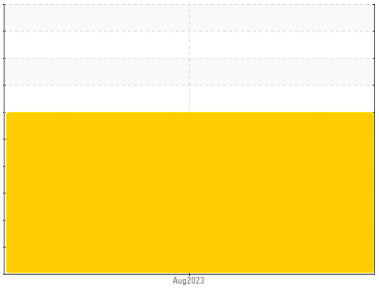
OIL ANALYSIS REPORT

Sample Rating Trend



DIRT

Machine Id
52410-91860
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Check for low coolant level. We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend that you drain the oil from the component if this has not already been done. We advise that you flush the component thoroughly before re-filling with oil. We recommend you service the filters on this component. We recommend an early resample to monitor this condition. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 15W40. Please confirm. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal. We have assumed that this component is not breaking in (age of component not reported).

Contamination

Water treatment chemicals present, indicating slow coolant leak. High concentration of dirt present in the oil. Test for glycol is negative.

Fluid Condition

The condition of the oil is acceptable for the time in service (see recommendation). The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PC**	---	---
Sample Date		Client Info		**10 Aug 2023**	---	---
Machine Age	hrs	Client Info		**0**	---	---
Oil Age	hrs	Client Info		**0**	---	---
Oil Changed		Client Info		**N/A**	---	---
Sample Status				**SEVERE**	---	---

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>5	**<1.0**	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	**33**	---	---
Chromium	ppm	ASTM D5185(m)	>20	**2**	---	---
Nickel	ppm	ASTM D5185(m)	>4	**1**	---	---
Titanium	ppm	ASTM D5185(m)		**<1**	---	---
Silver	ppm	ASTM D5185(m)	>3	**<1**	---	---
Aluminum	ppm	ASTM D5185(m)	>20	**5**	---	---
Lead	ppm	ASTM D5185(m)	>40	**3**	---	---
Copper	ppm	ASTM D5185(m)	>330	**15**	---	---
Tin	ppm	ASTM D5185(m)	>15	**2**	---	---
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)	250	**124**	---	---
Barium	ppm	ASTM D5185(m)	10	**1**	---	---
Molybdenum	ppm	ASTM D5185(m)	100	**85**	---	---
Manganese	ppm	ASTM D5185(m)		**1**	---	---
Magnesium	ppm	ASTM D5185(m)	450	**890**	---	---
Calcium	ppm	ASTM D5185(m)	3000	**1331**	---	---
Phosphorus	ppm	ASTM D5185(m)	1150	**961**	---	---
Zinc	ppm	ASTM D5185(m)	1350	**1063**	---	---
Sulfur	ppm	ASTM D5185(m)	4250	**2342**	---	---
Lithium	ppm	ASTM D5185(m)		**<1**	---	---

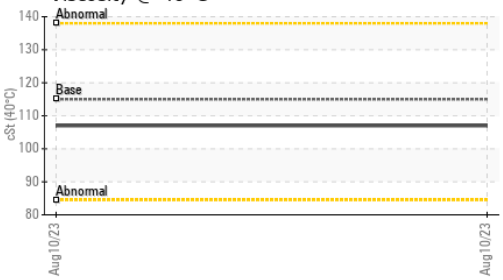
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**141**	---	---
Sodium	ppm	ASTM D5185(m)	>158	**22**	---	---
Potassium	ppm	ASTM D5185(m)	>20	**44**	---	---
Glycol	%	ASTM D7922*		**0.0**	---	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	**0**	---	---
Nitration	Abs/cm	ASTM D7624*	>20	**4.7**	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	**20.3**	---	---

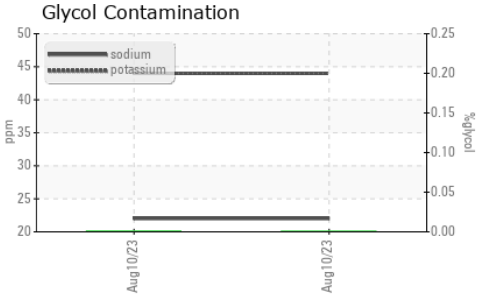
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**13.9**	---	---

