MOB I LUBE 360 OIL DIAGNOSTICS

OIL ANALYSIS REPORT

WEAR	SEVERE
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 644K 8018
Component
Diesel Engine
Fluid
PETRO CANADA 15W40 (--- GAL)

RECOMMENDATION

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

WEAR

Nickel ppm levels are severe. Exhaust valve wear is indicated.

CONTAMINATION

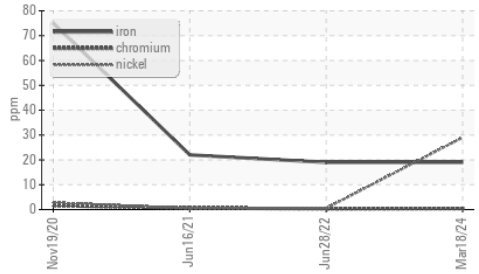
There is no indication of any contamination in the oil.

FLUID CONDITION

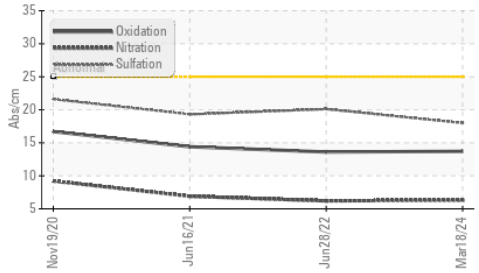
The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**PC0075111**	PC0060113	PC0034342
Sample Date		Client Info		**18 Mar 2024**	28 Jun 2022	16 Jun 2021
Machine Age	hrs	Client Info		**5373**	3633	2859
Oil Age	hrs	Client Info		**0**	0	250
Filter Age	hrs	Client Info		**0**	0	250
Oil Changed		Client Info		**Changed**	Changed	Changed
Filter Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**SEVERE**	NORMAL	NORMAL
Iron	ppm	ASTM D5185(m)	>51	**19**	19	22
Chromium	ppm	ASTM D5185(m)	>11	**<1**	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	▲ **29**	<1	<1
Titanium	ppm	ASTM D5185(m)		**0**	<1	<1
Silver	ppm	ASTM D5185(m)	>3	**0**	0	<1
Aluminum	ppm	ASTM D5185(m)	>31	**2**	2	2
Lead	ppm	ASTM D5185(m)	>26	**0**	<1	<1
Copper	ppm	ASTM D5185(m)	>26	**1**	4	6
Tin	ppm	ASTM D5185(m)	>4	**0**	<1	<1
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Silicon	ppm	ASTM D5185(m)	>22	**1**	3	3
Potassium	ppm	ASTM D5185(m)	>20	**1**	3	1
Fuel		WC Method	>2.1	**<1.0**	<1.0	<1.0
Water		WC Method	>0.21	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG
Soot %	%	ASTM D7844*	>3	**0.1**	0.1	0.1
Nitration	Abs/cm	ASTM D7624*	>20	**6.3**	6.2	6.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	**18.0**	20.1	19.3
Emulsified Water	scalar	Visual*	>0.21	**NEG**	NEG	NEG
Sodium	ppm	ASTM D5185(m)		**1**	2	2
Boron	ppm	ASTM D5185(m)		**2**	1	2
Barium	ppm	ASTM D5185(m)		**0**	0	0
Molybdenum	ppm	ASTM D5185(m)		**61**	60	59
Manganese	ppm	ASTM D5185(m)		**<1**	<1	<1
Magnesium	ppm	ASTM D5185(m)		**1007**	994	991
Calcium	ppm	ASTM D5185(m)		**1070**	1076	1082
Phosphorus	ppm	ASTM D5185(m)		**1005**	1023	1005
Zinc	ppm	ASTM D5185(m)		**1194**	1212	1274
Sulfur	ppm	ASTM D5185(m)		**2556**	2740	2722
Oxidation	Abs/.1mm	ASTM D7414*	>25	**13.7**	13.6	14.4
Visc @ 40°C	cSt	ASTM D7279(m)		**94.2**	96.9	97.3
Visc @ 100°C	cSt	ASTM D7279(m)		**13.1**	13.2	13.0
Viscosity Index (VI)	Scale	ASTM D2270*		**137**	134	130

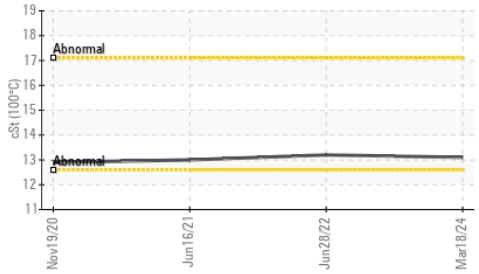
Ferrous Alloys



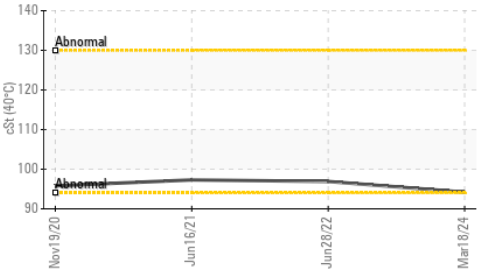
FT-IR (Direct Trend)



