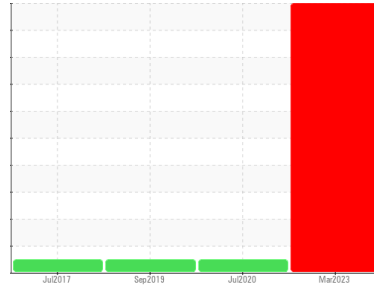




OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Area
Heater Local
 Machine Id
Carrier 81404H
 Component
Trailer Diesel Engine
 Fluid
SAE 0W40 (5 LTR)

DIAGNOSIS

Recommendation

We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

Iron ppm levels are severe. Aluminum and chromium ppm levels are abnormal. Cylinder, crank, or cam shaft wear is indicated. Ring wear is indicated. Piston wear is indicated.

Contamination

Test for glycol is positive. There is a high concentration of glycol present in the oil. There is a moderate concentration of water present 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		WC0486542	WC0483687	WC0377223
Sample Date	Client Info		24 Mar 2023	20 Jul 2020	04 Sep 2019
Machine Age	kms	Client Info	257954	1278	774
Oil Age	kms	Client Info	0	175	0
Oil Changed	Client Info		Changed	Changed	N/A
Sample Status			SEVERE	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	<1.0	0.9

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		12	---	---
Iron	ppm	ASTM D5185(m) >100	201	4	8
Chromium	ppm	ASTM D5185(m) >20	16	<1	<1
Nickel	ppm	ASTM D5185(m) >4	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	<1	0	<1
Silver	ppm	ASTM D5185(m) >3	0	0	0
Aluminum	ppm	ASTM D5185(m) >20	29	1	2
Lead	ppm	ASTM D5185(m) >40	<1	0	0
Copper	ppm	ASTM D5185(m) >330	7	<1	<1
Tin	ppm	ASTM D5185(m) >15	<1	<1	<1
Antimony	ppm	ASTM D5185(m)	<1	<1	<1
Vanadium	ppm	ASTM D5185(m)	<1	0	<1
Beryllium	ppm	ASTM D5185(m)	0	0	0
Cadmium	ppm	ASTM D5185(m)	0	<1	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	36	21	165
Barium	ppm	ASTM D5185(m)	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	279	56	43
Manganese	ppm	ASTM D5185(m)	2	<1	<1
Magnesium	ppm	ASTM D5185(m)	896	947	384
Calcium	ppm	ASTM D5185(m)	1026	1043	1421
Phosphorus	ppm	ASTM D5185(m)	1069	1010	742
Zinc	ppm	ASTM D5185(m)	1191	1161	842
Sulfur	ppm	ASTM D5185(m)	2673	2671	2697
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

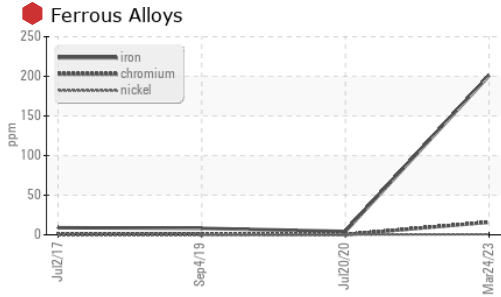
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Silicon	ppm	ASTM D5185(m) >25	116	3	4
Sodium	ppm	ASTM D5185(m)	3628	<1	<1
Potassium	ppm	ASTM D5185(m) >20	2068	<1	<1
Glycol	%	ASTM D7922*	>.70	NEG	NEG

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >3	0.9	0	0
Nitration	Abs/cm	ASTM D7624* >20	35.3	6.6	5.8
Sulfation	Abs.1mm	ASTM D7415* >30	20.8	22.9	17.1