OIL ANALYSIS REPORT

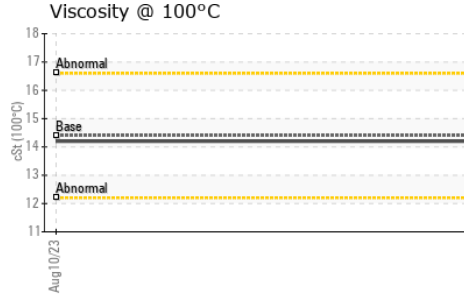
Viscosity @ 40°C



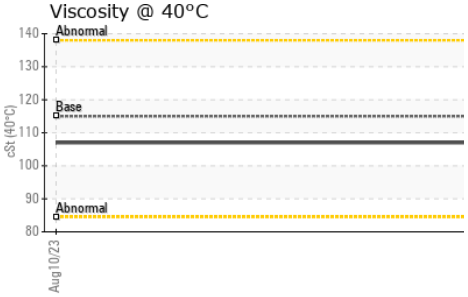
Glycol Contamination



Viscosity @ 100°C



Viscosity @ 40°C

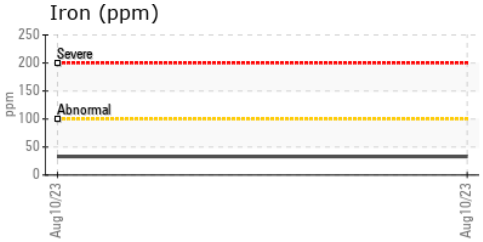


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**VLITE**	---	---
Yellow Metal	scalar	Visual*	NONE	**NONE**	---	---
Precipitate	scalar	Visual*	NONE	**NONE**	---	---
Silt	scalar	Visual*	NONE	**VLITE**	---	---
Debris	scalar	Visual*	NONE	**NONE**	---	---
Sand/Dirt	scalar	Visual*	NONE	**NONE**	---	---
Appearance	scalar	Visual*	NORML	**NORML**	---	---
Odor	scalar	Visual*	NORML	**NORML**	---	---
Emulsified Water	scalar	Visual*	>0.2	**NEG**	---	---
Free Water	scalar	Visual*		**NEG**	---	---

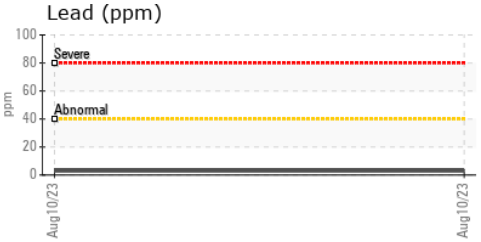
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	115	**107**	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	**14.2**	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	126	**134**	---	---

GRAPHS

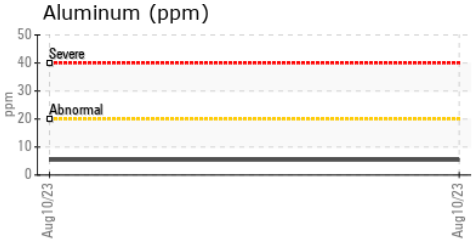
Iron (ppm)



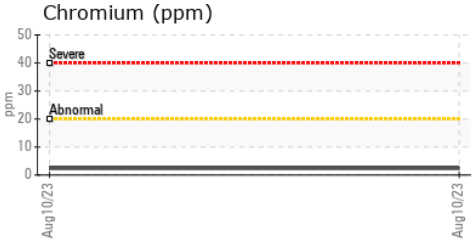
Lead (ppm)



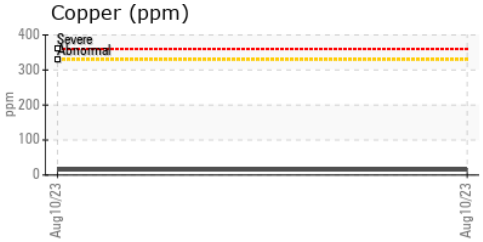
Aluminum (ppm)



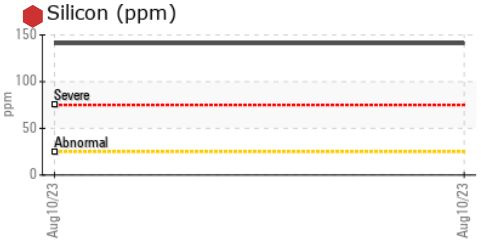
Chromium (ppm)



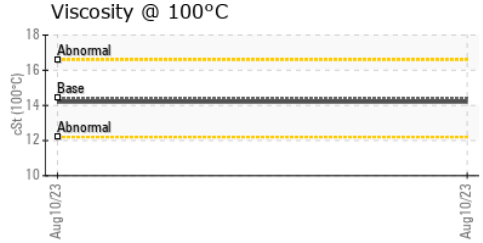
Copper (ppm)



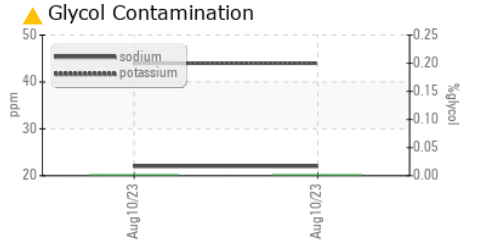
Silicon (ppm)



Viscosity @ 100°C



Glycol Contamination



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC
Lab Number : 02575338
Unique Number : 5620389
Test Package : MOB 1 (Additional Tests: Glycol, KV40, VI, Visual)
Received : 11 Aug 2023
Diagnosed : 11 Aug 2023
Diagnostician : Kevin Marson

To discuss this sample report, contact Customer Service at 1-800-268-2131.
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
Validity of results and interpretation are based on the sample and information as supplied.

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