



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 8320RT
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON HP 15W40 (--- GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0741958	WC0741943	WC0668717
Sample Date		Client Info		01 Feb 2024	08 Jan 2023	01 Apr 2022
Machine Age	hrs	Client Info		9600	9400	9060
Oil Age	hrs	Client Info		200	340	0
Filter Age	hrs	Client Info		200	340	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	SEVERE

WEAR

Iron ppm levels are abnormal. Cylinder, crank, or cam shaft wear is indicated.

PQ		ASTM D8184*	>50	3	0	13
Iron	ppm	ASTM D5185(m)	>51	▲ 120	▲ 74	▲ 189
Chromium	ppm	ASTM D5185(m)	>11	3	3	3
Nickel	ppm	ASTM D5185(m)	>5	2	▲ 6	▲ 28
Titanium	ppm	ASTM D5185(m)		0	<1	<1
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>31	16	11	13
Lead	ppm	ASTM D5185(m)	>26	1	2	2
Copper	ppm	ASTM D5185(m)	>26	19	40	19
Tin	ppm	ASTM D5185(m)	>4	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	<1

CONTAMINATION

There is no indication of any contamination in the oil.

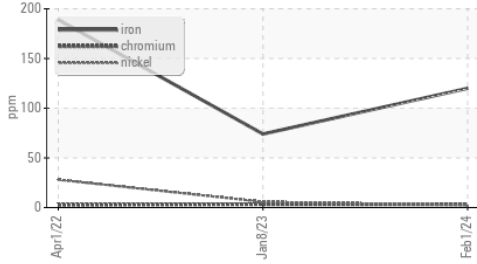
Silicon	ppm	ASTM D5185(m)	>22	5	6	21
Potassium	ppm	ASTM D5185(m)	>20	2	4	13
Fuel		WC Method	>2.1	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	0.0	0.0
Soot %	%	ASTM D7844*	>3	0	0	0.1
Nitration	Abs/cm	ASTM D7624*	>20	5.6	7.0	9.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.1	19.9	23.5
Emulsified Water	scalar	Visual*	>0.21	NEG	NEG	NEG

FLUID CONDITION

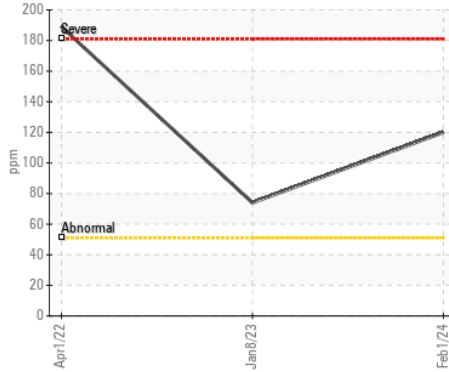
The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185(m)	>31	6	31	116
Boron	ppm	ASTM D5185(m)	0	3	11	112
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	61	78	237
Manganese	ppm	ASTM D5185(m)	0	1	2	3
Magnesium	ppm	ASTM D5185(m)	1010	965	955	853
Calcium	ppm	ASTM D5185(m)	1070	1052	1144	1416
Phosphorus	ppm	ASTM D5185(m)	1150	1026	1066	875
Zinc	ppm	ASTM D5185(m)	1270	1168	1194	1017
Sulfur	ppm	ASTM D5185(m)	2060	2762	2657	2441
Oxidation	Abs/.1mm	ASTM D7414*	>25	13.3	14.1	16.5
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	13.7	13.7	14.5

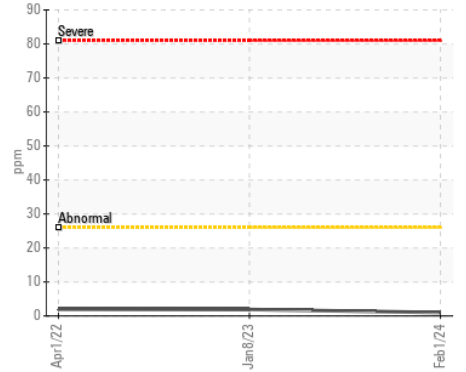
▲ Ferrous Alloys



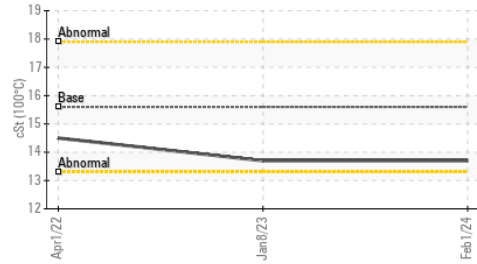
▲ Iron (ppm)



