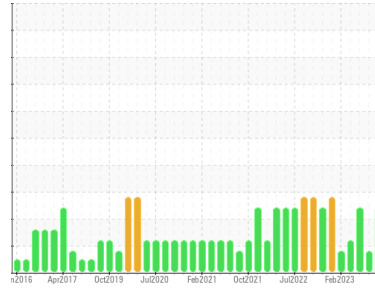




# OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id  
**NEW FLYER 0811**

Component  
**Diesel Engine**

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

## DIAGNOSIS

### Recommendation

We advise that you check the fuel injection system. 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

There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

### Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0849871</b>	WC0811349	WC0811412
Sample Date	Client Info		<b>27 Aug 2023</b>	15 Jul 2023	05 Jun 2023
Machine Age	kms	Client Info	<b>0</b>	0	233527
Oil Age	kms	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>SEVERE</b>	ABNORMAL	SEVERE

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >75	<b>15</b>	7	24
Chromium	ppm	ASTM D5185(m) >5	<b>&lt;1</b>	<1	2
Nickel	ppm	ASTM D5185(m) >4	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185(m) >2	<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m) >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m) >15	<b>2</b>	1	3
Lead	ppm	ASTM D5185(m) >25	<b>&lt;1</b>	0	2
Copper	ppm	ASTM D5185(m) >100	<b>&lt;1</b>	<1	3
Tin	ppm	ASTM D5185(m) >4	<b>0</b>	0	<1
Antimony	ppm	ASTM D5185(m)	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	<b>1</b>	<1	3
Barium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	<b>55</b>	57	62
Manganese	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	<b>870</b>	918	816
Calcium	ppm	ASTM D5185(m)	<b>916</b>	952	906
Phosphorus	ppm	ASTM D5185(m)	<b>923</b>	1013	906
Zinc	ppm	ASTM D5185(m)	<b>1035</b>	1113	995
Sulfur	ppm	ASTM D5185(m)	<b>2285</b>	2473	2237
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	<b>4</b>	3	7
Sodium	ppm	ASTM D5185(m)	<b>18</b>	21	97
Potassium	ppm	ASTM D5185(m) >20	<b>11</b>	12	56
Fuel	%	ASTM D7593* >3.0	<b>7.9</b>	3.8	10.4
Glycol	%	ASTM D7922*	<b>0.0</b>	0.0	0.0

## INFRA-RED

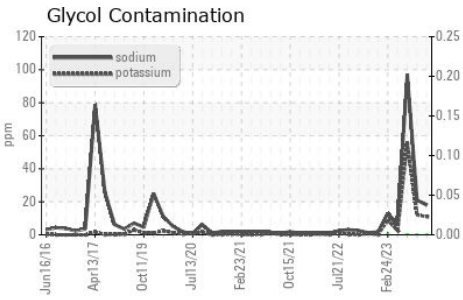
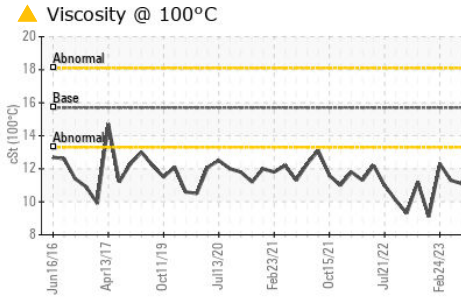
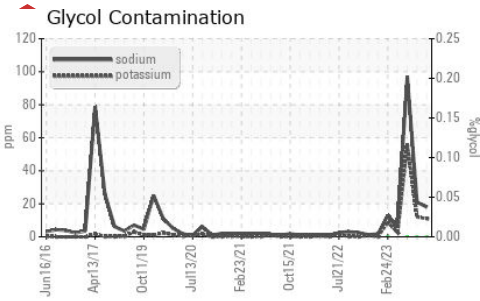
	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >6	<b>0.4</b>	0.1	0.5
Nitration	Abs/cm	ASTM D7624* >20	<b>10.1</b>	6.2	10.6
Sulfation	Abs/.1mm	ASTM D7415* >30	<b>25.0</b>	20.0	25.6

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414* >25	<b>24.7</b>	16.5	27.1



