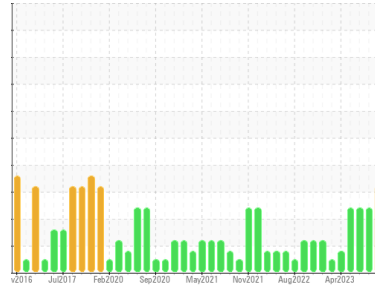




OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id
NEW FLYER 1212

Component
Diesel Engine

Fluid
SAFETY-KLEEN PERFORMANCE PLUS XHD-7 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Check for low coolant level. No corrective action is recommended at this time. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

Light fuel dilution occurring. Water treatment chemicals present, indicating slow coolant leak. Test for glycol is negative. No other contaminants were detected in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service (see recommendation).

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	WC0849898	WC0830272	WC0811624
Sample Date	Client Info	03 Oct 2023	17 Aug 2023	04 Jul 2023
Machine Age	kms Client Info	829110	818244	810072
Oil Age	kms Client Info	0	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >75	22	16	22
Chromium	ppm ASTM D5185(m) >5	1	<1	1
Nickel	ppm ASTM D5185(m) >4	0	0	0
Titanium	ppm ASTM D5185(m) >2	0	0	0
Silver	ppm ASTM D5185(m) >2	<1	0	0
Aluminum	ppm ASTM D5185(m) >15	2	1	1
Lead	ppm ASTM D5185(m) >25	6	5	11
Copper	ppm ASTM D5185(m) >100	4	2	2
Tin	ppm ASTM D5185(m) >4	0	0	<1
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)	7	4	4
Barium	ppm ASTM D5185(m)	<1	0	0
Molybdenum	ppm ASTM D5185(m)	135	100	86
Manganese	ppm ASTM D5185(m)	0	<1	<1
Magnesium	ppm ASTM D5185(m)	910	937	932
Calcium	ppm ASTM D5185(m)	993	1001	1039
Phosphorus	ppm ASTM D5185(m)	957	1057	1068
Zinc	ppm ASTM D5185(m)	1083	1122	1143
Sulfur	ppm ASTM D5185(m)	2561	2520	2522
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	15	10	9
Sodium	ppm ASTM D5185(m)	▲ 682	▲ 390	▲ 292
Potassium	ppm ASTM D5185(m) >20	▲ 455	▲ 267	▲ 204
Fuel	% ASTM D7593* >3.0	▲ 2.4	<1.0	<1.0
Glycol	% ASTM D7922*	0.0	0.0	0.0

INFRA-RED

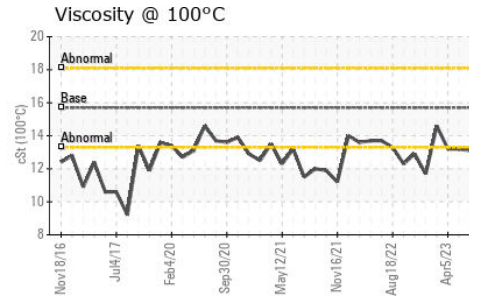
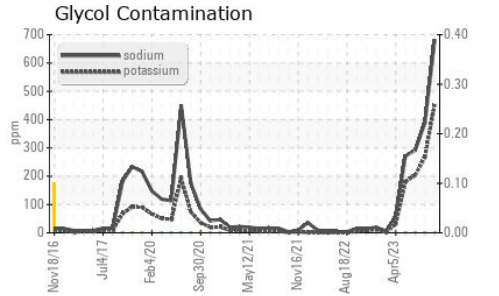
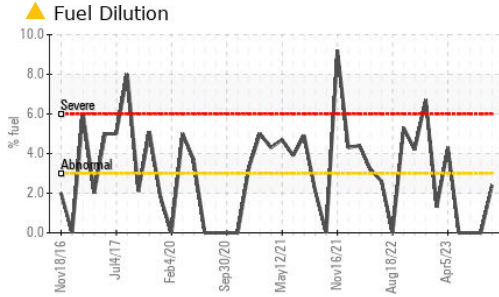
method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >6	0.9	0.7	0.8
Nitration	Abs/cm ASTM D7624* >20	10.9	10.1	10.6
Sulfation	Abs/.1mm ASTM D7415* >30	24.7	24.2	24.7

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm ASTM D7414* >25	20.1	19.2	21.6



