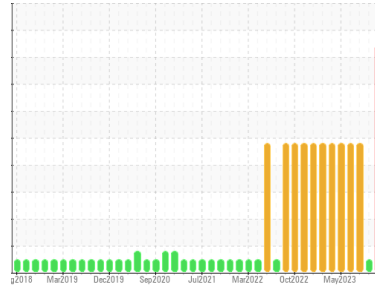




OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id
CUMMINS 236

Component
Rear Diesel Engine

Fluid
ESSO XD-3 EXTRA 15W40 (--- GAL)

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

All component wear rates are normal.

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 due to the presence of contaminants.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0889181	WC0866456	WC0816424
Sample Date	Client Info		28 Dec 2023	18 Oct 2023	03 Sep 2023
Machine Age	kms	Client Info	0	0	0
Oil Age	kms	Client Info	9294	10519	9531
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			SEVERE	NORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<1.0	<1.0	<1.0

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >90	11	10	11
Chromium	ppm	ASTM D5185(m) >20	<1	0	<1
Nickel	ppm	ASTM D5185(m) >2	<1	<1	0
Titanium	ppm	ASTM D5185(m) >2	0	0	0
Silver	ppm	ASTM D5185(m) >2	0	<1	<1
Aluminum	ppm	ASTM D5185(m) >20	5	2	3
Lead	ppm	ASTM D5185(m) >40	2	<1	0
Copper	ppm	ASTM D5185(m) >330	88	37	10
Tin	ppm	ASTM D5185(m) >15	0	0	0
Antimony	ppm	ASTM D5185(m)	0	0	0
Vanadium	ppm	ASTM D5185(m)	0	0	0
Beryllium	ppm	ASTM D5185(m)	0	0	0
Cadmium	ppm	ASTM D5185(m)	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	29	18	12
Barium	ppm	ASTM D5185(m)	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	<1	<1	3
Manganese	ppm	ASTM D5185(m)	0	0	<1
Magnesium	ppm	ASTM D5185(m)	17	17	37
Calcium	ppm	ASTM D5185(m) 3780	2051	2176	2052
Phosphorus	ppm	ASTM D5185(m) 1370	933	906	887
Zinc	ppm	ASTM D5185(m) 1500	1127	1094	1071
Sulfur	ppm	ASTM D5185(m) 3800	2931	2830	2751
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

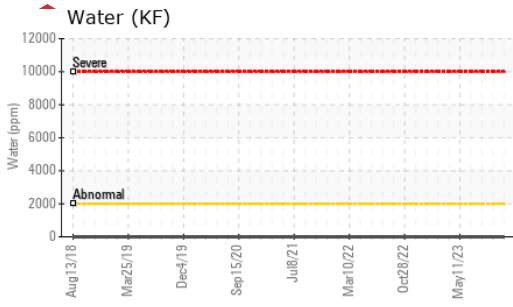
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Silicon	ppm	ASTM D5185(m) >25	6	8	9
Sodium	ppm	ASTM D5185(m) >192	▲ 125	138	▲ 223
Potassium	ppm	ASTM D5185(m) >20	▲ 42	35	▲ 54
Water	%	ASTM D6304* >0.2	NEG	NEG	NEG
Glycol	%	ASTM D7922*	● 0.261	0.0	▲ 0.025

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >6	0.2	0.2	0.2
Nitration	Abs/cm	ASTM D7624* >20	9.8	9.5	9.7
Sulfation	Abs.1mm	ASTM D7415* >30	23.3	23.7	25.4



