James River Equipment

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id
JOHN DEERE 460P 1DW460PAKPFB06870
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

WEAR

The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other metal levels are typical for a new component breaking in.

CONTAMINATION

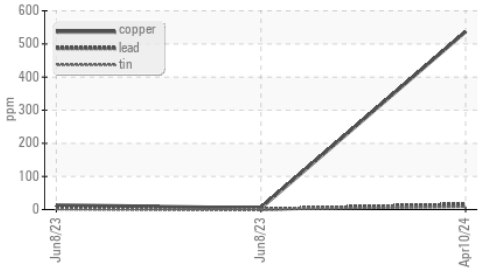
There is no indication of any contamination in the oil.

FLUID CONDITION

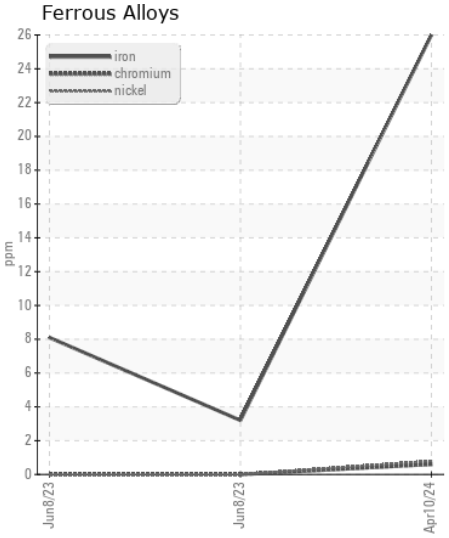
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0204702	JR0172081	JR0172080
Sample Date		Client Info		10 Apr 2024	08 Jun 2023	08 Jun 2023
Machine Age	hrs	Client Info		465	3	5
Oil Age	hrs	Client Info		0	3	5
Filter Age	hrs	Client Info		0	5	5
Oil Changed		Client Info		N/A	Not Changd	Not Changd
Filter Changed		Client Info		N/A	Not Changd	Not Changd
Sample Status				ABNORMAL	ATTENTION	ATTENTION
Iron	ppm	ASTM D5185m	>51	26	8	3
Chromium	ppm	ASTM D5185m	>11	<1	0	0
Nickel	ppm	ASTM D5185m	>5	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	4	<1	<1
Lead	ppm	ASTM D5185m	>26	16	3	<1
Copper	ppm	ASTM D5185m	>26	▲ 537	14	5
Tin	ppm	ASTM D5185m	>4	8	2	<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	10	9	8
Potassium	ppm	ASTM D5185m	>20	2	5	4
Fuel	%	ASTM D3524	>2.1	<1.0	0.3	0.3
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	8.5	5.6	6.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.9	20.5	20.5
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	7	7	4
Boron	ppm	ASTM D5185m		198	273	279
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		234	239	252
Manganese	ppm	ASTM D5185m		4	7	1
Magnesium	ppm	ASTM D5185m		752	811	836
Calcium	ppm	ASTM D5185m		1600	1409	1540
Phosphorus	ppm	ASTM D5185m		950	881	936
Zinc	ppm	ASTM D5185m		1121	1069	1153
Sulfur	ppm	ASTM D5185m		3528	3737	3933
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.6	14.7	14.6
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.8	10.5	10.8
Visc @ 100°C	cSt	ASTM D445	15.4	10.4	10.1	10.2