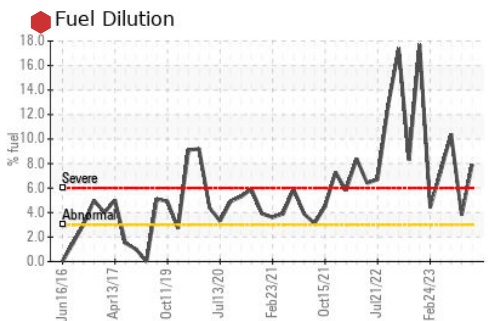
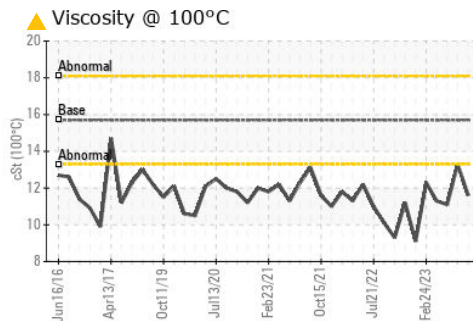
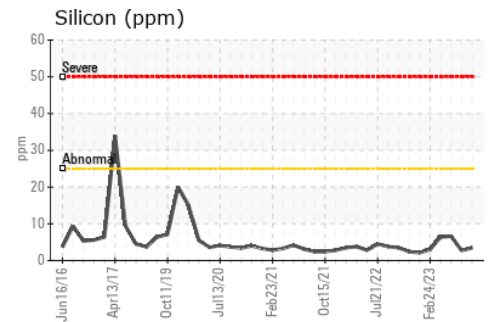
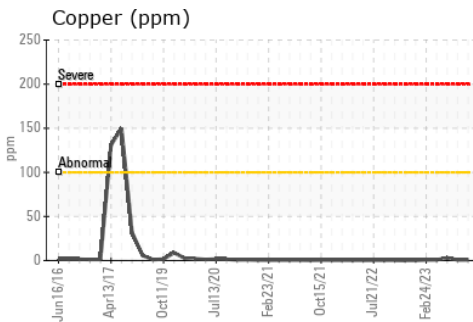
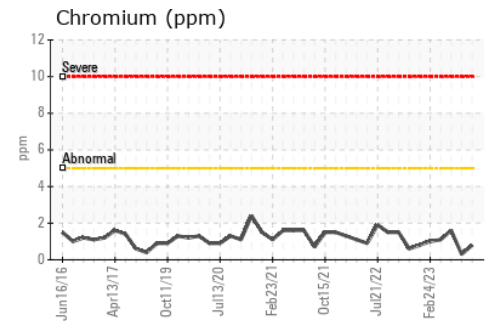
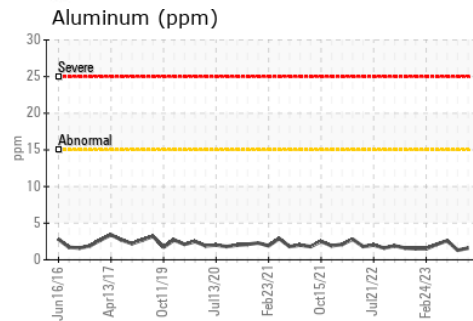
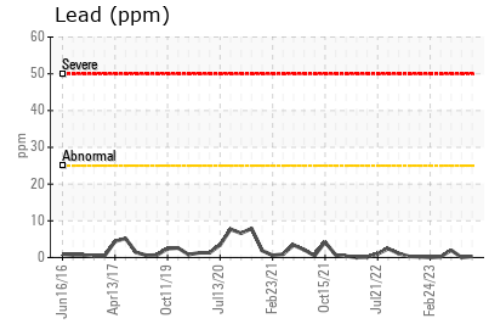
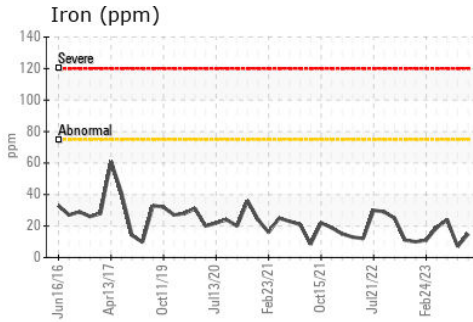
# OIL ANALYSIS REPORT



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	▲ 11.6	13.3

## GRAPHS



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0849871 **Received** : 31 Aug 2023  
**Lab Number** : 02579628 **Diagnosed** : 01 Sep 2023  
**Unique Number** : 5632688 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: Glycol, PercentFuel )

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.

**CITY OF HAMILTON**  
 2200 UPPER JAMES., MOUNTAIN TRANSIT STOREROOM  
 MOUNT HOPE, ON  
 CA L0R 1W0  
 Contact: Jeff Parr  
 jeff.parr@hamilton.ca  
 T: (905)546-2424  
 F: (905)679-4502