

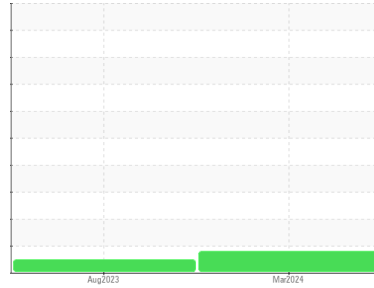


OIL ANALYSIS REPORT

Sample Rating Trend

WEAR

Area
[66824]
 Machine Id
VOLVO VNR660 4649
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 10W30 (--- GAL)



DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

Nickel ppm levels are abnormal. Exhaust valve wear is indicated.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0909053	WC0831170	---
Sample Date	Client Info		16 Mar 2024	18 Aug 2023	---
Machine Age	kms	Client Info	279525	181251	---
Oil Age	kms	Client Info	0	0	---
Oil Changed	Client Info		Changed	N/A	---
Sample Status			ABNORMAL	NORMAL	---

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>6.0	<1.0	<1.0	---
Water	WC Method	>0.2	NEG	NEG	---

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>100	57	58	---
Chromium	ppm	ASTM D5185(m)	>20	1	2	---
Nickel	ppm	ASTM D5185(m)	>2	▲ 4	2	---
Titanium	ppm	ASTM D5185(m)		0	0	---
Silver	ppm	ASTM D5185(m)	>2	<1	<1	---
Aluminum	ppm	ASTM D5185(m)	>25	10	9	---
Lead	ppm	ASTM D5185(m)	>40	3	4	---
Copper	ppm	ASTM D5185(m)	>330	26	57	---
Tin	ppm	ASTM D5185(m)	>15	2	3	---
Antimony	ppm	ASTM D5185(m)		0	0	---
Vanadium	ppm	ASTM D5185(m)		0	0	---
Beryllium	ppm	ASTM D5185(m)		0	0	---
Cadmium	ppm	ASTM D5185(m)		0	0	---

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	2	3	6	---
Barium	ppm	ASTM D5185(m)	0	0	0	---
Molybdenum	ppm	ASTM D5185(m)	50	68	68	---
Manganese	ppm	ASTM D5185(m)	0	<1	2	---
Magnesium	ppm	ASTM D5185(m)	950	1003	934	---
Calcium	ppm	ASTM D5185(m)	1050	1167	1345	---
Phosphorus	ppm	ASTM D5185(m)	995	1000	1035	---
Zinc	ppm	ASTM D5185(m)	1180	1252	1197	---
Sulfur	ppm	ASTM D5185(m)	2600	2294	2040	---
Lithium	ppm	ASTM D5185(m)		<1	<1	---

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	10	10	---
Sodium	ppm	ASTM D5185(m)		2	3	---
Potassium	ppm	ASTM D5185(m)	>20	8	16	---
Glycol	%	ASTM D7922*		0.0	NEG	---

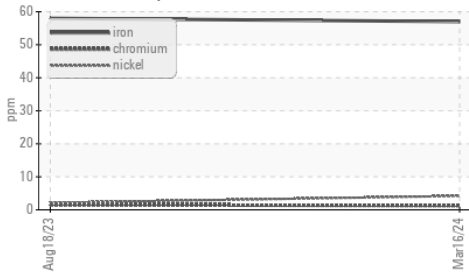
INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	0.8	0.8	---
Nitration	Abs/cm	ASTM D7624*	>20	11.9	13.7	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	24.4	27.6	---

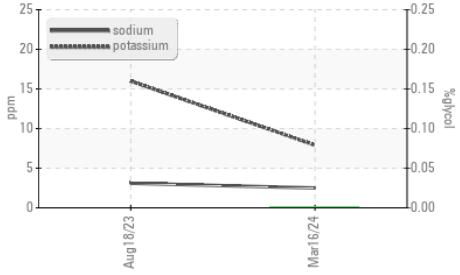


OIL ANALYSIS REPORT

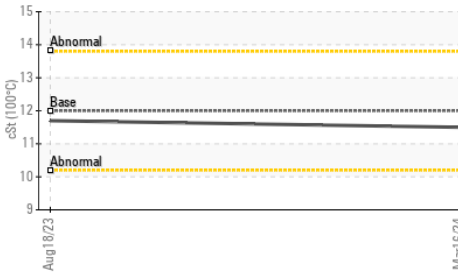
▲ Ferrous Alloys



Glycol Contamination



Viscosity @ 100°C



FLUID DEGRADATION

Method	Limit/Base	Current	History1	History2
Oxidation	Abs.:1mm ASTM D7414*	21.1	25.5	---