OIL ANALYSIS REPORT

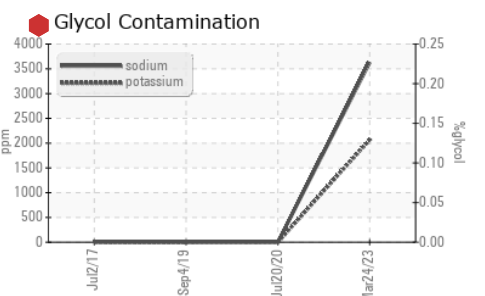
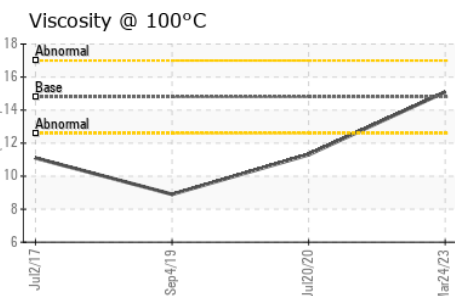
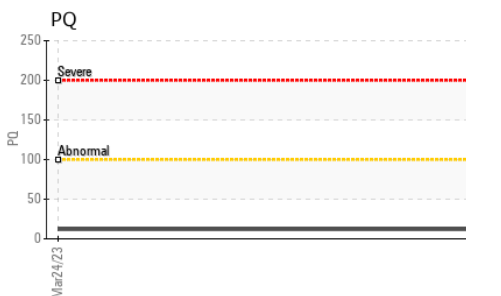
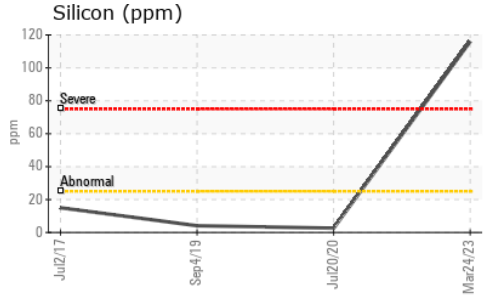
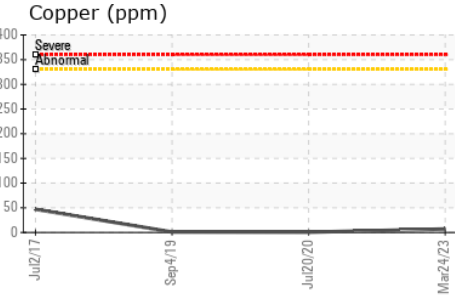
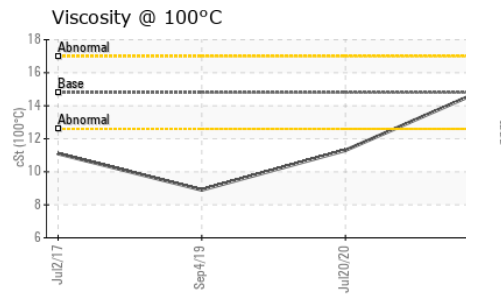
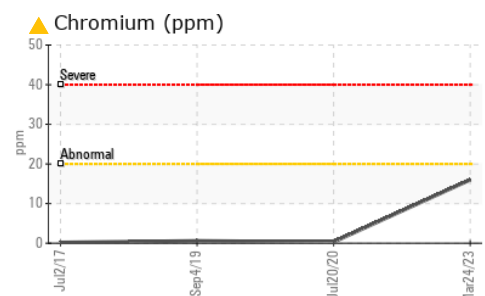
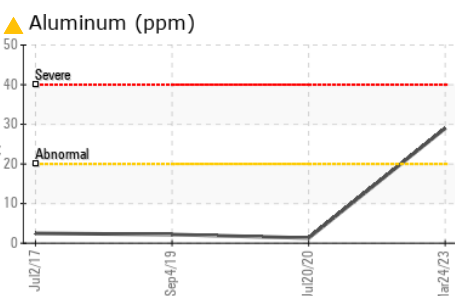
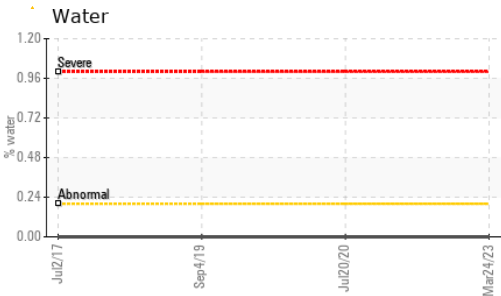
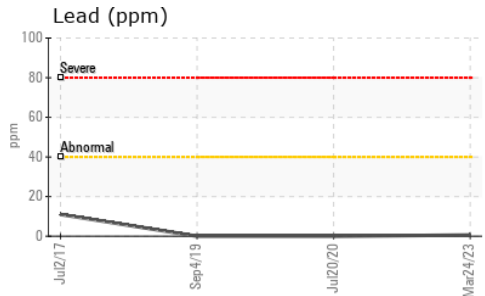
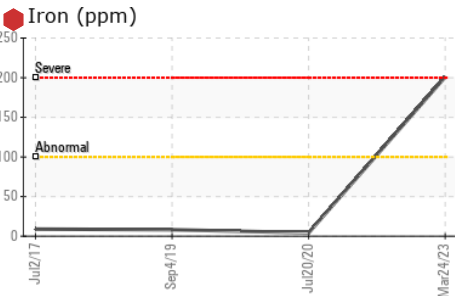
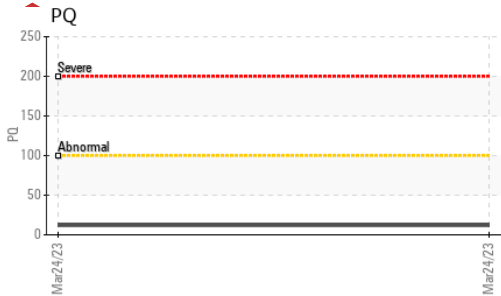


FLUID DEGRADATION	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	28.2	13.1	8.0

VISUAL	method	limit/base	current	history1	history2	
Emulsified Water	scalar	Visual*	>0.2	▲.2%	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D7279(m)	14.8	15.1	11.3	8.9

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0486542 **Received** : 31 Mar 2023
Lab Number : **02548888** **Diagnosed** : 03 Apr 2023
Unique Number : 5553898 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: Glycol, KF, PQ)

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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.