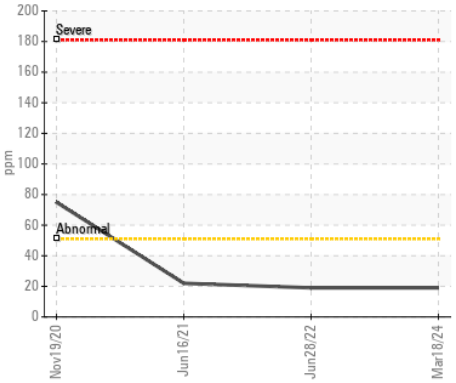
Viscosity @ 100°C



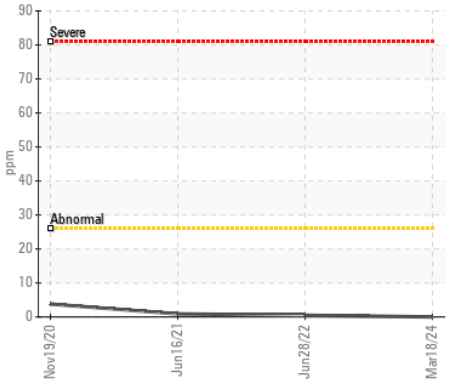
Viscosity @ 40°C



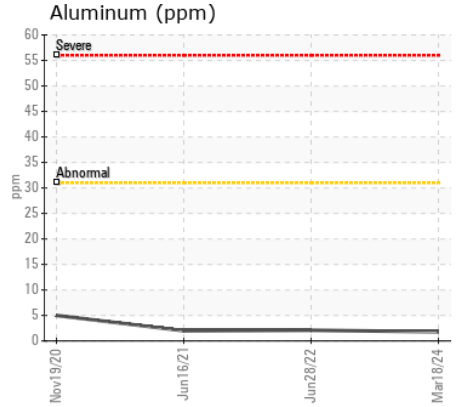
Iron (ppm)



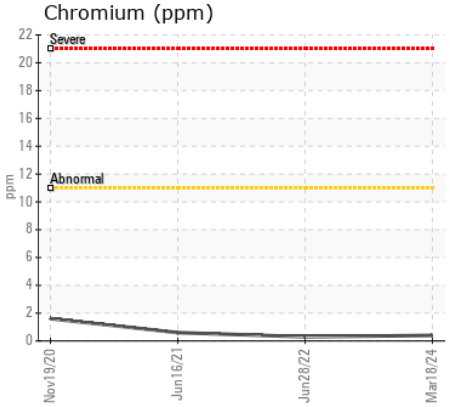
Lead (ppm)



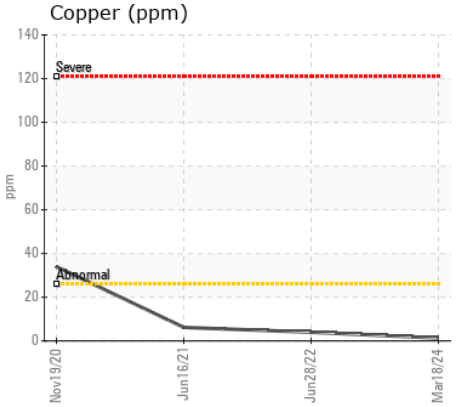
Aluminum (ppm)



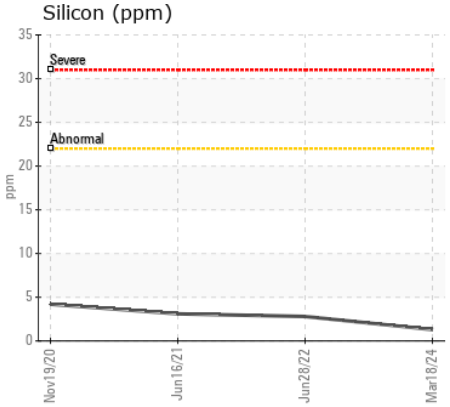
Chromium (ppm)



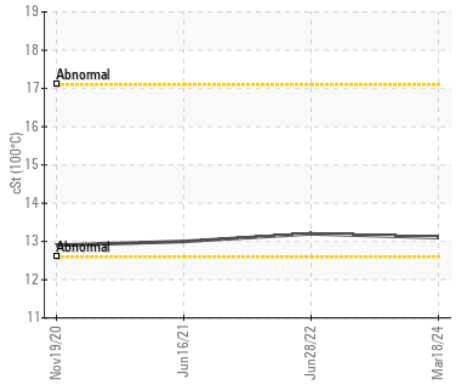
Copper (ppm)



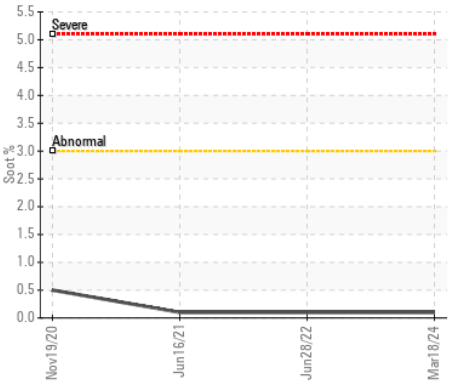
Silicon (ppm)



Viscosity @ 100°C



Soot %



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0075111
Lab Number : 02628689
Unique Number : 5761821
Test Package : MOB 1 (Additional Tests: KV40, VI)

Received : 15 Apr 2024
Tested : 15 Apr 2024
Diagnosed : 15 Apr 2024 - Kevin Marson

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.

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