASTM D5185(m)		**1162**	---	---
Sulfur	ppm	ASTM D5185(m)		**3518**	---	---
Lithium	ppm	ASTM D5185(m)		**<1**	---	---

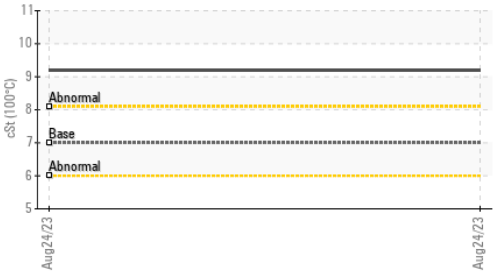
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)		**11**	---	---
Sodium	ppm	ASTM D5185(m)		**<1**	---	---
Potassium	ppm	ASTM D5185(m)	>20	**0**	---	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	**834**	---	---
Particles >6µm		ASTM D7647	>1300	**110**	---	---
Particles >14µm		ASTM D7647	>160	**10**	---	---
Particles >21µm		ASTM D7647	>40	**5**	---	---
Particles >38µm		ASTM D7647	>10	**3**	---	---
Particles >71µm		ASTM D7647	>3	**2**	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	**17/14/10**	---	---

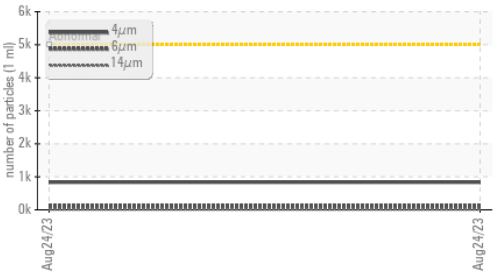
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		**2.25**	---	---

OIL ANALYSIS REPORT

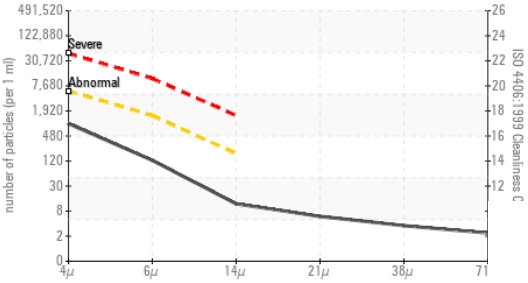
Viscosity @ 100°C



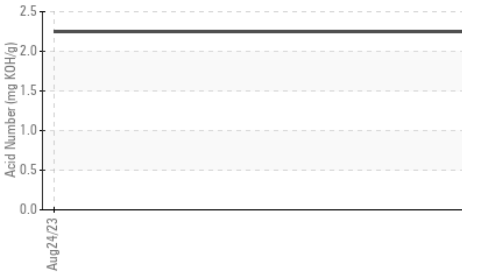
Particle Trend



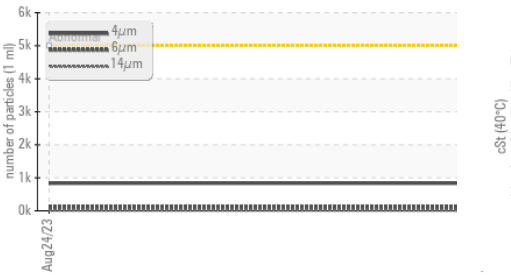
Particle Count



Acid Number



Particle Trend



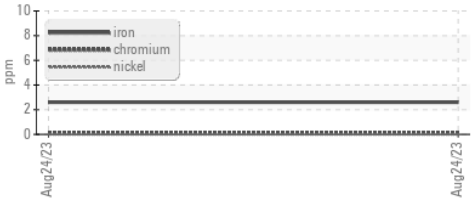
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	---	---
Yellow Metal	scalar	Visual*	NONE	**NONE**	---	---
Precipitate	scalar	Visual*	NONE	**NONE**	---	---
Silt	scalar	Visual*	NONE	**NONE**	---	---
Debris	scalar	Visual*	NONE	**VLITE**	---	---
Sand/Dirt	scalar	Visual*	NONE	**NONE**	---	---
Appearance	scalar	Visual*	NORML	**NORML**	---	---
Odor	scalar	Visual*	NORML	**NORML**	---	---
Emulsified Water	scalar	Visual*		**NEG**	---	---
Free Water	scalar	Visual*		**NEG**	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	42	▲ **54.9**	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	7.0	▲ **9.2**	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	125	**149**	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				*no image*	*no image*
Bottom				*no image*	*no image*

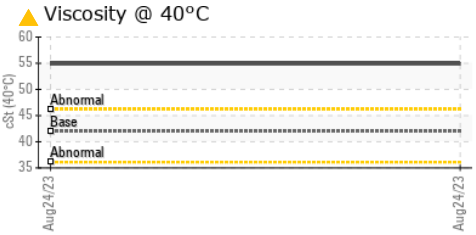
GRAPHS

Ferrous Alloys

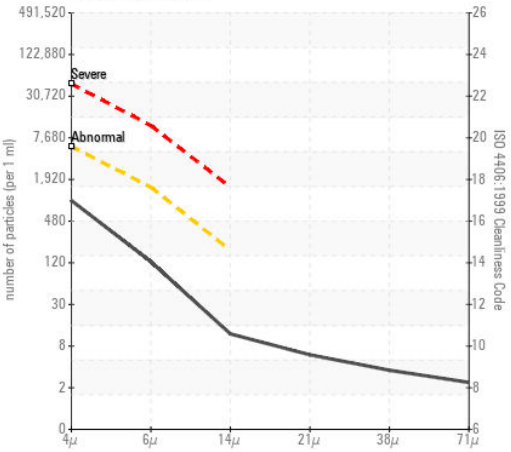


Non-ferrous Metals

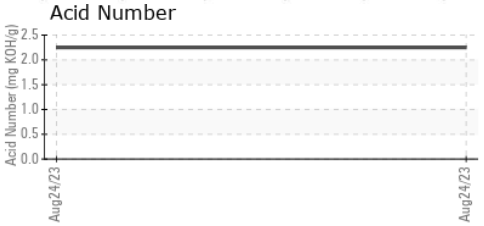
Viscosity @ 40°C



Particle Count



Acid Number



CALA
ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **HITACHI TRUCK MANUFACTURING**
Sample No. : WC0809058 **Received** : 25 Aug 2023 200 WOODLAWN ROAD WEST
Lab Number : 02578470 **Diagnosed** : 28 Aug 2023 GUELPH, ON
Unique Number : 5631530 **Diagnostician** : Kevin Marson CA N1H 1B6
Test Package : IND 2 (Additional Tests: KV100, PrtCount, TAN Man, VI) Contact: Cal Banman
To discuss this sample report, contact Customer Service at 1-800-268-2131. cbanman@hitachitruck.com
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. T: (519)826-5593
Validity of results and interpretation are based on the sample and information as supplied. F: (519)826-5545