

OIL ANALYSIS REPORT

Sample Rating Trend

FUEL



Machine Io **NEW FLYER 1222** Component

Diesel Engine

SAFETY-KLEEN PERFORMANCE P

Oxidation

Abs/.1mm ASTM D7414* >25

SAMPLE INFORM	(GAL)	r2016 Nov20	16 Jun2017 Jan2020	Mar2021 Dec2021 Aug2022 1	Mar2023	
	/IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0849929	WC0830305	WC0811511
Sample Date		Client Info		28 Sep 2023	11 Aug 2023	29 Jun 2023
Machine Age	kms	Client Info		809811	0	790773
Dil Age	kms	Client Info		0	0	0
Dil Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL
CONTAMINATIO	N	method	limit/base	current	history1	history2
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
ron	ppm	ASTM D5185(m)	>75	18	14	20
Chromium	ppm	ASTM D5185(m)	>5	1	1	1
Nickel	ppm	ASTM D5185(m)	>4	0	0	<1
Fitanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	<1	<1	<1
Aluminum	ppm	ASTM D5185(m)	>15	2	2	2
ead	ppm	ASTM D5185(m)	>25	<1	<1	0
Copper	ppm	ASTM D5185(m)	>100	1	1	1
în	ppm	ASTM D5185(m)	>4	0	0	0
Antimony	ppm	ASTM D5185(m)		0	<1	0
/anadium	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)		1	2	1
Barium	ppm	ASTM D5185(m)		<1	0	0
Nolybdenum	ppm	ASTM D5185(m)		60	59	57
<i>l</i> anganese	ppm	ASTM D5185(m)		0	<1	<1
Magnesium	ppm	ASTM D5185(m)		973	985	967
Calcium	ppm	ASTM D5185(m)		1055	1040	1070
boophorus	ppm	ASTM D5185(m)		964	1055	1071
nosphorus	ppm	ASTM D5185(m)			1100	1208
		ASTIVI D3103(III)		1194	1188	
Zinc	ppm	ASTM D5185(m)		1194 2376	2486	2464
Zinc Sulfur	ppm ppm	. ,				2464 <1
Zinc Sulfur	ppm	ASTM D5185(m)	limit/base	2376	2486	
Zinc Sulfur Lithium CONTAMINANTS	ppm	ASTM D5185(m) ASTM D5185(m)	limit/base	2376 <1	2486 <1	<1
tinc Sulfur ithium CONTAMINANTS Silicon	ppm	ASTM D5185(m) ASTM D5185(m) method		2376 <1 current	2486 <1 history1	<1 history2
Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm	ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m)		2376 <1 current 3	2486 <1 history1 3	<1 history2 4
Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m)	>25	2376 <1 current 3 3	2486 <1 history1 3 2	<1 history2 4 2
Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>25 >20	2376 <1 current 3 3 0	2486 <1 history1 3 2 <1	<1 history2 4 2 <1
Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) Method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5593*	>25 >20 >3.0	2376 <1 <u>current</u> 3 3 0 0 ▲ 3.3	2486 <1 history1 3 2 <1 <1.0	<1 history2 4 2 <1 <1.0
Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Euel INFRA-RED	ppm ppm ppm ppm %	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D7593* method	>25 >20 >3.0 limit/base	2376 <1 3 3 0 ▲ 3.3 current	2486 <1 <u>history1</u> 3 2 <1 <1.0 history1	<1 history2 4 2 <1 <1.0 history2
Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm ppm ppm ppm %	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D7593* method ASTM D7844*	>25 >20 >3.0 limit/base >6	2376 <1 3 3 0 ▲ 3.3 current 0.6	2486 <1 history1 3 2 <1 <1.0 history1 0.5	<1 history2 4 2 <1 <1.0 history2 0.6

DIAGNOSIS

Recommendation

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 moderate 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.

Contact/Location: Jeff Parr - HAMHAM

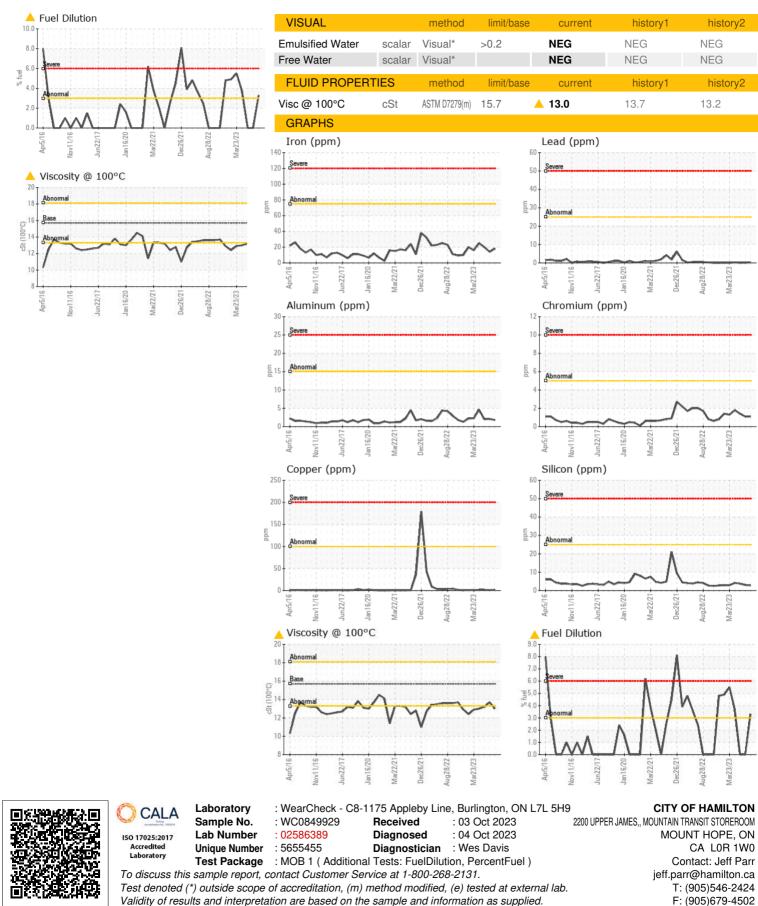
19.7

21.1

22.1



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Contact/Location: Jeff Parr - HAMHAM