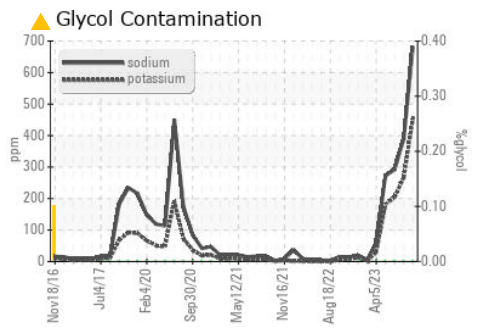
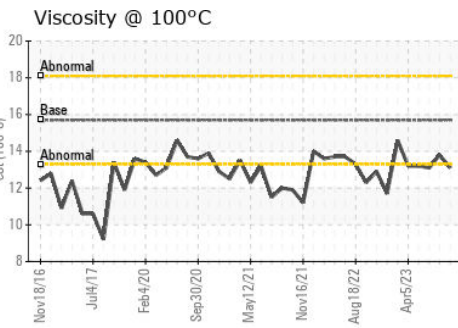
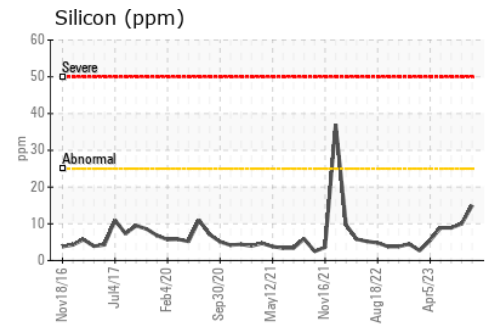
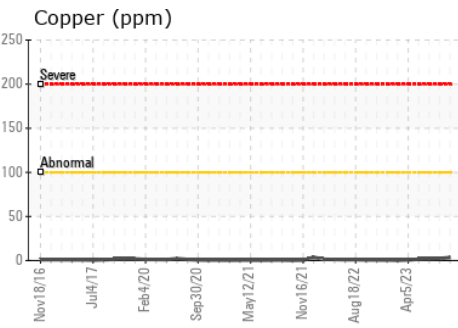
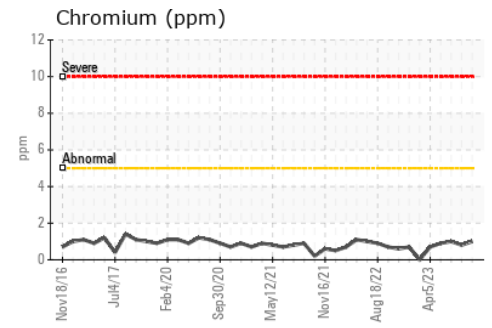
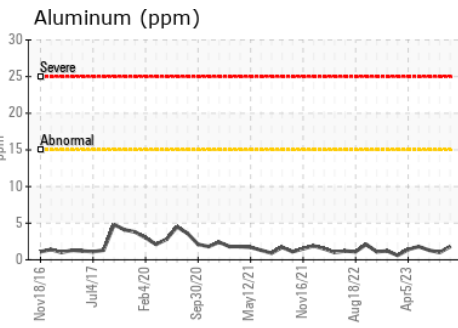
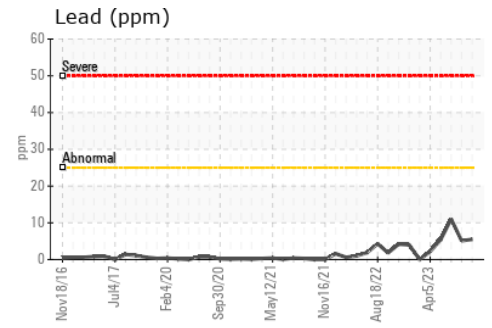
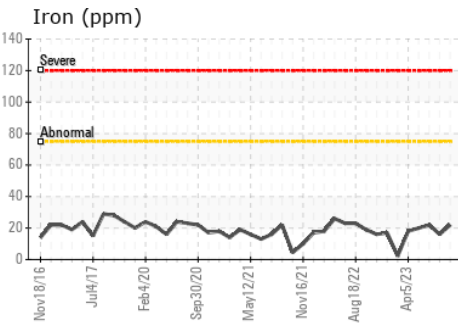
OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.7	13.1	13.8

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0849898 **Received** : 11 Oct 2023
Lab Number : 02588218 **Diagnosed** : 12 Oct 2023
Unique Number : 5657284 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: FuelDilution, Glycol, PercentFuel)

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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.