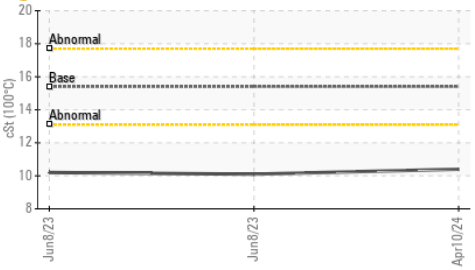
Non-ferrous Metals



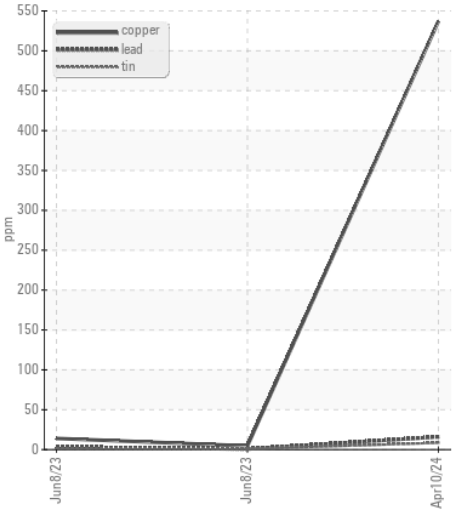
Ferrous Alloys



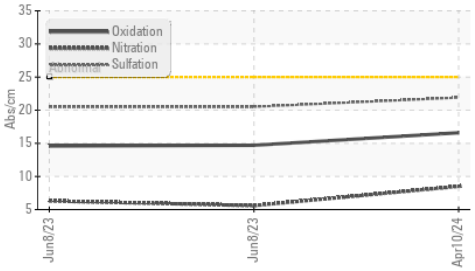
Viscosity @ 100°C



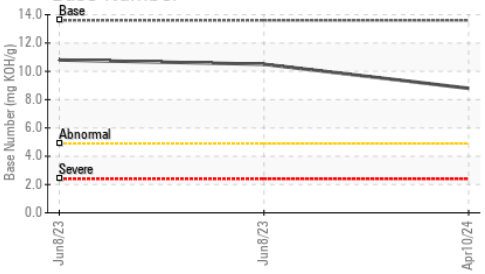
Non-ferrous Metals



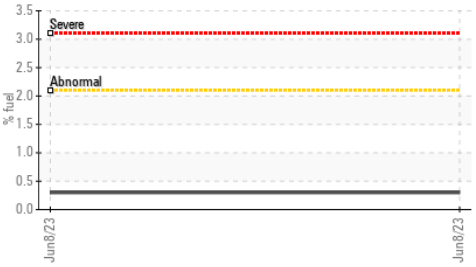
FT-IR (Direct Trend)



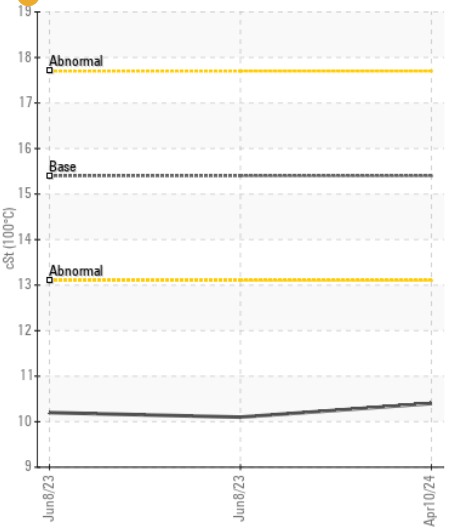
Base Number



Fuel Dilution



Viscosity @ 100°C



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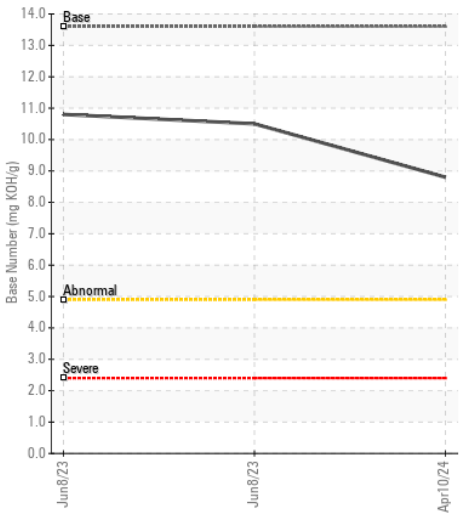

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0204702
Lab Number : 06145555
Unique Number : 10970363
Test Package : CONST (Additional Tests: FuelDilution, Glycol, PercentFuel, TBN)

Received : 11 Apr 2024
Tested : 14 Apr 2024
Diagnosed : 14 Apr 2024 - Don Baldridge

Certificate L2367

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)

JRE - GREENSBORO
411 SOUTH REGIONAL ROAD
GREENSBORO, NC
US 27409
Contact: NICK GALLAHER
NGALLAHER@JRENET.COM
T: (336)668-2762
F: (336)665-9556