OIL ANALYSIS REPORT

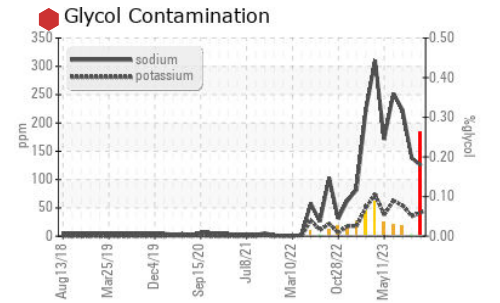
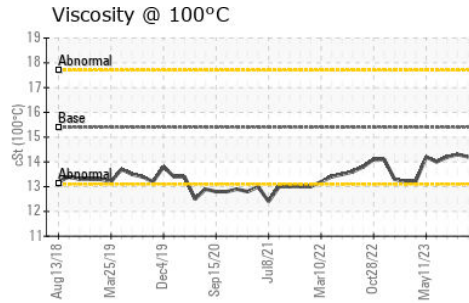
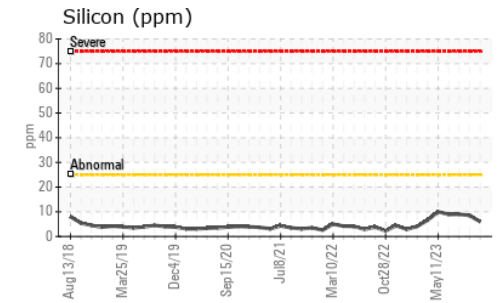
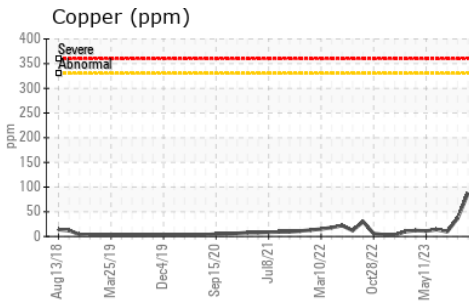
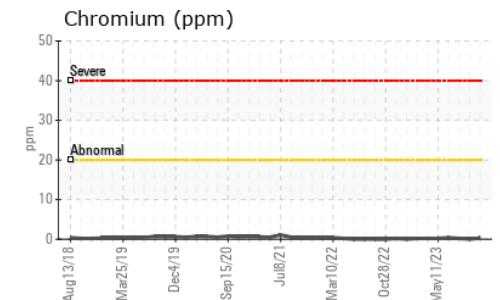
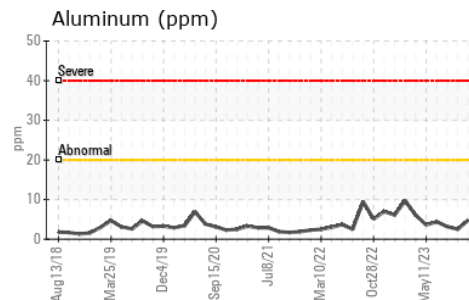
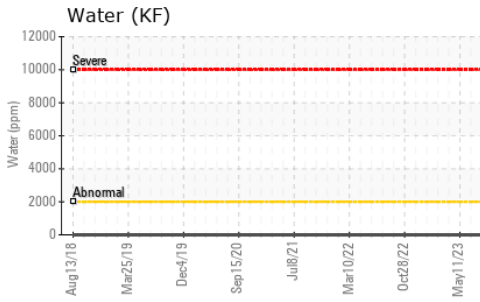
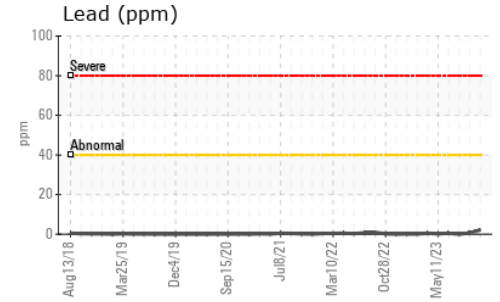
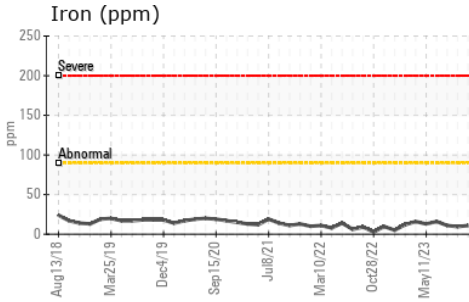
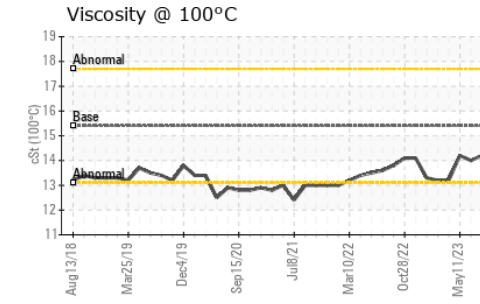


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	18.1	21.7	22.8

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)	15.4	14.2	14.3	14.2

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0889181 **Received** : 12 Jan 2024
Lab Number : 02608502 **Diagnosed** : 14 Jan 2024
Unique Number : 5709588 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: Glycol, KF)

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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.