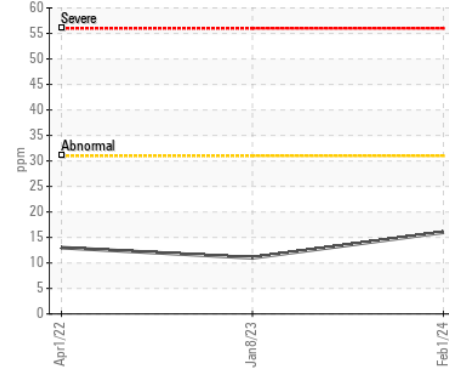
Lead (ppm)



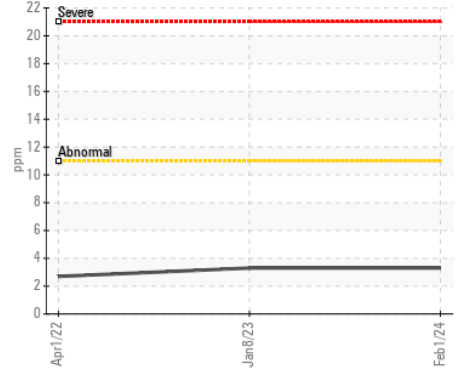
Viscosity @ 100°C



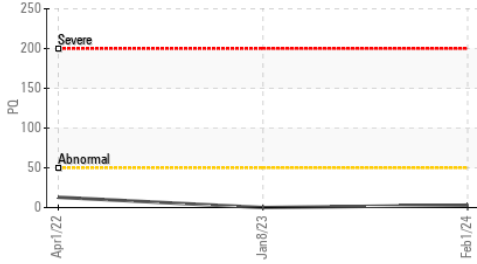
Aluminum (ppm)



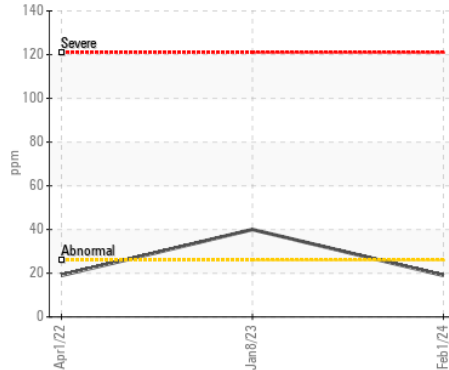
Chromium (ppm)



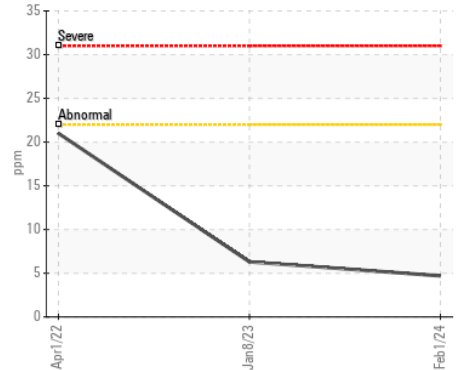
PQ



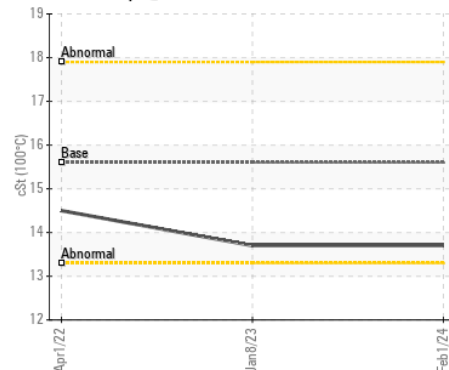
Copper (ppm)



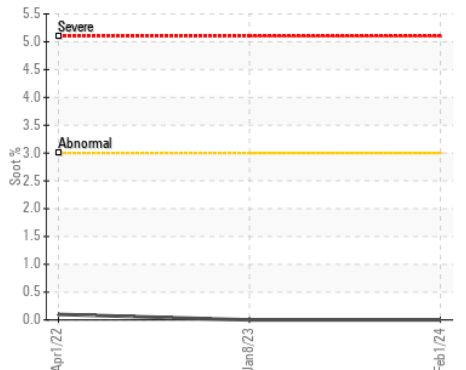
Silicon (ppm)



Viscosity @ 100°C



Soot %



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0741958 **Received** : 08 Mar 2024
Lab Number : 02620739 **Tested** : 08 Mar 2024
Unique Number : 5737849 **Diagnosed** : 11 Mar 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: PQ)

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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.