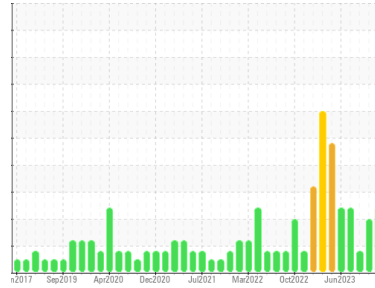




# OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id  
**NEW FLYER 1011**

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>WC0917644</b>	WC0830087	WC0849937
Sample Date	Client Info		<b>08 Mar 2024</b>	22 Oct 2023	12 Sep 2023
Machine Age	kms	Client Info	<b>168995</b>	148099	138113
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>	SEVERE	ABNORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method		<b>NEG</b>	NEG	0.0

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>75	<b>13</b>	32	34
Chromium	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	1	2
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185(m)	>15	<b>3</b>	2	2
Lead	ppm	ASTM D5185(m)	>25	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>100	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185(m)	>4	<b>0</b>	0	0
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	0
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>22</b>	1	<1
Barium	ppm	ASTM D5185(m)		<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)		<b>51</b>	57	57
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m)		<b>824</b>	900	919
Calcium	ppm	ASTM D5185(m)		<b>1051</b>	991	997
Phosphorus	ppm	ASTM D5185(m)		<b>802</b>	889	969
Zinc	ppm	ASTM D5185(m)		<b>918</b>	1096	1118
Sulfur	ppm	ASTM D5185(m)		<b>2194</b>	2256	2300
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

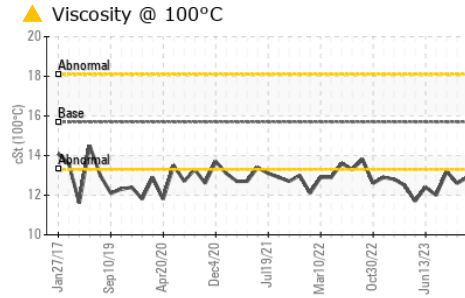
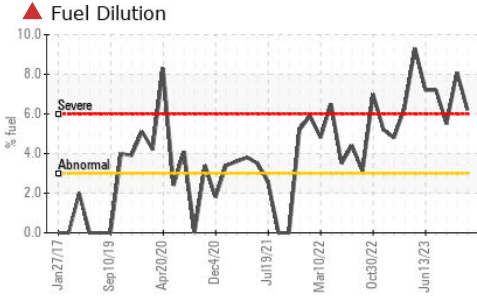
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	<b>5</b>	13	6
Sodium	ppm	ASTM D5185(m)		<b>3</b>	8	9
Potassium	ppm	ASTM D5185(m)	>20	<b>3</b>	4	7
Fuel	%	ASTM D7593*	>3.0	<b>▲ 6.2</b>	▲ 8.1	▲ 5.5

## INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>6	<b>0.7</b>	1.4	1.3
Nitration	Abs/cm	ASTM D7624*	>20	<b>9.6</b>	12.7	12.5
Sulfation	Abs./1mm	ASTM D7415*	>30	<b>21.4</b>	26.9	27.5



# OIL ANALYSIS REPORT

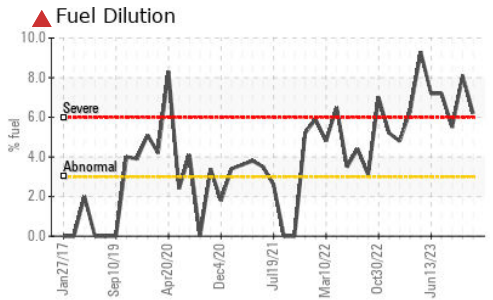
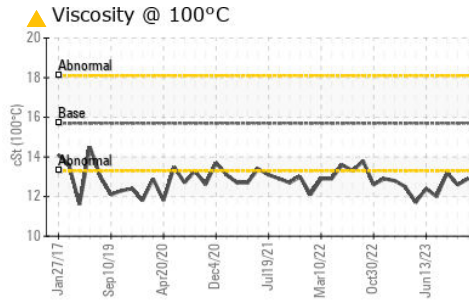
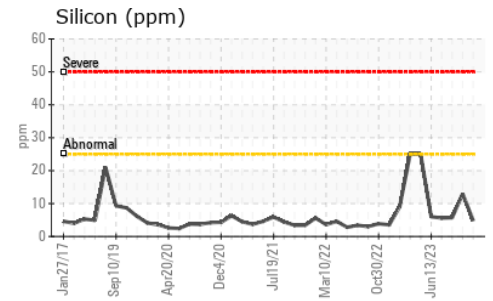
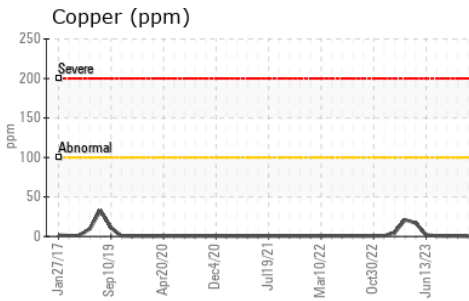
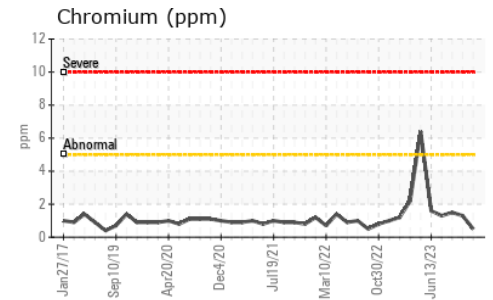
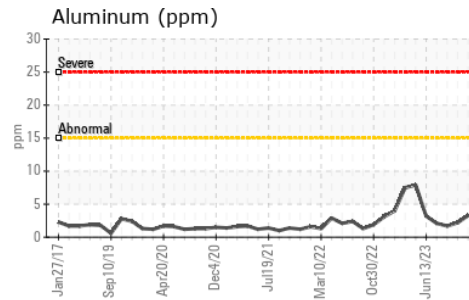
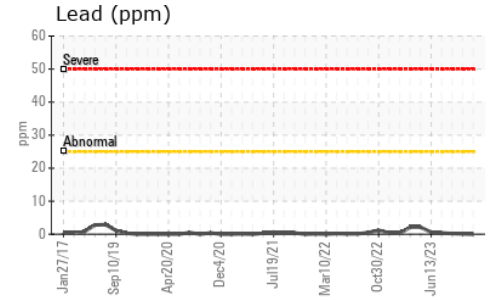
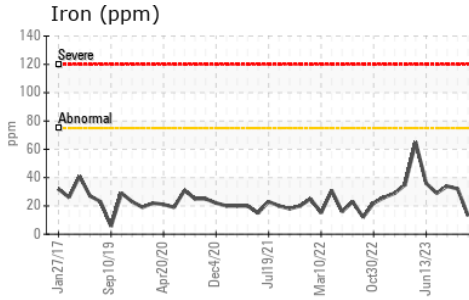


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs.:1mm	ASTM D7414*	>25	<b>17.9</b>	27.8	27.9

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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.7	<b>▲ 12.9</b>	12.6	13.2

## GRAPHS



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0917644  
**Lab Number** : **02621706**  
**Unique Number** : 5746825  
**Test Package** : MOB 1 ( Additional Tests: PercentFuel )

**Received** : 13 Mar 2024  
**Tested** : 14 Mar 2024  
**Diagnosed** : 14 Mar 2024 - Wes Davis

**CITY OF HAMILTON**  
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 T: (905)546-2424  
 F: (905)679-4502

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.