VISUAL

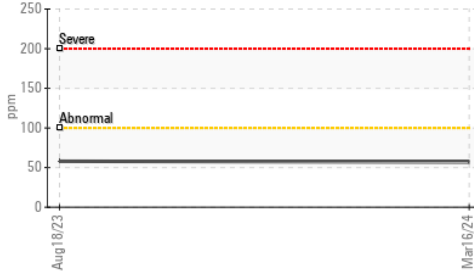
Method	Limit/Base	Current	History1	History2
Emulsified Water	scalar Visual*	NEG	NEG	---
Free Water	scalar Visual*	NEG	NEG	---

FLUID PROPERTIES

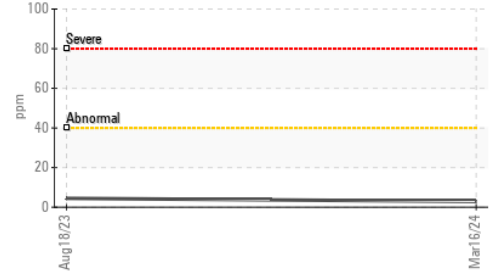
Method	Limit/Base	Current	History1	History2
Visc @ 100°C	cSt ASTM D7279(m)	11.5	11.7	---

GRAPHS

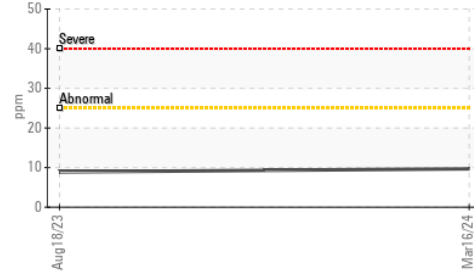
Iron (ppm)



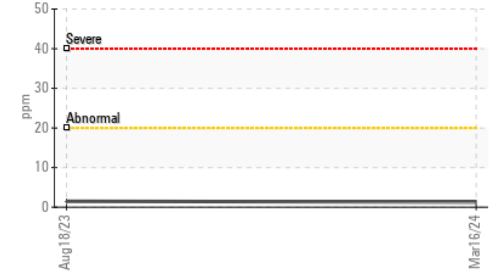
Lead (ppm)



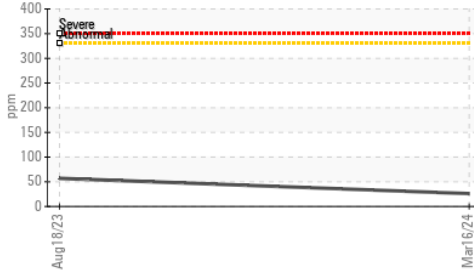
Aluminum (ppm)



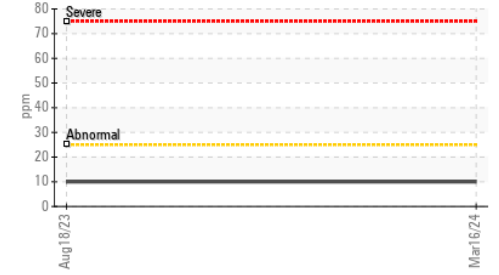
Chromium (ppm)



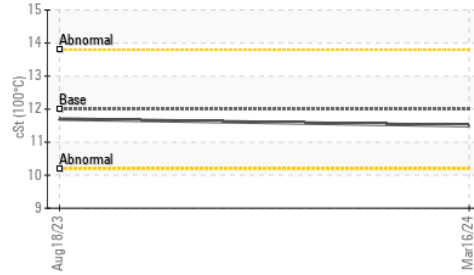
Copper (ppm)



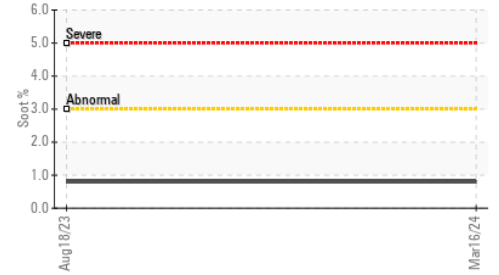
Silicon (ppm)



Viscosity @ 100°C



Soot %



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **PERFORMANCE EQUIPMENT - VISION TRUCK**
Sample No. : WC0909053 **Received** : 19 Mar 2024 **415 EVANS AVENUE**
Lab Number : 02622939 **Tested** : 19 Mar 2024 **ETOBICOKE, ON**
Unique Number : 5748058 **Diagnosed** : 20 Mar 2024 - Kevin Marson **CA M8W 0B3**
Test Package : MOB 1 (Additional Tests: Glycol) **Contact: Service**

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.

etobservice@visiontruckgroup.com

T:

F: