MOB

James River Equipment

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	MARGINAL

Area
[W8765]
Machine Id
JOHN DEERE 824K 1DW824KXPHF679619
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (11 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. (Customer Sample Comment: W8765)

WEAR

All component wear rates are normal.

CONTAMINATION

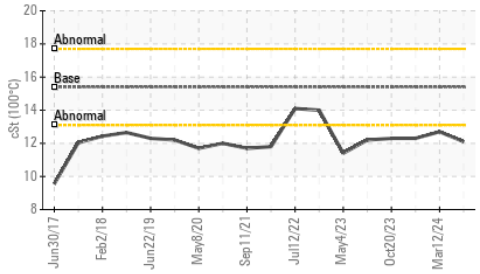
Fuel content negligible. There is no indication of any contamination in the oil.

FLUID CONDITION

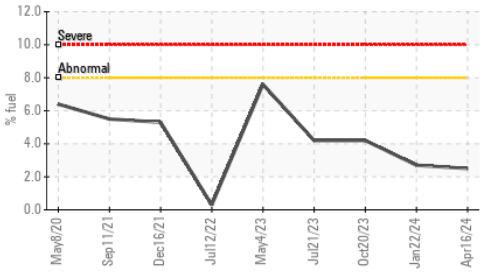
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0197209	JR0183263	JR0183284
Sample Date		Client Info		16 Apr 2024	12 Mar 2024	22 Jan 2024
Machine Age	hrs	Client Info		13976	13777	13495
Oil Age	hrs	Client Info		500	250	517
Filter Age	hrs	Client Info		500	0	517
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				MARGINAL	NORMAL	MARGINAL
Iron	ppm	ASTM D5185m	>51	8	5	8
Chromium	ppm	ASTM D5185m	>11	<1	0	<1
Nickel	ppm	ASTM D5185m	>5	2	2	4
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	4	5	8
Lead	ppm	ASTM D5185m	>26	2	0	1
Copper	ppm	ASTM D5185m	>26	5	4	13
Tin	ppm	ASTM D5185m	>4	2	<1	1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>22	6	6	6
Potassium	ppm	ASTM D5185m	>20	<1	0	0
Fuel	%	ASTM D3524	>8.0	2.5	<1.0	2.7
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	8.0	7.8	8.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.8	20.6	22.4
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.21	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m	>31	4	3	2
Boron	ppm	ASTM D5185m		202	235	182
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		244	240	221
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		796	769	865
Calcium	ppm	ASTM D5185m		1419	1267	1400
Phosphorus	ppm	ASTM D5185m		870	873	924
Zinc	ppm	ASTM D5185m		993	986	964
Sulfur	ppm	ASTM D5185m		3379	3170	2887
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.5	14.9	16.3
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	7.8	8.9	8.2
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 12.1	12.7	▲ 12.3

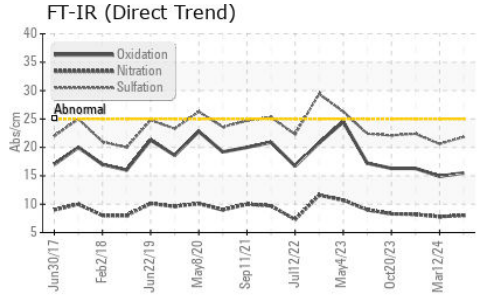
Viscosity @ 100°C



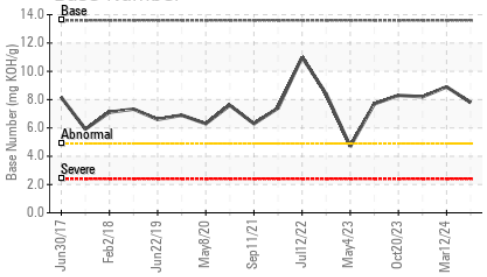
Fuel Dilution



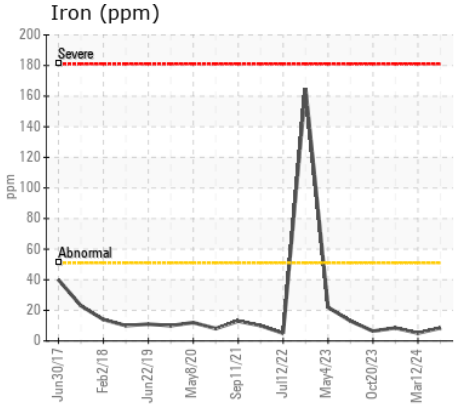
FT-IR (Direct Trend)



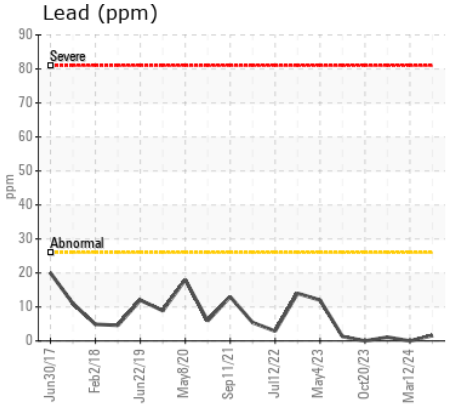
Base Number



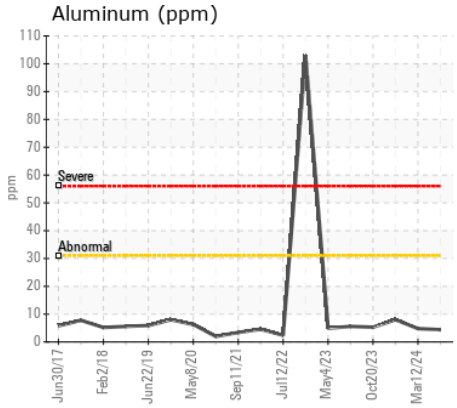
Iron (ppm)



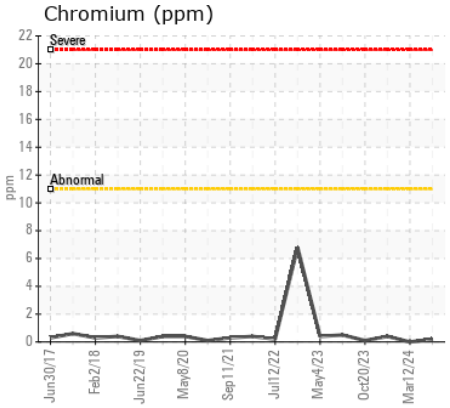
Lead (ppm)



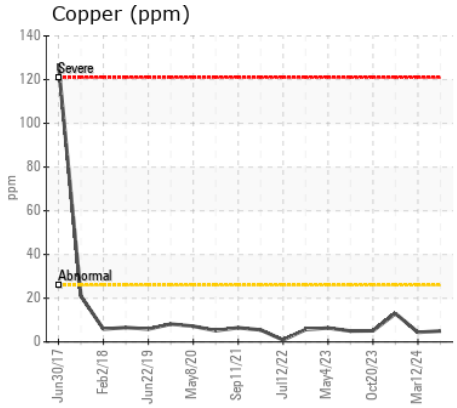
Aluminum (ppm)



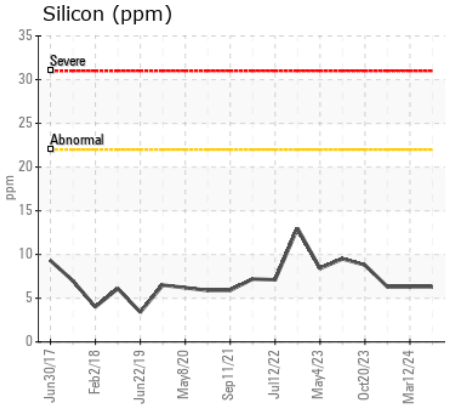
Chromium (ppm)



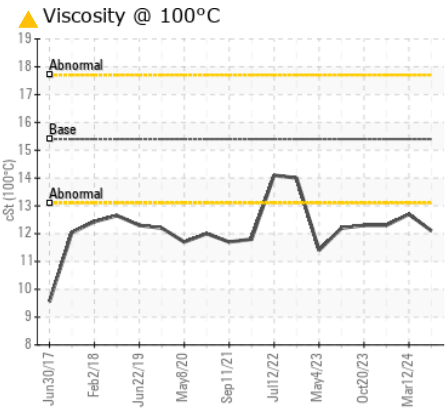
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



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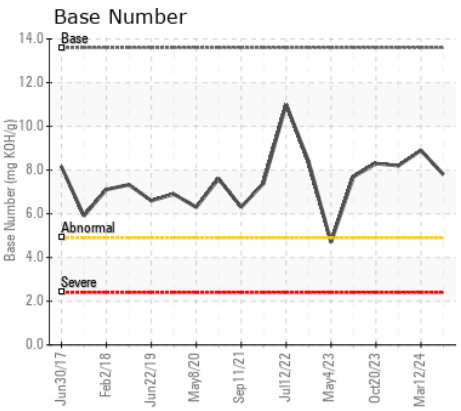

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0197209
Lab Number : 06154164
Unique Number : 10989587
Test Package : MOBCE (Additional Tests: FuelDilution, PercentFuel, TBN)

Received : 19 Apr 2024
Tested : 23 Apr 2024
Diagnosed : 23 Apr 2024 - Don Baldridge

JRE - HOPE MILLS/FAYETTEVILLE
5039 HWY 301 SOUTH
HOPE MILLS, NC
US 28348
Contact: FAYETTEVILLE SHOP
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T:
F:

To discuss this sample report, contact Customer Service at 1-800-237-1369.
** - Denotes test methods that are outside of the ISO 17025 scope of accreditation.*
Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)